

ACTIVEMOS

EL **FUTURO**

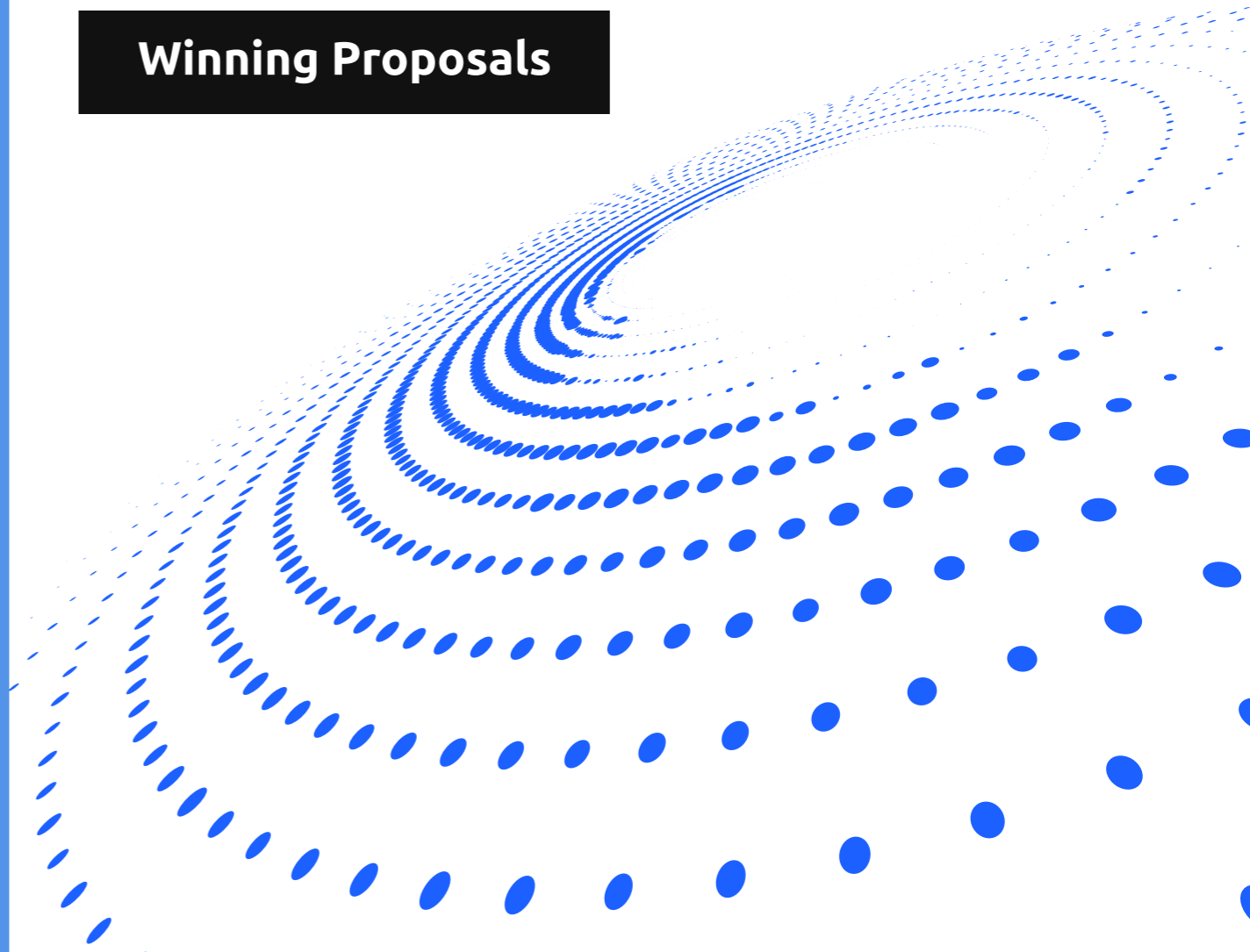


FRIEDRICH NAUMANN
STIFTUNG Für die Freiheit.
América Latina

International Micro Policy Proposals Contest: Promoting Recovery and Prosperity

Latin America 2020

Winning Proposals

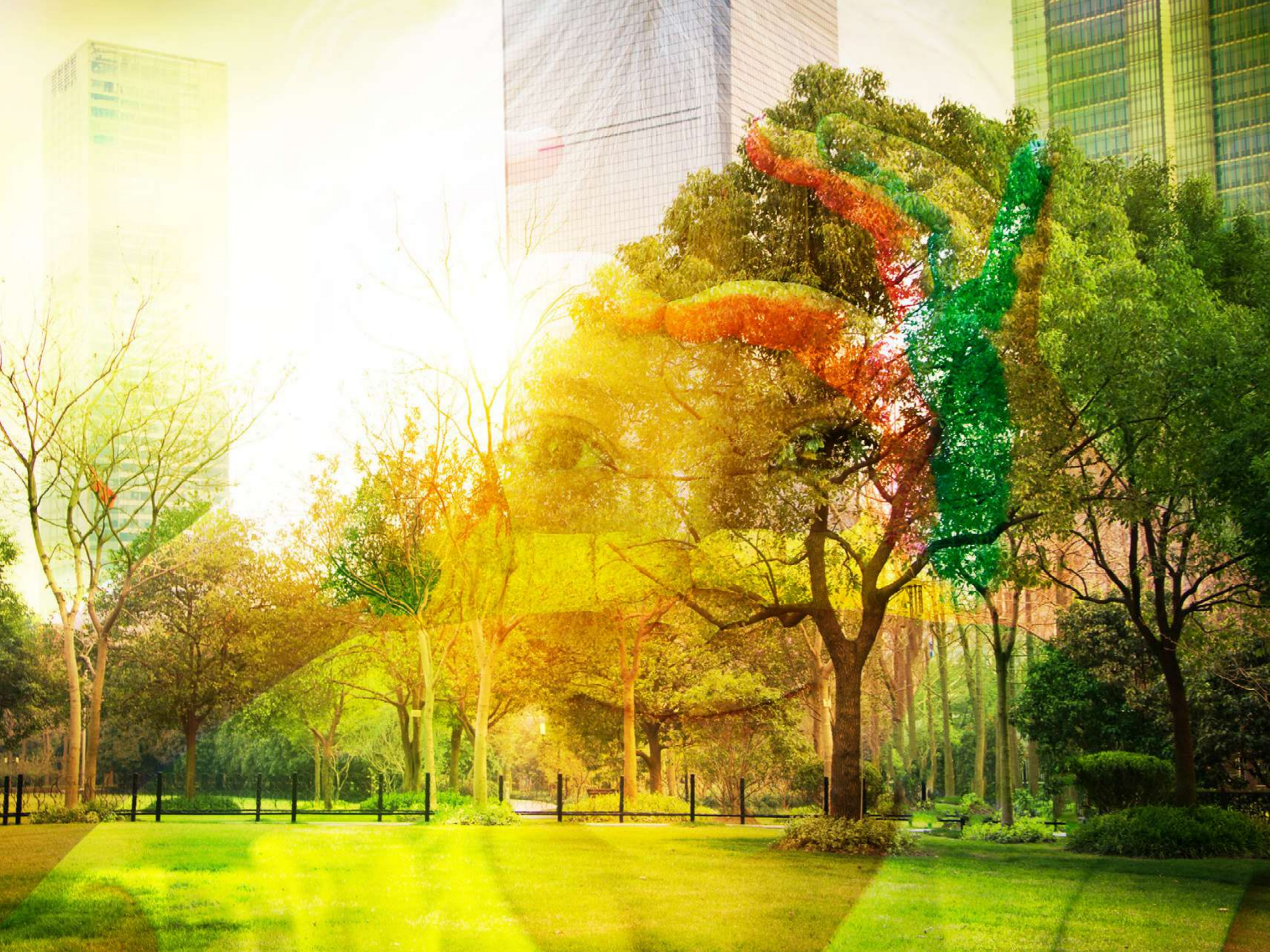




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Individual liberty and responsibility as guiding principles for public policy development.

In pursuing economic and social progress in our countries, individual liberty and responsibility must be the guiding principles for public policy development. This was the idea behind the creation of the *Setting the Future in Motion* challenge, calling for proposed solutions to challenges facing Latin American countries while staying away from plain wish lists of noble intentions — as is often the case — that are impracticable in the short term, bring nothing but disappointment, and lead us to believe that liberty cannot be built from public policy.

Thus, developing public policy programs that address specific problems using a targeted and practical approach will enable us to advance the cause of liberty in a gradual but sustained way, without setting off adverse reactions. That will also enable us to create a precedent for the idea that individual liberty and responsibility do work, reinforcing the importance of citizen participation in policy development.

The global crisis that was triggered by the COVID-19 pandemic, and further compounded by governments around the world, will be devastating, but it also presents a wonderful opportunity for those who believe that individuals have within themselves the ability to work out alternative solutions to overcome major obstacles. This is not the first major crisis humanity has faced. In the past, we have demonstrated that, when people are allowed to conduct themselves at liberty, they will find solutions even to the most serious of problems. If we are allowed liberty, we will choose cooperation over confrontation, and empathy over abuse.

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The cause of liberty has often been criticized for focusing too little on solutions, emphasizing what is wrong without pointing at what could be the right path beyond the “life, liberty, and property” aphorism. We liberals claim to have the final solution to our major problems: less regulation, less taxes, and more open markets are simple solutions, but they are not easy. When we focus on such wide-ranging remedies aiming for the long term, we often neglect specific problems that call for targeted attention and a hands-on approach, and we end up solving none of them.

The concept of “buoyant force” may be helpful in understanding this situation: the push force experienced by a body that is submerged in water is equal to the volume of water displaced. Experience shows that the adverse reaction that an all-encompassing liberal public policy program will spark off is potentially much stronger than that elicited by small-scale reform initiatives. People have often condemned the U.S. for its military budget and the wars it has waged, and no progress has been made in that regard, but a small group of people including Milton Friedman succeeded in abolishing conscription, ensuring that no one would be forced to go to war. It was indeed a small achievement, but it certainly paved the way for others to come.

Getting back on track towards prosperity will prove to be a difficult task, and it will require us to develop feasible solutions. *Setting the Future in Motion* has succeeded in breaking through the surface tension in the sea of public policy, furthering liberty and responsibility as a basis to formulate responses that will lead us to a better world.

Bertha Pantoja.



The individual human spirit as the key to achieve progress

The Covid-19 pandemic has brought us new challenges, with a daunting degree of complexity. To tackle it successfully will require a major mobilisation of human ingenuity and creativity. It is a challenge that we Liberals should accept, because Liberalism contends that individual and decentralised human drive and spirit are the key to success and progress, not centralized responses.

That is precisely why I am really delighted about this great initiative of RELIAL, to help this process through an open competition of ideas that can help us overcome the effects of the crisis.

Latin American Liberals rose to the challenge: 51 project proposals were delivered in this call. All these projects reflect the real concern of their authors to get involved in the search for solutions to overcome the different challenges that their countries face due to the current crisis. Our foundation values this commitment. It represents the spirit that we seek to support and promote with our work: that all citizens, recognizing their responsibility, become involved in political discourse, proposing ideas or concrete solutions for a more prosperous future of their countries or communities.

Today we are experiencing one of the most daunting global crises in recent history. The crisis has exposed or deepened many of the problems that already existed. However, it is precisely during difficult times when innovative ideas and citizen participation are needed more than ever. Many instinctively look to governments to protect and save us, and the governments try to respond to this demand with all sorts of actions. However,

we also see that there is a lot of action for action's sake, often with bad or even disastrous unintended consequences. The truth of the matter is that problems have become far too complex to leave their solution in the hands of governments, whose capacity for creativity and quick response is limited. This is true for rich countries, it is even more true for poorer countries with weak institutions. The most effective response is to mobilise creativity and energy of individuals in a decentralized way. Only in this way can we build the fundamentals for healthier and prosperous societies.

It is for this reason that it is both a great honour and pleasure for me to be part of this contest, organized by our long-time partner organisation RELIAL in cooperation with of our foundation. It is inspiring to see how many ideas seek to influence different areas of society, in economic, social, educational, health, safety and environmental matters. That should give us hope and inspiration to continue on this path.

Last but by no means least I would like to congratulate the winning projects from Costa Rica, Ecuador and Venezuela. Their authors did an excellent job. It was difficult to decide on one winner, since there were so many great projects. I would therefore like to encourage the authors of the other projects to continue to their efforts to contribute to the search for the best way forward. That they did not win does not mean their ideas were not good and useful, and we will need all of our strength to overcome the current crisis and build a better future in open societies.

Prof. Dr. Karl-Heinz Paqué

Chairman of the board of the Friedrich Naumann Foundation for Freedom



Citizens Reclaiming their Future

María Blanco

RELIAL's "Setting the Future in Motion" initiative is founded on three principles: projects must be aimed at addressing shared problems, projects must present a budget, and projects must be scalable. There were hardly any requirements other than the basic formal criteria.

The reasons for using these principles in a call for projects is not trivial. First, as Adam Smith claimed centuries ago, it will be those who see the problems and experience the difficulties in their daily lives that will have stronger incentives to fix them. Those suffering the consequences — the local householders who experience the problem first-hand — are most likely the ones who have a better understanding of the circumstances and who can try to work out what to do. But we often do not do that in our societies. We have become too accustomed to having others take care of problems. And more often than we would like to admit, it is someone who gets carried away by their own interests and who, seduced by the siren song of power, grows more and more detached from the day-to-day lives of ordinary people. The issues that require attention are thus turned into campaign promises that offer no assurance as to whether they will be fulfilled or not. Nonetheless, it is in our nature to feel curiosity, an urge to work out ways to overcome the obstacles we encounter over the course of our lives. RELIAL's "Setting the Future in Motion" initiative constitutes a first attempt to spark that flame of ingenuity that often grows on the spur of the moment, especially at times like the one we are going through right now.

The economic, social, and health crisis we are experiencing globally has inoculated all of us with a feeling of hopelessness, helplessness, and frailty that we have never experienced before. But there is always tomorrow, a future awaiting us. There is a future that we will create with the lessons learned. It is important for citizens across Latin America to realize that, despite the uncertainties and the institutional errors, the future can be better if we do something about it. First, we need to enhance our skills in identifying the problems that are within our reach: developing a keen eye for them. We must learn to find solutions on our own, drawing on ingenuity, cooperation among neighbors, solidarity, and self-organization.

Spontaneous order is a feature present in all complex systems, and it is not only in our nature as social animals, but also in nature itself. It offers beautiful examples like the fascinating way fish organize into schools, the way fireflies light up in a rhythmic pattern, the way birds flock together, and the way the heartbeats of a mother and her sleeping baby synchronize. Yet our society has gotten carried away with the idea of top-down planning, which runs counter to spontaneous and non-directive organization. Some would say that plans do not fail like that, but they do. Why is bottom-up planning better than top-down? Because of the associated incentives and the nearness to the reality of the problem. But there is also a third reason. It offers greater flexibility to make adjustments: solutions are more adaptive. Furthermore, spontaneous order and bottom-up cooperation also help to prevent coercion and promote liberty as the main driver of people's work, assuming individual responsibility for our own future, to the best of our ability.

Requiring projects to be scalable is a key element in that regard. Problems arising in neighborhoods and small communities due to the difficult circumstances we are experiencing are often shared, or at least similar. Solutions that may be applicable in other places where people are being faced with similar obstacles constitute opportunities not only to transfer knowledge to other places, but also to encourage citizens in those regions to adapt them and adjust them to their specific circumstances. Such an approach encourages citizens to develop greater resourcefulness and creativity, attaching greater value to individual contributions. When we work for the benefit of our own small communities, we also work for the benefit of others.

“Our society has gotten carried away with the idea of top-down planning, which runs counter to spontaneous and non-directive organization. Some would say that plans do not fail like that, but they do. Why is bottom-up planning better than top-down? “...

Finally, the requirement to present a small-scale budget allows participants to keep their feet on the ground. If we stop to consider solutions to address specific issues, we may come up with a thousand of them, but how many of them can be effectively implemented? Drawing up a budget — however modest it may be — forces us to truly weigh up the needs of the project. Furthermore, participants will become aware of the fact that everything needs a source of funding and that costs are not covered with money that grows on trees, as we are often led to believe — and as we happily accept to believe. The idea is to stay away from the kind of “wishful thinking” that we so often see in well-intentioned fantasies, forcing participants to draw up a credible path on a map that effectively represents reality instead of a dream world.

Building on these three pillars, we managed, in record time, to engage a considerable number of participants from various countries. Drawing on their own skills, citizens captured in no more than 10 pages the most basic concerns among their communities, formulating proposals to respond to challenges like the deterioration of urban public goods, the lack of mobility among older adults during lockdown, inadequate food consumption, using new technologies to support startups, and the importance of access to public data to ensure transparency in public management carried out by political leaders in our communities.

Disseminating and recognizing the value of such initiatives will be critical to the development of an entrepreneurial mindset in Latin America. Future editions of this initiative will undoubtedly bring about increasingly sophisticated projects, emphasizing feasibility, suitability, and increasing enthusiasm. Creativity can also develop from training, and a life of liberty can also be learned. “Setting the Future in Motion” will plant a seed to promote that attitude and outlook to face the world.





About this publication

Asdrúbal Vargas Vásquez

Editor and Collaborating Member of the “Setting the Future in Motion” Contest

If there should be a flame in Latin America that we must never allow to become extinguished, that would be our citizen innovation in providing solutions to shared problems. In a year where the concept of community has become critically important, RELIAL has organized the “Setting the Future in Motion” International Challenge to send out an open invitation for citizens across the region to share their insights about actual challenges that are significantly affecting people in their contexts — and to which we can all potentially relate, even if we live in different neighborhoods, cities, countries, or regions.

The initiative was aimed at creating a platform where people from all over Latin America could find a stronger echo of their ideas and share them in a context bringing together realistic solutions that may be relevant to their communities. With that idea in mind, we invited participants to submit what we denominated *Micro Policy Proposals*. Why Micro? Because the complexity involved in macro policy initiatives often requires participation by multiple stakeholders, making it difficult to realistically include them in the definition of the public agenda — and even jeopardizing their implementation when government authorities strongly favor centralism.

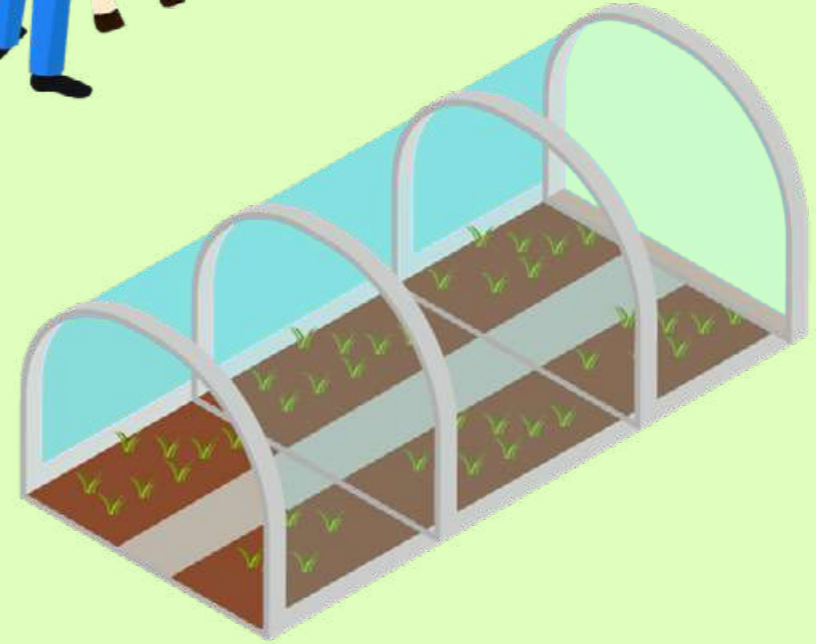
Furthermore, the scope of influence of micro policy proposals may remain closer to the level of individuals and those around them. Raising the visibility of problems that may indeed involve a smaller scale compared with the major legal, political, and economic reforms required in our countries, but which are nevertheless critical to ensuring the quality of life of those being positively affected by them. In a context largely determined by a pandemic crisis, the initiative was intended to give a voice to communities we had most likely never heard of before, providing relatable analogies to our own reality.



This handbook features a compilation of 11 [micro proposals](#) developed by authors from all over [Latin America](#) who, after going through a rigorous evaluation process, present us each with an issue that needs to be made visible, formulating concrete and viable implementation proposals that may be scaled up to other neighborhoods or communities in Latin America. It is, in essence, [a set of citizen initiatives](#) that we hope may encourage others to join in and contribute — at any level — to the implementation or replication of these ideas.

By drawing attention to such realities and presenting a road map to address them, the authors thus invite the reader, once again, to acknowledge the innate power that we have as individuals to contribute to value creation and to lead the [social transformation](#) processes we need in our region. We thus invite anyone who becomes interested to contact those who are behind these initiatives and enable the flame initiated by each author to serve as combustion to drive the implementation of the initiatives.





John Galt and Food Security: Small Steps, Real Impact

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The Problem

In Costa Rica, the pandemic outbreak sparked off a debate that appeared to have been forgotten since the early 1990s — when the country started opening up to international trade — but clearly was not. Namely, the food sovereignty debate.

The Minister of Agriculture recently expressed his support of a major overhaul of public policy to promote agricultural development, recommending that at least half of the country's consumption be produced within the country (Muñoz Solano, 2020) — despite the US\$2 billion trade surplus reported by SEPSA, an agency that advises the Minister.

However, as Hayek claimed, “the question is not whether there should be any planning at all, but whether the planning should pursue a centralized approach or be undertaken freely as a responsibility of each individual.” We favor the latter approach, considering that the drawbacks of centralized planning are already known to us and that the individual planning approach has been used throughout the years with positive results.

The country must not revert to failed policies, moving backwards compared to the rest of the world in issues that we had apparently already overcome. We will thus adopt the food security approach defined by FAO: «physical and economic access to sufficient, safe and nutritious food.»

“the question is not whether there should be any planning at all, but whether the planning should pursue a centralized approach or be undertaken freely as a responsibility of each individual.”



Who is most significantly affected and what are the associated consequences?

The most profound impacts are felt by the lower-income population, especially those in the three lowest quintiles, whose diet is heavily based on basic grain-based foods — 85.7 per day, predominantly rice, beans, and maize. According to data from Costa Rica's Instituto Nacional de Estadísticas y Censos (INEC), 21% of the country's population is living in poverty. That percentage is estimated to rise by 2.8% if government subsidies are eliminated, and the same effect would be observed in the 5.8% that are estimated to live in extreme poverty — although it would be worse in the latter case, eventually rising to an estimated 4.2% of the population (Rodríguez Rodríguez, 2020).

The Estado de la Nación report estimated that about 1,695,097 people are suffering from some kind of poverty — although that does not account for the fact that the unemployment rate has doubled over the past two years, climbing from 9% to 24% on average, so far, due to the widespread interruption of economic activities. In this case, access to nutritious food refers to unprocessed products, otherwise, the country would be identified as a food desert. The proportion of food desert tracts in Costa Rica is significantly high, and most of them are concentrated in the Greater Metropolitan Area, as it does not seem to be profitable to put that land for sale.

We are thus proposing to implement an innovative system developed by biologist Dr. Dickson Despommier, from Columbia University, in a book entitled *The Vertical Farm: Feeding the World in the 21st Century*. Published at the end of the past century, the book describes the most significant famines in history and urges people to try to live in harmony and on friendlier terms with nature, giving the land back to it and creating vertical farms in homes, neighborhoods, communities, and cities.

Notably, the author insists that vertical farms should not necessarily be set up as new spaces within the cities, but rather in rundown abandoned city lots, putting them to a new use and allowing the city to “breathe” more easily. The aim is to find a balance between what we consume and what we produce, as most of the food produced around the world is wasted — and Costa Rica is no exception. And that leads to food insecurity, with people starving to death because they cannot get access to food.

“The project draws on the research conducted by Microbiology Professor Dr. Dickson Despommier, who issued a powerful call to change the way we cultivate our food.”

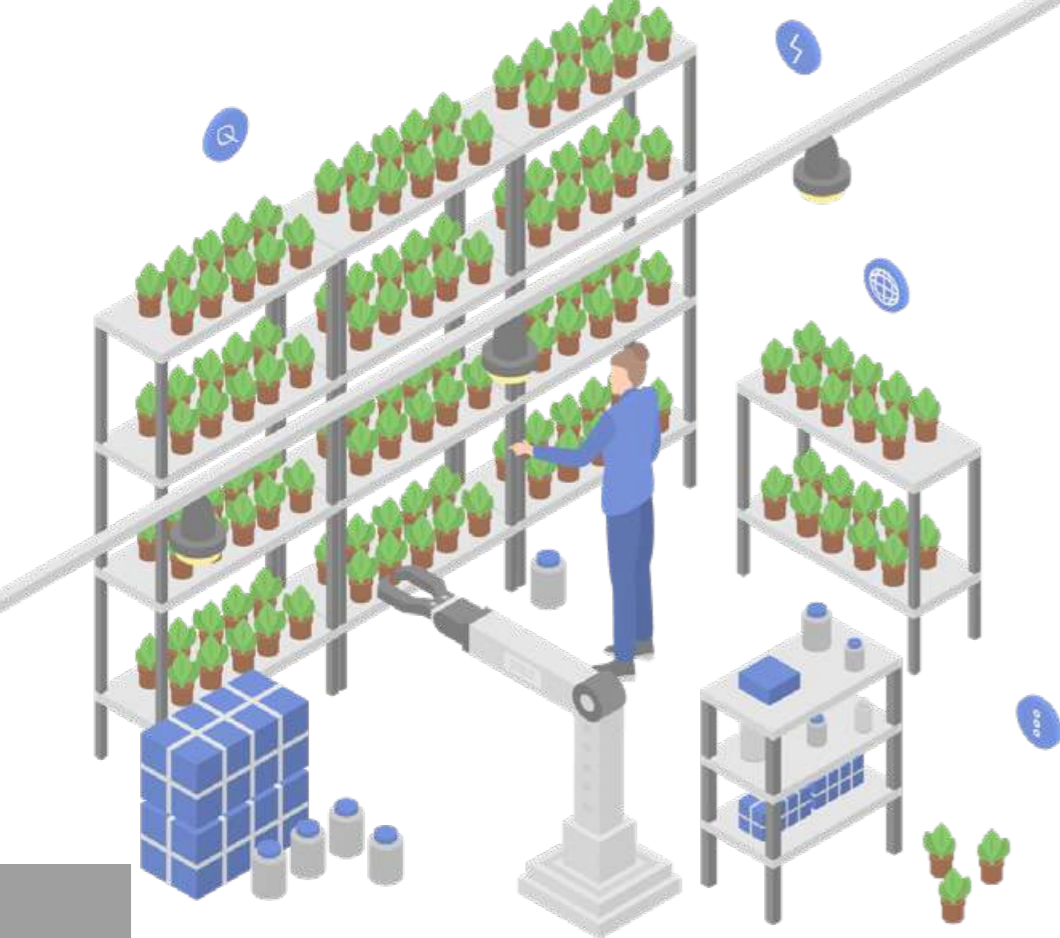
What is interesting about this model is that it essentially relies on individual initiatives without government intervention, except for some minor exceptions that will be discussed later in this proposal. Also, they can be set up at a relatively affordable cost, considering the output they will produce if they are set up communally, potentially bringing together 5–6 households. In Costa Rica, the cost is estimated at about 30,000 – 40,000 colones (US \$49 – \$65), an amount that could be awarded as a prize to launch a pilot program in target communities.

The Key Principles Underpinning the Solution

The project draws on the research conducted by Microbiology Professor Dr. Dickson Despommier, who issued a powerful call to change the way we cultivate our food. Supported by both theory and practice, the idea of putting vertical farms at the center of a policy proposal emerged in the context of the adverse consequences the COVID-19 pandemic has had in Costa Rica. No one in Costa Rica has ever raised the idea of effectively ensuring food security for all people, relying on socio-economic sustainability and the sustainability of our environment.

Unemployment in Costa Rica has reached alarming levels, and the steps taken to counter the pandemic have reportedly contributed an additional 12.9%, currently standing at 24.4% (EFE, 2020). Unemployment is known to be causally linked to poverty, and we are thus faced with actual food insecurity among citizens. Vertical farms would provide people in communities with a reliable source of income and with the possibility of bringing food to their households.





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The current lockdown measures imposed in communities provide an excellent opportunity for people to undertake vertical farming. Scarcity of certain foods has led thousands of people to change their eating habits, while others have opted for growing their own food at home, as some have done in Bangkok, Thailand (Delgado, 2020). That would also help people keep their minds busy while staying at home, as a positive relief from tension, anxiety, and depression caused by lockdown.

Vertical farm studies emphasize the number of people in the world, or in a specific region, and how it has increased over time. The numbers are alarming, with a study estimating that the global population will reach 9 billion by 2050, requiring an area of land of about the size of Brazil to be able to feed everyone (Cicekli & Barlas, 2014). With an estimated population of 5,774,070 by 2050, Costa Rica will be no exception (World Population Review, 2020). This figure points to the importance of gradually adopting a vertical farm strategy, aiming to significantly increase food production and reduce the country's environmental footprint from the context of urban buildings and households (Benke & Tomkins, 2017).

The aim of the project is to create an additional source of employment for communities that have been seriously affected by the pandemic and implement Costa Rica's food security policy throughout the country. The proposal is certainly ambitious, but it may be phased in gradually. As Despommier explained, "The aim is to change the traditional approach to agriculture while keeping it a profitable business. Successfully managing a vertical farm requires cross-disciplinary preparation" (Pensis, 2017), and it must be supported with technical assistance, providing follow-up goals, monitoring, and assessment. This strategy has already been implemented in Panama, developing innovations in vertical farms and already producing food all year long (Gutiérrez M., 2019).

Project Description

This kind of proposal must include a plan for the short, the medium, and the long terms, considering a series of stages that will each target specific population groups. Addressing food insecurity calls for an ongoing process that must start with an empirical validation of the possibility of delivering consistent yields to ultimately formulate a micro policy proposal. Ayn Rand said that “the smallest minority on earth is the individual”, and we believe that understanding the true depth of this view helps people understand the power of public policy that is developed by and aimed at individuals. In his pioneering work “The Spirit of the Laws,” Montesquieu portrayed humans as fearful beings that may nevertheless be brought together by consensus and organize themselves into nuclear families, and that provides the model for the ideal development of any public policy that takes any of the eight existing family types as a starting point. The proposed plan may be broken down as follows:

Short Term

The first stage of the project involves selecting 6 households from a community ranked in the second quintile of the Costa Rican economy — which accounts for over 312,000 households with an average income of ₡461,317 (Delfino.cr, 2018)

This project will initially require EUR 300 — roughly ₡209,896.40¹. According to the studies conducted and the quotations obtained to estimate the costs of setting up a vertical farm, the investment needed to fund the most affordable plan for creating one vertical farm amounts to ₡35,000². Thus, €300 can pay for 6 vertical farms to allow 6 households to grow 6 different products. Products may include lettuce, tomato, beans, parsley, bell pepper, broccoli, basil, kale, arugula, mustard, celery, beet, and coriander. After beneficiary households have been chosen, the products that each household will grow must be determined, looking to ensure maximum profit from each crop. For example, if the first 6

¹ Exchange rate on September 23, 2020.

