



# Shop 'til they drop

## Fainting and Malnutrition in Garment Workers in Cambodia



# Executive Summary

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is a joint report by Labour Behind the Label and Community Legal Education Centre.

**Labour Behind the Label (LBL)** is a UK based NGO which campaigns to support garment workers worldwide in demanding and defending their internationally recognised human rights. LBL is the UK platform of the international Clean Clothes Campaign. [www.labourbehindthelabel.org](http://www.labourbehindthelabel.org)

**Community Legal Education Centre (CLEC)**, based in Phnom Penh, Cambodia, builds legal capacity and provides legal aid to empower Cambodian citizens and communities. They support victims of rights violations and those at risk, in demanding respect for human rights and justice. CLEC promotes good governance, democracy, equitable development, peace and social harmony. [www.clec.org.kh](http://www.clec.org.kh)

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Photos of workers fainting en mass in factories in Cambodia, often in groups of up to 300 at one time, have plagued the media in recent years, portraying a sinister impression of the country’s garment industry. Journalists and the media have enjoyed reporting on this new twist in the sweatshop saga, shocking consumers around the world with facts about chemical poisonings and hysteria. The incidents describe visibly the very real implications of working in abusive and inhumane conditions, for very long hours on excessively low pay.

Yet, behind the story there has been confusion and a mixed response to the happenings. Indeed, mass fainting has caused a real daily fear for factory workers; that by going to work everyday they may end up in hospital. The industry too has suffered. Public relations issues, and constant halts to production from faintings, as well as strikes over wages and working conditions are a concern for all stakeholders.

There have been mixed opinions about the causes of the faintings, with some quoting long hours, heat, lack of water, chemical fumes, and mass hysteria to name a few. The factors of mass fainting seem to vary from factory to factory but one thing remains constant: Malnutrition. One worker said: “We are constantly at the point of fainting all the time. We are tired and we are weak. It takes only a few small things to tip us over the edge.”<sup>1</sup>

The premise of this report is that malnutrition, due to low wages and time poverty, is endemic in Cambodia’s garment workers. This has led to a situation where workers producing high street fashion for western markets are constantly weak and prone to collapse, triggered by any of the causes listed above.

From October 2012 - June 2013 researchers on the ground from Community Legal Education Centre in Phnom Penh systematically collected data on nutrition in garment workers. Our data was overwhelmingly indicative that malnutrition is prevalent in Cambodian garment workers. Through gathering sample data of monthly food purchases from workers from a range of factories, our

researchers looked into the calorific content of the daily diet of a factory worker, and compared it with recommended amounts. This was also cross checked with a sample of workers’ Body Mass Index (BMI) to see if this indicated a health deficiency in a broad range of workers.

Workers were found to intake an average 1598 calories per day, which is around half the recommended amount for a woman working in an industrial context. BMI figures taken from 95 workers also backed this up, showing that 33% of workers were medically malnourished, and 25% seriously so. We found that workers spend just \$1.53 USD daily on food on average, when a nutritious diet of 3000 calories with sufficient nutrients and protein would cost \$2.50 USD daily.

This recommended 3000 calorie diet equates to \$75.03 USD a month. Given that the monthly minimum wage is currently \$80 USD including health bonus, this kind of spend on just food is completely unthinkable. According to our calculations based on these findings, a living wage - a wage which is enough to live on for a worker her family, providing sufficient food, and meeting housing, health care and other needs - comes out at around \$450.18 USD a month.

One thing is clear - action needs to be taken. Employers, international buyers, and the Cambodian government have so far failed workers and consumers in their obligation to address the issues raised by mass fainting. As part of this research, we spoke with unions and workers about what they think should happen in order to combat the issues. A living wage was always the first answer. Workers were also interested in proposals from industry that factories could provide canteens with free nutritious lunches. A number of options for this are explored in more detail in the final sections. Free lunches would go some way towards ensuring interim health issues are fixed, but in reality a living wage is the only lasting solution.



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# Background



## An important industry for the country

Cambodia's garment industry is a substantial part of the nation's economy and job market. The garment and footwear industry accounts for about 95 percent of the entire country's exports, which is estimated at \$4.6 billion USD.<sup>2</sup> This was 13 percent of the \$36.64 billion GDP for Cambodia in 2012.<sup>3</sup> Furthermore, the garment industry in Cambodia is estimated to employ as many as 500,000 workers in 500 garment and shoe factories.<sup>4</sup> This accounts for a significant proportion of Cambodia's population of 15.2 million people.<sup>5</sup>

## Internal migration

Similar to other Asian nations, Cambodian factories employ primarily female workers who migrate from rural areas of the country in hope of earning a living for themselves and their families.<sup>6</sup> 'Primarily' is perhaps an understatement - over 90 percent of the workers in the Cambodian garment industry are women.<sup>7</sup> The workers in Cambodia generally have no more than a primary school education, which limits workers' choices for work outside of agriculture and factory labour.<sup>8</sup> Many workers have families in the provinces, and any additional finances made while working in Phnom Penh are often sent back to rural family members.

## International owners, barriers to responsibility

Over 90 percent of the garment factories are owned by people outside of Cambodia, with an estimated 80 percent of factory owners or financial partners based in Hong Kong, Taiwan, China, Singapore, South Korea, and Malaysia.<sup>9</sup> Cambodians own less than 10 percent of the garment factories and the majority of the locally owned factories are smaller market players.<sup>10</sup> Additionally, the national garment manufacturers association (GMAC) estimates that 80 percent of middle managers at the garment factories are non-Cambodian nationals.<sup>11</sup> So although the garment industry directly supports Cambodian workers through wage packets, the sustained impact of the middle level profits is not retained by the country.

The dominance of foreign owners who come to Cambodia to access its cheap labour also removes a certain amount of perceived responsibility for owners to engage in national debate about the industry, and take responsibility for workers and their rights, which makes negotiation with unions difficult.

