

Sophie Schmitter  
Pacific Ridge School  
Carlsbad, CA  
Cambodia, Malnutrition

### **Cambodia: Using Education and Entomophagy to Alleviate Malnutrition**

Cambodia is home to a startling paradox. It is a place of breathtaking beauty with untouched beaches, lush rainforests, rich Khmer culture, and the massive grandeur of Angkor Wat. In stark contrast, it is plagued with a tragic history - a deplorable genocide that the people are still facing the consequences of today. Because of this, the majority of Cambodia's population is composed of poor farmers, which has made economic recovery difficult. Now, the country that was once so great is ravaged by widespread poverty and malnutrition, with over 40% living on under two dollars per day, and with malnutrition causing one third of child deaths ("Cambodia: Country" 8; "Health and Nutrition"). The majority of food sources that the Cambodian people choose to eat are often short in supply, unaffordable, or lacking in nutrients. Food insecurity is further exacerbated by poor access to education and health care, and climate volatility. However, malnutrition can be curbed through programs that encourage primary and secondary school education, nutritional education, and cricket farming.

The dynamics of current Cambodian society are deeply rooted in its history. In 1975, or "Year Zero", the Khmer Rouge took total control of the country. Under the leadership of Pol Pot, the regime worked to create a communist agricultural society, forcing the population into rural areas to become farmers. To facilitate this, in a practice known as targeted anti-intellectualism, the Khmer Rouge executed many of the country's doctors, lawyers, teachers, and politicians. Many others perished from starvation, disease, and overwork in labor camps. In total, from 1975 to 1979, approximately 2 million people lost their lives. They were buried in mass graves known as the Killing Fields (Radeska).

Even after the rule of the Khmer Rouge ended in 1979, Cambodia remains impoverished and 79% rural ("Rural Population"). Around 90% of poor households are rural. In these areas, the average size of a household is 5.6 people, higher than the 4.5 person average in urban areas ("Cambodia: Country" xi). This is because women in rural areas tend to have more children, 3.3 on average, compared to the 2.2 average in urban areas. It can also be attributed to wealth difference, as in rural areas, poverty is more severe, so extended families tend to live together for financial reasons ("Report/Publication"). The typical rural Cambodian home is made of wood and woven bamboo, and are often perched on stilts of up to three meters in order to protect against annual flooding. Bathroom facilities are ditches outside and handwashing facilities are limited, as homes do not usually have access to running water ("Housing"). Most homes also do not have a source of sanitary water, and often obtain water from polluted rivers and ponds ("Water and Sanitation").

Approximately 85% of Cambodia's workforce is in the fish production or rice farming industry ("Cambodia - Jobs"). In 2015, the average annual income in Cambodia was 1,093.46 dollars ("Cambodia Household"). Cambodian farmers usually own no more than two acres of land. Seventy five percent of agricultural land is dedicated to cultivating rice, the backbone of Cambodian agriculture, by traditional methods ("Cambodia Country" 1). Secondary crops include cassava, corn, sugarcane, and soybeans ("Cambodia"). Most meals are composed of rice, and fish, when available. Vegetables are under-consumed, as they are not readily available and often imported from Vietnam (Vilain et al. 27). Meat is rarely eaten, and usually reserved for holidays or special occasions. In rural families, typically the men are the legal head of the household, and are responsible for working to provide food and shelter, while the women are responsible for caring for the household and the children. Women often have considerable influence, as they are usually in charge of finances and family affairs ("Families").

Families in rural Cambodia have very poor access to education. The Khmer Rouge effectively destroyed the country's education system during their rule. Recovery has been difficult, as education was not previously a government priority, only accounting for 1.9% of the GDP in 2007 ("Cambodia"). Schools are poorly funded, with limited educational materials available, and low teacher salaries limiting the ability to attract qualified candidates. Teachers often resort to extorting money from students in exchange for basic lessons. Schools are also poorly attended, as many families cannot afford it, and children regularly miss or drop out of school to work, care for family members, or do housework ("Educational Challenges"). Further compounding the problem, over half of rural villages do not have a primary school ("Cambodia Poverty"). In the poorest rural quintile, only 55% of children attend primary school, with virtually none continuing on to secondary school. In rural Cambodia, people only receive 3.3 years of education on average, and 22% of adults above the age of 15 are illiterate ("Cambodia: Country" xi; "Literacy"). Uneducated Cambodians have limited economic opportunities, which further mires them in poverty.