² The total cost of 1 vertical farm includes all materials needed for installing containers for plants in tiers: 1 pinewood board 18x200mm 3m 1x8” ₡14,950; 1 pine treated lumber 19x90mm ₡2,550; 1 wooden board 8x2” 20U ₡435; 3 rectangular plastic flowerpots ₡10,049.99; 1 pine treated lumber 19x65mm 3 ₡1,895; 1.5 transparent protective plastic tent x double width meter ₡1,642.5; 1 packet of seeds ₡1,750; Fertilizer ₡1,727.51. CT: ₡35,000. Costs provided by Ferreteria EPA – Costa Rica. <https://cr.epaenlinea.com/epa-tutoriales/maceteroescalera.html>



products in the list are chosen for the 6 households, we would be looking at 3 months of growing before actual harvest — although lettuce needs to grow for only 1 month before harvest (Hidalgo, 1991). Since it takes 3 months to harvest these 6 products (with the exception of lettuce), the proposed amount would then provide for 4 crops in a year — and 12 crops of lettuce. After harvesting the first crop, household members can sell the produce in their neighborhoods at a price determined using a supply and demand analysis for each community or use part of it for their own consumption. To maximize profits, the 80/20 ratio must be achieved, selling 80% of the produce and consuming or reusing 20% of it. Households may thus generate an extra income from the profits and reuse that money to buy more seeds, sprouting seeds, or a small plant. There are even techniques to reuse a part of the plants to grow more. This would allow households to grow another crop for the next three months. A vertical farm uses only 5% of the water needed for horizontal farms, as the plants may be sufficiently watered using just a spray bottle. If the farm is set up outdoors and there is heavy rainfall, a plastic cover will be needed to protect the plants, but that can also be useful if holes are punched in the cover to allow water to drip in through it, thus eliminating the need to water them (Quirós Porras, 2017). While the income may be small, households will derive additional benefits, including: § Developing a personal interest in achieving a better economic condition § Developing an interest in vertical farming and its health and environmental benefits, § Enjoying the benefits of shifting toward an autonomous and local consumption model § During the pandemic outbreak, keeping their minds busy with nature at home, thereby bringing happiness and increasing self-esteem (Cytowic, 2012). The first stage, covering the short term, will last 1 year, which is enough for 4 crops.

Medium Term

The second stage consists in continuing the project with the 6 households, allowing them to change their choice of crop products. Also, empirical data will be generated and organized to be presented before the Municipality of the community. That is where the micro policy stage will effectively begin. First, the results, the positive outcomes, and the proposed improvements to the project will be presented before the Municipality so it can develop a policy program to promote vertical farms elsewhere within the district. The micro policy plan consists in allocating seed capital to the establishment of new farms that will be assigned to another group of families. This is a strategy that the economists and 2019 Nobel laureates Abhijit Banerjee, Esther Duflo, and Michael Kremer tested in India (Adriano, 2020). Municipalities would make a \$350,000 investment — roughly €575.67 — for 10 families to operate their own farms over the course of one year. That would pay for one vertical farm for each of those households, which would be chosen among those ranked in the second quintile of the economy of a specific community. This would represent a one-time investment for the Municipality, providing the opportunity to evaluate the outcomes for those families after one year. The first part of the third stage would also start after the first six months — with the second crop of the new group of 10 households — because after 6 months (in June, if the program was launched in January) a new regular budget would need to be drawn up by Municipalities for the following fiscal year, providing for a new allocation to be assigned to another group of 10 households for the third stage and preparing a group of municipal plots of land that may be used as communal vegetable gardens. Several

Municipalities — and even the Unión Nacional de Gobiernos Locales (UNGL) — have many confiscated plots of land that had been taken by criminal groups and which could be reused to offer new effective opportunities to low-income families (Navarro, 2019). The initiative will thus be aimed at mapping out the specific plots of land and conditions and drawing up a budget to get them ready, create a security perimeter around them and in the vertical farms, providing the surrounding households with a meeting place to grow produce and trade. Also, Municipalities already have specialists, including engineers, who could offer technical support every 3 months to improve the next crop.

Long Term

Subsequently, once the plots of land have been designated and prepared by the Municipalities — around the beginning of the third year — the full plan may be initiated. Depending on the size of the implementation of the proposed policy plan and of the plots, the cost of enclosing the spaces with a fence would range between ₡3.5 million and ₡7.5 million, covering the impact study, the preparation of the land, the purchase of construction materials, and, of course, the farms. A full implementation of the policy plan would make it possible to develop a set of tools to support conflict resolution, cooperation, sustainable development, financial management, dual education, public safety, and multiculturalism — in addition to the high value of the income generated for households and of the products.

Also in the long run, as part of a fourth stage, the plan would be to design a policy measure to identify public institutions that may own abandoned spaces like buildings or land that could be used to set up vertical farms on a larger scale. This would include, for example, searching in large urban centers for abandoned buildings that belong to any public institution and have the necessary conditions to use a part of them for this purpose. This would also enable citizens to start reclaiming public spaces, thus strengthening democracy as they become involved in caring for the community's vertical farms. These farms would also rely on development by households that would assume responsibility for each vertical farm. Finally, a proposed plan for the very long term is to take vertical farms to an industrial level in urban areas, encouraging cooperation by private companies, NGOs, individuals, and households.

Feasibility of the Project

In a nutshell, the proposed policy plan requires an initial group of six households to gain experience over the course of one year, assess the outcomes, and identify opportunities for improvement.



This experimental stage requires an investment of €300 (roughly ₡210,000 colones). After the produce from the farms is sold, the earnings will be reinvested for future crops. Then, the proposed plan will be taken to the Municipality, showing the achieved outcomes and emphasizing the same model of giving people a fishing rod instead of a fish. That would effectively mark the beginning of the micro policy program.

Municipalities will make an initial investment for 10 households and provide technical assistance, relying on specialists who are already employed by them, to ensure improved outcomes from crops every 3 months. In the medium term, this will enable Municipalities to create a precedent that will help to continue to promote the policy program. Since it is a one-time investment, Municipalities would not need to have an oversight program in place, as they would rather work hand in hand with individuals. Notably, this model will allow them to witness the benefits, with families from the second quintile being able to generate a higher income if they decide to help those in the first quintile by engaging them in the sale of the produce, creating a positive ripple effect within the community.

Vertical farms may be upgraded into hydroponic farms, a model that can potentially generate nearly ₡40,000 colones (Gutiérrez T., 2015). A study conducted in 2015 reported that nearly 94,810 households were living in extreme poverty, earning an income of ₡47,000 colones or less (InformaTico, 2015).



“No policy scheme may be fully adopted if there is no evidence to support it, especially when communities may be initially skeptical, as is the case in Costa Rica. Specifically regarding doubts about the economic feasibility of the project, the evidence obtained so far indicates that it is perfectly feasible.”

Once it reaches an advanced stage, this policy program may help those families to get out of poverty. The initiative calls for cooperation among various sectors, including NGOs that may be interested in implementing and promoting the project.

No policy scheme may be fully adopted if there is no evidence to support it, especially when communities may be initially skeptical, as is the case in Costa Rica. Specifically regarding doubts about the economic feasibility of the project, the evidence obtained so far indicates that it is perfectly feasible. While investment costs may be higher on a large scale, many of the fixed costs will be reduced with increased crop concentration and later offset by the income generated from that. For example, energy costs may be drastically reduced, especially if renewable energy sources, like solar energy, are used. (C, 2012).

Furthermore, a simulated study conducted in Berlin on a 37-story vertical farm — which was initially treated with great skepticism — demonstrated that it was actually not unprofitable, concluding that vertical farms are feasible and may operate on high profit margins (Adenauer, 2014).



In conclusion, this is a decentralized initiative focusing on individuals to promote both technical and soft skills and bring increasing economic prosperity to households earning lower incomes or people living in adverse conditions due to various reasons. The proposed plan would have a significant impact on all those who have been affected by the pandemic and are thus being faced with food insecurity.

Costa Rica has never achieved consistent and noticeably improving poverty-reduction outcomes, thus having a malnourished population. If we wish to build a largely inclusive society that will put individual well-being at the forefront and will empower individuals to work towards a better community, then “there is no such thing as a lousy job, only lousy men who don’t care to do it” — Atlas Shrugged.

“There is no such thing as a lousy job, only lousy men who don’t care to do it” – Atlas Shrugged.



References:

Adriano, A. (2020, Junio). *People in Economics: Poverty Fighters*. From International Monetary Fund: Finance & Development: <https://www.imf.org/external/pubs/ft/fandd/2020/06/MIT-poverty-fighters-abhijit-banerjee-and-esther-duflo.htm>

Adenauer, L. (2014). *Up, Up and Away! The Economics of Vertical Farming*. From Macrothink Institute: https://d1wqtxts1xzle7.cloudfront.net/49840789/4526-17917-1-PB.pdf?1477340338=&response-content-disposition=inline%3B+filename%3DUp_Up_and_Away_The_Economics_of_Vertical.pdf&Expires=1600824838&Signature=EFLF1ZoHv-xeUFOcpq62RKxEPCL-7DU46HYNT-MTGxDD1DePDLsY

Benke, K., & Tomkins, B. (2017, Noviembre 20). *Future food-production systems: vertical farming and controlled-environment agriculture*. From Sustainability: Science, Practice and Policy: <https://www.tandfonline.com/doi/full/10.1080/15487733.2017.1394054>
C, F. (2012, Octubre 25). *La 'agricultura vertical', de la ciudad a la ciudad*. From Productor Agropecuario: <https://revistaproagro.com/la-agricultura-vertical-de-la-ciudad-a-la-ciudad/>

Cicekli, M., & Barlas, N. T. (2014). *TRANSFORMATION OF TODAY GREENHOUSES INTO HIGH TECHNOLOGY VERTICAL FARMING SYSTEMS FOR METROPOLITAN REGIONS*. From Journal of Environmental Protection and Ecology: <https://www.cabdirect.org/cabdirect/abstract/20153245812>

Cytowic, R. E. (2012). *The Key to Self-Esteem? Your Own Accomplishment*. From Psychology Today: <https://www.psychologytoday.com/us/blog/the-fallible-mind/201201/the-key-self-esteem-your-own-accomplishments>

Delfino.cr. (2018). *INEC: aumentó la pobreza en Costa Rica*. From Delfino CR: <https://delfino.cr/2018/10/inec-aumento-la-pobreza-en-costa-rica>

Delgado, V. (2020, Junio 17). *Innovaciones tecnológicas agrícolas: oportunidades para enfrentar la crisis por el COVID-19 en América Latina*. From IICA Blog: <https://blog.iica.int/en/blog/innovaciones-tecnologicas-agricolas-oportunidades-para-enfrentar-cri-sis-por-covid-19-en>

Despommier, D. (2010). *The Vertical Farm: Feeding the World in the 21st Century*. New York: St. Martin's Press.

EFE. (2020, Septiembre 10). *El desempleo en Costa Rica alcanzó el 24.4 % en julio*. From El Economista: <https://www.eleconomista.net/actualidad/El-desempleo-en-Costa-Rica-alcanzo-el-24.4--en-julio-20200910-0020.html>

Gutiérrez, M. (2019, Julio 2). *El panameño que innova con fincas verticales*. From Forbes Centroamérica: <https://forbescentroamerica.com/2019/07/02/el-panameno-que-innova-con-las-fincas-verticales/>

Gutiérrez, T. (2015, Mayo 20). *Experto enseña cómo ganar hasta 40.000 colones cosechando una granja hidropónica*. From crhoy.com: <https://archivo.crhoy.com/experto-ense-na-como-ganar-hasta-40-000-colones-cosechando-una-granja-hidroponica/economia/>
Hidalgo, I. (1991). *Olericultura: su importancia nutricional y medicinal*. Alajuela: Centro de Investigación y Perfeccionamiento para la Educación Técnica CIPET, Departamento Agropecuario.

InformaTico. (2015, Marzo 26). *Gobierno lanza plan para sacar de la pobreza extrema a 54.600 familias*. From Informatico: <https://www.informa-tico.com/26-03-2015/gobierno-lanza-plan-sacar-pobreza-extrema-54600-familias>

Muñoz Solano, D. (2020, Abril 16). *Renato Alvarado: País debe producir al menos el 50% de lo que consume*. From Semanario Universidad: <https://semanariouniversidad.com/pais/renato-alvarado-pais-debe-producir-al-menos-el-50-de-lo-que-consume/>

Navarro, A. (2019, Abril 11). *Municipalidades buscan rescatar lotes baldíos y parques abandonados para luchar contra la inseguridad*. From Monumental 93.5FM: <https://www.monumental.co.cr/2019/04/11/municipalidades-buscan-rescatar-lotes-baldios-y-parques-abandonados-para-luchar-contr-la-inseguridad/>

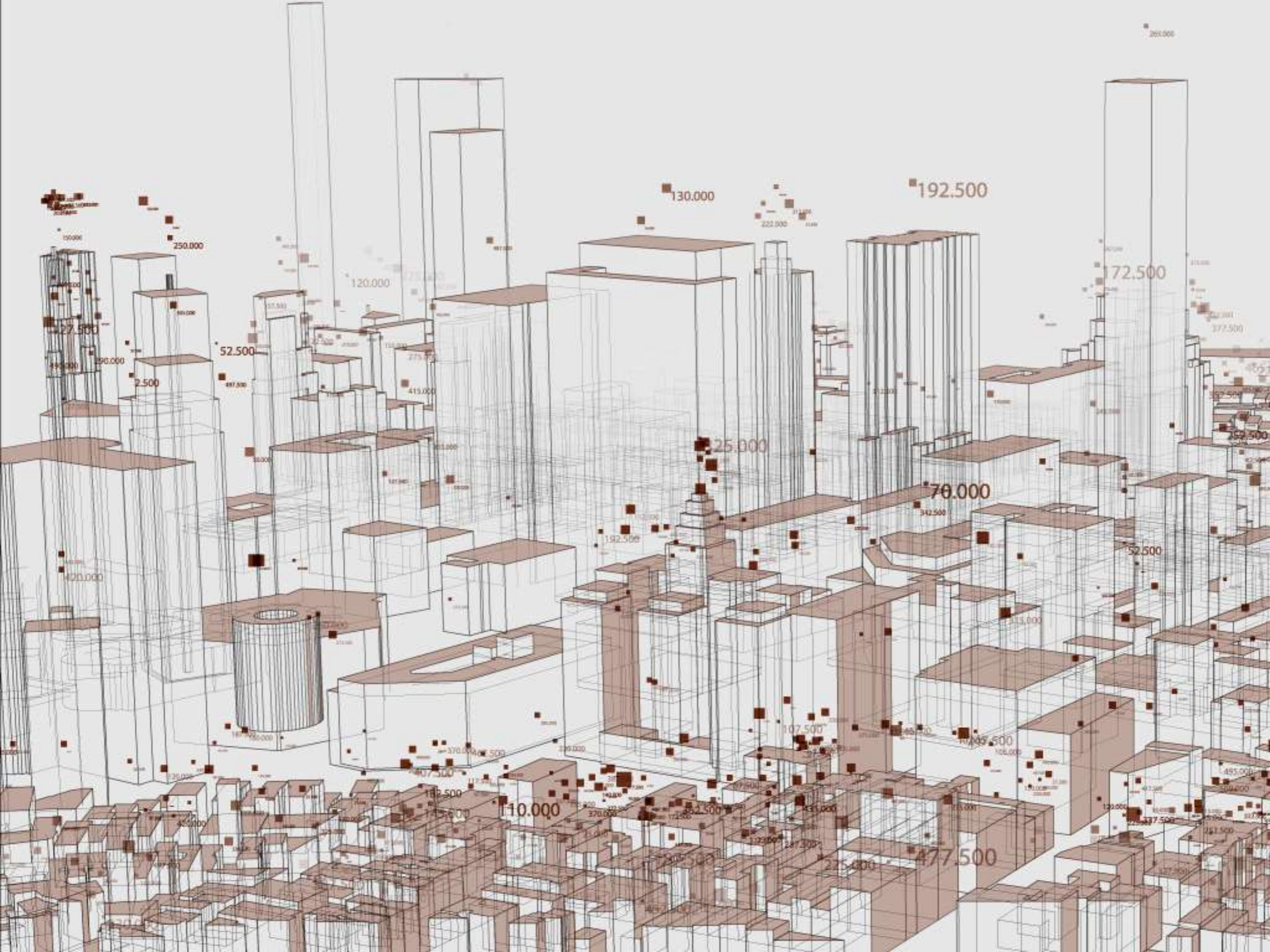
<https://www.tandfonline.com/doi/full/10.1080/15487733.2017.1394054>
Pensis. (2017). *Granjas verticales, la nueva forma de cultivar*. From Pensis - TEC: <https://www.tec.ac.cr/pensis/articulos/granjas-verticales-nueva-forma-cultivar>

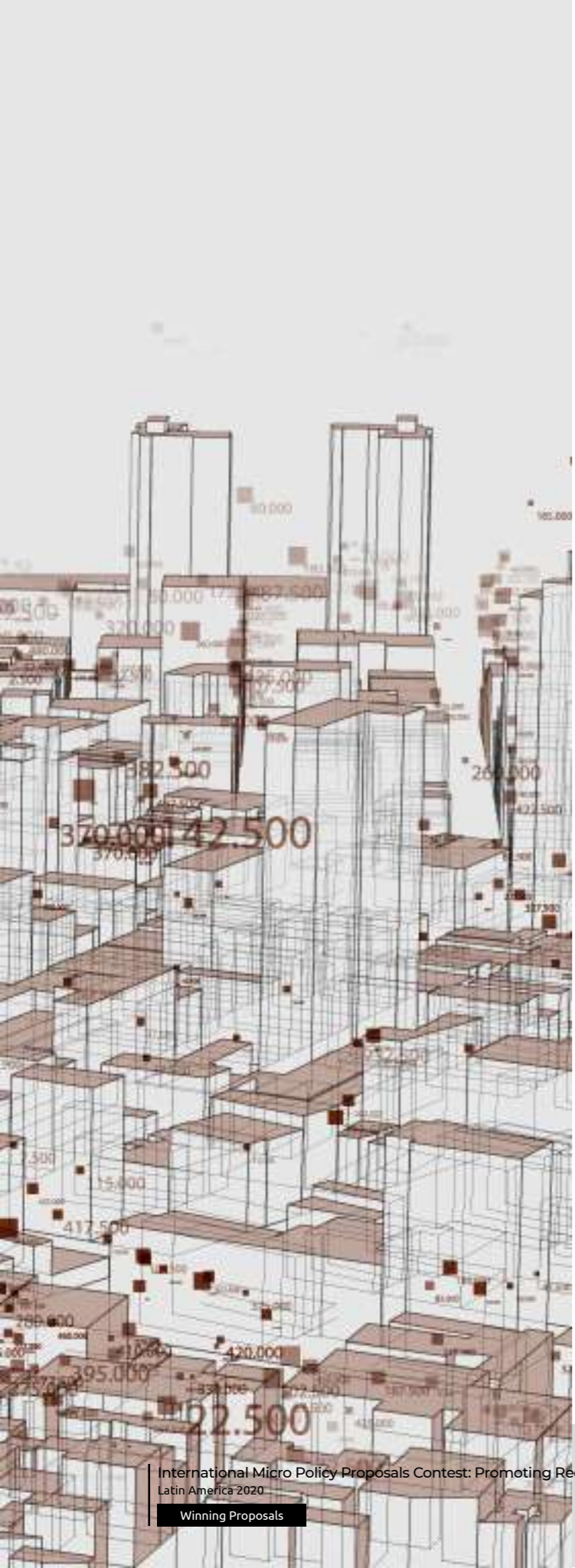
Quirós, M. (2017, Diciembre 18). *Granjas verticales urbanas, una nueva forma de construir*. From Revista Construir: <https://revistaconstruir.com/granjas-verticales-urbanas-una-nueva-forma-construir/>

Rodríguez, L. (2020, Enero 22). *Granos básicos y pollo destacan en la dieta de los costarricenses*. From Encuesta Actualidades 2019, Universidad de Costa Rica: <https://www.ucr.ac.cr/noticias/2020/01/22/granos-basicos-y-pollo-destacan-en-la-dieta-de-los-costarricenses.html>

World Population Review. (2020). *Costa Rica Population*. From World Population Review: <https://worldpopulationreview.com/countries/costa-rica-population>







Public Access to Data: An Opportunity for Citizens to Reclaim and Effectively Transform Institutions

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Crisis situations around the world have often led to a reinvention and a reconstruction of concepts and practices in various sectors, with the emergence of new realities that reflect the complexity of the crises themselves. Accordingly, the year 2020 will go down in history as the year whose difficulties and challenges compelled our international society to look into alternative routes involving innovation and creativity to confront an invisible enemy: COVID-19.

Globally recognized as a pandemic, the outbreak has disrupted all aspects of daily life, leaving social distancing as the only effective solution. The situation led to a reconsideration and evaluation of our daily routines and revealed that some things were simply not working, reducing the capacities and available tools to combat the virus and its deadly consequences on individuals.

Every day we heard reports with local governments around the world trying to interpret the developments of the crisis by offering accounts with information that was insufficient to inspire trust and assurance among people. The attempts to reduce uncertainty — one of the most difficult challenges at all levels during this period — have revealed the shortcomings of the traditional role of local governments in handling information and the need to transform the role they have assumed so far to adapt to an increasingly complex reality.



Shortcomings have surfaced at multiple levels. The mission of serving as the first line of defense of the fundamental components of society has failed. At the local level, governments have not been able to establish themselves as an effective “firewall” against the virus, they have failed to join efforts with the private sector, they have not implemented an effective communication strategy, and they have failed to work out innovation routes despite having multiple tools available from their position of importance. One of such tools is the ready availability of information and data, but governments have not put them at the service of people and businesses.

Before we continue to analyze the situation, it is important to make sure we understand local governments as state entities that are committed to a specific territory, encompassing the various terms that may be used depending on their form of political and administrative organization — department, district, municipality, etc.

As such, the new reality that has arisen from the crisis has brought to the fore the importance of access to data and information as an effective response to the uncertainty experienced by citizens. The need for governments to make data on the pandemic publicly available relates to the strategy that local governments in Latin America should adopt to work towards post-COVID-19 recovery.

Who is affected and what are the main consequences?

The doubts we feel as individuals over the actions taken by our local governments are not surprising. In the midst of a pandemic crisis, questions like how many infections have been reported on my street, or what protection plans have been implemented in my district have added to longstanding fundamental questions, including the question about how our tax money is being used.

“As such, the new reality that has arisen from the crisis has brought to the fore the importance of access to data and information as an effective response to the uncertainty experienced by citizens.”

That is what points to the importance and the need for access to information and data by citizens, who must continue to implement social distancing measures pay taxes while witnessing serious deficiencies in health care, transport, and social security. Unable to act, how are citizens guaranteed the possibility to fulfill their role as overseers of local government agencies?

In addition, the economy has been hit hard by the shutdown of economic activities that has been imposed to curb the spread of infections, including lockdown measures and efforts by people to stay at home. In this context, the private sector, the driver of the national economy, has raised the question: how can we be productive during such a crisis? How can we achieve recovery after this?

This evident concern among the Latin American society is directly linked to the need for reliable, unbiased, and quantifiable information, allowing citizens to resolve the uncertainty that makes organization, evaluation, oversight, and rational decision-making more difficult and contributing to a greater social benefit. When we do not have sufficient information, we are less effective and less consistent, and we grow more suspicious about how the resources we have contributed as citizens is being managed.

These questions also point to a deeper problem having a particular hierarchical and philosophical significance, as they call the role of local governments into question as the first line of contact between individuals, the private sector, and the State's role as guarantor of security.



Problem Definition:

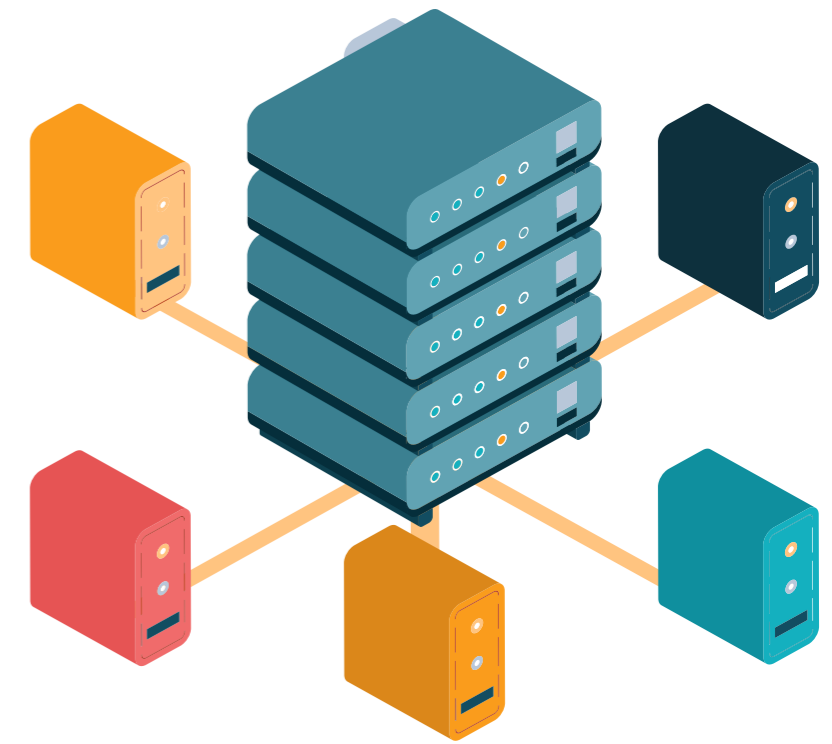
Considering the current state of affairs, ***the problem that this proposal will address is the question about how to redefine the role of governments through the use of data***, adopting a multidimensional approach, placing particular emphasis on the preservation of individual liberties, and aiming to ensure public access to information for citizens.

When we talk about data, we refer to a set of information that has been grouped into classifiable or quantifiable variables and that may serve as an indicator of key factors including trends, behaviors, or likely outcomes when it is processed or analyzed.

The need to redefine the role of local governments in information management stems from the reasonable claim that they are themselves a *big swamp of data*; in other words, they hold large volumes of all kinds of information about a specific region at a specific period of time. The data held by local government agencies include information on factors like trade, healthcare, education, consumption, spending, traffic, and transport, and they are most commonly not used to bring about improvements and new tools to help citizens and businesses make better decisions.

While the notion of open data is not new in an international society that has embarked on a global path toward an open approach in multiple digital domains, the idea of transforming the way data is managed by local governments to include information processing and disclosure is a *much-needed shift* in the way we have traditionally regarded the management of public matters.

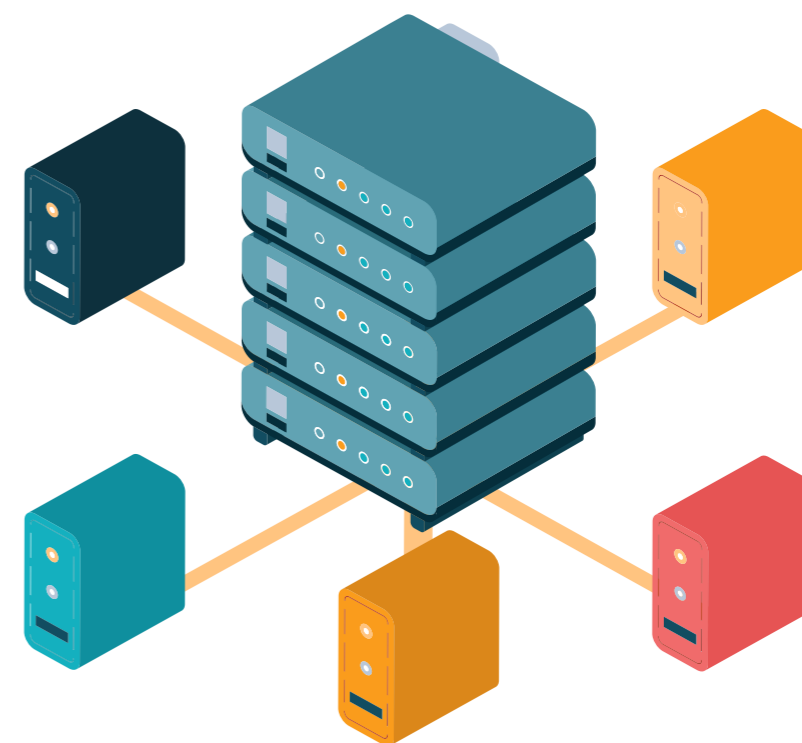
The importance of introducing professional data processing and disclosure by local governments lies not only in formulating new responses to long-standing local challenges like fighting corruption, addressing the need to create new jobs, and supporting the private sector, but also in creating extremely valuable tools to assess and act on the impacts of the pandemic, thus making it possible to establish a hierarchy of solutions based on the information analysis capabilities.



An important feature of this proposal is the fact that it emerged in absolute agreement with the ideals of liberty and self-determination. Thus, *as citizens* we propose and agree to having governments publish data that will be critical to democracy and economic activity, promoting development and well-being for all people. Accordingly, the proposed plan is intimately concerned with the fundamental liberal objective of promoting the decentralization of power by enhancing individual self-management and responsibility.

With the liberalization of data, businesses belonging to a specific geographical area would be able to look at consumption patterns, the average socioeconomic profile of the region, the number of people commuting within the region and their distribution by time of day, and a lot of information that government agencies receive and store from various sources, including the payment systems for utility services, municipal tax payment systems, censuses, and routine government procedures with which citizens must comply.

Respect for individual autonomy is critical for the implementation of this kind of system, and a distinction must thus be made between the data that may be openly accessible, public, and free to be used by anyone, and the data that must be protected by the state's systems because it may affect the fundamental right to liberty of individuals.





The importance of *keeping* the data liberalization process at the level of local government agencies lies in limiting the volume of information to *the regional levels* to ensure the effective classification, processing, and dissemination of data, and to reduce the amount of work needed, making it easier to take full advantage of all the information collected by the agencies. If we look at the impact of using open data, a number of benefits may be identified for the various groups concerned. The impacts may be broken down as follows:

Citizens: Providing access to open data at the local level may make citizen oversight more efficient, as people will be better able to watch over the performance of the current administration using published data and information, thereby overcoming political biases.

Furthermore, this would accelerate progress towards achieving one of the key objectives of liberal societies: promoting the decentralization of power and self-management. Citizen access to data would contribute to reducing the concentration of power by the State and promote individual freedom of action and decision-making, allowing people to choose their own destiny and thus fulfilling a historical liberal principle.

Business: The introduction of open data would promote innovation in all kinds of businesses, as it promotes a reciprocal effect between the various benefits deriving from this practice. Businesses could see increased profitability from changes they could introduce after achieving a better identification of patterns, needs, and socio-economic profiles by examining the open data offered by local government agencies.

Also, the initiative would encourage innovation, as it would enable better and more efficient product development, with products competing not only in national markets, but also in all kinds of international markets. Furthermore, the initiative would enable specialized businesses to gain a foothold in the region by identifying local advantages through data analysis and develop value chains at a national level.

It should be noted that introducing open data does not mean that some organizations or business will receive privileged information, as all relevant data will be made public and classified using legal standards to protect individual confidentiality and to reliably prevent any condition that may be conducive to corruption or any unfair competitive advantage. Equal opportunities will be guaranteed for all entrepreneurs and businesses precisely because data will be made public.

Local governments: With the introduction of open data as an initiative promoted by citizens, power-holding institutions would have the opportunity to demonstrate effective transparency in management and compliance with the law by disclosing information that may be relevant to assess their administrative performance. Furthermore, enabling businesses to make comparative analyses of the advantages offered in a specific region will encourage investment, bringing in additional revenue through taxation and creating new jobs.



“The initiative would encourage innovation, as it would enable better and more efficient product development, with products competing not only in national markets, but also in all kinds of international markets.”