**“ With just four major brands, H&M, GAP, Walmart, and Adidas having combined revenues of roughly \$608 billion in 2012, amount almost 43 times Cambodia's entire GDP, it is obvious to us who has the real power to set working conditions and wages in Cambodia. ”**

Ath Thorn, President of Coalition of Cambodian Apparel Workers Democratic Union (C.CAWDU)

## International brands in abundance

The majority of brands sourcing from Cambodia are big name US brands. In 2012 Cambodia exported \$1.996 billion USD worth of garment to the United States and \$1.454 billion USD to the EU.<sup>12</sup> US brands have developed a lasting relationship with Cambodia, partly through a bi-lateral trade agreement and although this expired in 2004, the relationship remains strong. Current buying patterns seem to be that a few large US brands continue to place large size orders focusing on low price goods, whereas EU orders are smaller and more frequent, and focus on other factors such as high standards of quality, fashion and design of products, as well as lead times.<sup>13</sup>

Figure 1. The top 20 brands sourcing garments from Cambodia in 2008. Source: World Bank 2011.<sup>14</sup>

1. Gap	6. Sears Holdings	11. Matalan	16. Wal-Mart
2. H&M	7. Children's Place	12. Blue Star	17. Kohl's
3. Levi Strauss	8. Charles Komar	13. Nike	18. MGT
4. Adidas	9. William Carter	14. PVH	19. American Marketing
5. Target	10. VF Jeanswear	15. C&A	20. JC Penny

## Rights?

Short term contracts are a big issue in Cambodia's factories. Regular, full-time workers are almost exclusively hired on short-term, temporary contracts - referred to in Cambodia as 'fixed-duration contracts (FDCs)' - that are repeatedly renewed.<sup>15</sup> This means employers hold the threat of not renewing contracts if workers take part in union activities or raise a complaint, stripping workers of their rights. FDCs are not only used to suppress freedom of association, but also to deny workers legal benefits including maternity leave; force workers into taking overtime; and deny them seniority payments. Despite this, union membership is high. Approximately 60% of the workers are in a union, and although there is significant opposition to unions from employers and collective bargaining isn't happening, this empowerment of workers has potential. A wage board has been established in country between unions, the employers association, and the government to agree revisions to the minimum wage. Another major selling point of Cambodia's industry is a factory monitoring program implemented by the ILO in 2001, called Better Factories Cambodia, set up to scrutinise factories' working conditions throughout the industry.<sup>16</sup>

## Poverty Pay

The current minimum wage for garment factory workers in Cambodia is \$80 USD per month<sup>17</sup> which is far from enough to live on. Workers rely heavily on bonuses and overtime to earn enough to feed themselves and other dependant family members. Bonuses consist of an attendance bonus at \$10 USD, and a housing and transportation bonus of \$7 USD each month<sup>18</sup> meaning workers can earn an estimated \$97 USD per month without overtime. The overtime paid varies but under local labour law workers receive 50 percent higher than the normal hourly wage or 100 percent higher if the overtime is worked at night or on a rest day.<sup>19</sup> With overtime, workers can receive over \$100 USD per month.<sup>20</sup>

Yet this is still far from enough. The most up to date Asia Floor Wage estimate of a living wage (enough for a worker to pay for food for herself and her family and adequately cover their food, housing, healthcare and other needs) is \$294 per month.<sup>21</sup> This is 3 times what a worker can currently earn, even with excessive overtime.

# Faintings

The high profile phenomenon of workers fainting in groups of up to 300 at a time in Cambodian garment factories hit the news in a big way in 2011, although it had already been an ongoing issue for some time. This continues to be the case: There were more than 2,100 recorded incidences of mass fainting in 29 factories in 2012 and more than 500 workers that have fainted in five factories in the first quarter of 2013.<sup>22</sup> These are likely to be conservative numbers, based

on information released to the public. Commonly, many faintings occur in smaller numbers - one or two per day in many factories - and go unreported and unaccounted for. It becomes extremely difficult for the Cambodia government and independent organisations to keep track of all the faintings that occur in the garment and footwear factories throughout Cambodia.

## Case Study: Huey Chuen factory fainting

30 workers from Huey Chuen, a Chinese owned supplier of footwear for Puma, experienced an incident of mass fainting on 22 November, 2012. All workers were from the stitching section of the factory. The workers described the factory as being exceptionally hot due to sun shining onto the factory floor. Shortly after the workday had started at around 9:30 a.m. the workers began to faint. One worker said: "My chest and lungs began to hurt and the air became small." Shortly after experiencing trouble breathing the workers began to faint en masse. All were taken to a local clinic to receive fluids. Workers at the Huey Chuen factory commonly work a 10-hour day, Monday through Friday and an additional eight-hours on Saturdays. The factory also opens every other Sunday for eight-hours a day. The workers state that overtime is compulsory with the workers receiving a warning if they refuse to take overtime shifts. If the worker refuses overtime three times then the worker is dismissed from their contract. Workers claim that at least one to three faintings occur daily that go unreported.

## Case Study: Quint Major Industrial

180 workers from Quint Major Industrial factory (QMI) fainted over a two-day period in January 2013. QMI is a large factory with over 4,000 workers is producing for several large brands including Adidas and Polo Ralph Lauren. Workers explained that the fainting came in waves. The first set of workers began to feel faint with the sensation of choking, and then experienced an overwhelming feeling of being tired and needing to throw up. Shortly after the first set of workers fainted the second set of workers that were in close proximity also fainted. On the second day workers experienced the same symptoms again. The faintings at QMI all occurred in the morning hours prior to a lunch break where peak heat is experienced in Cambodia.

Several workers reported that although this was a mass incident, there were weekly incidents of one or two people fainting on the factory floor. Cambodia's Ministry of Labour's Health Department claimed renovations at the factory and the fumes from new paint caused the mass fainting incident. A union representative furthered the Ministry's claim by stating that the combination of the new paint fumes, malnutrition, and overall poor ventilation was the cause.

## "I felt nauseous. Then I was unable to breath properly"

Prum, 23 years old, fainted in her workplace Y&W, a factory supplying Costco Wholesale Corporation, along with 60 other workers in November 2012. Prum was eight-months pregnant at the time of the fainting incident.

"The factory was very hot and humid. Several of the other workers said this also. The fan was not working that day which made the temperature in the sewing building unbearable. I saw several other workers faint nearby. I felt nauseous and had a headache. Then I was unable to breath properly. When I came to several hours later, I was in the hospital and they were giving me fluids and oxygen."

For fear for her health and the health of her unborn child, Prum and her husband decided that she should resign from her position at Y&W.

"I don't know if I will return to work after my child is born. But for now I cannot work because the long hours in harsh conditions and small amounts of food will put the health of my child at risk. I have to choose between having my child and working in the factory."

## Industry response so far

**Cambodian Government:** The government responded to the bad press its garment industry was receiving by announcing a US\$5 monthly health bonus for garment workers in November 2011. The Prime Minister Hun Sen said the payment had been negotiated with industry through tax breaks and should be used to keep workers healthy. This boosted the then monthly minimum wage of US\$61 to US\$66 from January 2012.<sup>23</sup> Around the same time the Cambodian Ministry of Labour and Vocational Training released estimates that 60 percent of all faintings in the garment and footwear industry were due to a lack of nutrition.<sup>24</sup>

**Better Factories Cambodia (BFC):** In 2012 BFC launched a 'One Change' campaign to encourage factory owners to improve factory working environments and combat the triggers of fainting (given as poor hygiene, nutrition, health stress, and poor worker-management communications). Optional changes being promoted include training workers to keep calm in response to fainting; providing subsidised meals to workers; providing a free breakfast or snack; organising two paid five minute breaks per work shift.

