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Disaster Risk Management, Education and Business: An Informed Relationship

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Abstract:- Over the past thirty years, the manifestations of climate change have been experienced with intensity, as a result of global warming and the greenhouse effect that, promote and cause alterations of the environmental ecosystem (land, water, air), derived and known as phenomenological events, which manifested in episodes of disasters, during the 1882_83, 1996_97 and 2016_17 biennium's of the Children's Phenomenon, the Girl, the Coastal Child 3.4. The research paper presents disaster risk management, education and enterprise, under the guise of an informed relationship (epistemology) and, focuses on the competencies of the researcher, the global and national actions taken to show the importance of associating and articulating disaster risk prevention, with education in society, with university specialization at the post-gradual level, with the company and the economic sectors, with integrated and corporate communication and, also, practically explains the convergence and characterization of disaster risk, danger (threat), exposure, fragility and vulnerability of people and business, and finally we offer the findings and results found, with the conclusions and recommendations.

Keyword:- *Disaster Risk Management, Disaster Risk Prevention, Hazard (Threat), Exposure, Fragility and Vulnerability.*

I. A BRIEF EPISTEMOLOGICAL APPROACH TO DISASTER RISK MANAGEMENT

Disaster risk management must be incorporated and articulated to the local, provincial and regional (departmental) development planning process, which considers and groups so-called strategic sectors for the economic and social development of emerging countries willing to consolidate regional, continental and global sustainability, in this line requires normal and continuous attention to public and private institutions, which are structurally the main ones in strengthening and direction to achieve resilience and sustainable development in the country. To understand and manage *disaster risk* knowledge, it involves using the methodology of science and scientific research, associated with other disciplines and arts that converge in common sense, covered in the nature and instinct of conservation and survival that men possess, in response to the problems arising from the inappropriate and disorderly use of occupied geospacers, the misuse of natural resources, the polluted environment, and the repercussions are visible and the repercussions are visible and they manifest through natural phenomenology by climate change, which every day strikes us, in the country, regions, continents and the world completely.

In general, we would like to point out that the epistemological tendency is oriented to the search for knowledge, here we ask ourselves, is it possible to establish the knowledge of the truth?, obviously that the immediate step turns to affirm yes, then we go back to infer with what cognitive means?,? and we respond with the use of our senses and experience, therefore, we come to locate ourselves in scientific and applied research, with a tendency and origin of knowledge of disaster risk management, which presents seven well-defined (key) scientific processes, including disaster risk prevention, for which we build knowledge of an epistemological trend scheme of scientific research, akin to empiricism. (Bunge, Mario, 1983)[1]

II. DISASTER RISK MANAGEMENT AND HUMAN TALENT IN RESEARCH

Understanding the knowledge and thematic of disaster risk management allows professionals to associate and identify with experiences about manifestations of climate change, through phenomenological events, derived from the phenomenology of natural, anthropic (where man intervenes) and, mixed (nature and man- intervene), which have been fostering, changing and destabilizing actions and behaviors in society and, as results of the experiences of impacts phenomenological initiatives recorded over the last four decades, forces us to take responsible initiatives, to walk in the direction to become people and institutions (public and private) increasingly resilient and this commitment means, the guidance of efforts, to create the appropriate conditions for the operation, operation and continuity, of the productive activities of goods and services at the national level, closely associated with the use of the Technology tools of the T+I+i Information, Intelligent and Logical Platform and Technological Infrastructure.

[1] *(Bunge, Mario, 1983)*

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(ZhaoDong, 2011)2 At this point it is very important to transmit information, that is how we are going to write and explain textually the building of the epistemological phase itself and akin to empiricism, this process will subsequently be the key sustaining factor to start the study, that is, they become marked as the theoretical and academic guidelines to be used during the process of scientific research and, corresponding to:

a) Knowledge of disaster risk prevention,
b) Experience and disciplined and continuous work,
c) Preferred academic training,
d) Attitudes and commitment to research,
e) Skills and open scientific mindset, and others, that researchers should have responsible for disaster risk prevention.[3] (Rose, 2017)
f) Open mind to develop potentialities.[4]

III. GLOBAL ACTIONS TO DEAL WITH NATURAL DISASTERS

During the 1990s, important coordinated global actions were carried out through the United Nations (UN), whose purpose was to generate knowledge on issues related to climate change, environment, resilience, sustainable development, the Children's Phenomenon, the Girl's Phenomenon; Coastal Child Phenomenon 3, 4, and according to the importance and seniority, we point out the main actions as follows:[5]

