

# The National Defense System (Sisdena) and the National Disaster Risk Management System (Sinagerd): Reflections and Pending Actions in the Republic of Peru

Luís Alberto Palacios Merino Dr. (\*)

Center for Higher National Studies (CAEN) - Higher National University of San Marcos (HNUMS)

**Abstract:-** The Republic of Peru frequently presents the impact of natural phenomenology, the episodes of disasters caused in the last forty years, with the catastrophic experiences of the biennia 1982-83, 1996-97 and 2016-17, forces us to put on the showcase of social responsibility disaster risk management urgently.

Scientific and academic research explains the importance of studying and reflecting on the leading role of the National Defense System-Sisdena and the National Defense System Management of the Risk of Disaster-Sinagerd, both as pillars in the Security National.

We put to your consideration the context of applied social research, with a mixed, explanatory and descriptive approach of empirical evidence.

We delve into the experiential introspective, to relate the national phenomenology, politics (PNGRD) and the national plan for disaster risk management (PLANAGERD).

We also point out the social value of forging a collective and public conscience, in the articulation and efficient institutional association in the functioning and operability to manage the risk of disasters and act in case of the occurrence of disasters, in disaster scenarios and critical situations, in order to provide immediate care, assistance and support to people, saving lives, in those vulnerable populations due to natural phenomenology with a national scope.

**Keywords:-** Sisdena, Sinagerd, National Phenomenology, Disaster Risk Management.

## I. TERMINOLOGY AND MEANING

Basic terminology listing		
<b>Sisdena</b>	With an integrating and permanent function, the scope of application is developed in the internal and external context, and provides that any person, natural or legal, who is obliged to participate in the National Defense (Mindef CM, 2021).	1
<b>Sinagerd</b>	Inter-institutional, synergistic, decentralized, transversal and participatory system. It seeks to identify and reduce the risks associated with hazards or minimize their effects, as well as avoid the generation of new risks, and repair and respond to disaster situations, based on principles, policy guidelines, components, processes and instruments of DRM. (Sinagerd, 2011)	2
<b>National phenomenology</b>	Natural phenomena that occur in the country can be of natural, anthropic (anthropogenic) and mixed origin.	3
<b>Disaster Risk Management</b>	Social process whose ultimate goal is the prevention, reduction and control of disaster risk factors in society, as well as the preparation and response to disaster situations, uses national policies, with special emphasis on those of economic and environmental matters security, national and territorial defense in a sustainable way (Sinagerd, 2011)	4

**II. STATE OF THE ART**

The research is aimed at studying and reflecting on the Importance of the System of **Security** and Defense **National-Sisdena** and the National System of **Management** of the **Risk** of **Disaster-Sinagerd**. We have resorted to the Literature Based Discovery Review (LBD), where the characterization of applied social research predominates. In the review and consultation of the literature, we find explanatory and some descriptive research, the use of statistics and ICTs is also appreciated. The national phenomenology has been deconstructed and presented, we have associated it with the policy and the national plan for disaster risk management. We also make known the importance of efficient articulation and association, within the framework of institutional operation and operation. The purpose is to generate knowledge in scenarios of **catastrophes** and critical situations. In addition, we reiterate the social value of forging a collective and public conscience, to help and assist people immediately, especially in those populations that have been extremely punished with natural phenomenology (**rains intense\_floods** and **earth quakes\_high** seismicity).

**Problematic description by phenomenological events**

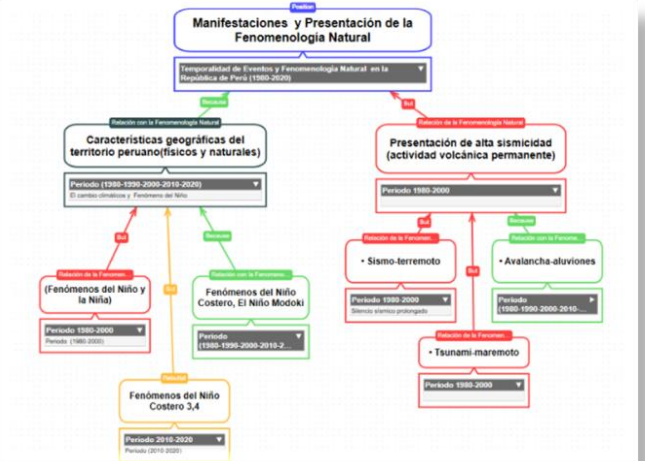
The Republic of Peru has the geographical location, which occupies an important part of the central strip in the Ring of Fire of the Pacific Coast and due to the geological characteristics of the terrain, it is exposed to constant and intense seismic and volcanic activity.

This situation considered critical corresponds to the friction fringe of the relative motion of two tectonic plates.

The United Nations Organization-UN assigns the utmost importance when it comes to addressing disaster risk management, to achieve an understanding of the key components involved in reactive and corrective management of risk from natural disasters.

The literature review tells us about the greatest efforts made to date, which have been dedicated to describing and explaining situations that occurred in the past, and which constitute empirical evidence (based on grounded), with the inclusion of experiences (such as the experience of experiential) of disasters due to earthquakes, heavy rains, hurricanes, cyclones, cold weather, mining spills, volcanic lava spills, floods, landslides, storms and many forms of manifestation of phenomenological events.<sup>1)</sup>

These special characteristics of nature are related to the intense manifestations of natural phenomenology derived from the phenomena of El Niño, La Niña, El Niño Modoki and El Niño Costero 3,4. It is recommended to see Illustration N ° 1 of Manifestation and Presentation of Natural Phenomenology in the Republic of Peru.



Source: (Palacios Merino LD, 2021)

**The importance of knowing natural phenomenology and national security**

On the other hand, we also have that these phenomena are often associated and increased with the intervention of the human hand (anthropic or anthropogenic phenomenology). And then, there appear actions of looting-vandalism, explosion-violence, terrorism and also the action of third parties (mixed phenomenology), which further aggravate the situation, magnitude and scope of the disaster scenario.

