



## Malav Sanghavi - Final Presentation

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### **Final Presentation**

Sustainable Development Goal number three mentions: children born into poverty are almost twice as likely to die before the age of five than those from wealthier families, and that's what I started working on. When a few years ago, my cousin's daughter was kept in a baby incubator when she was born, this was critical for her survival, but we were lucky enough because we were from a developed area of the country. This started making me think what happens when a child is born in a village in India, or a remote area in Africa. I started looking into facts and I found out, according to Millennium Development Goal 4, three million children die just in the first week of their life. According to the World Health Organisation, 99% of these deaths happen in middle and lower income countries. MDG 4 also mentions that these deaths, almost all of them, can be saved, just by providing low tech, low cash solutions.

We have developed solutions to provide effective neonatal care, at grassroots level for developing and underdeveloped countries, like India, Pakistan, Bangladesh, countries in Africa, Latin America etc. We did an intense field research in India. Why India? Because it has one of the highest number of pre-term births, 3.5 million births. In 15 different villages and 6 different cities we had a research conducted by health workers who are responsible for taking care of mother and child's healthcare. We found out that countries' health care systems deal with the standard birth but lack crucial infrastructure for neonatal care, for premature and underweight kids. Two major reasons for that were a huge costs associated for setting up this infrastructure at every health care centre, and lack of electricity, inconsistency of electricity.

So I'm a designer and I came up with a team, and we developed a low cost baby incubator, called Life Cradle. Life Cradle provides the most basic functionality necessary for a child's survival, for the first few critical days of it's life, like warmth for hypothermia, and a clean environment, and monitoring of heart rate and body temperature. The design of Life Cradle was inspired by Finnish baby boxes, so that the base of Life Cradle, which is made up of cardboard, goes with the child to the house for post-neonatal care, and the lid, which has all the technical aspects, stays at the health care unit and it is reused for the next child, for the next cardboard box.

Sending the base to the house was like a value-added service for the family, giving them proper living conditions, because most of these places don't even have proper living conditions, and the cardboard base will act as a makeshift cot for the child.

As a social enterprise we have cut down the cost of Life Cradle to be around 90% cheaper than the existing incubator in the market. Why we? Because we have lowered the cost using innovative manufacturing techniques. Why we? Because we have reduced transportation costs by designing the incubator which can be flat-packed and transported. Why we? Because we are using a cost-effective existing infrastructure to transport such incubators at remote areas. We have collaborated with Imperial College St Mary's Hospital, in London, foundations in India and the US, we have a senior neonatologist on our board who is mentoring us from the product development point of view, and now we are looking for more help.

As Professor Sachs mentioned yesterday, there is no harm in asking for help, so I ask you today, if you have connections to philanthropic networks, grant organisations, NGOs which can help our initiatives to move forward, please come and talk to me. We have our business plans ready, we have identified the stakeholders, we have all the financial plannings, our aims are that five years down the line we want to create a full neonatal care support of maternity care from the day the mother gets pregnant till the day the child comes out of the incubator, and beyond.

I believe that innovation is not only about making profits, but also about bringing out cost-effective solutions that we can address critical problems in our society, aligned with the UN's goals. Through Life Cradle, we aim to reduce infant mortality rate. Thank you.