**Brands:** Brand response to fainting has been mixed. H&M, Gap, and Levis among others have supported the 'One Change' campaign (above). Most have focused on issues such as factory heat, or long hours, with little mention of low wages, and the implications

for workers' lack of buying power and access to nutritious food, as the root of the problem. Puma gave a statement in 2011 saying that the faintings in its supplier factories were due to the fact that factories had breached Puma's safety standards code: "The breaches of these standards include excessive hours of work as well as multiple occupational health and safety violations" it said. Puma said it took the findings "very seriously" and promised to educate workers and supervisors about improving working conditions in its supplier factories.<sup>25</sup>

**Garment Manufacturers Association in Cambodia (GMAC):** GMAC's response has been limited. Ken Loo, secretary-general of the Garment Makers Association of Cambodia said in 2011 that the media sensationalised the fainting incidents. "The numbers are always exaggerated and there is a 'shock and awe' element" in the reporting, he said, adding that the faintings "are a concern of GMAC, but they do not fall high on the agenda".<sup>26</sup>

However, GMAC haven't been numb to the issue of malnutrition in the workforce. In 2012 GMAC supported a survey that went out to factory owners into the 'Perceptions of garment factory owners on nutrition and the feasibility for pursuing canteen services in the garment sector in Cambodia'.<sup>27</sup> Although the study explicitly stated that it had not been conducted in response to fainting in factories, many of the findings focused on issues very linked to this topic.



# Suggested causes of fainting

## Why Faint?

It is widely acknowledged that there are a number of causes that contribute to mass fainting. While no one issue is the sole cause of the faintings, this report seeks to show that lack of nutrition, in a large part resulting from low wages, is the underlying condition common in workers, which perpetuates the ongoing fainting occurrences. The following causes are worth noting however, many of which certainly have acted as 'triggers' of fainting incidents.

## Overwork

It is clear that overtime is a serious issue in Cambodian factories. There is a culture of excessive hours where overtime is not a choice but an expectation from employers, and a necessity for workers, who must take overtime in order to 'top up' low wages to a level where it is possible to survive. A study of 152 garment factories, carried out by Better Factories Cambodia in early 2013, found that for 95% of factories surveyed, overtime was not an exception but a regular employment practice, and for 85% of factories, overtime for most workers exceeded 2 hours per day.<sup>28</sup> A regular working day is 8 hours for workers, and a normal overtime shift is 2 hours, 6 days a week. But the study indicates that 85% of factories are regularly asking workers to do even more than this 10 hour day. Most regular shifts start at 7am, and finish at 6pm. Regular overtime is until 8pm, but additional overtime means workers will not finish before 9 or 10pm at night, or indeed work overnight. This allows very little time for rest. These long hours are not just exhausting, but also mean that workers don't have time in the home to see family, carry out domestic duties, or shop and cook food. Many workers say they buy food from vendors outside of the factory gates - which is of low nutritional content - because they don't have enough time in the day to cook at home. This in turn impacts on nutrition. Long hours are not the only component of overwork however. Work in the factories can be quite physical, particularly when there is pressure on the production line to increase productivity. There have been a concentration of faintings in the previous few years in August,

when work pressure and order volumes increase on production lines for the new season.

## Poor ventilation and heat

The most recent Better Factories synthesis report also showed that in 73% of factories surveyed, heat levels were excessive.<sup>29</sup> The majority of faintings happen in the summer months, when factories are very hot so this is certainly a contributing factor. Air-conditioning is not common, although some factories have ceiling fans, and temperatures can reach 35 – 40°C.<sup>30</sup> It has also been observed that workers often wear long-sleeves and layers of clothing to work, due to fashion or custom, which contributes to overheating.

**“ They faint when they have overtime work for about three and a half hours per day. It is because they are too tired, they don't have enough food or they don't have good quality food. Also, although the weather is very hot, workers often wear very thick jackets and layers. ”**<sup>31</sup>

## Lack of access to water

It is common for factories to provide drinking water for workers. However, access to that water is sometimes limited by factors such as lack of provision of breaks, or cups to use to drink from. 61% of factories surveyed in the BFC synthesis report did not have enough cups for workers to use to drink from.<sup>32</sup>

## Chemical exposure and smells

A number of fainting incidents have occurred after repair work has been done in a factory or when workers reported smelling a strong scent before passing out. At M&V International Manufacturing, where 300 workers fainted in 2011, one worker said: “Workers smelled something bad coming from the shirts.”<sup>33</sup> At a factory producing sports shoes for Puma, a series of faintings around the same time were attributed to hazardous chemical exposure, including the use of a substance called Toluene.<sup>34</sup> Reports into the incidents were inconclusive as to whether this was the cause. In any case, there have been a majority of fainting occurrences in factories where no chemicals were being used, so this certainly isn't a common factor.

## Mass hysteria

The question of mass psychogenic illness (MPI) has raised, for many journalists and companies, a question of legitimacy about the faintings. Many have been quick to dismiss the phenomenon as 'female hysteria' without questioning what hysteria signifies or where the results come from. In an excellent article in the Cambodia Daily in 2011, 'Ghosts in the machine'<sup>35</sup>, a number of the psychological causes of MPI were unpacked.

Firstly, a commonly held concern between workers about personal health and exhaustion may be one of the roots of factory MPI incidents. Simon Wessely, the head of psychological medicine at King's College London and an expert on MPI, says that commonly held beliefs, in communities with repetitive routines, are often at the root of incidents of MPI: “The beliefs involved in mass sociogenic illness often represent cultural fears, in this case about illness / health.”<sup>36</sup> Comparing it to historic incidents where workers spoke of ghosts in the factory, he said that, feelings of being oppressed by spirits are being replaced by 'fears of invisible deadly agents such as viruses and toxic chemicals', and that this may be causing the MPI. Interviews conducted for this research reinforce this as workers often speak about worries to do with health and lack of access to medicine.

A second suggestion is that the faintings are a rebellion or a way of defying authority through culturally appropriate channels. The article quotes the Journal of American Ethnologists, where an anthropologist, Ms. Ong, studying MPI in workers said of MPI incidents: “They are acts of rebellion, symbolising what cannot be spoken directly, calling for renegotiation of obligation between management and workers.” Although workers we have spoken to as part of this research have all said that the faintings are not in any way organised or conscious, this still leaves a possibility for a subconscious agency. Passive rebellion may certainly arise out of a lack of voice or a lack of mechanism through which to raise very legitimate panic about working conditions becoming unbearable. This mass subconscious collective action is one of the only routes left for many workers to express anxiety about their rights and working conditions, as trade unions and other avenues are systematically undermined in many or most Cambodian factories.

