

STUDY ON THE PERCEPTIONS OF GARMENT FACTORY OWNERS ON NUTRITION AND THE FEASIBILITY FOR PURSUING CANTEEN SERVICES IN THE GARMENT SECTOR IN CAMBODIA



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International
Labour
Organization



GMAC
Garment Manufacturers Association in Cambodia



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About the Research Teams and Authors

BDLINK Cambodia is Cambodia's leading consulting research firm dedicated to providing clients with real insights and understanding of the markets and environments.

HRINC Cambodia is Cambodia's leading HR services firm providing a full suite of services from outsourcing, recruitment to consulting and labour market studies. HRINC has a range of products in each division providing clients with market insights that drive employee engagement and bottom line performance.

This is a collaborative study by the HRINC and BDLINK teams as part of our INSIGHTS! Initiative that aims to provide the market with discussion and leadership papers on our economic environment. For more information on our INSIGHTS initiative, please contact bdlink@bdlink.com.kh or hrinc@hrinc.com.kh.

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Photo 1: Cover - Outside the factory gate, where the workers eat (Courtesy of SHRM&P Cambodia)

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Acronyms Used in the Study

Table 1: Acronyms Used in the study

Acronym	Detail
BFC	Better Factories Cambodia
CDHS	Cambodia Demographic and Health Survey
CMT	Cut Make Trim
DGH	Directorate General for Health
GMAC	Garment Manufacturers Association in Cambodia
HCFM	HAGAR Catering and Facilities Management
ILO	International Labour Organisation
KHR	Khmer Riel
L	Litres
LHS	Left Hand Side
RHS	Right Hand Side
SHRM&P	Society of Human Resource Management and Productivity
USD	United States Dollars

Executive Summary

This study focussed on a review of the perceptions of factory managers, all member of the Garment Manufacturers Association in Cambodia (GMAC) also including some footwear factories, on health and nutrition. It attempts to understand the feasibility of setting up canteens for the garment sector or individual factories where facilities and space allow for HAGAR Catering and Facilities Management (HCFM) a social enterprise offering catering and canteen services (among others).

The study was conducted over the busiest production period for the garment and footwear sector, during November and December of 2011. In total, 27 factories participated in the study employing approximately 34,939 workers, approximately ten per cent of total workforce of the garment (and footwear) sector. 90% or more of workers are female. Factory sizes represented in the survey are evenly distributed between smaller and larger factories. Overall the sample size can be characterized as representative of the sector.

The garment (and footwear) industry in Cambodia is an important sector – economically and socially: It generates a significant amount of formal employment, over 300,000 jobs per year amongst approximately 315 factories. It accounts for a significant proportion of GDP. Recent fainting incidents in the sector in 2011 have highlighted once again the need to address the health of workers in general. Lack of nutrition, unhygienic nutrition, lack of information as well as factory conditions and mass hysteria have been mentioned as possible contributing factors to the fainting incidents. Numerous discussions were held around the fainting incidents and concerns reached the highest levels of government. As a result, in the last Government-Private Sector Forum, it was decided that all factories would provide a five dollar health allowance or subsidy to workers which is being implemented in 2012. This increase alone is estimated to contribute an additional 18 million to the Cambodian economy every year or 1.5 million every month¹.

Various studies conducted in other garment manufacturing countries around the world provide useful inputs into the challenges around nutrition and canteen facilities. Studies on this in Cambodia are scarce and the most significant report on nutrition and health is the ‘Women and Work in the garment industry’ by the ILO & World Bank in 2006².

Cambodia health data confirms that one in five (19%) Cambodian women are too thin and more than 4 in 10 women in Cambodia are anaemic, although moderate and severe anaemia is relatively rare (8%) and Anaemia in women continues to decrease, from 58% in 2000 and 47% in 2005³.

This study was not conducted in response to fainting in factories. Rather, it is a strategic study that attempts to review perceptions and opportunities for providing professional canteen services to the industry with the objective of improving the health of workers through nutritious food as well as improving productivity while doing so.

Study findings show that:

- Almost 90% of responding factories are concerned about health challenges related to their employees.
- More than 75% of factories provide at least basic medical care for their workers.

¹HRINC Calculations: 5 dollars x 300,000 workers x 12 months

²‘Women and work in the garment industry’, page 9, 2006, ILO & World Bank

³The 2010 Cambodia Demographic and Health Survey (CDHS) conducted by the Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics of the Ministry of Planning, page 13.

- All factories provide drinking water.
- Most factories do not have a canteen or even eating areas for workers. Thirty three per cent of factories did have an eating area, which could potentially be turned into a canteen (this is not based on a technical assessment of the eating areas described).

Nutrition and personal care are important issues for management:

- Factories are interested and want information to distribute to their staff. They are concerned about nutrition and health.
- Although skills remain the key challenge to productivity levels in factories, health, nutrition and nutritional value is a concern and is recognised by factories as a key constraint to productivity.
- Access to information and dissemination of information is recognised as important, not only on nutrition issues but personal care as well.
- Improving productivity and output, improving skills and maintaining current cost base and overheads are very important to factories.
- Respondents in general did not feel that a 10 hour working day is too much for a worker and they agree that workers send too much money home and therefore do not have sufficient funds for themselves to buy basic foods.
- The majority of respondents feel that the choices workers make regarding what they eat, is their personal responsibility. On the other hand, the majority of companies (>50%) agree the companies should be involved in the challenges related to nutrition and personal care.

Workers do not eat healthy meals and should have access to more hygienic and clean food services:

- Although 33% thought that their workers eat healthy meals, most respondents remained neutral as to whether or not they would personally eat the food outside the factory gate.
- Workers need better access to hygienic and clean food services, whether those are provided by private or public service providers.
- Existing providers need to improve hygiene and cleanliness or be provided with appropriate facilities.

Management perceptions on cost of meals:

The more healthy meals account for about two third of the minimum wage. Seeking creative ways to be thrifty with money, whether pooling resources to purchase collectively, bringing food from home (which also has a cost), or purchasing poor quality products to be able to have more appear necessary for workers to be able to manage their personal and family responsibilities, is a reality and necessity. Often being thrifty comes at a cost of foregoing personal health such as skipping meals, or eating less, as research has shown.

Breakfast is generally eaten at home before work or nearby the factory before coming into work. Many factory workers take lunch from home to the factory to save money. Overall 78 per cent of respondents noted that workers purchase some food outside the factory gate. Unless workers are working overtime or late, dinner is generally eaten at home. In the event that there is over time, an allowance is provided for workers to eat.

The cost of providing a meal or subsidizing meals is the most critical factor to decision making. Managers lack information around food services provision.

Only two factories in the survey had canteen facilities. While many would consider a canteen facility, it is clear that information is needed, not only on who can provide the service, but the cost and the real impact having a canteen will have. A canteen that provides low quality meals and does not demonstrate health or productivity improvements for factories may have a negative impact on providers in the canteen services sector.

Fifty six per cent of respondents would consider providing one meal to their workers. Cost is the main factor for factories to consider providing a meal to workers. Impact on productivity or turnover as a reason for subsidising meals was not as important as researchers thought it would be, however generally a key concern for factories overall. Interestingly, snacks, which would assume less challenges as they don't require facilities to sit and eat, was not something the majority of respondents would consider, but additional information on types of snacks (and the health benefits) and ease of handling might change the views. Of those who would consider providing one meal, the majority would provide lunch followed by breakfast.

The study was an initial attempt in understanding the perceptions of factory management on nutrition and health and its impact on productivity. Factory management has an understanding of the link between nutrition and productivity, but lacks concrete facts and figures to work with as well as easily implementable solutions and full stakeholder participation.

Addressing challenges around nutrition and health in the garment sector is a concern to unions, factories, government and buyers. Given a common starting point and shared concerns, the issues around nutrition and health can be a topic that parties (buyers, unions, government, employers and workers) could tackle together.

Some of the genuine challenges that need further work are:

- There is a case for **disseminating more information in general around personal care and nutrition.** Factories, unions, GMAC and buyers could do more in ensuring that workers are informed.
- A need to address the issues around nutrition and health in a **strategic and coordinated manner bringing unions, government, employers and buyers to the table.**
- A need for more **information on the costs associated with canteen services** and how the introduction of meals or subsidies has a return for employers as well as an insight into whether a meal subsidy will simply be passed on to the cost of the product which might impact Cambodian competitiveness etc...
- A need for more **information to better understand the link between nutrition, health and productivity** and the tangible effects such as reduction in sick leave, more loyalty and commitment, lower turnover of workers, but also the time lapse between better food and better productivity, etc.
- A need for factories to better understand **who the canteen facility management providers are.**
- A real apparent opportunity to pursue **joint canteen facilities** if a strategic coordination committee was set up. But also a need for a more in-depth feasibility study as space is an issue
- A need to improve the “business environment” **outside the factory gate by improving hygiene and cleanliness of service providers.** This is mostly a public responsibility and will require standards, rules and regulations to be set, even licensing of smaller providers or provision of public facilities where entrepreneurs can sell their goods and services.

Background

Nutrition and the Cambodian garment sector

The garment industry employs over three hundred thousand workers, predominantly female. Most of these young women come from surrounding provinces migrating to Phnom Penh, in search of economic opportunities and employment. Many studies have shown that a significant portion of the earnings made in factories is remitted back home to support families. The trickledown effect of how these young female workers impact economic development in the provinces has not yet been documented in any detail, but it is substantial. However **their ability to spend thriftily and save money to send home to family often comes at a cost to their personal health and well-being.**

The responsibilities that these young women carry, in terms of financial support to often large families is significant and very characteristic of how the younger generation often migrates to Phnom Penh, responsible for working, studying and earning an income while also supporting aging parents and growing younger siblings in their hometowns.

Recent fainting spells in the garment sector have highlighted once again the need to address the health studies on the actual cause of fainting have been conducted, malnutrition has been mentioned several times as one of the contributors. Other challenges in relation to the fainting incidents include unhealthy eating habits, unhygienic facilities offering nutritious food to workers around the factory area and general lack of knowledge around health and nutrition as well as lack of information and access to information being constraints in helping workers understand and address challenges.

It is worth noting that factory conditions vary even though all exporting factories are members of the Garment Manufacturing Association of Cambodia (GMAC) and are monitored by the ILO, Better Factories Cambodia. Proper ventilation and factory ergonomics are also an area of concern relating to the mass fainting spells that have occurred. Many factory owners have commented on the mass fainting hysteria phenomena, where as a result of one person fainting for a real reason, everyone faints as a consequence.

Quick Facts on the Cambodian Garment Industry

- In 2011 USD 4.25 Billion worth of garments, textiles and shoes were exported, while the total export value for Cambodia was USD 4.98 Billion. 75% of Cambodian export was garments, textiles and shoes. (*Phnom Penh Post 20-1-2012, information from MOC, GMAC*)
- There are 300 factories with exporting licenses (as of Oct 2011); these factories employed 345,000 workers of which 90% women. Another estimated 200,000 workers work in garment factories that supply exporting factories but do not have export licenses (*Phnom Penh Post 7-2-2012, information from BFC and MOC*), BFC, 27th Synthesis report on working conditions in Cambodia's garment sector
- Predominantly female workforces, 90% of them are young women from Prey Veng, Svay Rieng, Takeo, and Kampong Speu Provinces migrating to Phnom Penh City. (*Phnom Penh Post 7-2-2012, information from BFC and MOC*)

of workers in general. While not many in-depth

HE Mam Vannak, Secretary of State at the Ministry of Labour and Vocational Training regarding the mass fainting's:

"No garment worker has died during group fainting," adding that for many, "a glass of sugarcane juice" was enough to get them out of the hospital and back to work. Vannak estimated that about 60 per cent of the fainting was "due to lack of nutrition". Workers were saving their earnings rather than buying nutritious food. One step the government was taking to solve this problem was improving health education".

Numerous discussions were held around the mass fainting incidents and concerns reached the highest levels of government. As a result, in the last Government-Private Sector Forum, it was decided that all factories would provide a five dollar health allowance or subsidy to workers which is being implemented in 2012. This increase alone is estimated to contribute an additional 18 million to the Cambodian economy every year or 1.5 million every month⁴.

This study is intended to focus on reviewing the perceptions of factory managers (all members of GMAC) on health and nutrition and it is not a consequence of the fainting incidents as such, but the fainting is relevant as malnutrition is mentioned as one of the contributing factors. It attempts to understand the feasibility of setting up canteens for the garment sector or individual factories where facilities and space allow. The study reviews perceptions on creative solutions to address nutrition challenges. At a broader level, the study hopes to provide Hagar Catering and Facilities Management (HCFM), a leading social enterprise, with options and strategic input to pursue canteen facilities in Cambodia's leading sector of employment, the garment sector. Given this, it was worthwhile to review previous work and studies relating to health and nutrition in general.

Nutritional status of women in Cambodia in general: The 2010 Cambodia Demographic and Health Survey (CDHS) conducted by the Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics of the Ministry of Planning review weight and height measurements of women aged 15 – 49 and found the following facts⁵

- **One in five (19%) Cambodian women are too thin. The percentage of women who are too thin has remained relatively stable since 2000.**
- **More than 4 in 10 women in Cambodia are anaemic, although moderate and severe anaemia is however relatively rare (8%). Anaemia in women continues to decrease, from 58% in 2000 and 47% in 2005.**

Another article and there are numerous on this subject, indicates the consequences of lack of nutrition, with regards to reduction in productivity: “Worldwide, billions of people suffer from micronutrient malnutrition: a “hidden hunger” resulting from a lack of vitamins and minerals that can increase vulnerabilities to sickness, disease and even death. These deficiencies, which most people are unaware of, hamper physical and cognitive development and **reduce productivity of entire populations**”⁶



Photo 2: Garment factory worker purchasing a sweet drink (Courtesy of SHRMP)

⁴HRINC Calculations: 5 dollars x 300,000 workers x 12 months

⁵The 2010 Cambodia Demographic and Health Survey (CDHS) conducted by the Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics of the Ministry of Planning, page 13.

⁶Source: www.phnompenhpost.com/index.php/2011042948802/Special-Reports/ultra-rice-slips-nutrients-in-via-one-special-grain-for-every-100-ordinary-grains-of-rice.htm

A potential solution to the lack of micronutrients is the joint project of the UN Programme for Food Security and Nutrition in Cambodia under the Millennium Development Goals Fund (MDG-F), the National Nutrition Programme of Ministry of Health, the Labour Departments of Kampong Speu and Svay Rieng, ILO and WHO, to distribute Weekly Iron Folic Acid Supplementation (WIFAS), targeting women at reproductive age from 15 to 49 years old on the grounds of helping to reduce the anaemic rate among women, however the impact of this project have not yet been released.⁷

The most significant report on nutrition and health is the 'Women and Work in the garment industry' by the ILO & World Bank in 2006⁸. Although not very recent the issues that emerged in the study are as relevant today, as they were in 2006. Of the almost 1000 men and women workers' interviewed in 2006; the link between better food and fewer sick leave days is apparent. This serves as a compelling argument around the need to review the general health of workers to increase productivity, a key constraint in the Cambodian workforce in general. Workers with a better nutritional status appeared to take less sick

leave days, furthermore there seemed to be a link between less sick leave and more often than not eating in a factory, where workers ate more vegetables and meat in their meals.

Although this example was posted during the economic crisis, it is very relevant today. "Sitting near a food vendor Phin Ron, 23, eats a meagre lunch with her friends. "I spend only 1,000 Riel (US\$0.24) for a meal at any time, and I eat just enough to keep hunger at bay," she said. "The food I eat every day does not give me enough energy, but I don't have money to buy good food or eat in a restaurant. I don't want to waste money on food, even though it's important for my health. I have to save money for my family." Many garment workers said the lack of nutrition in their diets had left them exhausted, pale and prone to illness. "Sometimes I get a headache and become very tired when I work hard, I think it is because I eat unhealthy food now."

Adopted from Phnom Penh Post, 7 May 2009

The amount of money a worker spends on a meal: Information on spending patterns of Cambodian garment workers' appear regularly in the news, however comprehensive studies documenting trends are not many.

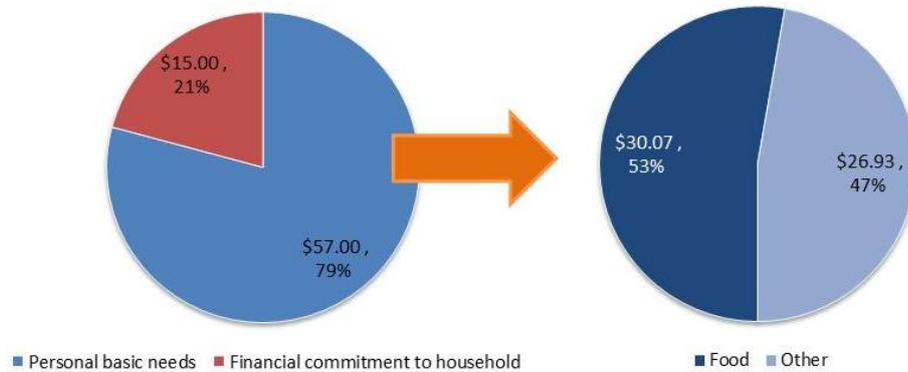
Another report "*Living wage survey for Cambodia's Garment Industry*", 2009, by CIDS, showed that interviewed garment workers' spend a total of US\$72 per month, of which US\$57 (80%) is on their personal basic needs and US\$15 (20%) is on financial commitments to the family household. This is around US\$57 per month or about US\$1.84 per day for basic needs, below the NIS figure of \$3 per day in Phnom Penh. ***Of this amount, garment workers spend US\$0.97 daily on food. This low spending is the result of extreme***

⁷ The two provinces employ over 30,000 workers. In late 2011, Labour Department and Health Department of Kampong Speu planned to distribute the WIFAS to 20,626 workers in six factories/enterprises while in Svay Rieng, the two departments have planned to distribute WIFAS to 19,836 workers. The distribution of WIFAS took place from October 2011 to January 2012 to 73,306 workers with the average of 18,327 workers per month. The distribution was put on hold since the Health Centres and Ministry of Health ran out of stock. Therefore, the distribution of WIFAS in Svay Rieng did not take place. Representative of Kampong Speu Health Department revealed that UNICEF and Ministry of Health are working on the issue of purchasing more WIFAS and expect to arrive in June or July 2012. CDHS. *Cambodia Demographic and Health Survey 2010*. Preliminary Report, Phnom Penh: National Statistic Institute (MoP) and General Directorate of Health (MoH), 2010

⁸ *Women and work in the garment industry*, page 9, 2006, ILO & World Bank

budgeting and thrifty spending by workers. Survey findings revealed that the way workers keep spending on basic needs low is by eating and living in groups and by minimising food expenses by bringing food from their village.⁹

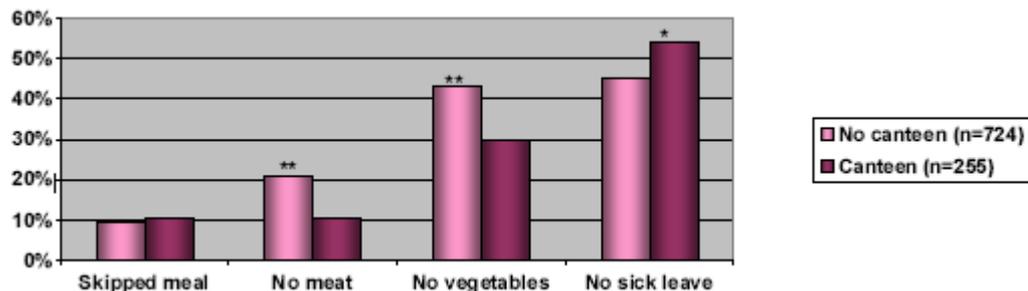
Figure 1: Monthly Expenditure on food for garment workers



Source: Living wage survey for Cambodia’s Garment Industry”, 2009, by CIDS

Sick leave in factories: The ILO and World Bank “Women and Work in the garment Industry” study identified that “In factories that have a canteen, workers seem to eat more meat and more vegetables and the sick leave for a factory with a canteen seems significantly lower”.

