Isla Urbana

islaurbana.org

The Care Economy Knowledge Hub

the-care-economy-knowledge-hub.org
Profiling Businesses in the Care Economy

The care economy consists of paid and unpaid labor and services that support caregiving in all its forms. In Africa, Asia and Latin America, women spend between three to five times as many hours on unpaid care and domestic work as men. This represents 80 percent of a household’s total hours devoted to unpaid care work.

Care economy businesses can help recognize, redistribute, reduce and reward – also known as the 4 Rs - unpaid and paid care and domestic work in the following ways:

**Recognize:** Initiatives that increase visibility and recognition of paid and unpaid care and domestic activity as “productive” work that creates real value and contributes to economies and societies.

**Redistribute:** Services and initiatives that redistribute care work from individuals to public and private sector entities, and redistribute care and domestic work within the household.

**Reduce:** Products and initiatives that reduce the time spent on and burden of unpaid care and domestic work.

**Reward:** Products, services and initiatives that ensure that care and domestic workers are paid fairly and have professional growth potential. This provides them with financial reward and security.

The Care Economy Knowledge Hub aims to address the knowledge gap around care businesses by showcasing various business models and creating a resource base for relevant stakeholders. It also aims to raise awareness and increase knowledge of the state of impact-driven care economy business models and attract a broad range of funders to invest in care economy solutions by showcasing opportunities. These business profiles are intended to showcase said potential investment opportunities. They have been created from information and data provided by the business itself.

This project is supported by Canada’s International Development Research Center, in partnership with the Soros Economic Development Fund at the Open Society Foundations. Building on their track record and commitment to transforming the care economy and mobilizing finance for gender equality, they have jointly launched this action research program to help transform the care economy through impact business and investment.
Isla Urbana is a Mexican social enterprise that seeks to address water scarcity in urban and rural areas by providing sustainable water engineering solutions. Isla Urbana has two operating arms, Isla Urbana USA and Isla Urbana Mexico.

Isla Urbana USA is a non-profit organization that raises funds in the form of donations and grants. This funding is used to provide water solutions to low-income households in rural areas of Mexico. Isla Urbana Mexico is a for-profit organization that develops water-related technology and installs water collection systems for high-income households, businesses, schools, governments, and philanthropic organizations. The company offers rainwater harvesting systems, water purification, and water saving devices.

In addition, Isla Urbana provides workshops on environmental education, water management, and training in rainwater harvesting system maintenance. Workshops are designed for users of Isla Urbana’s social projects in both rural and urban areas. Isla Urbana’s services contribute to the provision of affordable solutions to reduce the time spent on fetching water by family members, especially women and girls.

The company’s main operations are in Mexico, but its systems are sold by other distributors in Panama, Chile, Brazil, and Colombia. To date, Isla Urbana has 250,000 customers and has served over 400,000 people in Latin America. In 2021 the company generated US$ 2,043,000 in revenue through Isla Urbana Mexico. It currently has 68 employees.

Company Contact:
Emilio Becerril, emilio@islaurbana.org, LinkedIn Profile, Company LinkedIn Profile

*According to 2X “women entrepreneurship” and “women leadership” criteria; 2X Challenge Criteria
1. About The Enterprise

1.1 Problem

By 2018, 91.6% of Mexican households had access to water services. However, poor water management practices, as well as rapid population growth and increased industrial activity, are putting a strain on the Mexican Government’s ability to provide clean and adequate water. To date, more than 30% of the population have either intermittent water service, or receive water not suitable for human consumption (as faulty pipelines lead to more pollution). This situation is aggravated during summer when droughts hit. It is estimated that 85% of the country’s water sources are dwindling due to intense droughts, limiting water reservoirs for drinking, farming, and irrigation. Tanker trucks, primarily run by the city authorities, deliver water to households in order to partially cover the lack of access to water services. However, these most often offer brackish water, thus households must purchase bottled water. This is an unaffordable solution for low-income families. Furthermore, rural areas are often overlooked in favor of cities. Water systems that run through villages (if there are any) are riddled with pollutants, making the water undrinkable. As many rural households have no running water, they drink from polluted lakes to avoid the expense of bottled water.