The article further observes that similar episodes of MPI and fainting during the Industrial Revolution in the UK ended up tapering off after an increased emphasis was given to workers' rights, improved conditions in factories, and greater union influence. Robert Bartholomew, a former psychology professor at James Cook University in Australia who has studied MPI in factories for two decades, said: “Unless factory owners and administrators make genuine improvements to working conditions episodes could continue indefinitely... The prevalence of future episodes of MPI in factories will hinge on how workers are treated.”

# What they eat



The premise of this report is that malnutrition, due to low wages and lack of time to access healthy food, has led to a situation where workers are weak and prone to collapse, given any of the causes listed above. The following section looks at the nutritional evidence for this claim.

It is clear from the data gathered that the main financial burden for workers in the garment industry is food. From narrative evidence gathered through interviews with a number of workers in and around the Phnom Penh area, our researchers found that workers spend just under half of their regular wages on buying food.

**Figures 2. and 3. Monthly wage received before overtime and breakdown of spend on food and non-food**

Figure 2. \$97 monthly wage before overtime

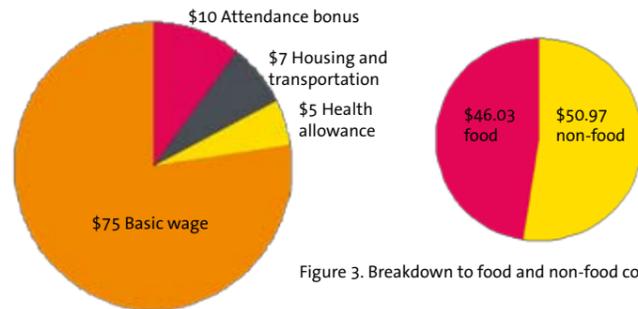


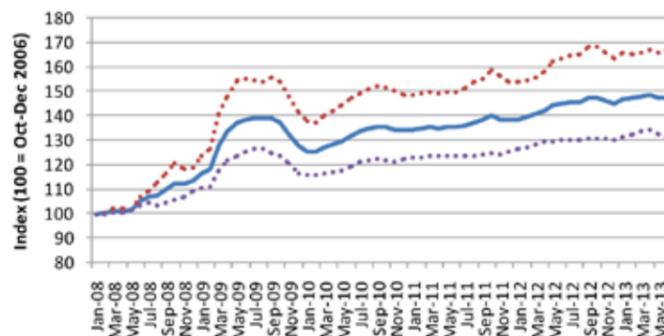
Figure 3. Breakdown to food and non-food costs

## Rising prices

A survey in 2009 found that workers spent \$0.97 daily on food and cooking<sup>37</sup>, but with the costs of rice and fuel increasing, we have found that this is now more like \$1.53. Minimum wages for Cambodia's garment workers have gone up from \$51 to \$80 since 2009 but due to inflation and rising food costs, this has had no effect, or a negative effect on real purchasing power. As figure 4. shows, food costs have increased by almost 70% since 2008, whereas wages have only gone up by 56%. This means that the real value (and

nutritional content) of food that workers are now able to purchase is less than 5 years ago. The still very low spending of \$1.53 a day, our researchers found, is a result of extreme budgeting and thrift, achieved by workers eating and living in groups, and minimising food expenses by bringing some food, such as rice, from their villages, as rural rice is less expensive than that sold on urban markets. Thrift measures also often involve workers skipping meals, sometimes on a daily basis. This exacerbates the likelihood of weakness and lack of nutrition.

**Figure 4. Relative change in general consumer prices, food prices and non-food prices. Source: Cambodian national institute of statistics**



Wages have to stretch to cover food, but also rent, healthcare, fuel and electricity, water, transport, clothing, education and other costs. If workers have dependants who have no other income stream (i.e. mothers with children and no other supporting adults, or daughters with elderly and sick parents) wages have to stretch even further. Although non-food costs have not increased at such a high rate nationally as food, workers have said that in the micro-economies where they live and shop, inflation on non-food costs is often manufactured to be higher. One worker said about an additional bonus payment that workers had been granted in 2010: "The price of the rented room always goes up when the fixed salary increases. It was \$30 USD before last October (when the bonus payment was granted), then it went up to \$35 USD and now it is \$40 USD per month."<sup>38</sup>

## Calorie research

In late 2012 and early 2013, the Community Legal Education Center conducted research, based on interviews with workers and food vendors from in and around Phnom Penh's industrial area and on prices of foods at local markets, to find out the quantity and value of food eaten on an average day by garment workers. The calorific content and cost of the average food eaten by workers in a month was calculated based on this data. This amount was compared to a hypothetical food basket worth 3000 calories - the recommended figure for a healthy lifestyle while performing moderate to heavy physical work. The 3000 calorie food basket was made up of common foods eaten by garment workers in Cambodia specifically. The following table shows and compares the empirical findings.

**Figure 5. Monthly worker food intake, compared to recommended 3000 calorie food basket**

	Current monthly quantity (Kg)	Calorie value (kcal)	Cost (riel)	Cost (US\$)	Needed for healthy diet (Kg)	Calorie value (kcal)	Cost (riel)	Cost (US\$)
Cereals & Carbohydrates (inc. rice and noodles)	7.8	22355	19000	4.75	13.8	49567	35250	8.81
Meat	2.8	4210	46000	11.50	4.5	6880	78000	19.50
Fish	3.1	3822	25000	6.25	5.8	7485	44250	11.06
Eggs	1.2	1116	7400	1.85	3.1	2838	19200	4.80
Milk	0.5	335	1250	0.31	0.6	402	1500	0.38
Beans and pulses	0.9	892	4800	1.20	2.0	1845	11000	2.75
Vegetables	4.6	2880	26500	6.63	7.9	4147	46000	11.50
Fruit	2.2	1148	7950	1.99	4.0	2157	15000	3.75
Oil	0.5	4500	4000	1.00	0.7	6300	5600	1.40
Sugar	1.0	3980	4200	1.05	2.0	5970	6300	1.58
Drinks	-	2700	37500	9.38	-	2700	37500	9.38
Spices	0.5	neg	500	0.13	0.5	neg	500	0.13
<b>Totals</b>		<b>47938</b>	<b>184100</b>	<b>46.03</b>		<b>90291</b>	<b>300100</b>	<b>75.03</b>

## Why 3000 calories?

The food basket's caloric value is set at 3000 daily calories based on research by the Indonesian government.<sup>39</sup> The Indonesian government defines 3000 calories as "the intake figure for a living wage for a manufacturing worker performing moderate to heavy physical work." Garment factory labour is described as strenuous and physically demanding labour especially in terms of the long hours worked by the vast majority in the sector. Additionally, the environment the workers are in is usually described as hot and humid taking a larger toll on the workers' bodies and health.