Figure 2: Relationship between sick leave, nutritional meals and factory canteens



Source: ‘Women and work in the garment industry’, page 9, 2006, ILO & World Bank

Reasons for sick leave: Typhoid was being identified by managers as the main reason for workers taking sick leave. Typhoid is caused by contaminated water – the directions to prevent Typhoid are directly linked to the places where workers live and eat: contaminated drinking water, not enough hand washing, unsafe iced drinks, eat foods that are thoroughly cooked and are still hot and steaming, avoid already peeled and cut vegetables and fruit. The main approach to get rid of Typhoid is food related as well. If Typhoid is not treated properly, it will return regularly. The main symptoms are fever, weakness and diarrhoea.

⁹CIDS | Living Wage Survey for Cambodia’s Garment Industry, page 6-15, February 2009, by Dr. Kang Chandararot, Liv Dannel, Prepared by the Cambodia Institute of Development Study, Financed by the Friedrich Ebert Stiftung, In Cooperation with TWARO-ITGLWF (CIDS = The Cambodia Institute for Development Studies)

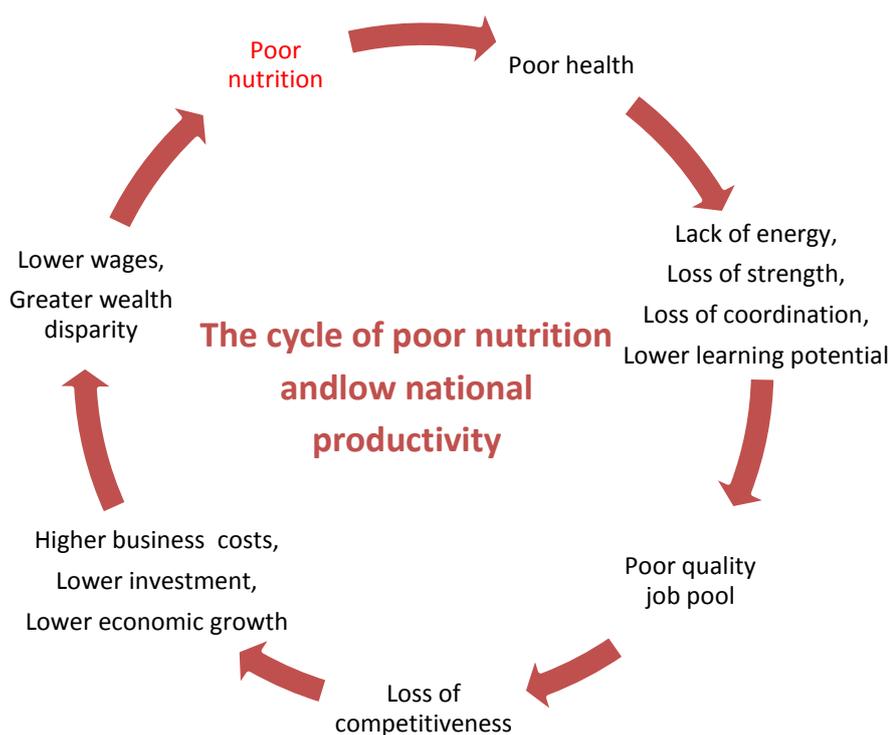
Table 2: Reasons for Sick Leave in 2006

Workers mentioned	Managers Identified the following	
Reason for taking sick leave	Workers reasons for taking sick leave	Most time lost for sick leave per worker:
1. Fever	1. Typhoid	1. Typhoid
2. Feeling faint/dizzy/unconscious	2. Diarrhoea	2. Traffic accidents
3. Diarrhoea	3. Feeling faint/dizzy/unconscious	3. Fevers
4. Respiratory / urinary / reproductive	4. Fever	4. Diarrhoea

Source: 'Women and work in the garment industry', page 8, 2006, ILO & the World Bank

The Food for Work report, by the ILO, concludes the impact of poor nutrition on the national productivity as follows.

Figure 3: The cycle of poor nutrition and low national productivity



Source: FOOD AT WORK¹⁰

¹⁰FOOD AT WORK - WORKPLACE SOLUTIONS FOR MALNUTRITION, OBESITY AND CHRONIC DISEASES, p42, by Christopher Wanjek, Copyright © International Labour Organization 2005

Is there a case for more canteens? Although there is an apparent link nutrition and productivity, and between factories having a canteen (as a solution) and the a decreased amount of sick leave of workers (productivity); in the ‘*Women and work in the garment industry*’ report and thus the case for a ‘canteen solution’, the report also identified the following reasons why factories were reluctant to invest in a canteen.

A number of these reasons are still resonating among factory respondents to the survey as well as mentioned by the union representatives that were interviewed for the survey. Challenges mentioned in the ‘*Women and work in the garment industry*’ report were:

“Managers in one of the focus groups explained some of the difficulties they saw to establishing a canteen. They worried that providing food would leave them¹¹:

- *Liable to complaints from workers in the case of food poisoning*
- *Believed that workers would interpret the establishment of a canteen as an attempt by the company to make money from them.*
- *The price of running a canteen – because running a canteen would require outside expertise, they believed that the costs would outweigh the benefits, despite recognising the probable positive effects on worker nutrition and sick leave.”*

It is worth mentioning that our interviews with unions indicated that there are significantly fewer canteens today than there were a few years ago. Many canteens stopped operating; the reasons for the discontinuation of canteen services were unknown by the union representatives, but could well be related to the above challenges.

¹¹Source: *Women and work in the garment industry*, page 9, 2006, ILO & World Bank

Study objectives and purpose of study

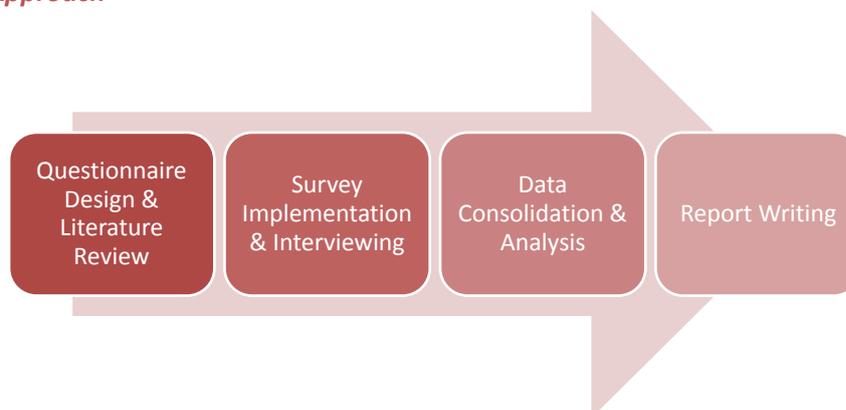
HAGAR Catering and Facilities Management (HCFM¹²) is a social enterprise with a partnership between Hagar Social Enterprise Group (HSEG) and private investors from international catering businesses. HCFM provides employment opportunities for men and women from Hagar NGO's shelters and social programs. **HCFM is committed to raising employers' awareness of nutrition issues to support the provision of quality canteen meals in factories, to improve workers' wellbeing and factory productivity.** To this end, HCFM partnered with various stakeholders, including private sector, to conduct a survey of industry practices for the provision of workers' meals in the garment and footwear industry in Cambodia.

More broadly, this study is intended to focus the perceptions of factory managers around health and nutrition. Factories that were pursued are all members of the Garment Manufacturers Association in Cambodia (GMAC) which means, exporting factories in Cambodia. The study also attempts to understand the feasibility of setting up canteens for the garment sector or individual factories where facilities and space allow. In addition, the study looks at creative solutions to address nutrition challenges and the feasibility of such solutions.

Methodology & Approach

The team used a structured approach to the project consisting of four distinct phases. A structured questionnaire was used to interview factories and collect data. Several expert interviews were conducted including meeting with unions and industry representatives. The report has been reviewed by a number of stakeholders. The project approach is presented in the figure below.

Figure 4: Project Approach



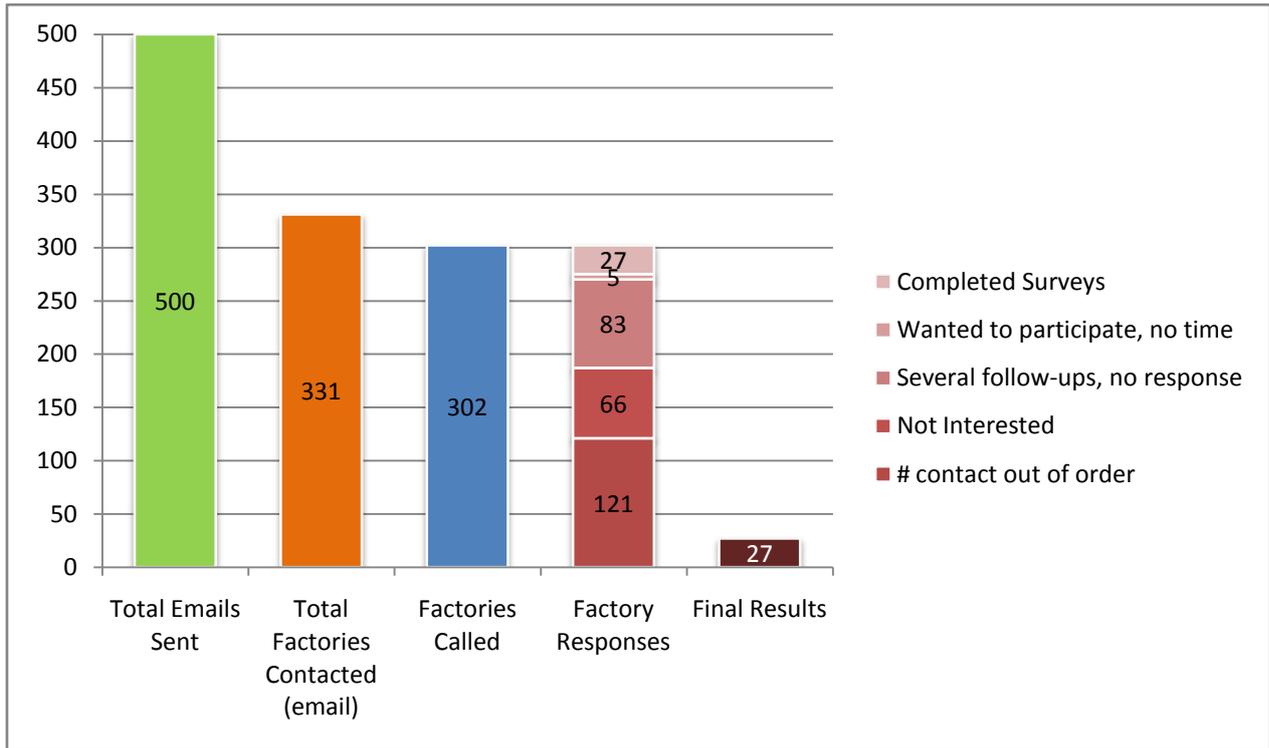
Questionnaire design & literature review: The questionnaire was designed by HRINC and BDLINK (Cambodia). The questionnaire was provided to HCFM and relevant stakeholders for review and input before finalising and translating into Khmer and Chinese. A literature review was conducted to provide inputs into the questionnaire and design. The questionnaire consisted of mainly multiple choice questions.

Questionnaire implementation: The sample size outlined for the project is to capture the feedback of at least 30 factories, representing approximately 10% of the industry, in terms of number of factories. Survey implementation was conducted at the end of 2011 and took around 2 months. The GMAC membership list was used as a first tool and GMAC emailed members to make them aware of the survey. The GMAC

¹²See HCFM website for more information

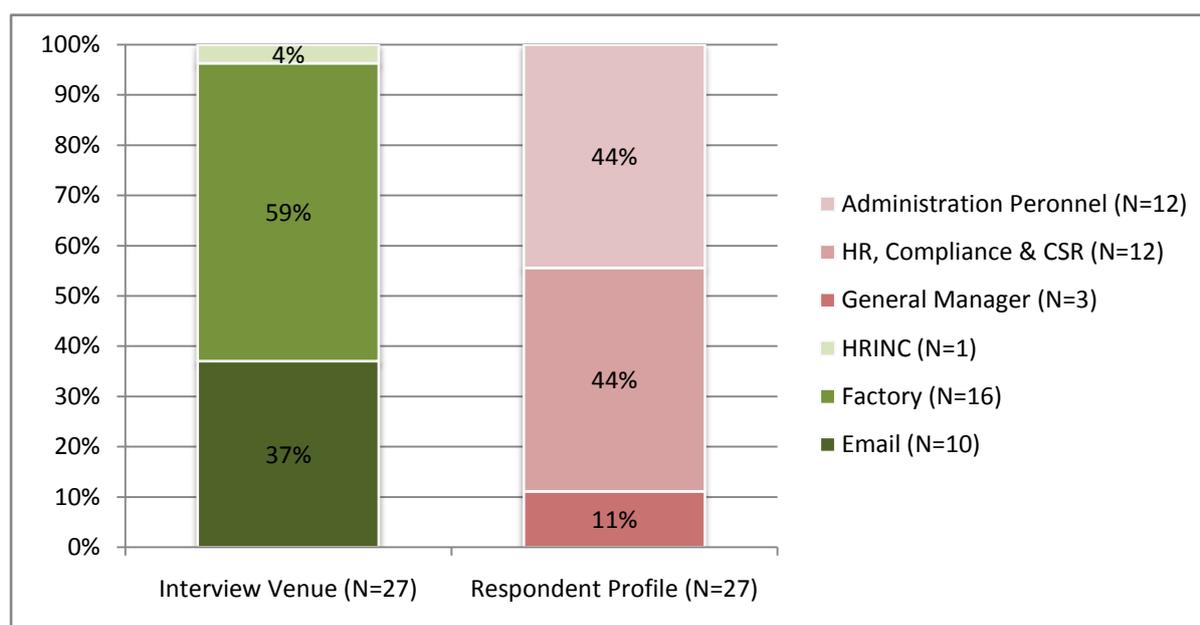
database includes garment and footwear manufactures, both manufacturing categories were included in the survey as canteen and nutrition challenges were deemed similar. Personalised emails in English, Khmer or Chinese were sent to factory representatives to encourage them to join the survey. The survey team emailed all factories and followed up with telephone calls to factories several times to establish contact and discuss the survey. The team attempted to interview general managers where ever possible and at the factory premises when possible (to allow for observations).

Figure 5: Summary of efforts to contact factories



Most of the interviews took place at the factory premises (59%) and the rest answered by email; the latter were phoned to clarify any responses. In general, HR, Compliance & CSR representatives and Administration personnel were responsible for filling out the surveys.

Figure 6: Interview venue and respondent profile



Survey Constraints

The survey was conducted over November and December 2011. This is the busiest time of the year for factories making it challenging to meet General Managers. The GMAC membership database, available on the GMAC website, is not up to date. This created challenges to identify the correct contact details for factories.

Further constraints worth noting include the following:

- Sixty six factories did not respond to the questionnaire however the team did in fact speak to managers, after several attempts to identify the right person.** Managers mentioned over the phone that they were not interested in a canteen or in canteen services and that they did not want to fill in the questionnaire. It was difficult to gauge whether factories were “really not interested” or whether the time of the year, the busiest time, also impacted on not wanting to take part in a survey.
- No Space or Budget:** Some of the above mentioned factories said that they did not have the space or the budget for a canteen and therefore did not feel the survey was relevant to them, regardless of explaining the objective to also gather perceptions on joint facilities.
- Five factories who did want to participate in the survey, however, kept rescheduling the interview dates and were finally too late to be included in the survey when the analysis and report writing phase was reached.
- General reluctance of factories to let outsiders into their factories or even to talk to outsiders especially given recent challenges on fainting in the industry and the theme of the study.**
- Information requests for many factories are dealt with at headquarters outside of Cambodia and can therefore easily be ignored.**

Given the limited budget for implementing the survey, and the apparent interest in innovative ideas such as joint facilities, it might be worth pursuing a more in-depth feasibility study on joint facilities in the future.

