

Irina Mkrtchyan: Tackling Waste Management in Armenia

IRINA MKRTCHYAN: In the beginning we had, of course, many problems: people sometimes would like literally laugh at us saying like, “This is not possible, we have more important issues so this is the last thing we should actually consider.”

But the pilot projects showed that actually people are willing to do it. And there are many people that are quite aware of the environmental challenges that our country is facing because we don't have decent infrastructure.

I really think that even if you manage to take one plastic or one piece of paper that is un-recyclable or recyclable, whatever it is from a wrong place and put it in the right place, this is already a big achievement.

RAMA CHAKAKI: The beauty of innovation is that it doesn't have to be all about big steps. It's the small, incremental change that becomes a habit that creates ripples of positive impact. Both for the environment and for our communities.

IRINA MKRTCHYAN: So my name is Irina, I am one of the co-founders of ISS D Innovative Solutions for Sustainable Development of communities non-profit organization, which is based in Armenia.

RAMA CHAKAKI: Today, we're speaking to Irina from ISSD - an NGO that is working to solve the issue of waste management in Armenia. What initially started as an initiative to introduce recycling bins and environmental awareness has

grown to be a much bigger operation. We'll hear from Irina on how she and her team are agents of positive change in Armenia and beyond.

I'm Rama Chakaki, and you're listening to Innovate with Purpose, the official podcast of Expo Live, an innovation programme by Expo 2020 Dubai.

[Intro Sting]

RAMA CHAKAKI: Back in 2017, Irina got together with two friends to tackle proper waste management: one of Armenia's big challenges. Just outside Yerevan, is the Nubarashen landfill, the largest garbage disposal site in Armenia. Estimates put the total accumulated solid waste since the 1960s at 6 to 8 million tonnes.

IRINA MKRTCHYAN: We have several big landfills in Armenia. We have many actually illegal dumpsters as well that unfortunately not many of them process decently. In many cases, they just burn it. Like it's open air burning of waste. In some cases they cover it with soil.

So generally the reduce, recycle concept was not decently working in Armenia. So we decided to try to understand if our country and our population is ready for a similar initiative.

RAMA CHAKAKI: The first testing site they chose was a festival - one of the largest in the region.

IRINA MKRTCHYAN: It is a wine festival that is organised in one of the wine regions of Armenia. It generally has around 30,000 visitors, which is quite big for Armenia because we're only 3 million so this is quite a big event.

RAMA CHAKAKI: At that festival, Irina coordinated with the organisers to set up separate recycling bins for paper, bottles, glass, etc. That way, the visitors and the vendors can dispose of their waste properly and the area where the festival is held isn't left with a lot of trash at the end.

IRINA MKRTCHYAN: And next to each sorting bin, we would have one or two volunteers that would support in the process of telling people why these bins are here, what are they, what is the purpose, how they should sort, and things like this.

So we did install the bins, and then we also had people who would approach the others and then tell them, share with them, the importance and then how to do it actually.

And depending on the type of the waste, we would either send it to recycling facilities that we somehow managed to find in Armenia or alternatively, for example, for glass bottles, because we have a lot of home wine production in the country. We actually sent it for reusing instead of recycling. So some of the glass would end up in the home winemakers and then plastic, paper, and metal would end up in the recycling.

RAMA CHAKAKI: It was a simple system. But the reactions weren't all positive at the start.

So Irina and her team pushed through those reactions and kept reminding visitors to use the appropriate bins for their waste. They understood that introducing new systems will take time and the formation of new habits isn't easy.

IRINA MKRTCHYAN: So after we realised that the pilot is working, we started developing new concepts that would be like larger scale initiatives that would help to bring the country to a point where we're at least trying to move towards circular economy instead of the linear one.

RAMA CHAKAKI: The following year, they started approaching new organisations, different donors and setting up recycling bins in several locations in Armenia. They expanded to include awareness campaigns about proper waste management, training about giving new life to waste, and working with schools.

And that's how ISSD was born. It became an initiative with a relatively easy measure of success:

IRINA MKRTCHYAN: Depending on the type of project, we'll look at amount of waste that has been sorted, recycled and it didn't end up in the landfill; the number of people that have been participating in trainings or public awareness campaigns; we'll look at the number of bins, for example, that have been installed in different organisations in public areas.

So for now we have around 500, more than 500 institutions that are working with us.

RAMA CHAKAKI: And tell me Irina, were you always passionate about the environment?

IRINA MKRTCHYAN: Waste was not definitely the first choice. I would never see myself working with waste in the beginning because first of all, it's an extremely

male dominant industry in Armenia. You can hardly see any women in this field. Well, now it's changing. But when we started, it was preliminarily male dominant.

And because of this, I think they are missing innovative approaches. Generally, it's older people that have an old-fashioned way of thinking, there is one solution. There is no creativity, there is no innovation there.

With our team, all three of us have had different experiences with the environment. So one of our co-founders, he used to work for a few environmental organisations. The other co-founder, he did his degree in environmental science and, myself, I just love everything related to the environment.