Another consequence of water scarcity is the burden of water collection on households members, especially women and girls, who have historically been responsible for managing and maintaining water supplies according to cultural gender roles. Due to the lack of access to water at home, urban households members, especially women, must line up for hours waiting for water truck deliveries. In rural areas, especially those inhabited by indigenous populations, water sources are not easily accessible, since tanker trucks cannot reach the highlands. Thus, villagers must collect water from springs. This chore is mostly carried out by women and girls (80%). The marginalization of rural communities from clean water sources means that female

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6 Brackish water is water occurring in a natural environment that has more salinity than freshwater, but not as much as seawater.
villagers must walk long distances to fetch water and carry it back.\textsuperscript{13} It is estimated that women and girls must walk around 30km every day for water retrieval, spending approximately 6 hours per day solely on this chore.\textsuperscript{14} The amount of time spent fetching water keeps Mexican women and girls from attending school, or earning an income, especially in rural areas.\textsuperscript{15}

Moreover, Mexico’s complex topography increases the country’s exposure to extreme weather events, resulting in heavy rainfalls and massive floods.\textsuperscript{16} As it rains, the rainwater runs off, collecting pesticides and pollutants that contaminate other water sources like rivers and lakes.\textsuperscript{17} This puts rural populations (who rely on this source) at risk of health consequences.\textsuperscript{18} Evidence suggests that consumption of unimproved water correlates to high levels of malnutrition, respiratory and gastrointestinal diseases, and increased mortality rates in children.\textsuperscript{19} Likewise, poor water quality elevates the risk of contracting waterborne diseases such as cholera, dysentery, hepatitis A, typhoid, and polio.\textsuperscript{20} Since children drink more water per pound of body weight, they are at greater exposure and risk of contracting waterborne diseases,\textsuperscript{21} which increases women’s burden, as they must then care for their sick children. Again, creating an obstacle for women to work, study, or have leisure time.

A lack of water, sanitation, and hygiene (WASH) services also have negative effects on student learning, health, and dignity (particularly for girls).\textsuperscript{22} Limited supply of water at school is a barrier to girls’ attendance during their menstruation, leading to school absences and an overall reduction in education for girls.\textsuperscript{23} It is estimated that 28% of schools in Mexico lack access to network water supply,\textsuperscript{24} 38% are subject to intermittent service, and 58% lack access to potable water.\textsuperscript{25} Thus, approximately 43% of Mexican adolescent girls do not attend school during their menstruation.\textsuperscript{26}

\textsuperscript{15} Pymohub. (2022). 1 Millón de Días Por Ellas. https://pymohub.com/1-millon-de-dias-por-ellas/
ring%20their%20cycle
1.2 Solution

Isla Urbana addresses the lack of drinking water by providing rainwater harvesting systems adaptable to the needs of each individual and institutional customer. The system allows rainwater collection and purification through a multi-stage mechanism. It uses a first flush system, called Tlaloque, that captures and discards the first minutes of rain (which are the most polluted). The rest of the rainfall goes through several steps of filtration that removes insects, pollutants, and organic chemicals (such as pesticides). The water then enters a cistern for storage. The cistern contains chlorine to ensure the water stays free of bacteria. It also has a floating hose that guarantees using only water below the surface, which is the cleanest. Rainwater harvesting systems are suitable for domestic use, human consumption, and agriculture. They can provide households with 40-100% of their annual water needs. In addition, Isla Urbana improves water management practices and awareness about water scarcity among user households. This is done through Isla Urbana’s social projects and its water education program, Carpa Azul. The program provides environmental and water-related talks and workshops, technical system maintenance training for its products, and other activities that focus on incentivizing responsible and sustainable water management.

