RECYCLING ACADEMY.

Mini-guide

What about social engineering & community engagement?

A neglected key pillar for recycling projects' success

💡 *Key learning outcomes:*

- *Get familiar with the social side of project development*
- *Learn how to launch a social engineering process*
- *Get inspired from other projects' experience*

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The contents of this guide are proposed in **open source**

Disclaimer: The mini-guide is a "work in progress" and the information is likely to get updated along with our research. Any feedback or contribution to this open source work is welcome by email to jean-baptiste@plasticodyssey.org. Thank you.

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1. Introduction

Building a plastic recycling project has to include several components to be successful. We usually start with the technical or economic aspects of the project. However, they are not sufficient to build a viable project.

A community-based approach is a response to a major problem: the proliferation of plastic waste, which is impacting the population. Hence the need for the community to get involved in the process.

In this mini-guide, we focus on the social component and the very notion of "social engineering" as well as community engagement and why it is not only important but vital to consider it.

Definition

Social engineering refers to the strategic design and implementation of activities to influence positive change and build strong community relationships.

Social engineering is based on a project commissioned by a public authority, a private company or an NGO. It seeks to integrate technological and organizational solutions while taking into account social dynamics, cultural values, community needs and ethical implications.

This is why social engineering is a key approach to tackling complex problems such as waste management.

What's the point?

With this in mind, it becomes easier to understand how social engineering will bring resilience and strength to the project, not to mention that we usually do such projects at least partially for the benefit of the community (the famous "people, planet, profit" as the 3 pillars).

Expected outcome

Communities and their behaviors have a huge impact on the viability of a recycling project. For instance, the more the population sort and dispose of waste in bins and

follow an organized scheme, the easier it is to collect and transform later on. If the population keeps on throwing away waste in the streets or the environment or burning it, the waste management becomes much more challenging and costly (need to hunt plastics across the land and fish plastics in the river and Ocean …).

The purpose of social engineering in that case is to engage communities to encourage a change of behaviors, **a long-lasting positive change**. This is not only to make it easier for recycling projects down the road but ultimately to reduce waste and especially single-use waste.

That's why the participation of the local population or not is a decisive factor in stimulating initiatives that preserve or improve the living environment. This participation is without doubt one of the most effective levers of a plastic recycling project, beyond just focusing on machines, operations and business models. This asset also guarantees the best conditions for the sustainability of favorable policies.

2. Methodology & step-by-step approach

There are many ways to proceed with a social engineering plan but here is a methodology that applies to a large spectrum of projects and that you can consider. We illustrated the approach with examples and case studies are presented in the next section.

1. Preparation

Project framing:
- <u>Definition of objectives, target:</u> write down what you are aiming for, which population or area you are targeting and the results you expect

- <u>Budgeting, resource allocation:</u> social engineering comes usually at a cost even though it can be very limited using simple tools. It is important to anticipate it (staff, time required, materials, guest speakers etc).

- <u>Calendar:</u> even though it can be adjusted with the local stakeholders, it is important to define a schedule and time frame to define deadlines and timely objectives.

Understanding the Community:
- <u>Research and Analysis:</u> Conduct a thorough analysis of the community you are working with. Understand the context including geographics, demographics, social and cultural nuances, history, economics, communication channels and current challenges.

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- Stakeholder Mapping: Pre-identify (if possible) key stakeholders within the community, including leaders, influencers, and grassroots activists. Understand their roles and relationships (it can be done during the next phase as well)

  The main stakeholders to involve are: the project leader, the local authorities (municipality / village chiefs), technical and financial partners, institutional and/or national representatives, community-based organizations and members of the civil society and influential groups.

  Tool: A matrix can be used to identify the roles and responsibilities of each stakeholder.

2. Study & design

Needs Assessment:
- Community Consultation: Engage in open and transparent conversations with community members.

  You can use different tools for this: **conduct surveys, focus groups, or interviews to identify their needs, concerns, and aspirations.**

- Asset Mapping: Identify existing community strengths, resources, and capacities that can be leveraged for positive change.

Photos from focus groups and awareness raising events (Sonaged, Sénégal)

Co-Creation of Solutions:
- Participatory Planning: Involve community members in the planning and decision-making process. This **ensures that solutions are relevant** and aligned with the community's values and goals.

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Meeting with imams and influential groups
(religion can have a strong local impact on the society)

- <u>Workshops and Collaborative Sessions:</u> Organize workshops or collaborative sessions to brainstorm ideas, co-design interventions, and **foster a sense of ownership among community members.** If successful, the population or representatives will consider the project more as their own and will be more of an active player to work with.

Focus group and brainstorming sessions (with selected local stakeholders)

3. Implementation

Communication and Outreach:
- <u>Clear Messaging:</u> Develop clear and concise messages that resonate with the community. Tailor communication strategies to address cultural and linguistic considerations.

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- **Multichannel Communication:** Utilize various communication channels, such as social media, community meetings, and local events, to disseminate information and engage with the community.

Capacity Building:
- **Skill Development:** Offer training programs and workshops to enhance the skills and capacities of community members. This empowers them to actively participate in and lead projects.

- **Leadership Development:** Identify and nurture local leaders who can play a key role in driving positive change within the community.

