

## Project Proposal:

# Development and Implementation of NEXUS Safe Infrastructure Company (NESICO) in Mexico and Puerto Rico

The social enterprise WECONNEX is a specialist for sustainable business model development and project management. The company was founded in 2015 and is based in Switzerland. The founders have developed the NEXUS Concept which is currently in operation in Nepal, Madagascar and Cambodia.

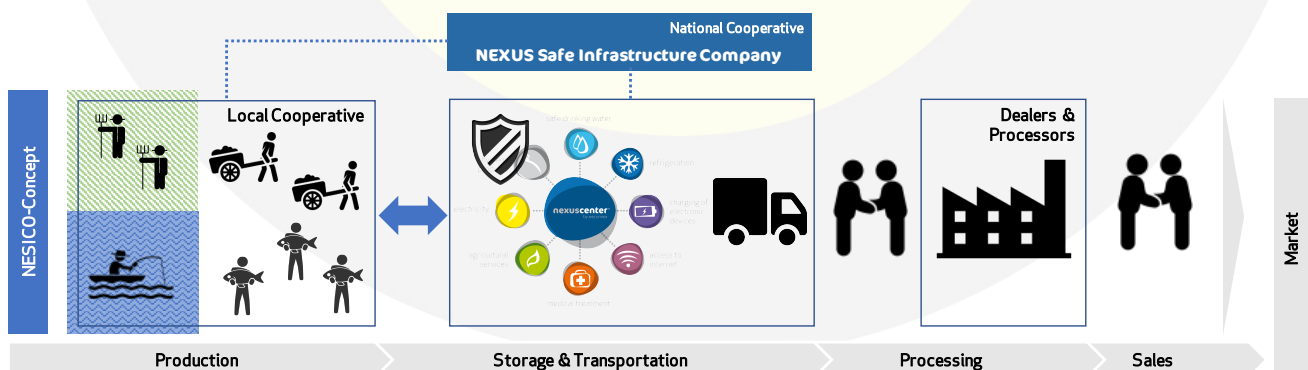
With this proposal, WECONNEX is introducing a business model for disaster risk reduction (DRR) and to develop remote farmer and fisher villages in Mexico and Puerto Rico.

### Building resilient infrastructure for smallholder farmers and fishermen

The NEXUS Safe Infrastructure Company (NESICO) establishes resilient NEXUS Centers in farming and fishing villages and operates it with employees. The centers provide access to modern technologies and services for smallholder farmers and fishermen, but also to disaster proof infrastructure for the community like clean drinking water, renewable energy, communication, sanitation, first aid, shelter and storage. These centers will help to ensure the economic development of the community by transferring knowledge and training to the farmers and fishermen, but also by deploying technology and coordinating market access. The concept follows strictly a holistic perspective and takes into account social, ecological and economical aspects. This will allow disaster preparedness, leverage the living conditions and manage the natural resources sustainably while protecting the environment. Even though the concept focusses primarily on Disaster Risk Reduction (DRR), it shall be economically as viable as possible and offer attractive conditions for philanthropic and/or impact investors. The project combines aid efforts with sustainable development.

### Sustainable development of the Base of Pyramid market with an innovative business model

The NESICO company maintains the infrastructure, trains the farmers and fishermen, secures sustainable, efficient and safe production and will eventually buy the products from the producers to sell them in bulk to local, national and international customers. This allows to integrate the value chain and share future profits between investors and producers. The accumulation of volume and the increase of value of the products allows NESICO to generate significantly higher prices on the market. The margin is used to refinance the infrastructure.



### State of the art infrastructure in a packaged solution

The key element of the project is the technology deployment of state of the art solutions to the target area. The technologies range from water treatment, cold chain, water pumping to irrigation technologies, harvesting solutions, storage facilities, processing, packaging systems and energy generation. But also indirectly connected hardware like ICT equipment, office installations, buildings and mobility solutions are part of this holistic perspective.

With the technological foundations in place, the main task is to incentivize wide-scale adoption of best practice at field and policy levels. The best practices for farmers range from sustainable irrigation techniques to the introduction of high quality seeds, crop diversification, organic fertilizers, modern processing and storage equipment etc. For the fishermen, the focus lies on developing a cold chain, introducing sustainable fishing policies and fish stock monitoring and control mechanisms. Impacts to the social fabric of the community and environmental aspects have to be in constant consideration throughout the project. An entrepreneurial based education concept of producers but also other stakeholders is an essential part of the approach.

