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# RIVERS OF CONVERSATIONS

RELATING SYSTEMS THINKING & DESIGN  
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## **Object-oriented Storytelling for Systemic Interventions: A case study with UNDP's Strategic Innovation Unit**

**Hannah van der Sluijs, Sine Celik, Simone Uriartt and Peter Lloyd**

The UN Development Programme, operating at a global scale, is transitioning to a new approach for tackling complex national and international challenges. This involves moving away from single point solutions (initiatives) to a more flexible, multi-layered approach called 'portfolios'. However, the transition has not been easy. This action research project, based in a number of countries with UNDP projects, explores how the portfolio approach can be made more accessible and comprehensible for UNDP Country Offices. Through examples that range from gender equality, waste management, and green transitions, we analyse how objects, and the stories that they unlock, can play a role in framing systemic understandings for a far wider range of actors and stakeholders than the portfolio approach currently allows. We design a workshop as a research action, to demonstrate how object-oriented storytelling can enhance systemic understanding and set the foundation for more effective interventions.

**KEYWORDS:** objects, storytelling, systemic design, UNDP system and portfolio

**RSD TOPICS:** Cases & Practice, Methods & Methodology, Policy & Governance

## **Introduction**

Though the complex challenges of today's world lie beyond borders, specific industries, or fields of expertise, linear models of development persist in constructing simplistic versions of problems. Many national and international organizations understand there is a need for approaches that embrace the complexity of today's multi-layered challenges, but transitions to using new approaches, especially engaging people in change, are characterized by messiness and unpredictability (Rotmans & Loorbach, 2009; Light and Akama, 2012; Jones, 2014). Linear models persist in being the normative form of development processes.

Systemic design provides an alternative approach to designing with complexity that considers multi-layered interdependencies between different communities of practice. Vink (2023) argues that the values of systemic design should be incorporated in daily lives through lived experiences, emphasizing the role of individuals and social groups as active agents for driving change. This approach is in line with the increasing focus on an agency perspective within the realm of sustainability transitions (Franco-Torres et al., 2020). According to Light and Akama (2012), the efficacy of a design method depends on its embodiment, in other words how it is enacted or put into action. There arises an alliance between the method itself and its user, their biases and attitudes. The researcher is part of the system in which their research topic is embedded. In this sense, it is important to understand and emphasise how the practical implementation of the methods relates to their own worldviews. This, in turn, triggers the reconsideration of their position within a network of multi-disciplinary collaborations dealing with today's challenges.

This research explores ways of seeing and design methods that provide an alternative to the Cartesian paradigm of viewing things objectively at a distance (Light and Akama, 2012; Van Der Bijl-Brouwer, 2022). We draw on the Actor Network Theory of Bruno Latour (2005) in attempting to uncover how social change emerges through interactions between individuals, objects, and technologies, whilst dissolving the division between the material and the social. In particular, our work focuses on the importance of objects, and the narratives that lead from objects, in relating to systemic inquiry and comprehension. Objects can come in many forms, thereby facilitating the reframing

process in different ways. Barad (2012) explores the human body as entangled in social, cultural, and material forces, consequently shaping how we perceive our bodies but also how we perceive other bodies. Embodiment - making the body an object for social constructs - can change perspectives by mimicking the understanding of workload for women (Boelen, 2020). In design iterations, prototypes are the objects that facilitate shared understanding within a design team (Björklund et al., 2020). Objects, whether permanent or ephemeral, physical or conceptual, represent knowledge that can be translated into stories and experience. Lloyd (2000, 2018) and Talgorn and Ullerup (2023) use storytelling as a tool that respectively can guide design teams in the development of a common language and evoke empathy by other actors for users' experiences. Therefore, this research investigates how physical objects can be utilized to facilitate communication and enable systemic storytelling in addressing the complexity of today's multi-layered challenges.

Because stories and objects can act as leverage points, places in a system where change can cascade and echo through an issue of concern. A reframing process recalibrates the nature of a challenge and thereby considers alternative outcomes allowing new patterns to emerge (Paton & Dorst, 2011). Reframing processes are important to avoid counter-intuitive effects of outcomes. Meadows explores the counter-intuitivity of leverage points, interpreted as intuitively solvable, systemically worsening complex challenges (Meadows, 2008). In this situation the presumed solution becomes a downward spiral in which the challenge might become worse (Forrester, 1971; Murphy, 2022). Or in some cases may even cascade throughout the whole system in a negative rippling effect, affecting the lives connected to the network of the challenge at hand. Heads are turning towards design disciplines for inspiration about new ways of working, particularly how reframing methods can stimulate new approaches to thinking about the 'complex problem space' (Paton & Dorst, 2011).

