



# Challenges and Opportunities for Organizations Dedicated to Environmental Conservation: An Ideal Normative Vision

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## Abstract

There is no doubt that global environmental challenges demand a strategic response from various public and private actors, non-governmental organizations, international organizations, and citizens. The article proposes an organizational structure under a normative approach for institutions concerned and dedicated to environmental conservation. It is based on a diagnosis of various organizations in Mexico and internationally with the purpose of identifying structures, processes and good practices that allow defining desired parameters in the ideal conservation organization. To define the proposal, Marc Giget's Tree of Competencies is used, which supports the products, capacities, and competencies of the ideal conservation organization. It concludes with the identification of a series of key factors for the success of conservation.

## Subject Areas

Sustainable Development, Managing Protected Areas, Ecosystem Sustainability

## Keywords

Environmental Conservation, Conservation Organizations, Environmental NGOs

## 1. Introduction

Climate change, loss of biodiversity, over-use of natural resources and environmental and health issues are global environmental challenges clear examples. Without a doubt, these challenges are critically linked to issues of poverty and the sustainability of ecosystems. Its approach at the global level requires efforts

such as the United Nations Sustainable Development Goals for 2030. To work towards the United Nations Sustainable Development Goals and address the complex relationships between poverty and ecosystem sustainability, governments, businesses, non-governmental organizations, and citizens need to reimagine or reinvent their structures, approaches, and operating models.

With these premises, the article seeks to propose a regulatory framework that allows organizations of a public, private or non-governmental nature to address these challenges. For this normative visualization, the Tree of Competences is used, schematically representing the knowledge, capacities, and aspirational results that any environmental organization concerned with the conservation of ecosystems must propose as part of its mission. For this, an analysis of the organizational and operational frameworks of local, national, and international Conservation and Social Development Foundations is carried out with the purpose of identifying success factors that are a benchmark in the Conservation and Development of Communities in protected areas.

## 2. Methodology

The research is developed following a methodological process that starts first from a comparative analysis of various Conservation and Community Development Organizations. To continue with a proposal for a regulatory model of a Conservation Organization from the perspective of the Tree of Competencies.

The comparative analysis of organizations seeks to make a diagnosis that identifies the organizational structures, their operating models, plans and programs and success factors. For which a series of parameters were defined that allow observing the object of study under the same optics. The parameters studied within each organization are shown in **Table 1** and were grouped into 3 categories: general data, strategic focus and governance; analyzing information on their mission, the type of organization they are, their main sources of financing, the area of influence in which they operate, the type of activities they carry out, the type of ecosystems in which they operate, the time of operation and the key partners you have. Based on this information, key factors for success are

**Table 1.** Parameters for the comparative analysis of organizations by category.

1. General data	2. Strategic approach	3. Governance and management
Organization name's	Strategic approach	Organizational structure
Birthplace	Key projects	Governance
Geographic scope	Ecosystems where it operates	Departmentalization
Organization type	Targeted Species	Centralization/decentralization
General description	Population in which it impacts	Key positions
		Funding sources
		Financing amounts

Source: Own elaboration.

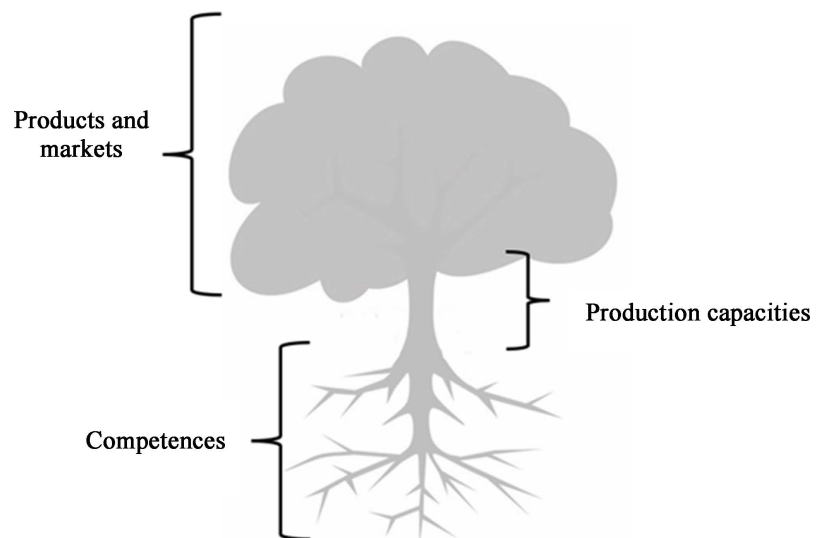
identified and a pooling of shared factors and differentiating factors is presented.

Regional, national, and international environment organizations were observed with this perspective. These organizations have programs for the preservation of the environment, cultural heritage and/or community development. The sample of organizations was chosen based on the spatial scale within which they operate, the line of business they have, and the type of activities they implement. One regional organization, two national organizations and five international organizations were defined. The selected organizations have operations at the regional, national, and international levels. Within the type of organizations, a for-profit company was included that has initiatives to support productive projects to not only cover sustainable initiatives, but also have examples of environmentally friendly projects that are sustainable.