# Evidence of malnutrition

The calorie research above found that the average worker currently ingests just above half the amount required to perform the physically demanding work of a factory. Moreover, the protein intake was found to be well below half of what should be ingested for a healthy body.

**Figure 6. Current calorie intake and cost vs. recommended calorie intake and cost**

	Monthly	Cost (US\$)	Daily	Cost (US\$)
Current caloric intake	47938	46.03	1597	1.53
Required caloric intake	90291	75.03	3009	2.50

The issue of wage becomes apparent when evaluating the differences between the actual foods eaten and the required amounts of nutrition. The study shows that a 3000-calorie diet should cost an estimated \$75 USD. In actuality, the average Cambodian garment and footwear factory worker is only spending \$46 USD on their diet and food consumption. The 1600-calorie diet daily is well below even the most conservative estimated needs.<sup>41</sup> If a worker were to spend \$75 USD a month on food, this would leave only \$22 a month for all other costs, including housing, travel, healthcare, clothing etc. It is important to note that this is a problem even before the financial burden that any dependants may have on a factory worker is taken into account.

## Cause of the national anaemia crisis?

The Health and the National Institute of Statistics of the Ministry of Planning for Cambodia conducted a study in 2010 and found that one in five Cambodian woman are too thin and that more than four in ten women in Cambodia are anaemic.<sup>42</sup> If this calorie data is indeed indicative of the level of nutritional intake for most garment workers in Cambodia, this might go some way to explaining this national problem, given that the garment industry is a significant employer of women in the country.

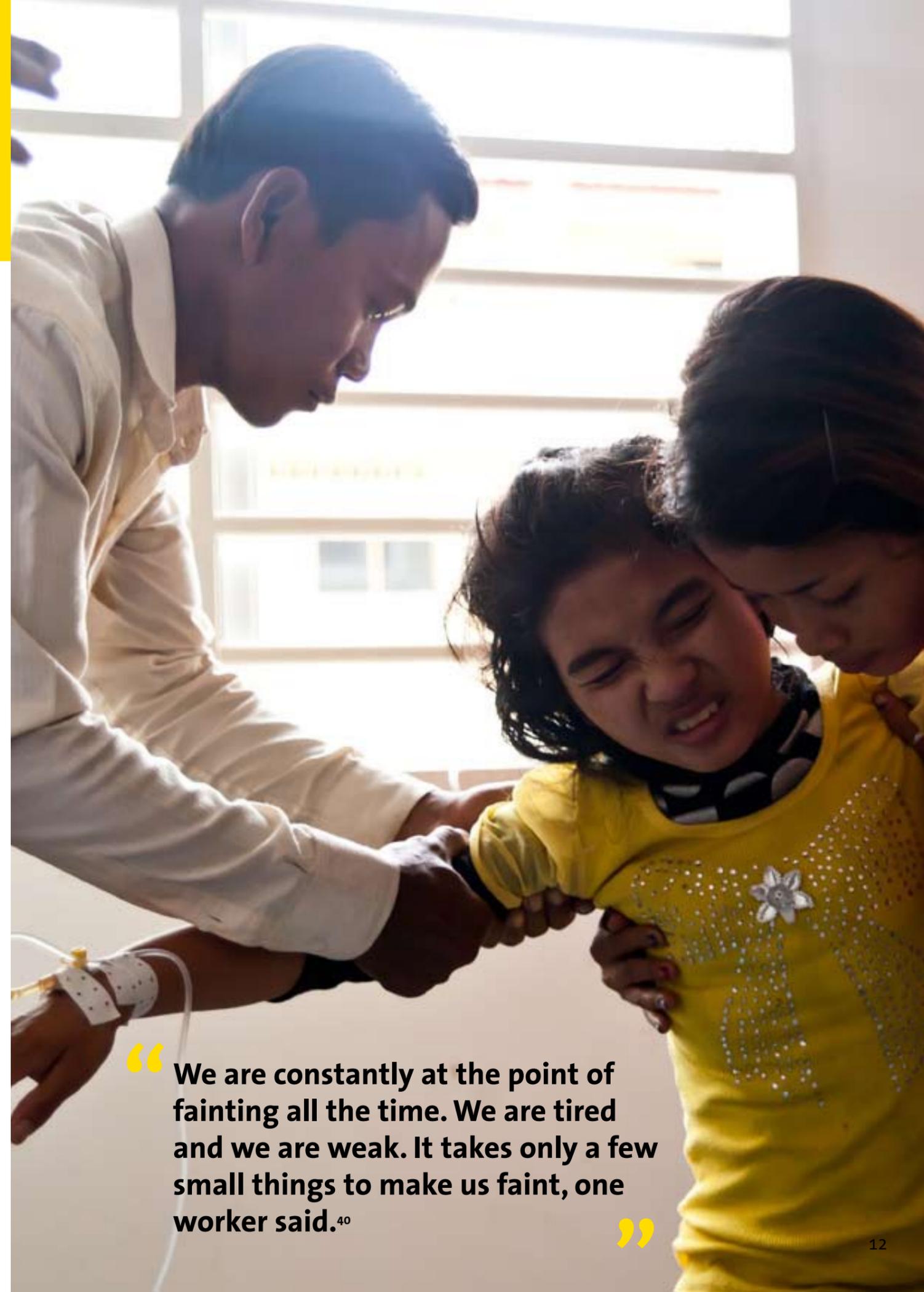
## Body Mass Index (BMI) Data

The World Health Organisation uses the following to define malnutrition: "A Body Mass Index of less than 18.5 is underweight and may indicate malnutrition, an eating disorder, or other health problems."<sup>43</sup> In order to ascertain whether the calorific intake data gathered was translating into significant malnutrition in workers, a BMI survey was conducted with a random sample of workers from factories in and around the Phnom Penh region. Researchers collected weight and height data from 95 Cambodian garment workers to investigate the scale of the problem. The results confirmed our expectations: 36% of participants had a BMI classified as underweight and at risk of a nutritional deficiency, with 3% of those severely underweight and an immediate cause for concern.

**Figure 7. Findings of BMI study of sample of Cambodian garment workers**

Category	BMI	Percentage of participants
Severely underweight (immediate concern)	BMI <16.00	3%
Underweight (at risk of nutritional deficiency)	BMI 16.00-18.49	33%
Normal (healthy weight)	BMI 18.50-24.49	63%

To put this in context, a BMI nearing 15 is usually used as an indicator for starvation and the health risks involved. One participant recorded a BMI of just 15.4. Further, a BMI of less than 17.5 is an informal criterion for the diagnosis of Anorexia Nervosa.<sup>44</sup> More than 24% of participants recorded a BMI of less than 17.5. In a country where more than 20% live below the poverty line, Cambodia's average BMI is estimated at 21.5.<sup>45</sup> The average BMI of garment worker participants was only 19.37 showing that garment workers are particularly vulnerable amongst an already marginalised population.