## **The UN Development Programme portfolio approach**

The United Nations Development Programme (UNDP) is active in 170 countries and territories to help (local) governance and organizations progress with their development goals. There are three focus areas:

- sustainable development.
- democratic governance and peace building.
- climate and disaster resilience.

Besides providing relevant parties with a knowledge sharing network, one of UNDP's main tasks is acquiring funding for development efforts (Murphy & Browne, 2014). The research presented in this paper was conducted in collaboration with the Strategic Innovation Unit of the UNDP. The activities initiated by the UNDP operate through Country Offices. Country Offices have individual programmes designed for the specific development needs and priorities of the country concerned. The scope of this paper focuses on development transitions at the Country Office level.

The UNDP Portfolio Approach stems from system thinking and complexity theories, it is a way of working for managing an interconnected collection of projects, programs, or initiatives. Rather than focusing narrowly on one initiative, the portfolio approach focuses on achieving synergies between different initiatives, ensuring alignment with broader strategic goals (such as the UN Sustainable Development Goals), and more efficiently utilizing resources. The portfolio approach is a flexible way of working, emphasising learning, to identify more opportunities (policy options for the 'wicked' issues at hand).

In support of the portfolio approach, Theory of Change (ToC) contributes to the idea of the long-term commitment of organization and projects (Mackenzie & Blamey, 2005). ToC contradicts traditional ways of disengaging from ongoing involvement after the implementation of interventions (Strategic Innovation Unit, 2023). The theory substantiates the learning aspect of change occurring in a specific problem context. Extracting learning through change contributes to the understanding of the problem space. ToC illustrates and describes "how and why a desired change is expected to occur [or has occurred] in a specific problem context" (Belcher et al., 2020). This helps to

monitor changes in a system for which the intervention is designed. The portfolio approach builds on this, and additionally introduces a management plan for a large number of leverage points, consequently bringing together the perspectives of different layers of the challenge of concern (Johar, 2021).

The shift from linear planning to the portfolio approach is complex. External factors, political dynamics, organizational hierarchy, and internal factors, as well as the trajectory of adjusting to a new mindset and communication manner, all influence the learning process of a UNDP team (Belle & Quaggiotto, 2021). The starting point when transitioning to a portfolio way of working is for a UNDP team to identify the systemic forces acting on different levels of a challenge, and surfacing problems to reframe the challenge. The framing research question we explored in this case study was how we could facilitate the shift to a more systemic, portfolio-led approach for the UNDP.

### **Action research methodology**

The Strategic Innovation Unit of the UNDP conducts activities that form the system's general steps and portfolio approach. The guide written by the SIU distinguishes the following 5 phases of UNDP's approach:

- Build coherence.
- Reaffirm intent to transform.
- Design intervention and socialize portfolio.
- Implement interventions.
- Learn and adapt.

Although attempts have been made to create a structure for the approach that is applicable for most contexts and Country Offices, most of the countries and internal cultures require an unique and specific deployment of the approach and its tools. Therefore, it is up to local organizations and individuals to determine the manner through which portfolios are formed and enacted.

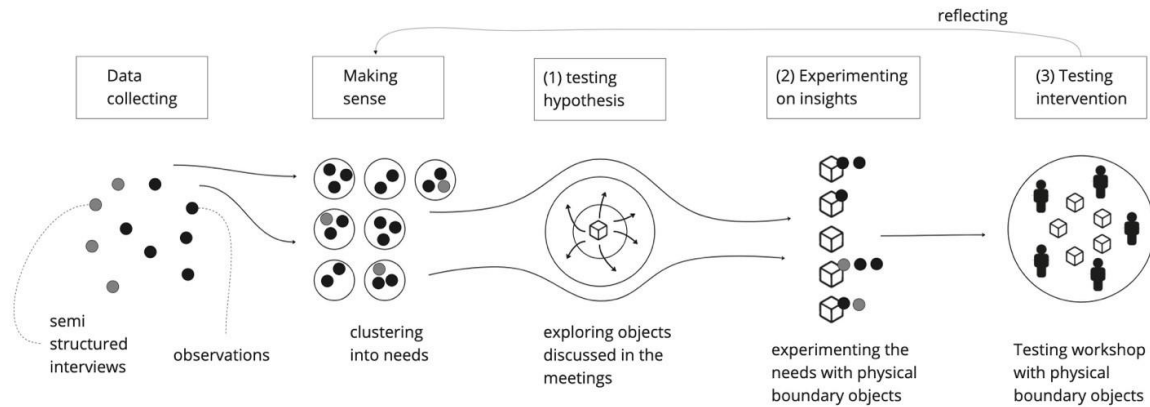


Figure 1: The process of analysis: an action research approach

We adopted an action research approach to our project of exploring how we could enhance the transition of Country Offices to 'portfolio thinking'. This involved first, observing sessions where the portfolio approach was introduced and discussed; second, conducting semi-structured interviews with key informants; third, building on the insights gathered to initiate a facilitating action. Our overall research process is illustrated in Figure 1. Efforts were made to mitigate researcher subjectivity and strengthen the validity of our action research by triangulating data, incorporating a diverse range of interviewees and multiple data sources. Feedback was continuous and integral to each phase of the process, in online and offline environment, allowing for real-time adjustments of the intervention.