Most of these organizations have been recognized and/or accredited as civil society organizations either by the United Nations Environment Program (UN) or by the International Union for Conservation of Nature (IUCN). The sample is made up of the following organizations: Pronatura Noreste, Grupo Ecológico Sierra Gorda, TOKS-Grupo Restaurantero Gigante (GRG), The Nature Conservancy, Forest Stewardship Council, Conservation International Foundation, Leonardo DiCaprio Foundation and David Suzuki Foundation.

On the other hand, the closure of the investigation is developed through a Tree of Competences, which will help the collective visualization of the capacities, aptitudes, and abilities of the Foundation. The competency tree is a tool originated in Japan in the 1980s by Marc Giget. It allows evaluating the technological, industrial, and commercial qualities of an organization [1], and making a diagnosis, generating a comprehensive understanding of the context.

Regarding its structure, as shown in **Figure 1**, the tree seeks to represent the organization, without reducing it only to its products and markets. Thus, the



Source: [2].

**Figure 1.** Competences tree.

roots are the skills or knowledge and values of the organization. The trunk represents the capacities, that is, the processes, resources and systems that support the productive activity of the organization. And the branches represent the products. The name of the method is due to its graphic representation: a tree [2].

### 3. Results

Before you begin to format your paper, first write and save the content as a separate text file. Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper.

#### 3.1. Profile of the Organizations Studied

Below is a summary of the selected organizations covering their mission, the type of organization they are, their main sources of funding, the area of influence in which they operate, the type of activities they carry out, the type of ecosystems in which that it operates, the time of operation and the key partners it has. Based on this information, key factors for success are identified and a pooling of shared factors and differentiating factors is presented.

The comparative analysis includes the following organizations: Pronatura Noreste, Grupo Ecológico Sierra Gorda, TOKS GRG, The Nature Conservancy, Forest Stewardship Council, Conservation International Foundation, Leonardo DiCaprio Foundation, and David Suzuki Foundation. **Table 2** summarizes the name of the national organization, its origin, scope, the type of organization, its focus, key projects, and financing channels. While **Table 3** summarizes this information for international organizations.

##### 3.1.1. Pronatura Noreste

Pronatura Noreste is a Mexican non-profit civil association established in 1998 whose mission is “to conserve the priority ecosystems of the Mexican northeast by promoting the development of society in harmony with nature” [3]. Pronatura Noreste is a division of the Pronatura System which has a national and international scope (Birdlife International). Pronatura Noreste is one of the six regional and autonomous chapters of said system. The main eco-regions they serve are in the Sierra Madre Occidental, Sierra Madre Oriental, the Chihuahuan Desert, the Tamaulipas scrub, and the Laguna Madre wetlands. Its main actions [4] in northeastern Mexico consist of developing environmental management plans and managing networks of ecological reserves such as: the Pozas Azules Reserve, the Cueva de la Boca, the Palomo in Chihuahua, the sparrows in Coahuila, among others (they have 310,000 hectares of priority land for conservation). They have a network of local, regional, national, and international conservation partners (USFWS, National Audubon Society, American Bird Conservancy, The Nature Conservancy, Desert Fishes Council, Fundación Coca Cola, Grupo Alfa, CEMEX, Femsa, etc.) with whom they have managed to implement

**Table 2.** Comparative analysis of national organizations.

Organization	Pronatura Noreste	Toks GRG	Grupo Ecológico Sierra Gorda
Birthplace	1988, Mexico	1971, Mexico	1987, Mexico
Geographic scope	Northeast Zone	Center - Bajio	Center - Bajio
Organization type	Non-Governmental Organization	Private company	Private assistance institution
General description	Mexican association focused on the northeast area that serves as a scientific institution focused on the preservation of the environment.	Private company with a corporate social responsibility department that influences productive projects in marginalized communities.	Mexican non-profit organization that focuses on protecting the Sierra Gorda natural area in Querétaro.
Strategic approach	Environmental Protection	Community development/Support of productive projects	Environmental Protection/Community Development
Key projects	Protection of grasslands in the Chihuahua Desert, activities in the Laguna Madre to protect wetlands, sustainable livestock programs and awareness-raising efforts for citizens and companies. One of the largest reforestation programs in the world in conjunction with Coca Cola.	Mazahuas productive projects to produce granola and mole. Productive projects of women from the Sierra de Guanajuato to produce jam. Sierra Morena chocolate purchases from Oaxacan women and honey from the Amuzga Natives.	Sierra Gorda Land Center, National meeting of educators in management of Sierra Gorda, Projects to support communities for sustainable development.
Funding sources	Donations from large corporations, donations from the public, government stipends and the Food & Wine Festival.	Private, derives from its own operations.	Contributions from companies, alliances, sale of carbon bonds, tourism companies and an annual membership program.

Source: Own elaboration.

more than 300 projects [5].

With the Coca Cola Foundation, they have managed one of the largest reforestation programs in the world with 11 million trees. In addition, they are registered within the National Registry of Scientific and Technological Institutions and Companies in Mexico, for which they are also considered a scientific institution that has among its members researchers, lawyers and specialists in community development and environmental education.