Access to healthcare in rural Cambodia is insufficient. During the Cambodian genocide, many health facilities were destroyed and nearly all doctors were killed. In fact, only 45 medical doctors survived, and of these, 20 left the country. In 1979, only 26 pharmacists and 28 dentists remained in Cambodia (McGrew). Many rural villages do not have a health facility, requiring the poor to travel long distances for medical care. When it is available, it is often limited, with lack of trained personnel and drug shortages. It is also expensive, requiring large out of pocket expenses, which can plunge a family further into poverty. As a result, many rural Cambodians choose to leave their medical problems untreated. Interestingly, even when health services such as immunizations are available to the poor at no cost, they are not fully utilized. This is thought to be related to education differences, with women with prior schooling more likely to seek medical care ("Cambodia Poverty"). International aid organizations, the national government, and NGOs are working to bring affordable healthcare to rural people, however there is still much work to be done ("Cambodia").

Malnutrition is widespread throughout Cambodia, with severe consequences on the health of the rural poor. It has the largest effect on developing children and childbearing mothers. Forty percent of children under the age of five are stunted from chronic malnutrition, which accounts for approximately one third of child deaths. Twenty eight percent of children are underweight, and 11% are acutely malnourished. Twenty percent of women of childbearing age are considered too thin, which can lead to health and birth complications. While poverty rates have significantly decreased from 48% in 2007 to 14% today, malnutrition has hardly improved ("The World Bank"; "Health and Nutrition"). Poverty and malnutrition form a vicious and endless cycle, as poverty is both a cause of and a consequence of malnutrition. Five to fifteen percent of people cannot afford enough food, and many others cannot afford the proper nutrition (Vilain et al. 26). Poor families, when in possession of fish, will often sell it instead of eating it, in order to get money to buy rice (30). Children suffering from malnutrition-related cognitive and physical delays never reach their learning and working potential, limiting their future livelihood opportunities and keeping them stuck in the poverty cycle. Overall, it has been calculated that malnutrition is responsible for a 1.5 to 2.5% annual drop in the country's GDP ("Malnutrition in Cambodia"). Correcting malnutrition is a crucial step towards alleviating poverty, and improving Cambodia's economy.

The extreme weather patterns of worsening climate change are wreaking havoc on Cambodia's agriculture. Worsening droughts alternate with flooding to negatively affect rice crops (Chou and Neang 13). In 2016, El Niño caused the worst drought in decades, that impacted approximately 25 provinces and 2.5 million Cambodians, drastically reducing rice production. As rice serves as Cambodia's dominant agriculture and two thirds of the people's calories, climate volatility will further worsen poverty and malnutrition (Chanritheara; "Food in Cambodia").

Cambodia's other food sources are at risk as well. Approximately 80% of Cambodia's population relies

on the country's two billion dollar fishing industry as a primary food source. However the industry is strained, rendering it unsustainable. Cambodia's fish production has doubled in the last 60 years, but the population has nearly tripled in size, putting massive pressure on the industry, which is almost at maximum production. Fish are often caught before they can reproduce, leading to dwindling population size and smaller catches, which are worth less money. Growing industrialization and energy demand has called for the construction of new dams, which reroute the paths of migrating fish, further reducing their numbers (Azizi). Pollution in Tonle Sap Lake has negatively affected fish populations as well (Forsyth and Bright). As Cambodia's population grows and multiple factors threaten the fishing industry, malnutrition becomes more widespread. The Cambodian people need to find additional and more sustainable food sources.