The initial context of observation in this study was the UNDP Country Office team in Ethiopia, whose focus was on the development of the portfolio on gender equality (initiated by the update of the National Determined Contribution (NDC)). The UNDP team embarked on a three-phase portfolio approach in February 2023 and ended in late October 2023. This process was guided by an external (to the country) portfolio expert who moderated several online sessions taking an average of two hours. We conducted observation of these sessions on MS Teams, where activities were completed collaboratively using the online whiteboard application Miro. Through observing the team sessions, insights about the implementation of the portfolio approach were collected and tensions between the team and the approach were traced. Quotes that were collected in this study were categorized under the following subjects:

- The portfolio approach,
- Gender equality in Ethiopia
- The UNDP organization and its stakeholders
- The context and political background of the country

When collecting quotes, the primary focus was on identifying expressions of satisfaction and dissatisfaction with the portfolio approach. Categorization was used to discern which aspects of the meetings were problematic due to the approach and its implementation. It was assumed that the latter three subjects reveal the influence on the individual capabilities of integrating a holistic approach in a team member's work ethos. However, they can also be considered external factors as evident from the quotes discussing the experience and understanding of the portfolio approach itself. In any case, three focal points of attention were noted:

- How the challenge of concern was addressed.
- What the formulation revealed about the holistic or siloed view on the issues.
- Whether learning aspects would be taken account of or considered as standalone events.

Together with semi-structured interviews with UNDP members on the portfolio approach, raw data was collected and clustered into seven improvement areas for a systemic transition Shown in Table 1.

CLUSTER	QUOTE	INSIGHT
The need for realistic expectations and internalization of the portfolio approach principles	<i>"I think some colleagues also have a feeling that we are repeating things."</i>	There was a limited overview of the different external and internal stakeholders and the push and pull factors the team encountered along the way.

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The need to learn and adapt with little means and resources	<i>“The time to take a step back and reflect on the bigger picture is too often considered a luxury”</i>	there is a desire for implementing change with the little means and resources available (skills, time, money) to shed light on the portfolio principles and to build understanding progressively.
The need to bridge the gap between the portfolio and the context of the challenge	<i>“Only by contributing and doing it together can you really have this big systemic impact and this portfolio provides every actor who contributes with funding or with resources with ideas, it provides them with a chance to achieve a really big impact.”</i>	Make the context of the challenge stick throughout the design process and make the team members feel part of that context instead of members experiencing the analyzing phase from afar.
The need to consider and experience personal influence on the approach	<i>“It’s about learning that it is a learning process. And some people feel more comfortable with this sort of lack of clarity, because then they can maybe have a lot of their own ideas”.</i>	Sometimes the division between knowledge holders prevented the collaboration as if it was only allowed to express expertise, overshadowing space for personal opinions. Ensuring personal perspectives are valued from the beginning can help maintain this momentum throughout the process.
The need to lower the threshold for multi-stakeholder collaboration	<i>“The portfolio provides every actor who contributes with funding or with resources with ideas, it provides them with a chance.”</i>	Desires are expressed for a platform where the ecosystem network comes together, shares resources and finds overlap between scope, but most importantly

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The need to find a new language for complexity and simplicity of the portfolio approach	<i>"The response got back to just listing projects they run. It's very easy to fall back to some very basic definitions which are not correct, because when you start just listing projects, you are contradicting all the previous narrative of the portfolio"</i>	promotes the possibilities of the portfolio approach as a means to connect.  Language can prevent a new way of working as it reflects back on an old mode of working. Through the meaning of words, the team often attempts to draw parallels between the new and traditional methods. But subtle differences in meaning can significantly impact the chosen strategies for change.
The need to capture the idea of the systemic lens	<i>"Now we see the cause and effect, but not in the linear way. We also see the relationship among, for example, the causes or the effects in a systematic way."</i>	Most issues were confronted from a regulatory point of view but got emphasized once the stories of the community complemented this. Before this point, the systemic forces were identified as problems, constraints and challenges.