Through social projects, Isla Urbana has worked in 35 indigenous communities installing rainwater harvesting systems and conducting environmental education programs. Likewise, Isla Urbana has installed thousands of collection systems in cities, so families may have drinking water at home without depending on the city’s water network. These rainwater harvesting systems provide urban and rural families access to home water for cooking, drinking, and bathing, reducing the time spent on water retrieval. Evidence shows that increased access to water infrastructure allows women to engage in other activities, including pursuing employment, education, and obtaining health care. Therefore, engineered water solutions such as the ones provided by Isla Urbana can contribute to reducing the time spent by women and girls on domestic work.

By providing rainwater harvesting systems, Isla Urbana prevents rainwater from running off and collecting pesticides and pollutants, thereby helping to mitigate contamination of local water resources, as the rainwater is collected and stored instead. Furthermore, Isla Urbana provides water filters (purification devices) specially designed to remove unwanted impurities from water, such as sediment, taste, odor, hardness, and bacteria. The filter traps any harmful microorganisms in the water, decreasing the risk of contracting diseases from water contamination. Through this service, Isla Urbana contributes to improving the health and wellbeing of rural families in Mexico, which in turn contributes to decreasing the burden of care and domestic work for women.

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Finally, Isla Urbana offers the Rain Schools Program, developed to supply public schools with high quality and abundant water provision through rainwater harvesting systems. In addition to installing the systems, the program leads educational and participatory workshops with teachers, students, and parents. These workshops teach students and school staff how to maintain the system and to be aware of the importance of adequate water management, both at school and at home. With a rainwater harvesting system, a school can capture between 500,000 – 1 million liters per year of rainwater, covering a school’s needs for 6 to 9 months. Thus, Isla Urbana contributes to decreasing school absenteeism, especially among girls, who miss school during menstruation, due to a lack of WASH services at the institutions.

1.3 Customer Segment

Isla Urbana sells its services to non-governmental organizations (NGOs), local and national governments, and philanthropic organizations that seek to solve water scarcity of households in extreme poverty. In addition, schools, businesses, and high-income households that seek to reduce direct costs in the network, reliance on piped water, or to improve the quality of their water can also purchase Isla Urbana services and products.

<table>
<thead>
<tr>
<th>Customer Segment</th>
<th>Product / Service Provided</th>
<th>Paid / Unpaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGOs, local and national governments, philanthropic organizations</td>
<td>Services provided by Isla Urbana Mexico (for-profit)</td>
<td>Paid: This service is delivered through B2G\textsuperscript{28} tenders, and B2B\textsuperscript{29} contracts.</td>
</tr>
<tr>
<td></td>
<td>Social project: The social project is offered as a package, including both the rainwater collection system and the Carpa Azul program.</td>
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<tr>
<td></td>
<td>1. Rainwater harvest systems: This service includes design, product supply, and custom installation of the rainwater harvest system. The systems adapt to the houses’ conditions, taking advantage of the existing structure to provide users with high-quality water. In addition, with every rainwater harvesting system installed, Isla Urbana provides 4 training sessions on maintenance and usage, technical check-up visits, and a follow-up after the first year of usage. Furthermore, the company offers a user manual, a QR code, and a phone contact to report malfunctions.</td>
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\textsuperscript{28} B2G: Business to Governments
\textsuperscript{29} B2B: Business to Business
<table>
<thead>
<tr>
<th>Customer Segment</th>
<th>Product / Service Provided</th>
<th>Paid / Unpaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Carpa Azul:</td>
<td>This program includes water-related talks and workshops, technical system maintenance training, and artistic and cultural activities. The initiative focuses on increasing villagers’ and communities’ trust in water engineering solutions. Further, encouraging debate about water usage, as well as building adequate water management. Additionally, the program enables a more suitable form of project evaluation and installation follow-up, as users are more open to express their experiences with the systems.</td>
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</tr>
<tr>
<td>Schools</td>
<td><strong>Rain Schools Program:</strong> This service is an integral program that includes installing rainwater harvesting systems and environmental education workshops on adequate water management. The program involves school administrators, parents, students, and maintenance employees. It aims to create a community that is aware of water cycles and able to change their relationship with water to a more sustainable manner. The program has a participatory methodology with three stages: 1) self-diagnosis, 2) participatory design, and 3) integration.</td>
<td>Paid: This service is delivered to private schools through B2B and B2C for public school contracts.</td>
</tr>
<tr>
<td>Businesses and households</td>
<td><strong>Parts supplier:</strong> Isla Urbana provides spare parts for water-collecting systems, as well as water-saving and purification devices. Prices of items vary.</td>
<td>Paid: These services are delivered through B2C[^30] and B2B contracts. Payments are done upfront, during installation[^31].</td>
</tr>
</tbody>
</table>

