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Living wages in Cambodia

WageIndicator Foundation - www.wageindicator.org

WageIndicator started in 2001 to contribute to a more transparent labour market for workers and employers by publishing easily accessible information on a website. It collects, compares and shares labour market information through online and face-to-face surveys and desk research. It publishes the collected information on national websites, thereby serving as an online library for wage information, labour law, and career advice, both for workers/employees and employers. The WageIndicator websites and related communication activities reach out to millions of people on a monthly basis.

The WageIndicator concept is owned by the independent, non-profit WageIndicator Foundation, established in 2003. Its Supervisory Board is chaired by the University of Amsterdam/Amsterdam Institute of Advanced labour Studies and includes a representative from the Dutch Confederation of Trade Unions (FNV) and three independent members. The Foundation is assisted by world-renowned universities, trade unions and employers' organisations. It currently operates national websites in 92 countries. Its staff consists of some 100 specialists around the world. The Foundation has offices in Amsterdam (HQ), Ahmedabad, Bratislava, Buenos Aires, Cape Town, Dar es Salaam, and Islamabad. office@wageindicator.org

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1. Why this Living Wage report

Minimum wages and living wages are under discussion. CNV International and WageIndicator Foundation developed a concept and app to get more grip on living wages. In this report we show what research on cost of living can bring us.

The data collection for cost of living in Cambodia took place in July and August 2016. The data collection took place in two regions in Cambodia: Mondul Kiri and capital region Phnom Penh. Mondul Kiri is an 6 hours' drive from the capital and seen as small city/rural region.

2. Living Wages in Cambodia

2.1 The field work

The WageIndicator living wage estimates are based on information about 4,700 prices collected in May - July 2016 in Cambodia.

2.2 Cost of Living / Living wages

WageIndicator calculates cost of living / living wages for three household types. These are the 1) one-person household, 2) the standard family of two adults and two children (referred to as family 2+2) and 3) the typical family.

- 1) The one-person household is a simple concept. It calculates for one adult.
- 2) The standard family (2+2) calculates for two adults and two children. It ignores the fertility rate in a country, however it accounts for employment conditions.
- 3) The typical family takes in account fertility rate in a country and employment conditions.

The Cambodia family (whether you take the 2+2 family or the typical) living wage is always estimated for an equivalent of a full-time worker so it should be corrected by the number of workers in family. The number of workers in the average family equals one plus the average adult labor force participation rate, adjusted for the *unemployment* rate. For Cambodia we assume that one adult works fulltime, the other part time (together 1.91 workers per family). Large families plus a high unemployment rate make the estimated fulltime monthly living wage for the family therefore higher.

In the Cambodian case the typical family has an average number of 2.81 children derived from the national *fertility rate*.

Estimated living wages for the three different household types in Cambodia are presented in Table 1. These are directly comparable to gross monthly wages. Based on our research, the living wage in Cambodia State is estimated within the range of KHR 634,600 and KHR 1,055,400 for a single person per month. This amount of money should be sufficient to cover food expenses, cost of accommodation, transportation expenses but also some unexpected expenses.

Table 1 Living wage estimates for three household types, per month in thousands of KHR

	Individual		Family 2+2		Typical family	
Dogion	Low	High	Low	High	Low	High
Region	Low	підп	Low	підіі	Low	підп
Cambodian average	634.6	1055.4	813.9	1166.9	876.2	1251.9

Source All estimates are based on prices collected in July - August 2016. Figures are presented in NGN - national currency and express the monthly costs.

WageIndicator defines living wage as the amount of money sufficient to cover food expenses, cost of accommodation, transportation expenses plus 10 percent on top for essentials on a monthly basis. Tax included. (see more in section 3.4). Table 2 shows the estimates of food, housing and transport costs in Cambodia:

Table 2 Food and housing costs, per month in thousands of KHR

	Food	cost	Housing for ind.		Housing for ind. Housing for family		Transport cost	
Region	Low	High	Low	High	Low	High	Low	High
Cambodia average	123.5	168.5	389.9	678.6	771.6	1118	20	40

Note Transportation cost is estimated between 20 (low value) and 40 (high value).