A significant proportion of malnutrition stems from lack of nutritional education. Even when nutritious food is available to families, it is often not provided due to a lack of knowledge and certain cultural practices. Newborns are often fed insufficient amounts of breastmilk, and instead are given sugar water. After six months, it is typical for babies to be fed solid foods, but they are often fed nothing but nutrient-poor rice porridge until after the age of two (Jacobs and Roberts). Pregnant women often decrease the diversity of their diet and eat less in order to birth a small baby, which makes for an easier delivery. Interestingly, traditional preparations of fish, such as sun drying, leach the food of micronutrients, removing virtually all of its Vitamin A. Unfortunately, fish heads, which contain the highest concentration of iron, calcium, and zinc, are typically disposed of instead of eaten (Vilain et al. 31). Long term inadequate consumption of nutritious foods ultimately results in micronutrient deficiencies in iron, vitamin A, calcium, iodine, and zinc. These can lead to anemia, night blindness, poor dental health, and reduced immune function, ultimately resulting in stunted physical growth and impaired cognitive development (Vilain et al. 29). Anemia is especially prevalent, with 74% of children under the age of five and 70% of pregnant women afflicted. The consumption of rice, which makes up the majority of the Cambodian people's diets, reduces iron absorption, further worsening anemia (Vilain et al. 28). In pregnant women, micronutrient deficiencies contribute to the high infant mortality rate of 45 deaths for every 1,000 live births ("Health and Nutrition").

In 2013, the Food and Agriculture Organization of the United Nations (FAO) implemented a nutrition education program in rural Cambodia. Volunteers were sent into 35 villages to train caregivers on proper infant and child feeding practices and proper hygiene. Tastings and cooking demonstrations were given of *bobor khap krop kroeung*, a micronutrient-rich porridge made from locally sourced ingredients. The program also emphasized improved hygiene practices, particularly hand washing before cooking. Afterwards, caregivers reported that they prepared the *bobor* for their children four to six times a week. This resulted in the children having healthier skin, crying less, having less diarrhea, and gaining weight. The volunteers conducted frequent follow up visits to ensure that the improved behavioral changes were sustained. The FAO has provided education to a total of 1,387 caregivers in 99 villages since the start of the project. Other international aid organizations such as UNICEF and USAid have implemented similar programs, and have begun collaboration with the FAO (Johnson; "Cambodia: Nutrition"; "Improving Child"). Given the overwhelming success of this project, more volunteers should be recruited to expand the project to reach more villages. It can also be used as a model for introducing other education programs, such as the importance of incorporating other healthy foods into Cambodian's diets. Specifically, people could be educated on the optimal way to glean the most nutrients from their fish, including eating the nutrient rich fish heads and avoiding sun drying.

Cambodians need to diversify their diets by re-introducing micronutrient-rich vegetables. Before the genocide, Cambodians ate vegetables far more often (Vilain et al. 30). Therefore it should not be difficult for people to return to traditional recipes containing them. Through a program similar to the FAO's education program, rural women should be encouraged to start home gardens, and informed on the most nutritious vegetables to plant. Vegetable gardens could be planted on school grounds for educational

purposes and also to supplement lunches. The government could also start a nationwide campaign to increase vegetable consumption (31). Health care facilities could include reminders to do so as an important part of their practice (31). In particular, midwives should routinely integrate proper nutrition education for pregnant and breastfeeding women into their practices, to reach more women.

Improved access to primary and secondary school education in rural areas will play a large role in helping people escape the poverty and malnutrition cycle. With a better education, rural children will have more future work opportunities and will be able to secure larger incomes. Several NGOs such as World Assistance for Cambodia (WAC) are currently building schools in rural Cambodia to increase physical access to education in remote areas with funds from foreign investors (“Support Education”). However, the problem of poor attendance rates secondary to high costs needs to be addressed as well. Of the poorest students, less than ten percent receive fee exemptions. To increase attendance rates, the government should increase the amount of fee exemptions offered to the poorest families and develop a microloan system to help parents send their children to school (“Cambodia Poverty”). Increased taxation on the booming tourism industry could serve as a source of revenue for improving Cambodia’s education system. NGOs such as WAC could also use donations to pay for student fees that would allow children to be able to attend school.

