



*Application form submitted by the initiatives to participate in the Transformative Cities People's Choice Award (2021-2022)*

| GENERAL INFORMATION  |  |
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| <b>Location:</b>   | Mexico City, Mexico  |
| <b>Title of the Transformative Initiative:</b>   | Isla Urbana - Rainwater Harvesting in Mexico City's marginalized neighborhoods |
| <b>Name of organization:</b>   | Lluvia para Todos, A.C.  |
| <b>Type of organization:</b>   | Hybrid NGO / Social Company  |
| <b>Website:</b>  | <a href="https://islaurbana.org/english/">https://islaurbana.org/english/</a>  |
| <b>Category and Edition:</b>   | WATER. Transformative Cities Award 4 <sup>o</sup> edition (2021-2022)          |
| STORYTELLING   |  |
| <b>Summary</b>   |  |
| <p>For the past twelve years, Isla Urbana's mission has been to disseminate rainwater harvesting (RWH) practices at an urban scale to respond to Mexico City's water crisis. Today, RWH is vastly implemented, and has become a major, widely known alternative that is present in local and state agendas.</p>  |  |
| <b>Context and problem definition</b>  |  |
| <p>Mexico-City is experiencing a severe water crisis, caused by the lack of city planning and bad hydrological management. Historically, the peripheral areas of the capital city, characterized by low income, informal settlements, and overall high socio-economic marginalization, have been systematically excluded from public services. Entire communities live with deficient water services, and have to rely on expensive alternatives like water trucks and manual transportation. It is estimated that more than 1,000,000 people in the metropolitan zone of Mexico City lack proper access to water. Additionally, the crisis disproportionately affects women, as they are the ones who are usually charged with the task of providing water for their families. The extra burden requires time, effort and money</p> |  |

that could otherwise be dedicated to productive, employment, educational and recreational activities.

Despite the water scarcity, Mexico City has yearly average precipitation levels of around 750mm; in some areas - ironically those areas where the lack of water is most severe - these levels even go up to 1,000mm per year. Therefore, rainwater harvesting offers a sustainable alternative that draws on local resources, providing secure access to high-quality water in a decentralized and autonomous way, and changes our water paradigm.

### **Design and Implementation**

Isla Urbana was founded by Enrique Lomnitz and Renata Fenton, out of a desire to contribute to the adaptability of a water-stressed Mexico City, their hometown. They came to believe Rainwater Harvesting held significant promise as a solution to the rapidly deteriorating water supply situation. In 2009, they installed a pilot system in the home of a family they had grown close to, situated in one of the many water-stressed neighborhoods. The results greatly exceeded the expectations.

The Isla Urbana team grew from there, developing innovative rainwater harvesting system (RWHS) technologies and implementation methodologies, all based on a deeper understanding of life in water-stressed communities, and always in close collaboration with the inhabitants. This RWH technology, along with its technical and social implementation models – of which the combination allows proper appropriation by its users – quickly proved its potential, as families now disposed of a decentralized and safe water source.

In 2014, the first “massive” government program emerged in the municipality of Xochimilco. Since there was no real competition in the field at the time, the organization started gaining attention, and became a reference for RWH in the capital. The mission of the social enterprise (being a hybrid between an NGO and a social company) got broader, as they started to address water precariousness from an interdisciplinary perspective, integrating R&D, community linkage, education, capacity building, dissemination, and evaluation. The goal: to make Mexico City a model for water sustainability through nature-based alternatives.

After carrying out many projects in specific municipalities like Tlalpan and Xochimilco, often privately funded by donors and organizations, in 2018 the Mexico City government asked Isla Urbana to collaborate in the design and implementation of one of the most ambitious RWH programs worldwide: 10,000+ RWHS installations per year as of 2019, aiming at 100,000 in 6 years. Reaching this city-wide scale, the biggest challenges are corruption and increasing demand and competition; Isla Urbana has since diversified its funding strategies

(philanthropy, private clients, donations, strategic partnerships, etc.), in order to continue to thrive in a now well-established and ever-growing market.

Isla Urbana's success has always relied on a very diverse input, as well as on a good relationship with others working in the field – even some of the competitors. Most important, however, is the long-term relationship built with all of the users, key to understanding how our RWH models can be constantly upgraded and improved.