They are a non-profit, non-governmental organization that began as part of the Pronatura system. Its financing is via donations from large corporations, the Pronatura Food & Wine festival, government programs (development banking and support from the public. Within its 2017 annual report it is possible to observe that its income during the 2017 financial year is made up of around 90% (35.5 million pesos) in donations for conservation and restoration projects while 5% (2 million pesos) come from general donations 89% of its expenses are destined to projects while the remaining 11% to the operation of the organization. It is currently operating in Chihuahua, Coahuila, Nuevo León, Tamaulipas, Durango, San Luis Potosí, and Zacatecas [5]. Among its main programs are Chihuahua Desert and Sierra Madre, Tamaulipas Ecoregion and Wetlands, Sustainable

**Table 3.** Comparative analysis of international organizations.

<b>Organization</b>	<b>The Nature Conservancy</b>	<b>Forest Stewardship Council</b>	<b>Conservation International Foundation</b>	<b>Leonardo DiCaprio Foundation</b>	<b>David Suzuki Foundation</b>
Birthplace	1951, U.S.A.	U.S.A.	1987, U.S.A.	1998, U.S.A.	1990, Canada
Geographic scope	International	International	International	International	National, Boreal Forest & Salish Sea
Organization type	Non-Governmental Organization	Non-Governmental Organization	Non-Governmental Organization	Non-Governmental Organization	Non-profit organization
General description	International organization with multiple agenda that focuses on environmental protection, remediation activities and community development.	International organization that promotes the sustainable management of forests.	International organization focused on the protection of ecosystems, biodiversity, and human well-being.	LDF implements solutions that help restore the balance of threatened ecosystems, ensuring the long-term health and well-being of all the inhabitants of the Earth.	Seeks to empower people to act within their communities and, based on scientific evidence, face environmental challenges collectively.
Strategic approach	Environmental Protection/Community Development	Environmental Protection	Mainly environmental protection	Works in collaboration with local projects in different locations around the world.	Protect biodiversity and the well-being of all living organisms, in the present and for the future.
Key projects	Villas with model homes for the protection of the environment, attention to watersheds, Forest conservation programs, Protection programs for coral reefs, the development of investment strategies, pushing agendas focused on nature and people.	Certifications on forest and pest management.	Carbon funds and environmental zone conservation program.	Protect key species: sharks in California, tigers in Asia, elephants in Africa, and calling on world leaders addressing the global climate crisis. Their work is divided into six main program areas: Wilderness Conservation, Ocean Conservation, Climate Change, Indigenous Rights, California Transformation, and Innovative Solutions	Its main lines of action are related to climate change, biodiversity, environmental rights, the oceans, solutions for cities, and the protection of endangered animal species, they work with marine resources and aquaculture, coastal protection, use of pesticides, among others.
Funding sources	Donations from organizations and the public, financial gains from investments, government contracts, rents, and private rights to properties they own.	Annual fees, donations, and certifications.	Foundations, investments, individuals, corporations, public and other income.	Donations, public campaigns, and media initiatives.	Individual donors, foundations, businesses and employee groups and fundraising events.

Source: Own elaboration.

Livestock, Water and Climate Change, and Citizen Science and Social Responsibility.

### **3.1.2. Toks Grupo Restaurantero Gigante**

Toks is a national restaurant chain that was part of Grupo Restaurantero Gigante and has more than 50 years in Mexico and 208 restaurants throughout the country. Although it is a for-profit company, it has a Corporate Social Responsibility (CSR) department that promotes productive projects in indigenous communities. As a company, they show quality to their clients using various certifications [6]. For example, it is a company that has the distinctive H that endorses it as a company that serves hygienic food. Within the CSR area, in addition to their development activities, they made an alliance with the academic institution CESSA with which they maintain constant training programs for their personnel. With respect to their activities related to environmental protection and community development, they call themselves a “humane” company that has joined the UN global pact promoting a better quality of life for Mexicans. In various sources of information and interviews with the media, they have mentioned that 8% of their inputs come from productive projects. It has around 25 programs that impact around 50 communities, of which 8 are directly related to food [7]. It encourages the acquisition of products that support native people: Mazahua granola, Mazahua mole, jam produced by women from Guanajuato, Oaxaca chocolate, and Amuzaga honey.

It is a private company that incorporates social elements into its operation and promotes projects with a social impact. The financing of its operations comes from the sale of its products and simultaneously supports initiatives that are not only environmentally sustainable, but also seek to be economically sustainable. Although they have a national reach with their branches, the main initiatives they support are in Oaxaca, Guanajuato, Guerrero, Michoacán, and the State of Mexico. As mentioned above, among the activities it carries out are direct purchases from indigenous groups. Within their corporate social responsibility scheme, they have gone through assistance, support for productive projects, a focus on volunteering and trying to mitigate their environmental footprint by implementing best practices to avoid climate change. Currently, their area of social responsibility, according to their director, is divided into productive projects, assistance, volunteering, and education [7]. Among its main programs is support for programs and the acquisition of the following products: Mazahua Granola and Doña Yolanda Mole, Santa Rosa Jam, Sierra Morena Chocolate and Amuzga honey.