1) First, we have the Yokohama Strategy for 1994 and the UN mandate held in Geneva Switzerland in 1999, which established the scientific research networks and mechanisms for disaster risk reduction and vulnerabilities.
2) As a second mandate we have the main conclusion taken from the International Disaster Reduction Strategy, known as Eird (proposed for the period 2000... 2010) whose motto was, "to build resilient cities as an integral part of sustainable development".
3) The third mandate then corresponds to the Hyogo Framework for Action 2005-2015, which points out the increase in the resilience of nations, setting five priorities for action in all institutions such as:[6]

a. The culture of disaster risk prevention, resilience and sustainable and sustainable development.
b. The security of countries, people, infrastructure, livelihoods and governance.
c. *Strengthen to promote and replicate knowledge of disaster risk management in the education of society,* distinguishing specialization throughout the professional level.
d. Implementation of disaster risk management in economic, social, political, technological and environmental development planning, in public and private institutions.
e. Achieve the active and determined participation of organized civil society.

IV. NATURAL DISASTERS AND GLOBAL ECONOMIC IMPACT

According to global statistics, flooding has been regarded as the most major natural disaster in the world, with the serious consequences of loss of life, livelihoods and substantial economic damage, such as:[7]

a) Occurrence of disasters in the U.S., flooding in 2011 caused 113 deaths and cost $8.41 billion (obtained from Live Science 2012), is 8,410'000,000.
b) On the European continent and especially in the Republic of Russia, the 2016 floods affected 12,000 people and damaged 8000 homes (by the 2016 flood).
c) In the Republic of Bosnia, 4 million people were affected by the floods in 2014 (Aljazeera Latina 2014).
d) Economic growth in the State of Serbia slowed by 0.4% due to flood destructions in terms of human lives and infrastructure in 2014 (Belgrade 2014).
e) In the European region, the United Kingdom, floods in 2015 fl cost 15 billion and affected thousands of families (International Committee of the Fourth International 2015).
f) Also, Bangladesh is included, 3 million people were affected, and 34,000 homes destroyed, while 200,000 were damaged along with several injuries and casualties (Information Bulletin 2014)
g) In the country of Nepal, 106 people were killed and 155 were missing, who were subsequently pronounced dead due to heavy rains in 2014 (Information Bulletin 2014).
h) In the Republic of India, 150 people died along with severe damage to infrastructure and agricultural land in the floods during 2014 (Information Bulletin 2014).
i) Finally, the state of Pakistan is among these nations, which has faced several devastation in terms of human lives, infrastructure, livestock and agricultural land (Pakistan Bureau of Statistics 2016). (Race, 2017)

V. GEOGRAPHICAL CONSIDERATIONS FOR NATURAL DISASTERS

In the Americas, South America and Central America and the Caribbean the repercussions have been of unsuspected magnitude, one of the most affected countries is the Republic of Peru, the geographical characteristics, climatological characteristics and the location in the fire circle of the continent, has developed a marked negative and disaster-prone trend, which are continuous processes of vulnerability and permanent risk, caused by nature (natural phenomenology) itself, others with the help and intervention of man(phenomenology of anthropic origin) and also the

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2 *(ZhaoDong, 2011)*
3 *(Rose, 2017)*
4 *(Race, 2017)*
5 *(EIRD, 2005 - 2015) (Development, 1987 August)*
6 *(Lizardo Narváez, 2009)*
7 *(Race, 2017)*

combination of both, called mixed phenomena (mixed participation phenomenology), for the Peruvian case we consider the following backgrounds as follows:

- During the 1970s, 1980s and 1990s the vision of defense against the occurrence of disasters (earthquakes and floods) was promoted, as a response to care for affected populations, yet the risks were determined to be problems development and failed to avoid the emergence and construction of future risks.[8]
- Strategies for implementing disaster risk estimation, prevention and reduction, preparedness, response and rehabilitation, as well as reconstruction should be under the direct responsibility of agencies related to Development and Homeland Security.[9]
- The physical and natural conditions of the hemisphere place Peru as a country within the circle of fire exposed to phenomenological dangers. In this location our territory presents: high seismicity (volcanic activity), climatic changes (phenomenon the boy and girl, droughts, frosts, etc.), geological phenomena such as avalanches, landslide, floods and others that are recorded in the Indeci and Ministry of Defense.
- In our country the population density on the coast concentrates 53.6% of population, with the use of 12% of territory which increases the vulnerability compared to the mountains (37.1%.30%) and jungle (9.3%.58%).[10]
- In addition, according to the UN Intergovernmental Panel of Scientific Experts, Peru is rated as the third country in the world most affected by global warming and climate change.