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Table 1. The seven improvement areas for a systemic transition within the UNDP teams, with quotes and insights from the analysis of the data

In the portfolio sessions observed it was clear that the UNDP teams were used to previous ways of working that primarily viewed projects as cases and standalone events and with limited collaboration with partnering organizations. The insights from Table 1 are derived from our discussion and observations. Through these insights it became

evident that there was a need for expansion and an accessible way to get acquainted with systems thinking. In short, there was a need to find a tangible and accessible way to look beyond the problem at hand. What gradually emerged in our analysis was the use of physical objects as a means to express systemic characteristics. Objects are universal, accessible and flexible enough to facilitate meaningful conversations. Physical artifacts are part of visible and tangible social structures, whilst also presenting symptoms of a system (Vink & Koskela-Huotari, 2021). As a carrier of projected meaning they can serve as a keyhole to intuit the less visible structures of a system.

This insight led to a series of experiments exploring the potential of objects to enhance portfolio understanding. The first experiment was based on the existing data from the observations. Objects were sought in the data that were of relevance to a portfolio approach but also connected to broader country priorities. The second experiment was conducted online with 5 participants, (3 from UNDP + 2 design students from TU Delft). The goal of the experiment was to confirm that objects could:

1. be identified by members of a project team.
2. be used for portfolio subject reframing.

The last experiment was a bespoke face-to-face workshop conducted with the Country Office team in Bosnia and Herzegovina (BiH), in which objects were found that enabled new narratives about the portfolio on Green Transition for the country to develop. We noted how the stories told about objects communicated system complexity in an accessible way. The following section unpacks some illustrative examples of what we observed in the experiments detailed above.

## **Results**

### **Objects bridging between portfolio and country priorities**

*The revised National Determined Contribution of Ethiopia explores the countries mitigation efforts in changing climates in terms of gender equality. One of the interventions is in the meat industry as the country changes its diet from cattle to poultry, from high-emitting to low-emitting livestock (UNDP & EFC Ethiopia, 2021). The care of low-emitting livestock, i.e.*

*chickens, is dominated by women. This shift will most likely increase their income and benefits. However, the position of the women in the industry will also come under pressure as the shift most likely catches the attention of men, traditionally dominating the high value products with a high-income potential (UNDP & EFC Ethiopia, 2021).*

The example above shows how both community habits and the effect of a national policy framework entrench a status quo on gender inequalities, while also embodying gender equality solutions and climate mitigation efforts. The chicken 'object' represents the reciprocal characteristics of integrated systems.

This story was a result of observations in Ethiopia. Five other objects (cookstove, marketplace, courthouse, medical plants, non-timber forest products (NFTP)) were found and mapped in Figure 2. The objects were used by the team members to find alignment with the Country Office priorities, reframing and expanding the solution space and providing inspiration for interventions. These sessions are decision-making moments that require detailed examples through storytelling and in which objects play a key role. Figure 2 shows how the object can be linked to the priorities of the Country Office and grounds the context and grassroots interactions in tangible reality. This completes the narrative and contextualizes the portfolio positions.

### **Searching for objects and unfolding the stories**

*An unusual yet practical solution emerged to deal with the persistent waste problem in Panama City. Garbage collectors used a large bed sheet to collect the waste. With shovels, they scooped up waste and piled it onto the sheet to transfer it into the truck. The use of the sheet as a tool for waste management demonstrated that waste disposal was not a matter of apathy or displaced feelings of responsibility but rather a matter of immediate needs and concerns.*