While this initiative may be criticized for failing to address any concrete issue involving a basic public service, access to open and free data provides a key opportunity to understand why some regions are not offering basic services like potable water or electricity and to help local governments introduce budget changes or new incentives to employment by establishing partnerships with the private sector.

Project Costs

One of the advantages of this initiative in terms of cost is that the largest investment needed is the money required to hire professionally qualified staff to perform data processing and interpretation — which means creating new local jobs. As data will be obtained from the various administrative processes performed by local governments, expenses will primarily go to human resources and to the procurement of big data processing services, and the associated costs could be kept down through negotiations promoting mutual benefits — tax benefits, trade expansion, or technical and logistical support.

A very important feature of this initiative — through which citizens will be taking further steps towards self-management — *is the high level of scalability* it will have across Latin America. By promoting the idea of open government at the local level, joint action and cooperation among institutions could be further enhanced, and the notion of swarm intelligence would be fostered to address problems that affect everyone, without imposing a collectivistic view but rather adding up *individual efforts* to achieve effective solutions to any problem.

Furthermore, this would allow remote areas to gain access to the global world, as the traditional development of local communities does not provide much visibility at the international level. In that regard, the transformation of the role of local governments in terms of access to open data would find a powerful ally in the European Union, as they have made significant progress as a region in developing comprehensive and uniform legislation on access to information by people and businesses.

Creating opportunities to build relations globally will not only enable data exchange and comparison, but it may also pave the way for foreign investment, as the analysis of the data collected by local agencies would bring to light local advantages and open up possibilities for foreign capital to inflow to the region through investment.

Finally, the proposed plan will be initially implemented as a broad program across Latin America without focusing on a particular region, as it will constitute a commitment to bring the project to *many places* and thereby effectively promote economic growth, individual liberty, and government transparency — the long-standing debt that has prevented the region from overcoming the evils that stand in the way of achieving well-being for everyone.

“Information is liberating.”

Kofi Annan

Creating opportunities to build relations globally will not only enable data exchange and comparison, but it may also pave the way for foreign investment





3. Tecni-Tools Digital Platform

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Ecuador

The Problem

In Ecuador, the rate at which business ventures fail or are abandoned is considerably high, and that has negative economic and social impacts. As government involvement in revitalizing the economy has been quite deficient, this proposal is aimed at promoting development in business entrepreneurship, which is a key engine to drive the economy forward and bolster the business sector. According to data published by the Global Entrepreneurship Monitor, Ecuador is ranked at the top of business entrepreneurship in Latin America. Yet only 10% of business ventures continue operations after their third year.

One of the key factors affecting the sustainability and health of business ventures is the widespread intuitive approach to business entrepreneurship, resulting from a lack of business planning and marketing functions. This is due to the fact that business ventures typically come into existence from a rudimentary understanding of business, with entrepreneurs spending little time on planning and deciding to start operating right away. A lack of innovation has also become an obstacle to the sustainability of business ventures, as micro-entrepreneurs often favor intuition over technique. Entrepreneurship is without doubt a key driver of the economy, but entrepreneurs are often not given the necessary incentives to operate their businesses. A bloated bureaucracy has created countless rules and procedures, requiring permits and documents to be able to operate businesses just at a rudimentary level, thereby discouraging the development of such a valuable sector for the country's economy.

Ecuador has been brought to a situation where it relies heavily on non-renewable resources, and governments have not treated as a priority the objective of shifting toward a diversified economy, despite the fact that it is one of the most entrepreneurial countries in the world. The public policy agenda has thus failed to account for a more focused strengthening of the country's business sector, as no efforts are being undertaken to ease the establishment and development of small and medium-sized enterprises and to ensure that the national environment is conducive to economic growth and development. According to Global Entrepreneurship Monitor, a thriving en-



entrepreneurship relies on the existence of national environments conducive to establishing new business ventures, including favorable political, social, and cultural contexts that will contribute to their success and development.

In 2020, the pandemic outbreak has affected humans not only in terms of public health, but also in terms of the entire functioning of the economy. Business ventures and micro enterprises have suffered heavy losses from low sales, as lockdown measures have required them to halt business activities and many businesses have been forced to shut down. Furthermore, government measures in Ecuador have come down hard on the private sector in an effort to step up tax collection to be able to respond to the health and economic crisis. Entrepreneurs have thus been left in a position where they will be required to overhaul their business models, considering the new challenges ahead.

To bring entrepreneurs into the platform, it will be critical to offer solutions to the various challenges that have been identified around the proposal.

Project Justification

The Project is aimed at providing an affordable, innovative, and straightforward solution to support anyone involved in an entrepreneurial venture. It is intended to encourage empathy and facilitate support to enable Ecuadorian entrepreneurs to overcome the major challenges they typically face while implementing their projects. We have identified a network of stakeholders around the typical entrepreneurial challenges to help them build relationships and create win-win opportunities among them. This will allow the proposed project to create solutions around various factors depending on the context where it is being used.



The purpose is to create a sustainable business platform bringing together entrepreneurs, workers, and institutions to encourage and facilitate cooperation for mutual benefit. It is a tool where participants can find solutions to any problem they might be facing. Apps have been reportedly used in Latin America to offer services around business ecosystems, creating powerful incentives for members, and thus there is already evidence to support the feasibility of the project. The proposed service consists in both providing a platform for interaction and offering information that will be useful for members to successfully navigate their way through the requirements they must meet.

Considering the lack of government incentives to entrepreneurship, community empowerment must be promoted to enable civil society to rely less on State-based aid. That will allow people to exercise greater freedom to carry out their business ventures and to build the necessary capabilities to operate under a self-supporting model. The platform will promote a partnership approach to business, enabling citizens to assume control over their own design and functions.

To bring entrepreneurs into the platform, it will be critical to offer solutions to the various challenges that have been identified around the proposal. Most of the benefits considered in the value proposition are supported by methodologies that have become a trend across Latin America over the past decade, yielding positive results. And according to our research no tool has been created so far in Latin America to study the interaction and behavior of potential consumers by analyzing the most widespread platforms used by people — social media.

Project Description

The high rate at which business ventures fail or are abandoned has become a significant challenge in Ecuador, especially in the port city of Guayaquil, and there is thus an urgent need for a solution. That is why we are proposing the creation of the “Tecni-Tools” digital platform, which will provide a business ecosystem to promote



interaction and mutual support among users, and to connect users with clients that may need their services or solutions. The aim is to provide business entrepreneurs who are at risk of failure with a platform offering resources and opportunities to remain active and keep their business venture going and growing.

Project Objectives

Overall Objective:

To support Guayaquilan business ventures at any stage to prevent business failure.

Focused Objectives:

1. To offer technical assistance to our users in any of the various stages of a business venture.
2. To provide entrepreneurs with access to social media data on the behavior of their consumers and clients to gain key insights about their market.
3. To create and promote business opportunities between executives (suppliers) and entrepreneurs using the networking capabilities of the platform.
4. To create safe and ongoing channels for communication between clients and entrepreneurs.

Target Users and Beneficiaries

Target Users: Young people aged 20 – 45 years who are operating a business venture at any stage offering technical services for houses and offices.

Beneficiaries

Direct beneficiaries will include all business ventures registered in the free platform. Indirect beneficiaries will include businesses offering supplies for the business ventures, experts or technicians offering technical skills, and clients, who will participate as secondary users of the platform as they seek to meet their needs.



Stakeholders

The Tecni-Tools platform will feature two types of users. First, primary users will go to the platform to offer products or services and open up networking opportunities (entrepreneurs, workers, and institutions). They will thus create a community that can leverage the platform to help each other in various ways. Established businesses may offer entrepreneurs supplies or products they may need to meet their operating needs at an affordable price; workers may offer their expertise for entrepreneurs to hire their services if they need them, and entrepreneurs may enhance their value proposition with that support to offer better services to their clients. And secondary users will include clients requiring technical services for their houses or offices.

Value Proposition

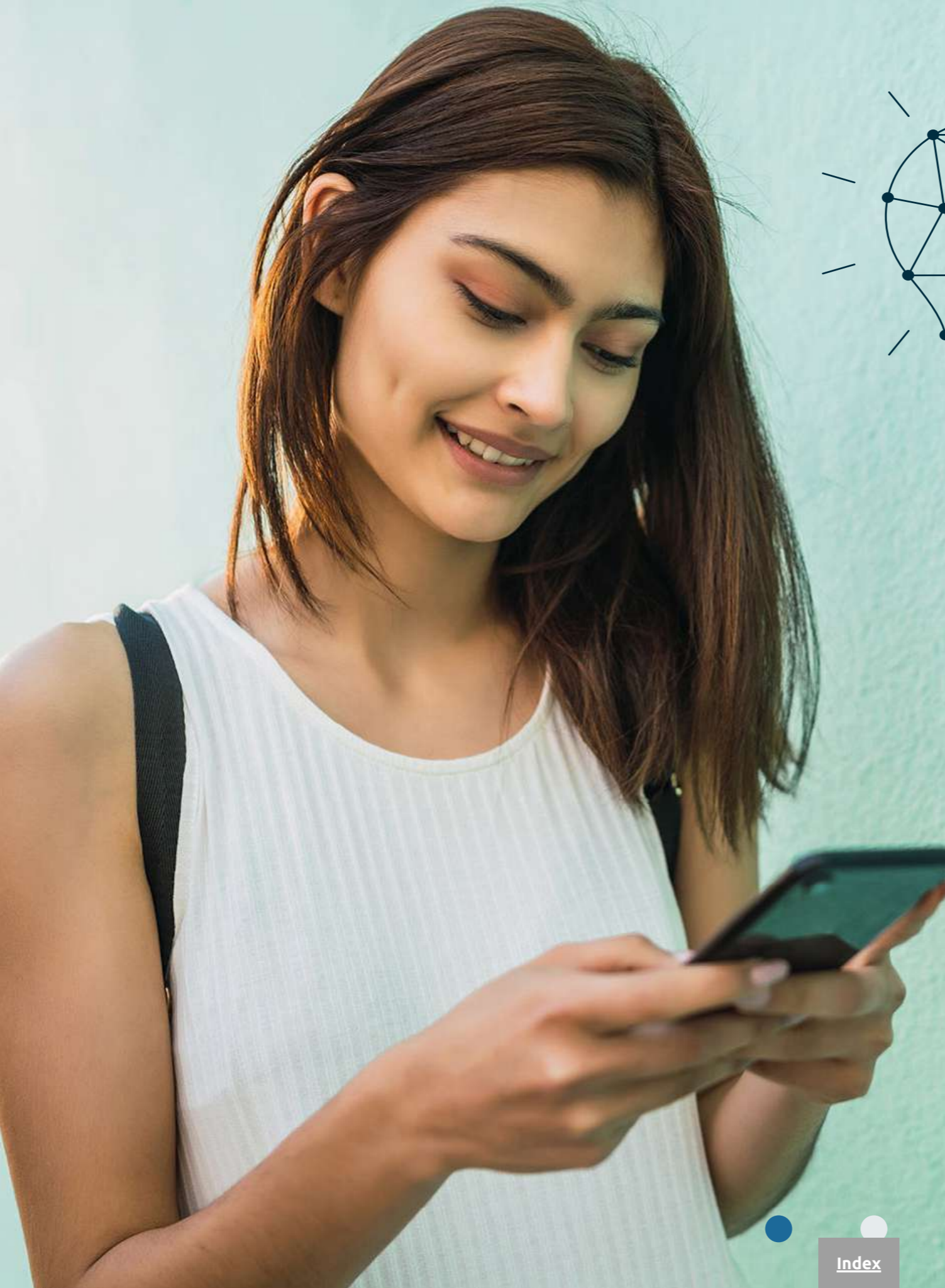
The Tecni-Tools digital platform will be available on a dedicated website. It will enable entrepreneurs to register their business plan, business venture, or operating business to create a networking and partnership community with specialists and businesses, to conduct market analyses and use them to expand their businesses or drive up sales, and to get new insights into consumption trends among potential clients or customers in real time by analyzing social media.

Users will be offered assistance to effectively and correctly carry out any process they might be going through. Members of this digital business environment will gain access to ongoing advice and support by experts on how to run their businesses.

Also, users registered in the free platform may find useful options to meet their office and home needs by getting access to a host of technical services, ranging from home appliances services to alarms and security systems.

The Tecni-Tools digital platform will be available on a dedicated website. It will enable entrepreneurs to register their business plan, business venture, or operating business





The platform will be accessible free of charge, registering either as a user or as a client. Every transaction (hiring technical services) successfully completed within the platform will carry a 20% transaction fee, and thus the platform will be self-sustainable over time. The following table shows the startup costs of the project



Feasibility

Tecni-Tools is an application that will generate revenues and profits by helping people to get quick and safe access to a variety of services and by providing a platform for qualified specialists to offer those services and gain increased exposure.

The platform will be accessible free of charge, registering either as a user or as a client. Every transaction (hiring technical services) successfully completed within the platform will carry a 20% transaction fee, and thus the platform will be self-sustainable over time. The following table shows the startup costs of the project

Table 1. Startup costs of the project.

Activo	Cantidad	Precio Unitario	Precio Total
Pago de programadores	2	\$ 560.00	\$ 1,120.00
Curso de preparación	1	\$ 154.12	\$ 154.12
Hostin y dominio	1	\$ 128.88	\$ 128.88
Equipo de computo	1	\$ 850.00	\$ 850.00
Minimo requerido de inicio		\$ 1,693.00	\$ 2,253.00

Source: Compiled by the author



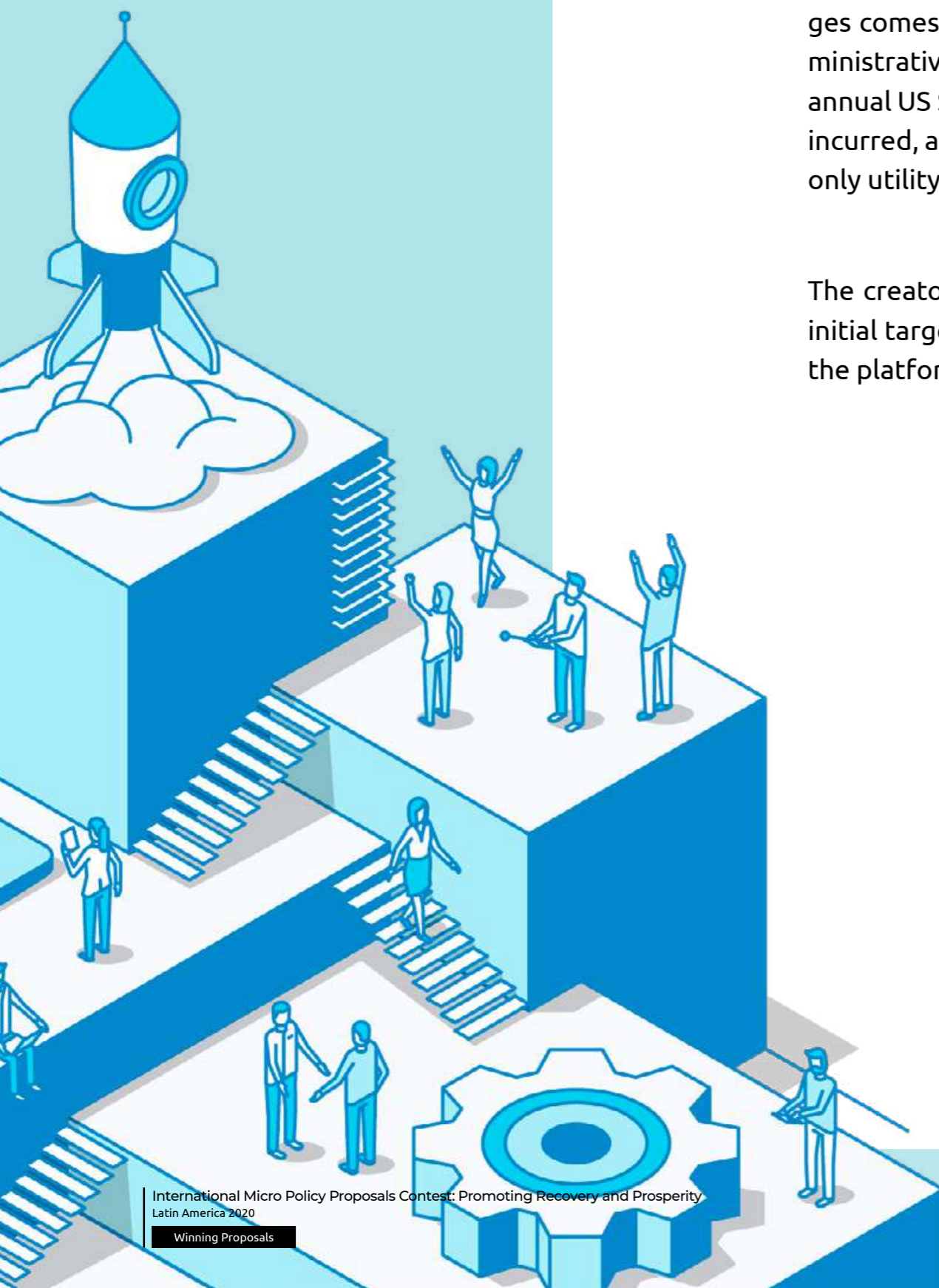
The startup costs of the project amount to US \$2,253. That will cover the project's initial needs to get the platform out on the market. The largest item corresponds to the fees charged by software developers, who will be hired for the initial development of the application. The initial budget will not include management fees to minimize costs.

Table 2. Details of annual sustainability.

FLUJO DE CAJA PROYECTADO		2020
SALDO INICIAL		\$ 1,000.00
INGRESOS	INGRESOS POR TRANSACCION	\$ 36,000.00
	OTROS INGRESOS	\$ -
	TOTAL INGRESOS	\$ 36,000.00
EGRESOS	MANTENIMIENTO DEL SITIO	\$ 128.88
		\$ -
	GASTOS ADMINISTRATIVOS	\$ 3,700.00
	SALARIOS	\$ 22,200.00
	SERVICIOS BÁSICOS	\$ 1,262.52
	GASTOS DE CAPACITACION	\$ 154.12
	IMPUESTOS	\$ -
OTROS EGRESOS	\$ 600.00	
TOTAL EGRESOS		\$ 28,045.52
UTILIDAD ANUAL ANTES DE IMPUESTOS		\$ 7,954.48

Source: Compiled by the author

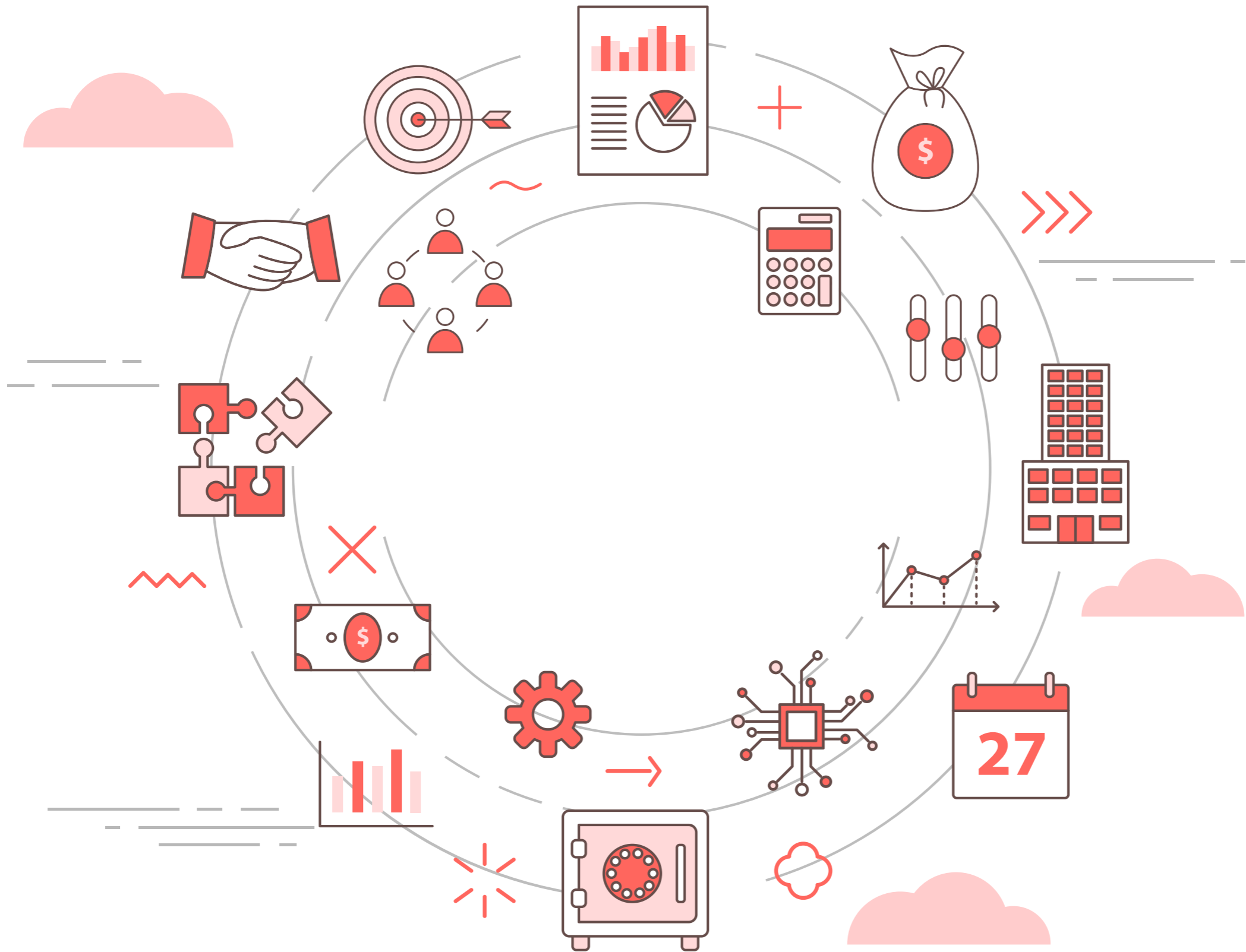
Table 2 shows the annual cash flow projections. As explained earlier in this document, the project will be self-sustainable and generate profits, and it will thus be replicable and adaptable. Income projections were estimated based on the target of achieving 3 thousand transactions per month at an average price of US \$20, charging a 20% transaction fee for the platform. That would yield US \$3,000 in monthly revenues, and US \$36,000 in annual revenues.



Budgeted expenses already include wages, considering wages for team members in both the financial and the operating functions. The annual budgeted amount for wages comes to US \$22,200, and there is an additional item to account for monthly administrative expenses to meet the administrative requirements of the business for an annual US \$3,700. During the first year of operations, no office rental expenses will be incurred, as all work will be done at the house of one of the team members, budgeting only utility expenses — Internet, electricity, and water services.

The creator and manager of the project will earn an actual income from it after the initial targets are achieved, as expressed by the number of transactions completed in the platform and the revenues generated from them.





4. Small Business Solidarity Accelerator

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Summary

As part of the “Setting the Future in Motion” initiative launched by the Liberal Network for Latin America, the following micro policy program was developed to address the issue of the technological lag affecting Latin America and its impact on local trade and the economy.

Building on the initiative and solidarity of community members, this policy program is aimed at setting up a local “Small Business Accelerator” that will draw on a minimal amount of government help from local governments to organize community members to voluntarily help other members who own a business or have undertaken a business venture and are facing technological challenges that may be endangering their businesses during the pandemic crisis or in their overall business life cycle.

Key words: Local Government, Municipality, Business Accelerator, Business Incubator.

Primary Motivation

As the author of this proposal, I am a political scientist and an economics student. But most importantly, I am also a neighbor, a family member, and a friend to many people who are suffering the consequences of the COVID-19 pandemic crisis. I am also aware that those consequences go beyond my own social bubble, beyond my family, my friends, and my neighbors. Their associated problems have certainly arisen in the midst of a global health crisis, but they are nevertheless a reflection of the realities facing our neighborhoods, communities, and the country as a whole.



Small businesses are the key driver of development in the economy. The correlation and obvious interplay between small businesses and households constitutes the key driver of a country's microeconomy, ultimately bringing benefits to society as a whole.

And yet some of these problems — it would be presumptuous to say that all of them — could be addressed through local initiatives. We often forget about the importance of local action — especially in Latin America — relegating problems to central governments and disregarding the potential impact not only of local governments, but also of mutual cooperation among individuals in their neighborhoods, communities, and cities.

This has motivated the creation of a document aimed at encouraging citizens, local and central governments, and any social actor by offering a solution to a specific problem that will be explained **further in this document, namely, the technological lag experienced by businesses.**

Problem Description

Small businesses are the key driver of development in the economy. The correlation and obvious interplay between small businesses and households constitutes the key driver of a country's microeconomy, ultimately bringing benefits to society as a whole.

There seems to be a widening gap between the world of micro, small and medium-sized enterprises and the world of big corporations. We will not try to argue which economic model must be adopted by countries or whether the gap is part of a necessary transition experienced by developing countries. But we must certainly point out the government's past inability to achieve better conditions and overcome the setbacks experienced by many small and medium-sized businesses across communities.

What are the specific challenges, shortfalls, and gaps we are referring to?

Both the shortfalls and the larger issue we are aiming to address can be better understood if we consider the story of Juan, the owner of a small restaurant in Costa Rica (known as Sodas), in the district of La Unión. And we will also consider the story of Luisa, a young woman from the same community who wishes to start a small flower shop.



The names are not real, but the stories are a reflection of the issue we wish to address. And there are, no doubt, dozens of people who could relate to those situations — whether in Costa Rica or anywhere in Latin America.

We shall start with Juan: He has owned a small restaurant for over 30 years. He had no education beyond primary school. In his business, he has kept a very rudimentary accounting system, recording all transactions on paper. He has never done any advertising because he thinks that can only be done on TV or Radio, and it must be extremely expensive. Juan is being faced with major challenges

(1) First, the Ministry of Finance has instructed him, according to Law, to accept credit and debit card payments. Juan recalls that clients have often left his restaurant precisely because he did not accept credit card payments, but he claims that he feels completely unfamiliar with such a process. In fact, he doesn't even have a bank account.

(2) Second, Juan is being required to comply with a new obligation — introduced recently after a new bill was passed — to start issuing tax invoices using the government's digital invoice system. Considering Juan's approach to accounting and his rudimentary computer skills, this new requirement constitutes a serious challenge.

(3) Finally, he is also being faced with the biggest challenge he has ever encountered. The Ministry of Health has mandated that his restaurant must remain closed as part of the government's response to the current pandemic, and he will only be allowed to offer delivery or take-out service. Extremely frustrated with all those circumstances, Juan hangs up a sign indicating that he is now offering take-out and delivery service and decides to use his car to deliver the orders.





However, as no one is passing by his restaurant, no one sees the sign and learns that he is offering that service.

Juan is clearly suffering from a technological shortfall. And governments have evidently been unable to offset such a lag, which speaks to the major deficiencies of the educational infrastructure — or from a less critical point of view, a transition it has been unable to assimilate.

The case of Juan is representative of a widespread and evident reality in Latin America. A large percentage of the population remain in the informal sector not only because people have not been able to adapt to technological development, but also because they lack access to financial, legal, and technological education.

Luisa, 25, is a high school graduate and entrepreneur. She wants to apply for formal registration of her business, an online flower shop. But she is being faced with some difficult challenges: 1) She has no idea how to apply for a trademark registration or how to register her business with the government. 2) She cannot accept all forms of payment because she is not formally registered with the government, and she thus has no access to the mechanisms to accept new payment methods. She was told that the Central Bank had recently introduced a telephone payment method called SINPE Móvil, and many clients have asked for that payment method, but she has not been able to integrate that system into her bank account. 3) Also, she is having problems with deliveries because she does not have a car, and in the middle of a pandemic outbreak, using public transport is not only inefficient for her business, but it is also dangerous to her health and that of her family.

In a case like Luisa's, two likely scenarios may unfold. First, those problems may turn into an insurmountable obstacle to the development of her business. Alternatively, in the best-case scenario, she may be able to overcome those challenges but still continue to fall short in the technical, legal, marketing, accounting, and even technology needs of her business, seriously inhibiting the development of her business.



These two stories are representative of the technological and educational lag observed among the Latin American population. And we are not saying that randomly. The following section will present data from the World Bank and ECLAC to support the existence of such a lag in the Latin American population.

It is clearly a situation affecting the entire population. The obstacles preventing development in certain sectors also inhibit the growth of the country as a whole.

While a significant percentage of the population remains affected by this problem, there is nevertheless a considerable number of people who have overcome such a lag, being able to deal with the legal, accounting, technology, and even bureaucratic — governmental, of course — issues, and they could be of invaluable help if, in solidarity with those who need it, they would share their experience and knowledge. That is the essence of the proposed solution to this problem. The initiative of those who wish to see their community grow will be the key ingredient to achieve an integrated development in our societies, bringing together prosperity to their districts, provinces, and countries.

Background of the Problem

It would be immensely interesting to include an in-depth analysis in this section, as the data available to us now makes it possible to look at major social problems in ways that would have been unimaginable years ago. Furthermore, the use of data in public policy development — including an appropriate processing and interpretation process — greatly contributes to the professionalization of social science. But this section will have to be limited in extension. We will try, nevertheless, to make the most of the data analyzed and provide a realistic overview of the context of the problem.

While a significant percentage of the population remains affected by this problem, there is nevertheless a considerable number of people who have overcome such a lag, being able to deal with the legal, accounting, technology, and even bureaucratic — governmental, of course — issues, and they could be of invaluable help if, in solidarity with those who need it, they would share their experience and knowledge.



The first variable is education. Oliver Ferreto, J (2007) argued that one of the key factors associated with the technological lag observed in industrial microenterprises (in Mexico) is the level of investment in training, which could be more generally described as the human capital factor.

This task requires us to look at the major features of the region where the problem has been identified. While the problem has been specifically identified in Costa Rica — through careful observation by the author of this report — the major features that might have given rise to the problem have arguably become widespread across Latin America. Thus, the data presented below will be representative of all the region.

As mentioned above, the problem we have identified is a lack of adaptability by businesses, which could be expressed as a **technological shortfall** among the population. Numerous variables could be correlated with the identified technological lag. We would need to conduct a linear regression to conclusively determine which variables may truly and significantly explain the phenomenon. In this proposal, we will focus exclusively on two variables that are supported by literature data.

The first variable is *education*. Oliver Ferreto, J (2007) argued that one of the key factors associated with the technological lag observed in industrial microenterprises (in Mexico) is the level of investment in training, which could be more generally described as the human capital factor. One way to measure human capital by looking at *education*. This variable is most often used as a measure of progress among countries, and for our particular purpose, it could contribute to explaining the existing lag among small businesses in both Costa Rica and Latin America.

