At the Edge of Participation

How Research and Development is promoting civic engagement and enabling collective intelligence in the Global Majority

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Introduction

Civic engagement and human development

UNDP defines civic engagement as the broad range of actions undertaken by individual and collective actors operating in the civil society arena. Through it, people come together, as members of a community, to pursue shared goals [1]. This process can take different forms. It may be geared towards influencing the actions of the state – such as when people organize to provide inputs into policy making. Or it may be more community-focused – for instance, when people tap into local knowledge and relations to generate new solutions to shared development challenges.

In all its different forms, civic engagement is a human right. Protecting people's ability to meaningfully engage in public life – beyond the delegation of power to office holders – is essential to upholding human dignity and freedom. Civic engagement has, therefore, an intrinsic value. However, at the same time, it also has an instrumental value as an enabler of collective intelligence, which, in the right circumstances, leads to better collective decisions and unlocks benefits for human development.

The 2026-2029 UNDP Strategic Plan recognizes protecting and promoting the conditions for civic engagement as an essential condition for effective governance. Civic engagement is also central to the global programme "Governance for People and Planet," anchored in UNDP's Governance, Rule of Law and Peacebuilding Hub. The programme seeks to enable meaningful participation as a way to empower people as positive agents of change in an and open and inclusive public sphere.

Civic engagement as an enabler of collective intelligence

When people pool together insights, skills and ideas in a collaborative process, their contributions often become more than the sum of their individual efforts. This enhanced capacity – which we refer to as "collective intelligence" – can be very powerful and has always been central to humanity's ability to solve problems quickly and at scale. Scholars, activists, public officials and politicians have been quick to experiment with applying the collective intelligence framework to civic engagement, especially as the Internet became available to more of the world's citizens every year, reducing the cost of knowledge sharing and dialogue [3], [4], [5], [6].

Civic engagement, by mobilizing members of society beyond the confines of public institutions and by building bridges between communities and public institutions, is a major driver of collective intelligence. By this term we mean the enhanced capacity that is created when people work together, often with the help of technology, to mobilize a wider range of information, ideas and insights. Especially when it is truly inclusive – when it creates space for people from all walks of life to contribute – collective intelligence can have a major impact in harnessing our world's collective brainpower and unleashing human ingenuity.

Innovation practice in the UNDP Accelerator Labs Network

This report discusses the potential for innovation to enhance and support civic engagement, based on the experience of the UNDP Accelerator Labs – the world's largest and fastest learning network on 'wicked' sustainable development challenges [7]. Co-built as a joint venture with the Federal Ministry for Economic Cooperation and Development of Germany and the Qatar Fund for Development, the Network is composed of 89 Lab teams covering 113 countries and taps into local innovations to create actionable insights and reimagine sustainable development for the 21st century. It was designed as a network specifically to better tap into collective intelligence [8].

To mobilize collective intelligence the Network engages in Research and Development (R&D). It brings to bear innovation methods ranging from ethnographic, like participant observation, to quantitative, like experiments, to design-based, like prototyping. The application of these methods produces working hypotheses and generates actionable evidence to validate them.

Each Lab in the Network decides autonomously what to work on. In some cases, however, several Labs independently converge on the same issue or approach – itself a form of collective intelligence. We interpret convergence as relevance; it is a signal that an area of work has general relevance beyond the special circumstances of a few countries. Public participation is one such area of work. Many Labs have applied innovation methods to make participation better, faster and cheaper, pushing the edge of civic engagement and further spreading the benefits of collective intelligence for development practice.

Materials and methods

The Accelerator Labs Network upholds a culture of knowledge sharing through documentation ("working out loud"). Since its inception in 2019, each Lab has contributed to digital repositories common to the entire network. As of 2025, these repositories have been federated in a single database, called the SDG Innovation Commons [9]. At the time of writing, it indexes over 10,000 documents produced by the network. To map the extent of the involvement of the network in civic engagement, we first ran a search on the SDG Commons for "civic engagement". The search was semantic rather than textual, powered by a Large Language Model (Llama 3.1). Semantic searches return all items in the database, ranked by proximity to the search term in vector space.

Next, we read through the search results starting from the highest-ranked and stopped when the ranking got low enough that the results were no longer relevant, at approximately 650 documents. We found 28 Accelerator Labs from all regions that were focusing explicitly on innovative forms of participation. This is an underestimation of the number of Labs that are working on innovative forms of participation, because Labs – primed to reach for collective intelligence as a matter of course – tend to deploy participatory methods, sometimes in an innovative way, whatever they are working on. This means that they themselves use, for some of their activities, framings other than civic engagement to describe the focus of their work ("climate change" or "the circular economy", for example) even though civic engagement itself is central to those activities, sometimes in innovative ways. A collection of blog posts and other documents produced by individual Accelerator Labs is available at https://sdg-innovation-commons.org/next-practices/civic--participation.

From this subset, we selected 15 experiences that we found to be innovative in the sense of pushing the frontier of civic engagement. The remaining 13, while interesting and innovative in other domains, do not appear relevant to this report. Finally, we carried out semi-structured interviews with the authors of those 15 documents to collect reflections and learnings on the practice of civic engagement in those experiences.

Three emergent patterns

We find that the mapped experiences tend to gravitate around three primary areas of focus:

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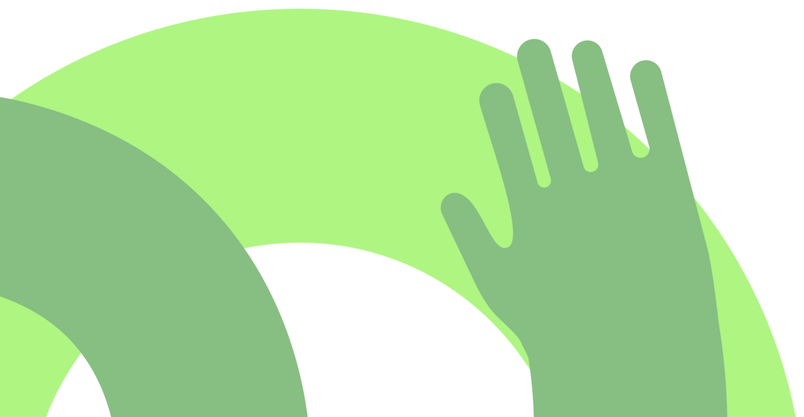
- **Enabling voice.** Initiatives where R&D helps citizens to get their voice heard and policy makers to listen, bringing to their attention the perspectives of more citizens, and in greater detail.



- **Collaborative design.** Initiatives where R&D brings state and non-state stakeholders together to find solutions to complex problems. This area focuses on the co-design of collaborative action, rather than policy transformation.
- **Spurring community organizing.** Initiatives where R&D taps into community resilience and unlocking self-organizing, so that communities – autonomously from public institutions – can identify solutions to shared challenges.

Consider a very simple model of collective outcomes as the result of a linear process that consists of first, acquiring information; second, making decisions based on that information; and third, taking action to execute those decisions. With another simplification, consider the citizenry's collective intelligence and formalized governance processes as the two main forces that drive this process. The three patterns described above can be classified in terms of the phases of the process where collective intelligence has a role to play (Figure 1). As we move from the first to the third, decision makers rely on collective intelligence for more phases of that linear process.