### **Disaster Risk Reduction**

The technologies used within the NESICO project will be specifically designed to suit a risky environment. In places prone to e.g. Hurricanes, the building is heavy and offers little surface areas for strong winds, the energy system (solar, wind turbines etc.) is removable, the water source is secured against flooding, the toilet facilities can be secured etc. The center has features which are helpful after a natural disaster like satellite communication, cold storage for basic supply of medication, first aid kits, drones for video assessment etc. Shelters are being used for storage places for food and other important goods. During normal times, the NEXUS Center is a place for trading, training and exchange of information for the whole community. The economical operation of the infrastructure ensures functionality at all times.

### **The project creates benefits for all involved parties:**

- Fishermen/Farmer: Are equipped and empowered to sustainably produce a higher quality and diversity of products. The various technologies and knowledge transfers plus the coordinated market access allow higher prices than before.
- Merchants/Dealers: Benefit from a higher quality, sustainable production and reliable quantities.
- Communities: Benefit from a modern and resilient infrastructure, which allows to access basic services for fair prices. The business model ensures the long-term operation and modular scalability of the installation. Training on resilient construction techniques and economic development will add to the impact for the community.
- NGOs: Strengthen the project as a consultant and play a key role in working with locals. The concept allows to enforce and control the rules for sustainable fisheries and production of agriculture goods.

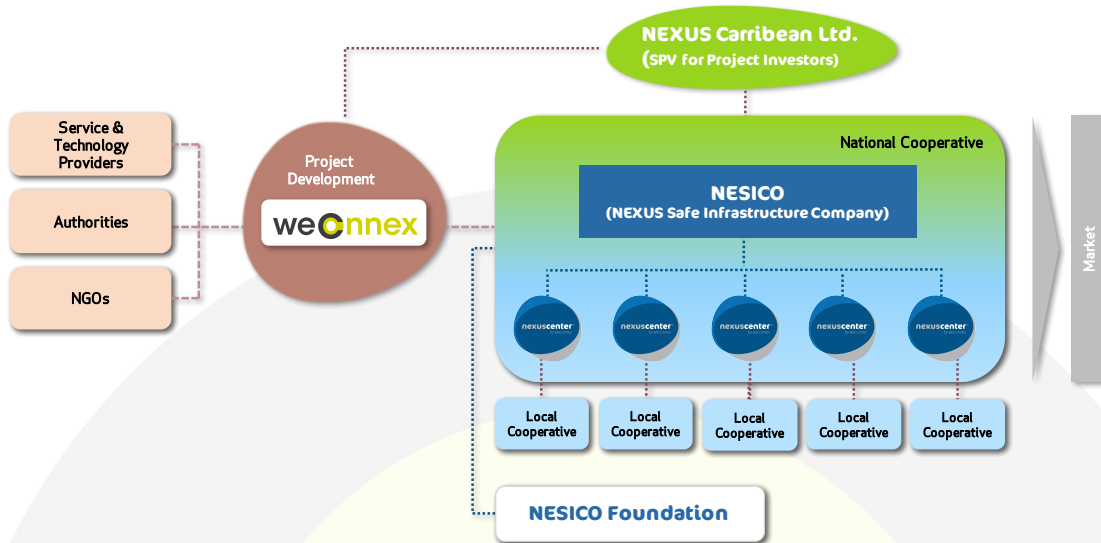
### **Ecological, Economic and Social improvements**

The project not only transfers funds and technologies but also a lot of knowledge and entrepreneurial spirit to the region. The project improves people's living conditions directly and sustainably and has a positive impact on the environment.

- ✓ Social effects: The project creates local jobs, increases income and improves people's health. Disaster resilient infrastructure allows a higher security during and after natural disasters. Women empowerment is a core element in the NESICO policy.
- ✓ Economic effects: Disaster preparedness reduces costs in the long-term. The investment in infrastructure will pay back with savings on first aid activities. In addition, the economic development allows to sustain at least partially the investments.
- ✓ Ecological effects: Compliance with state of the art procedures for sustainable farming and fishing and their enforcement via market mechanisms will reduce carbon emissions and ensure a responsible use of natural resources. Disaster resilient construction work reduces negative ecological impact during and after a natural disaster.

### **Cooperative structure creates the right incentives**

The NEXUS Safe Infrastructure Company is co-owned by NEXUS Caribbean Ltd. (majority) and the local cooperatives (minority). This ensures that investments and potential profits are distributed fairly. The investments flow into NESICO which sets up and supervises the infrastructure as well as the operations on site.



