Global Challenges Foundation

Governance strategy for modeling global development from its quantum genome

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The submission proposes to develop standards of self-evaluation and self-improvement for every country a culture based on the principles of quantum physics. The holographic nature of the universe, as seen through this paradigm, means that social, cultural, political, environmental etc. outcomes are obtainable and possible to configure in every culture based on simple standards to be achieved in their social cells. The proposal makes it possible for people to set goals and to evaluate their standards of life and actions in their own social cells, in order to approach better conditions. Massive citizen participation and awareness on a global scale would be possible through microgrants with the support of a UN executive program base in the use of digital marketing, mobile applications and social networks.

1. Abstract

This proposal supports a governance model based on the quantum mechanics paradigm. It suggests innovative, efficient processes to deal with large scale global risks and challenges related to climate change, environmental degradation, political violence, corruption, social conflicts, discrimination, extreme poverty, childhood malnutrition and rapid population growth, to name a few.

We need a new paradigm because the one currently used for development, based on classic or Newtonian physics, is one of the major limitations to truly innovative proposals, since our current paradigm is based on a reality that follows linear and deterministic pathways, which support inefficient planning and organization processes for solving complex problems. It also has biased power and decision-making systems focused on top-down solutions for specific problems.

Therefore, the proposed governance model submitted starts by considering, based on a quantum physics paradigm, that the universe is a great hologram with infinite interconnected probabilities that configure the various possibilities or ways in which humanity develops, and the diversity of its social, cultural, economic, political, technological and environmental setting at the micro and macro levels.

Thus, this new paradigm allows us to perceive the realities of our world in this way:

a.*That each citizen is a micro-representation of the holographic universe and as such, an actor who configures the universe of possibilities of holistic evolution in the differentsocial, cultural, economic, political, technological and environmental systems at the micro and macro levels.*

b.*To control the uncertainty of the infinite possible behaviors, it is possible to set up a simple standard according to their own cultures for the holistic behaviors that individual citizens should accomplish in their own social cells or micro-organizations using the Holistic Self-Evaluation Standards for Human Development (HSESHD).*

c.*Each individual's understanding of their* ***economic, social, political, cultural, technological and environmental HSESHDs*** *to be met in their micro-organizations (****homes, educational centers, and places of work****) allows the implementation of self-evaluation processes and continuous improvement of the standards through the participation of its members.*

Since 40% of the world population uses social networks, 67% uses a mobile device, 51% has access to the Internet, and 54% connects to the Internet through mobile devices, the use of mobile apps and social networks will allow the model:

- *– To communicate, on a mass scale, the knowledge of and opportunities for improving the HSESHDs by citizens in their micro-organizations.*
- *– To help citizens share experiences and be acknowledged for their improvement of HSESHDs in their social networks.*
- *– To facilitate the delivery of financial micro-incentives to improve HSESHDs through virtual banking systems.*

To do this, the model suggests creating an organization that allows implementing the following processes through intensive use of social networks and mobile apps:

A.Formulate, agree on, and validate the most appropriate **HSESHDs** for dealing with the global challenges considering each of the different micro-organizations and cultures of the planet, including multimedia supports.

B.Promote that the greatest possible amount of people carry out their own self-evaluations according to **HSESHDs** validated by their micro-organizations and the cultures they identify with.

C. Develop incentives or opportunities for people to develop their own processes to gradually and continuously improve their **HSESHDs**.

D. Monitor and evaluate the changes in the **HSESHDs** in the different organizations and cultures both at the micro and the macro levels, including their impact regarding the various global challenges.

To ensure success, the organization suggested considers the following key players:

- The UN and its member states.
- International collaboration, financial businesses and nonprofits.
- Social networks.
- Private citizens.

The organizational structure for a viable management and direction of the model is designed as a UN program, which would consist of the following bodies:

PROGRAM ASSEMBLY
Consists of the UN Economic and Social Council, responsible for providing political and financial support for each country to implement the model.

EXECUTIVE COUNCIL
Consists of the UN Executive Committee on Economic and Social Affairs (ECESA), with representatives from the main social networks, it is responsible for monitoring compliance with the policies and goals of the model.

EXECUTIVE LEADERSHIP
A team led by someone chosen by the ECESA with success managing global corporate affairs and strategic use of Information and Communication Technologies (ICT), responsible for managing the global implementation of the model and submitting reports.

DEPARTMENT OF DEVELOPMENT AND SUPPORT FOR HSESHD IMPROVEMENT
Responsible for multicultural design and validation of the HSESHDs and their multimedia supports to confront global challenges.

DEPARTMENT OF DEVELOPMENT AND INNOVATION OF THE PORTAL AND MOBILE APPS
Responsible for implementing and supporting the platform and the mobile apps with appropriate interfaces for the different countries, cultures and languages.