Among the actions of greatest global relevance, we can identify that during the 1990s, important global and coordination actions were carried out through the United Nations (UN). The purpose has been to promote and generate knowledge on global issues and related to climate change, such as the greenhouse effect, with the reduction of the ozone layer, with the care of the environment, the resilience of society, sustainable development and development. sustainable. Hence the importance of studying the El Niño Phenomenon, the La Niña Phenomenon, the Niño Modoki Phenomenon, the El Niño Coastal Phenomenon 3, 4<sup>2</sup> to design framed actions of Disaster Risk Management in National Security and Defense.

Among the most well-known and common geological events and phenomena in the Republic of Peru that obey the dynamics of nature, we have the following <sup>3</sup> :	
■ Rain-flood	■ Tsunami-tidal wave,
■ Huaico-slip	■ Dry Electric Storm (TSE) - lightning,
■ Slush-ice	■ Strong wind-storm,
■ Earthquake-earthquake	■ Fire-lava flow,
■ Avalanche-barrage	■ Pollution-spill,
■ Frost-cold,	

<sup>1</sup> (Fernandez Arce & Chavarría Córdova, 2012)

<sup>2</sup> (Brundtland Report, 1987)

<sup>3</sup> (Lizardo Narváez, 2009)

### **From the Hyogo Framework for Action (2005-2015) to the Sendai Framework Agreement (2015-2030)**

The main objective of the world scientific community is Prevention, Disaster Risk Reduction and Vulnerability Reduction, and all of them have been considered as the most relevant and globally important, due to the implications and consequences that it has to ensure life. on planet Earth.

Within the process of identifying the most relevant coordination tasks, we present the main global and hemispheric actions applied as follows:

- [a] During the decade of the nineties, we have first, the Yokohama Strategy (year 1994) and then, the UN mandate held in Geneva\_Switzerland in 1999, where the networks and mechanisms of scientific research were established for the reduction disaster risk and vulnerabilities<sup>4</sup>.
- [b] Subsequently, as a second term, we have had the main conclusions, taken from the International Strategy for Disaster Reduction, also known as ISDR, proposed for the period 2000-2010, whose motto went viral worldwide with "building resilient cities as part integral part of sustainable development".
- [c] Then, we have the association with the third mandate corresponding to the Hyogo Framework for Action (2005-2015), which specifies the increase in resilience of nations, establishing five priorities for action in all institutions, such as (UN, 2013):
  - [1] The culture of disaster risk prevention, resilience and sustainable and sustainable development.
  - [2] The security of countries, people, infrastructure, livelihoods and governance.
  - [3] Strengthen, promote and replicate the knowledge of disaster risk management in the education of society, distinguishing the specialization at the entire professional level.
  - [4] The implementation of disaster risk management in the planning of economic, social, political, technological and environmental development, in public and private institutions.
  - [5] To achieve the participation and determination of organized civil society.

### **The Sendai Framework Agreement in Japan as a result of the WCDRR**

Now, we are under the global validity of the Sendai Framework Agreement [2015-2030]<sup>5</sup>. It is the result of the work of an important scientific document and is related to other agreements of the Agenda for the year 2030, such as:

- [1] The Paris Agreement on Climate Change.
- [2] The Addis Ababa Action Agenda on Financing for Development.
- [3] The New Urban Agenda and the Sustainable Development Goals.

This document and Sendai Framework (2015-2030) received the unanimous endorsement of the UN General Assembly, after the third World Conference on Disaster Risk

Reduction (WCDRR, known by its acronym in English as Word Conference Disasters Risk Reduction).

The Sendai Framework for Disaster Risk Reduction (2015-2030) is an international document, adopted by UN member countries between March 14 and 18, 2015, during the World Conference on Disaster Risk Reduction.

### **The presence of intense seismic activity - earthquakes**

The geographical characteristics of the Republic of Peru place it in the central strip in the Ring of Fire of the Pacific Coast and it is exposed to intense seismic and volcanic activity, as it corresponds to the friction strip of the relative movement of two tectonic plates.

In the first place, we have the Nazca plate (PN), which occupies a large part of the subsoil of the Pacific Ocean and whose edge generates a strong collision, which extends from Panama to the south of Chile.

In the second instance, there is the South American plate (PS), which ranges from the Peru-Chile marine trench in the west, to the axis of the South Atlantic Mountain Range, in the east of the South American continent.

According to the statistical records of disasters, we have the occurrence of one of the deadliest earthquakes of humanity and it happened in the Republic of Peru, it materialized on May 31, 1970, where more than 66,000 people died.

Social researchers typify it as the most destructive earthquake in the history of Peru and it was registered in the Andes mountain range in 1970.

This earthquake left between 50,000 and 80,000 people seriously affected and with loss of their livelihoods.

The earthquake lasted 45 seconds and had a magnitude of 7.80 on the Richter Scale, practically destroying the city of Huaraz, in the Department of Ancash (which lost half its population).

It caused a landslide and ice that buried and erased the city of Yungay from the map, as part of the Yungay province, in central Peru.<sup>6</sup>

Additionally, Indeci tells us in his text Lessons Learned from 2010, that one of the experiences with the greatest repercussion and impact on Peruvian society is the one related to the Pisco Earthquake, in the south of the country.

The occurrence of the earthquake with its epicenter in the city of Pisco, located 300 kilometers south of the capital Lima, manifested itself on August 15, 2007, with a magnitude of 7.80 on the Richter scale, also known as the earthquake of the south.<sup>7</sup>

<sup>4</sup> (UN, 2013)

<sup>5</sup> (SENDAI SMarco, 2014)

<sup>6</sup> (Indeci, 2010)

<sup>7</sup> (Statista, 2020)

### The occurrence and impact of heavy rains - floods

In the eighties, other phenomenological events took place, such as heavy rains, floods, frosts, freezes, landslides, etc. that spread over the last forty years.

For the Peruvian case, we must make reference that the painful experiences with the greatest repercussion and impact on society are those referred to natural disasters, caused by the occurrence of intense rains, during three episodes, marked with a frequency of occurrence between 13 and 20 years of time separation, thus we have:

- The first episode occurred in the 1982-1983 biennium.
- The second dramatic scenario took place during the years 1996-1997.
- And the third, recently materialized during the 2016-2017 biennium.