### **3.1.3. Grupo Ecológico Sierra Gorda**

Is a private assistance institution founded in 1987 that, in partnership with the National Commission for Protected Natural Areas, managed to have the Sierra Gorda Biosphere declared the most eco-diverse protected natural area in Mexico. It had a social origin, through which the community together with other or-

ganizations forged a network to defend the ecosystems and species within the reserve. The mission of the association is “to conserve natural wealth, generating development opportunities for the owners of the land and replicate learning in other areas of Mexico through the union of citizen and institutional, national and international efforts” [8]. They seek to form a sustainable culture with new civic values and develop capacities to build a conservation economy. They organize, train, and accompany community groups to adopt best practices and strengthen social entrepreneurship, since their activities include conservation and sustainable production work with the communities, as well as offering training in the form of courses and workshops to those who manage natural areas. Its financing comes from its sponsors and strategic partners. Among the sponsors are companies, government agencies, development banks, foundations and other non-governmental organizations that act as partners. He leads the protection of the Sierra Gorda Biosphere Reserve in Querétaro, Mexico.

They are a private assistance institution that has a social origin. Its main financing is via contributions from companies and alliances with various partners, it also has other forms of income such as the sale of carbon credits, tourism companies and an annual membership program for the public. Only 4.7% of its total resources have been allocated to administrative and management expenses [9]. Its lines of work are training and environmental education, solid waste management, fund management, defense of the territory, influencing public policies, and promoting a conservation economy in the region. Although they have these activities, which include conservation and sustainable production work in the Sierra Gorda, they also have the following two projects: Sierra Gorda Land Center and Sierra Gorda National Meeting of Educators in Holistic Management.

#### **3.1.4. The Nature Conservancy**

The Nature Conservancy is a global organization that since 1951 has worked to protect the ecosystem on which life depends. They focus on land management and protection of water resources in both cities and rural communities. As can be seen on its website, its main actions are focused on combating climate change, protecting the ecosystem, providing food security and access to fresh water, contributing to the proper development of cities, and connecting people with nature. As well as working with various actors, they also carry out a wide range of activities focused on protecting the environment. They work with businesses, policymakers, and communities to develop solutions that benefit both the environment and economic development. In addition, they carry out research together with their key partners (universities, research centers and other environmental protection organizations) to provide hard data for decision-making based on scientific evidence. They have activities in more than 72 countries and in 50 states in the USA with a staff of 3600. They mention that one of their main challenges is to understand how to meet the needs of a growing population in an environmentally friendly way [10].



They are a non-profit, non-governmental organization that began as the Ecological Society of America. Their funding is primarily via contributions (from organizations and the public), in-kind donations, financial returns from their investments, government grants and contracts, as well as rents and rights derived from the properties they own for conservation. 22% is destined to finance its operations and almost 50% of its resources is destined to activities related to conservation [11]. They divide their operations into eight regions: Africa, Asia and the Pacific, Canada, the Caribbean, Europe, India, Latin America, and the United States of America [12].

### **3.1.5. Forest Stewardship Council (FSC)**

Is a non-profit, non-governmental organization that sets standards for responsible forest management. This organization works to protect forests and the people who depend on them by protecting species of flora and fauna, the rights of indigenous peoples, the safety of forest workers, among others. Its mission is “to promote environmentally responsible, socially beneficial and economically prosperous management of the world’s forests” [13]. The FSC has a forest certification standard which is a system supported by groups such as WWF, Sierra Club, Greenpeace, the Natural Resources Defense Council, and the National Wildlife Federation. Today, more than 380 million acres of forest have this certification. It has various means of financing such as annual fees, donations, and others such as certification programs. It has a global presence in 84 countries and has 195 million hectares protected.

It is a non-profit, non-governmental organization that receives 77% of its funding in annual management fees, 3% in donations, and 20% from other concepts [14]. It has a global presence, with a certified area in 84 countries, distributed as follows: 47.7% in Europe, 35.7% in North America, 7% in South America and the Caribbean, 4.5% in Asia, 3.7% in Africa and 1.4% in Oceania. They work to achieve their objectives through the certification of forest managers and producers. FSC does not certify directly but does so with associated certifiers that it evaluates and whom it allows to use its brand. Although the natural areas are managed by companies, organizations or individuals that represent various projects, the FSC influences these natural areas by verifying that they comply with the determined standards, it has the following two certifications: Forest Management Certification and Chain Certification of custody [15].

### **3.1.6. Conservation International Foundation**

Conservation International is an organization founded in 1987 that has 32 years of experience and focuses on a wide range of issues related to ecosystems, biodiversity, and human well-being around the world. It works across science, policy, and partnerships with countries, communities, and businesses. It employs almost 1000 people and works with more than 2000 partners in 30 countries. Over the years, it has collaborated to support 1200 protected areas with interventions in 77 countries, protecting more than 601 million hectares of terrestrial, marine,

and coastal areas [16]. They work on conservation of ecosystems, empowerment of communities, promotion of sustainable production, advice for public policies influencing decisions on the health of the oceans, wildlife trafficking, conservation of forests, freshwater resources and plus.