DEPARTMENT OF MONITORING AND EVALUATION
Responsible for monitoring, evaluating and analyzing the results of the model and their impact regarding global risks and challenges.

ADMINISTRATIVE DEPARTMENT
Responsible for managing human, logistical and budget resources for implementing the model.

GLOBAL MICRO-INCENTIVES MANAGEMENT
Responsible for managing the finances of micro incentives and the mechanisms for the micro-incentives to reach the micro organizations that improve their HSESHDs.

SOCIAL NETWORK MARKETING MANAGEMENT
Responsible for implementing a social networking marketing strategy to involve citizens on a mass scale in participation in their micro-organizations to improve their HSESHDs.

CITIZEN PARTICIPATION AND SOCIAL RECOGNITION MANAGEMENT
Responsible for auditing the online verification systems and delivering the financial micro-incentives to the micro-organizations that improve their HSESHDs.

2. Description of the model

CLASSICAL PHYSICS AS A PARADIGM AND FRAMEWORK OF THE CURRENT QUESTIONABLE WORLD GOVERNANCE MODEL

Today's economic, political and social dynamics are the result of a linear, deterministic understanding of the universe, with hierarchical structures in all its supersystems, systems and subsystems, which are governed by the laws of classical or Newtonian physics such as inertia, action and reaction, and dynamics. This was established by Elliott W. Montroll, Professor of Physics and Director of the Institute for Fundamental Studies of the University of Rochester [1].

The determinism of classical physics defines the following axiom: *"the same causes under similar circumstances will produce the same effect."* In the field of government and human resource management, this principle supports planning processes that focus on solving problems by analyzing specific causes, and on specific strategies to control or modify the causes and thereby solve the problem in question.

Besides, given the infinite problems in all societies and the limited amount of resources, this paradigm forces managers to prioritize only certain problems, eliminating the possibility of solving all of them at once. This is understandable, from a linear and deterministic point of view.

This perspective also leads to top-down management and planning processes used by most economic, political and social systems on the planet, which adds another factor: the interests of the current power systems of each nation, society and organization.

This is how local, national and supranational government organizations operate. Their inertia, lack of dynamism, reactiveness and short-sightedness is known, and their actions are inefficient and ineffective for solving the complex problems that continually appear at the local and the global level.

QUANTUM PHYSICS AS A NEW PARADIGM AND A FRAMEWORK FOR GOVERNING ON THE WORLD STAGE

Quantum physics has revolutionized modern science research, since its theory allows for a holistic understanding of the dynamics of the universe. It has applications to information technology, biotechnology, robotics and artificial intelligence as well as the field of social systems, as stated by Andrei Khrennikov and Emmanuel Haven in their book "Quantum Social Science", published by Cambridge University [2]. In Quantum Social Science they establish that this new paradigm takes our understanding of human society to a whole new level.

Therefore, this proposal establishes the principles and outlines for a new governance model based on the quantum science model that will allow for management or modeling global change through greater collaboration, understanding and participation from power systems and citizens, in order to have a more united, efficient and effective way to deal with the current and future challenges the world faces regarding climate change, environmental degradation, political violence, social conflicts, discrimination, extreme poverty, childhood malnutrition and rapid population growth, to name a few.

QUANTUM PARADIGM GOVERNANCE PRINCIPLES

The quantum paradigm views the universe as a hologram of infinite interconnected probabilities ruled by the principles of wave-particle duality, superposition and uncertainty, so this proposal establishes the following implications of these principles in potential human development in its social, cultural, economic, political, technological and environmental setting.

The citizen as a fractal and holographic superposition who configures the universe of development possibilities for the various societies and their systems.

According to an article published in January 2017 issue by a group of scientists from the American Physical Society [3], there exists evidence that it would be appropriate to describe the structure and the creation of the universe in holographic terms, since this form would help us understand both the mechanics of visible objects which Newtonian science applies to and the origins and mechanisms of reality at the quantum level. According to this, the whole universe originates from a point and the whole creation expands by generating subsystems, systems and supersystems which are connected with their origin.

If we understand as "fractals", as first discovered by Benoit Mandelbrot [4], those patterns or external similarities between each of the parts and the whole of many physical structures in the natural world, these would strengthen the understanding of the universe as a hologram in which the parts (fractals) are found in the whole and represent it, and the whole is a representation of its parts itself.

Surprisingly, fractals have been found not only in the physical or natural forms of the universe, but also in the structures and dynamics of many social processes.

Ron Eglash and Toluwalogo B. Odumosu [5] discovered the existence of fractal patterns in architecture, art, design and social patterns in indigenous African communities.

