# Project Journey

## IDDS SISAKET Thailand 2017

In order to keep track of what was developed at each summit (both for your IDDS, the local continuity, and IDDSs, we need to understand what teams produced and if/how they plan to move forward with it after IDDS. **Please have complete the information below and turn into your design facilitator no later than 2 weeks after the summit.**

All project journeys will be uploaded to the IDIN Resource Library for public viewing. If you wish to read about past IDDS projects, you can search the resource library by going to "Document Type" and selecting "Presentations and Reports." About half of the projects from an IDDS tend to continue in one way or another. Some projects continue in the local innovation center, some continue with a global project team from IDDS or other people in the IDIN network, and some become class projects for further development. Some projects do not continue because project teams learn the solution is not a good fit or the users were not interested in it. Whether the project continues or not, we want to be sure to capture what was made, how it came to be, what lessons were learned, and if/how the team wants to continue working on it. This information will be helpful for anyone wishing to learn from the project and/or continue the project.

## Outline for Project Journey

Below is an outline of information we need included in each project report. For each of the sections below, to the best of your ability, please document all raw data and process including activities and tools you used as you went through the design process.

**Project Name:** Waste Management

**Team Members:**
Paula Moreira (Brazil)
Cara Volpe (US)
Tony Fox (Thailand)
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**Apprentice design facilitator:** Mae Sang
**Design facilitator:** Cate Johnson

**Brief description of the project (2-3 sentences):**
A sizeable percentage of the waste that is burned in Baan Hangwao consists of tetra packs – the paper-ish material used to make things like small and large juice boxes - which is not recyclable here. We focused on tetra packs – an easy to clean, high use product - in an effort to 1) physically reduce trash that would otherwise be burned, 2) demonstrate how to re-imagine the idea of "waste", and 3) create items that can be used for play by children.

**Starting Context**
- Our original problem framing brief highlighted the fact that almost all surveyed villagers burned waste, either in the rice paddies or near their houses. They also noted that most of this burning happens in the late afternoon, and creates smoke/pollution which smells and can be a nuisance to neighbors.
- Some basic statistics about Baan Hangwao village, and information about their larger district (XX), that are worth bearing in mind:
    - 220+ households
    - Around 10 shops
    - Population of approximately 1000 people
    - Part of XXX sub/district – add some facts here
- As part of the summit, members of the IDDS team spent significant time surveying villagers and, most importantly, building relationships with them. Our initial information shared above was shared with us directly. Based on the IDDS team information, our first contacts were the village chief (who is supposed to implement a waste scheme as part of government policy) and Auntie Thonglor and Uncle Wichien (married, interested in IDDS and curious about the profit, Uncle Wichien is a former deputy village chief). Note that in the end these were not the stakeholders we spent the most time with once we conducted additional research.

- What activities or tools did your team use to collect the information and gain insights? Please including any photos of your process (even of flip chart paper drawings).

**Gathering Information and (Re)Framing the Problem (July 26 and 27)**
- Based on the challenges we observed, we landed on the following as our PATH statement: Villagers need a convenient alternative to burning trash in a way that reduces pollution and improves health.
- It wasn't necessarily as challenging for us to frame the problem, but it felt very challenging to use that PATH statement to prototype in a way that all of us felt

reflected the actual problem and potential solution for impact. Being completely candid, we diverged quite a bit here, and we struggled to find common ground! It was a great learning experience to work through as a team, but it felt frustrating and time consuming at points throughout. Though we know this is very natural when working within a team, it has potential to feel even more acute in such an intense period of time.
- As a result, we ended up prototyping two solutions simultaneously. Even at the very end, we were arguable not all completely on the same page as far as vision and execution.
- The easiest part was jumping in to really observe and work with villagers. We could have done an even better job of this, but we truly appreciated the various interactions we had, with kids and adults.
- We used a number of tools and activity to help us frame the problem: personas,


**Co-Creating a Solution (Fri, July 28)**
- When it comes to the "solutions" that exist as an alternative to trash burning, they aren't viable solutions for the average villager:
  - Bring trash to the landfill in Sisaket town, which is about 45 minutes away, and costs .65 bhat/kilo.
  - Drop off trash in bins in Payu, a neighboring XX. We did not dig deeply into this, but one person noted that there is potential to be fined if you actually do this.
- It's worth noting that apparently a few years ago OBT brought up the idea of a trash collection system, but one that would require people paying – people were opposed to having to pay, believing that it is something the government should be doing.
- Good habits and local resources to build upon
  - Many villagers do seem to be sorting out the trash they can sell, thus greatly reducing the amount that gets burned. Thanks to the three "trash collectors" in the village, who profit from being the middle man that brings sellable waste into town, there is an informal system for disposing of that particular waste.
  - In addition, a few people noted that they believe the presence of IDDS has put some positive pressure on both the local community and sub-disctrict; apparently the village got a bit of a trash face lift in recent weeks, and there seems to be momentum around the issue.
  - We think there is some kind of budget for this, somewhere. We purposefully (for reasons outlined throughout) did not go deep into the political nature of this problem. The village chief ways there's a 2.5 million bhat budget at the X level, which is currently being used for training people to raise chickens and

frogs. A villager also mentioned this 2.5 million bhat budget, although it was not clear who exactly controlled it. Our participant pack noted directly that the village chief is supposed to implement a waste scheme as part of government policy, although it's quite unclear what that actually means and how it plays out. All of this to say is that we believe, with the right kind of community organizing and political pressure, the villagers of BHW could present solutions to the village chief or directly to OBT, in a way that would encourage them to allocate budget for trash trust to come to the village.