### The National Defense System - Sisdena and changes in the institutional framework

With the process of modernization and updating of the Peruvian State, the National Security and Defense System (Sisdena) is created.<sup>8</sup>

The Peruvian State, through the government of the day, sought to guarantee the Security of the Nation, through the National Defense System (Sisdena), which has the functions of integrating and permanent, with a scope of application that is developed in the internal context and also external, and provides that every person, natural or legal, is obliged to participate in the National Defense of the Republic of Peru.

In this context, the Secretary of National Security and Defense (Sedena), as a key coordinating body, which appears on the scene since 1969, through Decree Law No. 17532, in order to achieve a State with Justice and a Nation more cohesive to face the possible threats that may arise, including the appearance and confrontation of possible and potential natural disasters.

By way of explanation about the evolution of this important institution, we can indicate that a few years later and corresponding to the year 1987, by Legislative Decree No. 441, the Organic Law of National Defense was approved and the Sedena was attached to the Ministry of Defense.

For the year 1991, through Legislative Decree No. 743, the Sedena resumed its initial position, becoming an autonomous budget sheet, within the Presidency of the Council of Ministers (PCM).

In 2003, with Supreme Decree No. 016, the Secretary of National Defense was again merged with the Ministry of Defense.

Finally, on December 6, 2012, by Legislative Decree No. 1131, the Secretary of National Security and Defense (Sedena) was created, attached to the Presidency of the Council of Ministers (PCM).

<sup>8</sup> (Mindef CM, 2021)

These actions in the Sedena lead to designate it as the institution responsible for articulating the National Security and Defense Policy with the Ministries, Public Organizations, Regional Governments and Local Governments, through the National Security and Defense Offices (Osdena).

Likewise, it is responsible for advising and assisting the National Security and Defense Council.<sup>9</sup>

When it comes to integrated planning, Sisdena and Sedena must work together with the National Center for Strategic Planning-Ceplan, who develop the Comprehensive Strategic Planning for National Security and Defense.

Sedena contributes to the comprehensive strategic planning of national security.

The Secretary of National Security and Defense - Sedena, being a public executing agency, attached to the Presidency of the Council of Ministers, is responsible for the Management of the National Defense System - Sisdena, with jurisdiction throughout the national territory.

It is convenient to articulate the operation of the aforementioned System, with the public entities that comprise it, maintaining inter-institutional coordination relations with the Offices of National Security and Defense\_Osdena, or those that have your institutional representation.<sup>10</sup>

### Characterization of the National Defense System - Sisdena

Through the National Development Strategic Plan, called the 2021 Bicentennial Plan, approved by Supreme Decree No. 054-2011-PCM, the Ceplan incorporated the priorities and among them the Strategic Axis No. 3 of the State and Governance, referring to Operational and Efficacy of the National Security and Defense System has been determined, as one of the Policy Guidelines on National Security and Defense, which seeks to associate and optimize the operation of the National Security and Defense System, as the priority to defend the interests permanent of Peru.<sup>11</sup>

The National Policies of obligatory compliance for the entities of the National Government, define the National Policies in various matters and recognize the Policy on National Security and Defense.

This National Policy has guidelines that prioritize promoting the active participation of all economic, social and political sectors, with the levels of government and of society as a whole, in achieving the objectives of the National Security and Defense Policy;

The National Defense System\_Sisdena, provides that the National Security and National Defense Council\_CNSDN<sup>12</sup> It constitutes the governing body of the National Defense System and the organ of the highest level of

<sup>9</sup> (Mindef, 2018)

<sup>10</sup> (Sedena, 2015)

<sup>11</sup> (Mindef CM, 2021)

<sup>12</sup> (Sedena, 2015)

political decision and strategic coordination and its functions include the approval of the Objectives and the National Security and Defense Policy, as well as the technical standards and guidelines for the implementation and evaluation of the National Security and Defense Policy.

The Ministry of Defense-Mindef has formulated the National Security and Defense Policy, of a multidimensional nature, in order to strengthen the operation of the National Defense System-Sisdena, in order to promote the development of the country and guarantee the Security of the Nation, the full enforcement of fundamental rights, the welfare of the population and the consolidation of the constitutional state of law.

In order to integrate Public Policies, the National Security and National Defense Council, in an ordinary session held on July 6, 2017, approved the National Security and Defense Policy; which contains three (03) objectives and twenty-nine (29) guidelines, which guide the actions of all the actors involved who interact in an articulated and participatory manner in the activities of National Security and Defense

### The National Disaster Risk Management System - Sinagerd

The frequent manifestation of natural phenomenology in Peruvian territory increases, especially from the decade of the eighties onwards, as a consequence of the materialization of the Phenomenon of El Niño, Phenomenon of La Niña, Phenomenon of Niño Modoki, Phenomenon of El Niño Coastal 3.4.

As a result of the phenomenological impacts, attention to disasters has been promoted (post-disaster action), in this space they have led us to carry out different scientific and academic events to study them and obtain valuable knowledge, findings and contributions, in order to manage disaster risk.

In order to establish the conclusions and recommendations, through the lessons learned from the earthquake in the city of Pisco (2010), the National Institute of Civil Defense-Indeci, socialized the participation of drills related to earthquakes and intense earthquakes.

They also indicated to us the urgent need to improve and include the application of public policies for national, regional and local development, with technical, scientific and professional knowledge, on disaster risk management in institutions and companies of the Peruvian State and participation of the Private Sector.

Looking at the past, in the decade of the seventies and attending to the need to modernize the processes in the public administration, and to have an appropriate normative and legal framework, to replace Law No. 19338 of the National Civil Defense System-Sinadeci<sup>13</sup>, Law No. 29664 of the

National Disaster Risk Management System - Sinagerd was created and promulgated<sup>14</sup>.

Said Law was promulgated on February 8, 2011, and signed by the Constitutional President of the Republic, Mr. Alan García Pérez, and that same year Supreme Decree No. 048-2011-PCM was issued on May 25, 2011 that approves the Regulation of Law No. 29664.