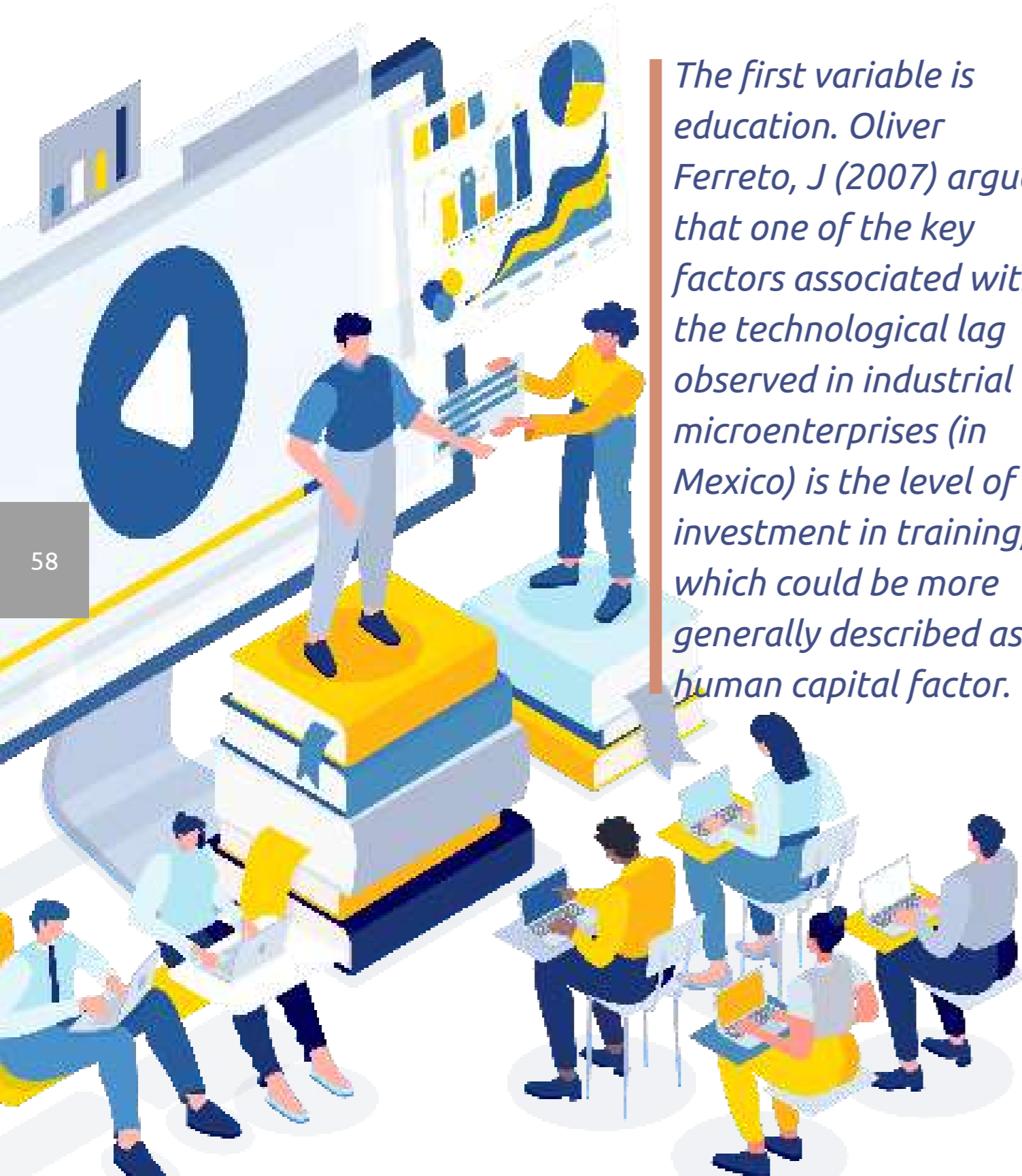
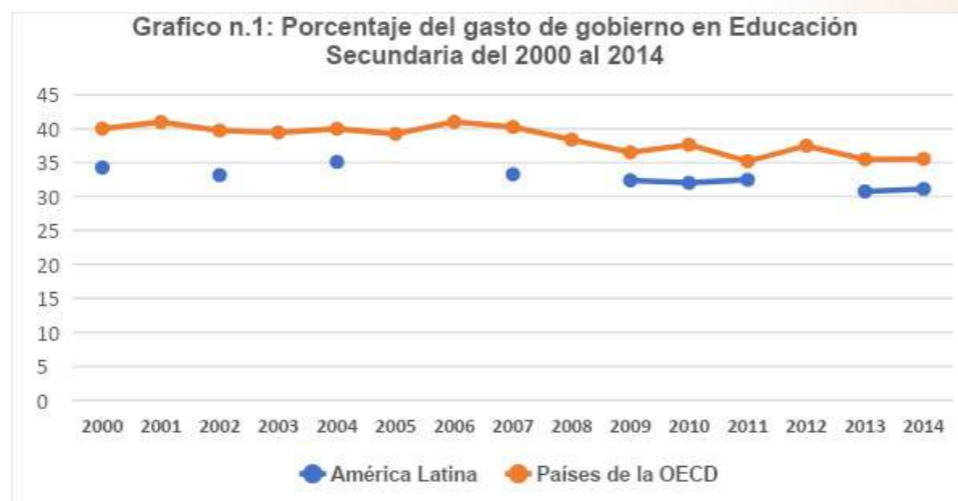


Figure 1 shows the percentage of GDP invested in this category in Latin America and in OECD countries over the years. The information is presented using data published by the World Bank.



Source: Compiled by the author using data from the World Bank

The chart shows a significant difference between OECD countries — selected for this comparison to note the differences between Latin America and a representative sample of developed countries — and Latin America since the year 2000. The line for Latin America is not continuous because there is no data available for some years, but there is a clear trend, and we can see the investment gap in education, which may not be huge but is nevertheless significant.

We looked at data on government spending in secondary education, as it is the skills taught in secondary education and higher education that could account for the issue we have raised. As such, the difference in spending might arguably be one of the factors explaining the existing technological lag in Latin America. (In strictly scientific terms, the right way to express that is that we cannot reject the idea that it is a factor)

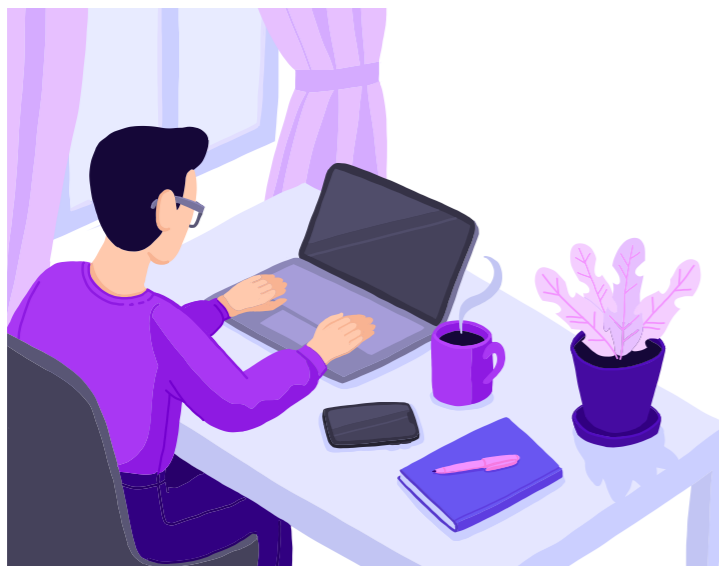


A second variable that certainly constitutes a key factor for the technological lag is internet access. Ricardo Monge, a senior executive at CAATEC (Comisión Asesora de Alta Tecnología), said in an interview conducted for Costa Rican newspaper La Nación (2017):

“(...) every day we get new empirical evidence that access and use of ICTs leads to economic development in countries.”

(La Nación, 2017)

At the time, Costa Rica’s internet penetration rate was not optimal. The situation has improved since then, but there are still significant challenges to be overcome.



El siguiente cuadro resume el porcentaje de hogares que tienen acceso a Internet en América Latina.

Table 1 shows the percentage of households with internet access in Latin American countries.
Table 1: Percentage of households with internet access

Country	2010	2011	2012	2013
Argentina	34.0	43.9	45.0	48.5
Bolivia	6.0	7.4	10.6	13.1
Brasil	27.0	35.8	39.6	43.3
Chile	35.0	40.9	46.5	49.6
Colombia	19.3	23.4	32.1	35.7
Costa Rica	24.0	33.6	47.3	48.3
Ecuador	11.5	16.9	22.5	28.3
El Salvador	8.0	11.7	11.8	12.7
Guatemala	4.7	8.6	9.3	11.9
Honduras	6.8	10.0	13.2	16.4
México	22.2	23.3	26.0	30.7
Nicaragua	3.8	5.6	7.4	9.4
Panamá	20.3	20.7	30.5	33.5
Paraguay	13.8	21.8	25.1	26.6
Perú	13.0	16.4	20.2	22.1
República Dominicana	10.2	13.3	15.5	19.0
Uruguay	33.5	43.9	48.4	52.8
Venezuela	14.3	20.2	28.6	31.5

Source: ECLAC: Economic Commission for Latin America and the Caribbean - ICT Statistical Information System

While noticeable differences may be observed among Latin American countries, if we compare them as a group with OECD countries, we can see a significant lag. (See Annex 1)



To conclude this section, we should keep in mind that many variables may have led to the existing technological shortfalls — which makes the issue addressed by this proposal more serious. In this section, we have discussed two of them (which I consider to be the most important), coming to the conclusion that the problem may be the result of a structural deficiency that has plagued Latin America for decades.

Proposed Solution: Small Business Solidarity Accelerator

Objective:

Coming back to the cases described in the second section of this proposal:

What would happen if Luisa and Juan knew that there was a place in their Municipality (Local Government) where members of their own community offered support for businesses and entrepreneurs to grow?

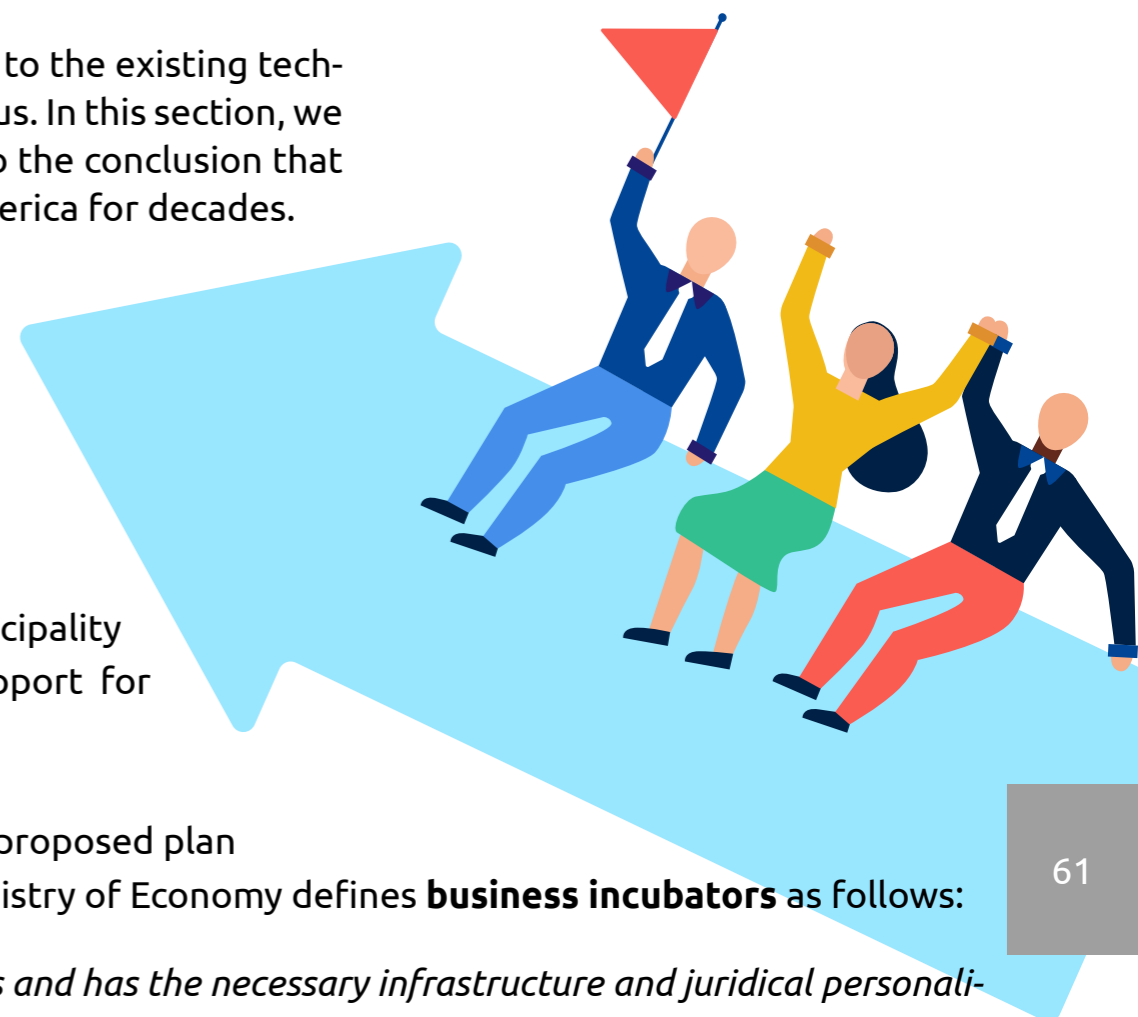
That is the central idea behind the Small Business Solidarity Accelerator. The proposed plan relies on the existing “business accelerators and incubators.” Costa Rica’s Ministry of Economy defines **business incubators** as follows:

“(...) An organization that is aimed at supporting the creation of new businesses and has the necessary infrastructure and juridical personality to pursue that mission in compliance with the law.” (PYMES Costa Rica)

And **business accelerators** are defined as follows:

“(...) An organization that is primarily aimed at enhancing the development of business enterprises and helping them to break into international markets or increase their market share. (PYMES Costa Rica)

The difference between the two types of organizations lies in the fact that one primarily focuses on new venture development, while the other works with businesses that are already running. Notwithstanding the differences, the mission of both types of organizations is to provide support to businesses and help them thrive, relying on experts in various disciplines including accounting, law, and others to overcome any shortfalls businesses might be experiencing.



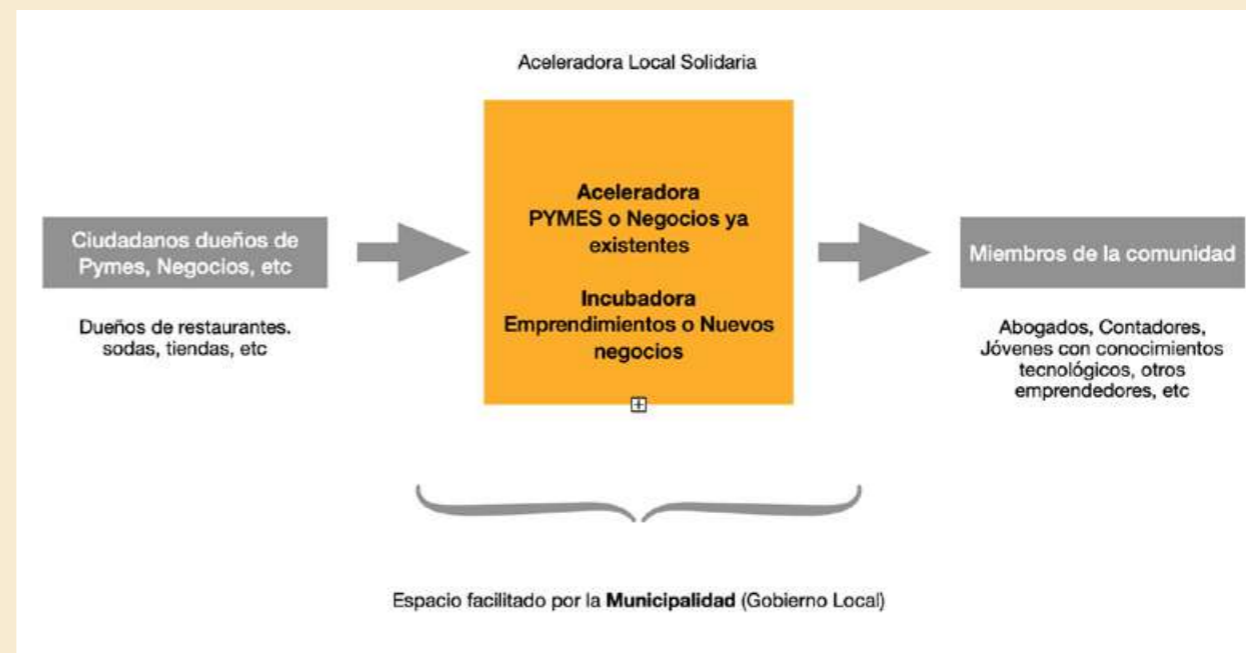


Drawing inspiration from those organizations, the central question that motivated the creation of this proposal is: Would it be possible to create a hybrid of the two types of organizations at the local level, drawing on solidarity and support to promote development among community members?

Creating such an organization constitutes a major challenge, but it is not impossible, and it would represent the implementation of a policy aimed at promoting development among businesses in a specific community.

Structure and Stakeholders:

Drawing on Local Governments to provide the required office space, the plan can be successfully put into action. The following chart illustrates the design of the Small Business Solidarity Accelerator.



Source: Compiled by the author



The proposed plan may be better explained using Figure 1 above. Supported by the Municipality, the *Local Business Solidarity Accelerator* will constitute a platform connecting small business owners (left side of the chart) with community members having

some level of expertise (or general useful knowledge) on a particular subject (right side of the chart). The latter may include lawyers, accountants, and even young people who can adequately use technologies that may be useful for small businesses — e.g., office automation tools — and who may wish to support community development out of solidarity.

Creating such a platform would be aimed not only at facilitating one-to-one connections, but also at bringing together a group of individuals that may jointly constitute a true Local Accelerator (middle box in the chart). The platform would ideally attract both individuals running established businesses and people wishing to start or overhaul their own businesses. Hence the composition of the central box in the chart. The accelerator should play a hybrid role combining the concepts outlined above at the beginning of this section.

The reason to include participation by Local Governments lies in the fact that they have both physical and human resources that could be made available to the implementation of the project. Municipalities often have commissions or departments in charge of organizing various activities to promote economic development, and they could reasonably take on the management of the platform. Also, they already have offices in place. Municipal offices often have suitable spaces — including meeting rooms and municipal libraries — which they could equip or simply offer to support the operation of the business accelerator.

Also, municipalities often have communication channels already in place that they use to disseminate information among community members, including announcements regarding municipal services, health awareness campaigns, etc. Those channels could be used to attract both business owners and entrepreneurs and community members who wish to take part in the project out of solidarity.

The reason to include participation by Local Governments lies in the fact that they have both physical and human resources that could be made available to the implementation of the project.



Budget

The scale at which this micro policy program will be implemented will depend on the level of engagement and commitment by municipalities. Thus, we present here three likely scenarios with three different budgets using money from municipalities. The costs incurred by individuals participating out of solidarity (hourly fees, commuting expenses, etc.) will be borne by them.

If we consider three different scenarios — with one involving greater participation by municipalities than the other — it is not because that will be the factor determining the success of the program. The key principle driving the Accelerator program will be solidarity, and thus active engagement by the community will constitute the deciding factor that will lead to a true impact.

Scenario 1: A Strongly Committed Local Government

This scenario presupposes strong involvement by the Local Government in the implementation of the policy program, taking ownership of and investing in it. Specifically, this means that: the municipality will appoint a leading representative to specifically manage the Accelerator; the program will be assigned office space within the municipality, providing computer equipment, furniture, office supplies, etc.; and the municipality will run a marketing campaign on social media.

Table 1 shows the budget required for this scenario:

Table 1: Budget Allocated by a Strongly Committed Local Government

Concept	Amount in USD	Periodicity	Annual Amount
Manager's Salary	\$ 1,000.00	Monthly	\$ 12,000.00
Office equipment	\$ 5,000.00	One-off	\$ 5,000.00
Office Equipment Depreciation	\$ 500.00	Annual	\$ 500.00
Social Media Campaign	\$ 50.00	Monthly	\$ 600.00
Total Annual Amount	\$ 18,100.00		\$ 18,100.00

Source: Compiled by the author



Scenario 2: A Fairly Committed Local Government

This scenario presupposes that the Local Government will be only partially involved. This is the most likely scenario because, even if decision-makers fully support the idea, institutional structures in Latin America are extremely rigid, often thwarting the implementation of a policy — however prosperous it may promise to be.

This scenario presupposes that the municipality will assign the management of the Accelerator to existing local government employees, giving assigned officials their corresponding overtime pay and thereby sparing the government the need to hire new staff. It will provide more austere office space, ensuring availability of office supplies, and it will use the existing communication channels without paying for any dedicated campaign.

Table 2 shows the budget required for this scenario.

Table 2: Budget Allocated by a Fairly Committed Local Government

Concept	Amount in USD	Periodicity	Annual Amount
Office equipment	\$ 2,500.00	One-off	\$ 2,500.00
Office Equipment Depreciation	\$ 250.00	Annual	\$ 250.00
Overtime Pay for Appointed Official	\$ 250.00	Monthly	\$ 3,000.00
Total Annual Amount	\$ 5,750.00		\$ 5,750.00

Source: Compiled by the author

Scenario 3: A Local Government Serving as Facilitator

In this scenario, the Local Government will serve as facilitator, without becoming involved in the project beyond allowing the use of municipal spaces and communication channels to promote and facilitate contact between businesses and community members. In this scenario, no budget will be allocated because the role of the Local Government will be to allow the use of municipal spaces and to support the participating private businesses.

Annex 2 presents a table describing how costs were calculated.



Expected Results

There are numerous ways to promote economic growth, and there are many factors affecting a country's development. But when it comes to zeroing in on the specific variables that drive growth, most economists — and social scientists — agree that there are three key variables countries must keep in mind to promote growth: capital, employment, and technology. The proposed policy plan is aimed at promoting technological improvement, specifically targeting individuals through highly local action.

When these kinds of factors are measured, we often think that they can only have a significant impact if they are aggregated, and that the government must adopt a wholesale approach to them in order to bring about true change. But reality may prove to be different.

If we could measure the impact of small initiatives undertaken to improve those variables (in particular, technology) at the level of every small sphere where economic interaction takes place among individuals, we would fully recognize the importance of small actions in our society. The policy plan proposed in this document is far from constituting a complete solution to the existing — and long-standing — social and structural challenges facing Latin America, but it does offer a way to respond to a specific problem affecting a specific population.

If this policy plan is in fact implemented, a number of things will need to happen. First, community members are expected to become interested in helping others. Pleas for solidarity among individuals often prove unsuccessful, failing to reach out to the right audiences. Thus, a considerable challenge in the implementation of this policy plan will lie in rightly identifying those who want and are in the position to participate in this project — as it ultimately depends on each community's willingness to support each other.

If we could measure the impact of small initiatives undertaken to improve those variables (in particular, technology) at the level of every small sphere where economic interaction takes place among individuals, we would fully recognize the importance of small actions in our society.



Second, this policy plan is expected to have a significant impact on the population, and those who are experiencing a lag in some aspect of their business development are expected to find a platform for improvement in the Small Business Solidarity Accelerator. The latter is not so difficult to achieve. Ensuring that the implementation of the Accelerator happens at a local level — hand in hand with municipalities — should allow for a greater outreach among the target population.

Finally, local governments are expected to show considerable enthusiasm. The possibility of setting up a business accelerator in a municipal context is highly ambitious. And thus, such enthusiasm would also be expected from policy makers.

Traceability

As the author, I am familiar — with some level of detail — with the structure of local governments in Costa Rica, but that does not guarantee the same level of familiarity with the structures of local governments across Latin America. Similarly, I am aware of the challenges facing individuals in the country and the way they respond to that structure, but I am not familiar with such details across the rest of the region.

Still, the data available to us — and a vast body of literature — suggest that some relevant social characteristics are shared among Latin American countries, especially characteristics associated with social and economic development. It is on that basis that we believe this policy plan may be realistically replicated in many countries.

Local government structures exist across Latin America, promoting to some extent much more direct contact between communities and the Central Government. With the exception of one or two countries, the region shows considerable gaps in education and technology, and even those countries — Chile, Colombia, and perhaps Costa Rica, the three of which are OECD members — show a backlog of unresolved social issues, and large percentages of their populations report very low levels of education. All this points to the conclusion that Latin America has a considerable backlog of unresolved issues to deal with.

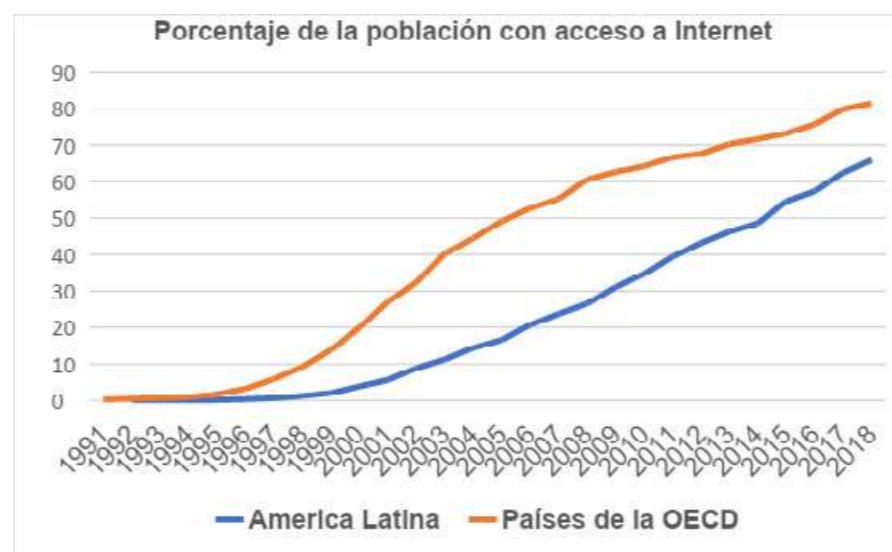
Nonetheless, there is another key factor that must be considered: solidarity. The successful implementation of this policy plan will not be possible without active cooperation from individuals in our societies. As such, there are indicators measuring the tendency of different societies to willingly undertake social action or to deliberately support their communities. And there are also claims in this regard in terms of human behavior and natural behavior.



As the author of this proposal, I prefer to believe that human beings are naturally inclined to solidarity, and that we just need to open up spaces that will evoke that feeling in people. As such, we will assume that it is possible to arouse solidarity as a key factor across Latin America.

ANNEXES

Annex 1: Comparison of Internet Access among Countries Latin American and OECD Countries



Source: Compiled by the author using data from the World Bank



Annex 2: Description of Budget Items

Concept	Description	Methodology used to determine the amount
Manager's Salary	Salary paid to the project manager if the municipality decides to hire a staff member for the Accelerator	Determining the minimum wage of a college graduate in Costa Rica, according to the Ministry of Labor.
Office supplies	Office supplies (paper, notebooks, pencils, etc.), technology equipment (computers, printers, etc.) and office furniture.	A brief investigation was conducted to determine prices in Costa Rica and then they were converted to US dollars at the current exchange rate.
Office Equipment Depreciation	Annual depreciation was calculated as 10% of the value of the office equipment, based on a standard practice.	Accounting standards were searched to calculate depreciation.
Overtime Pay for Appointed Official	We calculated 1/4 of overtime work and a proportional increase in the salary of the appointed staff member, considering the same basis as the project manager salary.	Overtime pay rules were reviewed for Costa Rica.

References:

Fierro, O. J. (2007). *El problema del rezago tecnológico de las microempresas industriales y alternativas de solución*. SciELO. Retrieved on August 12, 2020 from: http://www.ssky.org.mx/scielo.php?script=sci_arttext&pid=S0186-10422007001007

La Nación. *Expertos: país vive rezago tecnológico*. (November 11, 2017). Retrieved from: <https://www.nacion.com/economia/expertospaisvive-rezagotecnologico/ONV4KFKFMVGA7CJ6E7ZNVCM3FA/story/>

MEIC. (s. f.). *Red Nacional de Incubadoras*. PYMES Costa Rica. Retrieved on September 15, 2020 from <https://www.pyme.go.cr/pata6.php?id=1>

MTSS Ministerio de Trabajo y Seguridad Social. (s. f.). *Salarios mínimos - Sector privado*. MTSS.go.cr. Retrieved on August 25, 2020 from: http://www.mtss.go.cr/temas-laborales/salarios/Documentos-Salarios/lista_salarios_2020.pdf

World Bank Open Data | Data. (s. f.). World Bank. Retrieved on September 14, 2020 from: <https://data.worldbank.org>





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An Innovative Solution

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Summary

The proposed project consists in the development of a mobile application aimed at simplifying and substituting the traditional mechanisms to take inventory of social goods existing in the public spaces of the Municipality of Rosario, bringing increased efficiency, effectiveness, and functionality to the process, and thereby optimizing resources.

Problem

Located in the Province of Santa Fe, Argentina, the municipality of Rosario does not have a continuously updated inventory to properly assess the condition of public goods, including traffic lights, containers, and streetlamps. Poor monitoring of the conditions of public goods in urban spaces leads to a sluggish response by governments when they must be repaired or replaced, leading to deteriorating living conditions for citizens in the city.

At present, the qualitative and quantitative inventory of the public goods that can be found in urban areas is conducted by inspectors. The process usually takes one year. There are not enough resources to send in more inspectors and complete the task in less time. The procedure is conducted only sporadically, with inventories often listing outdated information that cannot be used to ensure effective management. The inventory process is thus clearly ineffective, making inefficient use of human and financial resources and resulting in a perpetually out-of-date inventory.



“Overall, innovation may be defined as a creative idea that, unlike invention, develops hand in hand with implementation. It means devising and implementing a new way of achieving an outcome or fulfilling a task”

(Grandinetti, 2018: 508)

Approaches to the Problem

Citizens need a responsive public sector that can provide solutions and quickly adapt to situations, adequately addressing the needs of citizens — which are increasingly difficult to understand and, consequently, increasingly difficult to meet. Consequently, the State must transform its own bureaucratic and rigid structures to be able to meet the new and changing expectations of the population. Government action must be redefined through innovation:

“Overall, innovation may be defined as a creative idea that, unlike invention, develops hand in hand with implementation. It means devising and implementing a new way of achieving an outcome or fulfilling a task” (Grandinetti, 2018: 508)

However, considering how innovation can be applied to the public sector opens up a multiplicity of questions whose answer may seem largely obscure and require experimental testing. While innovation may certainly involve considerable risk, the potential advantages for the public sector are numerous, as was claimed in a study conducted by NOVAGOB:

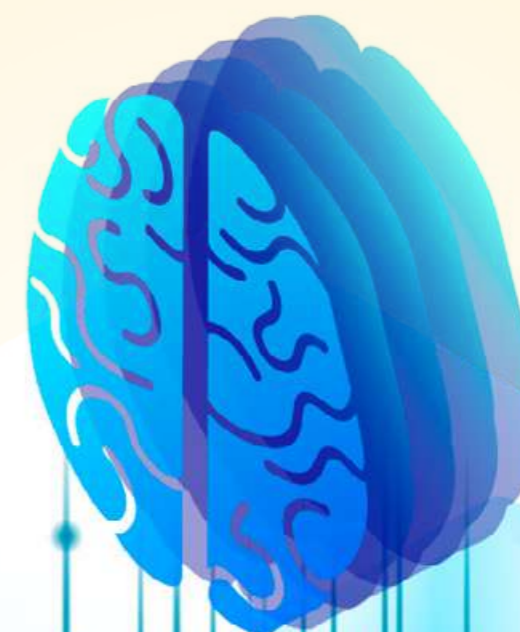
Open public innovation requires a new approach to public administration, introducing collaborative ideas and methodologies, and building up trust in external ideas and solutions to develop solutions to internal problems. That will add value to the institution, increasing transparency around its work and enabling more effective collaborative management among multiple stakeholders, who will find better and more flexible ways to ensure effective government action (NOVAGOB, 2018: 13)

In line with that, this project will draw on the theoretical principles of Gamification.

Gamification is a term coined in 2002 by a British software developer. Indeed, it emerged from the world of video games. However, it was not until 2008 that it started to gain momentum, with the introduction of practical applications in business. Notably, the term has since been used in various contexts and has been applied in countless new fields.