The research done by Guimerá and his team [6] provided more findings related to fractal patterns in the social field. They discovered the existence of a self-organization pattern in the contact networks generated by an exchange of emails of 1700 employees of the Rovira i Virgili University in Tarragona, and found that the structure of the subcommunities the contacts created in each subnetwork is identical between networks and identical to the pattern of the network of the whole community. This led them to conclude that just as with the fractal self-organization patterns in complex systems, there would be a code or mechanism responsible for the self-organization and development of the social networks.

Based on these findings, we could say that fractals represent the harmony of the systems in the holographic reality and allow us to infer the existence of a self-organizing mechanism that generates this type of order in a systemic way.

As with the genetics of the biological systems, fractals could be part of the phenotypical expression of systems of complex reality, as the codes of a genetic system are embedded in the DNA (genotype) and are manifested or expressed in the development of organic structures they create or develop (phenotype), which are holographic expressions of DNA itself, as evidenced by the fact that it is possible to clone live beings using the DNA of any cell from the different systems that belong to it.

Since the behavior of humans is the fractal expression of the culture of the different societies they belong to, we may conclude these behaviors are “genetic codes” or the “social DNA” that resides in all citizens who interact in a social, cultural, economic, political, technological and environmental way daily in their own social cell or micro-organization, since the accomplishments or problems in the social, cultural, economic, political, technological and environmental areas of each society are a holographic expression of the behavior of the citizens who are part of it.

Therefore, the quantum paradigm allows us to infer the existence of codes or mechanisms for self-organization in the development of societies, and if it were possible to influence these in a positive or harmonious way, it would allow us to implement a more organic and systemic process of governance and human development in order to accomplish (or maybe simply accelerate) the social, cultural, economic, political, technological and environmental processes that would allow humanity to develop in a more integrated and harmonious way.

In the following section we will describe other principles from quantum physics as applied to the possibility of governing the social “genome” in a more systematic, effective and efficient way to deal with challenges and risks at the local and the global levels.

Governing uncertainty and infinite possibilities through multicultural development standards

Ignacio A. Silva [7] suggests that, as opposed to the determinism of classical physics, the uncertainty principle of quantum physics, established by Heisenberg,

offers a more dynamic, elastic, complex vision, more analogous to reality, since this principle states that while a system is not being observed or measured, its physical status must be considered as the sum of all possible (indeterminate) statuses the system might have. This is also known as the superposition principle. According to Schrödinger's postulate [8], the development of the system over time is completely established once the observer tries to measure (intervene) in the system at some point in its development.

The possible statuses of a society are set by all the structures in each society: each person, plant, animal, river, lake, mountain, etc., which interact with each other naturally and non-deterministically, until each human being, as an observer or a participant, determines or defines the system by deciding to intervene and benefit using the structures in his or her environment, thereby developing complex processes and new structures with social, cultural, economic, political, technological and environmental results that impact both that person's social cells or micro-organizations and their macrosystems, given the fractal and holistic relationship of all systems as a set.

Given the fact that each human being can be the observer of the quantum reality, and that their actions are a fractal expression at the micro level of the type of society where they belong, the power for positive and direct intervention in social cells or micro-organizations would be the most effective mechanism to deal with the immense diversity of their own challenges as people in their micro-environments, and to be able to scale up such intervention to a global level in different societies and cultures, solving the great global challenges simultaneously.

One type of validated intervention at the micro level that allows the development of awareness and action in holistic development of people in a participatory way in their micro-organizations is modeling the social genome by managing **Holistic Self-Evaluation Standards for Human Development (HSESHD)**, based on the type of micro-organization and culture in which people participate and with which they identify, thereby respecting their multicultural diversity.

For the purposes of this proposal, homes, educational centers and places of work are considered to be social cells or micro-organizations, since the most relevant activities of all types of societies are carried out there.

These micro-level **HSESHDs** function as genetic codes and allow us to have a holistic view and determination of the ***social, cultural, economic, political, technological and environmental structures, processes and results*** that people would like to accomplish in their own micro-organizations.

Below, we submit an example of HSESHDs configured for families in a rural area to use for self-evaluation in their homes in a specific region. They are designed to face the global challenges of climate change, environmental degradation, political violence, corruption, social conflicts, discrimination, extreme poverty, childhood malnutrition and rapid population growth:

Social HSESHDs
– All our family members have a personal national identity document.

– All our family members consume safe drinking water.

– All our family members have nonexpired health insurance that covers all illnesses and accidents.

– All our family members under 6 months old are exclusively breast fed.

– All our family members over 6 months old consume a diet that includes protein, carbohydrates, fats, vitamins and minerals every day.

– All our family members wash their hands before and after eating, cooking, going to the restroom, changing diapers, etc.

– All our family members avoid frequent and excessive alcohol consumption.

– All our family members are treated with respect and suffer no kind of violence (psychological, physical or sexual).