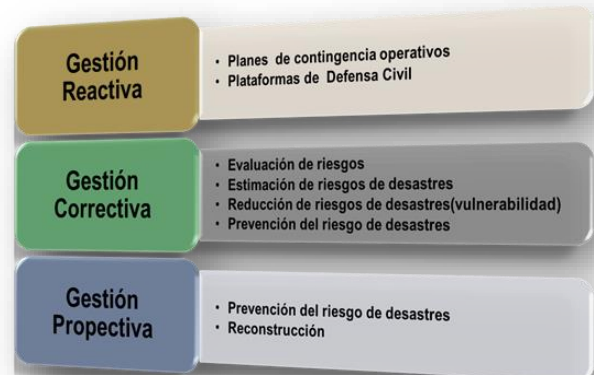
The National Disaster Risk Management System - Sinagerd, under the conceptualization of being an inter-institutional, synergistic, decentralized, transversal and participatory system, aims to identify and reduce the risks associated with hazards or minimize their effects, as well as avoid the generation of new risks, and preparation and attention to disaster situations, through the establishment of principles, policy guidelines, components, processes and instruments of Disaster Risk Management " (Sinagerd, 2011)

### Participation of the key processes of disaster risk management

The Systemic Approach to be presented will have as a key point, the inclusion of the processes and sub-processes of Corrective Disaster Risk Management under the lens of Vulnerability Reduction, with the support of the seven key processes<sup>15</sup> (It is recommended to see Illustration N ° 2), such as:

- [1] La Disaster Risk Estimation
- [2] He prevented in of Disaster Risk
- [3] The Disaster Risk Management
- [4] The preparation of People and Livelihoods
- [5] The Optimum setting of the Society
- [6] The Rehabilitation of Basic and Elementary Services
- [7] The Reconstruction Infrastructure action in Sustainable Conditions

*Illustration N ° 2 Key Components and Processes of the Disaster Risk Management System*



*Source: Own elaboration and Cenepred [www.cenepred.gob.pe]*

### The National Institute of Civil Defense - Indeci

It is in charge of assisting and advising on the implementation of Reactive Disaster Risk Management

<sup>14</sup> (Sinagerd, 2011)

<sup>15</sup> (PCM, 2011)

<sup>13</sup> (Indeci, 2010)

(GRRD) and can be indicated as a public executing agency, with the quality of budget specifications, attached to the Presidency of the Council of Ministers - PCM<sup>16</sup>, where the purpose and functions are to advise, assist and propose to the governing body the content of the National Policy for Disaster Risk Management, in relation to preparation, response and rehabilitation<sup>17</sup>

In addition, within its powers and responsibilities is to develop, coordinate and facilitate the formulation and implementation of the National Disaster Risk Management Plan, in what corresponds to the preparation, response and rehabilitation processes, promoting its implementation, under the and eminently reactive approach, in “post-disaster, after” scenarios.<sup>18</sup>

The antecedents found in the country and the region identify it as the model that has set the pattern of attention to disasters and has prevailed in the last forty years, and is based on the management of imminent danger, emergencies or disasters caused by the occurrence of adverse phenomenological events.

It obeys the immediate reaction process and is effective in the face of imminent danger and more applicable to slow-origin hazards, such as river overflows, streams, lagoons, or non-sudden floods.

Immediate action seeks to minimize damage from the impact of a disaster by acting in a coordinated and prompt manner.

Reactive management (Vivanco Ciprian, 2011b, pp. 2-4) It is based on contingency plans, response capacity, population organization, operational response planning, action protocols, drills and simulations, timely resources, and training prior to disasters.

According to the Sinagerd, reactive management “is the set of actions and measures designed to face disasters, whether due to imminent danger. (PCM, 2011) or due to the materialization of the risk” (Law 29664, Art. 12) and is based on:

- [1] Contingency plans.
- [2] The operational contingency plans.
- [3] It includes the management and coordination of the emergency or disaster at the national level.
- [4] Responsiveness.
- [5] The organization of the population.
- [6] The operational planning of the response.
- [7] Operational analysis, search and rescue.
- [8] Communications and logistics of the response.
- [9] Humanitarian assistance and mobilization.
- [10] The action protocols.
- [11] Drills and simulations.
- [12] Timely resources and training.

<sup>16</sup> (Sinagerd, 2011)

<sup>17</sup> (PCM P. d., 2011)

<sup>18</sup> (PCM, 2011)

[13] Pre-disaster training.

### **The National Center for the Estimation, Prevention and Reduction of Disaster Risk - Cenepred**

As a state institution, it is relatively new and was created in March 2011, as a public executing body, with the quality of a budget document, attached to the Presidency of the Council of Ministers - PCM, with functions and responsibilities inherent to the Corrective and Prospective Management approach. of Disaster Risk.<sup>19</sup>

The main functions are to advise and propose to the governing body (PCM) the content of the National Policy for Disaster Risk Management, in relation to the Estimation, Prevention and Reduction of Disaster Risk.

It is responsible for proposing to the governing body the Policy Guidelines for the Key Reconstruction Process, and also among its main competencies includes developing, coordinating and facilitating the formulation and execution of the National Disaster Risk Management Plan, in what corresponds to the Disaster Risk Estimation, Prevention and Reduction Processes, promoting their implementation.

### **Corrective Disaster Risk Management**

We work under the context of the Corrective Approach “that is, during, currently, do it now”, which is the set of actions and measures of a structural and non-structural nature that are planned and carried out in order to reduce or mitigate the existing risk (Law No. 29664, Art. 6, inc. 1 b.)

### **Prospective Disaster Risk Management**

It has a recent appearance and application and is working under the Prospective Approach “to do it before, that is, thinking about the future, in what is convenient for us and to do it better”, and corresponds to making the efforts of joint actions, which are directed, attend and focus on the concern of avoiding the generation and creation of future risk.

Work is done on the design of probable scenarios and simulations are created, with the purpose of getting involved in the appropriate decision-making, which affect the relationship of the communities with the ecosystems.<sup>20</sup>

The conceptual and operational difference lies in considering the processes and decisions that may be generated currently (that is, now, in the present), and that posteriori have potential adverse consequences and could trigger many conditions of risk and uncertainty in the future. (Narváez, Lavell, & Pérez, 2009a, p. 41).