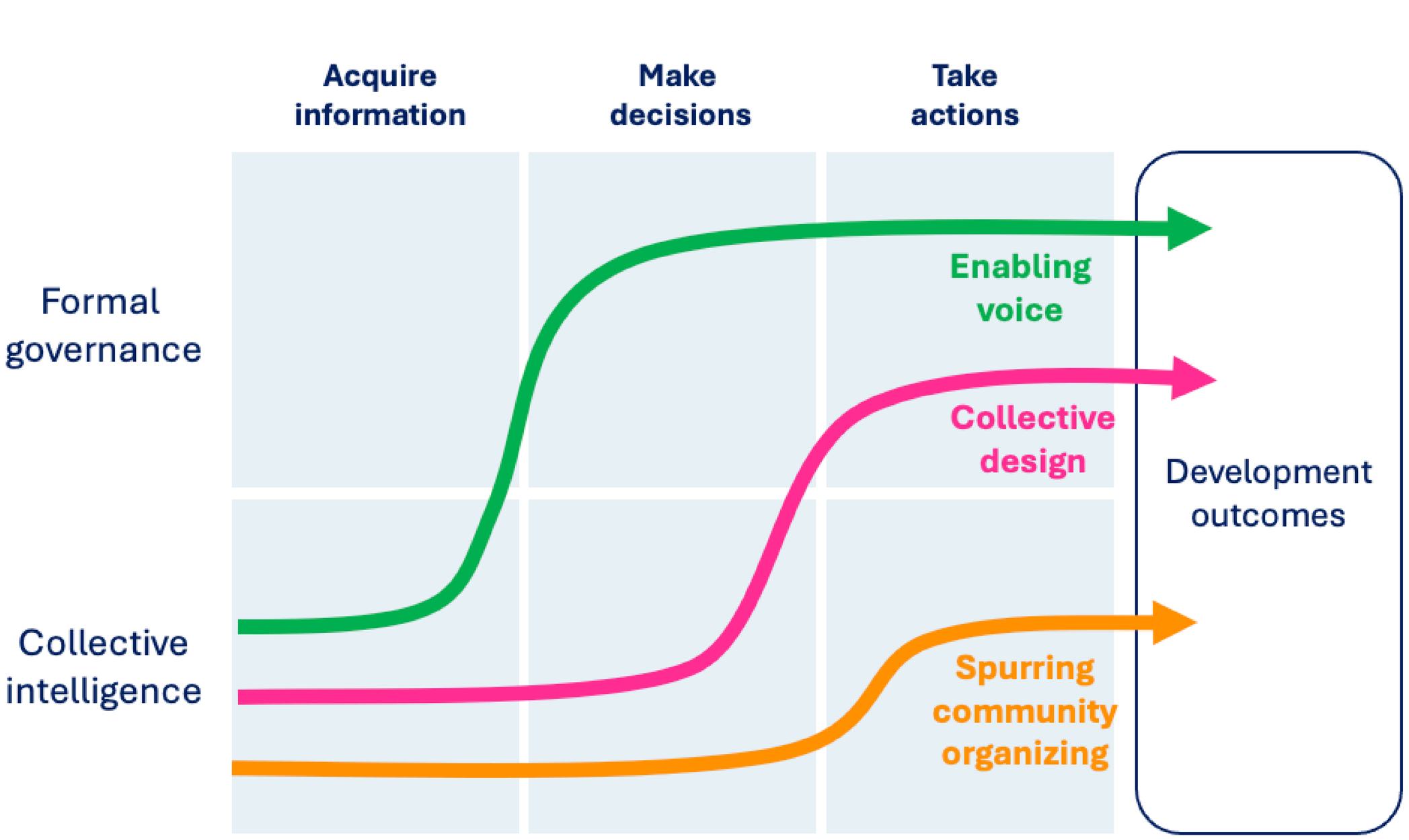


Figure 1. Three patterns in how collective intelligence brings about development outcomes.The experiences examined here switch between using formal governance and collective intelligence as they go through different phases of an intervention (acquire information, then make a decision, then take action on it).

The experiences described in the next section seek to situate themselves at what could be described as “the edge of participation”. This is the case for several reasons.

First, their use of more experimental and adaptive approaches such as ethnography, visual storytelling, citizen-generated data and collaborative prototyping reflects a research and development mindset, through which Accelerator Labs seek to connect UNDP programming with the frontier of practice in the field of civic engagement promotion. Second, they focus on amplifying the voices of those “away from the center” – those who are marginalized, whether because of their identity, location, economic status or other reasons. In this sense, they support efforts pushing the boundaries of established participation norms.

Third, they are located “at the edge” also in a less positive sense. The powerful forms of citizen participation they illustrate remain fragile. They could not take place – or thrive – without an enabling environment for civic engagement or adequate protection to ensure that participation is safe.

In what follows, we briefly present each of the 15 cases. We have chosen to organize them by emergent area of focus, so that the reader starts with cases centered on citizens making their voice heard, and end with cases of community self-organizing.

Enabling Voice

How R&D helps take the perspectives of citizens into policy making

Argentina: citizen science

Volunteers with bicycle-mounted sensors cycle the streets of Buenos Aires to collect data that informs environmental policies and decision-making. Greater awareness and new spaces of dialogue are created in the process.

Overview

Air pollution is a growing concern in Argentina, particularly Buenos Aires, where communities face limited access to reliable environmental data. Recognizing this, the UNDP Argentina Accelerator Lab partnered with the government and open-seneca – a global initiative that empowers communities to monitor air quality - to launch a citizen science initiative focused on air pollution. The project engaged students and residents in building and deploying low-cost sensors to collect real-time air pollution data in specific locations by cycling through the city.

Volunteers took to the streets on their bicycles, each equipped with a handmade air quality sensor that they built themselves in community workshops. Following pre-mapped routes through their neighborhoods, they collected real-time pollution data, transforming their daily movements into a powerful act of civic engagement. This also created a direct connection between everyday experiences and environmental decision-making. By equipping citizens with tools and training to monitor, data gaps were filled in the under-monitored areas and served as a tool for community engagement, raising awareness of urban environmental issues while informing public institutions. The data collected by citizen volunteers created a feedback mechanism between citizens and policymakers.

By filling gaps in official monitoring systems, it enabled policymakers to access localized environmental data that reflected real community conditions, contributing to more informed decisions. The citizen science initiative was scaled into two national programs and reached over 40,000 people across cities.

Achievement and impact

- **Bringing citizen science into policymaking.** Data collected by participants was shared with local and national authorities, enabling institutions to gain a better understanding of neighborhood disparities and integrate the evidence into environmental decision-making. In the process, new spaces for dialogue were created, linking everyday citizen experiences with policymaking in a more direct and participatory way.

- **Strengthening environmental awareness.** Citizen participation in data collected helped raise public awareness and encouraged citizens to see themselves as contributors to environmental solutions. The hands-on process of building sensors and collecting data fostered a sense of engagement and ownership over local air quality challenges.