“ We are constantly at the point of fainting all the time. We are tired and we are weak. It takes only a few small things to make us faint, one worker said.<sup>40</sup> ”

# The cost of putting this right



## A living wage is needed

The need for a living wage is clear from a nutritional perspective. A basic wage which is enough to live on (a living wage) should be enough for a worker to pay for food for herself and her family and cover their housing, healthcare and other needs. More specifically, this figure should allow a single earner to support a family (where a family is 3 consumption units and a child counts as half a consumption unit) by working a legal maximum working week of no longer than 48 hours, excluding any payment for overtime or other bonuses/allowances, and providing some discretionary income.<sup>46</sup>

### Figure 8. Living wage formula

$$\frac{\text{Living Wage} = (\text{Household Size} \times \text{Basic needs per person}) + (10\% \text{ Income})}{\text{Number of Income Earners}}$$

Source: Chandararot, supra note 37, at 10 (stating that the 10% was representative of income to be used for 'discretionary purposes'); see also Prasanna, R. & Gowthaman. B, Sector Specific Living Wage for Sri Lankan Apparel Industry Workers, AlaRM, 2005

## Supporting a family

Over 90 percent of the workers in the Cambodian garment industry are women,<sup>47</sup> and the majority are under 35. Many have children to support, or elderly parents in the provinces who have no other income besides that which is earned in the factory. The number of dependants which many workers have to support is often overlooked when assessing what the minimum amount should be on which a worker can survive. When a minimum meant for only one is split between 3 or 4, this quickly leads to a deficit. The model of 3 consumption units is being used as a standard of best practice in this report, and can be considered to cover a variety of family set ups - one adult worker, supporting one child-caring adult and two children; or one adult worker and two elderly parents; and others. As stated by the Asia Floor Wage Alliance<sup>48</sup>, is vital that a minimum living wage can

support these family models so that the standard wage can be enough for all, in a society where single female earners are common.

## Basic needs

Our research has shown that food costs around 50% of a workers' income, and 50% of other essential costs are non-food related, such as healthcare, housing, clothing, childcare, transportation, fuel, education etc. (See figure 3.) This matches findings of a 2009 survey carried out by the Asia Floor Wage Alliance in a number of Asian garment producing regions.<sup>49</sup> This cost includes some discretionary income. If the basic needs of a person are defined as 50% food costs, 50% non-food costs including discretionary income, a living wage sufficient to support a family can then be calculated using the formula above as follows:

Basic needs per person for a 3000 calorie diet and non-food costs = \$75.03 x 2 = \$150.06

$$\text{Living wage} = \frac{3 \text{ units} \times \$150.06}{1 \text{ earner}} = \$450.18$$

The Asia Floor Wage Alliance, which has calculated a minimum living wage for garment workers in different Asian countries set the minimum living wage for Cambodia in 2012 to be \$294.<sup>50</sup> In the light of this new data, this figure is shown to be a very conservative estimate.

In either case, the monthly minimum wage of \$80 is certainly far from enough.

## Factory good practice

The link between nutrition and productivity is important to note for those looking for a business case for the need to address nutrition. Studies have shown that poor nutrition turns into low productivity,<sup>51</sup> and that the reverse is also true - that Canteen provision aimed at improving the nutritional intake has increased productivity and reduced worker turnover. At a Better Factories event last October, a representative from Can Sports Footwear Factory, which has such a meal programme, said: "There are positive results being observed. There is no fainting at the production line, a low turnover rate (lower than 5 percent), regular attendance and providing food gives us a good attraction for recruitment".<sup>52</sup>

Standards of best practice are slowly emerging to combat malnutrition in Cambodian garment workers. In recent years this has taken two formats.

## The 50 Cent Meal Allowance

Our investigations show that at least 29 factories in Cambodia currently provide a lunch benefit of 2,000 Riel (50 cents) per day for their workers. This is quickly becoming an industry standard, especially in provincial factories. Two agreements were signed in 2012 by the President of the Economic Zone in provincial Svay Rieng which state that a daily 2,000 Riel allowance should be paid to all garment factory

employees. This was agreed in response to mass strikes calling for a meal allowance. Workers are generally pleased with this allowance, but narrative evidence suggests that the allowance doesn't achieve what employers intended it to in terms of boosting worker nutrition.

One worker in Svay Rieng said: "After the strike in February 2012 we started to receive a lunch benefit of \$15 per month. Before the benefit we spent 3,000 Riel (75 cents) on food when we were at work. But even now we still spend the same just 3,000 Riel per day. Just as before, most of us buy lunch out the front of the factory. It is not good food and we aren't completely healthy."<sup>53</sup> As noted above, wages are very low and many costs are difficult to cover. Until a living wage is paid to workers, allowances intended to be spent on food may be used to cover other essential costs.

## Emerging Subsidised Meal Program

6 Cambodian factories known to our researchers have embraced BFC recommendations and started programmes to provide free or subsidised meals for workers. Programs vary, but the most successful of these involve the provision of kitchen and seating facilities in the factory complex, paid for by factory owners, and provide meals that are contain good levels of protein.

## Case Study: Quantum Apparel Ltd.

Quantum Apparel, a company which owns two factories in Phnom Penh, have worked in collaboration with a local NGO (HAGAR) which specialises in vocational training of marginalised people, to provide a meal programme for workers. Traditional meals of Khmer soup containing meat are served each day as well as unlimited rice. Dessert is provided once a week and all operations are reviewed by a workers' canteen committee. The cost mirrors the standard lunch benefit of 2,000 Riel per worker per day but the quality of the food has meant that even factory management now come to eat with the workers.

A worker said: "Most of us are very happy with the meal program. There is plenty of food including unlimited rice and it is good quality food. When we have comments or complaints we can pass them on, like requests for more fish. But generally we are very happy."<sup>54</sup>



# Conclusions and recommendations

## Malnutrition as a norm

Observations from this study, based on data gathered from workers food intake and a sample of workers' BMI readings, suggest that malnutrition is a significant concern in workers' health in Cambodian factories. Workers were found to be eating only 1598 calories per day, just above half the recommended 3000 calorie diet for a working person. Furthermore, 36% of those workers' whose BMI was measured were underweight, and 24% had a BMI below 17.5 - the level at which Anorexia is diagnosed. From the analysis of contributing factors which cause fainting, there is no one clear cause, and it is clear that a combination of factors causes fainting in most cases. However, this research suggests that a base line of poor health and weakness in workers due to malnutrition leaves many workers prone to fainting when provoked by other causes.