Political HSESHDs

– All our family members abide by the rules and agreements made by the whole family for us to live together agreeably.

– All our family members communicate and express their ideas without restraint.

– All our family members know their rights as citizens.

– All our family members who are over 18 vote for our elected authorities.

– Our family plans how many children we will have based on our possibilities for growth.

– Our family always participates in organized community events.

Economic HSESHDs

– Our family has sources of income that allow us to meet the basic needs of housing, clothing and food for all our members.

– Our family can save part of our annual income to be able to meet emergency situations or invest.

– Our family has property or land duly registered with the public records as part of what we own.

– Our farm has some type of crop insurance that covers natural disasters and pests.

Technology HSESHDs

– Our family has some device to access the Internet from home.

– Our family has artificial irrigation systems that allow our land to produce year-round.

– Our family has a biodigester and uses organic fertilizers that allow us to improve our crop yield and protect the environment.

– Our family has equipment to process our agricultural products and give them added value.

Environmental HSESHDs
– Our home has an environmentally friendly system to ensure adequate processing of waste and sewage.

– Our home has an environmentally friendly system that ensures the proper disposal of solid waste.

– Our home has an area separated from our living space to raise domestic animals.

– Our home has an environmentally friendly system that ensures sufficient supply of energy and light.

– Our home has a kitchen that does not create smoke inside the house and does not put our children at risk of burns.

The above example of HSESHDs supports the conclusion that besides broadening the vision of holistic development of those who complete self-evaluations, they also have teaching value due to their simplicity and specificity, which can go with a brief detailed description of the standard and multimedia materials for independent training.

This proposal submits that the standards be formulated and validated in the three key social cells of every society: ***homes, educational centers and places of work.***

Therefore, to configure, agree on, and validate these ***HSESHDs at the level of the micro-organizations based on the different cultures at the global level***, implementation requires, as a prerequisite, a governance process that respects the extant diversity and multicultural aspects.

In that sense, the global governance model suggested under this paradigm would focus on implementing the following processes through ***intensive use of information and social network technologies:***

A. Formulate, agree on, and validate the **HSESHDs** that are most appropriate to deal with the global challenges considering each of the different micro-organizations and cultures of the planet, including multimedia supports.

B. Encourage the greatest possible amount of people to carry out their own self-evaluations according to **HSESHDs** validated by their micro-organizations and the cultures they identify with.

C. Develop incentives or opportunities for people to develop their own processes to continually and gradually improve their **HSESHDs**.

D. Monitor and evaluate the changes made in the **HSESHDs** in the different organizations and cultures both at the micro and the macro level, including their impact regarding global challenges.

Information technologies and social networks as links and amplification channels for the model to face global challenges.

Finally, to configure an effective and efficient model for global governance, we can consider the quantum physics principle of entanglement, in which when two particles connect, they are instantly electromagnetically connected as if they were part of an indivisible whole, and they share the same existence regardless of the distance between them.

Regarding applications of this principle, a team of scientists led by Hauke and Peter Zoller from the Theoretical Physics Department of Innsbruck University and the Institute for Quantum Optics and Quantum Information (IQOQI) of the Austrian Academy of Sciences [9] have found a new way to detect certain properties in the entanglement of many particles, regardless of the size of the system, using standard measurement tools.

In the same way, the electromagnetic waves that make the Internet and all its applications possible, including the development of virtual social networks, would also be a type of "entanglement" between people who become connected through these technologies and influence each other remotely, without the limitations of time and space. The influence of social networks on the actions and feelings of people at the global level is well known.

A report by Hootsuite and We Are Social [10] about the amount of social network users in the world points out that by August of 2017 there were 3,028 million people using these platforms around the world. Considering that there are 7,525 million people in the world, this means that more than 40% of the world's inhabitants use social networks, and every day one million more join the networks.

The report also points out that 3,819 million people around the world have access to the Internet, which means only 20% of them do not use social networks. It also indicates that out of all the social networks Facebook has 2,046 million monthly active users, YouTube has 1,500 million, and WhatsApp and Messenger have 1,200 million. The report also mentions apps such as WeChat, which is significant in China, with more than 870 million users, and LINE, which grew in Japan, its local market, where it reached 70 million users.

The report ends by stating that of the total 3,819 million active Internet users (51% of the world population), 54% access it through mobile devices and 41% use laptops and desktop computers. The amount of mobile device users is 5,052 million (67% of the world population), which makes a total of 8,229 million connections.

Therefore, developing an electronic cloud portal with mobile applications which, based on Internet use and strategic alliances with social networks, will allow people from a variety of cultural groups to implement and share their self-evaluation and improvement processes of the HSESHDs, making it possible for these people to network at the global level, which would allow the self-evaluation processes to go viral and improve by recursive action in their own social networks.