VI. CHARACTERIZATION, IMPORTANCE AND NEED FOR DISASTER RISK PREVENTION

Since 2011, disaster risk management has been gradually implemented as a social process, where the ultimate priority and end is the *prevention, reduction* and ongoing control of *factors disaster risk In* society, as well as in addition, adequate preparedness and response of people to disaster situations is prioritized, taking into account national policies with particular emphasis on those relating to economic, environmental, security, national and territorial matters in a sustainable manner.

Under this umbrella of Sinagerd Law, disaster risk management is fundamentally based on *scientific research* and *information recording* (a familiarity to scientific research is evident, akin to the fundamentalists), and allows to guide policies, strategies and actions at all levels of government (public sector) and society (private sector), with the aim of protecting the lives of the population and the heritage of people and the State. According to Law No. 29664, Article 3.

Next, we will establish the location of the components of disaster risk management and disaster risk prevention, as follows:

g) Disaster risk estimation
h) Disaster risk prevention
i) Disaster risk reduction
j) Reducing vulnerability
k) Reducing the degree of exposure
l) Reducing the level of fragility and consistency
m) Disaster risk prevention culture
n) National Disaster Risk Management Policy
o) National Disaster Risk Management Plan

VII. DISASTER RISK MANAGEMENT AND THE OPEN AND DIVIDED EDUCATION PROCESS

Disaster risk management, in accordance with Law No. 29664, which creates the law of the National Disaster Risk Management System_Sinagerd, is intended to protect human life, public and private infrastructure, ensuring basic services for productive, economic and social development and having safe living for populations in the regions of the country, also allows the conservation of the heritage avoiding costly losses and material deteriorations, the country's economic, social, political, cultural and environmental growth.

In this order, disaster risk management must be strongly linked to the Development Planning and Land Management Process, in regions that include the entire national territory, associating the estimation, *prevention* and reducing risk, with development programs and projects that tend to reduce vulnerability conditions, in the face of obvious threats or dangers in districts, provinces and regions (departments) at the national level.[12]

In this context, both the National Disaster Risk Estimation Center_Cenepred and the National Institute of Civil Defense_Indeci, have submitted academic proposals separately, through agreements with university institutions at the post-post level (diplomas and master's degrees), this unilateral and divided action, has not allowed to unify the proper implementation of public national, regional and local development policies, coupled with the lack of technical knowledge, academic preparation, scientific and professional knowledge on disaster risk management in Peruvian state institutions and companies.

This inconvenient articulation and association, have not allowed to comply with the proper implementation of the processes and threads of reactive, corrective and prospective management, contained in Law No. 29664 that creates the National Risk Management System of Disasters-Sinagerd, enacted on June 14, 2011 and which takes as a reference and essentially improves, Law No.

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[8] *(PCM, 2011)*
[9] *(Merino Palaces, Luís, 2017)*
[10] *(Indeci, 2006)*
[11] *(PCM, 2011)*

19338, called Sinadeci_National System of Civil Defense. Education plays a unique role in society, hence the need to spread the culture of disaster reduction of earthquakes and earthquakes, the social researchers in Lisbon Portugal, indicate strategies that involve the disaster risk education and, point to it as a long-term and long-term process that goes from study, diagnosis, knowledge, through understanding, to choices and actions that drive preparedness, prevention and recovery in a way Integrated.(G. Musacchio, 2015)[13]

We establish disaster risk prevention strategies that cover the education of children and adults, such as a bottom-up approach, from awareness raising to reducing the potential effects of disruption to society. This analysis of compulsory school education is presented in three European countries with high seismic risk, including Portugal, Iceland and Italy, revealing that in general there are some plans supported by states in a partner manner.

The crucial aspects of natural hazard risk education are from the beginning age, the lack of complete data in textbooks, and the lack of in-depth studies at the end of their compulsory education cycle.