Entomophagy offers another means for Cambodians to diversify their diets. Insects provide a cheap, sustainable way to supplement nutrition and potentially generate income. Over two billion people worldwide already eat insects on a regular basis, primarily in Southeast Asia. Cambodia is known as the center of “cricket cuisine culture” (Quigley). Cambodians have eaten crickets as far back as the Angkorian Empire during the 10th century (Taing). During the rule of the Khmer Rouge, insects were known as “hunger food”, as people ate them to avoid starvation (Thompson). Since then, cricket eating habits have persisted, and have now become an integral part of the Cambodian culture, though they have not yet become a primary food source. The majority of crickets consumed are caught in the wild. However in more recent years, insect farming has begun to grow in popularity, with insect farming already well established in other countries such as Thailand (Taing).

With dwindling fish populations and climate volatility affecting rice production, cricket consumption provides an excellent alternative nutritional source for Cambodians. By mass, crickets are over 60% protein, much higher than that of beef or fish (“Why Crickets?”). Thirty grams of crickets provides 20 grams of protein, compared to the 8 grams that beef does (Vitale). This makes crickets a viable replacement protein source for the foods that Cambodians are currently so heavily reliant upon. Beyond this, crickets can reduce the prevalence of micronutrient deficiencies that plague rural families. Crickets have a high micronutrient content, containing calcium, iron, B vitamins, and Omega fatty acids (“Why Cricket”). Adding nutritious crickets on a regular basis to the Cambodian diet may ultimately diminish dependence on foreign aid to provide supplemental food, bringing impoverished Cambodians one step closer to self sufficiency.

Crickets are an incredibly resource-efficient crop, requiring far less water, land and feed than traditional livestock, making them an economically viable option for rural Cambodians (“Why Crickets?”; Geary and Menghun). Minimal startup costs are necessary, and they are very simple and profitable to raise. Svay Rorn, of Kampong Speu, found cricket farming to be her ticket out of poverty. With just 75 dollars of capital, she was able to build a pen and begin farming. Her cricket farm earns 100 dollars per month, allowing her to easily pay back her loan and make a profit (“Mrs. Svay”). Cricket farming is much less laborious than other types of farming, and can therefore be done by virtually anyone. Women will then be able to tend to cricket farms on the side, while still caring for their families, producing extra income. The elderly and malnourished may also be able to participate in cricket farming as well (“5 Positive”).

Programs should be implemented to encourage rural Cambodians to supplement their livelihood with

cricket farming. Families can be strategically chosen to farm crickets based on their level of need and their location. The national government, the World Bank, or NGOs could provide the funding necessary for startup costs, such as building pens and educating farmers. Svay Rorn received her 75 dollar loan and cricket farming education from the Community Forest Management and Livelihood Improvement (CFMLI). The services provided by this and other similar organizations should be made more widespread to help more people begin cricket farming. Interest rates on these micro loans should be capped by all lenders to protect farmers, as the National Bank of Cambodia recently did (Yee). Incentives could also be added, such as tax credits. If the local communities are open to integrating these changes, entomophagy could be very successful in increasing incomes and reducing malnutrition.

Improved education and integration of entomophagy are key factors that can bring about the end of malnutrition in Cambodia. While poverty rates are decreasing, malnutrition remains widespread, with high rates of child mortality. Implementation of programs that create lasting change can help to end the long lasting suffering of the Cambodian people. Cambodian children can break the poverty and malnutrition cycle through improved education, which will create opportunities for higher paying jobs. Cambodians must be educated on how to properly care for themselves and for their children. Cricket farming should be integrated into rural people's livelihoods in order to supplement their incomes and diversify their diets. While malnutrition is multifaceted, with much work remaining to be done in other areas such as water scarcity and sanitation, improved health care, and rural infrastructure, advances in education and entomophagy can significantly help to end food insecurity. Cambodia can be restored to its once prosperous status as a place where the quality of life matches its beauty.