[^30]: B2C: Business to Customer
[^31]: While Isla Urbana allows extremely low-income households to pay for the system installation in installments, the major target demographic is medium to high-income households, because low-income families gain more from social programs (as they do not have to incur debts).
<table>
<thead>
<tr>
<th>Customer Segment</th>
<th>Product / Service Provided</th>
<th>Paid / Unpaid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Installation of water management systems:</strong> This service includes specialized services and solutions for planning, designing, installing, and maintaining customized water management systems. Installing the systems has four stages: 1) a technical visit to the site, 2) a presentation of the economic proposal, 3) installation, and 4) follow-up. The company also offers installation services for other water solutions, such as water-saving devices and purifiers.</td>
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<tr>
<td></td>
<td><strong>Maintenance:</strong> This service includes basic maintenance of the rainwater harvesting system (roof, gutters, Tlaloque, leaf filter, etc.), such as general cleaning, change of filter cartridges, and minor repairs (e.g. leaks). Cleaning services for cisterns and water tanks (and more specific maintenance services for each rainwater harvesting system) are also covered. Further, other solutions (such as water-saving and purification systems) are included.</td>
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<td></td>
<td><strong>Technical advice:</strong> This service includes the design of a water solution that best suits each household or company’s needs: either as a rain collection system, a water-saving plan, or optimization of resources to improve water quality. In addition, Isla Urbana offers technical consultations with specialists who assess the design, make technical decisions, and guide the installation of the rain harvesting system.</td>
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<td></td>
<td><strong>Project consulting:</strong> A consultancy is the highest level of technical advice to design and support large-scale projects, such as multiple installations or systems for various users. These projects can include: rain harvesting systems</td>
<td></td>
</tr>
<tr>
<td>Customer Segment</td>
<td>Product / Service Provided</td>
<td>Paid / Unpaid</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>High School and university students in the USA</td>
<td>Services provided by Isla Urbana USA (Non-Profit)</td>
<td>Paid and unpaid: The Virtual Student Program costs US$ 250 per student, which is directed to funding rainwater harvesting systems for individuals in need. All the other programs are free of charge.</td>
</tr>
<tr>
<td>High School summer program: This program allows U.S. students to travel to Mexico City for one week to learn about Isla Urbana’s impact, become more familiar with Mexican culture, and <strong>fundraise on behalf of an indigenous community in need of water</strong>. Students can work alongside Isla Urbana’s staff to install a rainwater harvesting system for the community which the student raised funds for. In addition, the program offers one-day workshops on leadership skills, social entrepreneurship, community building, social media, design, volunteerism, and the technicalities of installing a rainwater harvesting system.</td>
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<tr>
<td>Virtual student program: This program is geared toward High School or University students interested in the water crisis and in becoming water activists or agents of change.</td>
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<tr>
<td>Fundraising events: While Isla Urbana holds yearly fundraising events in the U.S., volunteers and supporters are usually inspired to organize their own for different causes. Events can range from pizza parties, bowling, dinners, themed parties, school carnivals, or even community events with competitions.</td>
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### 1.4 Team And Governance Structure

Currently, Isla Urbana Mexico has 66 full-time employees. Of these, 40 are in administrative positions (14 women and 26 men) as well as 26 employees on the installation team, all of whom are men. In addition, the Board has 9 directors, 6 men, and 3 women. Moreover, Isla Urbana USA has 2 full-time employees and a Director (who is also a member of the Board of Directors of Isla Urbana Mexico), all of whom are female.