The electronic portal and mobile applications would also allow users to share information about current experiences and opportunities at the local level or even in the cloud, and so improve the different **HSESHDs** of the users in their micro-organizations.

CITIZEN PARTICIPATION ON A MASS SCALE IN ORDER TO GENERATE GLOBAL IMPACT ON THE CHALLENGES

To achieve citizen participation with global impact, one of the main incentives the model would provide would be economic opportunities supplied by coalition governments, companies, nonprofits and the financial sector interested in contributing to the model through microgrants, microbonds or microloans that would leverage the improvement processes made by citizens in their micro-organizations.

For people with limited resources, microgrants and microloans could be assigned after registration and validation of their circumstances through a portal connected to official government registries for identification that would validate identity and financial status, to focus social programs on excluded populations.

Multicultural interaction among citizens, as they share their self-evaluation processes and improve their **HSESHDs** through the social networks, will allow a global culture to emerge. This global culture will respect the existing local culture and allow humanity to share an identity as a global village, which we must respect and protect regardless of our political persuasion, socioeconomic status, origin, racial background, beliefs, or culture.

Therefore, the proposed governance model must have policies, structures and processes that promote the improvement of the existing HSESHDs, using mobile phone technology and currently existing social networks, for all the cultures of our planet, and organize and channel financing of microbonds, microgrants and microloans for citizens, using the existing virtual banking network.

Finally, the information each user of the portal provides by text, pictures and videos through their mobile apps during the process of registration, self-evaluation and improvement will allow the governance model to implement a dynamic system for shared learning, monitoring and evaluation of processes and results regarding the challenges and risks, both locally and globally, duly broken down by existing cultures, territories and nations.

CONFIGURING A SUPERSTRUCTURE FOR EXECUTION, OBSERVATION, DISRUPTION AND CATALYSIS OF THE GLOBAL MODELING PROCESS

To enable immediate implementation of the new model, a viable executive management structure is suggested, which could be implemented in one of two ways.

A. As a UN executive program.

The advantage is that if the UN decided to adopt the model as an innovative program within its structure, it would have the political and financial support of that global organization, given its presence in all member states, which makes the processes of political and financial support easier for the individual governments and their international collaboration teams.

Besides, having the support of the UN system in each member country would greatly facilitate coordination processes, avoiding the risk of creating local structures for the program, which would significantly slow down and add expense to the implementation of the model in each country.

B. As a global coalition that coordinates the independent efforts of all member states and key actors involved in the model.
The advantage is that management of the project would be more independent and its processes could be implemented without political interference, at least in the beginning.

However, considering that its purpose is disruption on the global scale, the impact of the model in this scenario would be limited to the supporting member states and corporations, and this process could delay implementation significantly due to the complexity of the approval processes and financial allocations of these organizations. Besides, the model would have greater expenses, which would have to be financed by the groups that desire to support the model.

Model A appears to be a more viable model from a political and financial perspective than model B, and we recommend its implementation with the following organizational and functional structure:

Administrative organizations

Program assembly
Consists of the UN Economic and Social Council

Responsibilities:
– Support the model as a UN program to be implemented in member states.

– Commit resources in the countries to improve Internet access, especially in remote areas without 3G or 4G networks.

– Commit resources from their member states and provide incentives to the companies and the financial system to fund microbonds and microloans to improve HSESHDs for micro-organizations with purchasing power.

– Redirect international collaboration resources to finance microgrants and microloans for micro-organizations with limited resources.

– Be informed regarding the challenges, advances, accomplishments and impacts of the model on a global scale and in each country.

Executive Council
Consists of the Executive Committee on Economic and Social Affairs (ECESA)and representatives of the main social networks as key participants in the model.

Responsibilities:
– Suggest policies that will guide the program's actions to the assembly for approval.

– Ensure compliance with the program policies approved by the assembly.

– Approve the strategic plan and budget for implementing the model and its indicators for global impact.

– Evaluate how targets are met as well as indicators of implementation of the model and measurement of global impact.

Executive leadership
Strategic management team led by someone specifically selected based on successful experience in corporate management of organizations or companies with global outreach, with skills in political diplomacy and strategic use of information technology in a variety of contexts, who will be responsible for reporting on the implementation of the model at the global level.

Responsibilities:
– Enforce all policies approved by the assembly in all actions to be carried out by the program.

– Lead the development of the strategic plan to implement the model and its impact indicators on a global scale.

– Involve all organizations in the program in writing the annual program budget.

– Approve and monitor compliance with the annual operational plans of the different program organizations.

– Monitor whether targets are met and use the strategic plan impact indicators, and make necessary adjustments.

– ApproveHSESHD proposals for the different cultures in the world.

– Coordinate political and financial mechanisms for implementing the model in each country, including granting microgrants, microbonds and microloans to promote improvingHSESHDs in their micro-organizations with representatives of participating member states.