### **The National Policy for Disaster Risk Management (PNGRD)**

In the Republic of Peru on November 2, 2012, the full Central Government, represented by Mr. Ollanta Humala Tasso as President of the Republic and the set of ministers appointed with Premier Mr. Óscar Valdez, promulgated the Decree Supreme No. 111-2012-PCM that approved the National Disaster Risk Management Policy (PNGRD).

<sup>19</sup> (Sinagerd, 2011)

<sup>20</sup> (Palacios Merino, Luis, 2018)

This document can be defined as the set of guidelines, aimed at preventing or reducing disaster risks, avoiding the generation of new risks and carrying out adequate preparation, attention, rehabilitation and reconstruction in disaster situations, as well as minimizing their effects. adverse effects on the population, the economy and the environment, as defined in Law No. 29664, Art. 5.

### **The National Disaster Risk Management Plan**

This public management document also called Planagerd is typified as a **instrument** of the **Sinagerd**, which integrates the key processes of Estimation, Prevention, Disaster Risk Reduction, Preparedness, Response, Rehabilitation and Reconstruction.

Operationally included are the **guidelines strategic**, the objectives, actions, processes, procedures and protocols, of a multi-year nature and necessary to specify what is established in the Sinagerd Law.

The Design of the National Disaster Risk Management Plan\_Planagerd should consider the strategic budgeting programs and other programs that are part of the Financial Strategy for Disaster Risk Management within the framework of the budget for results.

### **The National DRM Policy and absence of the priority objective (National Security and Defense)**

The National Disaster Risk Management Policy currently has four (4) priority objectives, all of them currently operating.

In order to facilitate articulation with National Security and Defense, the fifth priority objective should be created and added, which would have the purpose of institutionally associating Disaster Risk Management with National Security and Defense.

At present, Disaster Risk Management has been covered almost entirely under the predominant umbrella of the eminently reactive approach, which has been led and led by former officials attached to the Presidency of the Council of Ministers in the National Secretariat for Disaster Risk Management, where the accumulated experience and origin comes from the National Institute of Civil Defense-Indeci.

In addition to this specific situation, the National Disaster Risk Management Plan-Planagerd has an eminently and mostly reactive approach and content (“post-disaster scenarios, after”).

As for the Disaster Risk Prevention and Reduction activities that Cenepred directs and advises, they are currently operationally limited, with a partial and weakened national scope.

The considerations and actions that are assigned as a policy of mandatory compliance, are significantly reduced and the Corrective Disaster Risk Management is seen almost unnoticed, diminished and substantially painted with the lack of generation of technical, scientific, academic and

technological knowledge (close coordination with public and private universities).

One of the research concerns is to propose the creation of the Fifth Priority Objective related to society and articulation to the National Security and Defense System.

This proposed action seeks to consolidate the National Policy for Disaster Risk Management, and will allow us to institutionally articulate and associate with National Security and Defense.

This action is important and is linked to listening to the collective public conscience of Peruvians, to meet the mission objectives of the Bicentennial Plan of 2021.

### **Reconstruction with technical ignorance, polarization and politicization**

According to Law No. 29664 Sinagerd, Reconstruction is the seventh key process and is presented as an eminently technical, academic, scientific and technological process.

Unfortunately, the weak and almost unnoticed implementation is a reflection of the lagging empowerment of the institution that should advise and lead it.

To date, Cenepred participation is limited in generating knowledge with empirical and grounded evidence.

As an example of the politicization that does so much damage to the institutionality, it is having wrongly assigned the label of "Reconstruction with Changes", obeying the political use of the government in power (Peruvians for change).

This inaction directly affects the implementation of the Sinagerd and the Sisdema and has not provided and covered the need and demand in the Reconstruction process.

On the contrary, it is addressed by people and institutions with complementary expertise (not basic in knowledge of the processes and sub-processes of Reconstruction). Illustration N ° 3 entitled: Public works that threaten disaster risk management and national security, was developed in February 2016.

And it has as a parameter, the flow to the Piura River, at this point the authorities and heads of the Regional Government of San Miguel de Piura, took as a reference the usual, that is, to consider the flow and volume of water of 1900 M3 / Sec.

Without the previous and indispensable Disaster Risk Assessment studies, it was essential to work on the basis of a broader parameter, and that meant working with a flow value very close to 3500 M3 / second.

That was the recommended parameter and generated the tranquility and security of the citizens of Piura in the future.

Another important fact about how to articulate and manage disaster risk institutionally? In a context of empirical

and grounded evidence, as an a priori example, and with a framework of relative security for citizens and the country, lies in the decisions and responsibilities of the government authorities, which allowed the strangulation of the natural flow of the Piura River, as evidenced in Illustration N ° 3.

### Application of Reconstruction with Changes in the city of Piura

Illustration N ° 3 Public works that threaten disaster risk management and security



Source: self-made

This anti-technical and anti-professional action caused serious damage to the city of Piura, the Piura River overflowed in March and April 2017, disproportionately affecting the Security and Defense of the City of Piura.

This deficient government work and without adequate advice allowed the city of Piura to be tremendously exposed and impacted in the 2016-17 biennium, with disastrous consequences that we know of.

### New scenario for the CoVid 19 disease - Coronavirus Pandemic

With the appearance in the month of December 2019 of the CoVid-19 disease syndrome, also known as the Sars Cov-2 - Coronavirus Pandemic in the Republic of China, the world has changed, with the exponential multiplication of the outbreak global disease. (Swati Swayamsiddha, 2020)

Spreading in a dizzying and worrying way around the world and becoming a local, national, regional and international public health problem.

This new scenario makes us reflect on institutional weaknesses.

The National Disaster Risk Management System-Sinagerd and the National Security and National Defense System-Sisdena, are systemically related and are considered on the first line in occupying the capacities and functioning in the maintenance and support of health systems to national, regional, provincial and district level.<sup>21</sup>

<sup>21</sup> (Mindef CM, 2021)

The timely participation of the Peruvian Army, the Air Force, the Navy and the institutions of the Ministry of the Interior (Peruvian National Police) are essential and decisive, due to the operational capacity and the management of human and material resources, associated with great efforts to help society to reach it in the shortest possible time, with duly coordinated, institutionalized and programmed mobilizations.