## Works Cited

- Azizi, Rey. "Cambodia's Fishing Industry Is Ailing." *DW*, 9 Mar. 2008, [www.dw.com/en/cambodias-fishing-industry-is-ailing/a-5213173](http://www.dw.com/en/cambodias-fishing-industry-is-ailing/a-5213173). Accessed 29 June 2018.
- "Cambodia." *Encyclopaedia Britannica Online*, [www.britannica.com/place/Cambodia/Agriculture-forestry-and-fishing](http://www.britannica.com/place/Cambodia/Agriculture-forestry-and-fishing). Accessed 30 June 2018.
- "Cambodia." *Health Service Delivery Profile*, WHO / Ministry of Health / Cambodia, 2012, [www.wpro.who.int/health\\_services/service\\_delivery\\_profile\\_cambodia.pdf](http://www.wpro.who.int/health_services/service_delivery_profile_cambodia.pdf). Accessed 29 June 2018.
- "Cambodia." *The World Factbook*, CIA, 14 June 2018, [www.cia.gov/library/publications/the-world-factbook/geos/cb.html](http://www.cia.gov/library/publications/the-world-factbook/geos/cb.html).
- "Cambodia." *World Food Programme*, 2018, [www.wfp.org/node/3418](http://www.wfp.org/node/3418). Accessed 28 June 2018.
- "Cambodia Country Fact Sheet on Food and Agriculture Policy Trends." *Food and Agriculture Policy Decision Analysis*, pdf ed., Apr. 2014.
- "Cambodia: Country Poverty Analysis 2014." *Asian Development Bank*, pdf ed., 2014, p. Xi.
- "Cambodia Household Income per Capita." *CEIC*, 2015, [www.ceicdata.com/en/indicator/cambodia/annual-household-income-per-capita](http://www.ceicdata.com/en/indicator/cambodia/annual-household-income-per-capita). Accessed 1 July 2018.
- "Cambodia - Jobs." *Visual Geography*, [www.visualgeography.com/categories/cambodia/jobs.html](http://www.visualgeography.com/categories/cambodia/jobs.html). Accessed 3 July 2018.
- "Cambodia: Nutrition Profile." *USAID*, June 2014, [www.usaid.gov/what-we-do/global-health/nutrition/countries/cambodia-nutrition-profile](http://www.usaid.gov/what-we-do/global-health/nutrition/countries/cambodia-nutrition-profile). Accessed 1 July 2018.
- "Cambodia Poverty Assessment." *Poverty Reduction and Equity*, World Bank, 2016, [web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20204883~menuPK:435735~pagePK:148956~piPK:216618~theSitePK:430367,00.html](http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20204883~menuPK:435735~pagePK:148956~piPK:216618~theSitePK:430367,00.html). Accessed 1 July 2018.
- "Cambodia Profile - Timeline." *BBC News*, 26 Feb. 2018, [www.bbc.com/news/world-asia-pacific-13006828](http://www.bbc.com/news/world-asia-pacific-13006828). Accessed 28 June 2018.
- Chanritheara, Torn. "As Drought Affects Cambodia's Rice Farmers, Can Building More Small-Scale Reservoirs Help?" *Mekong Commons*, 12 Apr. 2017, [www.mekongcommons.org/drought-affects-cambodias-rice-farmers-can-building-small-scale-reservoirs-help/](http://www.mekongcommons.org/drought-affects-cambodias-rice-farmers-can-building-small-scale-reservoirs-help/). Accessed 1 July 2018.
- Chou, Phanith, and Malyne Neang. "The Impact of Climate Change on Rice Production in Cambodia." *Research Gate*, pdf ed., Aug. 2012, pp. 12-13.
- "Educational Challenges in Rural Cambodia." *Helping Hands*, 6 Oct. 2014, [helpinghandscambodia.wordpress.com/2014/10/06/educational-challenges-in-rural-cambodia/](http://helpinghandscambodia.wordpress.com/2014/10/06/educational-challenges-in-rural-cambodia/). Accessed 29 June 2018.

“Families, Men and Women in Cambodia.” *Facts and Details*, May 2014, factsanddetails.com/southeast-asia/Cambodia/sub5\_2c/entry-2885.html. Accessed 1 July 2018.  
“5 Positive Social Impacts of Cricket Farming.” *Bugsolutely*, 14 Sept. 2016, www.bugsolutely.com/5-social-impacts-cricket-farming/. Accessed 29 June 2018.