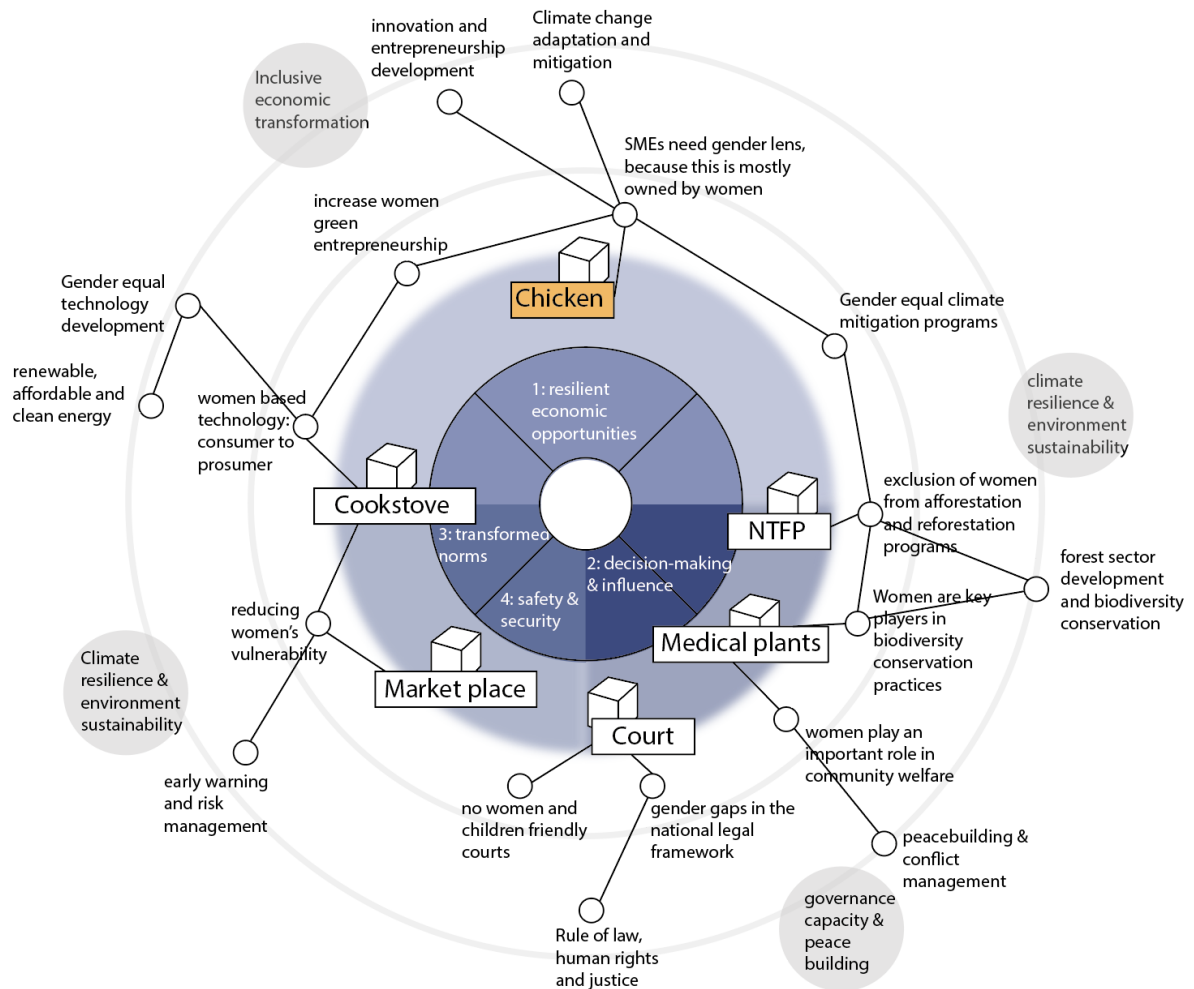


Figure 2. How the chicken 'object' fits a network of other objects, actors, and networks

The second object illustration was identified in the second experiment involving three members of UNDP teams and two students from TU Delft Industrial Design. After explaining the portfolio of the participant, describing the strategic directions and current interventions, specific locations were discussed where the issues of the challenge occurred and who interacted with these issues. For the bedsheet, the location was the Santa Ana neighborhood in Panama City. The interaction that took place here was between the garbage collectors and the garbage, through the creation of a new function for a bed sheet.

