

Malaysia Architectural Journal

Journal homepage: https://majournal.my/index.php/maj e-ISSN: 2716-6139



Natural Processes and Spatial Mobility In The Territory. Nuevo Santa Rosa, Cura Mori – Piura, With de Presence of El Niño Phenomenon 2017

Rocio del Alba Álvarez Sánchez

Universidad Nacional de Piura - Peru

ARTICLE INFO

Article history:

Received: 30 April 2024 Received in revised form Accepted: 15 October 2024 Available online: 23 June 2025

Keywords:

Resettlement, seasonal mobility, El Niño phenomenon, communal property.

ABSTRACT

The Bajo Piura, due to its low slope and proximity to the Piura River, is exposed to the flooding hazard due to the recurring presence of El Niño Phenomenon, on the northern Peruvian coast. Faced with this, the population that inhabits these territories, specifically, the community of Nuevo Santa Rosa, Cura Mori district, Piura Region, has put into practice seasonal mobility processes, and in recent years, the definitive resettlement, due to the pressure exerted by new agroappropriate communal investments to Qualitative methodology is applied to the study with activities such as; walking and urban tours, interviews, workshops with children; that allow identifying conditions for the choice of the new place of occupation by the community. Based on Álvarez (2019), This way of inhabiting the territory, obeys to a construction of ancestral knowledge, and a vision and recognition of the place they inhabit, as a communal space. These practices are into the territorial approach, enunciated by Magnaghi (2011), Beuf (2017), Canziani (2017) and Bernex (2018) which considers the territory is a complex living organism, which is in constant movement and evolution, where relationships are built between human beings and the environment they inhabit. Thus, the collective practices of the population constitute a culturally learned response in relation to the physical environment that surrounds them and demonstrate a rationality in the form of occupation of the territory. The research identifies a new scenario where the population coexists with the agro-export companies that are their new neighbors.

1. Introduction

The occurrence of natural phenomena can generate disaster situations depending on the degree of vulnerability of human occupations in the affected territory. In response to this, States usually develop policies such as population resettlement, aimed at reducing the risk exposure of the most vulnerable occupations.

E-mail address: ras2312@gmail.com / ralvarezs@unp.edu.pe

^{*} Corresponding author.

Successful models of resettlement processes in Latin America involve the State at different levels, the community undergoing resettlement as well as other local stakeholders, giving them specific roles that contribute to achieving the proposed objectives according to each reality and context. The preventive resettlement processes applied in Argentina, Brazil, Colombia and Guatemala (BANCO MUNDIAL, 2011) have important elements in common, such as a rigorous study of the population involved in the resettlement process and the active participation of the affected population in all stages of development and implementation of the work. In these cases, the State was a fundamental actor that implemented and strengthened policies so that the programs executed during resettlement would work efficiently.

In this context, in the event of an El Niño phenomenon, the Peruvian government has made some resettlement proposals, evaluating the relevance of some population occupations in a given territory in terms of risk exposure. However, these proposals lack rigorous studies of the population occupying a given territory, on the assumption that exposure to risk is the result of a poor knowledge of the place by those who live there.

The study considers it essential to study the ways of inhabiting the territory of the different human collectives that populate areas exposed to risk, as there are situations where this inhabitation may be temporary in nature, within the framework of ancestral practices of understanding the territory.

This situation has become more complex in the last two decades as the State has encouraged the privatization of areas originally for communal use, thus stimulating permanent occupations of the territory in Bajo Piura, in areas where seasonal land use was widespread.

For this reason, the present research is interested in studying the current practices of occupying the territory of areas regularly exposed to the El Niño phenomenon. For this purpose, the population of Bajo Piura has been chosen as a case study, studying more precisely the case of Nuevo Santa Rosa in the district of Cura Mori, province of Piura.

With the river flooding of March 2017, the inhabitants, mainly from the district of Cura Mori, moved by their own means or were evacuated to different camps, including Nuevo Santa Rosa, Cristo Viene, Jesús de Nazaret, Eleuterio Cisneros, Nuevo San Martín, Túpac Amaru I, Túpac Amaru II, all within the territory of the peasant community San Juan Bautista de Catacaos.

Figure 1 show the main areas where camps were located during the flood emergency of March 27, 2017. In response to the disaster, the government proposed a resettlement process in the 26 de octubre district, northeast of the city of Piura. This measure was raised to house the population that suffered the loss of their homes and livelihoods, in a scenario where their economic and social activities were paralyzed. This measure proposed by the State was rejected by the affected population of Cura Mori, who have preferred to settle in an area that is part of the territory of the San Juan Bautista de Catacaos peasant community, in the same district of Cura Mori, south of the city of Piura. This choice was not new to the people of Cura Mori, as it is a communal territory to which they have historically turned to in the event of needing temporary relocation due to flooding caused by the El Niño phenomenon or river overflows.

A situation of conflict arose between the State and the community as a result of two opposing ways of understanding the occupation of the territory. On the one hand, permanent occupation, on which the country's institutional and legal logics are based, and, on the other hand, seasonal occupation strategies, which, rather than being the result of improvised responses, would be a testimony to historical forms of adaptation to a particular territory.