2.4 The Cambodia family living wage

WageIndicator calculates living wages for a several household types. The calculation of the living wage for a family follows specific country conditions determined from World Bank database (see Table 3). The typical family is composed of two adults and the number of children is approximated by the Cambodian fertility rate. The number of workers in average family is equal to one plus the average adult labor force participation rate adjusted for the Cambodian unemployment. The amount of mandatory contributions and income tax deduction is estimated from the wage database compiled by WageIndicator. The gross to net income ratio is calculated as the ratio of gross and net income in the lowest quartile of the wage distribution. Finally, the Purchasing Power Parity (PPP) is provided by the World Bank International Comparison Program.

Table 3 Country specific information

Fertility rate	2.81
Workers per family	1.91
Gross to net income ratio	1.1
USD PPP rate 2016	1399.388

Source Own rendering based on World Bank database

2.5 The Cambodian food basket

Table 4 Food cost per month in KHR for an adult person, composition of food basket and food prices (per standard unit).

Food group	Food costs		Gram	Kcal	Price p	er item
			per			
	Low	High	day	per day	Low	High
Potatoes and						
products	28.82	32.42	0.24	0	4000	4500
Seeds and						
kernels	0	0	5.76	33.31	0	0
Lemons						
Limes and						
products	25.21	36.02	0.24	0	3500	5000
Roots Other	662.75	828.44	5.52	5.26	4000	5000
Milk -						
Excluding						
Butter	1498.39	1498.39	6.24	3.51	8000	8000
Rice (Milled			382.2	1332.2		
Equivalent)	22936.86	30964.76	8	2	2000	2700

	778.01	842.84	4.32	39.44	6000	6500
Oils		20000.01	72.03		1500	
Other	12512.98	13903.31	92.69	21.04	4500	5000
Vegetables	U	U	U	U	13000	12000
d Oil	0	0	0	0	15000	15000
Sunflowersee	U	U	U	U	U	0
(including preserved)	0	0	0	0	0	0
Olives						
pieces)	50.43	50.43	3.36	5.26	5000	5000
Eggs (10				_ = =		
Honey	0	0	0	0	50000	50000
Butter Ghee	0	0	1.92	14.02	0	0
mate)	0	0	0	0	13000	15000
Tea (including						
potatoes	648.34	821.23	7.2	7.01	3000	3800
Sweet						
products	5232.11	6782.37	64.59	64.86	2700	3500
Cassava and						
products	216.11	259.34	0.48	0	15000	18000
Coffee and	2223.23	2033.3				
Beer	5896.19	6663.5	44.42	21.91	4424.24	5000
and products	21.61	28.82	0.24	0.88	3000	4000
Pulses Other	033.34	, 1 3.13	J.12	13.13	7000	3000
(Shelled Eq)	655.54	749.19	3.12	13.15	7000	8000
Groundnuts	U	0	U	J	3700	4000
Onions	21.61	36.02	0.24	0	3700	4000
Cream	21.61	36.02	0.24	0	3000	5000
Peas	50.43	72.04	0.24	0	5000	6000
Apples and products	50.43	72.04	0.24	0	7000	10000
Equivalent)	4861.12	5208.34	57.87	156.01	2800	3000
Sugar (Raw	4961 13	E209 24	E7 97	156.01	2000	2000
Citrus Other	0	0	0	0	0	0
and products	216.11	270.14	3.6	0.88	2000	2500
Pineapples		2=2.4.5		6.00		
Other	0	0	0.96	1.75	0	0
Sweeteners						
Beans	1556.02	2074.69	11.53	39.44	4500	6000
Fruits Other	1584.83	1901.8	21.13	8.76	2500	3000
Soyabeans	1296.68	1556.02	8.65	32.43	5000	6000
others)	21265.58	23628.42	39.38	99.92	18000	20000
bovine						
poultry						
(pigmeat						
Meat	13-11.01	1,527.01	25.03	10.03	2000	2500
Bananas	1541.61	1927.01	25.69	16.65	2000	2500
products	0	0	0	0	4000	4500
Tomatoes and	1550.02	1015.55	0.05	1./5	8000	7000
Oranges Mandarines	1556.02	1815.35	8.65	1.75	6000	7000
Wine	211.31	384.2	0.24	0	3	3
					29333.3	53333.3
and cereals	1008.53	1210.24	6.72	19.28	5000	6000