“Food in Cambodia.” *Facts and Details*, May 2014, factsanddetails.com/southeast-asia/Cambodia/sub5\_2c/entry-2890.html#chapter-2. Accessed 28 June 2018.

Forsyth, Luc, and Gareth Bright. “The Tonle Sap: Cambodia’s Beating Heart.” *The Diplomat*, 2 Mar. 2016, thediplomat.com/2016/03/the-tonle-sap-cambodias-beating-heart/. Accessed 29 June 2018.

Geary, Devon, and Kaing Menghun. “The Many Benefits of Eating Bugs.” *The Cambodia Daily*, 25 July 2013, www.cambodiadaily.com/news/the-many-benefits-of-eating-bugs-40756/. Accessed 28 June 2018.

“Health and Nutrition.” *UNICEF Cambodia*, www.unicef.org/cambodia/12963\_19125.html. Accessed 27 June 2018.

“Housing.” *Country Data*, Dec. 1987, www.country-data.com/cgi-bin/query/r-2121.html. Accessed 2 July 2018.

“Improving Child Nutrition in Cambodia.” *Food and Agriculture Organization of the United Nations*, www.fao.org/in-action/improving-child-nutrition-in-cambodia/en/. Accessed 1 July 2018.

“Intro to Crickets: Coyote Creek Organic Feed Mill’s ‘Crickets 101.’” *Coyote Creek Farm*, coyotecreekfarms.org/mill/crickets-101/. Accessed 28 June 2018.

Jacobs, Bart, and Emma Roberts. “Baseline Assessment for Addressing Acute Malnutrition by Public-Health Staff in Cambodia.” *Journal of Health, Population and Nutrition*, vol. 22, no. 2, 2004, pp. 212-219. *JSTOR*, JSTOR, www.jstor.org/stable/23498998.

Johnson, Denise Shepherd. “Nutrition Campaign Helps Make Cambodia’s Children Strong, Healthy, and Clever.” *UNICEF*, 24 Apr. 2013, www.unicef.org/nutrition/cambodia\_68872.html. Accessed 1 July 2018.

“Literacy.” *UNESCO Office in Phnom Penh*, UNESCO, www.unesco.org/new/en/phnompenh/education/learning-throughout-life/literacy/. Accessed 29 June 2018.

“Malnutrition in Cambodia: The Hidden Problem That Costs up to US\$400 Million Annually.” *World Food Programme*, 9 July 2014, www.wfp.org/stories/malnutrition-cambodia-hidden-problem-costs-us400-million-annually. Accessed 29 June 2018.

McGrew, Laura. “Health Care in Cambodia.” *Cultural Survival*, Sept. 1990, www.culturalsurvival.org/publications/cultural-survival-quarterly/health-care-cambodia. Accessed 29 June 2018.

“Mrs. Svay Rorn, Farmer in Kampong Speu Increases Her Profit from Cricket Farming.” *Delegation of the European Union to Cambodia*, 27 June 2018, [eeas.europa.eu/delegations/cambodia\\_az/47464/Mrs.%20Svay%20Rorn,%20farmer%20in%20Kampong%20Speu%20increases%20her%20profit%20from%20cricket%20farming](http://eeas.europa.eu/delegations/cambodia_az/47464/Mrs.%20Svay%20Rorn,%20farmer%20in%20Kampong%20Speu%20increases%20her%20profit%20from%20cricket%20farming). Accessed 1 July 2018.

Quigley, J. T. “Cricket Casserole? Cambodia’s Baked Insects Gain Popularity in the West.” *The Diplomat*, 20 Dec. 2013, [thediplomat.com/2013/12/cricket-casserole-cambodias-baked-insects-gain-popularity-in-the-west/](http://thediplomat.com/2013/12/cricket-casserole-cambodias-baked-insects-gain-popularity-in-the-west/). Accessed 29 June 2018.