– Coordinate mechanisms and incentives to finance microgrants and microloans for micro-organizations of limited resources with the representatives of international collaborative groups, corporations and multinational corporations.

– Review and consolidate quarterly reports for implementing the model in the different member states and submit them to the Executive Council.

– Submit annual reports on the global impact of the model to the Assembly.

Technical organizations

Department of HSESHD development and multimedia support
Team of professionals with ample knowledge of the multicultural diversity of the many regions of the planet.

Responsibilities:
– Organize and coordinate the missions to formulate and validate theHSESHDs in each country with the involvement of members of each ethnic and cultural group.

– Design and/or validate available supporting multimedia material for citizens to improve HSESHDs in their micro-environment (home, educational center, place of work) based on their cultural roots and their language.

– Review and update the HSESHDs and their multimedia supports to face the emerging or future challenges and risks.

Department of development and innovation of the portal and global mobile apps
Team of specialists, technicians and developers of cloud-based electronic portal and mobile apps.

Responsibilities:
– Develop the electronic platform in the cloud and mobile apps with appropriate interfaces for different countries, cultures and languages.

– Design and program the information processing system for the platform to monitor and evaluate the model, theHSESHDs and the global impact indicators.

– Updates, maintenance and technical support for the entire platform according to the users' needs and existing technological innovations.

Department of global HSESHD monitoring and global impact evaluation
Team of researchers and analysts specialized in monitoring, evaluation and analysis of the results of the implementation of the model and its impact regarding global risks and challenges.

Responsibilities:
– Design indicators and procedures to measureHSESHD improvements and indicators of global impact for computerized processing, analysis and reporting.

– Adjust the indicators and the measurement processes based on the cultural context in each country.

– Develop systematic reports of the challenges and accomplishments of the model in continuous improvement ofHSESHDs and their impact regarding global risks and challenges.

Administrative organizations:

Administrative department
UN ECESA administrative team

Responsibilities:
– Develop, support and oversee the operational plan and annual budget of the program.

– Select, hire and train the program staff.

– Provide administrative support in all program processes.

Operational organizations:

Global micro-incentives management
The core team will be based at the UN headquarters and its members will have experience in government finances, international collaboration and global financial management. One coordinator will be hired from each member country through the United Nations Development Program (UNDP).

Responsibilities:
– Coordinate the virtual financial transaction mechanisms in each member country according to its financial infrastructure and available connectivity.

– Coordinate the implementation of mobile Internet in areas with low connectivity in each country with governments and businesses.

– Coordinate budget allocations and mechanisms for disbursements for the program to finance microbonds, microgrants and microloans with governments, international partners, corporations, the financial sector, social organizations and NGOs.

– Design a fundraising strategy for microbonds and microgrants through philanthropists and donors in social networks.

– Develop, support and monitor the financing plan for microbonds, microgrants and microloans for each member country.

– Design the specific procedures and mechanisms for requirements and delivery of microbonds, microgrants and microloans based on verification of the eligibility type of the participating organizations through the web portal.

Management of global marketing through social networks
Team of specialists in global marketing through social networks

Responsibilities:
– In collaboration with the global social networks, evaluate the psychographic profile of the citizens of the different cultural groups in each country that already use the networks.

– Design, implement and evaluate the social network marketing strategy to reach mass participation by citizens in their micro-organizations in self-evaluation and improvement of theirHSESHDs using the portal and the mobile apps that have been designed.

– Provide feedback to the other organizations of the program regarding the level of participation in the social networks to improve the process for formulatingHSESHDs as well as technical platforms and financing mechanisms for the model.

Citizen participation and social recognition management
Team of specialists in remote process management and virtual banking financial operations.

Responsibilities:
– Monitor and audit online eligibility verification systems to deliver financial micro-incentives and suggest improvements.

– Monitor and audit online remittances and delivery of financial micro-incentives and suggest improvements.

– Monitor and audit online verification processes for HSESHD improvements by micro-organization participants.

– Implement social recognition mechanisms for micro-organizations using physical or electronic certificates that recognize their HSESHD improvements.

Regarding the financial viability of the model, the operational costs of the structure submitted can be absorbed by the UN, since the cost is estimated at USD 3 to 4 million per year for the headquarters and USD 250,000 to 300,000 per year for the office doing the coordination work for each member country.

The investment costs to validate the HSESHDs and their multimedia support instruments are estimated at USD 30,000 to 50,000 per country, paid to specific consulting companies.

Regarding the budget to finance HSESHD improvement processes for the micro-organizations, these would be financed for a fraction of the funding of the Official Development Assistance (ODA) of member states of the Development Assistance Committee (DAC), and for the public funds that each country might want to dedicate, along with funds from nonprofits, businesses and financial corporations interested in supporting it.