Survey findings

1 Characteristics and profile of participating factories

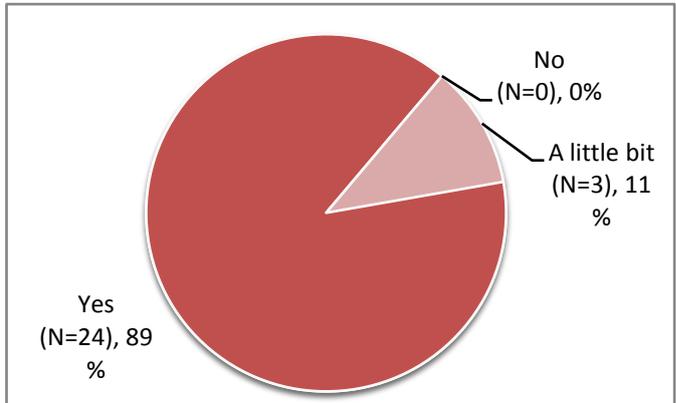
Key characteristics of participating factories

- **Almost 90% of responding factories are concerned about health challenges in relation to their employees.** Nutrition is regarded as a factor impacting productivity in factories and potentially lowering turnover. While factories seem concerned about health of workers, they do not feel the burden should be carried by the employer alone.
- **34,939 workers are employed amongst the 27 participating factories,** which is approximately ten percent of the estimated total workforce of the garment factories registered with GMAC and the ILO Better Factories Cambodia. 80% or more of workers are female. Factory sizes represented in the survey are evenly distributed between smaller and larger factories. Overall the sample size can be characterized as representative of the sector.
- **There does not seem to be a relationship between the number of management and professional staff and the number of employees on the production floor, including supervisors.**
- Working hours are very characteristic of the garment sector, most factories working 8 hours with 2 hour overtime when required. **22 percent of factories worked 10 hours day, including the 2 hour overtime into a normal working day. There is no relationship between working hours and factory size.**
- **More than 75% of factories provide at least basic medical care for their workers.** Forty four per cent have a medical infirmary as the only provision of medical coverage, and at least 33% of factories provided private health care insurance.
- **All factories provide drinking water.** The majority of factories have an in-house filtration system to filter water. Consumption levels vary significantly; it was not possible to draw conclusions from the current data.
- Most factories we interviewed and almost all of the factories that did not want to participate in the survey did not have a canteen or even eating areas for workers. **Thirty three percent of factories did have an eating area, which could eventually be turned into a canteen.**

Concerned about employee health challenges:

Figure 7: Are you concerned about your employees' health

Almost 90% of responding factories are concerned about their employees' health. The majority of factories we spoke to (almost 75%) that filled in the questionnaire were registered under Asian ownership including owners from Cambodia, China, Korea, Malaysia, Taiwan and Singapore (according to the GMAC data base on their website). Only a quarter were from other parts of the world including Spain and the USA.

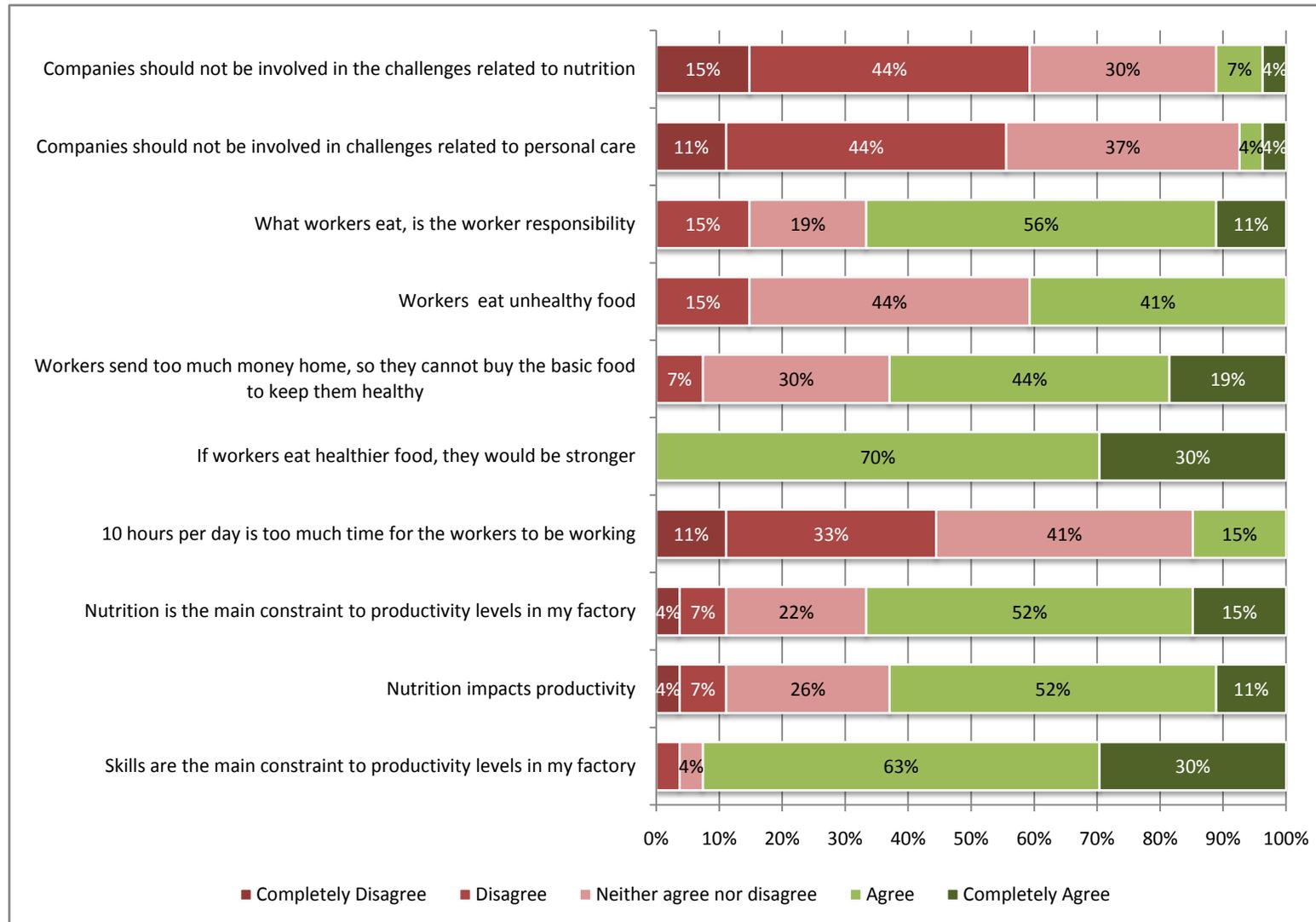


Factories feel that they should be involved in employee challenges related to nutrition and personal care. However they also feel that workers have to take responsibility for what they eat. Employers do feel that workers send too much money home; therefore they are unable to buy healthy food and support themselves. The challenges related to workers migrating to Phnom Penh for economic and employment reasons particularly in the Cambodian context are important to keep in mind however. Workers are not only looking after their own well-being, most also need to support their extended family and as such and the challenges back home also have a real impact on their life and their wellbeing in the city. Respondents are also in agreement that nutrition impacts productivity and that nutrition is one of the main constraints to better productivity (and potentially less turnover of workers) levels in the factory.

Respondents are concerned about the health and safety challenges of their workforce and employees however are clear that the burden cannot be put onto the employer alone.

Results are presented in Figure 8 on the following page.

Figure 8: Perceptions on nutrition and responsibilities



Researched conducted by BDLINK (Cambodia) and HRINC (Cambodia)

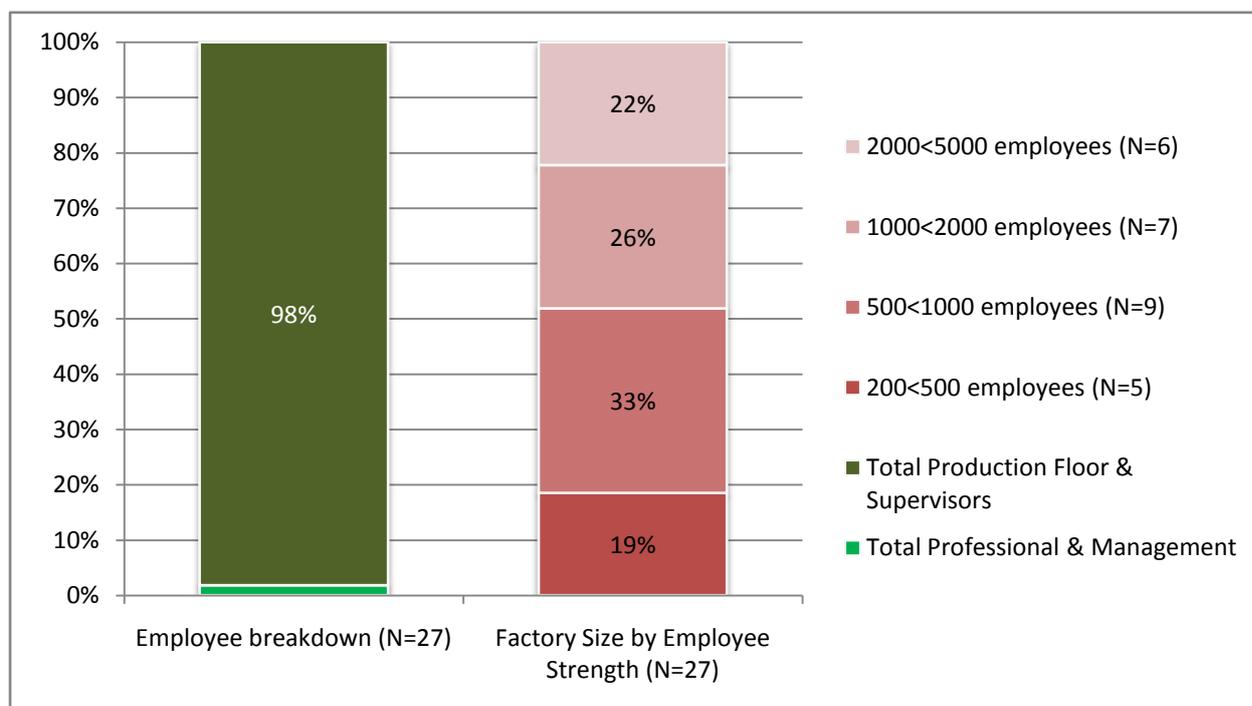
MARKET RESEARCH LEADERS. DATA DRIVEN INSIGHTS. TAKING BUSINESS BEYOND BORDERS.

www.bmlink.com.kh and www.hrinc.com.kh

Employee composition & factory size: Factories represented in this survey employ 34,939 workers in total, and account for approximately 10 per cent of the total workforce in the garment sector. Ninety-eight per cent of the workforce works on the production floor and the remaining staff, management and professional staff¹³. Factory sizes are fairly representative of the sector including very large factories employing more than 2000 workers. The biggest factory employed just over 4000 workers. The smallest factories employ less than 500 workers with the smallest factory employing just fewer than 250 workers. A typical garment factory in Cambodia has around 800 workers. As expected, woman workers represent 80% and more of the workforce, especially on the production floor. The findings are presented in Figure below

While not a result that impacts the overall findings of the study related to nutrition, it is interesting to see that there does not seem to be a relationship between the number of workers on the production floor which includes supervisors, and management and professional staff. It is worth reviewing the relationship between professional and management staff in a factory as this provides some insights into the management capacity and ability to deal with emerging challenges in a factory. The findings are presented in *Figure 9* below.

Figure 9: Employee composition and strength

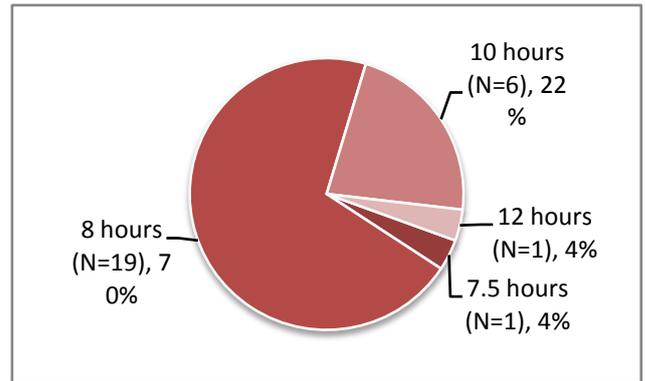


Daily working hours: While no studies exist on relationship between the number of work hours and nutrition in Cambodia, the number of hours spent is an indicator of how much time is left in the day for ‘other’ activities such as rest and relaxation – an important factor to ensure overall health. Workers that live in the country side will on top of the working hours also need to travel home, while the travel time might not be much, the waiting for the truck to fill up as well as the standing during the trip are exhausting, but then workers could come home to a cooked meal by other extended family members’. While workers in Phnom Penh, do not have to travel far, but are responsible for cooking their own meals.

¹³ Professional staff represents administration and HR positions.

Figure 10: Working hours in the factory

It is common in the garment sector that factories work 8 hours per day with additional two hours overtime. Overtime is an important source of income for workers. **The survey results are consistent with general practise in industry. The majority factories (70 percent) generally work eight hours per day and when needed, additional overtime is requested.** Six factories consistently worked 10 hours per day including the standard 2 hour over time allowance in normal working time.

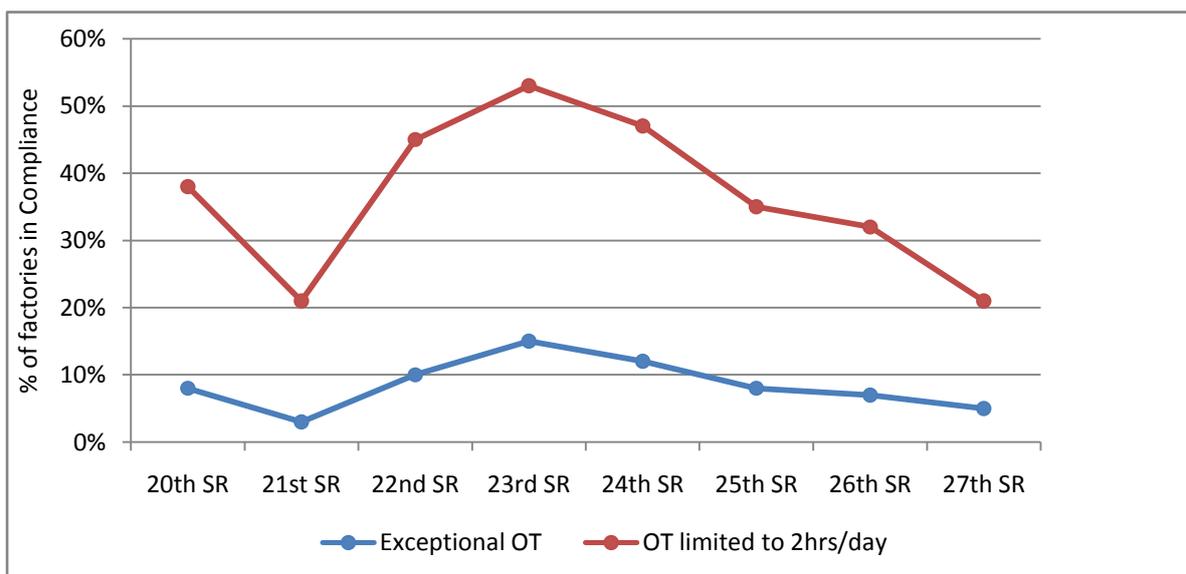


One factory had a standard working time of 12 hours a day. *Shift work was not discussed with the factory as to whether or not workers are working 12 hours per day or whether shift work occurs in this instance.*

Working hours generally correlate with the number of orders and capacity of the factory to fulfil the orders. We did review if there was a relationship between factory size and working hours but there was no clear relationship. (See Annex)

ILO Better Factories Cambodia mentioned that the compliance rate on ‘limits to 2-hour overtime¹⁴ per day’ is very low with the average of 29% (from 35% and 27% in 2010, the 24th Synthesis Report) and 25% in early 2011 (26th Synthesis Report). The lowest compliance point in the graph below is 18% on excessive overtime in 21st Synthesis Report produced in October 2008 right before the global financial crisis. The worst compliance rate of exceptional overtime provision is 10% of the factories, monitored through 17th to 27th Synthesis Reports. Better Factories Cambodia monitored 288 factories in 2010 and 355 factories in 2011 according to the four synthesis reports produced in the past two years.

Figure 11: BFC Synthesis reports on exceptional overtime and 2-hour limit



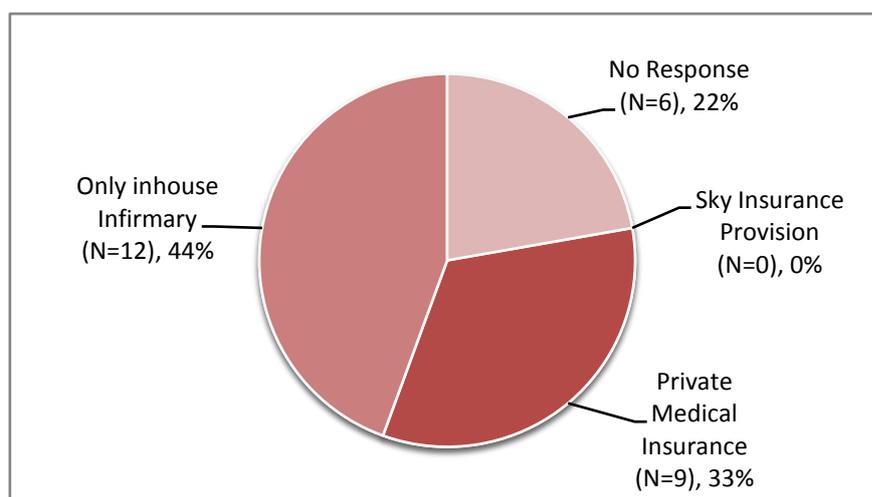
¹⁴ Labour Code Article 139 states that if workers are required to work overtime for exceptional and urgent jobs, the overtime hours shall be paid at a rate of fifty percent higher than normal hours. If the overtime hours are worked at night or during weekly time off, the rate of increase shall be one hundred percent. Article 140 of Labour Code limits hours of work not more than ten hours per day.

The provision of medical care: The questionnaire reviewed whether or not factories have medical plans for their workers which could be seen as a possible indicator of “increased concern for workers”. In particular, the use of SKY insurance, an insurance scheme designed especially for poor households and introduced to the garment sector as an option for health insurance.

Six respondents did not answer this question. **None of the respondents in this survey used SKY insurance for their workers. Forty four per cent of factories have an in-house infirmary and a third of the participants provide private medical insurance.** Factories provided additional information as to their insurance coverage.

- Three factories provided private health insurances which include a medical plan and private work place accident coverage.
- Nine factories provided a private work place accident policy in addition to the National Social Security Fund
- One factory had a committee that focussed on work issues, and they managed a budget of USD250 per worker in case of any emergency need.