Radeska, Tijana. “People Were Killed for Being Academics during the 1970’s in Cambodia.” *The Vintage News*, 25 Aug. 2016, [www.thevintagenews.com/2016/08/25/priority-people-killed-academics-1970s-cambodia/](http://www.thevintagenews.com/2016/08/25/priority-people-killed-academics-1970s-cambodia/). Accessed 29 June 2018.

“Report/Publication.” *National Institute of Statistics*, [www.nis.gov.kh/index.php/en/](http://www.nis.gov.kh/index.php/en/). Accessed 30 June 2018.

“Rural Population (% of Total Population).” *The World Bank*, 2016, [data.worldbank.org/indicator/SP.RUR.TOTL.ZS?end=2016&locations=CN-KH&start=1960](http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?end=2016&locations=CN-KH&start=1960). Accessed 29 June 2018.

“Schools - the Beginning of the End of Malnutrition.” *Food and Agriculture Organization of the United Nations*, 12 Mar. 2018, [www.fao.org/zhc/detail-events/en/c/462548/](http://www.fao.org/zhc/detail-events/en/c/462548/). Accessed 29 June 2018.

“Support Education in Rural Cambodia.” *World Assistance for Cambodia*, [www.cambodiaschools.com/our-programs/rural-schools-program/](http://www.cambodiaschools.com/our-programs/rural-schools-program/).

Taing, Rinith. “Farm to Market: A Cricket’s Tale.” *The Phnom Penh Post*, 24 Feb. 2017, [www.phnompenhpost.com/post-weekend/farm-market-cricket-tale](http://www.phnompenhpost.com/post-weekend/farm-market-cricket-tale). Accessed 28 June 2018.

Thompson, Nathan A. “Cambodia’s Creepy-Crawly Cuisine.” *BBC*, 20 Aug. 2015, [www.bbc.com/travel/story/20150806-cambodias-creepy-crawly-cuisine](http://www.bbc.com/travel/story/20150806-cambodias-creepy-crawly-cuisine). Accessed 29 June 2018.

“UNICEF Annual Report 2017.” Pdf file, 2017.

Vilain, Clarisse, et al. “Fish and the Nutrition of Rural Cambodians.” *Asian Journal of Agriculture and Food Sciences*, pdf ed., vol. 04, no. 01, Feb. 2016.

Vitale, Vincent. “How Much Protein Is in a Cricket?” *Aketta*, 28 Dec. 2016, [www.aketta.com/blog/how-much-protein-is-in-a-cricket.aspx](http://www.aketta.com/blog/how-much-protein-is-in-a-cricket.aspx). Accessed 29 June 2018.

“Water and Sanitation.” *UNICEF*, [www.unicef.org/camboia/19061\\_19073.html](http://www.unicef.org/camboia/19061_19073.html). Accessed 2 July 2018.

“Why Cricket Powder?” *Lithic Foods*, [lithicfoods.com/product/pure-cricket-powder/](http://lithicfoods.com/product/pure-cricket-powder/). Accessed 30 June 2018.

“Why Crickets?” *Coast*, [www.coastprotein.com/pages/why-cricket](http://www.coastprotein.com/pages/why-cricket). Accessed 28 June 2018.



“The World Bank in Cambodia.” *The World Bank*, 13 Apr. 2018, [www.worldbank.org/en/country/cambodia/overview](http://www.worldbank.org/en/country/cambodia/overview). Accessed 29 June 2018.

Yap, Michael. “How Climate Change Is Affecting the Farmers in Cambodia.” *Blogging for Planet Earth*, 7 May 2017, [climateducate.weebly.com/ceblog/how-climate-change-is-affecting-the-farmers-in-cambodia](http://climateducate.weebly.com/ceblog/how-climate-change-is-affecting-the-farmers-in-cambodia). Accessed 29 June 2018.

Yee, Tan Hui. “Microloans: Boon or Bane for Cambodia’s Rural Poor?” *The Straits Times*, 28 Dec. 2017, [www.straitstimes.com/asia/microloans-boon-or-bane-for-cambodias-rural-poor](http://www.straitstimes.com/asia/microloans-boon-or-bane-for-cambodias-rural-poor). Accessed 3 July 2018.