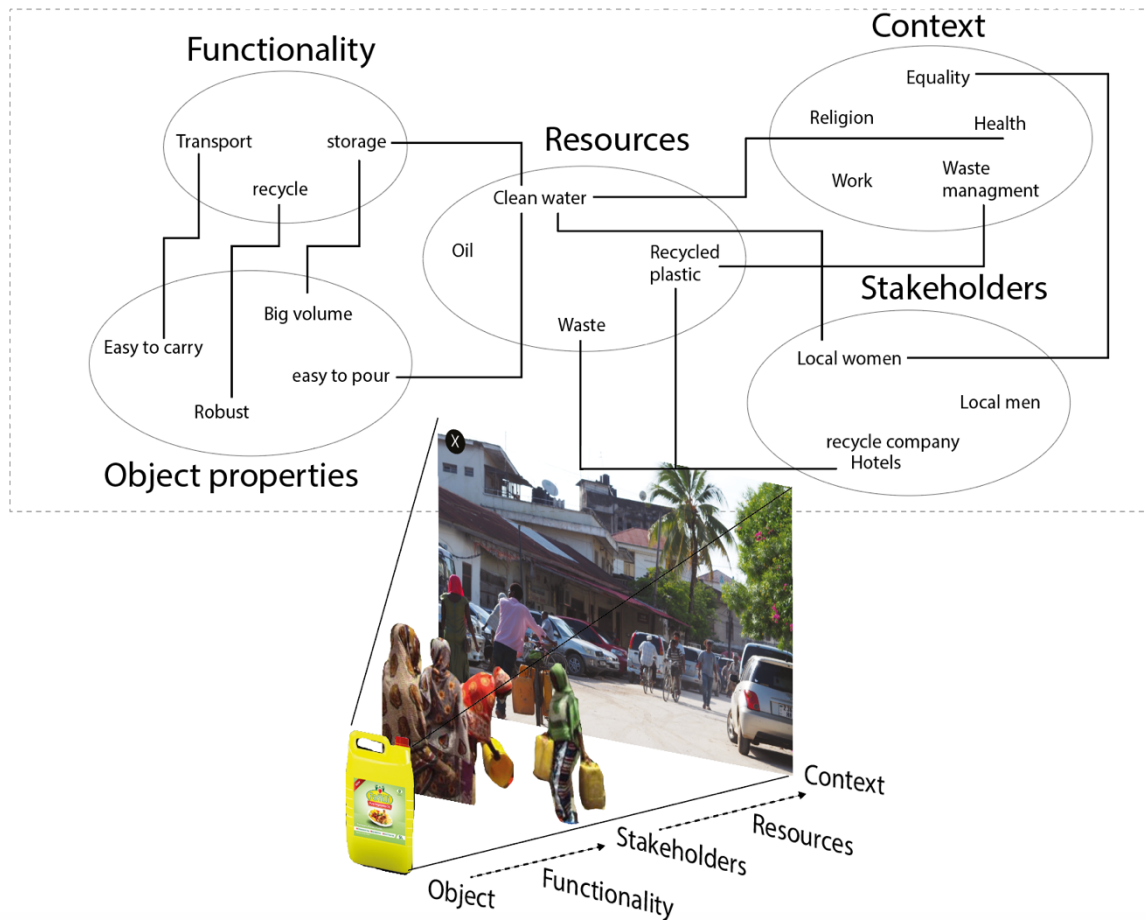


Figure 3: A visual representation of the build-up of the object story. The example given in the image is about a plastic container in Zanzibar used by women to collect water and the subject of new recycling streams.

After discussing unusual objects in further detail, the participants began to find new perspectives on the challenge and stakeholders involved. These objects became focal points for engaging with local issues. Additionally, participants identified potential new stakeholders to include in the portfolio's ecosystem by analyzing the stakeholders of the identified objects. Furthermore, synergies with other local development initiatives were found.

Figure 3 shows how the stories move from the detailed level of the objects to a broader perspective of its context. While stories explain how users interact with the objects, at the same time they clarify both the object's functionality and its relationship to the issue

or challenge at hand. Understanding users within their context reveals the resources the object offers in that specific setting. This shows how mundane objects are intertwined with the network of social challenges and interactions.

### **Object workshop: reflexive immersion and team context**

Building upon insights from the previous two examples, a new workshop was designed to systematically guide portfolio teams, within a team context, through the process of identifying objects relevant to their own portfolios and unpacking systemic insights from them. This was done by consciously moving from a universal and formal portfolio to a detailed story level, taking deeper steps into everyday experience. Participants then moved back to the level of the portfolio to translate any insights. The following steps were taken during the workshop:

1. Familiarization with an objects' storytelling capability
2. Portfolio visualization
3. Identify interaction locations
4. Find objects
5. Formulate an object statement
6. Map the object-interactions

The workshop was tested with the Bosnia and Herzegovina Country Office team in Sarajevo with six participants. For the participants the focus was set on the socialization of the portfolio to (potential) stakeholders and the experiment was a new tool that could potentially be put into practice for upcoming meetings.

Seven objects were found in two hours, shown in Figure 4. Some of the objects were personal to the participants to introduce them to the concept of thinking through objects (step 1 familiarization). The request was: bring an object that has an ethical implication. One participant brought a lump of coal, which later become one of the main objects. The other objects were found after Step 2: visualizing the portfolio's

current intervention directions (Figure 5) and identifying the locations where interaction with the issues took place, for instance in coal mining communities.