### **Results achieved and Evaluation**

The main difference between Isla Urbana and its competition is the search for long-lasting community linkage and empowerment to build communities of rainwater harvesters. Our impact is measured in terms of correct use and maintenance of the systems, rather than systems installed. Therefore, every RWH system installed includes a technical visit, group training, and one-on-one training. After implementation, we carry out follow-up visits and calls, extra training, and thorough evaluation of the project, so as to ensure system adoption. Isla Urbana has developed methodologies and tools for project implementation and evaluation. Our whole process includes adapted tools for each step; we offer didactic materials like illustrated guides and videos for users, large-scale SMS services, installation mappings, and phone applications. For example, we enter every (potential) installation into a database via a phone app, to compare the baseline situation with the situation after implementation and measure our impact.

So far, Isla Urbana has installed around 18,000 systems in households and schools in the Mexico City region, adding up to around 200,000 users. In the biggest projects, the adoption rate one year after implementation was as high as 94%, most people (around 75%) were “satisfied to very satisfied” with their systems and the water quality it provided, and only around 7% felt insecure about the practice.

For the families, the direct impact is having autonomous access to potable water for 6 to 8 months per year, using a system that needs no external energy or resources, meaning less time, money and effort invested in getting water. Indirectly, it means less water trucks circulating (around 65,000 trips per year), less pumping needed, less water runoff and flooding, and ultimately less water extracted from natural sources, as every liter of harvesting rainwater equals around 1.4 liters of non-extracted water.

### **Political Strategies**

Isla Urbana has always been an apolitical project. Nevertheless, to reach the enormous scale it has reached, the project relies on government funds, no matter the party. Our goal is clear to collaborators, and our values are the center of our work: we work with and for high quality projects and sustainability, without corrupt practices, and with any collaborator who pursues the same goals. Among our goals are the human right to water, social and economic equality, sustainability as a whole, and gender equity. Our work concentrates on those populations that suffer most from social inequalities. We want to create equal opportunities for all, starting with the most basic of human needs: water.

Our reputation and experience have led us to be contacted directly by governments (local, state, and even federal) to design and implement strategies, as well as advocate and design public policy. The main strategy used has been the close and friendly collaboration with our political partners, to build trust and long-lasting projects by demonstrating our integrity and high work quality. We get our project through public tenders and never accept any corrupt deal, a strategy that has gained us trust and respect, but has also made us lose projects and partners; the biggest obstructions come directly from corrupt funders and competitors who work for money instead of for sustainability. At the same time, there have been individuals within local and state governments who have impeded our work: since 2020, we have lost the city-wide project to competitors who had never even practiced rainwater harvesting. The solution to this has been to continue operating from our values and principles, and pursue replicability on the basis of the trust and credibility we have gained in close partners and beneficiaries.

## **Communication and Cultural Strategies**

Five years ago, Isla Urbana started a communication department that dedicates itself to the dissemination of our project and the production of educational content. We also have a design department and a department in charge of socio-environmental education. Through the collaboration of these different teams, we generate content like videos, animations, manuals, infographics and investigations, and participate in the public debate through interviews, presentations, conferences, radio and television news, documentaries, public and university courses, academic collaborations, etc. We are very present on social media, and our slogans - "Harvest the Rain", "Rain for All", "Plant awareness, harvest the rain" - are widely heard.

Apart from external outreach, we firmly believe in applying the same, transparent communication and cultural strategies during the implementation processes. Our social methodologies imply active community linkage with the users, a connection of trust that is achieved through knowledge exchange and capacity development. The tools and models we use for the community linkage are constantly developed and improved by Isla Urbana's teams, often relying on synergies with other organizations, and are used in all stages of the implementation process. Our communication strategies include educational workshops on

water culture and capacity training, but are not restricted to purely informative content. We always aim to integrate cultural aspects in our projects, which can take on many forms: murals, theater performances, songs, cinema sessions, etc. These cultural expressions are the result of collaborative efforts with the communities, form a perfect opportunity for Isla Urbana to learn from these communities, and are vital to a full appropriation of the systems.

### **Resources, Financing and Transformative Economy**

Decentralized RWH systems are a low-cost form of water infrastructure that can be installed in places where it is impossible or too expensive to install traditional hydrological infrastructure. For governments, it represents a new way of addressing communities that have historically been marginalized, by providing them with some form of autonomy.