Training / capacity building and workshop activity in a school (Sénégal)

4. Monitoring & iteration

Monitoring:
- **Feedback Mechanisms:** Establish feedback mechanisms to continuously assess the impact of interventions and gather insights from the community.

- **Adaptation:** Be flexible and willing to adapt your strategies based on feedback and changing community dynamics.

- **Internal monitoring:** The monitoring system will have three components:
- strategic monitoring, which will provide information on the achievement and progress of strategic objectives;
- operational monitoring, which focuses on action indicators ;
- impact monitoring, which relates to results indicators.

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Collecting feedback and testimonies to iterate and improve the program (Sonaged, Sénégal)

Celebrating Successes:
- ● Recognition: Acknowledge and celebrate the achievements and contributions of community members. This builds a positive feedback loop and motivates continued engagement.

Implementation of waste sorting

Long-Term Sustainability:
- ● Capacity Transfer: Work towards transferring skills and capacities to the community, ensuring that they can independently sustain and manage the initiatives in the long run.

- ● Network Building: Facilitate connections between the community and external resources, organizations, or government agencies to create a supportive ecosystem.

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Increasing involvement of the population

Remember, the key to ethical community engagement is transparency, respect, and a genuine commitment to empowering the community rather than manipulating them for personal gain. Always prioritize the well-being and autonomy of the community you are working with.

3. Case study

Experience from Nomad Community (NGO in Indonesia)

Social engineering and community engagement is not always an easy task and its complexity highly depends on where you start from. Is the population a bit aware of the notion of sustainability? Is there some sort of waste management system in place? Are there people motivated to be involved? Or none of the above?

Here is a quick feedback from an NGO started in 2018 in Labuan Bajo, Indonesia near the Komodo park with the purpose of engaging local coastal and island communities.

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Outside the city, villages need to find their own way to handle their waste, which usually doesn't go further than throwing it in the Sea or burning it. Hopefully, some areas are covered by some rare people collecting high-value waste such as metals, plastic bottles or cardboards. There is a huge challenge to engage communities around their waste, the impact on their ecosystem and the risks of open burning and ocean littering.

As the target is fragmented on separated villages and islands, the NGO developed a **four-step program** to engage with villages, one at a time. It could be applied to neighborhoods or districts of a bigger city or region for instance to avoid dilution and lack persuasion in big and centralized events.

Step 1 - First contact: Introduce the program and the win-win concept to the Village Head & other interested villagers. The goal is very much to get familiar with the people, have informal discussions and progressively gain their trust and not get straight away to the bottom of the topic. This is the opportunity to identify potential leaders or people who seem more responsive or interested in the topic.

Step 2 - Education & Training sessions: Schedule, prepare then go back to the village to explain the value of waste, training on waste sorting & raise awareness about the waste collection program, its impact (install poster), select a local champion and help set up bins / a waste collection spot for the village. There, some old wishing nets have been recycled to make bins for villagers.

Step 3 - Waste collection trial: A few weeks later (after the village aggregated sufficient waste), collect a first round of waste from the village as an experiment, showing the meaning & financial incentive.

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Step 4 -Regular waste collection: If the trial is successful, the village becomes a member of the network for regular waste pick ups (every week or 2 weeks), an ongoing program to keep educating on waste sorting and reduction remain necessary in the short / mid term. Over there, the waste is collected by boat in the islands and partnerships with local schools have been created to motivate the young generation and better convince the parents (usually harder to engage with).

It is important to bear in mind that it can be a long but rewarding process. Some villages are easier than others so it's better to choose the easiest one to start with, which will give more credibility to convince the other ones later on!

To illustrate this process, here is the map of the villages progressively joining the Nomad Community network, with obviously some ups and downs with villages, potential turnovers in village leaderships etc but good progress.

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The results: with 2-3 staffs on site: the programme was designed and tested from scratch and 12 villages were onboarded over 3 years. From 1 village and 600 people engaged the first year to more than 10 fold the 3rd year with 12 villages and over 6,000 people (200 kg of low-value plastics collected per boat pickup). The waste management system went from partial collection of high-value waste in some of the main villages and open burning or ocean littering to a higher coverage of waste collection for low-value waste, specifically plastics (with no economic value), the ultimate goal being to transform it into fuel through pyrolysis. In the short term, plastic credits are a good tool to give value to what are usually considered as non-recyclable plastics and finance collection operations.

More information on the web page: https://www.nomadplastic.com/nomad-community

Conclusion

In this mini-guide, we have rolled out a methodology and an example of a social engineering program. Bear in mind that there are many ways to approach this topic and you should be innovative and adjust to the context of your location. Social engineering deals with people so it is not an exact science and there may be challenges to overcome people's unwillingness to change or cultural barriers and bottlenecks.

It is also quite clear that as a government entity or NGO, social engineering may be higher on the agenda than for private companies. However the outcomes of such programs can be really rewarding not only for the community but for the business itself (increase access to quality feedstock, enabling acceptability and maybe influencing favorable public policies, access to market if the social engineering process also reaches out to companies and potential customers for products from the project etc).

For more questions on how to set up your social engineering plan, reach out to us or the Plastic Odyssey Community.

🚀 **It's now up to you to take this knowledge and apply it to the environment around you.**

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