It is a non-profit, non-governmental organization that is funded primarily through contributions from the public. Its funding is distributed as follows: 31% Individuals, 26% from other foundations, 17% from own investments, 15% from donations from corporations, 10% from public funding, NGOs, and multilaterals, and the remaining 1% from others [17]. They have an international presence, mainly in the Amazon, the Greater Mekong region, Indonesia, the Pacific Ocean, and Sub-Saharan Africa. They have projects in which they work with companies, governments, and communities around ecosystems such as oceans and forests, some prominent examples are detailed below: Carbon Fund [18] and Conservation Stewards Program [19].

### **3.1.7. Leonardo DiCaprio Foundation (LDF)**

It is a foundation established in 1998 by Leonardo DiCaprio in California with the mission of protecting the last places with wildlife in the world. LDF implements solutions that help restore the balance of threatened ecosystems, ensuring the long-term health and well-being of all the inhabitants of the Earth [20]. Leonardo's website and social media platforms are also dedicated to inspiring the public to act on key environmental issues. With a reach from just 500,000 followers in 2007 to more than 50 million today, Leonardo fans have become involved in a series of issues to protect key species: sharks in California, tigers in Asia, elephants in Africa, and calling on world leaders addressing the global climate crisis. LDF works in collaboration with local projects in different locations around the world, supporting them with financing.

LDF has gradually built a significant giving operation, awarding more than \$80 million in grants since 2010, funding more than 200 high-impact projects in 50 countries across Asia, the Americas, Africa, the Arctic, Antarctica, and all five oceans. Through active collaboration with a vast network of environmental leaders and experts, effective organizations and committed philanthropists, the foundation can find and support the best results-oriented projects in the world's wildest and most threatened ecosystems. Their work is divided into six main program areas: Wilderness Conservation, Ocean Conservation, Climate Change, Indigenous Rights, California Transformation, and Innovative Solutions.

### **3.1.8. David Suzuki Foundation**

It is a Canadian non-profit organization that was founded in 1990 and has the mission “to protect biodiversity and the well-being of all living organisms, in the present and for the future” [21]. The Suzuki One Nature Foundation is a nationwide organization located in Canada. It is headquartered in Vancouver and has offices in Montreal and Toronto. They have operations throughout the country and some of the areas they serve are the Boreal Forest and the Salish Sea

among others. Its main lines of action are related to climate change, biodiversity, environmental rights, the oceans, solutions for cities, and the protection of endangered animal species, they work with marine resources and aquaculture, coastal protection, use of pesticides, among others. They collaborate with other non-governmental organizations, with the community, with government at various levels, and with private industry.

They are a non-profit, non-governmental organization that began as a think-tank organized by David Suzuki in British Columbia. They seek to empower people to act within their communities and, based on scientific evidence, face environmental challenges collectively. Its funding comes from more than 40,000 donors, including individuals, foundations, and companies. Among its main programs are Climate Solutions, Biodiversity, Environmental Rights, Oceans, and Cities.

### 3.2. Key Success Factors

A set of good practices are identified within the organizations studied, which have been structured into three broad categories: relations with stakeholders, knowledge and development of operations based on science, and the development and implementation of good management practices. These findings are shown below.

#### 3.2.1. Stakeholder Relations

- Charisma favors the work of organizations, having a widely accepted image strengthens financing structures, networking, and connection with communities. This charisma is sustained in different ways, including supporting emblematic species, seeking, and documenting social benefits and effective communication, among others.
- The relationship with the inhabitants of the natural areas defines the success of the projects, being actively involved and seeking their development favors the sustainability of the ecosystems.
- The influence in the design of public policies. The most important organizations are consulted for the modification of the policies and participate actively to ensure that the policies are the most appropriate for sustainable development.
- Cooperation and networking between organizations is natural and necessary, several of the international organizations have relationships with each other or with others such as WWF. Sharing resources and efforts allows you to maximize results. An example of this is Pronatura Noreste which has partnerships with Birdlife International.

#### 3.2.2. Knowledge and Development of Operations Based on Science

- The presence of experts and specialists. The actions implemented by international organizations are part of plans based on strategic studies resulting from the presence of experts and specialists in ecosystem management tasks.

Which is possible to observe in Pronatura Noreste, The Nature Conservancy, Conservation International and Forest Stewardship Council.

- Scientific production. In most cases, the strong presence of scientists who, in addition to generating scientific research, help generate tools to measure impact and involve the public through educational and conservation programs. Some of these tools can be found in international organizations such as Conservation International and The Nature Conservancy.