Figure 12: Insurance provisions by factories

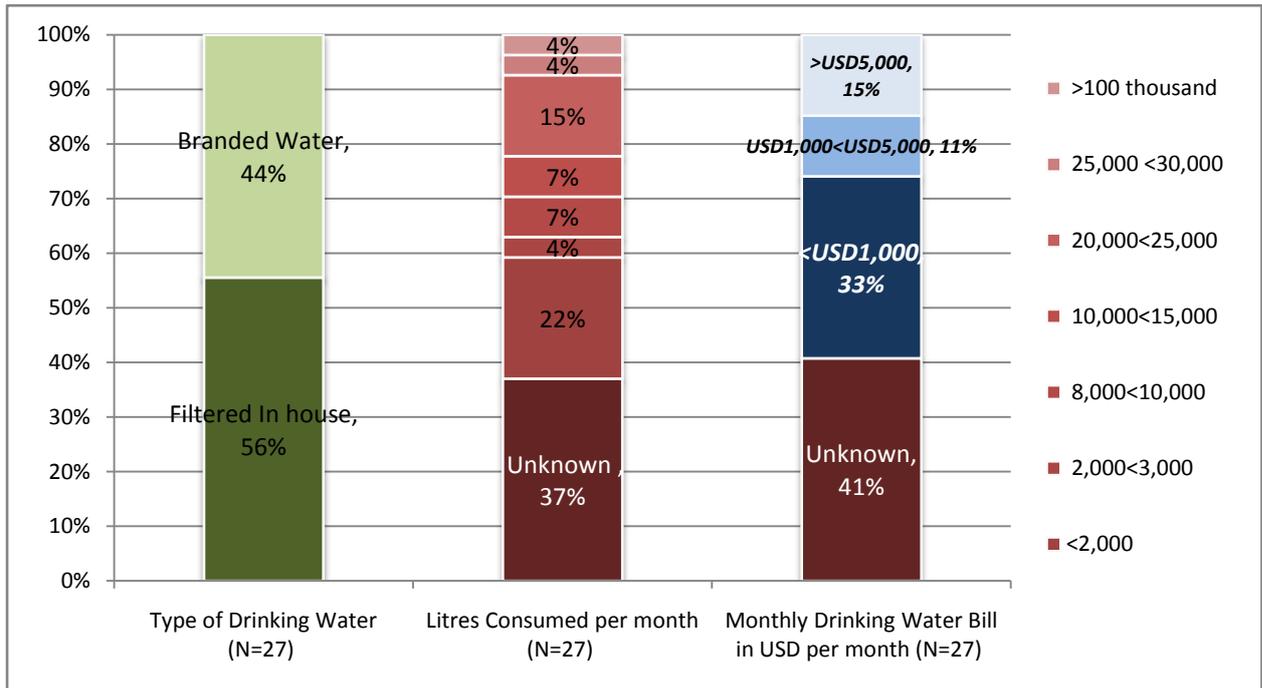


The provision of water to workers: Water is an essential part of every diet and the questions relating to the provision of water attempt to understand the type of facilities used to provide fresh and clean water, as well as understand the consumption levels of water in the industry. Prakas 054/00 requires employers to provide enough safe drinking water for the employees working in their enterprise.

All factories provide water to their workers. Around 56 per cent of factories have in-house filtration apparatus and the rest of respondents purchase branded water from the market.

Consumption in litres per month varies significantly. Around 30% of factories consume more than 10,000 litres per month. Data is insufficient to draw conclusions around the relationship between size of factory and consumption and spending on water.

Figure 13: Characteristics of water provision, consumption and cost

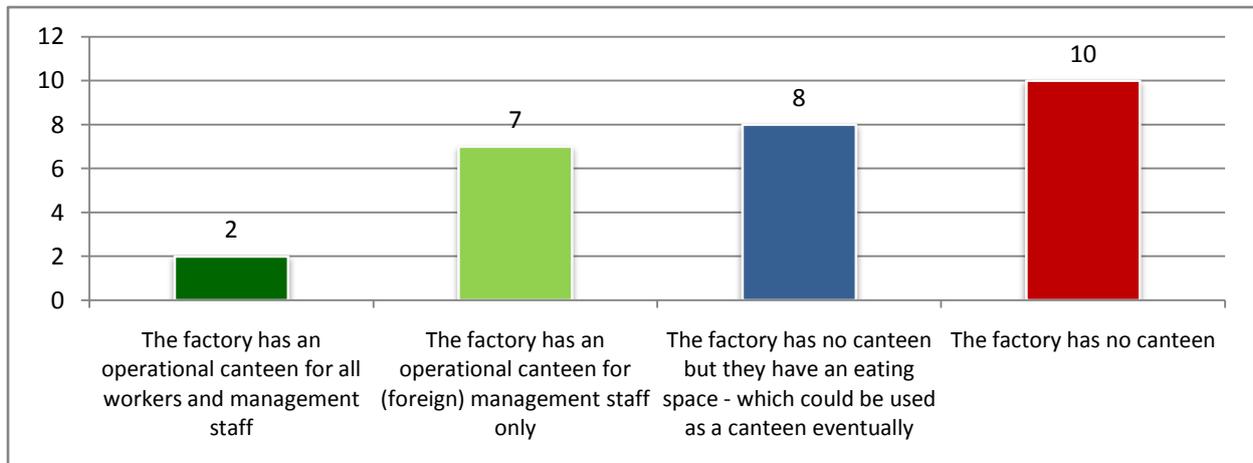


Existing canteen facilities: Most factories that were interviewed as well as the factories that we had phone contact with did not have a canteen or even eating areas for workers.

Unions we spoke to mentioned that canteens had been more available in the past but that over the last years the number of factories with canteens had diminished to less than one per cent of the factories according to their calculations¹⁵.

Survey results show that 30 per cent of factories have an area that could be used as a canteen facility in the future, although this is not based on a feasibility assessment of these areas. **Four factories plan to set up canteen facilities in the future.** Of the 33 per cent of factories (9 factories) that have canteens, 7 of the factories use these facilities for management staff only.

Figure 14: Existing Canteen Facilities in Factories and Opportunities to Pursue Canteens



¹⁵ Union Federation Independent and Democracy, President & Workers Union Federation, President

2 Is nutrition important? Management perceptions

It is clear that nutrition and health concerns are important to factory managers. In our discussions with respondents most mentioned that there needs to be better information dissemination and support (regarding health and personal care) to the industry to really increase impact. For example, unions we interviewed spoke about being provided with information that could be disseminated but not enough pieces are provided. There are few lessons to be drawn from our discussions with factory managers and union representatives and these include:

- **Better coordination and cooperation between management and unions in factory, could in fact achieve great results.** Nutrition is a topic of common concerns to unions, government and factories.
- **Paper distribution is difficult and often, donors or supporting agencies are not providing sufficient information for members, only key union representatives.** Dissemination stops there. For example, if there is only sufficient information to provide to some shop stewards, dissemination to other workers will therefore be limited.
- **Factories are interested and want information to distribute to their staff. They are concerned about nutrition and health.** GMAC could play a more important role in training, and assisting members to understand how to disseminate information. For example: “We tell workers about...” Is a common statement. Telling workers only lasts for 5 minutes, it is as important to reinforce learning and management programs throughout the factory, visually, with practical posters that remind people of what they have been told. Information leaflets in bathrooms, notice boards in public places or where vehicles are parked or where workers gather.
- **Government should also be more involved in nutrition and health issues.** Public programs on the radio or TV could prove to be effective if designed in a manner that is appealing to these young people and their families.

The perceptions of factories around nutrition and health issues are important to understand before reading the remaining results of the study. Respondents were provided 13 statements which they ranked from not at all important, to very important. The objective of these statements is to understand the perceptions of the industry on key issues that impact factory success and worker health. Results have been grouped into two separate charts. The first looks at perceptions around nutrition and health, access to information and dissemination of information. The second looks at the importance of costs, skills, productivity and turnover of workers.

How important is nutrition, access to information and dissemination of information: For the overwhelming majority, all these issues are very important or extremely important. The results show that it is not only the health of workers that is a concern, but also the nutritional values of what workers eat. Access to information and dissemination of information is also very important, not only on nutrition issues but personal care as well. In the local context, it is important that industry associations play a lead role in facilitating information access, how to disseminate information. Disseminating information is not only about giving in the appropriate format for the target audience, but re-enforcing messages constantly and consistently to ensure that messages and information are received and internalised. Findings are presented in the Figures below.

The importance of costs, productivity and skills: Improving productivity and improving output, improving skills, decreasing turnover and maintaining current cost base and overheads are very important to factories. The recent introduction of the health allowances (USD5 per month) are a key

challenge or indicator to watch and maintain. As many factories have said throughout the survey, “it depends on the cost and the results “as costs are a key challenge. **To encourage canteen facility set up, whether for a factory or for an industry, will require significant effort to demonstrate the return on the investment.**

Figure 15: How important are nutrition and health challenges to factories?

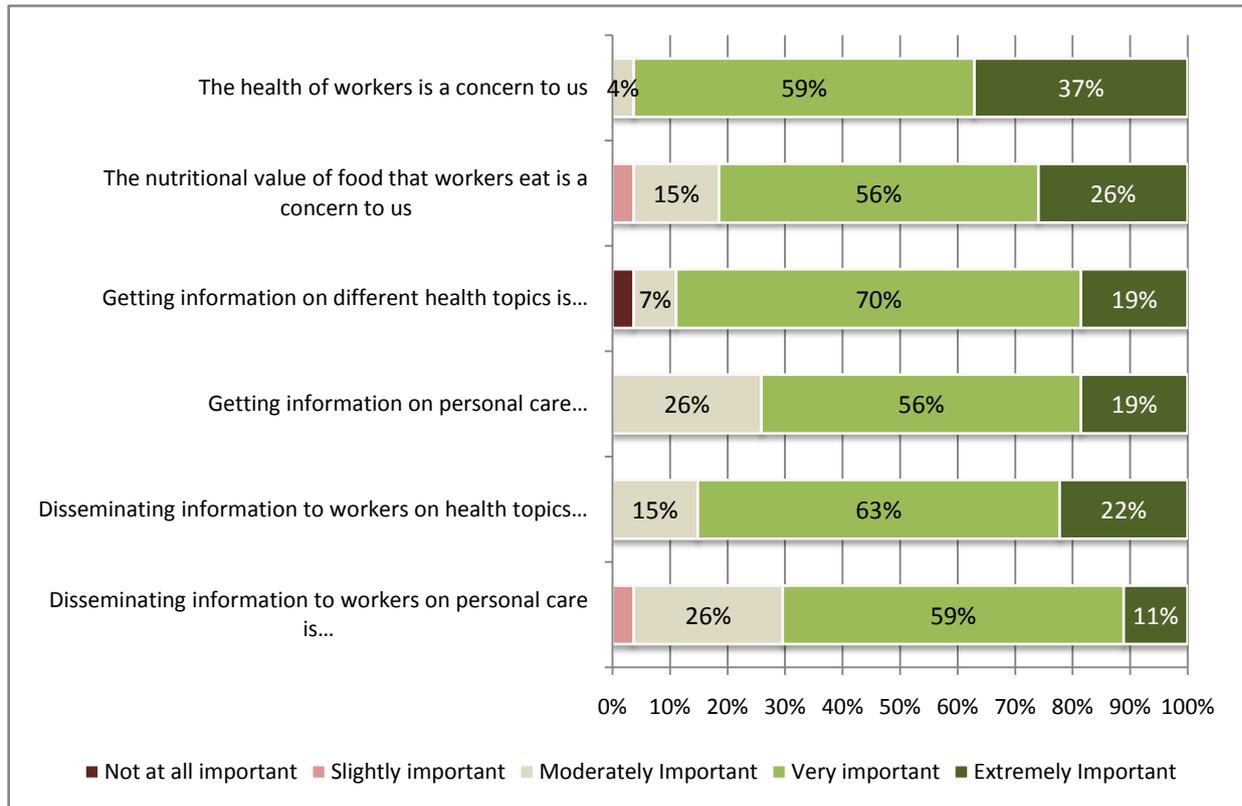
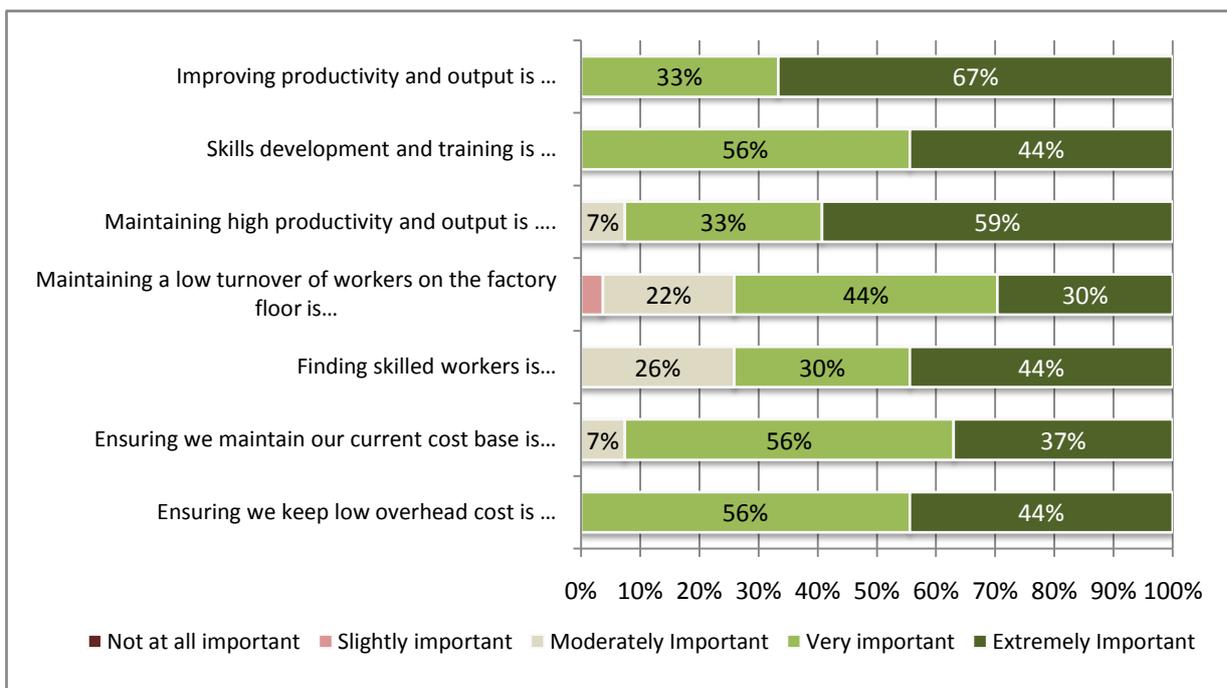


Figure 16: The importance of costs, productivity & skills



3 Management perceptions on workers' meals and cost of meals

Key Findings

Perceptions on meals

- It is worth noting that when we conducted this part of the survey, upon reflection, many of the respondents commented that they had not thought about how much workers spend on their meals before.
- Unions mentioned the poor quality of food that people purchase, often old and not fresh.

Perceptions on the cost of workers' meals

- **Most respondents perceive breakfast to be the cheapest meal of the day.** Fifty four percent of respondents feel that workers purchase breakfast for less than KHR1500.
- **Lunch and Dinner are viewed as more expensive meals by at least 45 percent of respondents.** These meals cost between KHR1500 and less than KHR2000. Around 45 percent of respondents also felt that dinner costs at least KHR2000 or more.

Seeking creative ways to be thrifty with money, whether pooling resources to purchase collectively, bringing food from home (which also has a cost), or purchasing poor quality products to be able to have more appear necessary for workers to be able to manage their personal and family responsibilities, is a reality and necessity, not a luxury that workers pursue. Often being thrifty comes at a cost of foregoing personal health such as skipping meals, or eating less, as research has shown.

Photo 3: Getting ready for work: Food and snacks outside the factory gate (Courtesy of SHRM&P)



3.1 Where workers eat: Management views

Photo 4: Workers swarm to purchase meals, snacks and goods (Courtesy of SHRM&P)



Breakfast: The respondents' perceptions are that workers generally eat breakfast at home or nearby the factory on their way to work, only few eat their breakfast at the factory. Other comments included one factory giving bread to workers for breakfast meals. One factory mentioned that 20% - 30% of their workers bring breakfast into the factory and eat at the factory.

Lunch: Seventy three per cent of respondents' noted that workers bring their own lunch from

home and ate at the factory. If workers did not bring lunch from home, they often bought food outside the factory gate and ate in the factory facilities. This comment is also echoed by discussions with a union representative who mentioned that workers generally try to save as much money as possible and hence bring their own lunch to work. During lunch time they might buy a small side dish to go with their lunch outside the factory. Especially when workers live in their hometown with family they will bring their own food as that is considered much cheaper.

Of the two factories with canteen facilities, not all workers made use of the facilities. In one factory, only 50% of workers eat in their canteen while the other group goes home to eat lunch.

Dinner: Most respondents replied that normally workers go home for dinner, except when they work overtime. When workers are doing overtime work 50% respondents mentioned that an amount between KHR2000-KHR2300 is paid for overtime dinner in cash to the workers. Typically in such a situation workers would go outside the factory to buy the food and eat dinner in the factory because of limited time before starting work, but also because of safety at night.

Snacks: The respondents were asked if they ever see the workers eat snacks, from a point of view of potentially providing energy boosts during working hours. **Fifty four per cent of respondents mentioned they never see employees eating snacks.** Around 30% of the respondents see workers eat snacks, especially when the workers take a break.