Practical tools, immersive environments and approaches to learning by playing are the most effective ways to arouse interest in children, to provide an impression of memory, as a message towards a culture of civil safety for years to come.

VIII. CORPORATE COMMUNICATION AND DISASTER RISK MANAGEMENT

The occurrence of disasters, involves immediate decision- making and often in real time, so the use of communication technologies for disaster risk management, have added actors and participants in the affected scenario, with the aim of avoid the effects of these phenomena on people's behavior, the tranquility of society and global public health, Brazilian researchers analyze the discursive versions of specialists, managers and volunteers on the use of these technologies in Sao Paulo, Brazil.[14]

At first glance we can indicate that there are results and, show us that:

- Informal actions reduce alerting time in chaotic situations;
- Risky, but polarized communication, can operate together as a multiple network; and flexible technologies can be adapted to adverse situations and transported to different locations, meeting government and civil society demands in general.

- *Here's the question: Are these communication practices based on disaster risk prevention?*

To answer the question, we turn to the distinction between the uses of the three risk communication technologies, two issues pass them: the possibility of equipment failure and the objective of preventing and reversing this situation.

- *If all technology is faulty, however flexible, is it possible to take into account the possibility of avoiding disasters?*

This is the main problem with the current form of disaster risk prevention, "Because if it is necessary to prevent the catastrophe, you have to believe in its possibility before it happens. If, on the contrary, if you can avoid them, do not perform keeps the field impossible, and prevention efforts are shown respectively useless and sterile"

Thus, the assumption that it is possible to avoid environmental disasters through prevention strategies is paradoxical: there is no way to guarantee that a disaster is or is avoided, or even to confirm it through our current technical and scientific devices.[15] The prevention agent based on the principle of absolute caution is as failed as the prophet announcing a potential catastrophe.

If the catastrophe occurs, the prevention agent, as well as a prophet, failed because he had not acted in order to avoid it, when the catastrophe does not occur, he remains within the scope of the impossible, of the improbable, the prevention agent cannot provide evidence that legitimizes his Actions.[16]

It is stated *that risk reduction is closely related* to vulnerability reduction, so disaster risk management policies need to *create synergies with social policies (with the explicit component of gender equality), environmental and economic, as well as with other planning instruments.* In this sense, the subject is still pending.[17]

Another factor of extreme relevance to disaster risk management that takes into account that, there are different needs and demands between men and women, by virtue of the differentiated social construction of vulnerability (based on identities and gender relations), is the production of gender-disaggregated information (it is recommended to do so separately).

This issue is an extremely urgent task for the design of policies that reduce the negative effects of extreme weather events on the population as a whole and, these policy initiatives in this area will be effective, equitable and sustainable into the extent that they are gender sensitive.

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12 *(PCM, 2011)*
13 *(G. Musacchio, 2015)*
14 *(Martin Henry, 2015)*
15 *(Martin Henry, 2015)*

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In addition to recording information, it is vital to invest in the socialization of this, with the aim of building capacities in this area, since the increase in capacities allows to reduce vulnerability.

The purpose of *vulnerability reduction and capacity building* processes should be to overcome inequalities in the distribution of responsibilities, access and control of resources, participation in processes decision-making, with the ultimate aim of stimulating more equitable relationships between men and women.

We must set a goal of *increasing political commitment to combat the root of disasters, and for this, policies and programs should focus on reducing vulnerabilities, that is, sometimes we will understand, that the causes that cause disasters are poorly applied political, economic, social and environmental, and are related to the basic values, beliefs and principles on which societies and cultures are based, which influence our personal relationships and our natural environment.*

Long-term solutions are based on the ability to build fairer, more equitable societies, with a sense of solidarity that activates social participation and co-responsibility.

IX. THE CHARACTERIZATION OF SECTORS AND ECONOMIC ACTIVITIES INVOLVED

In this context, the Universidad Nacional Mayor de San Marcos and the School of Post-Graduate Degree in Systems Engineering and Computer Science - UNMSM, have been addressing these issues with relative importance and, "they comply in addressing one of the priority axes for the country as the climate change and the ramifications of phenomenological events of natural, anthropic (intercourse in man's hands) and mixed (intervention of nature and man).