The operational capacities of the Mindef and Interior institutions have been of special importance, due to the great protagonism in the actions of compliance with the strict and mandatory quarantine of the curfew.

### The Peruvian State and Institutionalism under the Lens of a Pending Commitment

The key factor to carry out coordinated actions with the population is the Institutionalism, we can notice significant differences, in terms of prioritization of efforts and resources oriented to Knowledge and Education for Climate Change, Greenhouse Effect and Disaster Risk Management.

The role of the Cenepred, Indeci, Mindef, Mininter, Minedu and other institutions have a unique role and allow facilitating articulation and operation to cope with managing disaster risk and generating security in the country.

In developed countries and with stable economies, the articulation and planning is carried out in an institutional, articulated, formal way and extends in states, regions, provinces and districts, generalizing a capacity for almost immediate personal and professional reaction, which according to the data empirically, it has not yet been achieved and now it is insufficient, however the way to achieve it is already beginning to be forged and spread through university higher education in the Republic of Peru and the world.

On the other side of the shore, there are developing countries that present weak governance and low association with institutions, there is a lack of the factor of public awareness, this condition of government and personal responsibility constitute a very powerful tool. when it comes to adequate coping with natural disasters. Here, university higher education and educational institutions have an earned space and the responsibility to assume the leading role, both present and future with the students and teaching professionals of Peruvian education.

Now it is convenient to study this problem, which increases with the insufficient availability of adequate financial resources to face them, with the lack of preparation, updating and training, in the event of natural disasters and the lack of articulation, association and coordination between government sectors and the community in general affect the institutionalism of Sinagerd and Sisdena.

### Weaknesses in the strengthening and development of professional capacities

The findings from the research carried out in the last twenty years indicate the low and medium low level of adequate technical knowledge to manage, prevent and



reduce the risk of natural disasters, as stipulated in the Sendai Framework [2015-2030].<sup>22</sup>

- Other results of the surveys and questionnaires have also pointed out deficiencies in the dissemination of knowledge of disaster risk prevention and reduction, in addition to the results of the research they confirmed that the disaster risk management education initiatives implemented To date they are not enough, where research perspectives guide us to build new conceptual models and propose the development and creation of new methodologies and procedures to scientifically address the risk management of natural disasters. (SENDAI SMarco, 2014)
- We have the urgent need to deepen the processes and sub-processes of disaster risk management (reactive management, such as post-disaster situation, that is after, corrective management\_during, that is now, the present and prospective management\_before, for projects and investments future), the components, key elements and thus, be in a position to explore phenomena and problems not yet discovered and recently emerging, based on scientific and academic research on natural phenomenology and climate change.<sup>23</sup>
- The indicated path contemplates the need to participate in field studies, in regions that face high disaster risks, where research has not yet been carried out, which can incorporate disaster risk management in regions affected by natural disasters, it is expected that the findings contribute and encourage development agencies to invest in education, updating and development of work on climate change and disaster risk management.
- Now, it is convenient to ask ourselves about the strengthening and development of capacities, with the pressing question: Have we made the necessary efforts in university education to incorporate teaching professionals, with basic knowledge of disaster risk management, to explain, corroborate and support what is understood by integration and operationalization of disaster risk management? Have we successfully communicated it to society? Why do we consider it necessary to do so and how should we do it?

#### **Promote the integration of development planning at the national, local and sectoral levels**

- The incorporation of disaster risk management in planning and development requires the elementary and technical knowledge of the personnel responsible for the implementation, with the premise that the risks must be managed to obtain low values and that they are reasonably practicable, it is necessary to weigh the risks versus benefits / expectations, with a maximization of benefit and minimization of harm.
- This principle, added to that of responsibility and transparency, which the authors point out, have the measures to support the creation of offices and delegations, dedicated to facilitating the incorporation of the Disaster Risk Management System associated with the Disaster Risk Management System, been efficient,

productive and conducive? National Security and Defense in the Development Planning of the regions and provinces affected by natural disasters?<sup>24</sup>

#### **Social debt to promote the culture of disaster risk prevention**

- The Disaster Risk Management System and the National Security and Defense System are based on the participation of the population in an organized manner, with the mechanisms of information, communication and dissemination of clear, timely and understandable messages.
- These actions will facilitate the generation and replication of public (collective) awareness in the interest of being part of the processes, to drastically reduce disaster risks and all of them through the reduction of vulnerability.
- Institutionalism is the structural and programmed way to achieve the benefits of incorporating Disaster Risk Management and associating it with the adoption of the Culture of Disaster Risk Prevention in Communities and organized Civil Society. Here, it is worth asking, in what situation do we find ourselves in the face of a culture of prevention of disaster risk?

#### **The outstanding debt of the priority objective on National Security and Defense**

- There is always talk about the magnitude, intensity, scope of the development of the consequences of natural disasters, in other cases we learn that the materialization of the impacts has been multiple and devastating; Here we note that the government resources at the local (municipal district), provincial, regional and central levels do not satisfactorily meet the needs, so a great mobilization of people, services and material resources is required, at this point it is necessary the immediate assistance of the military, land, sea and air institutions to serve the populations.
- The National Disaster Risk Management System (Sinagerd) together with the National Security and Defense System (Sisdena), must be scrupulously related and contemplate the close and solid articulation with the institutions linked to National Security and Defense tasks and, in addition, it requires the immediate assistance of the military and military forces of land, sea and air. The active participation of the gendarmerie (internal order support force) and members of the police forces and serenazgo are also required, all of them also become unconditional allies, to provide immediate, structured and programmed attention to the populations affected, as a consequence of the impacts of natural phenomenology, materialized in floods,<sup>25</sup>
- The history of disasters and tragedies in the country as a consequence of the natural phenomenology caused by floods and earthquakes reminds us of the need to use the knowledge and deconstructive lens of Science, Technology and Innovation (SENDAI SMarco, 2014), currently the new stage of the disease by the CoVid 19

<sup>22</sup> (Palacios Merino, 2017)

<sup>23</sup> (SELA, 2021)

<sup>24</sup> (Disasters, 2021)

<sup>25</sup> (Rachel Hilburg, 2020)

Coronavirus Pandemic<sup>26</sup> It forces us to look at the present and future on a national and global scale.