The general consensus is that gamification may be understood as a mechanism used to reinforce a specific desired behavior through play. José Luis Ramírez added *that “Gamification means applying strategies (approaches and dynamics) observed in games in contexts that are not considered to constitute games or are largely unrelated to games, encouraging people to adopt certain behaviors” (As cited in: Gallego, Llorens, Molina; 2014: 1)*

Also, Imma Marín and Esther Hierro remarked: *Gamification is at the same time a technique, a method and a strategy. It takes insights about the key elements that make games so attractive and identifies aspects of a specific activity, task or message in a non-game environment that may be converted into a game. The aim is to promote engagement among users, provide incentives for new behavior, or disseminate a specific message or information. That means creating a meaningful and encouraging experience. (Idem)*



Citizen gamification is an innovation tool that can be used in the public sector — applying it to citizen matters or to public administration itself — to bring individual efforts together and support specific projects by increasing interaction among individuals and encouraging play and engagement.

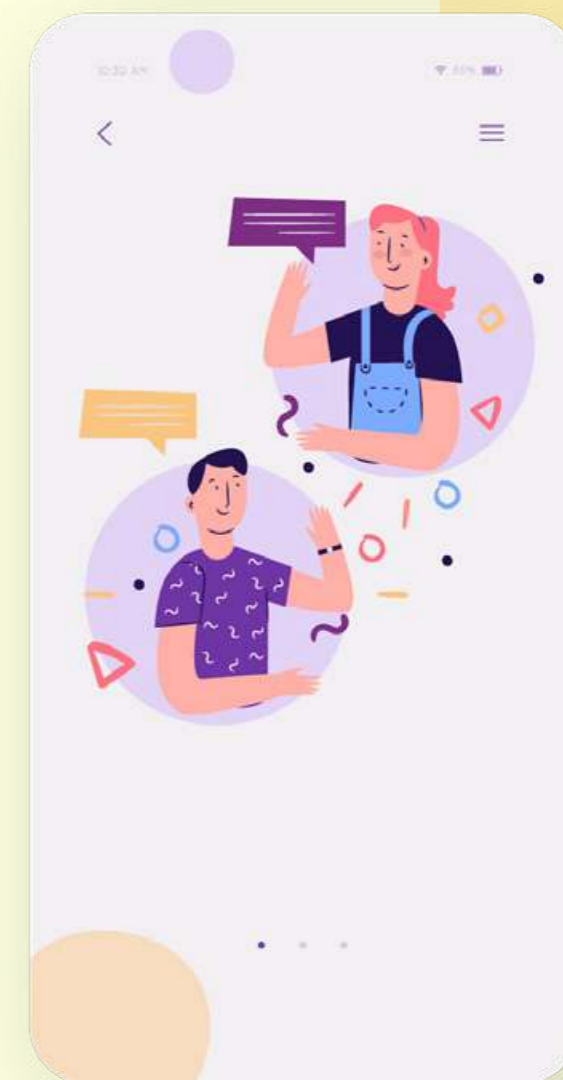
The proposed project draws from the following examples of how the theory has been historically put into practice to develop a specific plan:

1. The celebrated German policy for recycling plastic bottles, glass, and cans by installing stations both in Supermärkten and around the city. What motivates German citizens to recycle? The answer is simple: discount coupons for supermarkets and bakeries.
2. The “Zhima Credit” initiative in China. This application relies on user data analysis — e.g., hobbies, purchases, current debt, and even bank transactions — to compare them and rank them using a score. Top rated users will have a better chance of obtaining certain benefits, including a loan from a specific bank.

The Project: Turning Citizens’ Eyes into Inspectors’ Eyes

If we consider that all public goods are used and seen by someone on a daily basis, we just need to reach out to those onlookers and turn them into observers, creating a data collection system to ensure that information is brought to the right administrative agencies within the Municipality.

Relying on the principles of Gamification and on the increasing popularity of augmented reality apps, we propose the creation of a mobile app where users can sign up as players whose objective is to take pictures and document data on urban public goods. In return, users will receive virtual coins that will be redeemable for tangible municipal services or goods. Examples include public transport tickets.



The overall operation of the app can be described as follows:

1. Users must sign up and create a profile, choosing an avatar to participate in the game.
2. Each user will choose one of the four preset teams. The idea of the game is to have users take inventory of public goods in urban spaces by taking pictures and filling out a brief form for each type of good. Each time a good is reported for inventory users will earn virtual coins, which will be redeemable for awards.
3. Depending on the inventory needs of the specific public administration office (AP), some days some public goods or some parts of the city (or both) will feature extra compensation for users to encourage inventory records for those goods or places. Group rewards will also be given when the objectives set out by an AP are achieved.
4. Groups will also serve a supervisory purpose to prevent users from misusing the application
5. The validity of the data reported by users will be evaluated using Big Data.
6. There must be a wide variety of redeemable products to account for the various interests and needs of users and thereby attract as many citizens as possible.

Feasibility

The cost of developing an app in Argentina stands at about 1 million pesos. The cost will increase with the complexity of the application. That would represent an affordable budget, considering that the implementation of the proposed plan would be incremental and experimental, which means that it could start off as a simple app that could be expanded into more complex versions based on the insights obtained from incremental tests. The project could be funded using a sharing economy approach, attracting donation money and human capital from agencies within Rosario — including higher education institutions and NGOs seeking to improve citizen life — undertaking solidarity crowdfunding campaigns, and going to municipal offices who may have staff already dedicated to these kinds of objectives, like the Ministry of Modernization.

Final Remarks

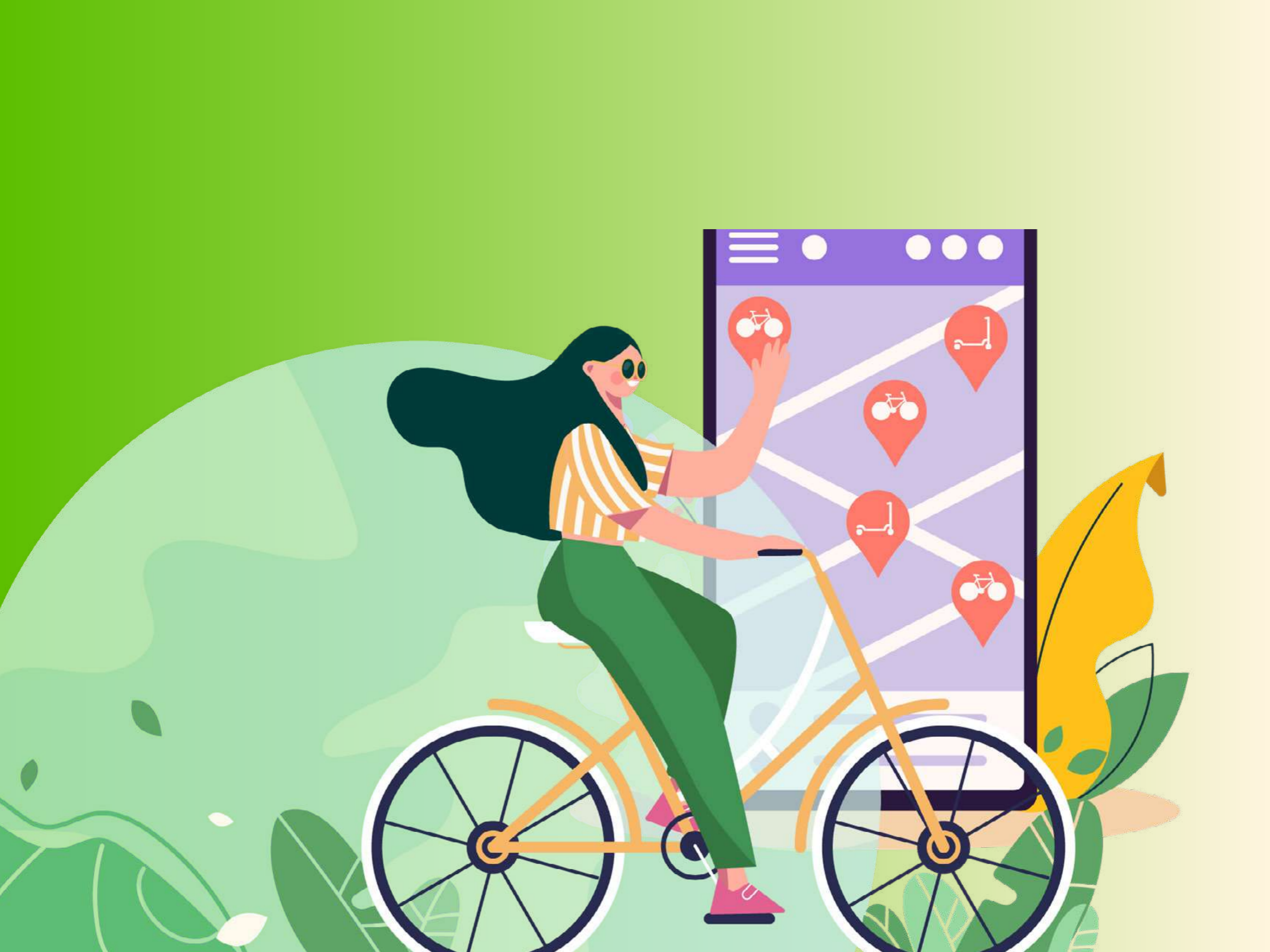
A non-probability sample comprising 165 people was conducted to sound out how such an app would be received among citizens. The key findings were the following: 52.7% of respondents reported that they liked augmented reality applications — e.g., Pokemon Go — and 39.4% expressed that they should try them. Seventy-three percent reported that they would like to use the app. As for rewards, 70.9% reported a high level of interest in the proposed rewards.

Considering that 81.8% of respondents are young people aged 15 – 25 (the age group reporting the highest smartphone daily usage time) and that 84.2% of respondents live in Rosario, there is significant evidence to support taking the project to the next initial level and make the idea a reality in Rosario.



References:

- AEVAL (2016). "Calidad de la Administración Pública. Una caja de herramienta para gestores". Retrieved on November 28, 2019 from: http://www.aeval.es/export/sites/aeval/comun/pdf/calidad/guias/Guia_ToolBox.pdf
- EL TOPER (2017). Zhima Credit, la app que está convirtiendo en realidad Black Mirror en China" Retrieved on November 27, 2019 from: <http://eltoper.com/ciencia-y-tecnologia/zhima-credit-la-app-que-esta-convirtiendo-en-realidad-black-mirror-en-china/>
- GALLEGO, F; MOLINA, R; LLORENS, F; (2014). Gamificar una propuesta docente. Diseñando experiencias positivas de aprendizaje. Retrieved on November 27, 2019 from: [https://rua.ua.es/dspace/bitstream/10045/39195/1/Gamificacio%CC%81n%20\(definicio%CC%81n\).pdf](https://rua.ua.es/dspace/bitstream/10045/39195/1/Gamificacio%CC%81n%20(definicio%CC%81n).pdf)
- GRANDINETTI, R. (2018). Innovación en la gestión pública: más allá y más acá del gobierno abierto. In: Revista Estado Abierto, Vol.2 N. 3.
- GRANDINETTI, R. (2018). Treinta años de innovación en la gestión local. Las voces y las experiencias. In: Revista GIGAPP Estudios/ Working Papers. Edición Especial, N. 98 – 110.
- GRANDINETTI, R. (2019). Frontear desde la Universidad. In: Revista Universitaria. Universidad Autónoma de México. March 2019.
- NOVAGOB (2018). Innovación Pública Abierta: ideas, herramientas y valores para participar en la mejora de la administración. Documento Colaborativo. Retrieved on November 25, 2019 from: <https://novagob.org/documentos/innovacion-publica-abierta-ideas-herramientas-y-valores-para-participar-en-la-mejora-de-la-administracion>
- OSZLAK, O. (2011). El rol del Estado: micro, meso y macro. Retrieved on November 20, 2019 from: <http://www.oscarozlak.org.ar>
- Wonnova (2014). "Gamificación ciudadana para el cuidado de la vía pública".
- GRANDINETTI, R. (2018). Treinta años de innovación en la gestión local. Las voces y las experiencias. En: Revista GIGAPP Estudios/ Working Papers. Edición Especial, núms 98 a 110.
- GRANDINETTI, R. (2019). Frontear desde la Universidad. En: Revista Universitaria. Universidad Autónoma de México. Marzo del 2019.
- NOVAGOB (2018). Innovación Pública Abierta: ideas, herramientas y valores para participar en la mejora de la administración. Documento Colaborativo. Recuperado el 25 de noviembre del 2019 de: <https://novagob.org/documentos/innovacion-publica-abierta-ideas-herramientas-y-valores-para-participar-en-la-mejora-de-la-administracion>
- OSZLAK, O. (2011). El rol del Estado: micro, meso y macro. Recuperado el 20 de noviembre del 2019 de: <http://www.oscarozlak.org.ar>
- Wonnova (2014). "Gamificación ciudadana para el cuidado de la vía pública".



6. State of the Art

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Colombia

Like nine other municipalities surrounding the trinational border between Colombia, Brazil, and Peru, Leticia city has been suffering from geopolitical and sociocultural deficiencies associated with the fundamental needs and rights of people. These deficiencies involve areas like non-curricular training to foster development of better human beings through arts, environmental pedagogy, and even the use of bicycle as a means of transport and as a way to achieve a healthy and ecologically friendly lifestyle.

The issue also involves challenges associated with urban infrastructure, with a notable lack of well-equipped streets, walkways, bicycle lanes, playgrounds, public fitness centers, and public spaces promoting social integration, healthy entertainment, and the development of civic and citizen values among young people and families. Coupled with these challenges is a serious deficiency in the quality of and access to public utility services, including potable water and basic wastewater treatment both in urban centers and in indigenous communities within the municipality.

At the social level, there is also serious neglect by public institutions, leading to an undervaluation of the work carried out within communities. These issues are often not given priority or appropriate funds to undertake public initiatives promoting development and countering the increasing social struggle, and thus public investment in these areas has been neglected. The serious lack of opportunities for education and of leisure-oriented facilities or public spaces for children, adolescents, younger adults, women, elderly adults, and families is a reflection of the neglect by government and administrative agencies,



affecting both the indigenous and non-indigenous Amazonian population living away from major cities. This undermines any potential favorable initiative to enhance citizen culture, adopt a community environmental model, or promote the protection of public goods in society.

A consequence of such disconnect between the State and its constituency is limited societal participation in institutional initiatives and forums. The current social distancing measures imposed on our society as a response to the COVID-19 pandemic in 2020 have exacerbated the lack of communication between government agencies and both organized and non-organized civil society in Leticia. The lack of forums and spaces for community involvement led to economic, institutional, and social deterioration, revealing the State's failure to respond to community decisions and initiatives.

As for public safety, micro trafficking constitutes a social issue that goes hand in hand with poverty, unemployment, and a lack of opportunities, especially among young people, who often become involved in situations that lead to misery and crime in the streets.

PROBLEM IDENTIFICATION

Traffic and urban mobility constitute an area presenting major challenges for Leticians, as public spaces are typically not looked after to meet people's needs, and they thus have deteriorating streets, unfinished works, and large potholes. Facing neglect in these areas, the individual and collective rights of citizens are being violated, as they have very poor access to public facilities. Indeed, however, people often also fail to appropriately use and look after public goods. The population is growing with every passing day, and the little we have is in very bad conditions.

As for public safety, micro trafficking constitutes a social issue that goes hand in hand with poverty, unemployment, and a lack of opportunities, especially among young people, who often become involved in situations that lead to misery and crime in the streets.





The population in Leticia is showing an increase in cardiovascular diseases, thyroid disease, and obesity, among others, and it has become more vulnerable to sickness due to a lack of exercise, poor use of leisure time, and poor use of healthy transport systems, like bicycles.

Leticia suffers from cultural uprooting due to the diversity of cultures that can be found in the city, and this is further exacerbated by the lack of public spaces where young people, children, and families can meet and interact with visitors and tourists without risking any kind of physical or psychological abuse.

The whole Department of Amazonas is a natural paradise that has been suffering from neglect. In their daily lives, Amazonian families do not seek recreation in the municipality's outstanding landmarks, which feature enormous natural wealth and diversity. Our sense of belonging to our motherland has dwindled, as has the beauty of the city, and there is a clear lack of unity in the community.

Although the Amazonian humid tropical climate of Leticia is barely tolerated by the population across the city, people are not being given information and no spaces are being created to bring together organizations, institutions, and social actors and develop sustainable ecological programs to improve people's living conditions and make our environment fresher and healthier. Also, there are no effective programs in place to counter climate change, the smog generated by thousands of motorbikes, and the dust blown off in unpaved streets. It is overwhelming, a survey found that for every household comprising 4 family members there are 3 motorcycles or cars.

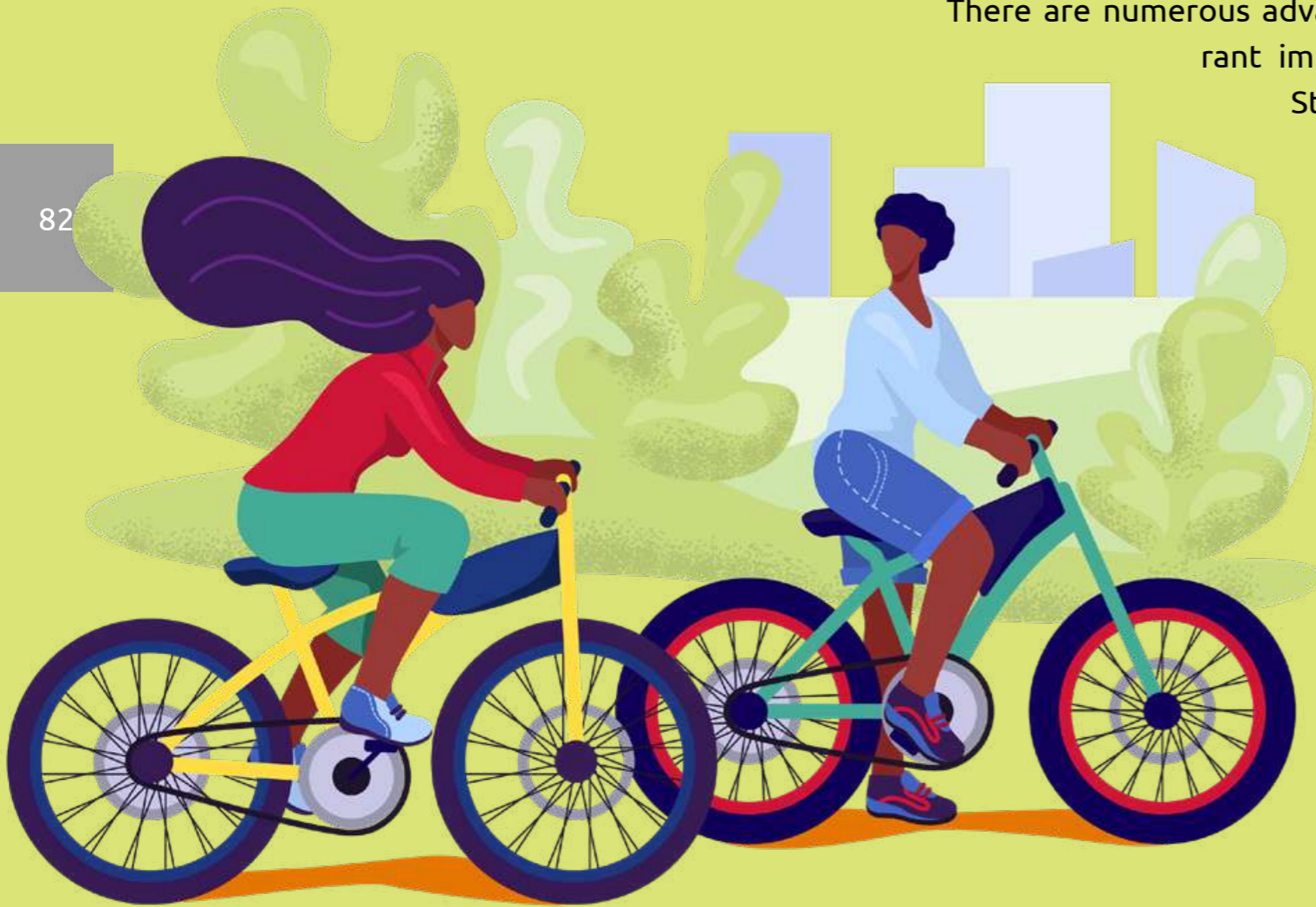
Justification

From the social perspective, Women, Children, Adolescents, and Young People will be the motors for social, cultural, and democratic change across the new society in the Amazonian city of Leticia. The aim is to arouse motivation in each individual so



they can develop a positive mind that will successfully let go of preconceived notions and bring a paradigm shift to improve the livelihoods and living conditions in today's world, which is now faced with the COVID-19 pandemic. We aim to bring new life to the Department of Amazonas, primarily relying on education and initiatives that will promote the development of critical and autonomous individuals who can act in their environment to achieve effectiveness, awareness, and solidarity. This can be achieved by adopting appropriate behaviors and promoting civic and citizen standards upholding respect, tolerance, and care for our social and natural environment.

There are numerous advantages that the Letician society could get from the itinerant implementation of this multifaceted campaign entitled IEC Strategies Information, Education, Communication. It will be aimed at strengthening our society so that it can protect and make proper use of the public space, adopting the initiative of using bicycles as a means of transport that will reduce pollution in the environment and as the only model of urban transport that is adequate to continue implementing the voluntary and healthy social distancing measures that we need. In addition, the use of bicycle may also involve cultural, artistic, recreational, and sports activities, as well as tourist services. Relying on educational talks about health, sports, leisure, safety, urban parks and facilities, economics, and commerce, and on new schemes for disseminating healthy lifestyle models, the campaign will be aimed at raising awareness through art and promoting universal values like peace, justice, democracy, social equity, respect for nature, and the promotion of liberty and respect for Women, Older Adults, Children, Adolescents, Young People, and the Family.



The grounds for the project are justified by the need to disseminate civic, community, ethical, and moral values, and that may be achieved through artistic, cultural, and sports initiatives involving all members of society and especially reaching out to Women, Children, Adolescents, and Young People throughout the Department of Amazonas.

The aim is to offer opportunities for social and family integration to the indigenous community, to the people living in every neighborhood of Leticia, and to tourists and visitors in an effort to strengthen a Culture of Peace. This may include activities relying on bicycles, music, painting, puppets and clowns, theatrical and acrobatic recreation, murals, and educational talks, which may all be organized as learning activities to promote integrated development among people as a means to set the future in motion and achieve the loftiest and healthiest human development in our city.

All these learning activities will be justified by the fact that they will lead to active social development and provide psychological encouragement for learning, evoking civic emotions, feelings, and virtues, creating a bridge between past and present, and providing incentives to regionalism and attachment to our cultural identity.

The aim is to offer opportunities for social and family integration to the indigenous community, to the people living in every neighborhood of Leticia, and to tourists and visitors in an effort to strengthen a Culture of Peace.





Considering the factors in our social context that may promote well-being in our wider community, this social and community project will thus facilitate training for and participation by Women, Children, Adolescents, and Young People through cultural, social, and educational activities. This will ultimately build and create a prosperous future where people will be more responsible as individuals — as our current health crisis demands us to be — and where the various cultural and subcultural urban expressions can be used to promote the use of bicycles as a worthwhile alternative.

Overall Objective

To promote the Development of Social and Cultural micro policy programs aimed at enhancing environmental protection, turning the use of bicycles into a pedagogical tool and an environmental classroom to develop knowledge about the diversity of Amazonian ecosystems and to engage the diversity of cultural groups in both urban and rural areas, and bringing together efforts by government agencies, social stakeholders, and non-profit organizations.

Focused Objectives

- To launch a project aimed at coordinating, organizing, and bringing together government agencies, private businesses, and NGOs to mobilize human and economic resources aimed at organizing ecological tours for families and tourists involving bicycle rides, visits to parks, sports facilities, and cultural mural sites in the city, and artistic and cultural activities on an ongoing basis.
- To promote, coordinate, and facilitate inter-institutional cooperation by building a multilateral cooperation framework aimed at promoting integrated civic and cultural development in the various indigenous neighborhoods and communities across the urban and rural areas of Leticia.
- To bring the project to the entire Department of Amazonas to support Integral Development among women, children, adolescents, and young people and enable them to use and enjoy public goods and services, and the entire urban infrastructure, to meet their needs.



- To promote the project among those involved in the implementation of the environmental classrooms bicycle program and bring them together with rights advocates to support teamwork, training, and professional development, and to coordinate specific functions that will guarantee adequate internal communication and recognition of the valuable contribution and merit of all participants through ongoing evaluation of activities.
- To strengthen the project's infrastructure and support the achievement of the proposed objective.
- To undertake actions that will promote gender equity and will significantly contribute to the elimination of social inequalities and the eradication of violence against women and any form of domestic violence.
- To create an itinerant environmental network by introducing ecological cycling tours aimed at building a better future for the community in terms of health, sustainable mobility, local tourism, a healthy environment, sports, an adequate use of leisure time, safety, and citizen culture.
- To carry out eco cycling tours to promote awareness of public infrastructure and magical cultural places in natural sites.
-

The Legal Basis

Concerning Children and Adolescents

Article 30 of the Code on Children and Adolescents of Act No. 1098 of 2006 establishes the right of children and adolescents to recreation and participation in cultural life and in the arts. It also establishes their right to rest, leisure, play, and any kind of recreational activities associated with their stages of life, including cultural activities and arts. It provides the basis for society in general to recognize and respect them, giving them access to knowledge and experience about their own culture and educating children, adolescents, and families about a culture of respect for dignity, recognition of the rights of others, democratic life, human values, and the peaceful resolution of conflicts through dialogue.



Concerning Women

According to the legislation concerning gender equality, all forms of discrimination against women must be eradicated, preventing any violation of the principles of equal rights and respect for human dignity, as well as any limitation to the participation of women in the political, social, economic, and cultural life of their country in the same conditions as men. We must thus guarantee full recognition both of gender equality, enabling development and enhancing well-being in society and in the family, and of the true potential of women to serve their country and humanity.

Concerning Young People

The State shall guarantee support for the development of plans, programs, and projects aimed at serving society, human life, peace, solidarity, tolerance, gender equity, social well-being, justice, and the integral development and participation of young people in politics at the national, departmental, and municipal levels. With respect to the ethnic traditions, regional diversity, religious traditions, urban cultures, and customs among the rural youth, young people will be offered training and effective support mechanisms to ensure the development, recognition, and dissemination of culture, actively promoting the preservation of their own identity and supporting young people living in vulnerable situations.

Concerning Culture

Article 17 of Act No. 397 of the General Law for Culture establishes that the State shall rely on public institutions to foster the arts in all expressions, as well as other human symbolic expressions that may serve as motors of dialogue, exchange, and participation, and as a free and primary expression of human thinking, always developing in a context of peaceful coexistence.



Description of the Solution

The project entitled ENVIRONMENTAL, CULTURAL, ARTISTIC, RECREATIONAL, AND SPORTING ITINERANT CYCLING CLASSROOMS TO SUPPORT THE CITY OF LETICIA, AMAZONAS will contribute to the development and improvement of the key pillars, or major cross-cutting areas, by promoting activities and improving the social, civic, economic, cultural, and educational conditions for women, children, young people, and the community as a whole.

Health and Sports: The program will promote a new healthy lifestyle through the use of bicycles, creating an institutional space that will benefit families, and especially young people, in the Municipality of Leticia. The aim is to raise awareness about the importance of making the most of time and maintaining consistency in achieving physical fitness. Our territory comprises great diversity and a humid tropical climate, and we must thus strive harder to achieve a healthy immune system. Municipalities have often failed to maintain efforts to promote health, physical fitness, and a sense of belonging in our communities.

Local and Community Tourism: United by a public policy that upholds Citizen Culture, we must build a sense of belonging and attachment among people in Leticia and the Amazonas region by introducing a cultural interchange program that will make families, and the population as a whole, feel that their cultural contributions are significant and relevant. The environmental, recreational, and educational cycling tours will promote bicycles as an alternative ecological means of transport and contribute to the purpose of setting the future of our daily lives back in motion after the COVID-19 pandemic. They will also offer new opportunities to build trust and foster relationships with each other while maintaining social distancing and care for everyone in the community, as bicycles are used INDIVIDUALLY and thereby support our current response to the COVID-19 crisis

Sustainable Mobility: Traffic issues in the municipality of Leticia are associated with the movement of thousands of motorcycles — the most widespread means of transport — cars, buses, and trucks, resulting in rapid deterioration of pavement in the municipality. We have very few highways that are in good conditions, and many are often closed for repair or construction. The poor management of public money and the efforts to build a more embellished environment have led many roads to become one-lane roads across our territory. This has had a significant environmental impact on the forests, but we can try to mitigate it with the frequent use of bicycles, creating a mass ongoing movement to promote a cycling culture that uses an ideal environmentally friendly means of transport and supports health and safety.



Citizen Culture: In the context of our Amazonian territory (located at the meeting of three borders and of multiple cultures, boasting extraordinary natural diversity, and being home to various indigenous communities and time-honored traditions that serve as examples of social and friendly lifestyles), we have developed a program to create shared experiences for citizens by organizing tours around the city in an atmosphere of tolerance and conviviality. It is a program of cycling tours (where bicycles are promoted as a supremely useful tool for human beings) aimed at promoting biosafety, creating new stories, and learning about the legends of each place on the tour, and fostering culture, muralism, remembrance, and citizen education around the art of bicycles.

Beneficiaries

Children: Children aged 3 – 10 years. Each event will benefit 10 children.

Adolescents: Young people aged 11 – 18 years. Each event will benefit 20 young persons.

Younger Adults: Men and women aged 19 – 28 years. Each event will benefit 20 people from this group.

Adults-Family: Men and women aged 29 – 70 years. Each event will benefit 20 people from this group.

Tourists and Visitors: Men and women from other national or international regions. Each event will benefit 20 people from this group.

Indigenous Communities: People from the Rural sector and the Rio Sector. Each event will benefit 20 people from this group.

Participating Agencies:

- Indeportez
- Dirección de Equidad y Género, Amazonas
- Organización Expresiones Elementales
- Plataforma Juvenil de Leticia
- Environmental Organizations
- Cultural Youth Organizations
- Government Agencies
- The National Police Department
- The Media
- Ciclo Charles (private business)





Activities organized around the tour

Puppets and Clowns: They represent a valuable audiovisual resource to disseminate ideas, messages, and knowledge, as well as to promote the expression of feelings. This also promotes motivation and entertainment, as it may involve not only puppet shows, but also the creation of figures and plays by participants for educational purposes — civic values may be promoted through puppet shows.

Musical Performances: Music constitutes a means of expression that helps people to express their feelings, promote fraternization, pay homage to someone or something, have company on their daily work, and bring words to life through singing and playing instruments.

Murals: They allow people to realize their potential and creativity, building their identity, their autonomy, their ability to communicate feelings, and their self-esteem, and encouraging experimentation with the materials used in their creative processes. Using various techniques including free drawing, graffiti, and painting, people can communicate stories about the origin of the Amazon world. The outcomes of this activity will help to build a bridge between a sense of cultural belonging and tourism.

Cycling routes: This athletic activity contributes to the transformation of social discourse by releasing energy and encouraging a desire for practicing sports to keep all dangerous thoughts and actions away from adolescents and young people. Five cycling routes and biking tours will be organized, allowing participation by community members and tourists.