## Wages at the root of the problem

Poor nutrition is symptomatic of the problem that workers aren't paid enough to live with dignity. Despite recent wage hikes and a health bonus of \$5 USD in 2012, the minimum wage is still increasing at a slower rate to that of the inflation of food prices (Figure 4), meaning workers are earning less in terms of purchasing power than they were 5 years ago. The recommended 3000 calorie food basket has been shown to cost \$75 USD a month for one person alone. Considering the minimum wage is currently only \$80 USD, and a living wage should provide for a family (3 consumption units), and cover non-food costs such as housing, transport,

education, clothing, healthcare etc., the problem is clear.

## Illegal practice as a trigger

Our analysis of the causes of fainting has touched briefly on another key factor in this debate – that many of the triggers of mass faintings are due to practices that are illegal under Cambodian labour law. Overwork, poor ventilation and heat, lack of access to water, chemical exposure, and lack of genuine worker voice (which could be at the root of “mass hysteria”), are heavily regulated under Cambodian Law. There are a variety of resources available to international brands and factory owners to better ensure compliance with local laws, provided by Better Factories Cambodia (BFC) and local NGOs and trade unions, but not enough is being done to address these issues.

## Canteen provision – a important step towards a solution

Fully funded meal programmes for workers have been shown to increase productivity and reduce worker turnover. Workers involved in meal programmes provided by local NGOs have also been very positive about the benefits for their health and well-being. There is anecdotal evidence that the provision of a meal, rather than a paid lunch allowance, is more likely to result in increased nutritional benefit for workers. With supplemented meals emerging as the industry standard, it makes sense that brands and suppliers now work together to make this happen in the factories they use and own.

## Recommendations to Brands

Brands sourcing from Cambodia should make an immediate public commitment to address the issue of fainting and malnutrition in workers in their supplier factories.

### Implement meal programmes:

Based on the best practice examples in this report, brands should immediately implement meal programmes in those factories within their supply chain, where they don't already exist. This should be done in collaboration with local NGOs and supplier factories. As has been shown, the model of working with a local NGO meal provider rather than giving an additional lunch benefit is preferable, and most effective.

Brands must use their influence and purchasing power to promote the provision of meal programmes for workers by giving priority to factories supplying subsidised meal programs when making purchasing decisions.

### Fix illegal compliance issues:

The issue of illegal non-compliance, including excessive overtime and overheating in factories must also be addressed. It is recommended that all brands sourcing from Cambodia work actively with BFC to do this. Proactive and open consultation between brands and unions and local NGOs is also essential to ensuring labor law compliance and addressing the triggers of mass fainting.

### Pay a living wage:

Whilst the implementation of meal programs will go some ways to prevent malnutrition and mass fainting, the only lasting solution is the implementation of a living wage.

As stated in the verdict of the 'People's Tribunal on Living Wage as a Fundamental Right of

Cambodian Garment Workers', “because of its comprehensiveness and urgency, the implementation of the living wage concept cannot be postponed, to wait for univocal and rigid definitions: it must be concretely experimented in the real contexts of work and life, in Cambodia and at the regional level.”<sup>55</sup>

## Recommendations to Employers

Employers must set up free meal programmes for workers in their workplaces. Kitchen facilities and eating areas should be developed on the factory site, and lunch provided for all workers. Where space is not available for these facilities on the factory site, owners must explore collaborative facilities with neighbouring factories. The benefits from productivity improvements and reduction in worker turnover makes these developments financially logical.

Employers must also recognise the need to negotiate a living wage with unions in their workplaces, and take steps to ensure regular workplace collective bargaining.

## Recommendations to Governments

The Cambodian Government should support the development of canteen provision as an industry norm by helping employers in making these changes. Small grants or loans could be provided to cover start up costs to install canteens and eating areas, where employers themselves are unable to meet these costs.

The government must also acknowledge the serious evidence that the current low minimum wage in the garment sector is perpetuating malnutrition in workers. This evidence must be considered when setting the minimum wage, and a significant hike scheduled as soon as possible to make the minimum wage a living wage for all.