### 1.5 Enterprise Policies

<table>
<thead>
<tr>
<th>Policy</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall HR Policy</td>
<td>No</td>
</tr>
<tr>
<td>Equal pay for equivalent work policy</td>
<td>No</td>
</tr>
<tr>
<td>Non-discrimination / Equal employment opportunity / Diversity and inclusion policy (gender, LGBTQ, PWD, etc.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Anti bullying and sexual harassment policy / Respectful workplaces</td>
<td>No</td>
</tr>
</tbody>
</table>

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32 Chapter: a local branch of a society.
### 2. Impact

#### 2.1 Mission Statement
Isla Urbana’s mission is to support clean and sustainable water solutions in Mexico, while promoting young leaders and actors of change.

#### 2.2 Intended Impact
Isla Urbana currently creates the following impact:

- **It reduces** the time households, especially women and girls, dedicate to unpaid domestic work.

#### 2.3 Monitoring And Measurement
Isla Urbana measures the following indicators for service outreach:

- Number of installed products or services
- Number of customers (B2C, B2B, and B2G)
- Number of rural villagers benefited
- Number of urban inhabitants benefited
- Number of liters of water provided with Isla Urbana systems: calculated as annual rainfall (in millimeters), multiplied by the roof surface area (in square meters), multiplied by the tank or cistern capacity.
- Number of hours of water retrieving reduced (per family)
In terms of quality of the services, Isla Urbana measures:

- A first baseline survey is performed before the installment of the service in order to determine the water situation of the household. A follow-up survey is then performed after the first year of usage. The surveys are compared to measure the quality of the service, as well as the quantity and quality of the water received through the system.

2.4 Results To Date

Isla Urbana’s outreach results from 2009 to 2021 are as follows:

- Number of products installed: 31,000 (2,200 in rural areas and 28,800 in urban areas)
- Number of customers served: 250,000 (B2C: 8%, B2B: 12%, B2G: 80%)
- Number of rural villagers benefited: 30,000 (in 22 states)
- Number of urban inhabitants benefited: 370,000
- Number of liters of water provided with Isla Urbana systems: 1,300 million liters (130 million in rural and 1,170 million in urban)
- Number of hours fetching water saved per family (daily): 1.5 hours in urban areas and 2.5 in rural areas (on average)

Isla Urbana’s work is aligned with the following Sustainable Development Goals (SDGs):
3. Financials

3.1 Financial Status

Isla Urbana is already self-sustaining and profitable. Since the company has a hybrid business model, the for-profit and non-profit operating arms work independently. The table below showcases the financial status of Isla Urbana Mexico. As Isla Urbana USA is currently undergoing a restructuring process, its financial status is not available.

<table>
<thead>
<tr>
<th>Particular (Amounts in USD)</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>7,126,000</td>
<td>2,605,000</td>
<td>2,043,000</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>6,251,200</td>
<td>2,078,120</td>
<td>2,457,000</td>
</tr>
<tr>
<td>EBITDA OR Profit/Loss</td>
<td>874,800</td>
<td>526,880</td>
<td>-414,000</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>7.47</td>
<td>11.76</td>
<td>0</td>
</tr>
</tbody>
</table>

3.1.1 Revenue Streams

97% of Isla Urbana’s revenue is derived from commercial activities and 3% is derived from donations and grants. The graphic below depicts past revenue details reported by Isla Urbana Mexico. Between 2019 and 2020, Isla Urbana’s revenue decreased by 63.4% and between 2020 and 2021, its revenue decreased by 21.6%. All decreases are due to the COVID-19 pandemic and the subsequent reduced growth and instabilities in the global economy.
3.1.2 Expenses

The following pie-chart provides details of the key past expenditure areas by Isla Urbana in 2021.