- **More, better data.** Improved environmental data through participatory methods and open-source tools, contributing to more responsive and inclusive public policies.

The initiative demonstrated that citizen science can go beyond data gathering to serve as a tool for civic participation and policy impact. By equipping locals with the means to monitor their own environment, it not only filled data gaps but also fostered new forms of engagement and dialogue between communities and institutions, ensuring that environmental policies are informed by those most directly affected.

Additional resources

Using DIY hardware and citizen sensing to measure changes in air quality in Argentina

Mexico: a portfolio for consultations with indigenous peoples

Driving systemic change by using ethnographic exploration to integrate Indigenous perspectives into public policy and project planning through inclusive consultation in the energy sector.

Overview

In 2019, the government of Mexico launched the Program for the Development of the Isthmus of Tehuantepec (PDIT), which was an infrastructure and industrial project to connect the Pacific and Atlantic oceans via railway.

While the project promised significant economic benefits by enhancing trade, connectivity and regional development, it would directly affect Indigenous communities across Oaxaca and Veracruz, raising serious questions about land, identity and the right to be heard. In line with ILO Convention 169, the government was obliged to carry out a process of Free, Prior and Informed Consultations (FPIC). The UNDP Mexico Accelerator Lab engaged in this process to better understand how the perspectives of Indigenous peoples were being included in the process.

The Lab employed an ethnographic approach to explore how consultations were experienced by participants capturing their emotional experiences, expectations and interpretations. Through video ethnography and in-depth interviews, it was possible to trace not only what people said, but also the gestures and expressions that revealed underlying tensions, concerns and hopes, often absent from formal records. In addition, the Lab documented lessons from the energy and mining sectors by reviewing past FPIC processes, using video ethnography, in-depth interviews and facilitating participatory workshops to map barriers to participation. This exploratory process identified key dynamics, potential points of conflict and opportunities to foster collaboration between communities, the private sector and government entities.

Achievement and impact

- **Stronger voices.** The Lab brought forward perspectives from both community members and community leaders, including women and youth, on the design of consultations. This ensured that local narratives shaped the understanding of the FPIC process and that typically excluded voices were brought into the conversation.

- **Spaces for dialogue.** By gathering narratives through video ethnography and participatory workshops, the Lab fostered dialogue between communities, government actors and companies, utilizing consultations as a starting point for deeper collaboration. In order to foster trust and prevent an extractive approach to ethnographic inquiry, the UNDP Mexico Accelerator Lab relied on.

- **Systemic insights.** The initiative mapped 16 structural barriers that weaken the participatory process including limited awareness, gender exclusion and unequal power dynamics. These challenges informed a portfolio of solutions aimed at improving future consultations and indigenous engagement, not just in energy but across sectors.

This initiative used a multidisciplinary approach to facilitate a participatory reflection on the design of complex consultation processes with a focus on the experiences of indigenous communities. This reflection identified concrete ways to ensure that consultations serve as a tool for trust-building, negotiation and long-term inclusion rather than a formal obligation or purely performative exercise.

Additional resources

- Project description (Spanish)
- Blog. Validating an understanding of the problems (Spanish)
- Full report. The right to prior, free and informed consultation of indigenous peoples (Spanish)

Morocco: foregrounding community voices in national dialogues on Artificial Intelligence

Overview

Artificial Intelligence is rapidly reshaping societies, yet in Morocco Public debate has often excluded those most affected. This raises concerns about AI's impact on education, jobs and everyday realities. In March 2024, the Columbia School of International and Public Affairs partnered with the UNDP Morocco Accelerator Lab in Morocco to pilot national dialogues on Artificial Intelligence (AI) as part of the Framework for listening to voices from Global Majority countries on Frontier Technologies. The Lab collaborated with several grassroot organizations embedded in the local civil society ecosystem, enabling access to networks beyond academia and government. One example was a second-chance school Non-Governmental Organization (NGO) serving low-income youth that have not been previously in a school or have been dismissed from one. Trust was gradually built by leveraging local intermediaries who already had credibility with underserved communities.

The Lab focused on including voices missing from the AI- and digital technologies development debate, reframing discussions to focus on real-life implications such as public service delivery, surveillance, or education. Consultations were held across four cities (Berkane, Oujda, Salé, Rabat), engaging youth (18–35 years of age), educators, civil servants, and marginalized communities. Using focus groups of 15–30 participants each, consultations explored perceptions of AI's impact on education, privacy, jobs, and cultural values.

The process was co-designed with local partners to build legitimacy, and facilitation remained agile, adapting formats in real time to participants' needs.

The AI conversation was reframed around tangible concerns such as access to public services or algorithmic surveillance, grounding technology in people's lived experiences.

Achievement and impact

- **Amplifying Local Voices.** The dialogues highlighted priorities from women, youth and rural participants who emphasized the need for AI training and education to prevent being "left behind". Concerns about algorithmic biases were widely expressed, given that AI have been predominately trained on data that have not been generated locally. Education emerged as most frequently mentioned area for AI applications (cited in 80% of sessions); participants mentioned accountability and human oversight as essential to counter technocentric narratives.

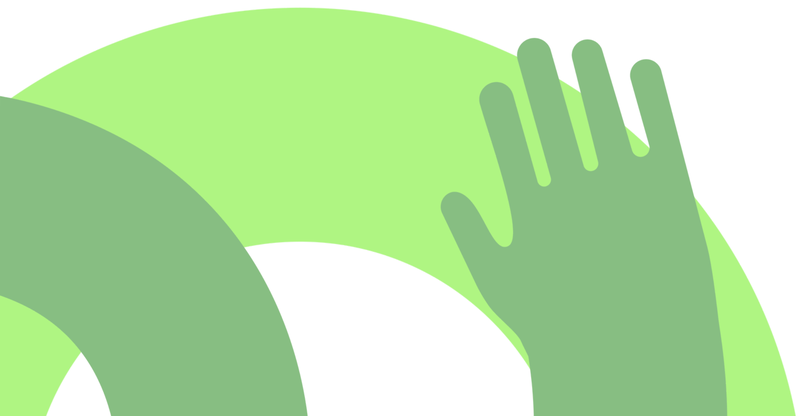
- **Creating channels for exchange.** By grounding discussions in everyday concerns, the consultations provided spaces where citizens, educators and public officials could share perspectives on equal terms. This approach expanded participation beyond traditional experts and gave communities a stronger role in shaping the debate.

- **Systemic Insights.** The exercise revealed disparities in AI awareness, with low-income participants expressing greater anxieties about possible job losses and technological shifts. Responsibility gaps became visible: while developers were often blamed for misuse, the participants stressed the importance of local involvement in the development of AI technologies and their risk mitigation.

This initiative demonstrated that it is both possible and valuable, to bring diverse voices into a highly technical field such as Artificial Intelligence. By grounding debates in lived experiences, it created pathways for trust, accountability and policy development that reflect the realities of diverse communities.