# Footnotes

1. Taken from taped interview with worker in WIC empowerment centre in factory housing district near Phnom Penh, 8 February, 2012.
2. Stanford Law School and Workers Rights Consortium (2013), *Monitoring in the Dark: An Evaluation of the International Labour Organization's Better Factories Cambodia Monitoring and Reporting Program*, at 4; Union calls for stable rent for workers. Also Cambodia Herald (May 6, 2014), Union calls for stable rent for workers, available at: <http://www.thecambodiaherald.com/cambodia/detail/1?page=13&token=NzI2NDk4N2M2YTA> (last accessed June 1, 2013).
3. Central Intelligence Agency, *The World Factbook* available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/cb.html>. (last accessed May 3, 2013).
4. See *The Cambodia Herald*, supra note 2.
5. See Central Intelligence Agency, supra note 3.
6. Yoko Asuyama & Seiha Neou, 'How Has the Cambodian Garment Industry Evolved?', in *Dynamics of the Garment Industry in Low-Income Countries* (Fukunishi ed., 2012), at 4.
7. Allard K. Lowenstein, *Tearing Apart at the Seams*, Yale Law School (April 2011), at 8, [http://www.law.yale.edu/documents/pdf/Intellectual\\_Life/Cambodia\\_TearingApartattheSeams.pdf](http://www.law.yale.edu/documents/pdf/Intellectual_Life/Cambodia_TearingApartattheSeams.pdf). (last accessed April 28, 2013).
8. Ibid. See also, Jozef De Coster, *Cambodia: A Rising Star with a Falling Reputation?*, *Just-Style* (May 24, 2013), available at: [http://www.just-style.com/analysis/a-rising-star-with-a-falling-reputation\\_id117944.aspx](http://www.just-style.com/analysis/a-rising-star-with-a-falling-reputation_id117944.aspx). (last accessed June 1, 2013), finding that 45.5 percent of garment factory workers drop-out of primary school.
9. Gladys Lopez-Acevedo & Raymond Robertson, *Sewing Success? Employment, Wages, and Poverty Following the End of the Multi-fibre Arrangement*, World Bank (2012) at 255, stating that the highest percentage of foreign based owners are from Taiwan with 25 percent followed by Hong Kong SAR with 19 percent.
10. Ibid. at 256, explaining that although seven percent of the factories are owned by Cambodians, those factories only account for three percent of the employment within the garment industry.
11. Ibid.
12. Garment Manufacturers Association in Cambodia (GMAC), 'Consolidated Data for Garment and Textile Exports', available at: <http://www.gmac-cambodia.org/imp-exp/garment.php>. (Last accessed April 29, 2013).
13. Ibid.
14. Cornelia Staritz, *Making the cut? Low-Income Countries and the Global Clothing Value Chain in a Post-Quota and Post-Crisis World*, The World Bank (2011), at 114. Note this list is likely to have changed significantly.
15. Lowenstein, supra note 7, at 2.
16. See Better Factories Cambodia website description, available at: <http://www.betterfactories.org/ILO/aboutBFC.aspx?z=2&c=1>. (last accessed May 1, 2013).
17. Wageindicator.org, available at <http://www.wageindicator.org/main/minimum-wages/cambodia>. (last accessed June 1, 2013).
18. Ibid. It should be noted that an attendance bonus is only granted if employees work every workday of the month, which includes Saturday as well, and does not miss any days on sick leave. To add, several factories will revoke attendance bonuses if the worker misses a workday from fainting while at work on factory grounds due to harsh working conditions and is rushed to the hospital or clinic.
19. Cambodian Labor Law (1997) Art. 103.
20. Stanford Law School and Workers Rights Consortium, supra note 2, at 10.
21. See <http://asiafloorwage.org/documents/Latest Asia Floor Wage figure2012.docx> (last accessed November 17, 2012).
22. De Coster, supra note 8.
23. Tim Vutha & Long Heng, *Cambodia's Garment and Textile Industries Still Have Room to Growth and Competition*, *The Southeast Asia Weekly* (December 1, 2011), available at: <http://thesoutheastasiaweekly.com/?p=2789>. (last accessed June 2, 2013).
24. José Vahl, *Study on the Perceptions of Garment Factory Owners on Nutrition and the Feasibility for Pursuing Canteen Services in the Garment Sector in Cambodia*, BDLINK (January 2012), at 11.
25. See [http://www.google.com/hostednews/afp/article/ALeqM5hwCAq1uOowig1LrwO8\\_da99h92bQ?docId=CNG.8acba1b206bbac57a7e425ac22157b65.611](http://www.google.com/hostednews/afp/article/ALeqM5hwCAq1uOowig1LrwO8_da99h92bQ?docId=CNG.8acba1b206bbac57a7e425ac22157b65.611) (last accessed July 8, 2013).
26. See <http://www.phnompenhpost.com/national/stories-vary-latest-mass-fainting-incident> (last accessed August 21, 2013).
27. Vahl, Supra note 24.
28. Better Factories Cambodia and ILO, *Thirtieth Synthesis Report on Working Conditions in Cambodia's garment sector*, July 2013, at 4.
29. Ibid.
30. See <http://www.cambodiarevelplan.co.uk/cambodia-climate.htm>, (last accessed July 24, 2013).
31. Better Factories Cambodia and ILO, *Experts by Experience: Workers' perspectives of fainting in factories*, (February 2013), at 3, available at <http://betterfactories.org/?p=862>, (last accessed August 21, 2013).
32. Better Factories Cambodia and ILO, supra note 28, at 4.
33. Prak Chan Thul, *Hundreds sick in mass fainting at Cambodian factory*, Reuters (August 25, 2011), available at <http://www.reuters.com/article/2011/08/25/us-cambodia-faintings-idUSTRE7702TC20110825> (last accessed July 24, 2013).
34. David Boyle and Kim Yuthana, *Puma's new dizzy spell*, Phnom Penh Post (July 26, 2011), available at <http://www.phnompenhpost.com/national/puma%E2%80%99s-new-dizzy-spell>, (last accessed July 24, 2013).
35. Julia Wallace and Neou Vannarin, *Ghost in the Machine*, Cambodia Daily (March 11, 2012), available at <http://www.cambodiadaily.com/special-reports/ghost-in-the-machine-3347/>, (last accessed July 29, 2013).
36. Ibid.
37. K. Chandararot and L. Dannel, *Living Wage Survey for Cambodia's Garment Industry*, Cambodia Institute of Development Study (February 2009), at 6, available at [http://www.fes.or.id/fes/download/Survey\\_Result\\_Cambodia.pdf](http://www.fes.or.id/fes/download/Survey_Result_Cambodia.pdf) (last accessed August 21, 2013).
38. See <http://www.playfair2012.org.uk/2011/11/in-pictures-made-in-cambodia/> (last accessed July 30, 2013).
39. *Asia Floor Wage Frequently Asked Questions*, available at: [http://www.asiafloorwage.org/documents/FAQ/FAQs\\_about\\_AFW\\_May\\_2010.pdf](http://www.asiafloorwage.org/documents/FAQ/FAQs_about_AFW_May_2010.pdf). (last accessed May 4, 2013). Original reference from Indonesian Minister of Manpower No. Per 17/Men/VIII/2005, via [http://www.fes.or.id/fes/download/Survey\\_Result\\_Indonesia.pdf](http://www.fes.or.id/fes/download/Survey_Result_Indonesia.pdf) at 16, last accessed August 19, 2013.
40. Supra note 1.
41. *Asia Floor Wage*, supra note 39, finding that even early estimates made in 1957 at the Indian Labour Conference found that moderate to heavy workers should have a 2700-calorie diet.
42. José Vahl, supra note 24, at 12, finding that the percentage of women who are anemic has stayed "relatively stable since 2000" and that almost one in ten women in Cambodia suffers from severe anemia although anemia has decreased overall in the country from 58 percent in 2000 to 47 percent in 2005.
43. See [http://apps.who.int/bmi/index.jsp?introPage=intro\\_3.html](http://apps.who.int/bmi/index.jsp?introPage=intro_3.html) (last accessed August 21, 2013).
44. See <http://www.nhs.uk/Conditions/Anorexia-nervosa/Pages/Diagnosis.aspx> (last accessed August 19, 2013).
45. See <http://www.bbc.co.uk/news/health-18770328#G1A24H1.58W42C167> (last accessed on 19 August 2013).
46. Jeroen Merk, *Stitching a decent wage across borders*, *Asia Floor Wage* (2009), at 50.
47. Lowenstein, supra note 7, at 8.
48. Merk, supra note 46, at 49 and 51.
49. Ibid.
50. Supra note 21.
51. Christopher Wanjek, *Food at Work – Workplace solutions for malnutrition, obesity and chronic diseases*, International Labour Office (2005), at 10, "A 1% kcal increase results in a 2.27 per cent increase in general labour productivity".
52. See <http://betterfactories.org/?p=405> (last accessed August 14, 2013).
53. Taken from interview with worker in Svay Reing province, conducted by Workers' Rights Consortium, July 2013.
54. Taken from interview with worker from Quantum factory, conducted by Workers' Rights Consortium, July 2013.
55. See [http://afwcam.files.wordpress.com/2012/03/verdictcambodialastversion-28\\_febrario1.pdf](http://afwcam.files.wordpress.com/2012/03/verdictcambodialastversion-28_febrario1.pdf), at 15. (last accessed September 2, 2013).