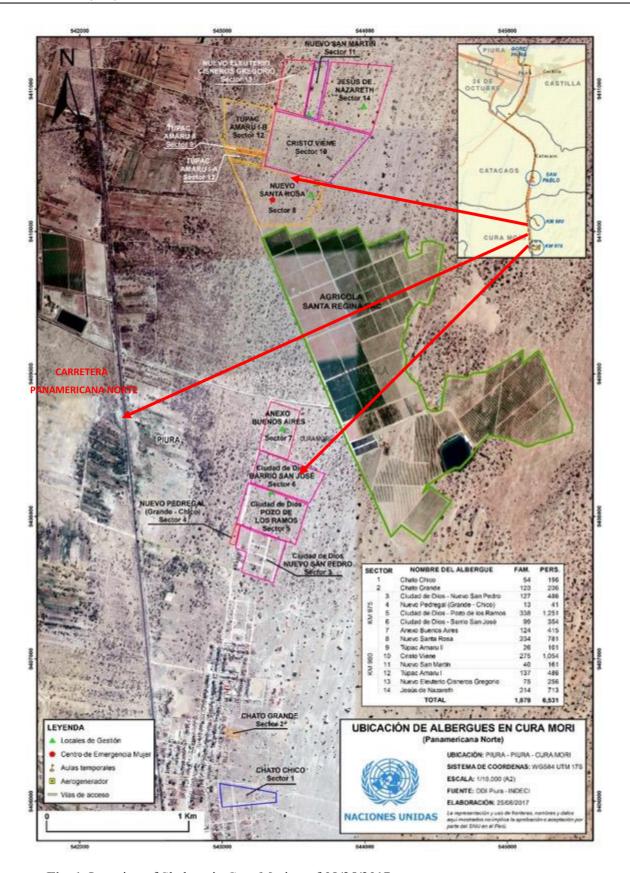


Fig. 1. Location of Shelters in Cura Mori as of 08/25/2017

Source: (Humanitarian Response, 2018).

Note: Arrows and text in red have been placed by the author.

Throughout history, every time floods occur due to the natural phenomenon El Niño, the inhabitants of Bajo Piura move to nearby, higher altitudes and stay there for a few months before returning to their places and recovering their livelihoods. This whole process would have been possible due to an occupation of the territory based on a communal property model.

By putting a massive emergency response policy first, the State has tended to ignore or undervalue the context, reality and idiosyncrasy of each specific population. This is manifested in the existence of particular patterns of occupation of the territory, which would obey an accumulation of ancestral knowledge and a vision of the territory as a communal space.

Starting from the territorial approach enunciated by Magnaghi (2011), Beuf (2017), Canziani (2017) and Bernex (2018). The territory is defined as a complex living organism, which is in constant movement and evolution, and where relationships are built between human beings and the environment they inhabit. Thus, the collective practices of the population constitute a culturally learned response in relation to the physical environment that surrounds them and evidence a rationality in the form of occupation of the territory.

What these authors say about territory applies to geographic space, in which the inhabitants know the behavior of nature and have developed strategies to inhabit the territory in coherence with its characteristics. These strategies do not arise spontaneously, but are the product of a historical construction of experiences in living, which today make up the knowledge and ancestral practices of the inhabitants of Bajo Piura.

Communal property is part of the so-called commons, which authors such as Hardin (1968) and Ostrom (1990) discuss with opposing positions on communal property. On the one hand, Hardin (1968) directly associates common property with free access to the same resource by many and the lack of control, which leads to increased pollution and environmental degradation. In contrast, Ostrom (1990), with a more positive stance, refers that common goods, when managed under their own rules or self-managed by those who make use of common resources, have managed to form a system that keeps adapting and incorporating changes that allow it to cope with disaster situations such as floods, droughts, among others.

According to this research, common goods are the territories inhabited by a certain group of people, which are regulated with elements based on customs and the sense of historical belonging as members of a community linked to a certain physical space.

Lower Piura is a dynamic territory with very particular conditions and important geographic features such as the Piura River, which has a changing course as it crosses the entire valley with minimal slope. This characteristic has meant that, in the event of flooding due to the occurrence of an El Niño phenomenon, the population has been displaced under the principle of communal land tenure.

In the present research work, the general objective is proposed as follows:

- To analyze from a holistic perspective, the existence of a rationality in the spatial mobility practiced by the population of the territory of Bajo Piura, as a response to recurrent natural processes identifying in it the resilience in the dynamic adaptation modes that are based on the vision of a territory of communal character.

In accordance with the purpose of this work, the following specific objectives are proposed:

- To relate the displacements as a consequence of the El Niño phenomenon to the collective memory of the population. In turn, to identify how historical, geographic and cultural components are related to the collective memory.
- To identify the role of land tenure in the traditional displacement processes that occur as a result of El Niño and to identify the impact that agroindustrial investments have in Bajo Piura with the acquisition of land as private property.
- Identify the different criteria taken into account by the population that are necessary or facilitate the practice of spatial mobility for seasonal occupation or resettlement.