Informative Talks and workshops: Public policies may be disseminated through informative talks, and sometimes technology tools may be used, where appropriate, to encourage citizens to work towards achieving well-being for women, children, adolescents, and the younger adults living in the department.

The project will use *information, training, and education (IEC) strategies to bring our community together by making the most of leisure time, raising awareness, and providing opportunities to enjoy artistic, recreational, cultural, and educational activities.*



LOGÍSTICA Y MATERIALES REQUERIDOS

LOGISTICS AND REQUIRED INPUTS

Portable audio equipment

- 1 Powered speaker with a tripod
- 1 megaphone
- 2 Wireless microphone headsets

Logistic requirements for ecological tours

- 100 themed t-shirts
- 10 bicycle repair kits
- 10 traffic and safety signals kits

Sports and tourism equipment, accessories, and supplies

- 10 bicycle safety kits
- 2 pairs of stilts
- 2 Trike bikes

Learning materials

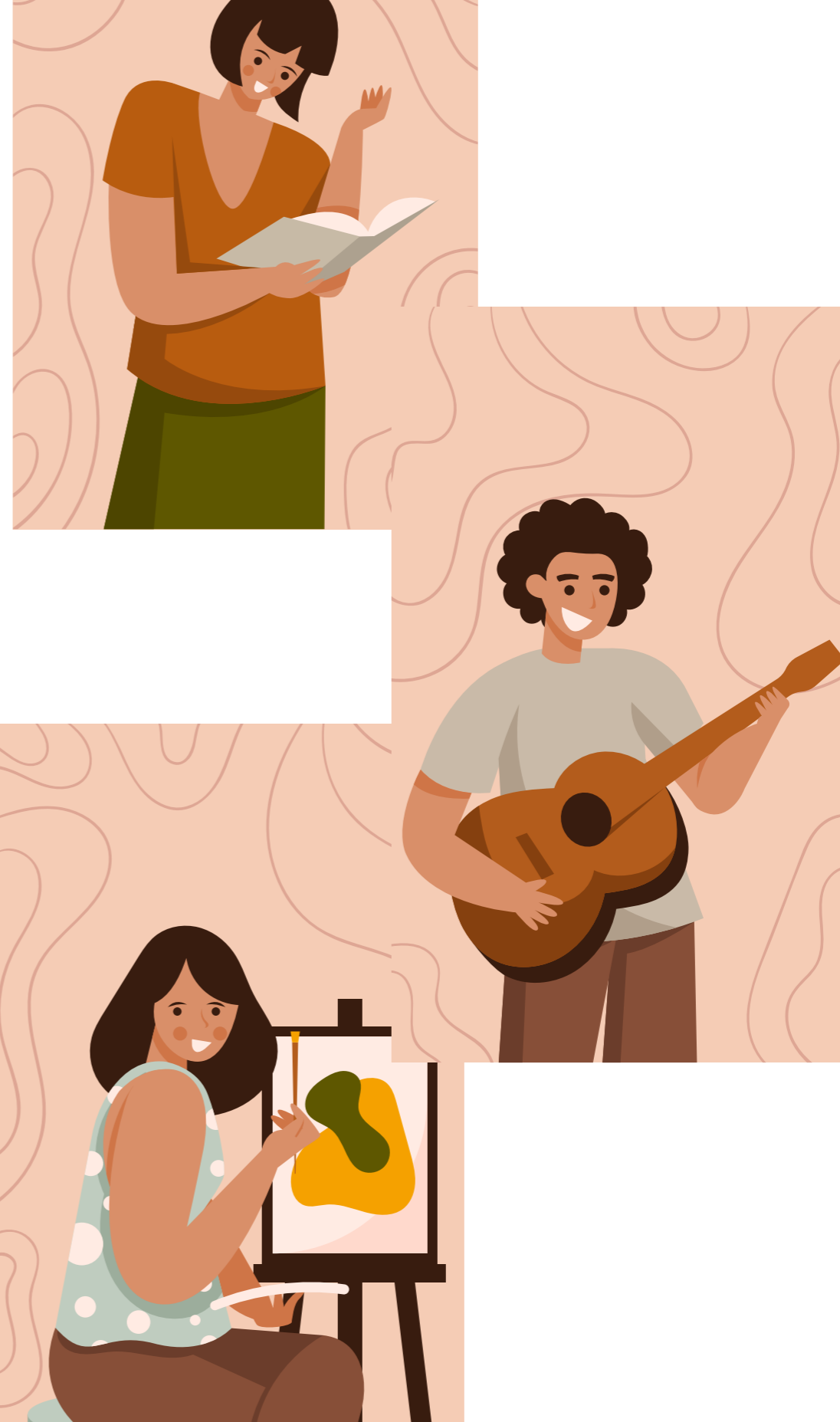
- 100 environmentally friendly agendas with pen
- 1,000 ecological maps

Staff Cultural and Environmental Corporation Elementary Expressions

- 3 Eco tours guides
- 6 logistics coordinators
- 10 artists (3 graphic artists, 3 musicians, 2 stilt walkers, 2 recreationists)

Biosafety Protocols

- 100 Biosafety Kits (facemasks, personal hand sanitizers)



GENERAL PROGRAM OF ACTIVITIES				
TOPIC	ACTIVITY	TARGET AUDIENCE	METHODOLOGY	OUTCOME
Healthcare	Informative Talks and Workshops	10 participants per daytime route/activity	Implementing IEC strategies with bicycle tours and art exhibitions around sites with high social, tourist, and cultural impact.	Encouraging artistic and cultural development Providing eco-tourism and cultural services Raising awareness of eco-friendly citizen mobility
Local and Community Tourism	Murals			
Traffic and Sustainable Mobility	Eco Cycling Routes			
Civic Culture	Musical Performances			
Sports	Physical Fitness and Leisure			

BUDGET				
PORTABLE AUDIO EQUIPMENT				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Powered speaker with a tripod	1	\$1,000.000	\$1,000.000
2	Megaphone	1	\$300.000	\$300.000
3	Wireless microphone headsets	2	\$250.00	\$500.000
				TOTAL \$1,800.000
LOGISTIC REQUIREMENTS FOR ECOLOGICAL TOURS				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Themed T-shirts	100	\$25.000	\$2,500.000
2	Bicycle repair kits	10	\$200.000	\$2,000.000
3	Traffic and safety signals kits	10	\$75.000	\$750.000
				TOTAL \$5,250.000
SPORTS AND TOURISM EQUIPMENT, ACCESSORIES, AND SUPPLIES				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Bicycle safety kits	10	\$700.000	\$7,000.000
2	Stilts	02	\$350.000	\$700.000
3	Trike bikes	02	1,000.000	2,000.000
				TOTAL \$9,700.000
LEARNING MATERIALS				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Environmentally friendly agendas with pen	100	\$20.000	\$2,000.000
2	Ecological maps	1,000	\$3.500	\$3,500.000
				TOTAL \$5,500.000



LEARNING MATERIALS				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Environmentally friendly agendas with pen	100	\$20.000	\$2.000.000
2	Ecological maps	1.000	\$3.500	\$3.500.000
				TOTAL \$5.500.000
STAFF				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Eco tour guides	03	\$200.000	\$600.000
2	Logistic coordinators	06	\$100.000	\$600.000
3	Artists (3 graphic artists, 3 musicians, 2 stilt walkers, 2 recreationists)	10	\$200.000	\$2.000.000
				TOTAL \$3.200.000
BIOSAFETY PROTOCOLS				
No	ITEM DETAILS	QUANTITY	COST PER UNIT	TOTAL COST
1	Biosafety Kits (face masks, personal hand sanitizers)	100	\$15,000	\$1,500,000
				TOTAL \$1.500.000
				GRAND TOTAL \$26.950.000

The proposed plan will have a total cost of **\$26,950,000**; twenty-six million nine hundred and fifty thousand pesos.





7. Afternoon Dancing with Older Adults in Villa Nueva

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Guatemala

Problem Introduction

This project is aimed at promoting greater integration among older adults in Villa Nueva with their families and communities through dancing, an activity that may serve as a means to improve their quality of life, as it has been seriously affected by the COVID-19 pandemic. That is particularly important to this vulnerable population — not only in Guatemala, but anywhere around the world — because there is often little interest in introducing social policy programs to benefit the elderly population.

About the project:

Afternoon Dancing with Older Adults in Villa Nueva

Dancing is a fun and easy way to do exercise. If it is practiced in moderation and safely, it can be a suitable exercise for older adults. We all have within ourselves a history of music, images, and experiences, carrying with us a cultural baggage that is typically perpetuated through the media and through family heritage.

In an initial stage, the program will provide a platform to encourage integration among older adults in Villa Nueva, Guatemala. It is aimed at an almost marginalized population (older adults) who have no access or are unable to go to conventional recreational facilities.



The Afternoon Dancing with Older Adults in Villa Nueva project will be aimed at creating strategies to promote inclusion for people who are vulnerable to various physical, psychological, and social conditions by offering them opportunities to develop skills they may need to refresh because their daily lives have led them away from them. Also, going out to dance requires us to groom ourselves, leave our houses, and have contact with other people, having a positive impact on our mood and morale.

Factors directly affecting health in older adults

- **Social:** When people reach old age and retire, they are suddenly faced with a new life where their old work activities and responsibilities no longer exist. All at once, their contact with others declines, their mobility is reduced, and communication with other and participation in social situations decrease. In other words, older adults see their whole environment grow smaller and smaller.
- **Psychological or Mental:** Mental changes occur; their memory becomes more evocative of chronologically distant events. That is why some older adults often like to repeat again and again anecdotes from older times in which they felt better. Their perception of those stories is riddled with affective and emotional elements. Also, ageing may increase the probability of developing cognitive or neurological conditions for older adults.
- **Bowels:** They may often suffer from constipation and irregularity in bowel habits, a situation that is often neglected and receives little treatment.
- **Heart:** Most older adults suffer from some kind of heart problem.
- **Mobility:** A large percentage of seniors use canes, walkers, or wheelchairs to preserve their mobility.
- **Prostate:** Prostate conditions are common in men, but it is fortunately a treatable problem.
- **Breast:** Breast cancer becomes a common concern for women, although it more often develops in women aged 30 – 40 years than in elderly women.
- **Eyes:** Cataracts are very common, and in most cases they are operable. There is also Glaucoma, which is less treatable but may be controlled. The only normal change in sight at that age is developing near-sightedness.
- **Arthritis:** It is one of the most common problems. Although it is treatable, there is still no definitive medical cure for this problem.



Physical Benefits of Dance for Older Adults

Dancing brings numerous benefits for the body that are similar to those obtained from sports — which often make older adults and seniors feel at risk. These benefits include:

In an initial stage, the program will provide a platform to encourage integration among older adults in Villa Nueva, Guatemala. It is aimed at an almost marginalized population (older adults) who have no access or are unable to go to conventional recreational facilities.

- It relieves stress and prevents depression, as it makes them feel happier.
- It helps them improve their memory. And dancing with a partner requires them to coordinate their movements with those of the other person.
- It enhances self-esteem and self-confidence, and it helps us overcome shyness and the feeling of loneliness.
- Also, it helps those suffering from arthritis, Parkinson's disease, or Alzheimer's disease to stimulate their physical and mental abilities.
- It strengthens their muscles, especially their legs, hips, and, depending on the style, their arms.
- It increases flexibility and strength.
- It improves their coordination and balance, helping older adults to prevent falls.
- It helps them maintain their weight, keep their blood pressure normal, relieve joint pains, and prevent osteoporosis.
- It increases their brain blood flow, and thus helps to prevent cognitive impairment.
- It strengthens their cardiovascular and respiratory systems.

Musical genres and rhythms that will be used in Afternoon Dancing with Older Adults:

Marimba: This type of dance often involves simple and repetitive movements. Dancing in this style requires a partner, but if someone does not have their own partner, they will likely find others in the same situation, offering a good opportunity to make new friends.



Cumbia: there are different types of dance steps with different levels of difficulty. If we decide to try this dance style, it may be useful to start at the most basic level. This is a type of activity that requires us to use our brain a lot to count steps and follow the music, and it usually requires a partner. Another option is line dancing, where people dance individually.

Any other type of dance may be appropriate, considering the person's own preferences and limitations. However, it is important to listen to your body and stop if you feel any pain or feel very tired. A healthy challenge people can try is to try to keep a conversation while dancing.

Objectives

1. Promote physical activity among older adults to improve their flexibility, strength, coordination, balance, and posture, as well as to delay cognitive impairment and reduce depression.
2. It also helps to improve cardiovascular health, keep blood pressure down, and to appreciate the values and experiences of the lives of older adults, achieving greater integration with society

Justification

Older adults account for nearly 20% of the population in Villa Nueva, and this number may triple over the next four decades due to the current demographic transition towards population ageing.

Considering the problems facing older adults, creating the *Afternoon Dancing with Older Adults in Villa Nueva project becomes critical to look after their health*. At a first stage, we propose creating a public space for older adults to dance, helping them to improve both physically and socially.



Considering the problems facing older adults, creating the Afternoon Dancing with Older Adults in Villa Nueva project becomes critical to look after their health. At a first stage, we propose creating a public space for older adults to dance, helping them to improve both physically and socially.

Why are we proposing the creation of the Afternoon Dancing with Older Adults in Villa Nueva project?

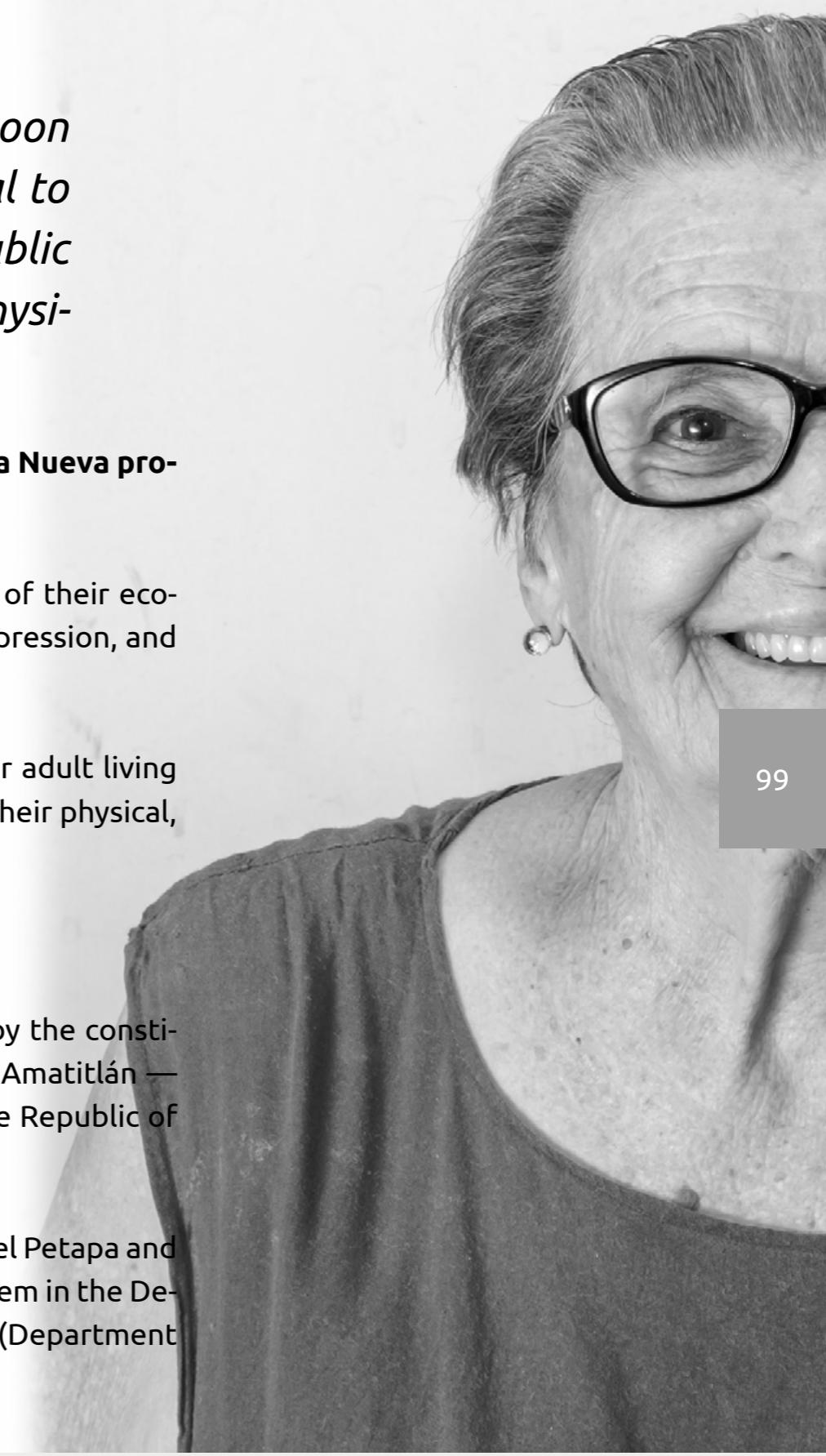
Because there are no conventional recreational facilities available to them, and because of their economic or social constraints. Also, this type of activity will help them to alleviate stress, depression, and anxiety.

Who can participate in the Afternoon Dancing with Older Adults program? Any senior adult living in the municipality of Villa Nueva and any person wishing to help older adults to improve their physical, mental, and social well-being.

Villa Nueva's Historical Background

It was first founded as a village during the Spanish colonial period with a decree issued by the constituent assembly of the State of Guatemala on November 8, 1839, creating the district of Amatitlán — Article 1 of the decree refers to Villa Nueva. It is located in the metropolitan region of the Republic of Guatemala. Its territory comprises 114 km².

The city borders the municipality of Mixco on the north side, the municipalities of San Miguel Petapa and Villa Canales on the east side, with the municipality of Amatitlán on the south side (all of them in the Department of Guatemala), and the municipality of Santa Lucía Milpas Altas on the west side (Department of Sacatepéquez).



Population

According to Guatemala's Instituto Nacional de Estadística, Villa Nueva's population is estimated to reach nearly 1.5 million by 2022, making it the largest and most populous city in Central America.

Economy

Historically, agriculture constituted a key economic activity to support households. However, in recent years, new industries — or industries that were formerly based in the capital city — have settled in Villa Nueva, creating jobs for the population. There are 282 different industries, including food, plastic, garments, metals, chemicals, paints, paper, and wood.

Geographic Location of the Municipality



Figure 1. Municipality of Villa Nueva
Source: Google Maps.

Osmar Vásquez, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons



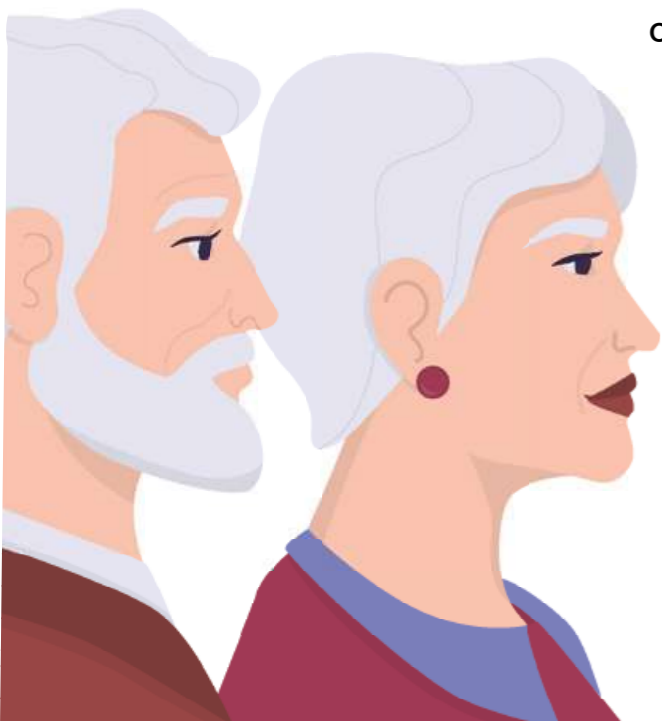
Sources of Funding for the Project

The project will rely on the Municipality and private businesses to fund the logistics and audio equipment needed to carry out the project. They will be asked to support the creation of activities that will promote respect, understanding, and love among older adults in the municipality.

Global Recommendations

- To care for and protect older adults in your country and community
- To ensure that people in all countries are aware of the rights of older adults — including the right of association, the right to freedom of opinion, and the right to participate actively in their communities. To ensure that the design

of any architectural project will consider all needs for movement to prevent any limitation on the free movement of older adults.



Presupuesto Por Evento

CANTIDAD	DESCRIPCION	VALOR A CANCELAR
1	Conductor y animador del evento	Q 400.00
1	Audio para amenizar el evento	Q 1,000.00
200	Sillas para momentos de descanso	Q 400.00
1	Contratacion de marimba	Q 1,000.00
2	Toldos de 4X6 metros	Q 600.00
300	Bebidas hidratantes para adultos mayores	Q 600.00
TOTAL		Q 4,000.00

“Abuse of Older Adults may go unnoticed, but it conceals a serious social problem”





8. A New Life to Your Food: A Recycling Proposal

Ines Marrache Echaiz

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Perú

Definition of the Problem

Pollution is an undoubtedly serious global problem. According to the World Economic Forum, by 2050 oceans will contain more plastic than fish (ABC, 2019). Peru was ranked 22nd globally, and 8th in Latin America, among the most polluted countries. Coupled with this is the fact that the country produces 23,000 tons of garbage every day, and the 1,400 landfill sites where it is collected do not have any recycling or waste management program in place (Diario Gestión, 2019).

Also, the country recycles only 1.9% of the total reusable solid waste (Ministry of the Environment, 2018), despite the fact that 73% of the solid waste we generate can be reused. As such, of the nearly 4 million tons of organic waste produced in the country, 54% could be reused, but we only reuse 1%, and of the nearly 1.5 million tons of inorganic waste produced, 20% could be reused, but we only use 2%. Furthermore, 98% of recyclers in the country are informal — with only 1,813 out of 98,000 working as formal workers. (Defensoría del Pueblo, 2019).



“the country recycles only 1.9% of the total reusable solid waste (Ministry of the Environment, 2018), despite the fact that 73% of the solid waste we generate can be reused....”



According to Eduardo Calderón de la Barca, spokesman for Juntos por el Medio Ambiente, 92 districts in the country reportedly have inefficient garbage collection systems. The districts generating the most waste are San Juan de Lurigancho, 780 tons, Comas, 400 tons, and Villa El Salvador, 300 tons — the three of them in Lima. In addition, he reported that a significant portion of the waste produced in these areas was thrown into the streets, promoting the proliferation of insect pests and disease-carrying animals, and thereby increasing the dangers to people's health, especially in areas where food distribution programs are in place (Stakeholders Sostenibilidad, 2018). Lima is the department that produces the most solid waste in the country, accounting for 44% of the country's total amount — well above Piura and La Libertad, which rank second with 5.4%. All that waste ends up in unsafe places (garbage heaps on the streets), dumps, sanitary landfills, and recycling sites (Defensoría del Pueblo, 2019).

The city generates 8,000 tons of garbage every day, and only 1% of that is recycled, as very few districts have an effective recycling system in place (Stakeholders Sostenibilidad, 2018).

That is true despite the existing rules requiring local governments to design and implement solid waste management programs, awareness-raising campaigns, waste reduction training programs, and waste segregation and selective waste collection programs (Defensoría del Pueblo, 2019).

Poor solid waste management constitutes a problem that clearly affects public health, especially when it involves critical areas. As such, Peru's Colegio Médico warned about solid waste accumulation on the streets in Villa María del Triunfo (district of Lima), claiming that the situation may be associated with nearly 35 diseases

Lima is the department that produces the most solid waste in the country, accounting for 44% of the country's total amount — well above Piura and La Libertad, which rank second with 5.4%.





— digestive, parasitic, respiratory, and skin diseases and conditions, including typhoid, cholera, dysentery, hepatitis, dermatitis, pneumonia, typhus, and tetanus — damaging people’s health and having a negative impact on the city’s most important Public Health indicators (Moncada, 2018). The General Environmental Health Office (DIGESA) of the Ministry of Health has also warned about the issue, claiming that the accumulation of solid waste may lead to health issues among the population. It urged municipal authorities to adopt strategies aimed at supporting recycling programs and to set up waste collection centers for inorganic waste, plastic, glass, bottles, and other kinds of waste (Ministerio de Salud, 2019).

On top of that, poor solid waste management reduces competitiveness because considerable value is lost in the process, considering the large proportion of garbage that is discarded as waste instead of being reused. Furthermore, the situation leaves a vulnerable population group — waste pickers and recyclers — out of the formal economy, making it difficult for them to improve their living conditions. Overall, the poor waste management and recycling habits in the city have negative impacts on the environment, resulting in reduced health and collective well-being.

Highly marked by the pandemic crisis and the associated social distancing measures, the current situation has drawn attention to the importance of solid waste management to ensure good health among the population. That is why, after 49 days of halting economic activities, the government issued Supreme Decree No. 080-2020-PCM, introducing a gradual reopening of activities that included the recycling service in phase 1 (Defensoría del Pueblo, 2020), and thus recognizing its importance in preserving health in the community and in revitalizing the economy.

The current situation has drawn attention to the importance of solid waste management to ensure good health among the population.



“That is why we often hear that culture represents the main reason why individuals — or the “street-level bureaucrats,” as described by Lipsky — are so important. Regulatory authorities have a limited impact on a scattered implementation system, where the outcomes of the specific guideline or rule will ultimately be driven not by a centralized system, but rather by how they are applied by individuals.”

The situation points to the fact that the country, and especially Lima, generates large volumes of waste, but only a minimal percentage of it is processed, and there is thus much room for the implementation of new measures to improve the situation. Before we go back to our normal lives, it will be important to adopt measures that will help us to improve waste management and, most importantly, to raise awareness about recycling in our communities.

Project Justification

Public policy decisions often have little impact or poor outcomes when they become a reality, as they are designed without considering behavior patterns among those who implement them. Failure to comply with the health guidelines set out to prevent COVID-19 infection constitutes a recent notable example. Considering that, the proposed plan will be based on the following principles:

Culture: It is what defines who we are as a group, our tendencies and our identity, the way we act and respond to situations, and the way we relate to each other and to our environment. Culture plays a key role in determining the actual outcomes of a policy and the extent to which it will be adopted in various places. That is why we often hear that culture represents the main reason why individuals — or the “street-level bureaucrats,” as described by Lipsky — are so important. Regulatory authorities have a limited impact on a scattered implementation system, where the outcomes of the specific guideline or rule will ultimately be driven not by a centralized system, but rather by how they are applied by individuals. Culture also plays a key role in the implementation and the outcomes of a policy developed under a democratic framework, as the extent to which it responds to certain social conditions will determine how legitimate it will be regarded by the population in its actual execution. It is thus relevant to point at the fact that there are symbolic actions that may be used as mechanisms to support policies. They are particularly relevant to define and strengthen a positive culture, so long as they are part of a consistent narrative and a broader set of measures aimed at strengthening specific values in a society (Muers, 2018).

Cognitive biases: Daniel Kahnemann and Amos Tversky introduced this concept to describe the psychological effect of systematically misinterpreting the available information, impacting on the way we think, judge situations, and make decisions (Braininvestigations, 2020). Many different biases have been identified, but two of them are especially relevant for the proposed program: **social norms and prominence. Social norms dictate appropriate behavior and are classified as expectations or rules associated with behavior within a specific group of people.**





There are two types of social norms: *descriptive and prescriptive*. The former describe how a specific social group behaves, and the latter describe what society approves or disapproves, regardless of how the group behaves. The literature suggests that the latter norms are more effective against situations where undesirable behaviors are prevalent compared with desirable behaviors (BehaviouralEconomics.com, s.f.). Prominence, for its part, refers to the tendency to focus on the more noticeable elements or information and disregard those that do not capture our attention (The Decision Lab, s.f.).

Self-regulation:

it refers to how individuals regulate their own conduct, how circumstances are controlled in private organizations, and how collective groups regulate their own members. Successful self-regulation leads to a number of efficiencies (Alza, 2011). When it comes to public policy, some authors argue that promoting increased autonomy and engagement among individuals in a decentralized decision-making process turns policies into a dynamic of “self-organized networks” (Muers, 2018), shifting the focus of public policy toward the level of autonomy and influence of individuals.

Project Description

The pandemic crisis has prompted us to appreciate the effective collection of our waste and has revealed significant deficiencies in waste management across the country. The government office in my district (Municipality of Miraflores, Lima) has historically shown great concern about recycling and adequate waste management in the



city, and the current situation has been no exception. Three months after the onset of the COVID-19 outbreak, the “Basura que no es basura” program was reactivated to reinstate the value of the waste generated by residents which may be inserted back into the value chain, a program that is implemented jointly with two recyclers associations (Municipality of Miraflores, 2020).

Seeing that businesses were increasingly reopening, the situation led me to consider the possibility of bringing that effort to a sector with a different recycling potential from that of private households: fast food establishments. Fast-food chains currently feature a single waste container to dispose of any food waste after meal, but that includes different kinds of waste, and they all have recycling potential. Considering that, my proposed plan essentially consists in introducing differentiated waste containers, including three categories: organic waste (food leftovers), *paper and cardboard waste* (paper tablecloths, cardboard containers), and *plastic waste* (beverage lids, cups, straws, cutlery). This simple measure would facilitate the waste sorting and recycling process and foster a recycling culture among the consumer population.

More specifically, we would rely on techniques supported by behavioral economics to introduce little “nudges” to foster the behavioral changes required by the new approach to waste disposal. We would thus use the element of prominence to our advantage. Specifically, the idea is to place brightly colored containers (green, yellow, and blue, for example) instead of the traditional metal-colored containers, which typically go unnoticed, to attract the attention of consumers and encourage them to dispose of their waste more responsibly. In addition, signs could be placed visibly on containers, clearly indicating what kind of waste must be thrown into each container and even including images of the type of waste for each type. This could be supported with messages containing prescriptive rules to change the habit of throwing everything into the same container. Examples of prescriptive messages may include: *“Please, sort your waste properly before dropping it in these three containers. You will contribute to recycling and to care for the environment.”*



This proposal does not involve any specific regulation or mandate, as it promotes voluntary adherence by businesses, creating incentives for them to commit to the campaign and adopt the proposed measures.

Our cultural attitude is clearly shifting toward an increased environmental awareness, becoming more firmly fixed in our national community — especially in the capital city. Evidence of that can be found in efforts like the organization of eco-fairs, the increased use of bicycles or scooters, and the use of eco-friendly reusable bags. The project will thus seek to capitalize on the increased social awareness of environmental issues and the cultural underpinnings that have been already laid down in that regard to support the specific objective of recycling.

As such, the proposed policy plan will feature two major lines of action: (i) a campaign conducted by the municipality to reach out to both businesses and consumers and promote the “recycling friends” program for fast food restaurants, emphasizing its potential contribution to the environment; (ii) the creation of a distinctive sign (*some kind of sticker that can be visibly posted on the establishment*) that municipalities may confer to establishments that wish to take part in the campaign by proving that they meet the general proposed guidelines — including descriptive signs on containers, painting containers with the proposed colors, and posting messages and posters. This proposal does not involve any specific regulation or mandate, as it promotes voluntary adherence by businesses, creating incentives for them to commit to the campaign and adopt the proposed measures. Incentives will rely on the reputation establishments will develop among consumers when they see that the establishment has been qualified as green and pro-recycling, and that, in turn, will depend on the communication campaign that will inform users about the meaning of the distinctive sign. That will have a positive impact on brand awareness, potentially increasing consumption in the establishments.