Which contribute to generating the climate of stability for sustainable development and resilience of the people and institutions of the country; from there, the need arises for scientific research studies, on the consequences and materialized impacts on the country's seven economic sectors", (Sunat, 2015 , web portal) such as: industrial agricultural sector, fisheries and aquaculture sector, energy, mining and hydrocarbons sector, construction industry sector, manufacturing sector, goods marketing sector and finally other services.

According to the Uniform Industrial Classification-CIIU and Sunat, in the country "thirty-one economic activities are carried out, all of them, progressively associated by the large internet network, through T+I+i Information Technology tools, Intelligent and Logical Platform and Technological Infrastructure, used by people, public institutions, private and non-governmental organizations and, for the Peruvian case, we will name the most important ones as:

- Oil refining,
- Products, meat, sugar,
- Food, beverages, tobacco,
- Textile goods, leather, footwear,
- Chemicals
- *Plastic products,*
- Metallic products,
- Non-metallic products,
- Iron, steel, copper, silver, gold,
- Electricity
- Water
- Transport, telecommunications,
- financial intermediation, health and education, among those of greater relevance."[18]

X. NATURAL DISASTERS AND THE DIMENSIONS OF THE SUSTAINABILITY TRIANGLE

A set of administrative decisions of governmental and now private court, organizational and operational knowledge, have already been developed by societies and communities to implement policies, strategies, and thus strengthen capabilities to reduce the impact of natural threats and consequential environmental and technological disasters.[19]

Now, these environmental and socio-economic impacts, associated with natural disasters, already have factors that contribute to the reduction of the magnitude of material and human damage and, through thoughtful approach and analysis, based on qualitative and quantitative content and characteristics, integrating the three dimensions, such as: i. social, political and cultural; 2. Economic, financial and capital goods; and 3. Environment, science, technology and innovation, of global sustainability.

Thus, we have the relationships with the paradigms of disasters, which first name the classic chain of Risk_ Vulnerability_ Resilience, hydro-meteorological, climatological and geophysical origin; to study:

- Estimating disaster risk
- Disaster risk prevention
- Disaster risk reduction
- Reducing vulnerability
- Deepen the reduction in the degree of exposure
- Insist on reducing the level of fragility and structural decomposition
- Creating the conditions for a culture of disaster risk prevention

[16] *(Martin Henry, 2015)*
[17] *(Soares Denise, 2013)*
[18] *(Merino Palaces, Luis, 2018)*

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In other words, the aim is to identify key factors to reduce the vulnerability, exposure and fragility of the impacts of natural disasters; shared and associated reflection will enhance the decisive influence of human capital, the resources used in social work, related to the social and economic structures of countries, as well as the factor of reduction in communities that may be exposed and affected.[20]

(Mata Lima, Alvino Borba, Adilson, Mata Lima, & Antonio, 2014)aspects addressed and should be considered in a mandatory manner in the design of development and implementation programs for disaster prevention plans.

Sustainable development should consider in a comprehensive and balanced way the environmental, social and economic dimensions always using the updated technology available to achieve the objectives envisaged as illustrated in Figure 1.

Fig 1:- Sustainability Triangle in the Republic of Peru1

(2) Presentation of risk, danger and vulnerability

If we want to study the process of occurrence of risk, it goes back to the studies of Greek culture, when the master philosopher and the disciples held large talks to interpret, first, the natural phenomena and then the manifestation of the phenomenology such as: rains, earthquakes, waves, storms, hurricanes, volcanic eruptions, lava spills, erosions, etc.[21] Given the importance to society, it was intended to be assigned the category of divine punishment, to these impacts of phenomenological events of the evolution of nature known as catastrophe.

This widely used word in antiquity comes from the Greek word catastrophe, meaning ruin or misfortune, and from strophe, which means to become, and refers to a fateful event of disorder, where there is great destruction and that alters behavior and status regular people and things. (Wikipedia, 2019)

XI. DISASTER RISK CHARACTERIZATION

Disaster risk is the likelihood that the population and their livelihoods will suffer damage and loss as a result of their vulnerability and the impact of a danger that may be imminent.