Additional resources

- Report. Framework for National Dialogues
- What do we learn when we listen to the Global Majority on AI?



Mozambique: the power of storytelling

In communities impacted by climate-change, villagers in Mozambique capture and share photos of their flooded homes and fields, using visual storytelling as a powerful tool to co-create collective solutions with the government.

Overview

The Sofala region in Mozambique is heavily impacted by climate change, experiencing yearly cyclones, floods and significant rainfall which increase the regions vulnerability and pose ongoing challenges to the local communities. In collaboration with NESTA's Center for Collective Intelligence Design, the UNDP Mozambique Accelerator Lab encouraged local communities to use visual storytelling as a tool for community-driven problem-solving, allowing villagers to document the impacts of climate change firsthand and shape discussions with decision-makers. Through photos, the villagers became narrators of their own experiences and active contributors in shaping local responses. Photos captured were shared at a workshop with community members and government representatives. This contributed to centering the forum's dialogue on urgent needs, fostering a sense of shared responsibility between community members and the government, while creating a space for collaboration and the co-development of solutions.

Achievement and impact

- **Active participation and influence.** The community itself framed the challenges through their own lens, influencing decision-making

- **Creating new channels for voice.** The voice of the community became louder and clearer, with the photos being recognized as a legitimate avenue to participation. Space was created for different forms of expression, enabling a more plural and inclusive dialogue.

- **Breaking down barriers between villagers and the government.** The photos served as a tool to bridge communication gaps, making complex climate challenges tangible for policymakers. For example, the villagers experienced a lack of resilience in housing structures, which are primarily made of mud and frequently damaged by heavy rainfall. Co-created strategies were developed for rebuilding by reusing the mud after flooding damage. Furthermore, the collaboration led to explicit government commitments to provide drainage solutions.

This project demonstrates how participation can shape discussions on the challenges of climate change and lead to the establishment of regular meetings to facilitate exchanges and foster collaboration. By transforming storytelling into a tool for collective action, the images became more than just documentation - they served as a driving force for systemic change within the local community.

Additional resources

- Report. UNTAPPED. Collective intelligence for climate action

South Africa: Just Energy Transition

Building trust in communities impacted by the planned shutdown of coal mines and bringing their perspective into the upcoming Just Energy Transition.

Overview

South Africa's energy system is highly reliant on coal, which supplies over 80 percent of the country's electricity. The country is now moving toward a more sustainable energy future through its Just Energy Transitions (JET), however concerns about the social and economic consequences for coal-reliant communities are growing. The UNDP South Africa Accelerator Lab, in partnership with a local NGO, iSpani Insights, and national stakeholders, adopted a citizen social science approach to understand how communities perceive and experience the JET, and to ensure the recognition of local voices in the transition. Through the recruitment, training and ongoing engagement of a network of embedded community researchers – the project's documentation calls them Youth Agents - real-time insights were collected from coal miners, their families, and others linked to the coal value chain. This work provided a platform for people to voice their concerns, expectations, and hopes for a just transition. Working with embedded community researchers helped to reduce some of the institutional distrust that previously acted as a barrier to engaging coal miners in dialogue. Employing youth as micro-data entrepreneurs also ensured other barriers such as access and language were overcome.

Achievement and impact

- **Strengthening citizen agency in the energy transition.** Insights gathered from community members were shared with key stakeholders to ensure that policy discussions reflected everyday experiences.

- **Capacity-building of Youth Agents.** The project trained, engaged and empowered young people as local knowledge bearers and changemakers in their communities. The young people served as data collectors and agents of community awareness and dialogue.

- **Creating a collaborative feedback mechanism.** The community-led research created a platform that raised awareness about the JET and captured different concerns regarding job losses, reskilling, housing and social stability. This laid a foundation for more inclusive planning, giving communities the opportunity to co-shape future economic opportunities.

The initiative – which reached over 10,000 coal mining community members in less than a year - illustrates how meaningful engagement can be enabled in complex, contested and politicized topics such as energy transitions. Through partnership with trusted intermediaries, the Lab managed to establish a communication channel with groups that are underrepresented in conversations about the mining industry with a view to ensuring that the shift to renewable energy is not only environmentally sustainable, but also socially inclusive and people-centered.

Additional resources

- Report. The Just Energy Transition: From the Perspectives of South African Mining Communities

Collective Design

How R&D helps bring stakeholders together to find shared solutions to complex problems

Dominican Republic: improving waste collection

Integrating technical solutions with community-led oversight and local authorities to improve waste collection and build more sustainable management systems.

Overview

In Santo Domingo, residents in low-income neighborhoods often watch garbage pile up for days, sometimes just steps from their homes, posing serious health and environmental risks. The development of effective solid waste management systems has failed to keep pace with rapid urbanization, leading to irregular collection and deepening inequality in service delivery. To address these challenges, the UNDP Dominican Republic Accelerator Lab applied a collective intelligence approach to explore how spatial inequality, governance, and cultural habits reinforce ineffective waste

management systems. By engaging stakeholders across municipalities, non-governmental organizations, private sector actors, and community leaders, the Lab conducted participatory research to understand lived realities and priorities of those most affected and co-create solutions for a more equitable and community-driven waste management model. In response to these results, the Lab proposed a new collaborative waste-management model in which local communities, municipal authorities, and other key local stakeholders worked together to tackle this issue through a bottom-up, co-creative approach. Stakeholders agreed to engage; as one of the outcomes, community members coordinated pickups using motorcycles, which improved reliability and reduced waste buildup in public spaces that had previously been underserved.

Achievement and impact

- **Centering community voice.** Community members were engaged through interviews and focus groups, and the Lab provided a platform for knowledge sharing and shaping inclusive approaches to waste governance.

- **Citizen-led service delivery.** With support from the municipality, the Lab piloted a community-driven waste collection service, where community members used motorcycles to coordinate pickups of waste based on agreed times and routes.

- **Institutionalized local solutions.** After the Lab's departure, the municipality carried the project forward, building on its positive impact. The community saw significant improvements and garbage was no longer left around. The model laid the foundation for a more sustainable, long-term system.

The initiative not only shaped waste management solutions through collaboration but also helped shift deeply rooted behaviors such as littering, as community participation fostered collective responsibility in areas where disorder had been normalized.

Additional resources

- Blog. Spatial governance, culture and waste management: learning through collective intelligence in Santo Domingo
- Blog. Urban local governance from the margins: The struggles of participatory democracy in slum communities

North Macedonia: biowaste

Bridging science and entrepreneurship to transform biowaste into value, inspiring a new generation to explore circularity and create economic opportunities in North Macedonia.

Overview

In North Macedonia's capital Skopje, biowaste accounts for 46,5 per cent of all municipal waste, with 95 per cent ending up in open landfills, contributing to the emission of greenhouse gases, and posing significant environmental challenges. The UNDP North Macedonia Accelerator Lab, in partnership with the City of Skopje, UNICEF and other national stakeholders, launched a Biohacking Laboratory. It focuses on reusing and repurposing bio-waste as an entry point to create entrepreneurial opportunities through citizen science while supporting the delivery of science-based educational programmes in schools. The BioHacking Laboratory initiative is aligned with national priorities and action plans and aims to make biotechnology science accessible to all, much as computer programming became accessible to the public in the 1970s.