Photo 5: Cambodian snacks (Courtesy of HRINC (Cambodia))

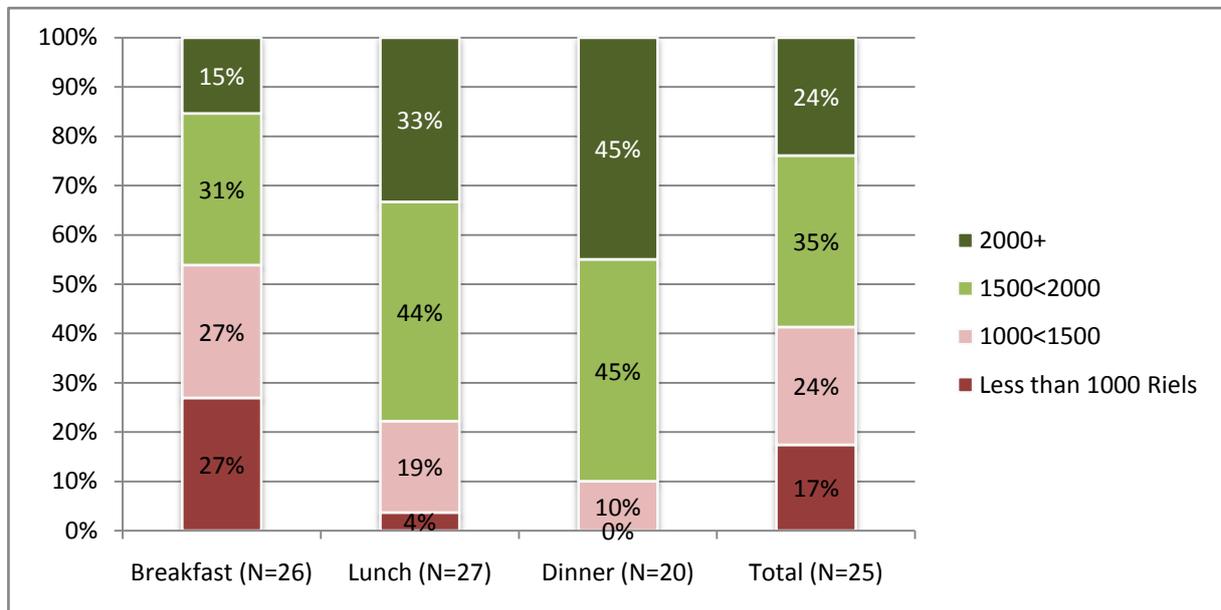


3.2 Management views on the cost of meals

Respondents were asked what amount of money they thought workers spent on each of the 3 meals per day. The answers were given in relation to buying food and not eating at home. For example for dinner many respondents mentioned that workers generally eat at home as a group and do not spend that much, but when they work overtime they would spend around KHR2000. **Lunch and dinner are clearly more expensive than breakfast according to perceptions of respondents.** The majority of respondents feel that breakfast costs less than KHR1500, fewer respondents feel that lunch and dinner can cost the same amount.

- 54% believe that workers spend less than KHR1500 on **breakfast**.
- Only 19% believe that workers spend less than KHR1500 on **lunch**, the rest believe workers spend more and only 10% believe that workers spend less than KHR1500 on **dinner**

Figure 17: Management perceptions on the cost of meals



3.3 Outside the factory gate: Management perceptions

This part of the questionnaire is designed to understand management perceptions on (1) the healthiness of workers meals and (2) the food service industry outside and around the factories. Statements were presented to the respondent to which they had to Completely Disagree of Completely Agree on a classic 5 point Likert scale.

Photo 6: A typical scene "Outside the factory gate" (Courtesy of SHRM&P)



Do workers eat healthy meals? Thirty three per cent of respondents agreed that workers eat healthy meals. All other respondents (67%) remained neutral (neither agree nor disagree) or disagreed with the statement. **Almost all of these factories do not have canteens; therefore workers are all eating outside the factory gate.** One factory with a canteen felt that their workers **were not eating healthy meals.** Interestingly around 45% of respondents felt that food provided by vendors was healthy enough and they would eat it themselves.

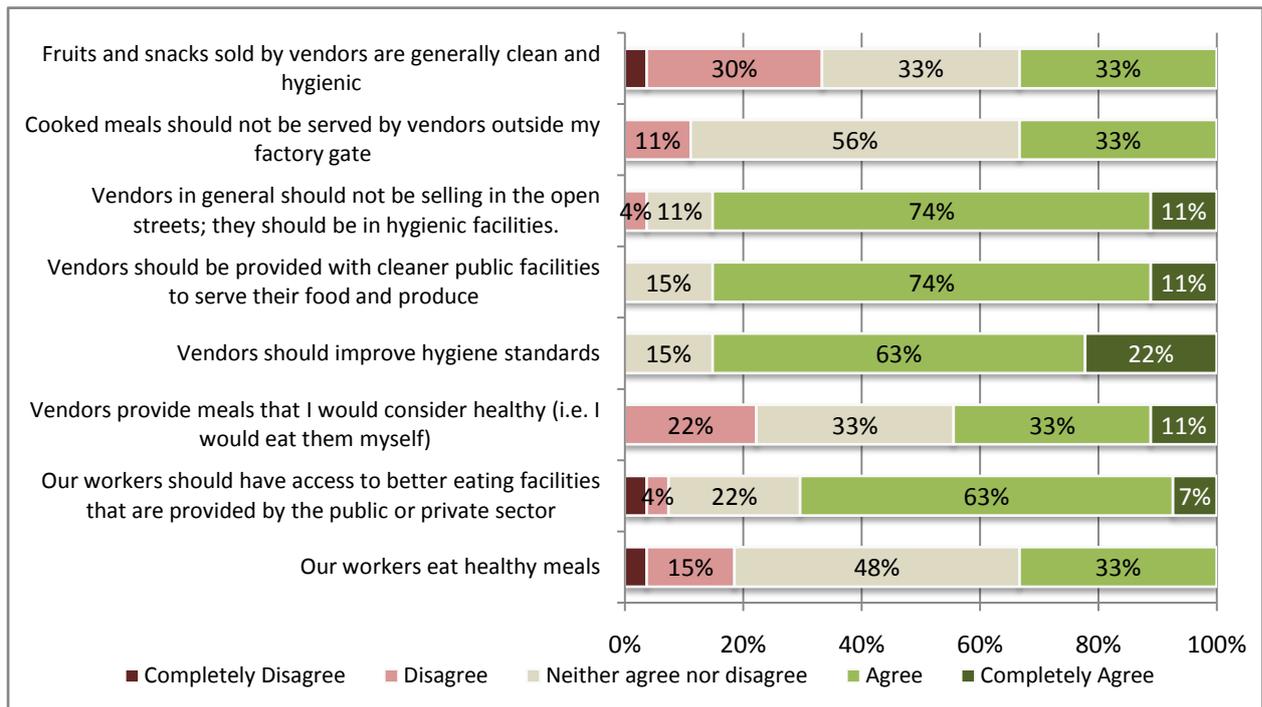
Workers should have better access to public or private eating facilities: Seventy per cent of respondents agreed that workers should have better access to eating facilities, whether provided by public or private sector. In addition 95 per cent agreed that **vendors need to improve hygiene standards. The majority of respondents all agreed that vendors should be provided with cleaner public facilities to serve their food and should not be selling out in the open.**

Cooked meals: Should vendors provide them or not? This statement was created to understand whether or not factories feel that cooked food should not be provided by street vendors, especially if hygiene and cleanliness are a challenge overall in the local context. Thirty three per cent of respondents agreed that there should be no cooking on the streets. The remaining respondents are mostly neutral or disagree (11%). For obvious reasons, it would cause more damage to workers and their general wellbeing if all of a sudden; workers were unable to purchase cooked food close to the factory. Improving overall

quality of what is on offer, is important and calls for public services or innovative private services to improve quality of food services.

Fruits and snacks: There was a mixed response as to the cleanliness and hygiene around selling of fruits and snacks. Generally in its natural form fruits are seen as clean but when they are peeled or prepared respondents feel that they are less hygienic. This question very much depended for respondents as to whether or not fruit was prepared and ready to eat, or simply bought in its natural form. In general and in line with the above, **respondents felt that hygiene, cleanliness and better facility provision to food vendors is important.**

Figure 18: Perceptions on outside the factory gate¹⁶



¹⁶Statements regarding vendors are phrased as “vendors outside my factory gate”.For presentation purposes the phrases have been simplified

4 The link between nutrition and productivity: What are the factories' views?

This section of the survey reviewed perceptions of respondents on nutrition as an important factor impacting on productivity. Respondents were provided with 15 statements and were asked to provide their agreement on a five point scale, ranging from completely agree to completely disagree. The results are broken into four sections:

1. What impacts productivity – is it skills only?
2. Working hours and their impact on productivity
3. Workers, their money and choices
4. Responsibilities

Key Findings:

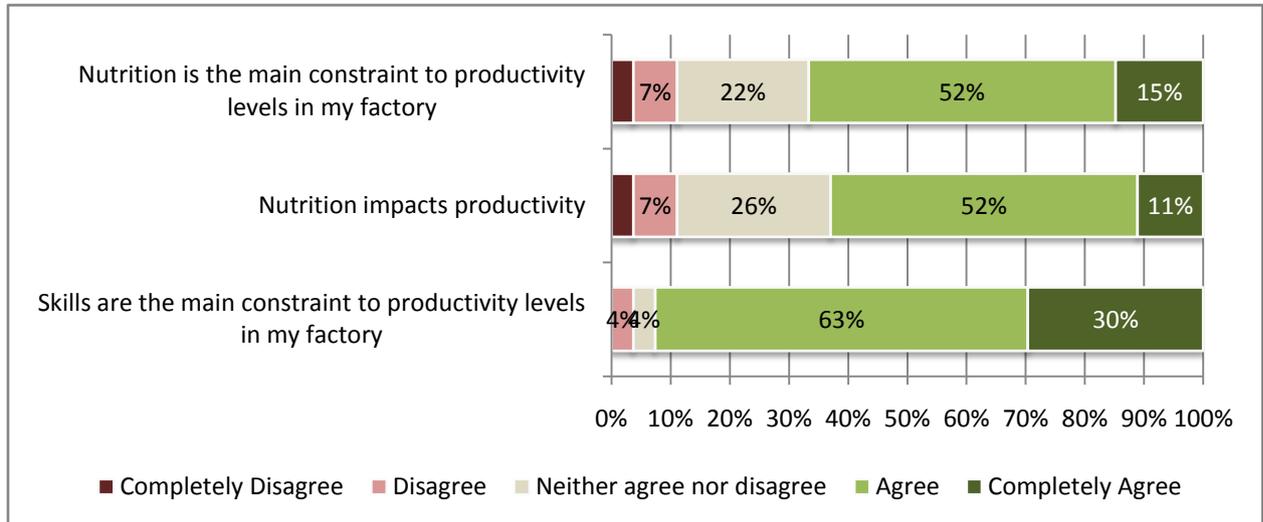
- **Although skills remain the key concern in relation to productivity levels in factories, nutrition does play an important role and is recognized by factories as a key constraint to productivity.** It is encouraging that respondents recognize the importance and link that nutrition has in improving productivity levels.
- **Respondents in general did not feel that a 10 hour working day is too much for a worker.** Interestingly, respondents felt that workers were more productive after lunch.
- **Respondents agree that workers send too much money home and therefore do not have sufficient funds for themselves to buy basic foods.** All respondents agree that if workers eat healthier food, they will be stronger; however, only 41% of respondents felt that workers eat unhealthy food.
- **The majority of respondents feel that the choices workers make regarding what they eat, is their personal responsibility.** On the other hand, the majority of respondents (>50%) agree that factories should be involved in the challenges related to nutrition and personal care.

Photo 7: A typical scene "A worker buying a snack, outside the factory gate" (Courtesy of SHRM&P)



Does nutrition impact productivity? Yes! Although skills remain the key concern in relation to productivity levels in factories, nutrition does play an important role and is recognised by factories as a key constraint to productivity. It is encouraging that factories recognise the importance and the impact that nutrition has in improving productivity levels. 65% and more of respondents agree or completely agree that nutrition is a constraint or impacts productivity.

Figure 19: Does nutrition impact productivity?

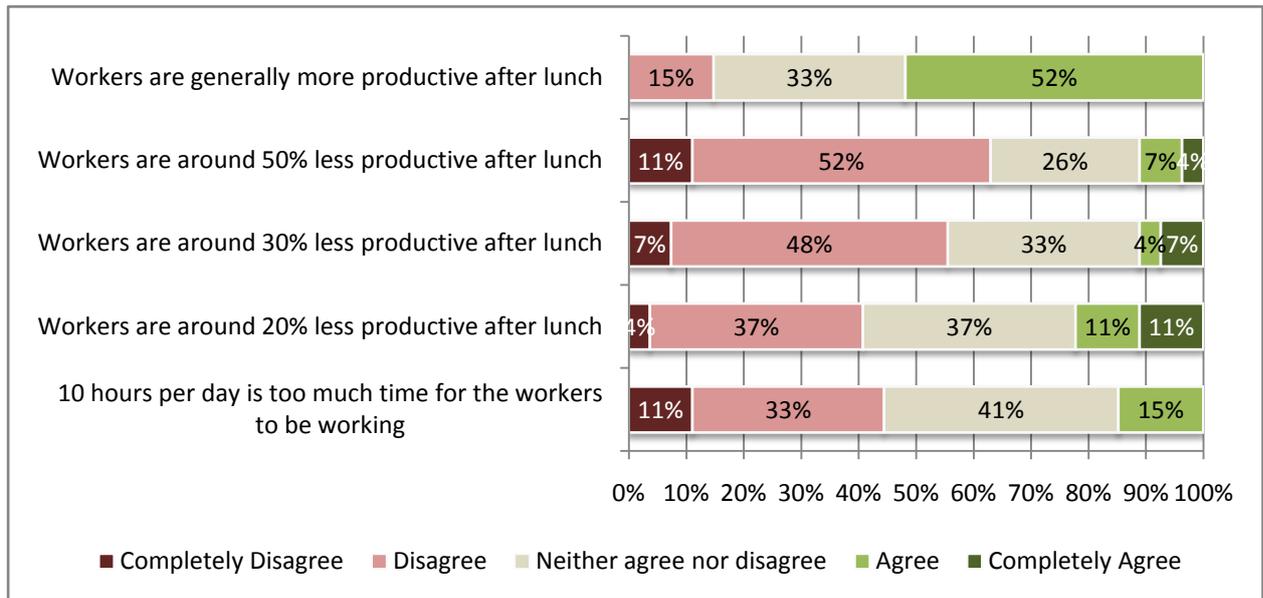


Productivity, working hours and time: The objective of these statements is to understand at what times of the day workers are less productive and whether or not a 10 hour work day is too much for a worker in general.

Forty four per cent of factories disagree that a 10 hour work day is too much, while 41% of respondents did not have an opinion. In general, workers want to work 10 hours, as the 2 hour overtime they receive is an important source of income. **Only 15% of respondents felt that a 10 hour working day is too much for workers.**

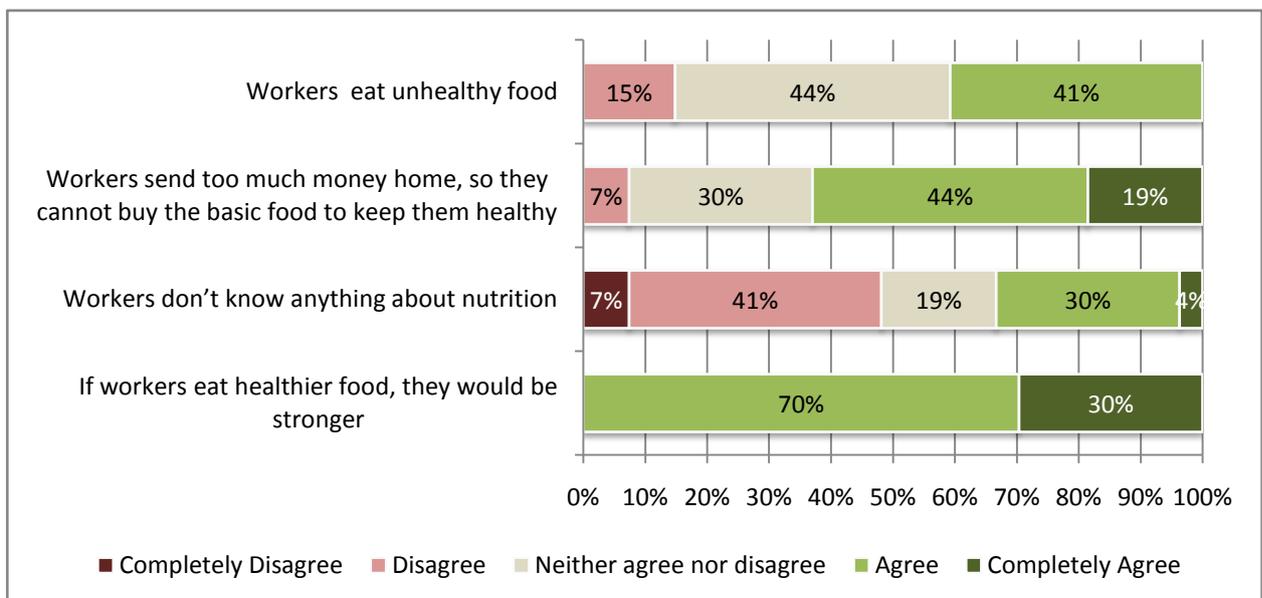
Interestingly, 52 % of respondents agreed that workers are more productive after lunch overall. Most respondents did not feel there was a decline in productivity after lunch. Given that the respondents are not productivity experts, the replies should be read with caution. However findings of work done by the Society of Human Resource Management and Productivity (SHRM&P) shows a clear drop in productivity after lunch, which might be a result of the type of food eaten.