RAMA CHAKAKI: And so you and your team were really bringing some fresh thinking to the industry and being disruptive. Who did you work with?

IRINA MKRTCHYAN: We have the biggest non-profits, for profits, international organisations that operate in Armenia joining and where we do our training, we do waste hunts, something like a treasure hunt, but we call it waste hunt. We do online competitions with the online and offline trainings.

In terms of audience, we have the problem in old generations. So it's, yes, it's generally everybody but we realised during the experience, we understood that if we work with kids, the kids are changing the behaviour of their parents. And this is like they are growing up in their community, their friends, their teachers, everybody. The kids are the most important factor there.

RAMA CHAKAKI: Wait, you mentioned “waste hunts” – what are those?

IRINA MKRTCHYAN: It's literally the treasure hunt. So instead of... you look for treasures, but the way the hints are built, they are different environmental questions. So you find a plastic bottle that is in the river, you need to clean this area to get your hint, or you are participating in a trivia, trying to learn more about the biodiversity of the specific area.

RAMA CHAKAKI: Now these campaigns and trainings were all about creating a culture of care for the environment and reducing any waste that would just go into a landfill. One of the problems is that many of these landfills are just open air dumping grounds.

So even if plastic and recyclable material end up there, the exposure to rain and sunlight sometimes changes their chemical formation to make them un-recyclable.

So Irina and the team at ISSD began to think about a major game changer. And that's where the Expo Live grant came in.

IRINA MKRTCHYAN: So within the Expo Live, we applied for this idea that we had at the time of turning plastic bottles into filler that's synthetic winterizer. This is the material that you use for jackets or pillows and stuff like this. So this was the main purpose of the project. We received it and while we started implementing it, we realised that actually we can go further.

And from the filler, we actually started making the yarn.

We have managed to give new life to waste. We started making yarn out of it and then the yarn turns into different materials. I think this is the best part.

People actually use this to make new materials and you see the end product and you're like, "Oh my God, this was a plastic bottle. This is so cool!"

RAMA CHAKAKI: ISSD set up new machines that would take in plastic bottles and turn them into plastic granules. And depending on the colour of these plastic bottles, the granules would take on the same colour.

IRINA MKRTCHYAN: After that we have two ways of making the yarn. It's either manual so we have a small equipment and Armenian traditional way of making yarn that has been combined with the plastic bottle.

And then there is a semi-automated system. It's faster, but it's because we want also to engage and offer opportunities for people that have different skills so that they don't forget it, it requires a lot of manual work there as well, because this is generally the older generation women, especially in rural communities that know how to do it, they have the skill.

So this is also creating opportunity for them to do something interesting, to make some money and to explore and learn.

RAMA CHAKAKI: This was key to the success of ISSD. Not only did they innovate something completely new in Armenia, they also made their innovation contextual and relevant.

By including traditional ways of making yarn - but using plastic filler rather than wool - they were able to get the local community on board.

Similarly, ISSD went on to bring a lot of global knowledge and best practice that was in English and made it accessible to the local community.

IRINA MKRTCHYAN: So for the last two years because we in Armenian language, we have very limited literature available, so generally it's either in Russian or English that the local population is finding their resources.

And in many cases, if people don't speak other language, it's quite difficult to get access to a high quality information.

We have been combining the Armenian experience together with different international, high quality educational materials and creating workbooks in Armenian language. For example, we created the first workbook for kids on waste management that we have a few editions right now. So it's something you can start from super early age, once you can read.

RAMA CHAKAKI: And what's next for you and the team at ISSD?

IRINA MKRTCHYAN: So for our future plans, we have a few directions we are currently trying to move forward with. One is we are working further on developing the project that we started with Expo Live: creating this awareness among the people that it's not just a yarn, actually, we're working on a couple of new innovations right now in terms of making plastic or paper waste turning it into something else.

RAMA CHAKAKI: The success of ISSD has become a case study for other countries and communities to learn from. They've been published in a number of journals and received recognition from the UNDP and UN Habitat.

Currently, Irina is looking at partnering with other countries, like Georgia and the UAE but also in Latin America where big Armenian diasporas live.

IRINA MKRTCHYAN: So when we started, I'll be honest, we were very optimistic when we started, because if we would have this pessimistic approach or realistic approach, we would not start it because we knew that our country was not at that point to have similar initiatives. I think it was about the positivism of our team that we were sure that yeah, we will fail at some point, but still, we will not lose hope and the failure will teach us more things: we will understand where our gaps are, what problems did we have in the process. And then based on that, we can revise and make it better.

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IRINA MKRTCHYAN: I think the biggest, proudest thing that I have is actually to see the change changing people's mindset. The field, like we are doing a nonprofit, so it's not really financially motivating or things like this, but it's about the small things. When we would do a cleanup in a community and we would see the face of children, the youth that would help us to see this cleanup up and they would see the river in their community cleaned and they would see that in their school yard, there is no trash anymore.

Like the way... just the smile, you know?

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