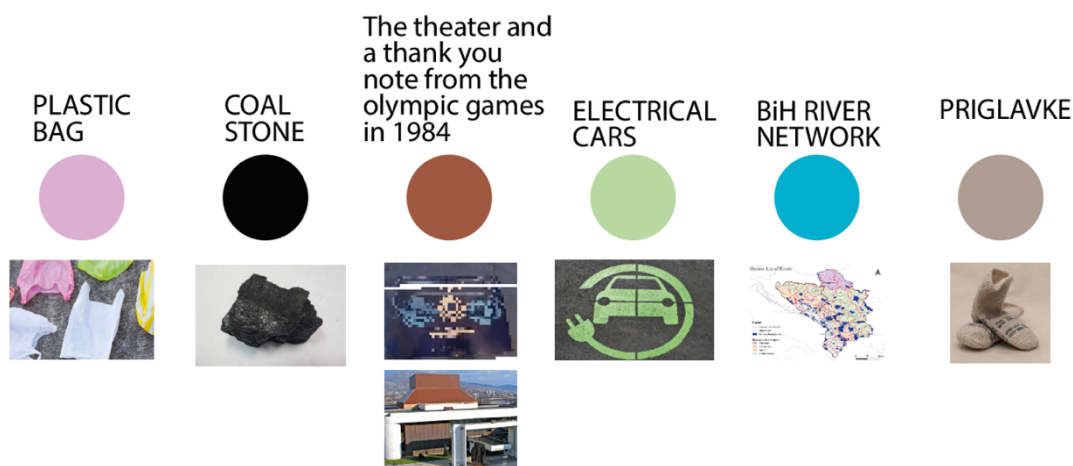


Figure 4: The objects found during the workshop representing the portfolio on Green Transition in Bosnia and Herzegovina

Based on the conversations and the feedback two extra features were introduced and discussed. The first one is an *object statement* that summarizes the object's conversations from the workshop and formulates how it is both embedded in day-to-day life and in the high-level portfolio discussions.

For example the object statement for the lump of coal was:

"We want to redirect the purpose and presence of coal in the country in a way that does not contribute to its pollution but to its symbolic value for the community."

To give the broad conversations a direction and a clear purpose for the portfolio and the team, it was observed that a clear statement can facilitate the participants to meaningfully address the object in the next step, helping the team members understand and express their personal vision on the subject of green transition. It also guides the team members into the same mindset about the subject as they can express their personal lived experiences while formulating them into a collective statement.



Figure 5: The Bosnia and Herzegovina Country Office team visualizing the portfolio

The next step in the workshop was to produce an *Interaction Map*, shown in Figure 6, to show the object as a bridge between object stakeholders and portfolio subject as well as the interaction between the people and the challenge. The map consists of two axes. The interpretation of the axes is chosen by the team members in line with the most prominent and present characteristic of the objects in the workshop. In the case of the Bosnia and Herzegovina Country Office, the objects mostly reflected the history of the country which resulted in axes of relatable-unrelatable and past-future. Although the map is based on subjective interpretations, the participants interact with the dynamics of the map, using the objects, the users, the stakeholders and the challenge to discuss systemic interactions.