Figure 20: Productivity and working hours and times



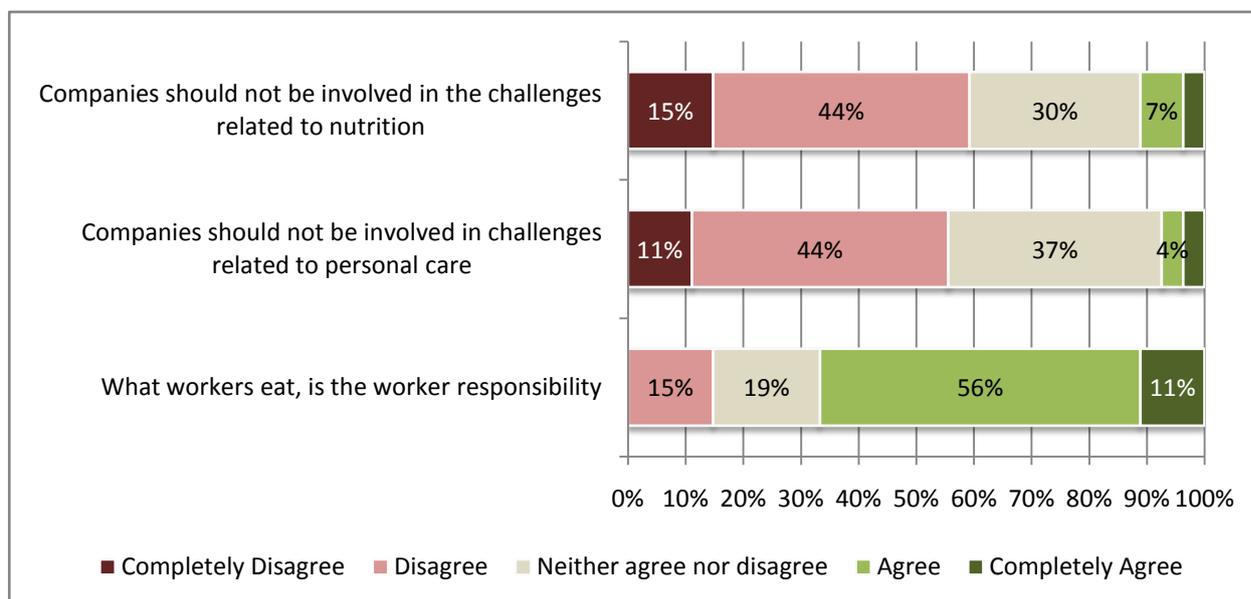
Workers, nutrition and responsibility: All respondents agreed that if workers eat healthier food, they will be stronger. Only 41% of respondents agreed that workers eat healthy food. Sixty three per cent of respondents felt that workers send too much money home and therefore are unable to buy the basic foods necessary to keep them healthy. Respondents provided mixed responses on the knowledge their workers have on nutrition, only 34% of respondents believe that workers do not know anything about nutrition, almost 50% of respondents believe that workers do have knowledge on nutrition.

Figure 21: Workers and nutrition



The majority of respondents feel that the choices workers make regarding what they eat, is their personal responsibility. On the other hand, the majority of respondents (>50%) agree that factories should be involved in the challenges related to nutrition and personal care of workers.

Figure 22: Who is responsible?



Caloric intake per meal: No in-depth studies of worker food intake are known to be available, but according to the “People’s Tribunal on Asia Minimum Floor Wage Cambodia, Feb 2012, a presentation by Mr. Bent Gehrt, Workers Rights Consortium”, the calorie count in a 500 Riel “Lunch”Soup (plus Rice) shows a deficit of 161 calories while a typical Breakfast of rice and pork shows a deficit of 333 calories (see below). The samples were analysed in the laboratory of the Ministry of Industry, Mining and Energy¹⁷.

LUNCH	weight/gram	# calories /100gram	Total calories	Calorie demand per day 2200 (2200/3=733 per meal)
Soup	200	76	152	Deficit of 161
Rice	250	168	420	
TOTAL calories			572	
BREAKFAST				
Rice	200	168	336	Deficit of 333
Pork est. 50-60Kcal			60	
TOTAL including some vegetables			400	

¹⁷Industrial Laboratory Center of Cambodia (ILCC)- The ILCC under the Ministry of Industry, Mines and Energy (MIME) has the main objective of providing testing services for food analysis in support of the regulatory departments of MIME, food product safety and quality control systems, standard activities, and other Non-Government customers (private sectors, NGO and community) for researching and improving their food product quality and safety, Evaluation of Laboratory Capacities in Cambodia, March 2010, Klaus Ziller (FAO Consultant) for FAO Project MTF/CMB/032/STF.

5 Canteen facilities and how they operate

As presented in the profile section, only 2 factories have canteens for workers. One factory has their own cooking staff preparing meals for workers and management, while the other factory has hired a Cambodian private sector provider to prepare meals for workers. Both operate 'buffet' style systems, where rice is more or less abundant and the rest such as soup and meat are limited to one portion per person.

Photo 8: Facilities in action (Courtesy of HCFM Website)

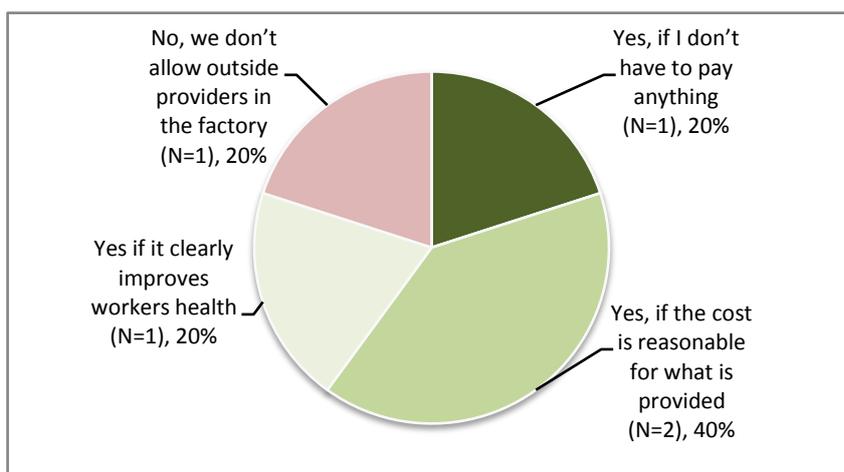


Factories that have a fully operational canteen: There are only two factories with canteens in the respondents group that are cooking for both workers and for management. Both factories employ their own cooks for the management canteen and one also has their own cooks for the production workers while the other outsources the meals for the production workers to a private provider. One factory mentioned that they pay 100% of the food for the workers as well as the management staff, while the other one only provides the meals for free (as part of the benefits) to management staff.

Both factories with canteens did not provide answers to the costs of meals for production workers question.

Factories that have a canteen space or an eating space: Only five factories responded to the questions as to whether or not they consider contracting an outside agency for their canteen. **Budget is the biggest constraint for factories; some described the discussion as "very complicated"**. Other constraints include not allowing outside providers into the factory and respondents are not sure if they could trust outside providers. There is a real need to build trust and credibility around canteen service provision. Factories already face challenges around theft and maintaining facilities, without having to worry about managing new facilities for which they are not responsible. One factory mentioned that they provide a subsidy for workers of 500 Riel. Some feel that handing out cash is easier; however concerns do arise around how the money is spent and whether or not it is genuinely spent on food.

Figure 23: Would you consider an outside service provider to run your canteen?



Factories with no canteen or eating space: Ten respondents answered this question. Respondents from factories without a canteen or eating space mentioned that **space and budget are the main constraints they see to building a canteen**. Comments from individual factories include:

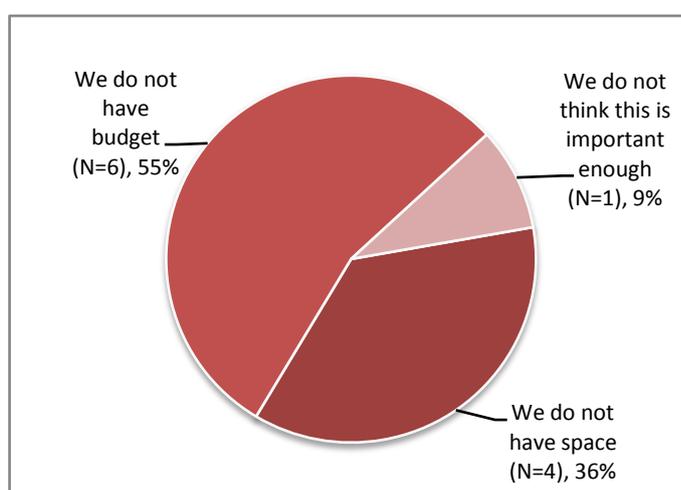
- Because we have to start paying a health allowance to the workers it would be unlikely that they would invest in a canteen as well.
- We would definitely build a canteen when we move to a new place; they have already discussed it in the management team.
- Even before the new health allowance, we had been subsidising the workers food, with 500 Riel per lunch.
- We have space but building a canteen would be on condition of the cost not being too high and clear evidence that it will improve workers health.
- We have a plan to do this, but at the moment we don't have budget to implement
- We may consider this.

It is also important to note that some factories mentioned that having a canteen is not general practise in the industry therefore they do not see a reason to set one up. Others mentioned that they are not aware of service providers who provide relevant canteen services.

Figure 24: Why do you not have a canteen?

There seems to be a lack of information on:

- What services are available for canteen facilities
- What is the positive impact of nutrition on productivity and how would a canteen address this.
- What would be cost implications of a canteen
- How would canteen service providers prevent food poisoning etc.?



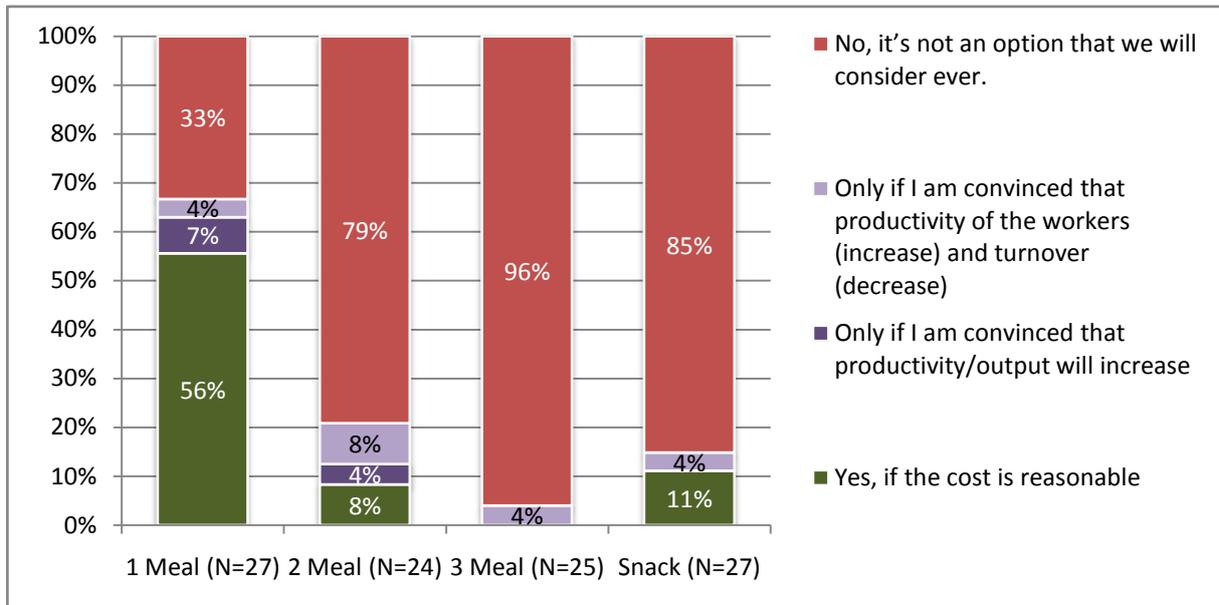
6 Subsidising meals for workers: An opportunity or not?

In this section of the survey we ask the factories whether or not they would consider paying for one, two or three meals for workers or a snack in the early morning or afternoon.

Would you consider providing meals? As evident from the findings, factories are not likely to subsidise more than one meal for workers. **Cost is the main factor for factories to consider providing a meal to workers.** Impact on productivity or turnover as a reason for subsidising meals was not at all important to these factories. **Interestingly, snacks, which would assume less challenges as they don't require facilities to sit and eat, was not something the majority of respondents would consider,** but it could be that snacks such as a banana were not considered when thinking about snacks, while this could be a cheap and healthy option. The majority of the factories that would consider providing one meal would choose lunch followed by breakfast.

Clear case studies demonstrating the link between nutrition and increases in productivity, including reduction in sick leave and absenteeism would be useful tools to make factory owners aware.

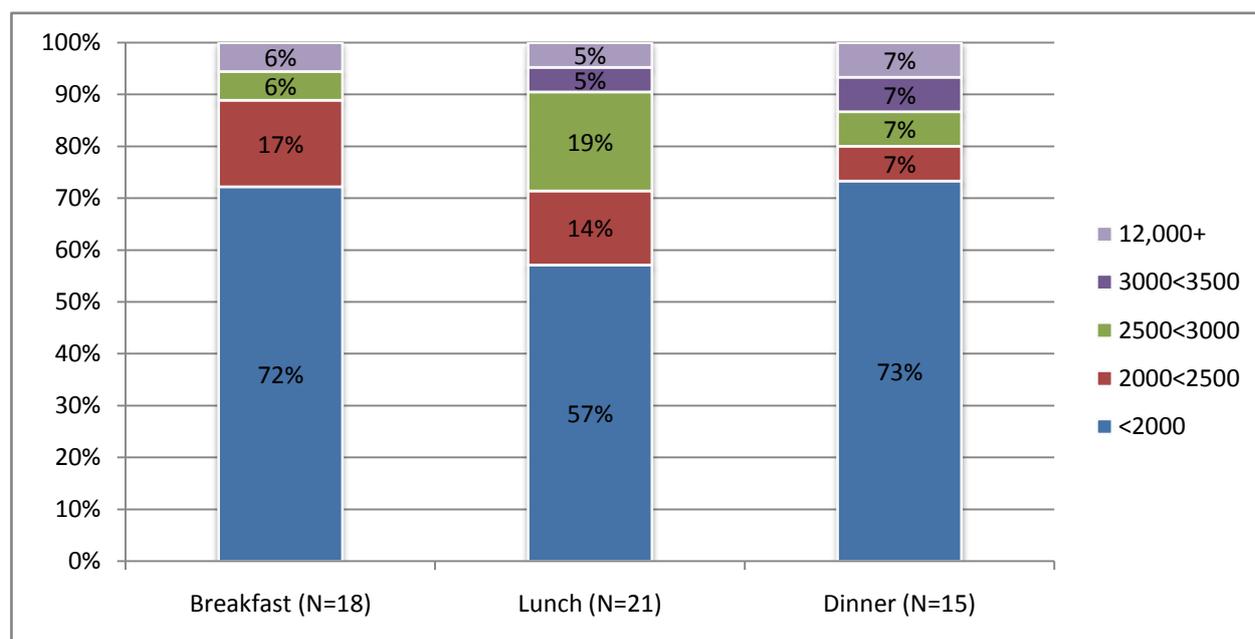
Figure 25: How many meals are you willing to pay for?



Pricing points: Participants were asked how much they would be willing to pay or subsidise for different meals of the day if they used outside services such as HCFM to provide meals to their workers. The question is hypothetical but attempts to understand factory pricing points on meals that they would find affordable.

For most, the pricing point is less than KHR2000 for all meals. Around 15% of participants suggest between KHR2000<KHR2500 for breakfast and lunch and around 19 % felt KHR2500<KHR3000 was a reasonable pricing point for lunch. Dinner pricing points reflect only 15 factories so should be interpreted with caution. Results are presented in the figure below.

Figure 26:Willingness to pay for meals if provided by an outside provider



6.1 A cost scenario for providing meals or subsidies to workers

A cost scenario is developed to show the costs for factories in case they would want to subsidise a meal. The overview attempts to provide insights and is not exhaustive in its analysis.

Assumptions used include:

- 26 days working per month (the reality is less due to numerous public holidays).
- Different factory sizes are reviewed ranging from 800 up to 4000 employees.
- Various subsidies per day are reviewed from KHR1000, KHR1500, KHR2000, KHR2500, and KHR3000.

The total cost per year for one employee seems small and achievable, however when multiplying the numbers for large groups of employees the costs are significant.

Table 3:Cost of meal allowances or subsidies per year

Factory size	Cost per year (KHR1000 per day)	Cost per year (KHR1500 per day)	Cost per year (KHR2000 per day)	Cost per year (KHR2500 per day)	Cost per year (KHR3000 per day)
1	\$78	\$117	\$156	\$195	\$273
800	\$62,400	\$93,600	\$124,800	\$156,000	\$218,400
1000	\$78,000	\$117,000	\$156,000	\$195,000	\$273,000
1200	\$93,600	\$140,400	\$187,200	\$234,000	\$327,600
1500	\$117,000	\$175,500	\$234,000	\$292,500	\$409,500
1800	\$140,400	\$210,600	\$280,800	\$351,000	\$491,400
2000	\$156,000	\$234,000	\$312,000	\$390,000	\$546,000
3000	\$234,000	\$351,000	\$468,000	\$585,000	\$819,000
4000	\$312,000	\$468,000	\$624,000	\$780,000	\$1,092,000

Factory owners will need well-defined proof of impact before considering investing in subsidising nutrition, especially on top of the recent health allowance which is a \$5 increase per workers per month already.

7 Opportunities: shared canteen service facilities

The idea of a joint facility is not a new concept; it is a relatively new concept for Cambodia. HRINC made a recommendation for shared facilities for workers in 2005-6 when studying turnover challenges in the sector. Although the study was factory specific at the time, recommendations were made to supporting agencies. The idea of joint facilities is about sharing costs, reducing risks, and enabling workers to deal with the day to day challenges they face in accessing clean and hygienic food. The shared facility can be as simple as a food court that provides subsidized food and meals to those who are “members” of the facility or work for an employer who is supporting the facility. Often such a facility includes government participation and contributions for subsidised core foods such as rice. Nothing is provided for free, but at a small mark up, to cover operating costs. This is especially feasible if there is financing and support for infrastructure around the facility.