At a local high school in Skopje, an ordinary laboratory has been transformed into a biohacking space where students, teachers and community members, private sector businesses, startups come together to turn curiosity into action. In one workshop, students experimented with turning orange peels into natural cleaning products. In another, they worked with local startups to prototype compostable packaging made from used coffee grounds. These sessions not only provide practical applications of scientific knowledge but also foster a sense of community and shared responsibility for biowaste management. By bridging science and society through hands-on experimentation, the initiative encourages collective learning and co-creation of circular solutions. The Biohacking Lab's first project, Hack My World, was one of the winners of the Green Shark Challenge, a UNDP-UNICEF competition focused on environmental sustainability.

Achievement and impact

- **Creating North Macedonia's first biohacking laboratory.** The Biohacking Lab is an accessible public innovation space that allows students, teachers, entrepreneurs, and citizens to experiment with sustainable solutions in biowaste reuse, unlocking local capacity for innovation.

- **Enabling cross-sector collaboration.** Through events such as the Biohack My World startup programme, a biotech programme aimed at the private sector, this portfolio fostered a collaborative ecosystem where participants co-developed bio-based products and startups.

- **Youth-led innovation.** Youth were encouraged and empowered to tackle environmental challenges through a bottom-up approach, shifting narratives and demonstrating that youth can lead environmental and economic transformation.

The Lab serves not only as a space for technical innovation, but also as a platform for dialogue, community participation, and systems thinking, bringing together multiple sectors to collaborate on prototyping, testing and proposing ideas on how to transform waste into economic value.

Additional resources

- Blog. Rethinking (bio)waste
- Blog. Green Innovation: A Biohacking Lab opens doors in Skopje
- Blog, Inspiring Solutions for a Greener World
- Blog. Beyond Plastic: Can bioplastics help us deal with the challenge caused by plastic pollution?
- Blog. Turning Biowaste into business opportunity
- Blog. Ahead of the curve

Panama: intergenerational design of public spaces with generative AI

Using generative AI, youth and older adults co-designed public spaces by transforming local stories into visual proposals – sparking intergenerational dialogue and new forms of civic engagement.

Overview

The neighborhood of Betania in Panama City faces challenges of urban fragmentation, social isolation, and underutilized public spaces. In Panama, like many other countries of Latin America, traditional planning processes often fail to include all voices, particularly youth and elderly citizens. The UNDP Panama Accelerator Lab explored how new technologies could shift that dynamic through new ways of participation. The Lab organized a series of intergenerational design sessions in partnership with a local university and community groups.

Participants from two age groups (university students between 18-22 years of age and senior citizens above 70 years old) were invited to document through pictures the public spaces of their neighborhood and identify areas of concern or opportunity. These insights were then translated into verbal prompts and fed into

UrbanistAI, a generative AI tool that produces visual design concepts based on natural language. These image-based outputs allowed citizens to iterate and co-create the places together in real time, based on their own experiences and demographic context. From shaded benches to open-air gyms, art walls to bike paths, the images sparked dialogue, reflection, consensus, and laughter, and revealed a shared vision for public spaces that transcended generational divides and digital gaps.

What emerged at the end of the workshops was more than urban designs - it was an opportunity for intergenerational dialogue and collective imagination. The process culminated in several mixed-age groups presenting their AI-generated designs to municipal authorities, creating a space where imagination and social cohesion met decision-making.

Achievements and impact

- **Strengthened intergenerational collaboration and inclusion.** Participants reported stronger and more meaningful interactions across age groups. Many highlighted how the process helped them feel more valued and included in shaping their neighborhood. Follow-up surveys revealed an increase in participants' motivation to engage in community life and their perception of being included in public decisions.

- **Technology as a connector.** Rather than reinforcing the generational digital divide, AI became a tool to democratize imagination. Everyone could use it to participate on an equal footing, regardless of age or design experience.

- **Democratizing urban planning and evidence of impact.** AI tools allowed non-experts to shape the design process, making public planning more accessible and transparent. Data collected during the experiment supports the hypothesis that using generative AI in public space co-design can effectively enhance social cohesion and inclusion, particularly by increasing the motivation to participate.

This experiment demonstrated that emerging technologies could change civic participation as we know it to be more inclusive, dynamic, and responsive to the people it serves. By connecting generations and enabling the community to shape urban design, it showed how technology can bridge divides and strengthen social cohesion.

Additional resources

- Blog. Bringing Communities Together Through AI-Driven Urban Planning | United Nations Development Programme

Philippines: strengthening food systems

From imported goods to local resilience: bringing innovative stakeholders and public authorities together to co-create a resilient, self-sufficient and local food system on the Island of Boracay, Philippines.

Overview

Boracay is an island in the Philippines, whose economy is primarily centered around tourism and relies on imported food to meet demand. Past challenges and disruptions, such as the COVID-19 pandemic, have highlighted the vulnerability of dependence on imports. To address these challenges, the UNDP Philippines Accelerator Lab launched a pilot project to rethink the local food system. The project focused on collaborative governance, local agriculture, inclusive markets and social responsibility – all driven by a co-creation process that placed community participation at its core. Local farmers, civil society organizations, government entities and the private sector all got together in different workshops, and co-designed sessions to collectively share local knowledge, map the challenges and envision a community-driven food system approach. This bottom-up approach empowered local actors not only to contribute with ideas, but also to take ownership of the solutions, fostering long-term changes.

Multi-stakeholder discussions culminated in the development of a locally driven “moonshot” goal: increasing the supply of local agricultural products by ten percent, reflecting the community’s shared priorities.

Achievement and impact

Through collaborative design, the project has successfully brought stakeholders together to transform engagement into actions, creating a cohesive and inclusive food system.

The collaboration resulted in the following:

- **Enhanced resilience.** Retailers in Boracay’s tourist economy saw their dependence on food imports reduced as they shifted towards buying foodstuff from farmers on the island. This shift translated into increased local agricultural output and production capacity.

- **Economic empowerment.** As a result of this realignment, local farmers reported increased income as retailers and restaurants on the island began sourcing directly from them, creating predictable sale channels and reducing reliance on imports. Farmers experienced income growth of 20-30 % over past levels, reflecting more stable and profitable market linkages.

- **Formalized stakeholder platform.** As an outcome of this initiative, the mayor endorsed the establishment of a multi-stakeholder group, embedded in municipal governance with sub-committees on productions, market linkages, promotion and research, providing a platform for sustained collaboration and participatory decision-making.

- **Capacity-building for long-term impact.** Technical staff from the municipality were trained in data analysis and reporting, equipping them with tools to monitor agricultural trends and support evidence-based planning.

This initiative not only strengthened food systems but also demonstrated how investing in structured, formal platforms for collaboration can drive long-term sustainable change. As an outcome, the local moonshot goal was also achieved.