olive palm other)						
Yams	0	0	0	0	2000	3500
Grapefruit						
and products	0	0	1.68	0	0	0
Maize and						
products	2485.31	3313.74	27.62	90.28	3000	4000
Plantains	0	0	0	0	3500	4000
Spices Other	97.25	129.67	2.16	6.14	1500	2000
Fish products	34621.4	61549.16	85.49	64.86	13500	24000
	123537.1	168537.8				
Total	6	9		2100.0		

Source Own rendering based on FAO and COL

Note: Food cost is estimated per month for an adult person in KHR/ the national currency. Consumption in grams per day and food calorie (kcal) per day for a person is provided by the FAO. Food prices (per standard unit, i.e. per kilo or per liter) are estimated from the WageIndicator Cost of Living database. For some food items the WageIndicator Cost of Living survey does not have enough responses to provide for a qualified estimate, which is why some cells are left blank. Food costs are scaled to provide 2100 kcal per person per day.

2.6 Wages in Context

Summing up, WageIndicator presents the results of its field research on cost of living / living wages in context. Wages in Context is a concept that allows to share and compare living wages with other regular incomes, across countries and regions. In this table we compare the national poverty line, the current minimum wage and the lower bound estimates of the living wages for an individual, a standard family and a typical family, calculated on the basis of the WageIndicator Cost of Living data collection.

Table 5 National poverty line and minimum wages, monthly in KHR

National poverty line (330 per day)	132,400
Current minimum wage, in one sector – garment and shoe industry – regular worker	560,000
Minimum wage proposal done in 2016 by the Cambodian Confederations of Trade Unions	725,580

Table 6 Living wages - individual, family, typical family - lower/higher bound, monthly in KHR

Cambodia - living wage individual - lower bound - (WageIndicator)	634600
Cambodia - living wage individual - higher bound - (WageIndicator)	1055400
Cambodia - living wage standard family 2+2 - lower bound (WageIndicator)	813900
Cambodia - living wage standard family 2+2 - higher bound (WageIndicator)	1166900

Cambodia - living wage typical family - lower bound (WageIndicator)	876200
Cambodia - living wage typical family - higher bound (WageIndicator)	1251900

Note: Wages in Context does not end here. It not only presents local levels of income and expenditure in a national framework, it is harmonized to provide for international comparison too. On the WageIndicator page a world map offers access to Wages in Context information per country. This database includes national poverty lines for individuals and families, minimum wage information, minimum and maximum paid wages, and living wages for individuals and families. See http://www.wageindicator.org/main/salary/wages-in-context

2.7 Reported costs for a family 2+2

To validate the living wage estimates the Cost-of-living survey directly asks interviewees what are expected minimum monthly costs for a household with two adults and two children on food, housing, education, health and others (see Table 7). The comparison of reported costs with estimated costs in Table 8 confirms the high agreement between estimated and subjectively reported living costs.

Table 7 Reported minimum monthly expenses in thousands of KHR for a family 2+2

Region	Food		Housi	ng	Educa	tion	Health		Other	
	Low	High	Low	High	Low	High	Low	High	Low	High
Cambodia average	200	400	110	160	80	150	40	100	70	150

Table 8 Reported and estimated costs per month in KHR for a family 2+2

Region	Reporte	ed costs	Estimated costs		
	Low High		Low	High	
Cambodia average	500000	960000	813900	1166900	

Note: Reported monthly costs are including sum of reported expenses on food, housing, education, health and other. Estimated costs include food, housing, transport and the 10% cushion for unexpected expenses, like health and education.