To take the initiative to the next level, municipalities and businesses may consider signing agreements with other recycling businesses or initiatives (e.g., Simba^[1], recycla.pe^[2]), creating positive synergies that will improve the efficiency of the company and the sustainability of the environment, thereby developing a circular economy. Also, fast-food chains could supplement this measure with other social responsibility programs aimed at developing capacities among small recyclers and helping them to enter the formal economy — which could also be achieved through partnerships with other such initiatives — or they could consider using sustainable alternatives to plastic.

Self-regulation may constitute a powerful tool for businesses to take part in the reform initiatives and enhance the positive impact of this program by supporting its scalability. If the program is initially implemented in our district — which typically sees a high tourist turnout and receives citizens from many



other districts — and it shows clear positive impacts in brand awareness for businesses, fast-food chains could voluntarily decide to bring the initiative to their other establishments, escalating their adoption not only in the district, but also potentially in the city and the country as more of them increase their presence in the country. Also, the scalability of the project may be promoted through government offices in other districts and local authorities wishing to replicate the initiative — and the process could be standardized to have other jurisdictions join the program.

Finally, the proposed plan will have a positive impact on three sectors/aspects: (i) public health, reducing the possibility that fast-food restaurants dispose of their waste on nearby streets, and thus reducing potential impacts on the health of those living within the district; (ii) the economy, promoting integration into the formal economy and better working and living conditions among recyclers; (iii) the fast-food business, improving their reputation — and potentially their income — and creating an impact on consumers' habits.

Feasibility of the Project

As long as municipalities have a budget item entitled “Education and awareness-raising about solid waste management”^[3], investment in a project like this will be feasible. As a reference, the costs incurred in my district for advertising campaigns amounted to nearly 8,500.00 soles (\$2,407). Also, the amounts historically allocated to this concept by various municipalities in Lima in recent years ranged between 1,900.00 and 4,100.00,00 soles^[4] (\$528 – \$1,161). As such, the likely amount required for investment in the program would not be very high, only adding the cost of the distinctive stickers and of the necessary verification by municipal staff — as food establishments are not many, costs should not increase significantly. The costs of the design and placement of containers, posters, and messages will be directly covered by establishments.

[1] <http://www.kunan.com.pe/sinba/>

[2] <https://reciclape.org/>

[3] In 2020, the Municipality of Miraflores allocated a budget of 59,494 soles to that concept, which roughly amounts to \$16,853 at an exchange rate of 3.50.

[4] Data estimated for the 2007-2012 period (Comex Peru, s.f.)





References

- ABC. (May 14, 2019). En 2050 habrá más plástico que peces en el océano. Retrieved from ABC: https://www.abc.es/sociedad/abci-2050-habra-mas-plastico-peces-oceano-201601212107_noticia.html
- Diario Gestión. (June 9, 2019). Lima es la octava ciudad más contaminada de América Latina. Retrieved from Diario Gestión: <https://gestion.pe/economia/lima-octava-ciudad-contaminada-america-latina-269614-noticia/?ref=gesr>
- Ministerio del Ambiente. (May 1, 2018). En el Perú solo se recicla el 1.9% del total de residuos sólidos reaprovechables. Retrieved from SINIA: <https://sinia.minam.gob.pe/novedades/peru-solo-se-recicla-19-total-residuos-solidos-reaprovechables>
- Municipalidad de Miraflores. (June 15, 2020). Vuelve Programa Municipal Basura Que No Es Basura. Retrieved from Municipality of Miraflores: <https://www.miraflores.gob.pe/vuelve-programa-municipal-basura-que-no-es-basura/>
- Defensoría del Pueblo. (November 19, 2019). Informe Defensorial N° 181 - ¿Dónde va nuestra basura? Retrieved from <https://www.defensoria.gob.pe/wp-content/uploads/2019/11/PPT-Informe-Defensorial-181.pdf>
- Stakeholders Sostenibilidad. (February 9, 2018). Aumenta la contaminación por basura a nivel nacional. Retrieved from Stakeholders Sostenibilidad: <https://stakeholders.com.pe/noticias-sh/aumenta-la-contaminacion-por-basura-nivel-nacional/>
- Moncada, S. (November 23, 2018). La basura y el impacto en la salud de la población. Retrieved from Colegio Médico del Perú - Lima: <https://cmplima.org.pe/la-basura-y-el-impacto-en-la-salud-de-la-poblacion/>
- Ministerio de Salud. (August 20, 2019). La acumulación de residuos sólidos puede generar afectaciones a la salud de la población. Retrieved from Gob.pe: <https://www.gob.pe/institucion/minsa/noticias/49954-la-acumulacion-de-residuos-solidos-puede-generar-afectaciones-a-la-salud-de-la-poblacion>
- Defensoría del Pueblo. (May 18, 2020). Gestión de los residuos sólidos en el Perú en tiempos de pandemia por COVID-19: Recomendaciones para proteger los derechos a la salud y al ambiente. Lima, Peru. Retrieved from Defensoría del Pueblo: <https://estudiomuniz.pe/el-reciclaje-en-tiempos-de-pandemia/>
- Muers, S. (2018). Culture, Values and Public Policy - IPR Report. Bath, UK.
- Braininvestigations. (January 24, 2020). Qué es el sesgo cognitivo y por qué es importante en los negocios. Retrieved from Braininvestigations: <https://www.braininvestigations.com/neurociencia/sesgo-cognitivo-negocios/#:~:text=Un%20sesgo%20cognitivo%20es%20una,Kahneman%20y%20Tversky%20en%201972.>
- BehaviouralEconomics.com. (s.f.). Social Norm. Retrieved from BehaviouralEconomics.com: [https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/social-norm/#:~:text=Social%20norms%20signal%20appropriate%20behavior,norms%20\(Ariely%2C%202008\).](https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/social-norm/#:~:text=Social%20norms%20signal%20appropriate%20behavior,norms%20(Ariely%2C%202008).)
- The Decision Lab. (s.f.). Why do we focus on items or information that are more prominent and ignore those that are not? Retrieved from The Decision Lab: <https://thedecisionlab.com/biases/salience-bias/>
- Alza, C. (2011). Autorregulación. Apuntes Conceptuales. In Derecho & Sociedad - 36 (pp. 74 - 78). Lima, Peru.
- Comex Perú. (s.f.). El costo de la imagen institucional. Retrieved from Comex Perú: <https://semanariocomexperu.wordpress.com/el-costode-la-imagen-institucional/>





9. The Benefits of Composting to Adapting Soils and Mitigating Climate Change in the Municipality of Puerto Cortés

Jose Isaac Mendoza

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Honduras

Location

Municipal Landfill Sites, Aldea el Chile motorway sector.

Direct Beneficiaries

A family residing in the Aldea el Chile district, Municipality of Puerto Cortés

Indirect Beneficiaries

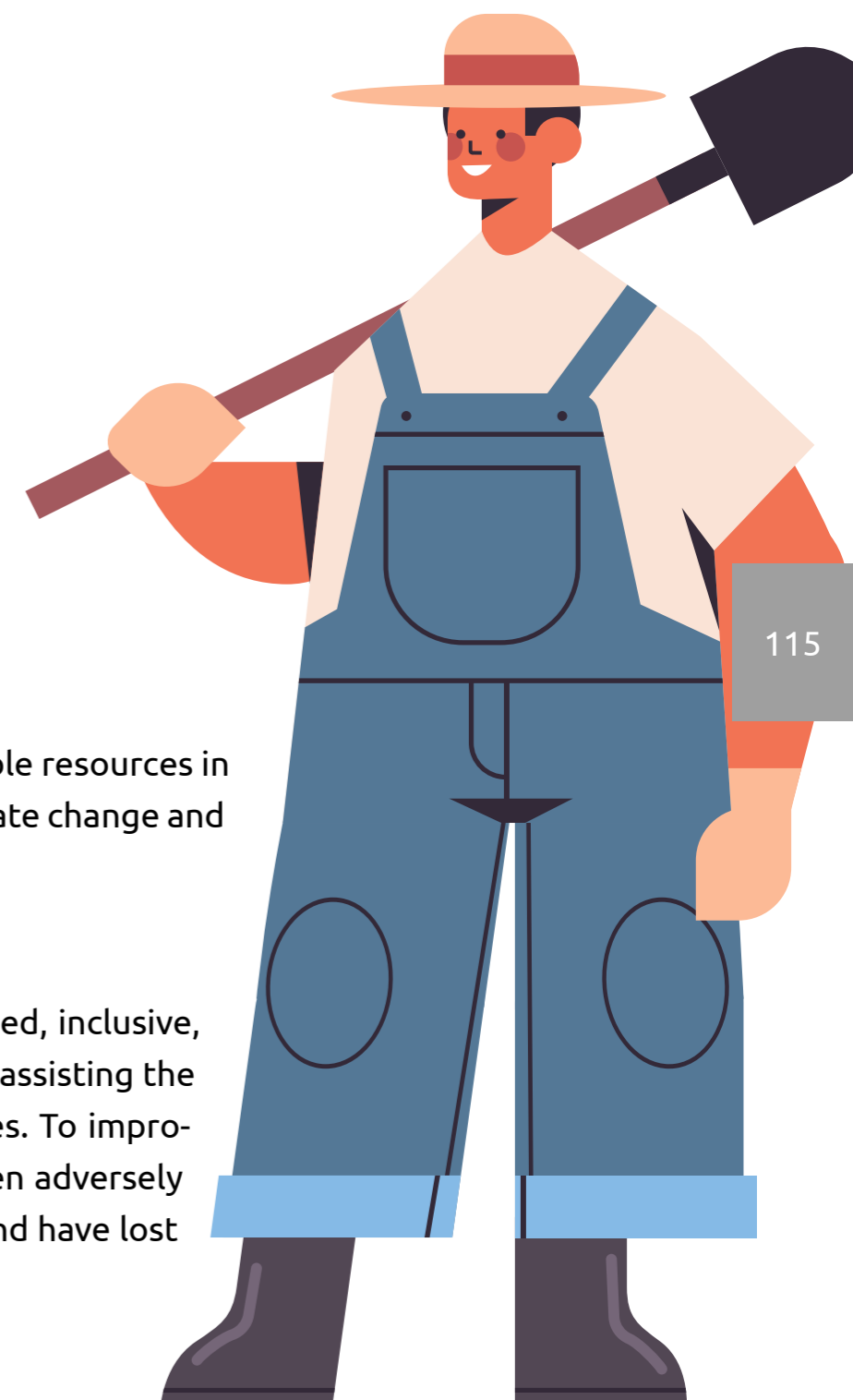
Families living in Aldea El Chile.

Overall Objective

To provide a livelihood to a family in the Municipality of Puerto Cortés by using existing recyclable resources in organic matter (compost), thereby promoting its benefits as a way to adapt to and mitigate climate change and to achieve social inclusion.

COMPONENTS

Economic: Work towards sustainable development goal (8), which refers to promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all, by assisting the production, management, sale, and use of specific by-products to grow and harvest vegetables. To improve living standards and food security for people whose lives and economic conditions have been adversely affected, especially for population groups that were already living in poverty and destitution and have lost their jobs (humanitarian crisis).



Environmental: To adopt urgent measures to combat climate change and its impacts — sustainable development goal (13). That requires the implementation of methodologies that adopt a sustainable approach and guarantee sustainability for present and future generations, paving the way for increased awareness and implementation of effective solid waste management in our municipality.

Health: To ensure healthy lives and promote well-being for all at all ages — sustainable development goal (3) — considering that the COVID-19 pandemic outbreak has hampered progress and put obstacles in the way of achieving that goal. Nonetheless, this will encourage the creation of new initiatives that will build confidence to protect what is most important in human beings (life) by promoting consumption of healthy foods like greens and vegetables.

Education and Technology: To train the people involved in the project, taking advantage of virtual media and, when appropriate, in-person training, adopting the biosafety measures and protocols set out by authorities

Start Date: November 2020.

Background

For many years, the Honduran population has seen an increase in poverty, and it has only worsened with the current COVID-19 pandemic. This has led to increased job insecurity, especially for temporary workers, whose economic security and income are not guaranteed.

The Municipality of Puerto Cortés has responded to the situation by implementing Economic Development Programs and introducing initiatives to overcome the situation,

The Honduran population has seen an increase in poverty, and it has only worsened with the current COVID-19 pandemic. This has led to increased job insecurity, especially for temporary workers, whose economic security and income are not guaranteed.





including measures that promote family entrepreneurship relying on inputs that are available in nature or that are produced by the city. To support the achievement of the Sustainable Development Goals, the country's National Vision and Plan, the regulatory goals aimed at promoting environmental care, the objectives to counter the impact of Climate Change, and the Municipal Development Plan Focusing on Territorial Planning in Puerto Cortés, the municipality of Puerto Cortés can use its existing Sanitary Landfill to provide the necessary inputs to support various projects.

The Sanitary Landfill was created in 2004 with an expected useful life of 20 years and with capacity for 866,909 tons. The land extension spans approximately 17.64 urban blocks, providing 1997.47 miles of perimeter.

The average daily amount of waste received is estimated at 100 tons, with 74% coming from households and 26% from industry. However, the area available to accommodate solid waste is only about 12.37 urban blocks in size.

This could provide an alternative for families that do not have a stable income, as the inputs are available and ready without any cost other than the work required.

Problem

LSolid waste has created a significant environmental impact leading to the destruction of natural resources due to pollution in air, water, soil, flora, and fauna, and affecting the health and environmental conditions in which life develops.



Nonetheless, the Municipality's Sanitary Landfill helps to ensure that pollution is concentrated in one place and that the impact on the population and the environment is minimal by applying specific treatment to it — and the impact can be further reduced.

Finally, the pandemic crisis has exacerbated employment instability, constituting a major challenge in the daily lives of families. They find themselves in a situation that reduces their purchasing power, preventing them from living a life of dignity, with access to health, food, housing, education, and basic services (energy and transport).

Justification

- Encouraging and promoting environmental education, enhancing knowledge about the current challenges in all areas.
- Adopting and promoting recycling as a way to reintegrate waste into the production cycle, environmental sanitation, and environmentally friendly habits.
- Adopting an integrated waste management approach, conforming to regulations, preventing pollution, and applying the Rs of Ecology (reducing, reusing, and recycling).
- There is a wide variety of alternative techniques and strategies, including dumps, incineration, composting, anaerobic digestion, mechanical biological treatment, pyrolysis, and gasification.

Overall, waste pickers represent the initial element in the recycling circuit.



Description of the Project

The project will consist in facilitating reuse of organic waste to Produce Compost and sell it by taking the following measures:

1. Organizing a training program, in conjunction with the Municipality of Puerto Cortés, for at least one member of a family selected for this purpose to teach them about the production of small-scale compost.
2. Acquiring products like compost and organic fertilizer to avoid using chemicals.
3. Using the compost produced for vegetable cultivation in family vegetable gardens.
4. Improving the effectiveness of waste sorting and selective waste collection of organic matter.
5. Raising awareness and creating a ripple effect on both the participant's own family and their neighbors to adopt that habit and minimize the issues associated with waste, ensuring waste sorting from the origin.
6. Raising awareness about the importance of reducing the waste that is poured into the Municipal Sanitary Landfill by using techniques like composting, as that will extend the useful life of the landfill and lead to savings in annual maintenance.

Resources

Available Resources:

- Land
- Raw materials
- Transport
- Labor



Resources to be purchased:

- Shed
- Boxes or containers for compost production
- Working Tools
- Personal Protection Equipment
- Biosafety Equipment
- Packaging Material (sacks)

Expected Outcome

Successfully training a family in solid waste management so they can produce compost and thus help to improve the useful life of the sanitary landfill. The aim is to promote a more dynamic economic integration, adapting the project to the socio-demographic conditions of each new location to ensure an effective dissemination of the project, including word of mouth, among residents of both urban and rural areas and thereby achieving replication in other municipalities.

Estimated Budget

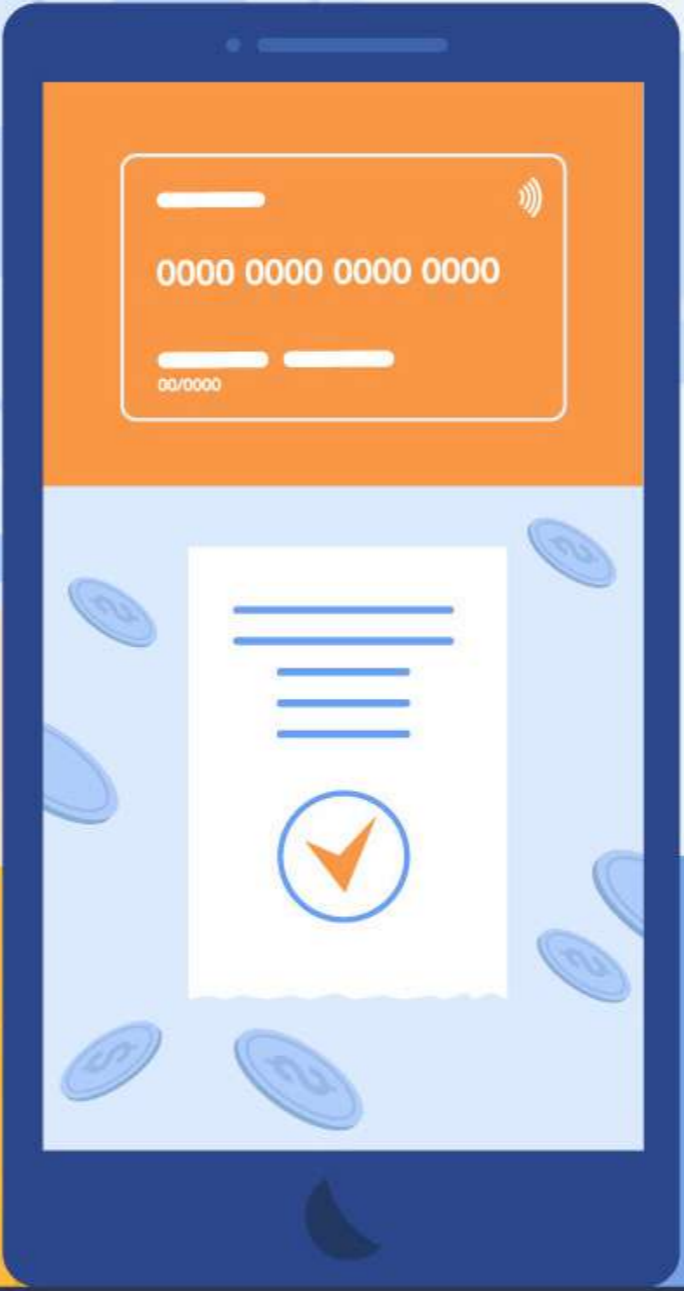
The budget will amount to about 10,000 lempiras.

Conclusion

A family trained in these activities will serve as an agent of change by strengthening their livelihood, promoting respect for the environment, and adapting to unexpected situations like the COVID-19 pandemic.







10. UseFull App

Danna Gabriela Paredes Zambrano

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Ecuador

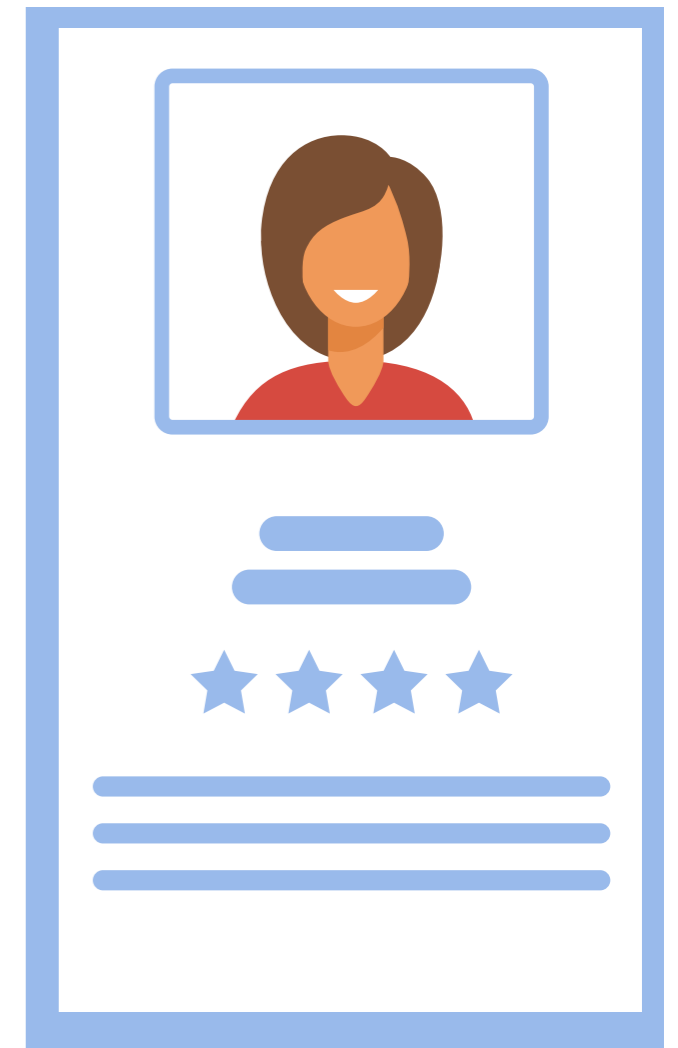
As a citizen of Ecuador, I have undertaken to address challenges associated with Economy and Trade as a result of the current global crisis caused by the pandemic. The impact it has had on this area is considerable. Specifically in my country, Ecuador, the economic impact has been devastating, with many citizens losing their jobs or shutting down their businesses because of the economic downturn. So far, government efforts to alleviate cost pressures for small businesses have failed to bring businesses back to what they used to be.

The development of this micro policy program has adopted the Design Thinking methodology, providing specific steps to accurately define the problem that will be addressed with the implementation of an innovative policy approach.

Stages:

1. Empathize

This stage involved a survey collecting relevant information on those affected by the problem. It revealed that the group that has been most affected are small businesses and small entrepreneurs. But this group includes a subgroup that has been particularly affected: women. Therefore, I decided to focus my proposed micro policy program on young women entrepreneurs from my city, Guayaquil.



“I decided to focus my proposed micro policy program on young women entrepreneurs from my city, Guayaquil”...



2. Define

A report was produced with key insights and a strategic approach. This means that I looked for key elements on which to focus my proposed policy program. I chose women as my target group, as most of the currently unemployed in Ecuador belong to this group. But how could I help women? I conducted virtual interviews with women who were looking for a job. They confirmed that the fact of being a woman was making it even more difficult to land a job due to a number of implicit beliefs. Women have thus decided to start their own business, but getting their business known out there has proven difficult. Some have tried social media, but that is not enough. In addition, many women want to start a business, but the financial factor has become a major obstacle.

3. Ideate

Ideas are generated through creativity workshops aimed at coming up with solutions that may meet the actual needs of those suffering from the specific problem. At this stage I decided to design the project that will allow me to help this specific group. Considering the data collected from the interviews, I decided to address the need to create a tool that will allow women to advertise their businesses.

4. Prototype

Inexpensive, scaled-down prototypes of the proposed idea were built to validate it and test for potential risks. At this stage, I decided to create a pilot application aimed at promoting entrepreneurship. But I included the necessary tools to find a solution to the problem specifically facing women. As mentioned above, a key challenge facing entrepreneurs is attracting the necessary capital, and I thus decided to get private businesses into the equation as a key element to achieve the objective. Private businesses could provide financial support by giving very small amounts (as much as they wish) to entrepreneurs through the app. If businesses do not wish to make financial contributions, they may support entrepreneurs through sponsorship, offering specific advertising actions.

5. Test

This stage involves testing the prototype of the solution (the micro policy program) with beneficiaries to examine whether the proposed ideas are feasible, practical, and desirable in the real context where they will be applied. viables, prácticas y deseables para el contexto en el que se trabaja.



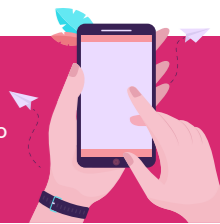
Problem Description

According to data published by INEC, by June 2020, nearly 1 million Ecuadorians were unemployed. Unfortunately, this group of unemployed people is mostly comprised by women. The income gap between women and men stood at 25% in December 2018. Furthermore, disparity between men and women is observed not only in unemployment, but also in entrepreneurship, employment, and management jobs.

According to data from Enemdu, the overall employment rate for women in Ecuador stands at 94%, and at 96.4% for men. The income gap between women and men stood at 25% in December 2018. Considering this and the data found in the process, I concluded that a major challenge facing my country is a serious lack of jobs, leading many citizens to try to start their own business. However, the process of starting a business presents major difficulties, and women face even greater difficulties in starting their own business due to cultural issues. Notably, the city of Guayaquil, where the micro-policy program will be implemented, is the city with the largest number of entrepreneurs in the country.

Descripción del usuario	Mujeres de 25 a 35 años desempleadas que buscan como opción emprender su propio negocio.
Necesidad del usuario	Mecanismos que impulsen y faciliten el emprendimiento de las mujeres.
Insight sorprendente	Por factores externos la mujer deja de ser contratada por las empresas o decide no trabajar para alguna. Motivo por el cual, la mujer busca otra manera de sobresalir en el ámbito laboral.

Source: Compiled by the author



The project is aimed at supporting entrepreneurship by building an easily accessible digital platform to offer female entrepreneurs in Guayaquil an opportunity to advertise their business and get new customers.



Overall Objective: To support entrepreneurship.

How?

- Women need tools to support their businesses and be able to achieve a high-level job, a fair and fixed salary, and work flexibility.
- Women often choose to start a business after facing the challenges of disparity between women and men in the employment sector.

Project Description:

The project is aimed at supporting entrepreneurship by building an easily accessible digital platform to offer female entrepreneurs in Guayaquil an opportunity to advertise their business and get new customers.

The prototype of the application is available in the following link: https://docs.google.com/presentation/d/1VRyWdgk-_XVDZswAv1y1S4jF17VX2OE-/edit#slide=id.p36
All the information on the proposal can be found on this link.

Nombre de la aplicación: **Usefull App**

Where will it come from?

The Municipality of Guayaquil will be responsible for supporting the development of an application offering services free of charge to support unemployed women aged 25 – 35 years to build up their businesses. The Municipality will be in charge of selecting the businesses that will participate in the app based on the economic vulnerability of candidates. The app will initially include 150 businesses from the region of Guayaquil. The distinctive feature of our app is that it will allow interaction among entrepreneurs, participation by private businesses, on a voluntary basis.

How does it work?

The app will involve three types of participants: customers, entrepreneurs, and businesses.

Prototype.

Website: <https://5db0c0d719854.site123.me/>

This is where entrepreneurs and businesses will register to become involved in the project. The Municipality will be in charge of choosing the entrepreneurs that will take part in the project. Businesses will only need to register, and they will automatically become part of the project.

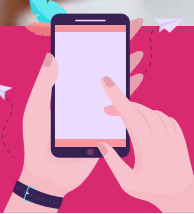
Customer Profile: A filtered search bar will be available to look for specific products or services. Users will be able to choose services based on: Nearby location and price comparison. Users will have the opportunity to contact entrepreneurs to negotiate specific prices. An option will be available to give “tips” — which will essentially be money donated to the service they have used.

Entrepreneur Profile: Entrepreneurs will move up the various levels as their customer base grows. A key benefit for entrepreneurs will be a “work experience” certificate signed by the Municipality of Guayaquil. Entrepreneurs will be featured in the app for at least five months and a maximum period of one year.

Businesses Profile: Businesses registered in the app will be showing commitment to social responsibility by supporting unemployed women. Donations and sponsorships considered to support entrepreneurship will be registered in the app. The app will feature levels for businesses as well, and they will move up the various levels as their contribution increases, receiving benefits including certificates of responsibility and discounts in language and education centers for employees. Also, businesses will get access to advice services provided free of charge by the Chamber of Commerce of Guayaquil.

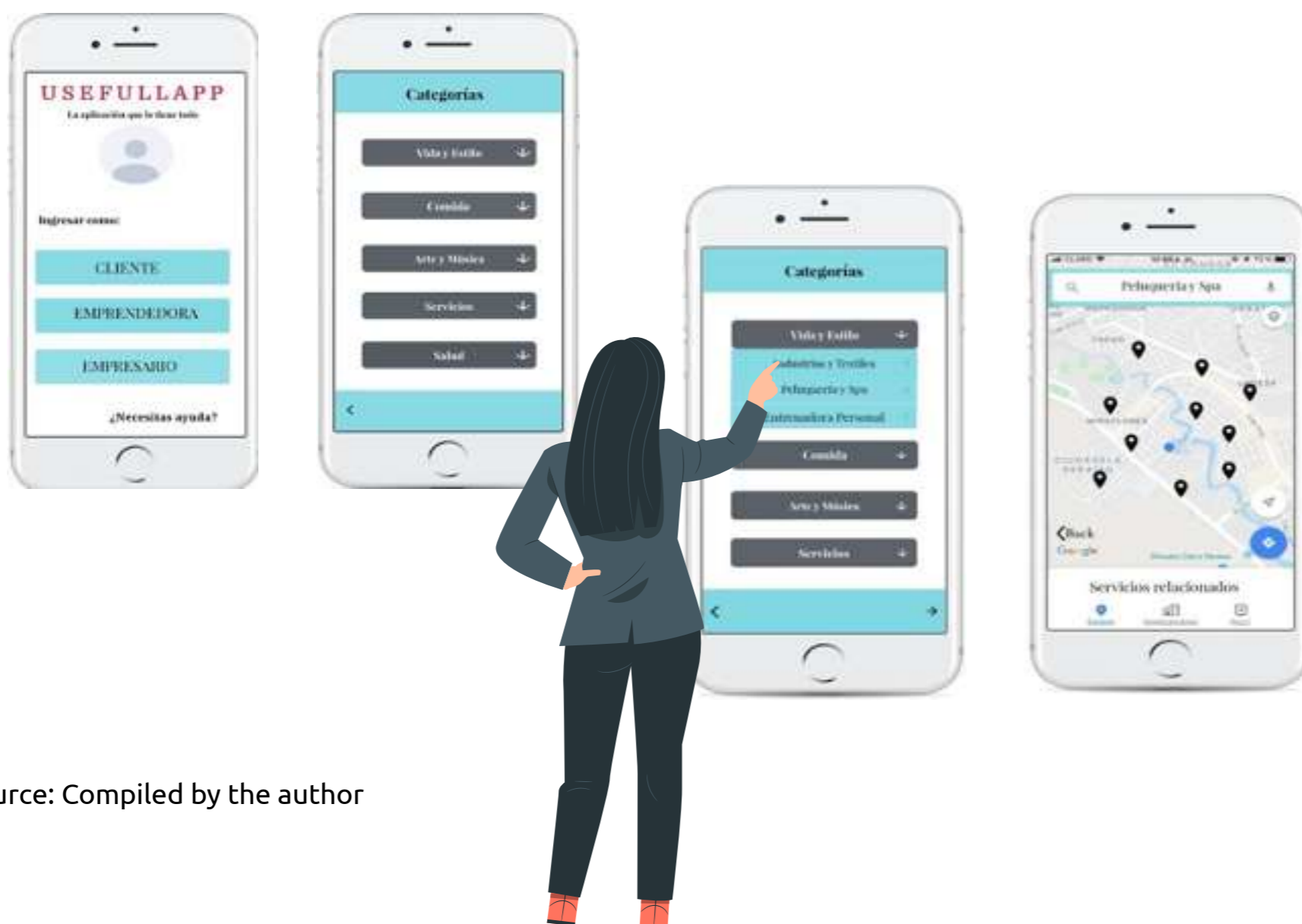


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Home page of the app:

This is where users will log in to the app. As mentioned above, entrepreneurs will be selected by government authorities. Once they have been chosen, they will be given a special code to get access to the app. Businesses will be able to register directly from the app or web site. Customer will be given free access. They will only need to enter their user data.