Additional resources

- Blog. Bringing a portfolio to life: The Malay Food Systems Innovation journey
- Blog. Diving deep into Malay: Lessons from the mission

Uzbekistan: improved public service delivery and enhanced governance in rural communities

Rural communities in Uzbekistan are reshaping public service access by deploying mobile units and mobilizing youth volunteers to bring essential services closer to those who need them most.

Overview

Many communities in rural Uzbekistan face barriers to accessing basic public services due to long travel distances, limited digital access, and a lack of awareness, especially among women, the elderly and people with disabilities. Recognizing these gaps, the UNDP Uzbekistan Accelerator Lab, in partnership with the government's Public Service Agency, launched an initiative to rethink how essential services are delivered in remote areas. The Lab engaged with stakeholders across government, academia, and local communities to co-design and test innovative approaches. Through surveys, persona mappings and community feedback, the Lab identified the unique needs of rural populations and co-created a portfolio of solutions. For example, in one village, a young student now regularly helps elderly neighbors navigate online forms and apply for pensions and benefits. In another, a mobile unit arrives monthly, turning what used to be an all-day trip into a simple walk, bringing services right to people's doorstep. These locally rooted innovations, from community-based digital outreach to youth-led volunteer programs, are helping to ensure that no one is left behind in accessing essential public services.

Achievement and impact

- **Local solutions rooted in local realities.** The Lab brought together stakeholders to design and pilot responsive service delivery models tailored to rural realities.

- **Expanding access and bridging the digital divide.** By establishing remote service centers and implementing mobile units, the Lab reached isolated households in remote areas and improved their access to services such as pensions, the issuing of identification documents, and property registration.

- **Youth champions as community volunteers.** Young students were trained to support vulnerable residents in navigating e-services, submitting applications, and increasing digital literacy.

The initiative was a collaborative effort to shift public service delivery from a centralized model to a people-centered approach grounded in participation and local ownership, where government institutions, youth and communities work together to identify challenges and co-create solutions. The new model not only expanded access to services but also strengthened digital literacy and community-led problem solving in rural, resource-constrained settings.

Additional resources:

- Blog. In rural Uzbekistan, building bridges to a modern world through enhanced public service outreach

Spurring community organizing

How R&D helps tap into community resilience and unlock self-organization

Iraq: re-grounding the social contract

Young Iraqis are strengthening resilience, social cohesion and public engagement by reimagining the social contract and advancing more inclusive, responsive local governance.

Overview

Years of conflict and weak service delivery have strained Iraq's social contract, undermining trust in public institutions and leaving citizens, especially young people, disconnected from decision-making. In Iraq, the social contract reflects how different communities experience their relationship with the state and shape expectations for future development. The UNDP Iraq Accelerator Lab applied a portfolio

approach to facilitate a process of reimagining the social contract between citizens and the state, emphasizing youth-driven innovation and improved local service delivery. A government building was converted to a community hub, serving as a co-working space and innovation platform designed and used by young people. The hub was designed to be sustainable, both financially (it is hosted in a government-owned building and staffed by government employees), and environmentally (the hub itself is powered by solar energy; one of its initiatives is a model smart farm demonstrating sustainable agricultural practices and promoting environmental awareness among visitors and beneficiaries). Recognizing that effective management is crucial for sustainability, the Lab deployed targeted trainings and skill development initiatives to build the capacity of the government employees responsible for the project's ongoing operation.

The initiative brought together local actors such as public institutions, youth networks and grassroots groups, which created new channels for participation and inclusion. Youth-led initiatives were actively encouraged, and 21 initiatives addressing key social, environmental and economic issues were initiated, of which 16 received funding. These included establishing the first co-working space in the south of Iraq; building the first-of-its-kind model smart-farm in the south; launching a digital marketing service tailored to local small businesses; organizing a community-driven clean-up campaign for a polluted river; and creating a local tourism guide.

Achievement and impact

- **Fostering grassroots initiatives.** Community groups self-organized and implemented projects addressing local needs, promoting civic responsibility.

- **Institutional capacity-building.** Public servants from the Ministry of Youth received targeted training to improve their collaboration with communities and co-design locally responsive solutions.

- **Youth as agents of change.** The community hub became a platform for young Iraqis to engage in dialogue, shape development priorities and participate in policy-related initiatives.

- **Innovation for civic ownership.** The establishment of innovative facilities such as the co-working space and model smart farm provided tangible platforms for local experimentation and creativity, empowering communities to develop and own sustainable, community-driven solutions.

This initiative fostered local ownership and collaboration, creating an enabling environment for communities to identify challenges and co-design solutions. It prioritized community resilience by encouraging youth-led innovation and civic action.

Additional resources

- Blog. Deep Demonstrations: A Portfolio Approach to Re-Imagining the Social Contract in Iraq
- Website. The Hub's Official Website (Arabic)

Kenya: water management

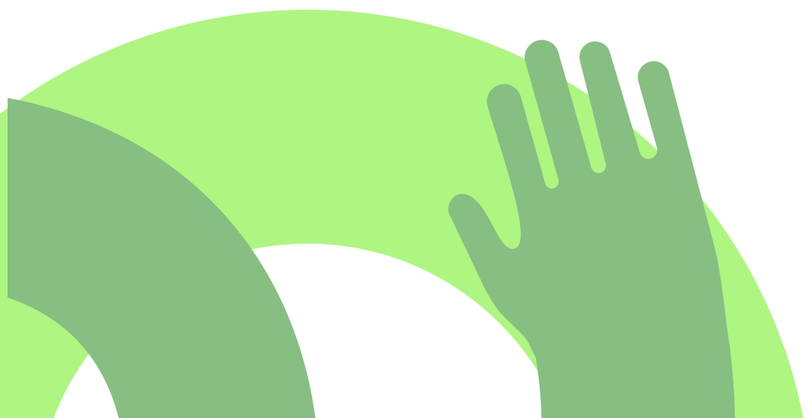
In Kenya's drylands, local communities are mapping their water sources and sharing traditional wisdom to enhance climate resilience and reduce resource competition during droughts.

Overview

Kenya's arid and semi-arid lands are increasingly vulnerable to climate change, with rising temperatures, heavy rainfall and extreme weather events such as droughts and floods disrupting the ecosystem and water access. These challenges have had a severe impact on local communities affecting drinking water, livelihoods and food security. To address this, the UNDP Kenya Accelerator Lab, in collaboration with NESTA's Center for Collective Intelligence Design, launched an initiative to learn how collective intelligence can enhance water resource management and climate resilience.In the Tana River County, locals began mapping their own water points by using simple tools and their own knowledge of the land to locate springs, wells and seasonal streams. Elders shared traditional water management practices passed down through generations. Young people stepped up as "data scouts," walking long distances to document where water was available and where it had dried up. Together, they created a real-time water map that reflects the reality on ground. In community workshops, farmers and herders sat side by side, discussing how to share water fairly and plan for dry months ahead. Their ideas shaped where new water pans were built and how to manage them sustainably.

Achievement and impact

- **Strengthening community involvement.** The initiative bridged a gap between the communities and policymakers, enabling direct engagement with county authorities and national drought management officials, ensuring that the community-generated data influenced sustainable long-term water management strategies.