Risk = Danger(threats) * Vulnerability (R - P * V)
Mathematically can be represented by an algorithm. (see Figure 2).[22]

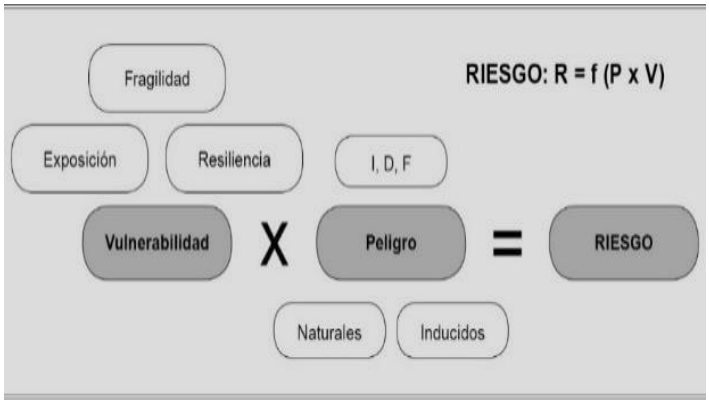

Fig 2:- Disaster risk characterization

XII. DISASTER CHARACTERIZATION

In society, disaster comes to be the massive destruction of lives, material goods, livelihoods, public and private investments, social and economic infrastructure, so to understand the meaning and scope of disaster, we resort to common sense, of relate it first to a natural fact that emerges from the typical dynamics of nature expressed in natural phenomenological events, such as: rain-flood, huaico-slip, hail-ice, earthquake- earthquake, avalanche-fall, tsunami-tsunami, thunderstorm (TSE)-ray, strong wind-storm, fire-lava flow, pollution-spill, frost- colds, volcanic eruption, snow avalanches",[23] among the most well-known and common nature's dynamics.

[19] *(Merino Palaces, Luís, 2017)*
[20] *(Mata Lima, Alvino Borba, Adilson, Mata Lima, & Antonio, 2014), p. 3*
[21] *(Wikipedia, 2019)*
[22] *(PCM, 2011)*

Immediately we have to refer to those who are provoked by the intervention of the hand of man, who directly, indirectly and negatively affect the normal development of people, life, livelihoods and livelihoods and the industry that inevitably leads to permanent or partial changes with an impact on human societies and to the animals and living beings that inhabit that geospatial area; they also have an impact on the ecosystems and the environment of which they are part and which play a certain role in this vast and complex balance of nature, then we will name the ones with the greatest impact as:[24]

Wars, armed conflicts, deforestation, indiscriminate logging, informal mining, forest predation, water pollution, mining links, mining explosions, burning of reed beds, sea pollution, rivers, lagoons, air, etc. (see Figure 3.)

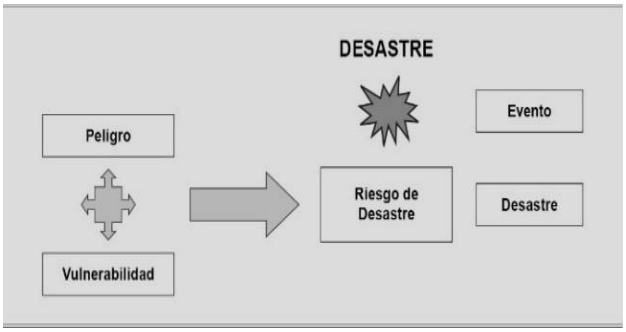

Fig 3:- Characterization and representation of disaster

XIII. BUSINESS, EXPOSURE AND VULNERABILITY FOR DISASTER RISK

In the task of national development, it must also be recognized that, since the beginning of the millennium," the notion of risk is inherent in the idea of enterprise and the search for a dynamic balance in the advances of human knowledge, on common well- being and profitability under certain conditions of probability and uncertainty."

By specifically referring to the problems of disasters, circumstances and social conditions in which society, public and private institutions are significantly affected by the impact of phenomenal events of diverse origins, such as earthquakes, hurricanes, floods or explosions, with serious consequences, which then become in terms of disruption of their normal life and their frequent levels of operation (operational continuity of public and private institutions), we are faced with a notion or concept of particularized risk, what we may call "immediate disaster risk" or "risk of future disaster."

See Figure No. 4.

Fig 4:- Phenomenology, disaster risk prevention and resilient enterprise

XIV. COMPANY AND PLATFORM AND TECHNOLOGY INFRASTRUCTURE

Climate change is leading to changes and changes in actions and behaviors in society, as a result of the experiences of phenomenological impacts recorded over the last four decades, forces us to walk in the direction of becoming a resilient and, by standing the way in which, efforts are to create the appropriate conditions for the operation and continuity of productive activities of goods and services at the national level, closely associated with the use of T+I+i Information Technology, Intelligent and Logicial Platform and Networked Technology Infrastructure tools, which are associated by individuals, societies, companies, institutions and the state.