3. Motivation

1. CORE VALUES

Besides supporting the UN principles and politics, the management model considers developing policies for decision making and HSESHD development while respecting the many cultures of the citizens based on their countries and places of origin.

Considering the global trend to mobile Internet access and use of social networks in the most remote communities, the technical platform offered by the model through apps will permit more inclusive access, so that most citizens can access the opportunities developed by the model.

The model will also allow providing direct support to the most excluded people through microgrants and microbonds to generate an equitable system with equal opportunities so all citizens can improve their own HSESHDs to improve their own well-being and that of humankind.

2. DECISION-MAKING CAPACITY

Given that the model is structured as an executive program, and considering that the HSESHDs will be reviewed and approved by each UN member state before they are applied in each country, it is expected that the management model will make it possible to tackle global challenges and problems without risking a veto.

The highest political decision-making body for the model's activities is therefore the UN Economic and Social Council, which sets the policies for action and establishes both the responsibilities and the limitations of the model in the process of its implementation and operation.

The technical, administrative and operational structure of the suggested model will give it great flexibility for decision making and efficient implementation at the global level.

Regarding finances, given the diversity of possible funding, such as government funds, international cooperation, corporations, social corporations, nonprofits and even citizens of member states, it is expected that as soon as activities begin, funds will grow exponentially based on how social networks and the social marketing strategy to be implemented are able to socialize the opportunities and benefits of the model for the citizens and the interest groups related to its financing.

3. EFFECTIVENESS

As opposed to the classical paradigm of financing specific projects for problems related to global risks and challenges, which can only be partially implemented in certain areas or specific micro-regions for a very limited amount of people, where the results, impact and sustainability are generally not likely to be evident, the proposed management model, based on the quantum physics paradigm, will allow a greater effectiveness due to the following foundational aspects of the model itself:

a) It promotes direct participation on a mass scale by citizens in the improvement of their own microstructures and microprocesses, which are directly related to the challenges the model aims to address, in their homes, educational centers and places of work.

b) Due to the scale of the growth and the dynamic of the social networks, the model uses a large variety of wills and resources, both financial and non-financial, which allows people to access micro-funding and share best practices, including new ways to improve their standards of living in their own micro-organizations.

c) The model also facilitates the spontaneous creation of multicultural communities united by a common interest, which will lead to greater awareness and understanding of the diversity in the world and consequently greater respect and tolerance among human beings in their diverse environments.

Regarding the means available for the model to ensure the implementation of the decisions, the model takes into account the following issues:

a) For the development of changes and improvements by citizens in their microstructures, the model suggests HSESHDs agreed on in each country based on their own cultural diversity, completely aligned with facing the great global risks and challenges.

b) The funding for the model must directly reach the citizens who implement the changes in their microstructures, in contrast with the classical financing model, in which a low percentage of funds reach their destination, or they reach a limited number of persons in an inequitable fashion, with high intermediary costs and inefficient financial operators.

4. RESOURCES AND FINANCING

The intensive use of information technology that distinguishes this model allows the strategic organization structure for managing the program at the global level to be located centrally at the UN, where annual operational costs in human resources, materials and services are estimated at USD 3 to 4 million.

Regarding the 193 member states where the UN already has offices, the annual operational costs for the program in each country can be estimated at USD 250,000 to USD 300,000.

The investment costs for validating the HSESHDs and their graphical information supports for each micro-organization, based on the multicultural needs of each country are estimated to be an average of USD 30,000 to USD 50,000 per country (to cover consulting fees and validation workshops).

Since the UN annual budget for the 2016-2017 year is USD 5.69 billion [11], it is expected that this model can easily be absorbed by the global organization.

The budget for the HSESHD improvement processes in each country's micro-organizations would be financed as follows:

a) A fraction of the funds from the Official Development Assistance (ODA) from the Development Assistance Committee (DAC) member states. According to official information recorded by the Organization for Economic Cooperation and Development (OECD), in 2016 the net ODA of the DAC member states was USD 142.6 billion [12].

b) The government funds each government may be able to contribute, together with funds from nonprofits, businesses and financial corporations that may want to contribute to fund the HSESHD improvement processes for the micro-organizations in their own countries, considering that the world Gross Domestic Product (GDP) reported by the World Bank for 2016 [13] was USD 75,641.58 billion.

If we consider the number of homes as micro-organizations in the world and divide the total population of 7,525 million by 5 people, we get a total of 1,505 million homes. If out of these we set a target to reach 5% of them per year implementing HSESHD improvement processes, every year 75.25 million homes would get involved. If 20% of them are considered low income, 15.05 million homes would have to be subsidized per year. At USD 1,000 per home for microgrants, microbonds or microloans, the total required would be USD 15.05 billion/year, which is only 0.020% of the world GDP, or 10.55% of the net OAD of the DAC member states.