### **3.2.3. Relations Development and Implementation of Good Management Practices**

- Clearly defined governance and decision-making structures. For the most important organizations, there are well-defined decision-making and governance structures that work together and with stakeholders in mind.
- Professionalization of human talent. Having a well-defined organizational structure that has trained elements for each task and that these are duly specified allows efforts to be directed more efficiently to achieve the objectives.
- Financing. Ongoing funding and fundraising programs that run annually and go beyond grants and donations.
- The administration of natural areas is a multidisciplinary task. As an example, “Alianza por la Sierra Gorda” is a group of organizations with different vocations but that cooperate for the management of the Sierra Gorda Biosphere Reserve. They are led by the Sierra Gorda Ecological Group, but the specific functions such as the care of the core areas, tourist activities or forestry activities are managed specifically by each of the associations. It is possible to identify that in organizations such as Conservation International and The Nature Conservancy they have multidisciplinary teams of scientists, lawyers, public policy experts and administrators.
- The generation of value. All successful projects seek as a priority to generate economic value of the interventions, some finance part of the project itself and others are income that stays within the beneficiary communities, but the resources must be used to generate more value and not to projects that only consume them. For example, the Forest Stewardship Council, which seeks to promote environmentally responsible, socially beneficial, and economically prosperous management of the world's forests.
- Clear communication of results. Not all organizations clearly present the results of their interventions through indicators. To facilitate the interpretation of results and measure the impact, it is recommended to specify the results in terms of resources used.
- Transparency is a vital element for the best organizations, communicating financial and results reports efficiently is part of their success.
- Extensive presence of international certifications and seals that legitimize them at an international level as “successful” in the management of their resources.

All these findings lead us to identify elements that represent good practices in

organizations, as well as differentiating actions. These elements are found in **Table 4**.

The review of the different organizational models of Foundations in Mexico and in the world provide extremely relevant elements for the design of a conceptual model that is presented below.

#### 4. Normative Vision of an Environmental Conservationist Organization Proposal

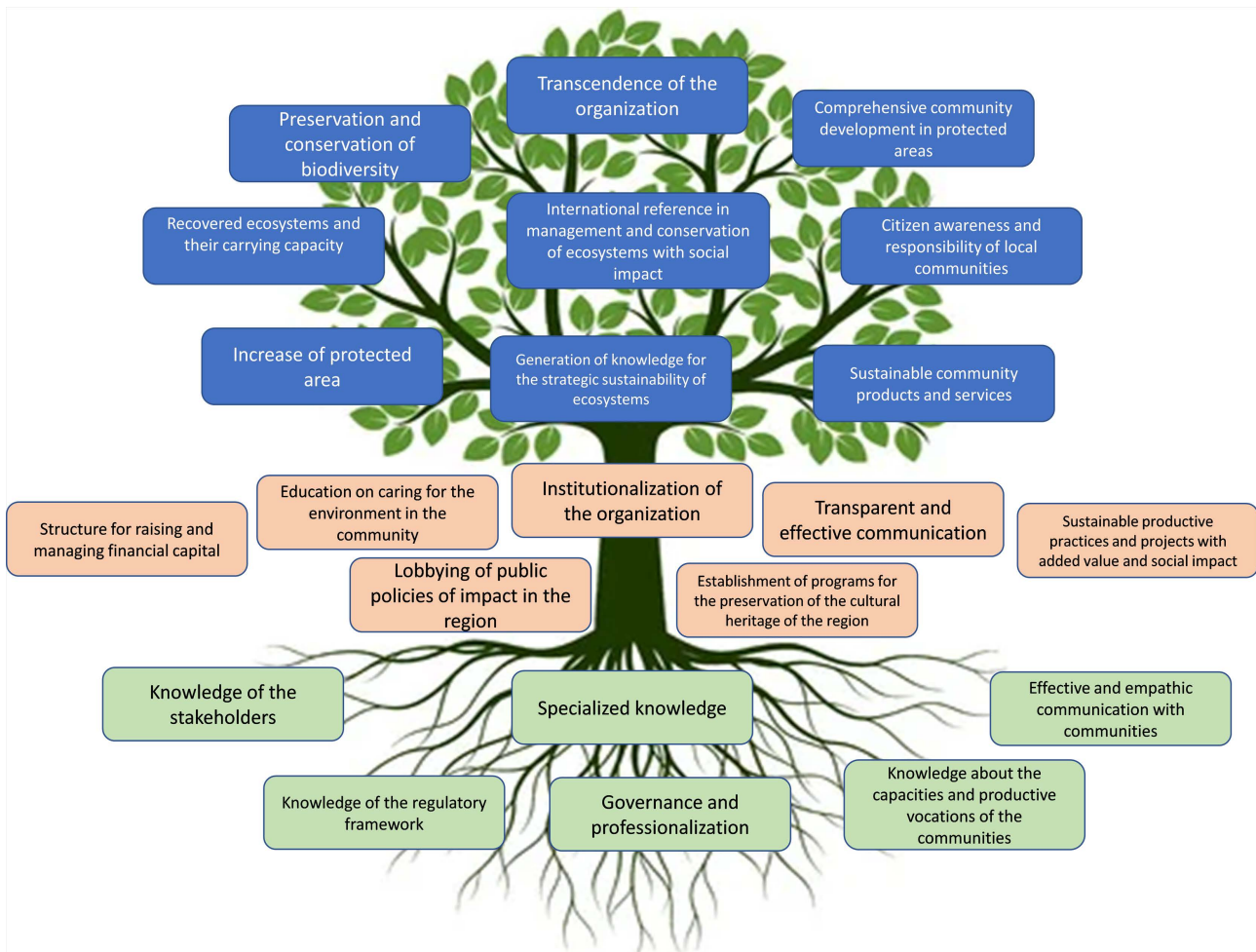
As a conclusion of the previous paragraphs, a normative model for a Conservationist organization is presented below, following a competency tree structure. As can be seen in **Figure 2** in the foliage of the tree, it is possible to find the final valuation of the skills and the means of production, which in this case is reflected as the results of the operation of said organizations. In the case of the reviewed organizations, it was found that among the most relevant elements are: the generation of knowledge for the strategic sustainability of ecosystems, the increase in protected area, the recovered ecosystems and their carrying capacity, the preservation and conservation of biodiversity, being an international benchmark in the management and conservation of ecosystems with social impact, comprehensive community development in protected areas, the generation of awareness and citizen responsibility of local communities, sustainable community products and services and the importance of organization.