A joint facility for a canteen between several factories was generally not something that the respondents had heard of before. Overall the respondents felt that this would be received well by all stakeholders in the garment industry, however almost all mentioned **that lack space would generally be an issue in the existing garment factory areas**. As the idea for a joint facility was rather new, this could have biased the positive view of respondents on which stakeholders would contribute to this; a large percentage believe that government, factory management, unions and buyers would contribute to the development of such facilities. **It is worthwhile investigating the feasibility of such a facility further, to relieve some of the pressures on workers and wages.**

Figure 27: Example of contributions from different stakeholders into a Joint Canteen

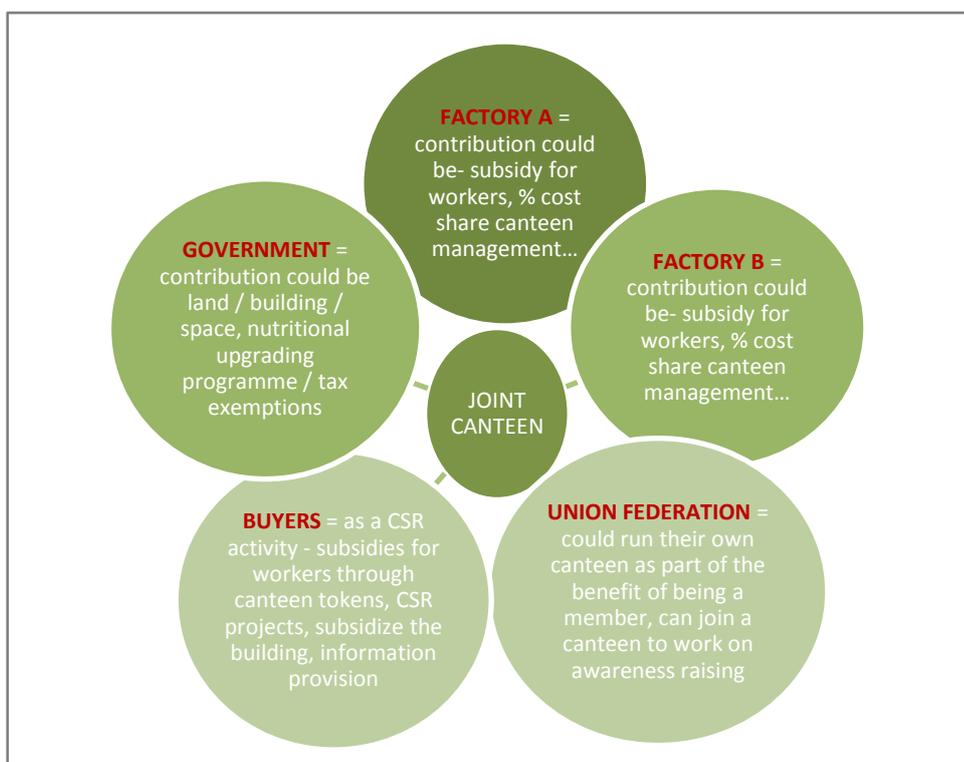


Figure 28: Perceptions on joint canteen facilities

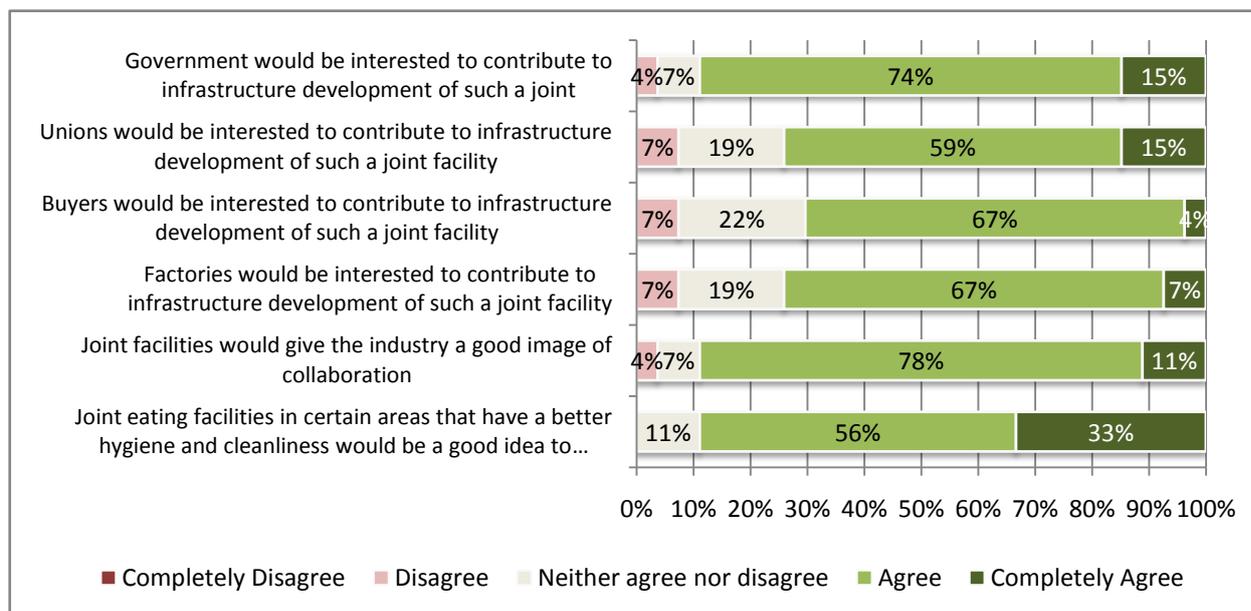


Table 4: Case Study: Food at Work

An example from: FOOD AT WORK¹⁸

The report mentioned in §4.22 that *“The most successful canteens presented here owe their success to one or more of the following components: government participation; union participation; employer or employee enthusiasm; convenience; affordability; and healthiness. Thus, one take-home lesson is that while canteens might be commonplace, the canteens most valued by employees come through investment of will.”*

Examples of stakeholders working together from the same report (§7.4) but with regards to improving street foods: *“Street foods are widely popular among workers in Calcutta, particularly those in the informal sector who have no other food option. However, vendors have little knowledge of basic hygiene and illegal food additives, which jeopardize workers’ nutrition. A pilot study revealed that both the Government and vendors are willing to improve the situation: vendors agree to zoning; unions agree to training; and the Government agrees to infrastructure improvements, such as more rubbish bins and potable water sources, as well as low-interest loans. Health experts improved hygiene in the four study sites with creative training. The “Calcutta model” is now spreading to nearby cities.”* A similar project was undertaken in Thailand, but here the government undertook the training.

¹⁸FOOD AT WORK - WORKPLACE SOLUTIONS FOR MALNUTRITION, OBESITY AND CHRONIC DISEASES, by Christopher Wanjek, Copyright © International Labour Organization 2005

8 Concluding remarks & recommendations

This study is intended to focus on a review of the perceptions of factory managers who are all members of GMAC on health and nutrition. It attempts to understand the feasibility of setting up canteens for the garment sector or individual factories where facilities and space allow for HCFM. The study was conducted over the busiest production period for the garment sector, during November and December of 2011. In total, 27 factories participated in the study employing approximately 34,939 workers, approximately ten per cent of total workforce of the garment sector. 90% or more of workers are female. Factory sizes represented in the survey are evenly distributed between smaller and larger factories. Overall the sample size can be characterized as representative of the sector.

The garment industry in Cambodia is an important sector – economically and socially:

It generates a significant amount of formal employment, over 300,000 jobs per year amongst approximately 315 factories. It accounts for a significant proportion of GDP. Recent fainting incidents in the garment sector in 2011 have highlighted once again the need to address the health of workers in general. Lack of nutrition has been mentioned as possibly one of the contributing factors, others include unhealthy eating habits, unhygienic facilities offering nutritious food to workers around the factory area and general lack of knowledge around health and nutrition, lack of information and of access to it are important constraints in helping workers to understand and address challenges. It is worth noting that factory conditions vary, although all exporting factories and members of the GMAC and are monitored by the ILO, Better Factories Cambodia. Proper ventilation and factory ergonomics are also an area of concern relating to the mass fainting that have occurred. Many factory owners have also commented on the mass fainting hysteria phenomena, where as a result of one person fainting for a real reason, more faint as a consequence of the first one fainting. Numerous discussions were held around the fainting incidents and concerns reached the highest levels of government. As a result, in the last Government-Private Sector Forum, it was decided that all factories would provide a five dollar health allowance or subsidy to workers which is being implemented in 2012. This increase alone is estimated to contribute an additional 18 million to the Cambodian economy every year or 1.5 million every month¹⁹.

This study was not conducted in response to fainting in factories rather; it is a strategic study that attempts to review perceptions and opportunities for providing professional canteen services to the industry with the objective of improving the health of workers through nutritious food as well as improving productivity while doing so.

Various studies conducted in other garment manufacturing countries around the world provide useful inputs into the challenges around nutrition and canteen facilities. Studies on this in Cambodia are scarce and the most significant report on nutrition and health is the 'Women and Work in the garment industry' by the ILO & World Bank in 2006²⁰.

¹⁹HRINC Calculations: 5 dollars x 300,000 workers x 12 months

²⁰'Women and work in the garment industry', page 9, 2006, ILO & World Bank

Cambodia health data confirms that **one in five (19%) Cambodian women are too thin and more than 4 in 10 women in Cambodia are anaemic, although moderate and severe anaemia is relatively rare (8%). Anaemia in women continues to decrease, from 58% in 2000 and 47% in 2005²¹.**

The ILO and World Bank Study established an important link between the general health of workers and productivity, both key constraints in the Cambodian workforce in general. Workers with a better nutritional status appeared to take less sick leave days and these workers, more often than not, ate in a factory canteen where they consumed more vegetables and meat in their meals. The study identified that *“In factories that have a canteen, workers seem to eat more meat and more vegetables and the sick leave in factories with a canteen seemed significantly lower”*. Typhoid is identified by managers and workers as the main reason for workers taking sick leave. Typhoid is directly linked to unhygienic conditions in food and water. The report also identifies challenges around canteens from management that remain relevant today. These include concerns around quality of food, liabilities that the a factory would carry, perceptions of workers that factories are trying to make money from workers if they have to pay for meals, and the cost of running a canteen from establishment to professional management.

Study findings show that:

- **Almost 90% of responding factories are concerned about health challenges related to their employees.** Nutrition is regarded as an important factor impacting on productivity in factories. While factories are concerned, they do not feel the burden should be carried by the employer alone.
- **More than 75% of factories provide at least basic medical care for their workers.** At least 44% have a medical infirmary as the only provision of medical coverage, and at least 33% of factories provided private health care insurance.
- **All factories provide drinking water.** The majority of factories have an in-house filtration system to filter water. Consumption levels vary significantly and suggest doing further in-depth study to and review of quality of water and individual consumption levels.
- Most factories participating in the study and almost all of the factories that did not want to participate in the survey do not have a canteen or even eating areas for workers. **Thirty three per cent of factories did have an eating area, which could potentially be turned into a canteen**(this is not based on a technical assessment of the eating areas described).

Nutrition and personal care are important issues for management:

Factories are interested and want information to distribute to their staff. They are concerned about nutrition and health. GMAC could play a more important role in training, and assisting members to understand how to disseminate information. For unions and factories, disseminating information and reinforcing learning is a challenge.

- **Although skills remain the key challenge to productivity levels in factories, nutrition does play an important role and is recognized by factories as a key constraint to productivity.** It is encouraging that factories recognize the importance of health (and the nutritional status) of workers in relation to improving productivity levels.

²¹The 2010 Cambodia Demographic and Health Survey (CDHS) conducted by the Directorate General for Health (DGH) of the Ministry of Health and the National Institute of Statistics of the Ministry of Planning, page 13.

- **The results show that it is not only the health of workers that is a concern, but also the nutritional value of what the workers eat.**
- **Access to information and dissemination of information is also very important, not only on nutrition issues but personal care as well.** In the local context, it is important that industry associations play a lead role in facilitating information access and how to disseminate information. Disseminating information is not only about giving, but re-enforcing messages constantly and consistently to ensure that messages and information are received and internalised.
- **Improving productivity and output, improving skills and maintaining current cost base and overheads are very important to factories.** With the recent additional health allowance (USD5 per month) that is required to be provided to workers in the light of factory fainting, costs are a key challenge or indicator to watch and maintain. As many factories have said throughout the survey, “it depends on the cost and the results”. **To encourage canteen facility set up, whether for a factory or for an industry, will require significant effort to demonstrate the return on investment.**
- **Respondents in general did not feel that a 10 hour working day is too much for a worker.** Interestingly, factories felt that workers were more productive after lunch, although industry reporting suggests otherwise.
- **Respondents agree that workers send too much money home and therefore do not have sufficient funds for themselves to buy basic foods.** All respondents agree that if workers eat healthier food, they will be stronger; however, only 41% of factories felt that workers eat unhealthy food.
- **The majority of respondents feel that the choices workers make regarding what they eat, is their personal responsibility. On the other hand, the majority of companies (>50%) agree the companies should be involved in the challenges related to nutrition and personal care.**

Workers do not eat healthy meals and should have access to more hygienic and clean food services:

- Although 33% thought that their workers eat healthy meals, most respondents remained neutral as to whether or not they would personally eat the food outside the factory gate.
- **Workers need better access to hygienic and clean food services**, whether those are provided by private or public service providers.
- **Existing providers need to improve hygiene and cleanliness** or be provided with appropriate facilities.
- **There was a mixed response as to whether ‘cooked meals’ should be provided by street vendors.** For obvious reasons, if street vendors did not provide cooked meals, livelihoods would be lost and the impact on garment workers and their ability to access food would be a challenge. This would impact factories as well.
- Respondents felt that **fruits and snacks varied in hygiene**. Respondents noted that if fruits are prepared and not served in their natural form, there are challenges with cleanliness and hygiene.

Management perceptions on cost of meals

The more healthy meals account for about two third of the minimum wage. Seeking creative ways to be thrifty with money, whether pooling resources to purchase collectively, bringing food from home (which also has a cost), or purchasing poor quality products to be able to have more appear necessary for workers to be able to manage their personal and family responsibilities, is a reality and necessity. Often being thrifty comes at a cost of foregoing personal health such as skipping meals, or eating less, as research has shown.

Breakfast is generally eaten at home before work or nearby the factory before coming into work. Many factory workers take lunch from home to the factory to save money. Overall 78 per cent of respondents noted that workers purchase food outside the factory gate. Unless workers are working overtime or late, dinner is generally eaten at home. In the event that there is over time, an allowance is provided for workers to eat.

The cost of providing a meal or subsidizing meals is the most critical factor to decision making. Managers grapple with access to information around food services provision.

Only two factories in the survey had canteen facilities. While many would consider a canteen facility, it is clear that information is needed, not only on who can provide the service, but the cost and the real impact having a canteen will have. A canteen that provides low quality meals and does not demonstrate health or productivity improvements for factories may have a negative impact on providers in the canteen services sector.

Fifty six per cent of respondents would consider providing one meal to their workers. Cost is the main factor for factories to consider providing a meal to workers. Impact on productivity or turnover as a reason for subsidising meals was not as important as researchers thought it would be, however generally a key concern for factories overall. Interestingly, snacks, which would assume less challenges as they don't require facilities to sit and eat, was not something the majority of respondents would consider, but additional information on types of snacks and ease of handling might change the views. Of those who would consider providing one meal, the majority would provide lunch followed by breakfast.

Table 5: The Need for Real Case Studies

Clear case studies showing the link between nutrition and productivity would be a useful tool to demonstrate gains for factories, including reduction in sick leave and absenteeism. There is a clear need to answer pertinent questions for factory owners around pursuing canteens or meal services:

1. Will such an effort of canteens and meals genuinely increase productivity and output to cover costs?
2. Since a meal allowance on its own will not increase productivity, how long will it take for an investment in a canteen and/or meal subsidies to produce tangible outputs in terms of productivity improvement?
3. Will profitability simply be reduced or will the cost of a meal subsidy or allowance need to be passed on to the product. If to the product, will Cambodia still be an attractive destination for sourcing production?
4. Is providing additional cash not easier than all the investment and management around a canteen? Regardless of whether or not workers spend the money on food, from a management and administration perspective, is this not an easier option to pursue?
5. Will a canteen create more management headaches related to food poisoning and food choices and are reliable services affordable to the extent that they provide more nutritious food and not be invested in management and administration fees of a service provider?

Shared canteen facilities can be an Innovative way to address nutrition and health issues, but will require significant coordination to get stakeholders on board.

A joint facility for a canteen between several factories was generally not something that the respondents had heard of before. Overall the respondents felt that this would be received well by all stakeholders in the garment industry, however almost all mentioned **that lack space would generally be an issue in the existing garment factory areas**. As the idea for a joint facility was rather new, this could have biased the positive view of respondents on which stakeholders would contribute to this; a large percentage believe that government, factory management, unions and buyers would contribute to the development of such facilities. **It is worthwhile to investigate the feasibility of such a facility further, to relieve some of the pressures on workers and wages.**

8.1 General recommendations

Addressing challenges around nutrition and health in the garment sector is a concern to unions, factories, government and buyers. Given a common starting point and shared concerns, the issues around nutrition and health can be a topic that parties (buyers, unions, government, and employers) should tackle together.

The business and economic environment has changed significantly from the years of double digit growth, the financial crises has tested the strength of the industry and its remarkable comeback. That said, the industry is still fragile, it remains a CMT industry not yet moving up the value chain of garment production, it relies heavily on “step-by-step” orders rather than long term stability and visibility of what the future holds. Regional markets are opening up like Myanmar that has a significantly larger population which will probably become competitive in the ASEAN region. Cost of infrastructure remains a challenge for Cambodia’s garment industry cost structure. Pressures are mounting on productivity and trying to pull the skills levels up, another major constraint for the industry. With new social security policies that are not yet defined and going to have an impact on the employers’ bottom line, employers consistently talk about the challenges they have in budgeting and maintaining their cost levels. Employers and industry experts have spoken about the increasing social costs, including monitoring, the additional health US\$5 allowance that in an average factory of 800 – 1200 workers increases the cost base by approximately USD48,000 per year to USD72,000 per year or 8% overall on the minimum wage, an increase that is already challenging to manage.

The challenges around nutrition and health need to be addressed more broadly than simply putting out a hand to the employer to pay more. The competitiveness of Cambodia’s garment industry may become fragile, if additional pressures around nutrition and health are imposed on the employer alone. **Challenges around nutrition and health are not an employer only challenge. They require education from very early on in life, family support and more broadly, government, union and buyer involvement and participation.**

General recommendations and opportunities include:

- There is a **case for disseminating more information in general around personal care and nutrition**. Factories, unions and buyers could do more in ensuring that workers are informed.
- A need to address the issues around nutrition and health in a strategic and coordinated manner bringing unions, government, employers and buyers to the table.
- A need for more information on the costs associated with canteen services and how the introduction of meals or subsidies has a return for employers.

- A need for more information to better understand the link between nutrition, health and productivity and the tangible effects such as reduction in sick leave, better commitment, lower turnover as examples.
- A need to better understand who the facility management providers are.
- A real apparent opportunity to pursue joint facilities if a strategic coordination committee was set up.
- A more in-depth feasibility study will be required as space is an issue
- A need to improve the “business environment” outside the factory gate by improving hygiene and cleanliness of service providers. This is mostly a public responsibility and will require standards, rules and regulations to be set, even licensing of smaller providers or provision of public facilities where entrepreneurs can sell their goods and services.