- **Empowering local data stewards.** Community members acted as data scouts, documenting water resources, leading to more resilient, locally informed decision-making.

- **Sustainable water infrastructure.** Community insights influenced where to construct water pans, ensuring that the water resources were efficiently allocated based on actual needs.

This initiative equipped local communities with tools, data and agency to manage water resources and adapt to climate-related challenges, ensuring that water management strategies are both locally relevant and sustainable. A community-owned data generation process enabled different stakeholders to engage in constructive dialogue on how to balance competing interests and address ongoing sources of conflict.

Additional resources

- Blog. Empowering Communities in Kenya: The Rise of Community Data Stewards in Shaping Sustainable Development
- Blog. WATER, the silvery mother of life
- Photo Story. Water scarcity in Kenya's Tana River County
- Podcast. Ramani: Harnessing Collective Intelligence for Climate Action

Paraguay: participatory social innovation to address community challenges

Communities lead local responses to food security challenges by sharing knowledge, co-creating solutions and building resilience through digital collaboration.

Overview

Paraguay continues to face challenges of food insecurity and unequal access to nutritious food, with many families depending on community kitchens for their daily meals. To address this, the UNDP Paraguay Accelerator Lab launched Moirũ, a community-centered project in collaboration with the National Innovation Strategy and the National Sustainable Development Goals Commission. The initiative was conducted entirely online and aimed to support community-led solutions by empowering community-based organizations working on issues such as food security, especially those involved in community kitchens. It blended participatory approaches, civic technology and citizen engagement to strengthen local governance and community capacities. Using the Wendá platform, a civic data tool, local organizations were mapped and engaged to identify common barriers to food security, particularly around hunger and access to nutritious food. The project supported community groups through virtual workshops, mentoring and co-creation of solutions to

systematic challenges. As part of this process, the social innovation challenge was launched, offering selected projects financial and technical support to develop and implement their initiatives. Examples of selected projects include Semilla Róga, a seed preservation initiative led by women to protect native seeds and strengthen food sovereignty, and Guerrilla Verde, a youth-driven urban gardening project that promotes agroecology and sustainable food practices in underserved areas. A second edition of the project expanded participation by including universities, encouraging students and teachers to apply research to real community challenges.

Achievement and impact

- **Community-driven innovation.** Insights and experience from Moirũ were applied in a follow-up initiative, Tavarandu, where the model was replicated and municipal civil servants were trained to run their own local innovation labs (“citizen labs”), to strengthen community capacity.

- **Cross sector collaboration and learning.** Engagement expanded from community-based organizations to include students and teachers, who co-designed solutions with communities and applied research in practical context. The experience highlighted how social innovation tools can be effectively taught and transmitted through collective processes, providing valuable insights into applying these tools to address real challenges within communities.

- **Digital inclusivity.** The projects’ first edition was successfully implemented entirely online, enabling participation from remote areas during the COVID-19 pandemic.

- **Increased trust.** 178 students took part in an experiment, playing a “Public Goods Game” (a variant of trust games used in behavioral economic studies) in which they needed to decide how much to invest in public goods. The treatment group (students who had participated in the activities of the second edition of Tavarandu) showed a propensity to invest in public goods significantly greater than that of the control group, students who had not attended the Tavarandu programme. The Lab interprets this result as a direct positive effect on trust of the programme.

The initiative allowed communities to take ownership of local challenges relating to food security and co-create meaningful solutions through collective intelligence and innovation.

Additional resources

- Blog. Moirũ: what we learned integrating community participation and social innovation
- Blog. The impact of Tavarandu on trust
- Report. In the search of Tavarandu: Lessons on Public Innovation and Participatory Governance in Local Governments
- Academic article. Evaluating the impact of Moirũ's winning project (Spanish)

Thailand: Community-led action against air pollution and forest fires

Communities in northern Thailand are taking the lead to improve air-quality by actively participating in the co-creation of solutions with the government, blending tradition, innovation, and collective action.

Overview

Chiang Rai, a biodiverse mountainous region in northern Thailand, is also considered one of the most polluted areas in the country. Air pollution from agricultural and forest burning and industrial emissions leads to poor air quality and poses a significant health risk. To address these challenges, Agirre Lehendakaria Center, the UNDP Thailand Accelerator Lab, and the UNDP Bangkok Regional Hub launched a community-driven initiative targeting four communities in the region. A key pillar of the initiative was the Social Innovation Platform (SIP), a participatory approach that engaged local communities, public and private sector, civil society organizations and academia in deep listening, co-creation of solutions and prototypes, and collective action to combat air pollution and forest fires. Prior to SIP, forest fire prevention was largely seen as a government responsibility with limited local ownership. SIP helped shift this dynamic by moving from a top-down approach to one that builds community agency and long-term resilience. Now, local actors not only contribute insights but also lead implementation and scaling efforts, turning co-designed ideas into tangible, community-owned solutions.

A key element of the SIP are innovation challenges, where teams of local young people in Chiang Rai came forward to work together on possible solutions. An example of a prototype they came up with is the No Burning Fund, a common pot of money that everyone contributes to at the beginning of the haze season and is further augmented with public funds. At the end of the season the fund is divided among villagers. If there has been no unauthorized burning of waste, the entire amount is returned at the end of the season, allowing participants to make a profit. Each unauthorized burning, however, triggers a deduction.

Achievement and impact

- **Fire prevention reimagined.** Communities created their own fire management plans, reducing dependence on external aid, such as the use of agroforestry fire barriers, water tanks for fire control, community funded firefighting support, sustainable farming practices and embracing local solutions.

- **Empowerment of community members.** Through participatory decision-making and co-creation of solutions, community members gained skills to take ownership of environmental solutions and drive change at the local level.

- **Organic scaling.** The approach developed in Chiang Rai in 2021 scaled to three provinces in Northern Thailand in 2022 and 2023, and resulted in a cross-border initiative in collaboration the UNDP Lao PDR Accelerator Lab in 2024. The cross-border innovation challenges assembled cross-border teams by matching Thai teams with Laotian ones.

This initiative demonstrates how community-led solutions, empowerment of local leaders and collaboration can drive sustainable change and strengthen resilience. With appropriate support, traditional knowledge, social capital and communities' capacity for autonomous organizing can generate solutions to complex development problems in ways that are complementary to public authorities' actions.

Additional resources

- Blog. Local Heroes for Clean Air: Portfolio Thinking at the Local Level?
- Blog. Clean Air Without Border: Crossing Boundaries to Collaborate for Clean Air in Thailand and Lao PDR

Trinidad and Tobago: Community-driven peacebuilding

Through community driven peacebuilding, youth and women's organizations co-design and implement initiatives that foster resilience and breaks cycles of criminality.