- Personnel: 46%
- Technology: 6%
- Training: 2%
- COGS/cost of raw materials: 29%
- Rent and other Opex: 7%
- Marketing: 3%
- Others (transportation): 7%

3.2 External Funding Sources (Past and Current)

In its first years of operation, Isla Urbana raised money through governmental funding, grants, awards, and donations from national and international organizations. Currently, Isla Urbana still receives donations and grants through the Isla Urbana USA operating arm. However, these only account for 3% of its revenue.

3.3 Challenges Faced In Accessing Capital

Isla Urbana’s main financial challenges are related to awareness:

- Since rainwater harvesting technology is still relatively new in Latin America, little is known about its potential as an alternate water source to address water scarcity. As a result, the company has had to demonstrate the suitability of its solutions to potential customers. However, during Isla Urbana’s early stages, the company struggled to pitch its technology. This was due to a lack of external, independent, and credible research available on rainwater harvesting solutions. This gap in awareness regarding engineered water solutions became a barrier to raising external capital, as investors, especially government authorities, preferred to invest in well-known technologies.
4. Path To Scalability

4.1 Potential Avenues For Growth

Isla Urbana has identified the following avenues for growth:

• **Geographic expansion:** In the medium term, Isla Urbana seeks to operate in Honduras and the Dominican Republic, as an implementing partner of the Inter-American Development Bank (IDB). In the long term, the company plans to operate across Latin America as a B2B distributor of its systems.

• **Development of new services:** The company intends to explore sustainable housing, as well as large-scale rainwater harvesting systems in forests. Isla Urbana is currently conducting research to run pilots.

4.2 Risks And Challenges

Isla Urbana has identified the following challenges:

• **Financing:** Since B2G contracts account for 90% of Isla Urbana’s revenue, the company’s financial sustainability is heavily reliant on government funds for social investments. In addition, as most contracts are for large-scale projects, Isla Urbana requires a large number of workers. If the contract of a large project fails, the annual income is reduced, making it difficult to fulfill its payroll.

• **Technology:** Since Isla Urbana’s technology (i.e., the purification system inside the rainwater harvesting systems) has been copied by other companies, Isla Urbana’s main challenge in this regard is to constantly update its systems to differentiate its product.

• **Competition:** The main challenge is to compete with companies that have copied Isla Urbana systems, making them with lower quality materials and, therefore, selling them at lower prices.

• **Illegality:** Isla Urbana reports organized crime in rural areas as a major barrier to their work there, as these groups do not allow entry to the areas they control.

4.3 COVID-19 Impact On The Enterprise

Isla Urbana has identified 3 relevant impacts as a result of the Covid-19 pandemic:

• A decrease in the number of services requested/new clients, in 2020 Isla Urbana installed 1/10th of the systems that it usually installs.

• An increase in layoffs and salary cuts, the board reduced its salary by 40% and reduced the wages of the rest of the team by 25%. However, in 2021 the company paid back the cut in salary income.
• The addition of a new product, portable wash basins, to its portfolio. Portable wash basins were designed and installed in schools on an adhoc basis.

4.4 Support Received To Date
Throughout the years, Isla Urbana has received technical assistance support from multiple organizations, such as New Ventures Mexico, a Mexican accelerator.

4.5 Inputs Required For Growth
• **Financial support:** Isla Urbana is seeking US$ 500,000 - US$ 1,000,000 to pilot sustainable housing in rural areas. It also seeks approximately US$ 250,000 to pilot large-scale rainwater harvesting systems in forests.
• **Non-financial support:** Isla Urbana is open to any non-financial support. The company is particularly interested in assistance to refine its internal policies, as well as its internal processes.