8.2 Recommendations for HCFM

HCFM has been providing canteen facility management services to industry for several years now. It is a leading social enterprise and arguably the leading in facility management services in Cambodia. One of the objectives of the study is to identify opportunities for HCFM and whether or not the garment industry would pursue setting up canteens. The following recommendations coming out of the study include:

- **Factories who participated in the study are interested to see the results of the survey.** Several have also requested to get more information. These will be detailed in a separate briefing for HCFM. To pursue the sector we feel that there is a need to ensure that pursuit of new business development in this sector has dedicated business development personnel who are able to build up key relationships in the sector and pursue business in the sector. Selling canteen services is not an easy sell.
- Several factories mentioned that they do not want to have outsiders stationed in the factory for several reasons. Building up case studies that address employer concerns in this regard is important.
- **Cost is a key constraint for factories.** Basic meals provided by HCFM cost around KHR2000 per employee. This is a simple soup. Factory managers might view such an expense as too high and rather provide a subsidy to workers so that they can purchase food stuffs outside the factory. A real case study needs to be developed around the value added of a canteen (and in particular the added nutritional value in relation to productivity) and the need to invest in the facilities.
- **H&M as a buyer showed interest in being involved in nutrition / health issues.**
- **Developing a fact sheet might be useful on the pros of having a canteen as well as reviewing the different cost models that can be implemented.** For example: healthy meals partly subsidized and employees paying for some of the meals.

Joint facilities appear to be a real opportunity for HCFM to pursue. If HCFM were able to lead a task force committee, influence government, unions, buyers and employers, this could be a powerful offering to provide and guarantee market share. Given the limited budget for implementing the survey, and the apparent interest in innovative ideas such as joint facilities, it might be worth pursuing a more in-depth feasibility study on join facilities in the future.

Opportunities in the sector exist but will require consistent and sustained interaction with the sector. While factory managers are interested in getting information, turning an information request into a revenue generating activity is going to be hard work.

Table 6: Specific recommendations for canteen models²²

<p>The nutritional status of workers improves when more money is being spent on it, by employers, unions, government, buyers and by workers themselves.</p> <p>In all cases ‘collaboration between stakeholders’ can and should be initiated</p> <p>In all cases HCFM could be a provider of the service or a training provider for others as a specialist in this sector.</p>	
Opportunities	Challenges
<p>Joint Canteen Services - <i>government, employers, unions, buyers can be involved in setting up a type of food court</i></p>	
<ul style="list-style-type: none"> - Long term coordination – can bring stakeholders together - Can service several factories at any time - Costs for infrastructure, subsidy food etc. can be shared - Build in strategic locations - Nutritional content can be controlled 	<ul style="list-style-type: none"> - Need a dedicated team to work on this as it requires many stakeholders to work together on consensus model, who would lead? - Cost factor – who pays what? - Space for infrastructure – where? Workers in city most at risk, propose to start in PP.
<p>Canteen Services – Fixed Facilities - <i>the canteen in the factory and serviced from in the factory.</i></p>	
<ul style="list-style-type: none"> - All in one facility which is easy for the canteen operator to manage - Can show direct link between food and increase in productivity - There are some example factories available as showcases. - Easier to manage responsibilities 	<ul style="list-style-type: none"> - Factories have issues with outsiders in their premises - Costs for factory infrastructure could be higher than when pursuing joint facilities - Lack of space - In case of hygiene issues, one whole factory is at risk - Factories do not have enough information on benefits and the operation to look into this.
<p>Canteen Services - Moveable Facilities – <i>temporary facilities that can be moved easily to other areas when needed, similar to wedding party tents plus full kitchens cooking for 100 people at a time.</i></p>	
<ul style="list-style-type: none"> - The infrastructure costs are less - The facility can be moved when factories open/close - Quicker to implement 	<ul style="list-style-type: none"> - Hygiene could be more difficult to control - The infrastructure not durable
<p>Canteen Services: On the Run - <i>Cooked before, brought to the factory and served at the factory.</i></p>	
<ul style="list-style-type: none"> - All hygiene can be controlled by the provider at their premises - Very limited infrastructure input for factories - Provider puts up the infrastructure which could serve several factories. - No outsiders in the factory - Delivery and serving at the factory premises 	<ul style="list-style-type: none"> - Transportation of big pots with food is inconvenient and could be dangerous (lunchboxes are easier) - Timing is of essence to keep food hygienic
<p>Lunch Boxes -<i>Cost of the lunch box is expensive but in South Asia well tested models with reusable containers.</i></p>	
<ul style="list-style-type: none"> - All hygiene can be controlled by the provider at 	<ul style="list-style-type: none"> - Transportation of meals could be challenge but

²²Framework developed by HRINC (Cambodia) & BDLINK Cambodia Authors

<p>their premises</p> <ul style="list-style-type: none"> – Very limited infrastructure input for factories – Provider puts up the infrastructure which could serve several factories. – No outsiders in the factory – Well tested model in South Asia in garment industry, with reusable containers – other stakeholders could contribute to container costs and put ‘controlled responsible’ advertising on. – Delivery at the factory premises 	<p>could be organised</p> <ul style="list-style-type: none"> – Timing is of essence to keep food hygienic
<p>Snacks – Fortified Snacks seem to be an efficient way in which to address nutrition issues in particular</p>	
<ul style="list-style-type: none"> – Other stakeholder could take part in developing snacks. – A number of ‘processed’ snacks are already available in Cambodia – On processed snacks – health messages could be added or responsible advertising – Natural snacks such as a banana is not that difficult to organize – Very specific nutritional targeting 	<ul style="list-style-type: none"> – Snacks do not fall into the HCFM services yet
<p>Train the vendors – Several projects in India and Thailand have undertaken this as industry projects, improving infrastructures of public areas and training vendors. Seemingly successful in that vendors have dramatically improved hygiene and the nutritional status of food.</p>	
<ul style="list-style-type: none"> – These are industry wide projects involving employers, workers, government, unions and vendors – given that many people in Cambodia earn a living by selling food to factory workers and they need their livelihood as well, there is something to be said for a combined approach of promoting canteens in some areas and training street food providers in other less appropriate areas. 	

9 ANNEXES

9.1 Scenarios on the cost of meals vs. income earnings

Given the perceptions of respondents on the cost meals, the team did some calculations to understand the cost of meals in relation to various income scenarios of workers. Several scenarios based on different assumptions are outlined below. It is important to note that this is not exhaustive; it tries to attempt to review the cost of meals as a percentage of various levels of income. Many additional variables could impact the calculations but have not been included. Salary levels have been drawn from discussions with factory managers.

The data has been set out by looking at the different types of eating scenarios and how much a worker spends in total per month. Keeping in mind that food is almost the only expenditure item that a worker can use to save money for other expenditures, with scenario 3 being an extremely minimal amount of food.

The different eating scenarios are tabulated by month by multiplying the cost of meals by the total number of days per month (30.4). The total cost of meals is then divided by the different levels of income to look at the percentage of income that is spent on meals

Table 7: General assumptions for the different scenarios

Assumption	Data	Comments
# of days per month	30.4	365 days per year by 12 months. Calculations assume that workers need to eat every day of the year.
Conversion Rate Used	KHR4000	Exchange rate is currently higher than 4000 Riel.
Minimum Wage	USD61	Minimum wage without incentives
Average Take Home Earnings	USD90	The average amount of money a worker takes home including over time and incentives (assumed overtime is 2 hours/day – 60 hour work week).
Median-end Earnings Take Home	USD110	Workers that are more skilled and earn higher incentives due to increased productivity levels.
High-end Earnings Take Home	USD130	Highly productive workers including overtime and incentives.

Table 8: General assumptions on cost of eating scenarios

Assumption	Meal	Cost in KHR	% of Monthly Wage (@ 30.4 days/per month @4000Riel=1\$)			
			\$61	\$90	\$110	\$130
Eating Scenario 1	Breakfast	800	64%	43%	35%	30%
	Lunch	1,800				
	Dinner	2,500				
Per day	\$1.28	5,100	\$38.76	\$38.76	\$38.76	\$38.76
Eating Scenario 2	Breakfast	600	51%	35%	28%	24%
	Lunch	1,500				
	Dinner	2,000				
Per day	\$1.03	4,100	\$31.16	\$31.16	\$31.16	\$31.16
Eating Scenario 3	Breakfast	500	31%	21%	17%	15%
	Lunch	1,000				
	Dinner	1,000				
Per day	\$0.63	2,500	\$19.00	\$19.00	\$19.00	\$19.00

Note: Authors calculation and survey results

Table 9: Typical income and expenses according to the Workers' Rights Consortium

Calculations from the Asia Floor wage presentation (wage 2011)	Typical Wage per month	Added column for Wage Incl. OT (by author)
Wage 2011	\$61.00	\$90.00
Rent & utilities	\$8.00	\$8.00
Remittances	\$17.00	\$17.00
Personal expenses	\$5.00	\$5.00
Remaining for food	\$31.00	\$60.00
Food expenditure/day	\$1.00	\$1.94
Food expenditure/day in Riel	4000/day	8000/day

Source: People's Tribunal on Asia Minimum Floor Wage Cambodia, Feb 2012, presentation by Bent Gehrt, Workers Rights Consortium

Although it is possible to have 8000 Riel per day to spend on food (when assuming a \$90 monthly wage, see above), as food is one of the few expenditures that workers can influence it seems very likely that they would spend less on food than 8000Riel and use the saving for other expenditures. Therefore the eating scenarios in table 2 seem still appropriate, including the 4000Riel scenario as well as a 5100Riel scenario.

For all scenarios the percentages spent on food range from 31%- 64%, when workers earn a minimum wage only. The expenditure on food for a \$90 monthly wage still ranges from 21% to 43%. This wage is the most common take home wage and includes overtime.

9.1.1 Caloric Intake

The Workers' Rights Consortium analysed a workers' typical breakfast and lunch to identify how many calories were available, both samples showed deficits in caloric intake. They assumed 2200 calories per day minimum, divided by 3 meals this is 733 per meal. Both the breakfast and lunch came short of calories, see below.

Table 10: Caloric intake of workers' (especially when living in Phnom Penh)

BREAKFAST	Weight/ gram	# calories /100gram	Total calories	Calorie demand per day 2200 (2200/3=733 per meal)
Rice	200	168	336	Deficit of 333
Pork est. 50-60Kcal			60	
TOTAL including some vegetables			400	
LUNCH				
Soup	200	76	152	Deficit of 161
Rice	250	168	420	
TOTAL calories			572	
Possible TOTAL deficit in calories for 2 meals of a day			CALORIES	494

Source: People's Tribunal on Asia Minimum Floor Wage Cambodia, Feb 2012, presentation by Bent Gehrt, Workers Rights Consortium

9.1.2 Cost of a workers' meal and economic data

As part of the presentation of the different scenario we analysed the cost price of a simple meal, without a vendors profit and with minimum amounts of food, 200gram of rice and 50gram of protein based on the above information.

Table 11: Key economic indicators in relation to the cost of a workers' meal

Key Economic Indicator (21 Jul 2011)	2012p	2011p	Local market Prices 16-1-2012		Meals			
GDP (million US\$)	14,120	12,792	Meal Content	Price per kg in Riel	Per meal - content in grams	Cost in Riel	Cost price in Riel for 1 meal of 200gr rice + 50gr protein – no profit for vendor included	*3 meals/day Riel
GDP Growth Rate	6.6%	8.7%						
GDP per Capita (US\$)	958	879	rice	2800	200	560	560 rice only	1680
Inflation (Dec/Dec)	4.5%	6.3%	beef	30700	50	1535	2095 rice+beef	6285
<i>Source: EIC Projections</i>			fish	12300	50	615	1175 rice+fish	3525
Local Market News (16 Jan 2012)	KHR per Unit - 16 Jan 2012	Year ago	pork	18700	50	935	1495 rice+pork	4485
Gasoline (per L)	5,250	4,700	chicken	19000	50	950	1510 rice+chicken	4530
Rice (per Kg)	2,800	2,600	<i>Note: the # grams based on the calorie overview in Table 10: Caloric intake of workers' (especially when living in Phnom Penh.</i>					
Fish (per Kg)	12,300	12,300						
Beef (per Kg)	30,700	23,000						
Pork (per Kg)	18,700	16,000						
Chicken (per Kg)	19,000	16,500						
Currency News	16 Jan 2012	Year ago						
Cambodian Riel/US\$	4,072	4,052						
<i>Source: www.eicambodia.org - 22 January 2012</i>								

The above shows clearly that unless food is watered down and protein quantities are minimized (and rice quantities increased as the cheapest ingredient per kg) food is expensive and for 4000 Riel a day one does not get enough calories to work hard.

This case study shows that addressing challenges around nutrition and health in the garment sector is challenging.

- Pressures are mounting on productivity in the industry and trying to pull the skills levels up, another major constraint for the industry.
- New social security policies (that are not yet defined) are going to have an impact on the employer bottom line, employers consistently talk about the challenges they have in budgeting and maintaining their cost levels. For example the health allowance of an additional US\$5 per month per worker, increases the cost base of an average factory 800 – 1200 workers by approximately USD48,000 per year to USD72,000 per year or 8% overall on the minimum wage. It is understandable that such an increase would be relatively challenging to manage.

The challenges around nutrition and health are going to need to be addressed more broadly than simply putting out a hand to the employer to pay more. The competitiveness of Cambodia's garment industry may become fragile, if additional pressures around nutrition and health are imposed on the employer alone.

9.2 Reference Materials

9.2.1 Typhoid

Table 12: Briefing on Typhoid

TYPHOID

Typhoid fever is caused by an infection with the bacteria *Salmonella typhi*, a bacterium that can only live in humans. People with typhoid fever carry the bacteria in their bloodstream and intestinal tract. About 3 to 5 per cent of people still carry the bacteria, even if symptoms go away with proper treatment. These people are known as typhoid fever carriers. You can get typhoid fever if you eat food or drink beverages that have been handled by a person who is shedding the bacteria, or if sewage contaminated with the bacteria gets into the water you use for drinking or washing food.

Therefore, typhoid fever is more common in areas of the world where hand washing is less frequent and water is more likely to be contaminated with sewage.

The most common typhoid fever symptoms include

- Fever as high as 39° to 40° C / general ill-feeling / Weakness / Stomach pains / Headache/ Loss of appetite / Decreased heart rate / Severe diarrhoea / Constipation / Bloody nose / Rash of flat, rose-coloured spots.

Preventing typhoid

- Buy bottled water or bring it to a rolling boil for one minute before drinking.
- Drinks without ice, unless the ice is made from bottled or boiled water. Avoid Ice drinks and flavoured ices that may have been made with contaminated water.
- Eat foods that have been thoroughly cooked and that are still hot and steaming.
- Avoid raw vegetables and fruits that cannot be peeled. Vegetables like lettuce are easily contaminated and are very hard to wash well.
- When you eat raw fruit or vegetables that can be peeled, peel them yourself. (Wash your hands with soap first.) Do not eat the peelings.
- Avoid foods and beverages from street vendors. It is difficult for food to be kept clean on the street.
- Wash hands and feet frequently and thoroughly, with a soap, particularly, after you return from out.
- Nutritive measures are the most significant, vital and the only way of bringing about a lasting cure for typhoid.

9.3 Value of Garments Manufacturing in relation to Cambodia's GDP²³

Figure 29: Contribution to Cambodia's GDP per 3 main Industries of origin (at constant 2000 prices)²⁴

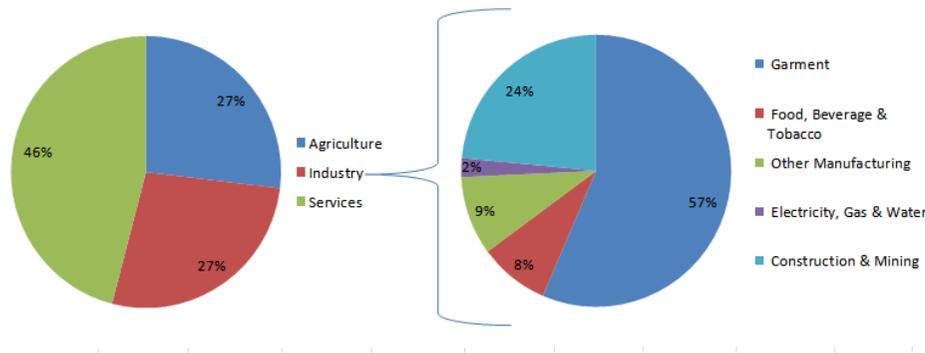


Figure 30: Contribution to Cambodia's GDP per industry of origin (at constant 2000 prices)²⁵

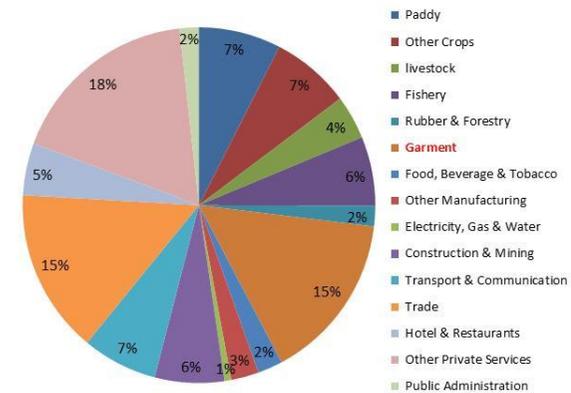


Figure 31: Cambodian Exports 2011 (in USD)²⁶

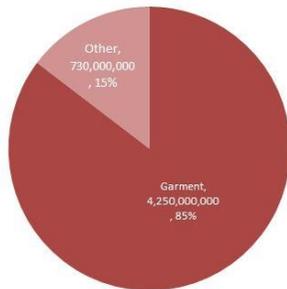
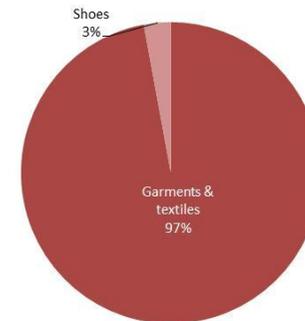


Figure 32: Garment and Shoes export division, 2011(in USD)¹⁹



As of ²³January 2011

²⁴Source: Economics Today: Cambodia's business Magazine, Cambodia Economic Watch January 2011 (Volume 5, Number 79), p. 55

²⁵Source: Economics Today: Cambodia's business Magazine, Cambodia Economic Watch January 2011 (Volume 5, Number 79), p. 55

²⁶Source: <http://www.phnompenhpost.com/index.php/2012012054043/Business/export-figures-up-42-in-2011.html>, May Kunmakara, Friday, 20 January 2012

Researched conducted by BDLINK (Cambodia) and HRINC (Cambodia)

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