- The country has been affected by this health crisis and has knowledge in the corrective management of disaster risk, through the processes and sub-processes of disaster risk estimation, in disaster risk prevention processes and in the reduction processes of disaster risk, with the materialization in the reduction of vulnerability.
- These processes and sub-processes must be included in the Ministry of Defense, in the armed institutions, such as the Peruvian Navy, the Peruvian Air Force and the Peruvian Army, with adequate knowledge and technical support, which facilitates understanding and understanding of the decisive importance of institutionally articulating the National Disaster Risk Management System\_Sinagerd with the National Security and Defense System\_Sisdena.

### III. CONCLUSIONS AND RECOMMENDATIONS

- The country is frequently exposed to the impact of natural phenomenology, the episodes of disasters caused in the last forty years demonstrate this, with the catastrophic experiences of the 1982-83, 1996-97 and 2016-17 biennia.
- The UN through the Hyogo Framework for Action [2005-2015] and now the Sendai Framework Agreement [2015-2030], together with the world scientific community, has as its central objective the Prevention, Disaster Risk Reduction and Vulnerability Reduction.
- The Operability and Efficiency of the National Security and Defense System has been determined fundamental in matters of National Security and Defense as the priority to defend the permanent interests of Peru, therefore, politicization and political polarization directly affect institutional stability, here We need decisions with ups and downs and zigzagging changes in institutional management that affect short, medium and long-term work.
- The Peruvian state gives greater importance to the allocation of human and financial resources to Indeci in "post-disaster, after" scenarios, and the antecedents found in the country and the region identify it as the model that has set the standard for attention to disasters and has prevailed in the last forty years.
- In the current scenario due to the CoVid 19 Coronavirus Pandemic disease, the Disaster Risk Prevention and Reduction activities that Cenepred directs and advises is operationally limited, because the considerations and actions as a mandatory compliance policy are significantly reduced and the Management Corrective Disaster Risk is diminished, replaced and weakened with the articulation to National Security and Defense.
- Political polarization and politicization affect the institutionality, a latent problem is having wrongly assigned the key process of Reconstruction, the name "Reconstruction with Changes."
- The Disaster Risk Management System and the National Security and Defense System are based on the participation of the population in an organized manner,

with the mechanisms of information, communication and dissemination of clear, timely and understandable messages, these actions will facilitate the creation of public and collective awareness for the interest of being part of the processes, to drastically reduce the risks of disasters and all of them through the reduction of vulnerability.

- The occurrence and consequences of natural disasters have been multiple and devastating, here we note that the government resources of the local (municipal, district), provincial, regional and central levels do not satisfactorily meet the needs, so a great deal is required. mobilization of people, services and material resources, at this point the immediate assistance of military, land, sea and air institutions is necessary to serve the populations.
- The corrective management of disaster risk through the processes and sub-processes should be included in the Ministry of Defense, in the armed institutions, such as the Peruvian Navy, the Peruvian Air Force and the Peruvian Army, with the appropriate knowledge and technical support, which facilitates understanding and understanding of the decisive importance of institutionally articulating the National Disaster Risk Management System\_Sinagerd with the National Security and Defense System\_Sisdena.
- In accordance with the Sendai Framework Agreement [2015-2030], the Peruvian state must comply with facilitating and prioritizing the generation of knowledge to face natural disasters, in disaster scenarios and critical situations and reiterates the social value of forging a Public awareness to help and assist people immediately, saving lives in those populations that have been extremely punished with natural phenomenology, both the Sisdena and the Sinagerd, currently have a limited, weak and inactive leading role.
- The incorporation of the Priority Objective (V) is recommended in the National Policy for Disaster Risk Management, belonging to the National System for Disaster Risk Management\_Sinagerd, and refers to the articulation with National Security and Defense.
- The research has the purpose of reminding us that the Peruvian state has an obligation to prioritize the life, health, education and common welfare of citizens, hence we pray and recommend that greater attention and resources be given to strengthen the Security and Defense System. Nacional\_Sisdena and National Disaster Risk Management System\_Sinagerd (with emphasis on the corrective approach, that is to say now, the present).

### REFERENCES

- [1]. Anna Elisa Bandecchi, VP (2019). Raising awareness of geohydrological and seismic risks in schools: preparation and perception of risks. (RI Disasters, Ed.) Elsevier. doi: [www.sciencedirect.com](http://www.sciencedirect.com)
- [2]. Atta-ur Rahman a, \*. C. (2019). Appraisal of gaps and challenges in Sendai Framework for Disaster Risk Reduction priority 1 through the lens of science, technology and innovation. Disaster Science. doi: [www.elsevier.com/locate/pdisas](http://www.elsevier.com/locate/pdisas)

<sup>26</sup> (Swati Swayamsiddha, 2020)

