





Waste Summit 2019

Smart waste business models and innovations for a clean Cambodia! *Sok-Lakana Sann*

If you're buying a meal in Cambodia to takeaway you can expect to get a plastic box with food in it, a plastic set of cutleries all packed up in a plastic bag. Your drink is going to be in a plastic cup with a plastic straw which is wrapped in plastic. But that's still not it, the plastic cup will be put in another small plastic bag for you to hold. So, it seems quite logical, that an average Cambodian household uses 12 plastic bags a day, doesn't it? Almost half of them will be burnt later and the rest ends up in the sea. With one of the fastest growing economy and a growing consumer market, Cambodia is generating significant amounts of waste. Phnom Penh alone already produces 3000 tons of garbage per day and the issue of waste will be more important every day. The landfills are being filled up more and more and manmade waste mountains will be the norm. But as technologies are getting more and more advanced, many start-ups are coming up with new innovative ideas to counteract.

The growing relevance of this topic could be seen on the Waste Summit 2019 hosted by the Konrad-Adenauer-Stiftung together with the German Business Group and Comped. The full day event focused on waste management and offered a platform for both sustainable dialogue and future partnerships between investors, start-ups and other relevant actors. The aim of this event was to bring together different people who all have the same objectives: to rethink waste by looking at it from different perspectives.

The exhibition

The summit opened with an exhibition where in total 30 NGOs and Start-ups presented tech, entrepreneurial and social approaches to innovate the Cambodian waste management system. People from all ages, locals and non-locals, were committed to make Cambodia a cleaner country. For example, Flora and Fauna International is doing research about how plastic finds its way into the ocean. The social enterprise Khmer Green Charcoal offered information on how they are able to transform biomass waste, like coconut shells, in high-quality green char briquettes by using innovative technologies. Others are focusing on how the use of big data can improve the efficiency of collecting waste or educating people on how to compost and the benefits of earthworms. Only One Planet is aiming to stop single use plastics by producing biodegradable packaging and finding solutions to make them more affordable and therefore accessible to the Cambodian society.

It's a match!

Throughout the whole day start-ups as well as stakeholders had the chance to match with each other to find what they're looking for. Most times start-ups lack the money and resources to exceed their ideas or investors can't find people who are sharing the same vision as them. This matchmaking will help to connect the ones who offer and the ones who are searching more easily and find exactly what they are looking for. The matching will be continued even after the summit finished to strengthen connections and support.

Big vision for a better waste management

Government officials and waste entrepreneurs discussed their view on waste on the first panel. The biggest problem seemed to be that the trash is not being separated and therefore cannot be classified.

"Waste has to become profitable and economical in order to achieve higher investment in the current waste management system."

Waste is a very attractive market that has yet to be discovered in the country. Experts see great opportunities in composting, plastic recycling and industrial waste. However, at this moment this issue doesn't seem to generate a big enough financial gain yet for the ministries to actually introduce new policies. Furthermore, CINTRI, the biggest waste collection service in Cambodia, has a 50-year contract, which many viewed as problematic when forwarding the current waste system. Therefore, the speakers appealed to the people to sort their waste correctly and bring it out on time, to help reduce waste by themselves. Unfortunately, for many Cambodians, waste is not a priority at the present time.

"Greener, safer, better, smarter"

In the second panel speakers presented their vision on how to deal with waste effectively by introducing innovative digital ideas. With new technologies, these speakers are bringing new oxygen into the system. Digitalization is continuously getting more important in the Cambodian society and holds big potential in dealing with the waste issue. New big data companies like LUMA Systems could help to analyze where there is a bigger demand in collecting trash. By analyzing existing data and evaluating exact locations this innovation aims to take care of waste in a highly efficient way.

The Chip Mong Group introduced a solution that is not quite new to the world but new in Cambodia, the cement kiln. The cement manufacturing process is able to destruct waste while simultaneously manufacturing clinker in a single combined operation. The co-processing approach completely destroys waste with temperatures between 1.800° and 2000° C and avoids dioxins and furans. 40000 tons of waste can be burned per annum with this installation, which have been proven successful in the neighboring countries already. The biggest

challenges for businesses to implement their visions seems to be to change the mindset of other people in order to act more environmentally aware, to find other partners who share their interest, to have the time and money since many start-ups are run by only students. Last but not least the trust issue in the success of new innovations and the lack of collaborators.

Lessons learned from the German Waste System

Germany is a Recycling World Champion. No other country is recycling more, therefore five German businessmen were given the opportunity to talk and discuss on the last panel. In the German waste and transport system, waste separation has already been applied for years. Moreover, Germany is also working on advanced technical solutions to ameliorate their waste management. For example, Flöter Verpackungstechnik GmbH produces air cushion foil that is biodegradable to combat packaging waste that arises within the mail order business. Intecus is transforming waste to energy. By using anaerobic processes on regenerative portions of the waste stream, climate neutral energy is being generated which can be used various areas, such as industrial processes. The experts stated that it is important to first look into the incoming fees incurred by waste disposals such as collection and transportation. Furthermore, consumers must be willing to pay the fees in order to have an efficient waste system.

"Enforcement and Empowerment of Communities Should Come Hand in Hand"

Their final advice to Cambodia was not to compete with the informal garbage pickers, who are altogether the biggest recyclers, but rather to work alongside with them and implement higher standards.

The three takeaways:

- 1. The waste collection system has to be improved, and citizens have to separate their waste correctly.
- 2. Improving the future of waste management in Cambodia by bringing in new technologies and creating business cases.
- 3. Educating people on their waste is absolutely crucial in order to achieve behavior changes. But changing behaviors will not happen overnight. It is a slow process, yet we can make them notice and change step by step.

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