XV. CONCLUSIONS_RECOMMENDATIONS

- The study and understanding of knowledge and thematic management of disaster risk includes the participation of professionals of disciplined work, with attitudes and commitment to scientific research, who are identified with experiences of the climate change, through phenomenological events, derived from phenomenology of natural, anthropic (man intervenes) and, mixed (nature and man intervene).
- The experience of the researcher and team is important in the transmission of information, that is how we are going to write and explain textually the construction of the events (of the epistemological phase itself and akin to empiricism), this process to posteriori, will be the key sustaining factor to start studies, i.e. they become marked as the theoretical and academic guidelines to be used during the process of applied scientific research.

[23] *(Lizardo Narváez, 2009)*

[24] *(Merino Palaces, Luis, 2018)*

- There is empirical evidence to indicate that, over the past three decades, important global actions were carried out coordinated through the United Nations (UN), whose purpose was to generate knowledge on issues related to the climate change, environmental care, resilience, sustainable development, the Child Phenomenon, the Girl's Phenomenon; Coastal Child Phenomenon 3,4., highlighting disaster risk management, disaster risk prevention and resilience, in the education of society, also distinguishing specialization at the professional level.
- According to global statistics, flooding has been regarded as the most major natural disaster in the world, with the serious consequences of loss of life, livelihoods and substantial economic damage, this materializes in the Americas, South America, Central America and the Caribbean and, North America, where the repercussions have been of unsuspected magnitude, one of the countries most affected is the Republic of Peru, the geographical, climatic features and location in the continent's circle of fire has developed a marked negative and disaster-prone trend, which are continuous processes of vulnerability and permanent risk, caused by nature (natural phenomenology).
- In the Republic of Peru, under the umbrella of Sinagerd Law, disaster risk management has been in place since March 2011, and is based primarily on scientific research and information recording (a familiarity to the scientific research, in the interests of empiricism, of informed relationship), and agrees to guide policies, strategies and actions at all levels of government (public sector) and society (private sector), in order to protect the lives of the population and people's heritage.
- The third national policy of disaster risk management is strongly linked to the Development Planning and Territorial Planning processes in the regions, which include the entire national territory, associating the estimation, prevention and reducing risk, with development programs and projects that tend to reduce vulnerability to obvious threats or hazards in districts, provinces, and regions (departments) in the country.
- We have established the fundamental role of education, which plays a unique role in society, hence the need to spread the culture of prevention and risk reduction of earthquakes and earthquakes, as highlighted by researchers (G. Musacchio, 2015) in Lisbon Portugal.
- At the same time, there is a need to articulate efforts to strengthen the status quo of implementation of disaster risk management in the Republic of Peru, which means opening windows of great scientific and academic opportunities, so that we collect expressions from the ESAN Higher School of Business Administration, who tell us about the object, explanation and presentation of a proposal to introduce disaster risk management issues into ESAN Master's programs,
- At the Peruvian institutional level and, especially for scientific and academic research, it is necessary and advisable to unify (not divide) the education and teaching of disaster risk management, the crucial role and role comes to be participation, assistance and advice from the National Disaster Risk Prevention Estimation Center_Cenepred and the National Institute of Civil Defense_Indeci, both institutions lead the process of institutional implementation, and in the academic field, participation and participation are added active presence of the Center for High National Studies_CAEN, which becomes the Institution of Improvement at the academic postgraduate level, of the highest level of the Educational System of the Development, Security and National Defense Sector.
- It has been found that in the face, during and after the occurrence of disasters, immediate decision-making and often in real time, requires the use of communication technologies essential for disaster risk management among authorities, actors and participants (people affected and damaged) in post-disaster scenarios, with the aim of coordinating, controlling and avoiding the negative effects of these phenomena, on people's behavior, the tranquility of society and global public health.
- The participation of organized civil society, government and enterprise, contribute to the solution of the problem of natural disasters, working together on the social conditions that society, public and private institutions can be vulnerable and affected in the immediate future, by the impact of phenomenological events of various origins, such as earthquakes, hurricanes, floods or explosions, in terms of the disruption of their normal life and their levels of operation (operational continuity of public and private institutions).

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