Based on subjective evaluations it follows that a family of four requires at least KHR 500,000 – 960,000 for living. These are net expenses which can transformed to living wage by accounting for number of workers in the family and gross to net income ratio. When reported living costs are comparable to estimated costs, it increases the confidence that the estimation of living wage is built on solid methodology that delivers a reasonable estimate of decent living wage for workers in the country.

2.8 Conclusion

The proposed minimum wage of **725,580** is still low compared to the living wage lowerbound for a typical family.

	Individual		Family 2+2		Typical family	
	Low	High	Low	High	Low	High
Cambodia						
average	634,600	1,055,400	813,900	1,166,900	876,200	1,251,900

3. WageIndicator and living wages

3.1 Living wage

The living wage has been recognized in 1919 by the International Labor Organization (ILO) as a basic human right (ILO, 2008). Nowadays the ILO endorses living wage within the wider concept of Decent Work that aims for work in conditions of freedom, equity, security and human dignity. In 1948 the United Nations Universal Declaration of Human Rights again made the point that workers need to earn a living wage (at least). The exact definition of living wage however has never been established and each campaign defines living wage differently (see Anker, 2011). The Global Living Wage Coalition understands a living wage as the 'remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, healthcare, transport, clothing, and other essential needs, including provision for unexpected events' (Anker and Anker, 2016).

The methodology to calculate living wages adopted by WageIndicator is broadly consistent with the previous living wage campaigns reviewed in Anker (2011). The calculation is country and region specific and assumes national food consumption patterns, variation in prices, characteristics of a typical family and labour market conditions. WageIndicator publishes all information about living wages on its websites, and invites stakeholders to comment through its interactive web platform as well as by means of workshops in covered countries. The concept of the living wage is dynamically evolving and several approaches may be discerned in the public discourse.

3.2 The difference between minimum wage and living wage

The statutory minimum wages are laid down in the law and therefore both a worker's right and employer's obligation. Moreover, minimum wages are meant to fix pay levels for a relatively long period of time. By contrast living wages are not prescribed by the law and can therefore not be enforced. Moreover, living wages change with the price levels of commodities and services that a person (or family) needs to 'buy' in order to lead a decent life. So clearly, minimum and living wages are quite different in nature. Yet they may in practice amount to approx. the same monthly pay. In countries where minimum wage levels have not been revised for many years the existing level may be close to the poverty line. But in some richer countries the minimum wage level may be even higher than the living wage level calculated by the WageIndicator. Yet, generally speaking, WageIndicator research shows that the minimum wage levels in countries around the world are somewhat below the living wage levels.

3.3 The WageIndicator online and offline Cost of Living survey

The calculation of living wages requires considerable information from various national data sources or international databases. Furthermore, it is necessary that obtained information is updated to guarantee the validity of estimates. The estimation of living wage is therefore challenging, to say the least. The first attempt to provide globally comparable estimates of living wages for 100 countries is presented in Guzi (2014). We can compare this data with from Numbeo.com, the only other source with price data collected in a similar way. This approach demonstrates that is possible to use prices collected through web-surveys in the living wage calculations.

The price data is collected through the Cost of Living survey. As it is Internet based, it reaches out to large numbers of people, facilitates data collection on a global scale, and ensures that the data is up-to-date because data is collected continuously. Since October 2013 WageIndicator operates a permanent survey of 75 items to collect the prices of food, for housing and transportation, as well as a few other items deemed indispensable for living a decent life, such as the cost of basic education and health care. The Cost of Living survey is posted on all national WageIndicator websites in the national languages. Web visitors are invited to complete the survey for a selection of items or for the entire list of items. They are also asked to identify their region and city to allow for regionally adapted living wages.