- What solution did you chose to create? And What activities or tools did your team use to design it?
- We ended up creating two quite different prototypes to test:
  - Upcycling tetrapacks
    - Why? This composes a large amount of trash that would otherwise get burned, and is easy to clean
  - Common waste collection
    - Why? There are existing common systems to build upon, and this has greater opportunity for impact

**Technology/Final Prototype (Thur, Aug 3)**
- Ultimately, we decided to go the route of upcycling tetrapacks, and specifically turning them into educational materials.
- The photos below will be pretty self explanatory. The thing to note is that this can be amended depending on available resources. We acknowledge the fact that using extra things like markers, paint, etc., when the goal is to reduce waste, is a bit ironic, but potentially can be leveraged so that the tradeoff is worthwhile.
- What was the prototype your team designed? And how does it work?

**Lessons Learned  (Thurs, Aug 3)**
- It was clear that the kids enjoyed the various games/puppets that we shared with them. We did not get as much meaningful feedback from adults as we could have. Part of this is because we were prototyping a few very different options, and did not really converge on an idea until close to the very end. (See final section for more details).
- As you'll read more about below, it is worth highlighting that the villagers in Baan Hangwao seem very motivated to tackle this issue of waste. Some suggested that IDDS coming into the village might have incentivized people to literally clean up their acts so to speak, but regardless of the motivation there is clear momentum to build upon as a sense of pride in the community continues to grow.
- Our team learned a lot about the co-creative design process

- There are huge positives to co-creation: the ability to generate a diversity of ideas, creatively build on ideas, and potentially creating longer-term solutions because of community involvement and investment
- Co-creation is hard! We are reminded of the proverb "If you want to go fast, go buy yourself. If you want to go far, go together." Co-creation takes time and energy. Even with just our team there were moments of conflict within our internal co-creative process – a normal part of any team dynamic. It's hard, as a matter of human nature, to let go of ideas that are yours and/or to

**Next Steps/Project Future (Thurs, Aug 3)**
- There are interesting implications to consider as far as potentially moving this project, or a different version, forward. Though group members are not in a position to continue the work, there are a few things to bear in mind.
- It would be easy for either schools or individual households to begin saving and reusing tetrapacks, in an organic way. The products we prototyped were straightforward and be easy to continue.
- Though we did not end up focusing on a trash system in our final prototype, we believe there is a LOT of potential here, but it would require self-organization and potentially government intervention.
    - At one point, we piloted a waste removal program, building on the existing infrastructure in place in the village. Based on our research, we saw that a very large percentage of people in the village were separating out plastic/glass/metal - things that they could easily recycle. In this case, the way this works is that an informal middle (wo)man comes around and buys this recyclable material, and then later brings it to a more central recycling place where they make a bit of a profit. There is no formal schedule, and price fluctuates, but people seem pleased just to have a bit of money and a way to get rid of this trash.
    - People are also aware of the fact that there is a central trash bin for hazardous materials - this is a recent addition to the village, and is orchestrated by the government.
    - Based on the above, there are a few themes we tried to build on:
        - There is an existing "infrastructure" that people are taking advantage of
        - Many (the large majority from what we observed) are already sorting their materials
        - At least one of the trash collectors (who we managed to track down because she does not work during the day) was very motivated to work with us. We believe that this trash collector role has huge potential for creating and maintaining a solution.

- We worked with this trash collector to pilot a small program, where we told people that we would pick up their sellable waste AND the waste they would normally burn. We thought the value proposition was that they made so little profit on the sellable waste that for the benefit of having their burnable waste taken away, it would be win win. The trash collector would make more of a profit because he/she would not be paying to pick up sellable goods, but would essentially get it for free and sell it to a recycling center at a higher margin. However, they would also be responsible for bringing the waste that would normally be burned directly to the trash center.
- This didn't quite go as planned! Though we had dropped of separate boxes to four pilot homes we identified, and said we would come around later to pick things up, when the time came to pick things up, ¾ houses would not part with their sellable goods - it's unclear whether there were actual misunderstandings in intent or when the time came for us to pick up something they would normally sell they just did not want to.. We still took the burnable waste away as promised on our end.
- Here's the big lesson learned: all of the pilot homes sorted their trash! We think the application from here is that if there was an organized effort, likely by the government, to pick up trash, people have at least demonstrated motivation to do the requisite sorting.
- In short, there is huge appetite for this! We think one thing the village could do is potentially work together from a community organizing perspective and put a bit of political pressure on the system.