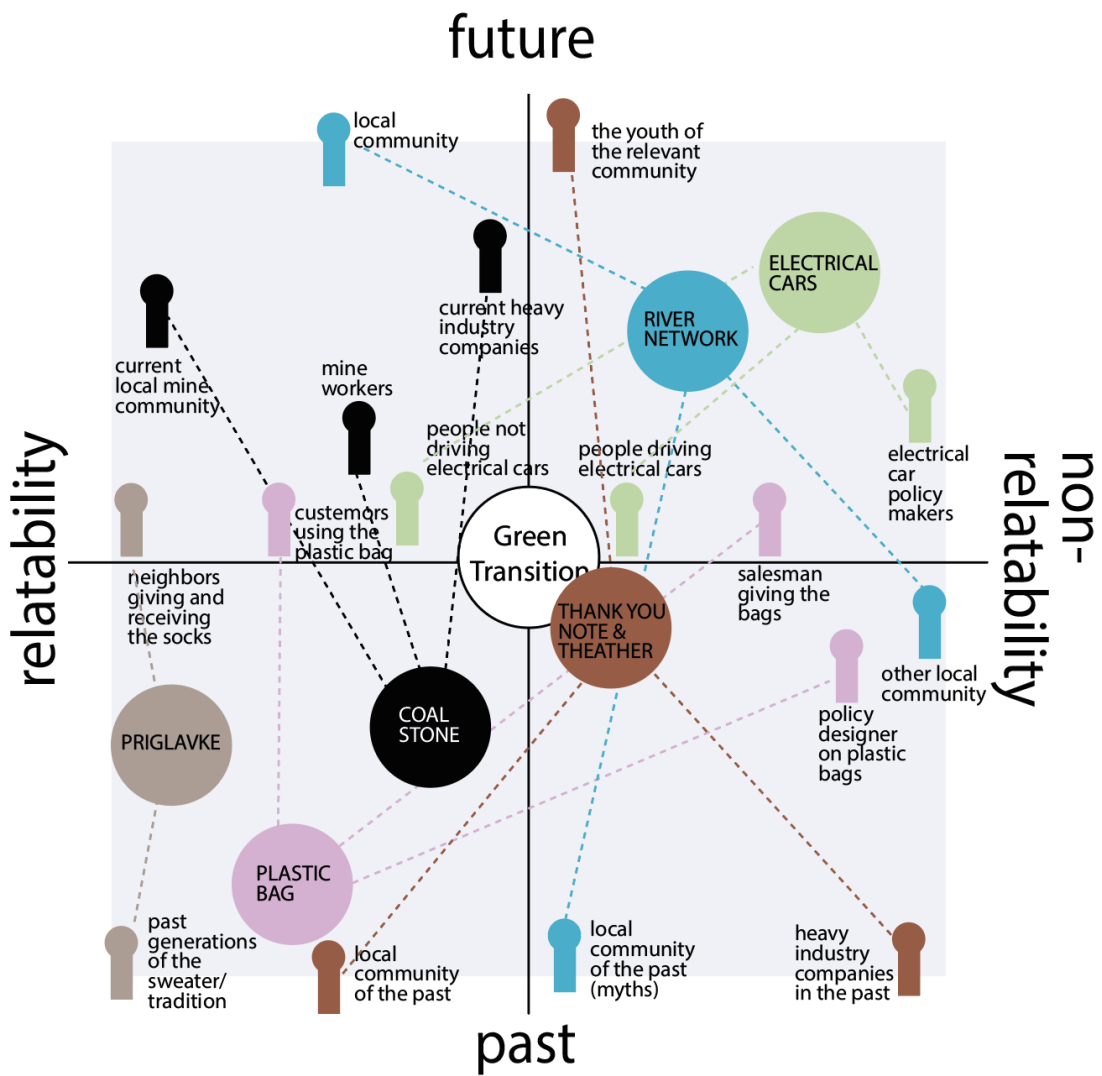


Figure 6: An Interaction Maps show the connections between objects, object stakeholders, and portfolio subjects (see figure 4 for the objects)

**Discussion**

Observations of UNDP team dynamics led to an intervention action to embrace the principles of systemic approaches, while bringing the team closer to the challenge of concern by discussing stories through objects. Our discussion is based on three areas that the object-storytelling method has influenced: systemic design, team collaboration and portfolio approaches.

The transition to a systemic approach requires adaptation to a new idea of complexity within the UNDP teams, and engaging with systemic design principles, that trigger mutual engagement between stakeholders and exchange of feedback between different elements and actors within a system. These principles are present in *reciprocity*, a concept that emerges through object-stories. Objects are the tangible interaction points for reciprocity, where bottom-up and top-down perspectives engage with each other in a continuous exchange of ideas, actions, and outcomes. When reciprocity was sensed during the experiments, it facilitated an acknowledgment of a necessity for systemic approaches to the areas of development. It also guided the team members to look for more systemic forces of the challenge, which keeps the current system in place.

Besides reciprocity, the reframing process is facilitated by breaking the pattern of formal analysis of the challenge. The physical characteristics and specific attributes are abstracted to represent broader ideas, concepts, or values. For example, a simple object like a bed sheet can carry an abstract meaning such as “comfort”, but as mentioned in the previous section, the concept it embodies for the individuals that experience the problem it does not necessarily represent comfort, but “improvisation” and “resourcefulness”. It becomes a symbol of a need for ingenuity and adaptability. Here the distinction between an objects’ conventional meaning and its situated meaning becomes clear, which means the generic meaning can be ‘paused’ while the situated meaning is embraced.

The objects that emerged during our study obviously relate strongly to the idea of boundary objects connecting different communities of practice (Star and Griesemer, 1989). A physical boundary object proved to be a productive tool for bridging the gap between context, team and portfolio. Our research simply uncovered and made explicit discussion of objects that was already taking place, linking these discussions to the

portfolio transition of Country Offices. The narrative of objects was used by the Ethiopia Country Office team members to spark recognition and ground arguments. With objects it is not only easy to express the already known, but it is possible to express latent knowledge. Due to this new perspective, the participants were able to explore the portfolio's overlap with other challenges and portfolios, detect new possible stakeholders and bridge the mental gap between team members and the challenge context, resulting in more empathy at the grass-roots level. By including their stories in the system that they were discussing, the 'system' was revealed as more tangible and subjective. The consequent understanding gained sets the foundation for a more effective portfolio intervention.

## **Conclusions**

When new approaches to development are implemented top down, as the UNDP programmes tend to be, it is important to fully understand the systemic implications. To help in this understanding this project has explored the function of specific, physical objects in development discourse. These act as boundary objects, common points of reference that facilitate communication and collaboration among diverse stakeholders with different perspectives, backgrounds, and expertise. Our workshop showed how such physical boundary objects can be particularly effective in bridging communication gaps about systemic perspectives and fostering shared understanding among stakeholders by providing a tangible and accessible platform for interaction and dialogue. Structured effectively, a discussion of objects can enable stakeholders to engage in iterative processes of inquiry, experimentation, and co-creation to address complex systemic challenges.

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