In addition to its voluntary online data collection, WageIndicator organizes offline Cost of Living surveys by trained interviewers or by ordinary people reporting the prices for a set of commodities in their neighborhood. This data collection is done with an app, tailor made for mobile devices. The app is available for 90 countries in English and in the national languages (https://costofliving.wageindicator.org). The App facilitates data collection through laptop, tablet, and smartphone. It is operational in both online and offline modes.

3.4 WageIndicator calculations result in comparable living wages

The WageIndicator Cost of Living survey collects the actual prices of all items necessary to calculate the living wage. The calculations are based on the monthly cost of living for a predefined food basket, for housing, for transportation and also for unexpected expenses.

The composition of food basket reflects the actual food consumption in a country. Food costs is scaled to provide for 2,100 food calories per person per day (applies to children as well). This amount is suggested by World Bank (see Haughton and Khandker, 2009) and other living wage campaigns work with similar assumption. The Asia Floor Wage campaign assumes 9,000 calories/day for a family of two adults and two children, which equals 2,250 calories/person/day. Anker and Anker (2013, 2014) assume 2261 calories/person/day in the rural South Africa and 2,364 calories/person/day in Southern Malawi.

The cost of housing is differentiated by the size of family. For a one-member household the monthly rental rate for a 1-bedroom apartment outside urban centres is assumed. The housing cost for a family with children is derived from the rental rate for a 3-bedroom apartment outside urban centres. The housing cost includes utility and other housing costs (e.g. cost of electricity, water, garbage collection, property tax etc.).

Transportation is an important cost for households because most people commute to work or travel for their daily activities (e.g. shopping). It is assumed that families cannot afford to own a motorbike or car on the living wage and therefore rely on public transportation. Hence living wage includes the price of a regular monthly pass as the estimate of transport cost for an adult. The living wage for a family includes the price of two regular monthly public transportation passes. Children are assumed to travel for free with their parents. Public transport service is commonly available in most urban areas. It is reasonable to assume that transportation costs in regions without public transportation are not cheaper. The average price of regular monthly urban pass is therefore used as the general yardstick in a country, as the (lower bound) estimate of transportation costs.

Finally the living wage also includes spending on non-specified discretionary purchases. In particular, the living wage must allow for unforeseen events such as illness, accidents or unemployment. Similar provisions for unexpected events are found in other research. Anker and Anker (2013) include a 10 percent margin and the living wage proposed in the Vancouver initiative assumes two weeks of income from labor as the provision for unexpected events on a yearly basis (i.e. approximately 4% of the yearly household expenditure). In keeping with this practice add a margin of 10 percent to the final estimate

of the living wage, i.e. on top of the food, housing, and transportation expenditures, reflecting the household's need to prepare for such incidental expenditures.

The living wage should guarantee that the net take-home pay covers total living costs. For this reason, the living wage estimate is adjusted for income taxes and all mandatory deductions which apply to low incomes in a country. In this way the living wage becomes comparable to the gross monthly wage or statutory minimum wage.

3.5 Living wages for different household types and families

The WageIndicator approach identifies different household and family types for which living wages are calculated. This is not just a reflection of the diversity found in the lifework situations around the globe, it is also a response to the differing needs for living wage information as expressed by stakeholders/end users of this information. Therefore WageIndicator differentiates between:

- the one-person household living wage which estimates the amount of money for a
 working adult individual without children. This unit provides a baseline estimate
 and permits a direct comparison with minimum wages and real wages, which are
 defined at the individual level, too.
- 2) the typical household living wage estimates the amount of money to support a typical family with children in a given country. It accounts for (at least some of) the variation in household composition across the globe. The assumed number of children is derived from the national fertility rate (provided by World Bank). This living wage is always estimated for an equivalent of a full-time worker so it should be corrected by the number of workers in family. Here we follow the recommendations for estimating the living wage by Anker and Anker (2016) to adjust for the differences in the employment rates between countries. The number of workers in the average family equals one plus the average adult labor force participation rate, adjusted for the unemployment rate. In countries with a higher participation rate and lower unemployment rate, it is more likely that a second adult family member works too, which results in a lower living wage.
- 3) the 2-adults 2-children standard household living wage estimates the amount of money to support a family of two adults and two children. Using this standard unit has several advantages. First it provides a global comparison of living wages, focusing on price variation while keeping the family composition constant. Second this standard method is adopted by several living wage campaigns (e.g. Asia Floor Wage, New Zealand, The Global Living Wage Coalition¹) to makes the results directly comparable. Third, the family with two children is the minimum average sized family required to ensure population replacement. A living wage should at least be sufficient to support such a household. The living wage is adjusted for the number of workers in the family, as explained under 2).