5. TRUST AND INSIGHT

In the current paradigm, human and global development depends on power structures and their decisions, which cannot be changed. The proposed governance model, however, is based on empowering citizens to self-evaluate and improve their HSESHDs to face global risks and challenges, which would make it possible for its implementation to be accepted by the current power structures at the UN level as well as in each member country, as long as the proposed model does not affect the economic and political interests of those structures.

Empowerment strategies are already known by large companies and corporations to be successful mechanisms for delegating or transferring decision-making power to lower levels in the organization in order to reach goals more efficiently and with greater focus on the customer.

As for social and economic empowerment of citizens, the Governance and Social Development Resource Centre (GSDRC) of the University of Birmingham

found, in one of the research projects published by Emilie Combaz and Claire Mcloughlin in August 2014 about voice, empowerment and accountability [14], that empowerment is positively associated with behavioral improvement to promote health and protect women against violence, though there are gaps in understanding the long-term effects of empowerment on political and social inclusion.

However, the authors remark that recent research has identified promising aspects of empowerment in people regarding strategic and holistic interventions that go beyond short-term projects, tactics or tools. They recommend focusing on the need to think and work politically and adapting change theories considering local incentives and the power dynamics in each context.

Therefore, they submit that technical and financial collaboration actors are increasingly being called upon to take on a facilitating and promotional role in citizen empowerment and accountability, which means working through public and private systems to develop consensus and direction to solve common problems in general, since they generally present obstacles to citizen accountability.

HSESHDs would overcome these obstacles because they are designed to build consensus and direction for citizens to approach global risks and challenges following the criteria of the power and culture of each country, which allows citizens to be empowered as they make decisions, seek financing and act.

The use of information technology that supports the model will also make it possible for citizens to carry out accountability processes regarding HSESHD improvement and the use of resources received for that purpose, as they publish the process and their accomplishments in their mobile apps and social networks. This will provide additional oversight and social recognition, previously unavailable, by members of their own social networks.

6. FLEXIBILITY

The model, both in its own structure and in its processes, contains mechanisms for reviews and improvements, in the following components:

a) A structure led by an executive director, accountable to the UN Executive Committee on Economic and Social Affairs (ECESA) based on the strategic plan developed for the implementation and operation of the model at the global level. This implementation will be what is measured in the evaluation of the executive director's performance in the management of the model.

b) A strategic plan that sets the goals, targets and indicators for the model, which will be reviewed and adjusted or changed annually based on the results.

c) A department of development and support forHSESHD improvement, responsible, among other things, for updating and improving HSESHDs and their multimedia supports based on the context and the cultural diversity of each country.

d) A department for development and innovation for the global portal and mobile apps, responsible for updates, maintenance and technical support for the entire platform according to the users' needs and the technological innovations.

e) A department of monitoring and evaluation, responsible for adjusting the indicators and the measurement processes based on the context and the cultural context in each country as well as developing systematic reports of the challenges and accomplishments of the model in continuous improvement ofthe model, to suggest corrective measures to be implemented by the structural organs involved in the management of the model.

f) A department of global social network marketing management, responsible for designing, implementing and evaluating the social network marketing strategy to reach mass participation by citizens in their micro-organizations in self-evaluation and improvement of theirHSESHDs using the portal and the specially designed mobile apps, as well as providing feedback to the other program organizations to improve the processes for developing HSESHDs as well as the technical platforms and the financing mechanisms for the model.

g) A department of citizen participation and social recognition management, responsible for monitoring and auditing online systems for eligibility verification, for remittances and delivery of microgrants, microbonds and microloans, and for suggesting necessary improvements.

7. PROTECTION AGAINST THE ABUSE OF POWER

Since the organizational structure recommended for implementing the model is part of the UN programs, it is subject to the principles, policies and rules that bind the UN Therefore, the danger of the structure overstepping its authority would be limited.

On the other hand, the review and approval of the HSESHDs by the member states themselves means that their sovereignty is respected, and given the technical character of the HSESHDs, no internal government issues of the member states would be touched on.

8. ACCOUNTABILITY

To ensure that the functions of the model submitted are carried out effectively and efficiently, the following aspects are considered in the structure and management processes:

a) An executive leadership and decision-making structure with clearly defined roles at the assembly level, the executive council level and the executive leadership level. The latter would be responsible for the strategic and operational management in the decision making for the model.

b) A strategic plan and operational plans for the model with clear goals and targets, which become evaluation instruments for the executive leadership and the department leaders and managers as established by the structure of the model.

c) Since the governments that adhere to the model as part of the UN have a political and financial commitment, those member states are also assumed to have political and financial responsibilities for the implementation of the model in their own countries.

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