- [3]. <https://elperuano.pe/normaslegales/decreto-supremo-que-aplicación-la-politica-de-seguridad-y-defen-decreto-supremo-n-012-2017-de-1600032-1/>. doi: <https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-aplicación-la-politica-de-seguridad-y-defen-decreto-supremo>
- [4]. Disasters, O. d. (February 2021). UN Office for Disaster Risk Reduction. doi: [www.unisdr.org/](http://www.unisdr.org/)
- [5]. EYY Chan †, AM (January 2019). Scientific evidence on natural disasters and health emergency and disaster risk management in Asian rural-based area. (BM Bulletin, Ed.) British Medical Bulletin, 2019. doi: [permissions @ oup.com](https://permissions.oup.com)
- [6]. Indeci. (July 2010). Lessons Learned: Pisco Earthquake 2007. Indeci, Sinpad. doi: [www.ideci.gob.pe](http://www.ideci.gob.pe)
- [7]. Brundtland, O. and. (1987). Brundtland Report of the World Commission on Environment and Development. Washington\_D\_C .: Praint UN - USA Washington\_D\_C. Retrieved from [www.onu.org](http://www.onu.org)
- [8]. Lizardo Narváez, AL (2009). Disaster Risk Management: A Process-Based Approach. Lima - Republic of Peru: Project Support for Disaster Prevention in the Andean Community - PREDECAN. Obtained from [www.comunidadandina.org](http://www.comunidadandina.org)
- [9]. M., D. (2013). Investigation methodology. Competency approach. Mexico: Threshing. Recovered 2016-2020
- [10]. Mindef. (2018). [https://www.mindef.gob.pe/informacion/documentos/libroblanco/Capitulo\\_IV.pdf](https://www.mindef.gob.pe/informacion/documentos/libroblanco/Capitulo_IV.pdf). doi: [ww.mindef.gob.pe](http://ww.mindef.gob.pe)
- [11]. Mindef, CM (January 2021). <https://ceeep.mil.pe/2019/09/04/let-s-strengthen-our-national-defense-system-with-the-national-security-and-defense-policy/>. doi: [www.ceeep.mil.pe](http://www.ceeep.mil.pe)
- [12]. Narváez, L., Lavell, A., & Pérez, G. (2009a). Disaster risk management, process approach. La Paz: Andean Community - Predecn.
- [13]. Net, DR (October 2019). Dictionary.reverse .net.espanol-definitions. Metropolitan Lima, Lima, Republic of Peru. Obtained from <https://dictionary.reverso.net/Spanish-definitions/>
- [14]. Palacios Merino, L. (April 2017). The corrective management of disaster risk and the relationship with the Regional Development Planning of Piura, year 2017 in the Republic of Peru. Cercado San Miguel de Piura, San Miguel de Piura Region, Republic of Peru: UNP. doi: [www.unp.edu.gob](http://www.unp.edu.gob)
- [15]. PCM, P. d. (March 2011). Regulation of the National Disaster Risk Management System - Sinagerd, Le y N ° 29664. doi: [www.pcm.gob.pe](http://www.pcm.gob.pe)
- [16]. Rachel Hilburg, MN (2020). Medical Education During the COVID-19 Pandemic: Learning From A Distance. Journal Pre-proof the National Kidney Foundation ., doi: © 2020 by the National Kidney Foundation, Inc. All rights reserved.
- [17]. Roberto Hernandez Sampieri, CM (2018). Research Methodology: The quantitative, qualitative and mixed routes. From Mexico: Mc Graw Hill. Recovered in 2018, 2020
- [18]. Sedena, Pd (2015). doi: [https://www.minem.gob.pe/minem/archivos/file/institucional/defensa/Sedena\\_Politica\\_Seguridad](https://www.minem.gob.pe/minem/archivos/file/institucional/defensa/Sedena_Politica_Seguridad)
- [19]. SELA. (February 2021). <http://gestiondelriesgo.sela.org/>. doi: [www.sela.org/](http://www.sela.org/)
- [20]. Seyed Mojtaba Hosseini, FD (February 2019). Risk Assessment of Crisis Management in Response to Natural Disasters with an Emphasis on Earth. Civil Engineering Journal. doi: [www.civilejournal.org](http://www.civilejournal.org)
- [21]. Shahar Avin, BC (January). Classifying global catastrophic risks. Science Direct Futures. doi: [www.elsevier.com/locate/futures](http://www.elsevier.com/locate/futures)
- [22]. Sinadeci, P. (2010). National Civil Defense System. doi: [www.indeci.gob.pe](http://www.indeci.gob.pe)
- [23]. Sinagerd, P.-P. (March 14, 2011). National Disaster Risk Management System - Law No. 29664. National Disaster Risk Management System-Law No. 29664 - Sinagerd. Metropolitan Lima, Lima, Republic of Peru: PC - Andina.Peru. doi: [www.cenepred.gob.pe](http://www.cenepred.gob.pe)
- [24]. SMarco de SENDAI, O. (2014). Sendai Framework [2015-2030]. Sendai, Japan: UN. doi: [www.wcdr.org.com](http://www.wcdr.org.com)
- [25]. Statista. (2020). Statistics of Earthquakes in the World. Statista. doi: [www.satatista.com](http://www.satatista.com)
- [26]. Swati Swayamsiddha, CM (July 2020). Application of cognitive Internet of Medical Things for COVID-19 pandemic. Journal Pre Proof, Elsevier, Science Direct. doi: <https://doi.org/10.1016/j.dsx.2020.06.014>.
- [27]. Takako Izumi, RS (2019). Disaster risk reduction and innovations. Elsevier. doi: <http://dx.doi.org/10.1016/j.pdisas.2019.100033>
- [28]. Toinpre, OG (2018). A Conceptual Frame Using 'Knowledge' As a Lens for Deconstructing the Sendai Framework Priority 1: Understanding Disaster Risk. Procedia Engineering. doi: [www.elsevier.co/locate/procedia](http://www.elsevier.co/locate/procedia)
- [29]. Vivanco Ciprian, C. (2011b). Conceptual framework of risk management. Lime.
- [30]. wordreference.com. (October 29, 2019). Dictionary wword reference. Metropolitan Lima, Lima, Republic of Peru: wordreference.com. Obtained from <https://www.wordreference.com/definicion/peligro>



*Luís Alberto Palacios Merino Scientific Research and knowledge about the Disaster Risk Management System in the Republic of Peru.*

**(\*) Professional and Personal Profile**

[https://www.sunedu.gob.pe/registro-de-gradados-y-titulos/DNI\\_02620947](https://www.sunedu.gob.pe/registro-de-gradados-y-titulos/DNI_02620947)

- **Doctor in Development and Strategic Security.** CAEN-Center for Higher National Studies, I Promotion-Caen Year 2017 - Republic of Peru.
- **Doctor of Administrative Sciences-** Mention in Business Management. National University of Piura-UNP. Year 2018.
- **PhD studies** in Education Sciences, Guzmán y Valle National University of Education- La Cantuta University - 2018.
- **PhD studies** in Systems Engineering and Informatics, Universidad Nacional Mayor de San Marcos, Faculty of Systems Engineering and Informatics, Graduate School, Cycle III 2020.
- **MBA** University Academic Degree of Master in Administration National University of Piura, Year 2014.
- University Professional Title of **Industrial Engineer** Year 1987, National University of Piura. CIP 33334
- University Academic Degree of Bachelor in Industrial Engineering Year 1986, National University of Piura.
- *Others.*

**San Miguel of Piura, September 19, 2021, Republic of Perú**