The trunk of the tree shows the integration of capacities, such as the structure for attracting and managing financial capital, lobbying for public policies with an impact in the region, education on caring for the environment in the community, practices and sustainable productive projects with added value and

**Table 4.** Characteristics of successful organizations.

Shared Characteristics of Successful Organizations	Differentiating Characteristics of Organizations
Legitimacy before the Society (via board members, certifications, members of the organization)	Legitimacy before the participants of the organization (has advisory members who actively participate in the organization)
Organizational structures and clearly defined roles of the participants.	Leadership roles where the experience and specialized knowledge of the members of the organization are taken into account.
Ongoing funding and fundraising programs that run annually.	Financing that goes beyond subsidies and donations --> purchase/sale of goods, investments of own resources, annual events, certification programs.
They provide educational programs in schools and the community.	They provide programs aimed at the conversion of productive activities to mitigate the environmental footprint of the activities. Example, the model villages of The Nature Conservancy.
Transparency in presenting your information regarding the use of resources and the impact of your programs.	
They generate information and research regarding protected species and reserve management.	In addition to research, they achieve the realization of new tools that allow decision making.

Source: Own elaboration.



Source: Own elaboration.

**Figure 2.** Normative vision for conservation organization in a competences tree.

social impact, transparent and effective communication, the establishment of programs for the preservation of the cultural heritage of the region and the institutionalization of the organization.

Within the roots we find the essential competencies (know-how) to operate an organization with a strategic approach towards sustainability. The main competencies are related to the knowledge of the stakeholders, of the regulatory framework that governs the region where it operates in different governmental spheres, specialized knowledge about the eco-region and the management of the reserve, about the capacities and productive vocations of the communities to intervene, the governance and professionalization of the organization, and finally have skills for effective and empathic communication with the communities.

#### 4.1. Products

- Generation of knowledge for the strategic sustainability of ecosystems: The promotion of projects, as well as specialized work, allow new learning to be contributed to any of the aspects of ecosystem sustainability, both specific to

the managed reserve and general to the field. scientific, educational, development, etc.

- Increase of protected area: Meeting the strategic objectives eventually guides the work to a sustainable state that allows paying attention to increasing its area of influence, expanding the projects and collaboration to different natural areas to increase the benefits generated.
- Recovered ecosystems and their carrying capacity: Work must be aimed at recovering what has been damaged, whether it be soils, populations of species or complete ecosystems. Getting these to meet their ideal capacities is the main expected environmental result and to a great extent the motivation of the projects.
- Preservation and conservation of biodiversity: All species are important for the balance in an ecosystem, there are also some that are relevant to society in general, for the services and products they provide or only for their charisma. Protecting these species is one of the main values of caring for natural areas.
- International reference in management and conservation of ecosystems with social impact. It implies becoming a model organization for other organizations that seek to impact their environment in other regions of the world.
- Comprehensive community development in protected areas: Protecting ecosystems is inseparable from generating development in the communities that reside within them. The sustainable management of resources must be subject to a system that leads communities to comprehensive, economic, human, health, etc. well-being.
- Citizen awareness and responsibility of local communities: Once the community has opportunities and capacities to develop, they maximize the environmental education provided to them to actively participate in perpetuating the development and protection of the environment.
- Sustainable community products and services: Ecosystems have productive capacities that, when properly used, generate great value. Communities, once enabled and trained, can generate products and services based on ecosystems.
- Transcendence of the organization. It implies that its impact on society is of such depth that it manages to positively change the lives of the beneficiaries and the environment. Also, that beyond being a reference, it inspires the need for change in the issue of natural resource management in the population.

#### 4.2. Capacities

- Structure for raising and managing financial capital. This implies applying knowledge about possible donors and organizations with available resources that the organization could access in such a way that it can manage the achievement of said funds. Also, within the necessary structure is having sufficient planning and personnel to capture and distribute resources.