In terms of accessibility to the goods and services Isla Urbana provides, the main challenge remains the access to the highest quality of components, while keeping our projects low-cost and attractive to both governments and other funders. For this reason, Isla Urbana's hybrid model and diversification strategy (to rely on many projects and/or funding sources instead of a main one), is a way to shield the organization from external effects like rising prices or corruption that makes us lose specific projects. It also grants us freedom from financial models that might limit our goals and ambitions, like external investment in the company. We can therefore independently decide on our projects and our goals based on demand and funds availability, and extend our reach.

To be able to cope simultaneously with public tenders, private contracts, grants and prizes, and philanthropic partners, we rely on very diverse internal capabilities. Some of the key partners and collaborators are thus foundations and organizations who have been mentoring specific teams within Isla Urbana for specific markets and goals. Furthermore, it requires building networks with other organizations (NGOS, companies, academia, and individuals) for mutual support and joint efforts with a common goal: to build community resilience through sustainable water management models. This is especially true with other organizations who work on water sustainability (i.e. Cántaro Azul), education and capacity development (La Ventana), and social housing (TECHO), amongst others.

### **Related legislations**

RWH has been a part of Mexico City's building regulations since 2003. Nevertheless, its legal and technical frameworks were poorly designed and no funds were allocated to make it meet its goals, like making RWH mandatory for certain types of buildings, for example. Since 2019, Isla Urbana has collaborated in updating this regulation (Alternative System Building Guide) and pushed other public policy tools like a RWH manual for Mexico City,

written by one of its members. Additionally, Isla Urbana and a lot of its collaborators have been a part of the new National Water Law, which was planned to be made public since 2012 and set to be published in the coming year. Isla Urbana's public policy coordinator participated directly in all three of the aforementioned legislative activities so as to have an input on how nature-based technologies like RWH were being approached from a legislative point of view.

Most importantly, however, Isla Urbana's work has been the direct detonator of ambitious public policy programs that, during the past 12 years, have become a replicable model for water access alternative and decentralized infrastructure all around Mexico and even in other countries (in 2022 specifically in Guadalajara and in Panama).

### **Ecological Transitions**

Isla Urbana started as a response to an unsustainable, centralized model of traditional hydrological infrastructure that was the center cause of the rapid deterioration of natural water sources in Mexico City. Harvesting rainwater means preserving and even regenerating these sources, by providing communities with tools and methodologies for local, democratic and autonomous water access. Technologically, it means developing the tools to harness a high-quality water source; socially, it implies sharing and developing knowledge, as well as building a regenerative water culture that is key for the much-needed sustainable transition in human settlements.

Ecotechnologies, or nature-based solutions, imply the need for a renewed relationship between humans and natural resources. RWH demonstrates the true availability of water and its potential to satisfy our needs, but it also teaches people about the water cycle and the impact humans have on it, thereby bringing people closer to natural cycles.

All the drinking water in the world is rainwater at some point. In the context of densely populated areas, it is seen as a problem to be avoided. However, by harvesting it, Isla Urbana seeks to change the perspective: every time it rains, cisterns are being filled, and aquifers and rivers are being recharged.

### **Lessons learned**

By pioneering the RWH market in Mexico City, Isla Urbana's biggest challenge has always been to find its way in the sector with few examples. Furthermore, the initiative has grown from a devoted team that didn't always possess the skills to face all challenges, particularly when it came to finances and public policy. Therefore, Isla Urbana has had to elaborate its own operational models through trial and error, honesty, and a strong will to develop



technologies that could be adopted and replicated by others. This leads to two of the most recent and harsh lessons learned: in the first place, that one shouldn't always expect rewards for investing time and effort into a good cause, and in the second place, that an organization must avoid relying on one main project or source of income to economically thrive.

Given this, Isla Urbana has proven that a team of people devoted to a shared mission have the strength and can find the skills necessary to become a reference within their field. A third important lesson might then be that high-quality work in an exciting and encouraging collaborative environment, and a shared mission will give you a firm base from which to strive towards credibility, recognition and visibility. Good advice would have been to first find the most suited management model for your field, and diversify your income by searching for a variety of areas of opportunity.

Thanks to great efforts and teamwork, Isla Urbana emerged stronger than ever from the 2020 crisis. As public interest and demand is higher than ever, we are starting a new, large-scale project in Guadalajara, all the while managing projects in more than 10 states in Mexico, starting activities in 3 Latin American countries.