## Project Schedule

	February	March	April	May	June	July	August
<b>Timeline</b>	Feasibility Study & Businessplan		Technical Layout / Legal Framework / MoU		Pilot	Revised Businessplan	
<b>Tasks</b>	Define Locations Hire Project Coordinator Interview with target groups Check legal Setup & Partnerships Define Products and Services		Sourcing for technology Partners and components		Start Pilot Units	Testphase	
		Aggregate Data Businessplan		Finalize legal structure and financial architecture			Review and finalize BP
<b>Deliverables</b>		Feasibility Study Stage 1	Businessplan Stage 2		MoU Stage 3	Operation Stage 4	New Businessplan

## Roles & Responsibilities:

- WECONNEX Ltd., Switzerland:** WECONNEX plans and executes the necessary steps to reach the described goals and deliverables. The team of WECONNEX will be responsible for the coordination and timely execution of the project. WECONNEX will be a founding partner of NEXUS Caribbean Ltd., and will regularly visit the project area to ensure an efficient project management.
- AQUARITAS, USA:** The American Company (AQ) supports the project development locally. AQ is helping with the fundraising for the project and will be a founding partner of NEXUS Caribbean Ltd. AQ also helps to coordinate the project with various stakeholders.
- Local Project Coordinator, Mexico/Puerto Rico:** WECONNEX and AQ recruit a local expert (Local Project Coordinator) who coordinates the activities in Mexico and Puerto Rico in close collaboration with WECONNEX' team in Switzerland. The position will be responsible to liaise with the local stakeholder / key-partners and to execute the necessary activities. This position shall become the General Manager of NESICO once established.
- Legal Counsel, Caribbean / USA / Switzerland:** The evaluation and preparation of the legal organisational form / structure for the project shall be evaluated and prepared by an external expert.

## Budget:

We connected the budget planning to different deliverables. The following stages are planned:

<b>Stage 1&amp;2</b>		<b>2 Months</b>
Project Development WECONNEX Switzerland	27'000	100% Project Coordinator (Caribbean) and 100% WECONNEX Staff* costs Execution of Feasibility Study
Project Participation WECONNEX	-2'700	10%
Project Coordination AQUARITAS	22'000	Support during Feasibility Study
Travel Expenses WECONNEX	10'000	2 Trips to Mexico / Puerto Rico
Travel Expenses AQUARITAS	10'000	Expenses
<b>Total Stage 1</b>	<b>66'300</b>	<b>USD</b>
<b>Stage 3</b>		<b>2 Months</b>
Project Development WECONNEX Switzerland	27'000	100% Project Coordinator (Caribbean) and 100% WECONNEX Staff costs
Project Participation WECONNEX	-2'700	10%
Project Coordination AQUARITAS	22'000	Coordination of different stakeholders
Travel Expenses WECONNEX	5'000	1 Trip to Mexico / Puerto Rico
Legal Consulting	20'000	To develop legal framework
<b>Total Stage 2</b>	<b>71'300</b>	<b>USD</b>
<b>Stage 4</b>		<b>1 Month</b>
Project Development WECONNEX Switzerland	13'500	100% Project Coordinator (Caribbean) and 100% WECONNEX Staff costs
Project Participation WECONNEX	-1'350	10%
Project Coordination AQUARITAS	11'000	Installation of technology and training of operators
2 Pilot Stations @ NEXUS Center, Water Treatment, Power Generation, Communication, Cold Chain, Irrigation	200'000**	400'000
Travel Expenses WECONNEX	5'000	1 Trip to Mexico / Puerto Rico
<b>Total Stage 3</b>	<b>428'150</b>	<b>USD</b>
<b>Stage 5</b>		<b>2 Months</b>
Project Development WECONNEX Switzerland	27'000	100% Project Coordinator (Caribbean) and 100% WECONNEX Staff costs
Project Participation WECONNEX	-2'700	10%
Project Coordination AQUARITAS	22'000	Coordination of different stakeholders
Travel Expenses WECONNEX	10'000	2 Trips to Mexico / Puerto Rico
Travel Expenses AQUARITAS	10'000	Expenses
<b>Total Stage 4</b>	<b>66'300</b>	<b>USD</b>
<b>Total Stage 1, 2, 3, 4 &amp; 5</b>	<b>632'050</b>	<b>USD</b>

\*Based on costs of 500 USD per day for Swiss staff, 2'500 USD per month for Caribbean staff, 22 days per month

\*\*Subject of confirmation during feasibility study