- Lobbying of public policies of impact in the region. This point implies applying knowledge about the regulatory framework of the various regions where intervention is sought to manage that there are more protected areas with their respective management plans, as well as programs that allow the economic development of the inhabitants in a sustainable manner.
- Education on caring for the environment in the community: Ecosystems have a human component that largely determines the trend of the region's resources. Education and training are essential elements for the project to be accepted and sustained by the entire social base through learning that positively influences their lifestyle.
- Sustainable productive practices and projects with added value and social impact: Parallel to the education oriented to the formation of environmental awareness is the training and generation of opportunities for the communities. Successful environmental protection models require an economic development component that is integrated into the ecosystem without wearing it down, generating the greatest possible value with impacts that are within the carrying capacity of the region. The projects require a social component and to be successful, development opportunities must be developed together with the people, in this way the protection of the ecosystem by the community is promoted by conviction.
- Transparent and effective communication: Charisma is an important aspect of organizations to gain the trust that fosters support. Transparency must be exemplary to encourage the organization's entire system to function as planned. For this, there must be verifiable indicators that demonstrate results and an adequate operation of the projects, supported by an effective communication structure that makes the work visible.
- Establishment of programs for the preservation of the cultural heritage of the region. This point implies disseminating the culture of the indigenous peoples of the region as well as understanding how their practices, uses and customs not only contribute to development and protection but must also be preserved due to their cultural value for society.
- Institutionalization of the organization. This implies the process of configuring itself as a legitimate organization before society through the implementation of administrative practices in accordance with the mission of the organization.

### 4.3. Competences

- Knowledge of the stakeholders (agents): This is one of the pillars since according to Freeman & McVea [22] a stakeholder is any group or individual that can affect or is affected by the achievement of the organization's objectives. This implies knowing both the beneficiaries and the groups of individuals who may have an influence (positive or negative) on the operation of the organization.
- Knowledge of the regulatory framework that governs the region where it op-



erates in different government areas: The context of these implementations is largely made up of the regulatory framework. Both complying with the obligations and processes provided by law and making use of government programs and support are ways to promote the success of the project.

- Specialized knowledge. on the eco-region and the management of the reserve: The organizations analyzed with the best reputations and reach demonstrated that having specialists is necessary for projects of this nature. It does not only refer to having a prepared team, but rather a multidisciplinary one, with experience and the specific knowledge and skills for the different projects to be implemented considering the systemic implications and thus maximizing the results and minimizing the undesired consequences. This knowledge must be contextualized according to the characteristics of the ecosystems that are served and the tasks that need to be carried out.
- Knowledge about the capacities and productive vocations of the communities to be intervened: There is a great diversity of natural area management projects, but each one has specifications that need to be treated. For example, The Nature Conservancy defines its way of working by saying: “We draw on local expertise and leverage our real-world science, solutions, and partnerships to influence decision-making globally” [23]. Knowing, based on regional and scientific knowledge, the characteristics of the soils, species and populations of these areas allows projects to be truly sustainable and offer better results.
- Governance and professionalization of the organization. This implies from the design of positions, establishing the roles and characteristics of the individuals who work in it, to the formalization of the operational and decision-making processes in the organization.
- Competencies for effective and empathic communication with communities. These types of skills are key, especially when managing an ecosystem, which not only has a population in various communities, but also said population has different cultural characteristics from each other. This type of communication involves understanding the needs of people and clearly transmitting messages about the actions to be carried out.

## 5. Conclusions

The comparative analysis of the organizations allowed the identification of a series of key factors for the success of their purposes and reason for being. These factors are shown as findings and lessons learned from the analysis, in addition to a pooling of shared factors and differentiating factors.

The key factors for success have been structured into three broad categories: relations with stakeholders, knowledge and development of operations based on science, and the development and implementation of good management practices. Regarding relations with stakeholders, charisma, the relationship with the inhabitants of natural areas, the influence in the design of public policies, and

the cooperation and networking between organizations stand out. Regarding knowledge, the presence of experts and specialists, and scientific production are distinguished. Finally, for the development and implementation of good management practices, the clearly defined governance and decision-making structures, the professionalization of human talent, financing, multidisciplinary management, value generation, clear communication of results, transparency and international certifications.

The normative vision proposal of a conservationist environmental organization through Marc Giget's tree diagram allowed to have a representation of the ideal organization in its entirety. Where the roots are the skills or knowledge and values of the organization. The trunk represents the capacities, that is, the processes, resources and systems that support the productive activity of the organization. And the foliage represents the products, in this case the results and aspirations that the organizations intend to achieve.

Thus we have in the foliage: the generation of knowledge for the strategic sustainability of ecosystems, the increase in protected area, recovered ecosystems and their carrying capacity, preservation and conservation of biodiversity, being an international benchmark in management and conservation of ecosystems with social impact, comprehensive community development in protected areas, the generation of awareness and citizen responsibility of local communities, sustainable community products and services and the importance of the organization.

The trunk of the tree shows the integration of capacities, such as the structure for attracting and managing financial capital, lobbying for public policies with an impact in the region, education on caring for the environment in the community, practices and sustainable productive projects with added value and social impact, transparent and effective communication, the establishment of programs for the preservation of the cultural heritage of the region and the institutionalization of the organization.

While in the roots we find the essential skills (know-how) to operate an organization with a strategic approach to sustainability. The main competencies are related to the knowledge of the stakeholders, of the regulatory framework that governs the region where it operates in different governmental spheres, specialized knowledge about the eco-region and the management of the reserve, about the capacities and productive vocations of the communities to intervene, the governance and professionalization of the organization, and finally have skills for effective and empathic communication with the communities.

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## **Conflicts of Interest**

The authors declare no conflicts of interest.

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