Overview

In communities across Trinidad and Tobago, young women affected by violence and trauma often face stigma, isolation and limited opportunities for healing. In response to this challenge, the UNDP Trinidad and Tobago Accelerator Lab implemented the Psychosocial, Art and Sports Model for Peacebuilding (PASMP), in collaboration with the Prevention of Violent Extremism-Youth Empowerment and Strengthening Project (PVE-YES). The initiative empowers young

women who have been exposed to violence and trauma to reclaim agency and build resilience, combining psychosocial support, community mapping, and art and sports therapy as part of a four-month curriculum. In this way, participants are accompanied on a journey of emotional healing and self-understanding which fosters peace and community cohesion. To complement individual support, the project launched the Peace Innovation Challenge, inviting youth and women-led groups as agents of change to co-create peacebuilding initiatives using culture, sport, mentorship and art as tools for resilience and conflict resolution. Through the challenge, the Lab facilitated a portfolio of projects that enabled the communities to respond creatively to local tensions and social fragmentation using tools like art, sports and mentorship. This included group art therapy sessions and storytelling workshops that fostered dialogue, healing and collaborations across divided groups.

Achievement and impact

- **Behavioral and Emotional Transformation.** Many of the young women who had experienced marginalization or rivalry came together to co-create safe spaces, collaborate and support each other. The art and therapy sessions led to strengthened self-esteem, reduction in self-harm and greater emotional openness.

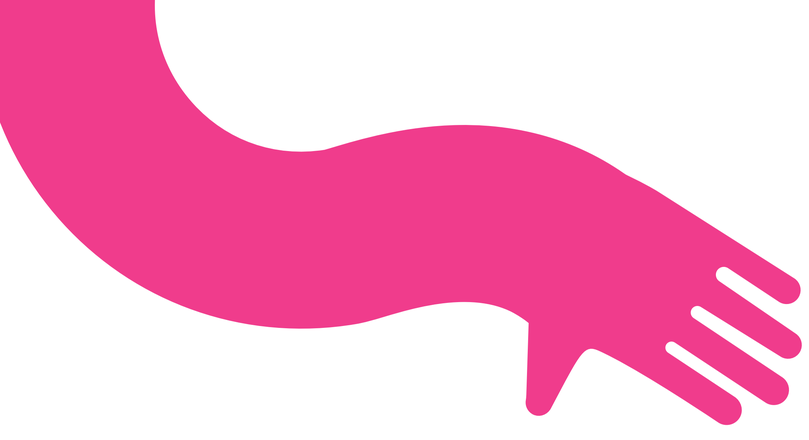
- I**nclusive youth-led peacebuilding.** The Peace Innovation Challenge engaged local NGOs, youth and women-led groups to initiate creative peacebuilding activities that fostered unity among communities.

- **Institutional engagement.** The project was supported by national figures, and an aftercare plan was developed with continued psychosocial support and mentoring. To scale the impact and sustain engagement, a Peace Caravan was established – a mobile outreach initiative where program graduates share their stories and inspire participation in other communities.

This initiative built bridges between individual healing journeys and collective action, demonstrating how personal empowerment and civic engagement can reactivate community ties and strengthen peacebuilding capacities across fragmented communities.

Additional resources

- "Innovative Peacebuilding: How Art, Sports and Support are Changing Lives!”



Conclusions

The case studies presented here show how bottom-up R&D is opening up pathways for civic engagement. We have divided them into three main groups.

The first group, enabling voice, consists of pathways that bring into public decision-making forms of knowledge other than the credentialed knowledge traditionally favored by the élites. Here, civic engagement unlocks access to mission-critical insights held by people who are not necessarily comfortable or familiar with more traditional forms of participation. It is simply impossible to monitor environmental quality with the required degree of granularity without mobilizing tens of thousands of citizen scientists (Argentina); nor is it possible to effectively plan new infrastructure on indigenous land (Mexico) or the deployment of potentially disruptive frontier technologies (Morocco). Without making space for citizens to use their own preferred means of communication, like photographs, access to granular information essential to planning disaster response remains limited (Mozambique). And without inroads into the anxieties and grievances of communities that stand to be affected by the closure of locally important businesses such as coal mines, energy transitions risk being impossible, let alone just (South Africa). A tokenistic participation is not an option, because it would not result in actionable knowledge. The only way forward, then, is to find innovative ways to meet people where they are, and commit to listening in depth and without prejudice.

The second group, collaborative design, consists of pathways where policy makers engage more directly with contributions from a wide range of stakeholders, with a co-creative approach to responding to shared challenges. Institutions stand to benefit from mobilizing the varied skills and knowledge of different members of society, and using it to come to solutions that benefit everyone. This is easier said than done; and yet new possibilities are becoming available, thanks to techniques such as intergenerational dialogue powered by generative AI (Panama), participatory research (Dominican Republic, Uzbekistan), citizen laboratories (Paraguay), biohacking spaces (North Macedonia), and local moonshots (Philippines).

The third group, spurring community organizing, consists of pathways to enable citizens to take collective action to improve sustainable development outcomes in ways that are autonomous from public institutions. Such action is made more effective by growing out of efforts to organize collective knowledge through physical meeting places (Iraq) and social infrastructure like innovation challenges (Paraguay, Thailand, Trinidad and Tobago) that helps communities come together to collaborate on addressing shared issues. Digital artifacts like collaborative maps (Kenya) are precious coordination mechanisms.

An emergent research agenda

Five years of bottom-up R&D on participation by the UNDP Accelerator Labs Network have resulted in many innovative approaches that are now tested, have shown significant promise, and are ready for scale. At the same time, it is important to stress that the search for effective participation pathways is a never-ending process. Many questions remain wide open, when it comes to the promotion of meaningful citizen participation in public decision-making processes.

A few of them are listed below.

- **Power asymmetries.** Inequality, it has been said, is always in the room. How can fair participation processes be promoted, when different parts of society come into these processes with vastly different capacities to articulate their point of view and pursue their aspirations?

- **Complexity.** Many issues that affect everyone, and on which every member of society should be able to weigh in, are also complex. How can public dialogue be structured to be rigorous (and reflective of policy trade-offs) while also, at the same time, accessible to laypeople?

- **Polarization.** Polarization, including perceived polarization, can erode the very possibility of dialogue. How can, then, processes of inclusive decision-making be pursued in societies where people are not able to recognize other points of view as legitimate, especially in contexts of conflict and fragility?

- **Lack of vertical trust.** Trust is notoriously difficult to build and easy to lose. How can institutions and office holders genuinely interested in dialogue be supported in gaining the necessary public confidence in contexts that are characterized by deeply entrenched distrust towards public authority?

- **Conflicting time horizons.** Effective and equitable policymaking requires long time horizons. However, people typically come into policymaking discussions with a strong sense of what their aspirations are “here and now”. Where can a meeting point be found between these two perspectives?

- **Speed and scale.** Enabling meaningful citizen participation is neither cheap nor easy – it requires in fact significant resources and, more importantly, time. How can social and technological innovation be leveraged to reconcile the need for speed and scale with the time and resource limitations of public institutions?

The central proposal of this document is that five years of bottom-up innovation on participation provide us with new tools for a direct attack at some of these questions. UNDP is committed to continue to pursue a bottom-up approach to R&D, in collaboration with a wide range of partners, to address these and other questions that are central to the promotion of civic engagement and the facilitation of collective intelligence.

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