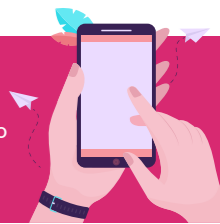
...“Customers and businesses will see this screen to learn about the business, showing the remaining days the business will be featured in the app.”...

Source: Compiled by the author

There are many female entrepreneurs in my city, and they are all very talented, so, to avoid confusions, the app will feature categories allowing users to search or browse without any difficulties. Also, the location of users will determine what businesses will appear in their searches. Depending on the product or service offered by each business, delivery and pick-up services will be available. I could consider the possibility of partnering with Uber or any other platform offering delivery services.



Customers and businesses will see this screen to learn about the business, showing the remaining days the business will be featured in the app. The aim is to set limit to the period they are featured in the app to allow room for participation by other businesses. They will also be able to see the financial goal the specific entrepreneur has set. The financial goal represents the amount of money they need to set their business in motion. Consider the example of an entrepreneur wishing to start her own spa. A “Support this Project” option will allow users to support the specific entrepreneur, and a “Share” button will enable users to share the information about the service in social media.



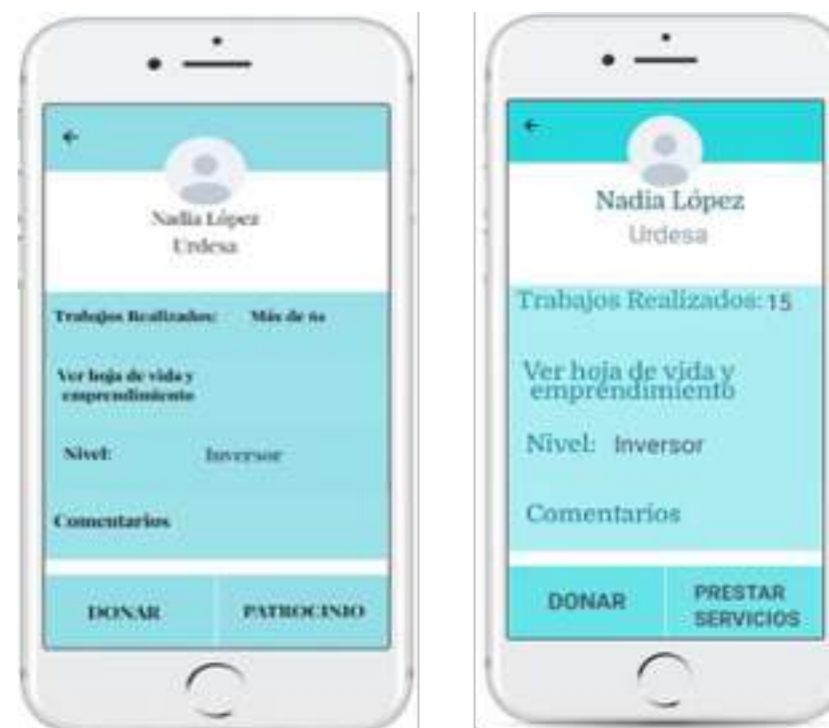
This view will be available for both businesses and customers. This is where they will be able to make donations.



The app will feature levels for entrepreneurs, but they will not be shown to users. They will only be shown to businesses when they wish to make a donation to a specific entrepreneur, enabling them to learn how successful the business is according to that level. Level 5 will be the maximum level for entrepreneurs. If the entrepreneur reaches level 5, or at least level 4, the business will be given the option to support the project.

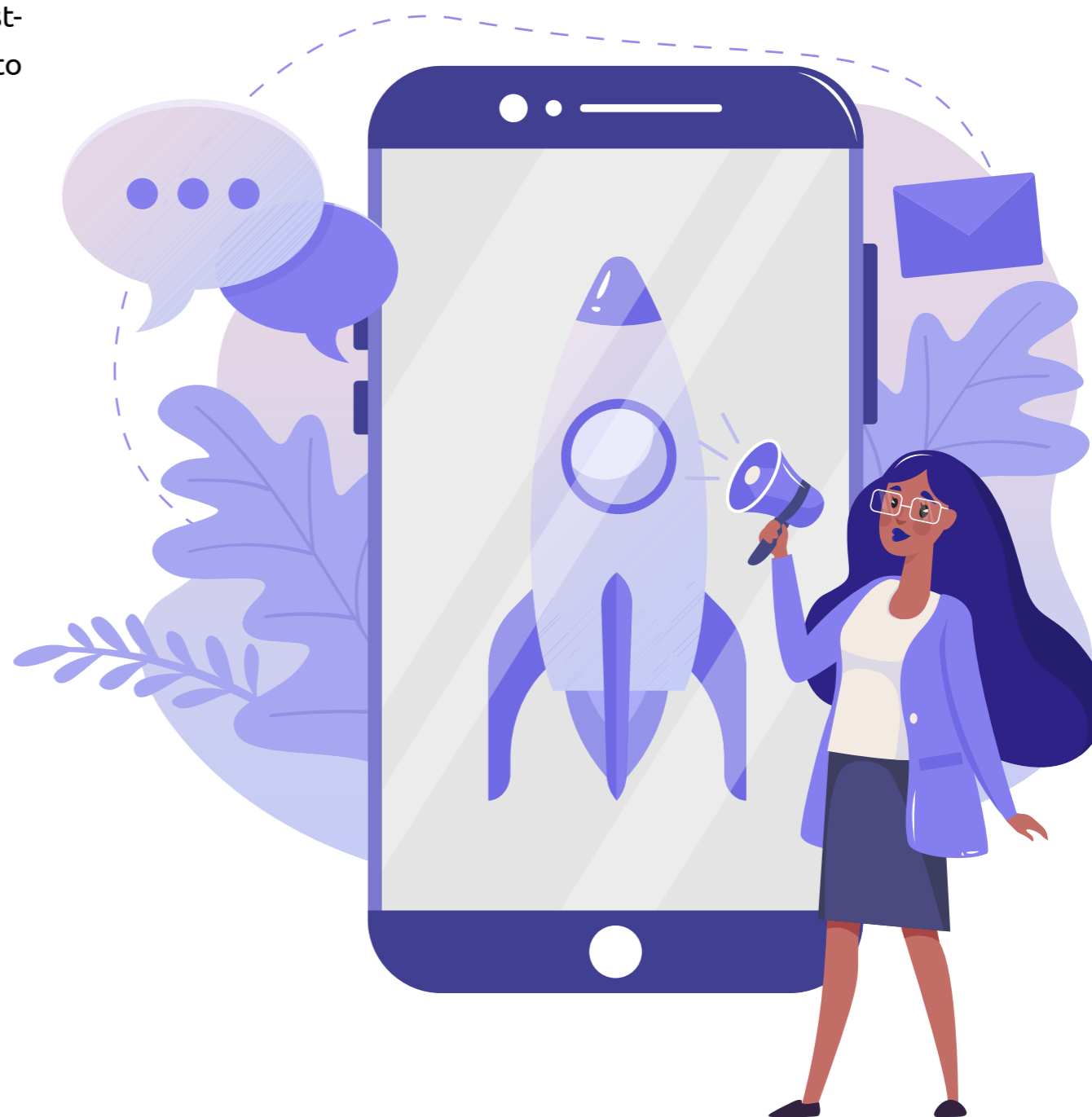
- Level 1: Self-employed
- Level 2: Manager
- Level 3: Leader
- Level 4: Investor
- Level 5: Entrepreneur

Businesses will see the following tabs, providing them access to information about the specific entrepreneur they will be supporting or offering sponsorship. The most notable feature in the business profile will be the “Sponsorship” option, allowing businesses to support entrepreneurs in different ways from financial donation. Sponsorship in media is a key element to ensure success for the startup business. That includes featuring advertising in local media, billboards, and recorded ads. Also, businesses will have the opportunity to support entrepreneurs by placing advertisements or the name of the business in key locations:



Funding

Developing the app will cost US \$3,000. One of the advantages of this kind of project is that it only involves such costs at the beginning of the project. Furthermore, the investment may be recovered if a minimal payment is charged to entrepreneurs when they sign up or receive any support.





11. Local Urban Vegetable Gardens

Gino Roco Osorio

ginorocc@gmail.com

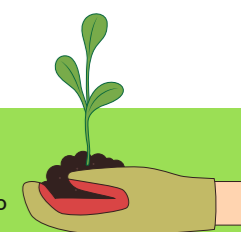
Chile

With each day the population grows, the deterioration of living conditions becomes more evident. This is particularly evident in relation to green spaces and healthy habits. Detrimental behaviors have become more widespread, leading to malnutrition due to excess and other related problems. Population growth undoubtedly remains a challenge for the various cross-disciplinary teams working in health care and well-being initiatives. But it is more so for projects dealing with prevention.

The pandemic may be offering us the opportunity to appreciate the true importance of initiatives like the one presented in this proposed project, whose aim is to provide people with tools that will enable them to develop new habits for the consumption of fruits and vegetables, reclaiming spaces that had been conquered by ultra-processed (junk) food. Considering that, and the aim of continuing to facilitate access to information and training tools, the present initiative is presented as a means to advance the concepts of green space and healthy habits. But this involves not only the perspective of consumption, but also the benefits of creating a green social environment, further strengthening the conditions that favor positive social development.

A study conducted by the University of East Anglia in the UK — involving 290 million people from 20 countries — found that green spaces reduce stress and mental fatigue, reduce irritability, increase self-esteem and self-control, promote the development of healthy habits, and brings benefits associated with sleep duration and improved concentration.

It is precisely in this regard that we aim to support the creation of spaces that will both improve the local urban landscape and sustainability within the territory and contribute to the promotion of good practices related with healthy habits, relying on the



principles of environmental sustainability and the development of tools and knowledge associated with natural processes.

To offer a more organized explanation and facilitate reference to the contents of this proposal, the information will be presented according to the following elements:

Program Structure: This includes the program objectives and the associated supporting lines, the stages and key activities, and the methodological approach and principles deriving from them.

Programmatic Approaches: The variables, dimensions, principles, and foundations that will guide the implementation of the program in the territory and will define the relationship with the specific characteristics of the family and their environment.

Activities: The actions that the various actors must undertake in relation to the implementation, supervision, and delivery of the technical assistance service, specifying the requirements and needs that must be met to achieve the goal.

Overall Objective of the Project

To develop and deliver tools that will enable people to improve both the availability of healthy foods and the social environment, allowing for self-provisioning through education and the creation of green spaces and for better possibilities to meet their food needs.

Focused Objective 1

- To improve the availability and diversity of healthy foods, promoting better quality of nutrition in families.

To develop and deliver tools that will enable people to improve both the availability of healthy foods and the social environment, allowing for self-provisioning through education and the creation of green spaces and for better possibilities to meet their food needs.





Focused Objective 2

- To develop and strengthen the skills and techniques that will help families to effectively participate in the self-provisioning initiative, promoting an efficient use of local resources.

Focused Objective 3

- To support local development and enhance knowledge, attitudes, and practices that will encourage the dissemination of healthy nutrition recommendations and lifestyles.
- Enable the development of a green space in the region, having a positive impact on families and providing effective alternatives to improve their quality of life.
- Enable the development and strengthening of social and family skills, promoting a better social environment and contributing to the implementation of initiatives in shared spaces to bring shared benefits.
- Enable the development of knowledge, attitudes, and practices related with nutrition recommendations and healthy lifestyles, providing families with better tools to make decisions about their self-provision and health.

Each of the project's focused objectives will be described in greater detail with the supporting lines that have been set to ensure their achievement.



Supporting Lines

1. Promoting the Development of a Green-Social Environment

This supporting line will be aimed at reclaiming physical spaces that have been poorly used and neglected and transforming them into spaces that can be used for social and environmental purposes, creating green spaces that will be highly valuable for the local population.

2. Food Management Capacity

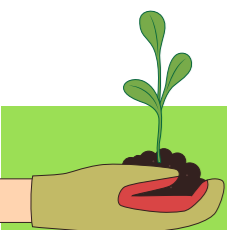
Esta línea apunta a implementar tecnologías que permitan a las familias capacitarse en la producción de alimentos, conocer técnicas de conservación de alimentos y preparación de recetas saludables.

3. Develop Skills to Manage Community Initiatives

This line will be aimed at strengthening the capacity of families to appreciate and use the environment and the resources created to promote and enhance community participation in urban gardens.

Stages of Implementation

The intervention process requires the adoption of a sequential logic designed to facilitate the fulfillment of the objectives.





1. Action Plan

This stage will involve a survey of the regions that will be enhanced, leading to the definition of the specific region and families that will participate in the project, and the products that will be produced in the urban gardens depending on their food preferences.

2. Implementation

In this stage, families will receive the necessary training and support to collectively use the technologies that will enable them to produce the specific healthy foods defined in the action plan, creating a green space under the self-sustaining production approach.

3. Implementation

At this stage, participating families will be trained to implement, organize, use, and maintain the technologies available to them. They will also have worked on the food recommendations by integrating the new tools that will enable them to develop and innovate in the production of the specific produce and the associated recipes.

- These stages will also enable us to enhance our knowledge about different technologies, perpetuating specific traditions and agricultural products with high nutritional value.
- Promote the use of public spaces and self-provision, bringing social, recreational, and educational activities to the local population.
- Foster community management of the gardens as a strategy that will ensure active participation by both users and local authorities.
- Support a dual purpose, both as a vegetable garden and as a green area.



Background

Considering the high urbanization rates and the lack of public spaces in Santiago, green areas are becoming increasingly important, not only as spaces for interaction with people and with nature — creating opportunities for better sociability, learning, recreation, and leisure — but also as spaces that will significantly improve development and dignity for families living in extremely small houses (for example, in the areas with large blocks of apartments and houses, where people often do not have adequate space or where space is simply used for other purposes).

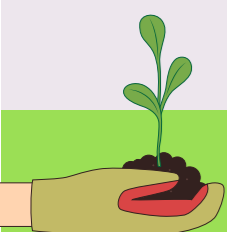
The need for green areas and the inadequate distribution of demographic growth in Gran Santiago are evident, and so are the social and ecological benefits of addressing them in the existing squares, parks, and green areas.

That will bring a number of environmental benefits that will be relevant for the city — including the reduction of city temperature, carbon sequestration, improved air quality, reduced noise, and flood control. Ecologically, creating areas of larger size will allow for a greater diversity and wealth of plant species, as well as the creation of biological corridors that will accommodate a greater diversity of fauna. Larger areas will also be conducive to planting native trees and shrubs, contributing to the proliferation of fauna and the conservation of local biodiversity.

Considering these elements, the aim is to develop and promote two key lines of action that are related to each other and support the fulfilment of human rights: one will support the Right to adequate food, and the other will support the objective of reclaiming and developing green areas, thereby contributing to a more equal urban development



The need for green areas and the inadequate distribution of demographic growth in Gran Santiago are evident, and so are the social and ecological benefits of addressing them in the existing squares, parks, and green areas.



Food Systems

Food Systems are defined as a set of elements, activities, and actors that together make it possible to produce, transform, distribute, and consume food.

Considering this definition, we can see that such systems are limited and increasingly reduced in terms of the environmental conditions and natural resources, but they have a direct impact on food production and, thus, on the effectiveness in meeting the demand for food.

That is why value chains are defined as the set of transformations, transactions, and interactions that take place within a food system, with activities ranging from natural resources management to primary production and even consumption and food waste management.

Considering the components that make up food systems in relation with value chains, we can see that the proper functioning of such a system will ultimately have an impact on the availability, variety, and accessibility of food for consumption.

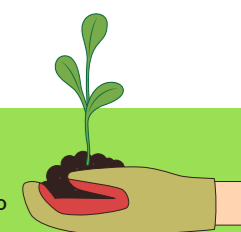
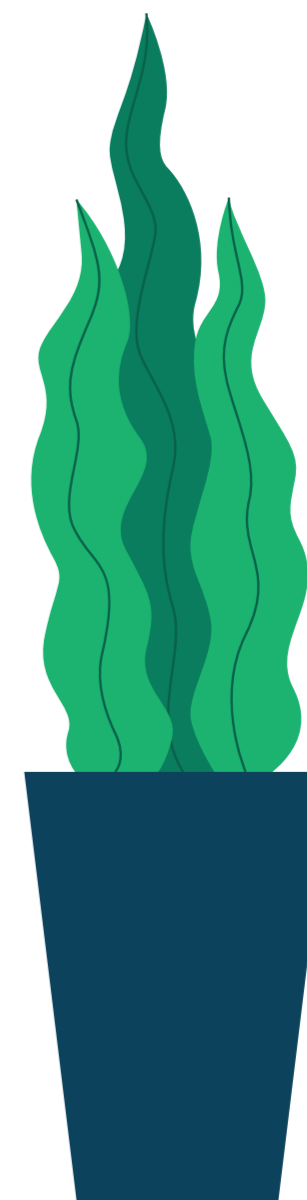
Food Security

Understanding this concept requires considerations from the point of view of:

Access: Allowing at all times physical and economic access to safe and nutritious foods to enable people to enjoy healthy and active lives. This will be supported by the produce grown in the urban garden and the engagement of people with it.

Availability: Enabling participants and their communities to get access to a sufficient variety of safe and quality foods. This will be supported by the areas where produce will be grown.

Use of urban gardens: Selecting and preparing safe foods to ensure nutritional well-being and meet the minimum food needs of the population. This is related with the availability of drinking water, access to the garden, and knowledge about the produce grown.



Stability: the general concept of stability in a population assumes that households and people have stability in access, availability, and use of adequate foods at all times. This is related with the circular economy and the sustainability of the produce selected for self-provision.

Considering these elements, as well as the aim of ensuring that the production of food by families is sustainable over time, relying on their own means and with minimum support from others, the following objectives must be considered:

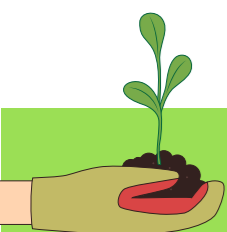
- Producing nutrient rich foods.
- Promoting, disseminating, and enhancing biological cycles.
- Maintaining and improving the fertility of soils over time.
- Maintaining a diversity of products to meet both people's preferences and the environmental needs.
- Enabling families to meet their basic food needs and take advantage of their natural environment as a green area.
- Including the social and ecological impact of the urban garden in consideration about the value chain.



Urban Gardens

Vegetable gardens are open spaces that can support a wide range of objectives, including:

- The self-consumption production objective: It is the traditional *raison d'être* of vegetable gardens.
- The environmental and urban development objective: Vegetable gardens may contribute to enhancing the ecological, cultural, and landscape values and benefits of public spaces, especially in peri-urban areas.
- The social development objective: Vegetable gardens may contribute to social cohesion by enabling educational, recreational, and therapeutic activities — which largely explain the renewed social interest in these kinds of spaces.



- The health improvement objective: Vegetable gardens have numerous beneficial effects on people's well-being in terms of health and food
- The cultural development objective: The horticultural tradition is part of the popular culture, the lifestyle, and the personality of each place.
- The aesthetic improvement objective: Despite the formal diversity of vegetable gardens in different cultures, they generally represent a benchmark of variety, wealth, and harmony, and they play a significant role in the collective imagination of urban societies.

We propose the creation of different kinds of gardens to better serve the various purposes outlined in this project and to provide a more significant connotation as green spaces.

Peri-urban gardens: These are unoccupied spaces that have been left without real use with urban growth. They can be used for joint purposes with projects including parks or playgrounds, for example, contributing to a better community, social, family, and work environment. Such partnerships around the gardens would also support local trade channels (CLC).

Gardens at home and on balconies: These are small-scale agricultural spaces that contribute to self-consumption and leisure, and they also serve an educational purpose in the household.

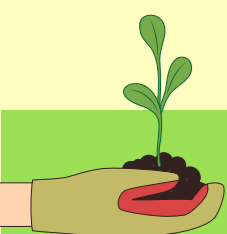


Therapeutic and social integration gardens: These gardens are aimed at supporting therapeutic processes associated with specific medical and social problems — detoxification from addictive substances, reintegration of people with social difficulties, and physical and psychological treatments.

Community gardens: These gardens provide opportunities for citizens to give a different meaning to those spaces, transforming the landscape around their living environment by turning them into spaces for leisure, agriculture, etc. Since it is citizens themselves who will decide the purpose of the specific space in their environment, a sense of responsibility to the space is created, encouraging people to meet with others and develop relationships within the community.

Reflexión final

Urban gardens may not be an initiative that will end pollution or transform the food industry, but it clearly has the distinctive feature of representing a scalable project, as it promotes awareness about community management from a social perspective and contributes significantly to the harmonious development of a community. Thus, the benefits for government, understood as a process in which all stakeholders participate, will be critical to achieving the objectives set forth, meeting the expectations created, including social, landscape, urban, environmental, and educational policies, and ensuring their sustainability over time.



PROPUESTA VALORLORIZADA CONTRUCCIÓN HUERTO URBANO

PROPUESTA DE TECNOLOGÍAS

N° TECNOLOGÍA	TECNOLOGÍA	AMBITO	Iniciativa	N° TECNOLOGÍA	TECNOLOGÍA	AMBITO	Iniciativa
T 1 :	Invernadero	Sistema de Cultivo	Cultivar	T 6 :	Aboneras	Fertilización de Cultivo	Cultivar
T 2 :	Riego Tecnificado	Disponibilidad de Agua	Cultivar	T 7 :	Sistemas de Acumulación de Agua	Disponibilidad de Agua	Cultivar
T 3 :	Adquisición de Semillas	Manejo de Semillas - Reproducción	Cultivar	T 8 :			
T 4 :	Adquisición de Almácigos	Manejo de Semillas - Reproducción	Cultivar	T 9 :			
T 5 :	Fertilizantes Orgánicos	Fertilización de Cultivo	Cultivar	T 10 :			

T1 Invernadero							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Materiales_de_Construcción	3. Polin de 4" x 3,2 mts. Impregnado		23	Unidad/es	\$ 2.690	\$	61.870
Materiales_de_Construcción	3. Madera 2" x 3" x 3,2 mts		38	Unidad/es	\$ 2.340	\$	88.920
Materiales_de_Construcción	3. Madera 1" x 2" x 3,2 mts		43	Unidad/es	\$ 770	\$	33.110
Materiales_de_Construcción	3. Madera 1" x 4" x 3,2 mts	Tabla cepillada	72	Unidad/es	\$ 720	\$	51.840
Materiales_de_Construcción	3. Tubo de PVC 40 mm x 6 mts		11	Unidad/es	\$ 5.140	\$	56.540
Materiales_de_Construcción	3. Clavos de 3"		8	Unidad/es	\$ 1.840	\$	14.720
Materiales_de_Construcción	3. Clavos de 4"		5	Unidad/es	\$ 2.460	\$	12.300
Materiales_de_Construcción	3. Otros. Materiales de Construcción no especificado en la lista	Codo PVC 40 mm - 45°	10	Unidad/es	\$ 500	\$	5.000
Materiales_de_Construcción	3. Abrazaderas		20	Unidad/es	\$ 310	\$	6.200
Materiales_de_Construcción	3. Biogras	3"	6	Unidad/es	\$ 1.990	\$	11.940
Materiales_de_Construcción	3. Biogras	2"	16	Unidad/es	\$ 1.290	\$	20.640
Materiales_de_Construcción	3. Picaporte		2	Unidad/es	\$ 2.000	\$	4.000
Materiales_de_Construcción	3. Polietileno Filtro UV 0,20 mm.		25	Kilogramo/s	\$ 4.200	\$	105.000
Materiales_de_Construcción	3. Polietileno Negro de 0,15 mm.		9	Kilogramo/s	\$ 1.100	\$	9.900
SUBTOTAL TECNOLOGÍA						\$	481.980

T2 Riego Tecnificado							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Materiales_de_Construcción	3. Goteros Tipo Botón	Set 25 unidades	6	Unidad/es	\$ 3.390	\$	20.340
Materiales_de_Construcción	3. Cañería Polietileno Planza 1/2"	Rollo 50 metros.	2	Unidad/es	\$ 8.990	\$	17.980
Materiales_de_Construcción	3. TEE de Polietileno Planza 1/2"		12	Unidad/es	\$ 240	\$	2.880
Materiales_de_Construcción	3. Codo de Polietileno Planza 1/2"		12	Unidad/es	\$ 180	\$	2.160
Materiales_de_Construcción	3. Miniválvulas		3	Unidad/es	\$ 990	\$	2.970
Materiales_de_Construcción	3. Abrazaderas	Manguera 1/2"	20	Unidad/es	\$ 300	\$	6.000
Materiales_de_Construcción	3. Llave Jardín 1/2"		1	Unidad/es	\$ 4.650	\$	4.650
Maquinarias_Herramientas	1. Otros. Maquinaria y/o Herramientas no Especificada en la Lista	Programador de Riego	1	Unidad/es	\$ 49.900	\$	49.900
SUBTOTAL TECNOLOGÍA						\$	106.880

T3 Adquisición de Semillas							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Adquisiciones_Silvoagropecuarias	4. Semilla de Acelga		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Lechuga		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Cilantro		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Rábano		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Pimentón		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Ciboulette		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Espinaca		2	Sobre/s	\$ 1.000	\$	2.000
Adquisiciones_Silvoagropecuarias	4. Semilla de Perejil		2	Sobre/s	\$ 1.000	\$	2.000
SUBTOTAL TECNOLOGÍA						\$	16.000

T4 Adquisición de Almácigos							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Adquisiciones_Silvoagropecuarias	4. Almácigos	Lechugas	30	Unidad/es	\$ 85	\$	2.550
Adquisiciones_Silvoagropecuarias	4. Almácigos	Acelgas	30	Unidad/es	\$ 85	\$	2.550
Adquisiciones_Silvoagropecuarias	4. Almácigos	Rabanitos	30	Unidad/es	\$ 85	\$	2.550
Adquisiciones_Silvoagropecuarias	4. Almácigos	Betarragas	30	Unidad/es	\$ 85	\$	2.550
SUBTOTAL TECNOLOGÍA						\$	10.200

T5 Fertilizantes Orgánicos							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Materiales_Primas_e_Insumos	2. Compost Saco 40 kg		40	Unidad/es	\$ 3.290	\$	131.600
SUBTOTAL TECNOLOGÍA						\$	131.600





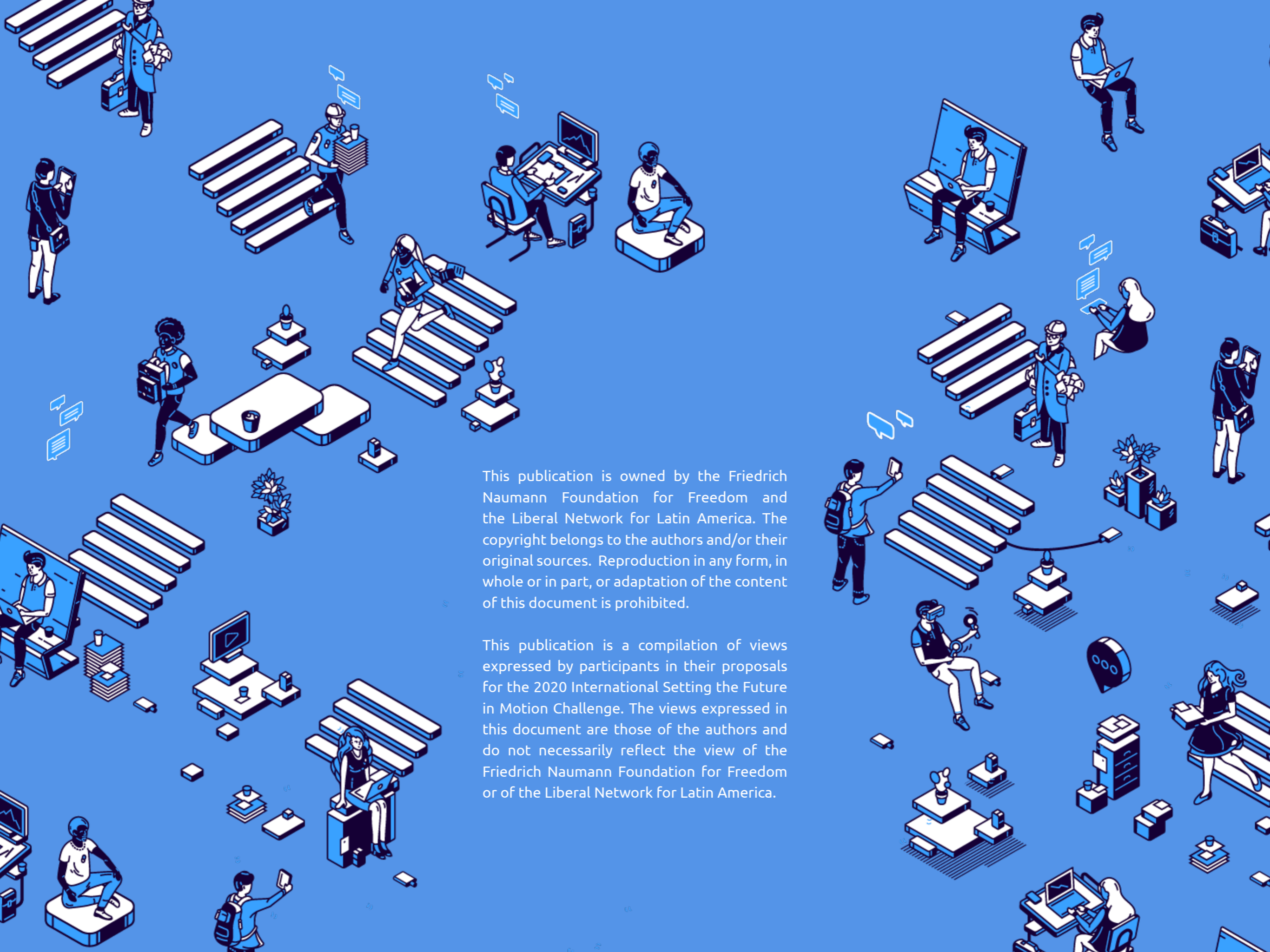
T6 Aboneras							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Maquinarias_Herramientas	1. Otros. Maquinaria y/o Herramientas no Especificada en la Lista	Compostera plástica negra 85x45x80 cm. (Sodima)	1	Unidad/es	\$ 49,900	\$	49,900
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
SUBTOTAL TECNOLOGÍA						\$	49,900
I / Sistemas de Acumulación de Agua							
ITEM	MATERIALES Y/O INSUMOS	ESPECIFICACIONES	CANTIDAD	UNIDAD DE MEDIDA	COSTO UNITARIO	SUBTOTAL	
Materiales_de_Construcción	3. Tambor de Plástico 200 ls.		1	Unidad/es	\$ 20,000	\$	20,000
Materiales_de_Construcción	3. Ulevo Jardín 1/2"		1	Unidad/es	\$ 4,650	\$	4,650
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
					\$ -	\$	-
SUBTOTAL TECNOLOGÍA						\$	24,650
TOTAL COSTO TECNOLOGÍAS					\$	821,210	

Annex: While the cost plan is based on field cultivation using the greenhouse technology, there other technologies — referred to in the types of gardens — that could be adopted and adapted to different communities if the initiative is scaled up.



“Latin American Liberals rose to the challenge: 51 project proposals were delivered in this call. All these projects reflect the real concern of their authors to get involved in the search for solutions to overcome the different challenges that their countries face due to the current crisis. Our foundation values this commitment. It represents the spirit that we seek to support and promote with our work...”







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