3.6 Lower - and upper bound living wages

WageIndicator publishes living wages as a range between the lower bound of 25th percentile and the upper bound of the 50th percentile of calculated living wages. All are based on the data from the WageIndicator Cost of Living survey, to reflect the variation of prices within a country. The 50th percentile (median) is the value for which half of the

¹ see Merk, J. (2009). Stitching a Decent Wage across Borders: the Asia Floor Wage Proposal. New Delhi, Asia Floor Wage campaign 2009, Asia Floor Wage Alliance;

King, P. and Waldegrave, C. (2012). Report of an Investigation into Defining a Living Wage for New Zealand. Aotearoa, Family Centre, Social Policy Research Unit;

Richards, T., et al. (2008). Working for a Living Wage: Making Paid Work Meet Basic Family Needs in Vancouver and Victoria – 2008. Vancouver, Canadian Centre for Policy Alternatives.

respondents report higher and the other half reports lower cost of living values. The 25th percentile is the value for which 75% of respondents report higher cost of living. This means that we imply a cost-optimizing household which is seeking cheaper housing and food than the national average (or median). This WageIndicator practice of reporting the median as well as 25th percentile of living wage calculations provides for the explicit comparison of well-defined concepts within and across countries, and over time. It also provides for a more transparent measure of living wages, reflecting the variation of prices and consumer preferences. One single figure, in contrast, could lead to the misperception that prices and consumer choices do not vary. Moreover, one number only will not reflect (at least) some of the diversity in consumption and expenditure patterns which are a fact of everyday life.

3.7 Assumptions

The living wage, as outlined in this report, is based on a set of assumptions. All adults are assumed to be of economically active age and competent to manage their family budget efficiently. All household members are assumed to be in a good health.

When workers receive in-kind bonuses such as food, housing or travel allowances, these could be treated as an addition to the (living) wage received in cash. We however take the living wage as the monetary equivalent of all income, including any in-kind provisions.

Pay bonuses such as a 13th salary or any other bonuses may effectively decrease the living wage. However, as these are irregular and their amount is uncertain, we do not include those in our calculations. Living wage is based on the assumption that monthly expenses should be covered by regular monthly income from labor. Irregular or incidental income is assumed to be used for extraordinary expenses.

Overtime pay bonus is not accounted for, because the living wage should be earned during normal hours. The ILO Convention 1 (1919) states a maximum number of 48 working hours per week in all countries.

3.8 Data quality and consistency of estimates

The estimates of living wages primarily rely on the web-based data collection. Because price data is collected and respondents do not report their personal characteristics or preferences, the individual bias is minimized. Yet, all price data is always cross checked for biases and misreported figures are not used in the calculation. Moreover, living wage estimates are represented as a range. The median serves as the upper bound and the 25th percentile as the lower bound to further minimize the error. One single figure instead of a range could convey the false impression that the living wage is cast in concrete: it is not and cannot be, as living wages are a reflection of actual price levels for many items and services people have to spend their income on. These price levels change over (even short periods of) time and from country to country and regions within.

The Cost of Living survey collects data continuously. Living wage estimates are updated each quarter to keep up with changing price levels. In addition, living wage estimates are checked for consistency over time. In case of structural discrepancies, we consult national experts to detect and correct the source(s) of bias. Feedback on methodological questions and results is also obtained through factual discussions involving social partners in a country where such problems might become manifest.

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