2. Methodology

Based on Malinowski's (1973) studies on research methods in ethnography, a spatial study was carried out with an ethnographic approach in the territories of Santa Rosa and Nuevo Santa Rosa in the district of Cura Mori.

Malinowski maintains that when undertaking fieldwork or expeditions with the decision to test a hypothesis, one must be willing to change or discard one's views in the face of the evidence found (1973, p. 26). In this perspective, in the study conducted, it was necessary to leave preconceived ideas behind and to have openness of thought in the different activities that led to findings that have contributed to the research.

This study includes field work, direct observation of the daily activities of the population, based on walks with the villagers that allow us to understand the dynamic occupation of the territory (Figure 2), which is contrasted with in-depth interviews with villagers according to sex and age.

The walks with the villagers were done to verify the conditions in which the residents live and to know the limits and boundaries of the occupation with the facilities of the agro-industrial companies installed in the area. Field drawings and sketches were made, photographs were taken, and notes were made in a field notebook.

Within the new occupation, a first approach was had with the inhabitants of the area, which would allow subsequent visits to be made, noting important dates where one could visit places with greater attendance of people such as the school, the dining room, among others.

The walking tours, which included the author of the research, took approximately an hour and a half. Although according to the residents, they can travel the same distance on foot in forty-five minutes or an hour.

These tours are usually taken by some residents of Nuevo Santa Rosa, who work in old crop fields near the Piura River in Santa Rosa, their place of origin. However, the residents indicated that they have encountered some difficulties for some years, due to the growing appearance of fenced lands claimed as private property, changing the ancestral logic of occupation of this area of the Bajo Piura valley.

Likewise, the workshops with the population (Figure 3), (especially with children and women).

Workshops were organized with children. With the approach of Tonucci (2015), who proposes that children should have an active participation in the conception of cities, being references for issues of security, free movement, among others.

Children represent one of the most vulnerable groups when disasters occur. The information that we could obtain from the children would give us a perspective of the customs and the way of understanding the territory that has been transmitted to them by their parents.

The Nuevo Santa Rosa school was visited, where there was the opportunity to talk with teaching staff and children of different ages. The classroom was chosen with twenty-five children aged between six and seven years from the Nuevo Santa Rosa school with whom a participatory workshop was carried out by the author of the research and with the participation of the teacher in charge of the second grade classroom primary.

Thus, the children were asked to create a model of a recreational space – an outdoor play area. It is evident that for the children the river is not an element that generates fear, but rather it is an element that generates life that they captured next to abundant vegetation in which they placed birds and animals, the same ones that were a representation of part of the fauna of Bajo Piura.

In summary, the children's proposals evidenced a logic of belonging to the place, and despite their young age, they demonstrated knowledge in the use of materials and in the representation of the landscape that is familiar to them.

An experiential accompaniment was carried out, in order to understand daily life in typical homes in Bajo Piura. The different activities recorded helped to understand the use of spaces inside and outside the home, the relationship of the inhabitant with the context and the transmission of culture.

The mothers in charge of preparing food in the Nuevo Santa Rosa dining room were visited.

The author of the research shared the day with six mothers in charge of the daily preparation of lunches in the local dining room.

Women could take charge of food preparation because they had the possibility of leaving their youngest children at school or in child care facilities, installed by the Ministry of Women and Vulnerable Populations. After noon, the mothers of the families that required it, for which they had previously registered, went to the local soup kitchen to pick up the lunches to take to their families.

Two homes were chosen and in each one, the owner was accompanied in the development of her activities. Care was taken to ensure that the hours of coexistence did not interrupt the daily work that the women inhabitants of Santa Rosa carry out at home. At that time, it was possible to make diagrams of the typical house, which has a productive housing condition, since activities such as the preparation of chicha and the raising of free-range animals are carried out.

Long conversations were had with the women, where the resource of the interview was introduced as a means of obtaining information about the local way of life.

The interviews flowed naturally, without having an established questionnaire form. It was enough to start with simple questions about their daily lives. This experience was very enriching since the women were willing to establish an open dialogue and demonstrate the work they do at home.

The attendance to programmed meetings between the population and their leaders allow to identify in particular the aspirations and project ideas of the community, this is complemented with the photographic record, record of sketches and drawings using the representation of spaces as a tool for the analysis, for which, the previous training was used, in the freehand drawing of the author and the subsequent elaboration of the base drawing with final watercolor finish. These works strengthened the graphic understanding of everything seen in the field work and contributed to show the spatial relationships in daily life, from the location of equipment, infrastructure and furniture, to details of residential, social and economic activities (Figure 4).



Fig. 2. Walking tours from Nuevo Santa Rosa to Santa Rosa in the district of Cura Mori. Source: Own elaboration using Google Earth 2019. Photos: The author, 2017



Fig. 3. Workshop on recreational spaces, conducted with children from Nuevo Santa Rosa.

Photos: The author, 2017

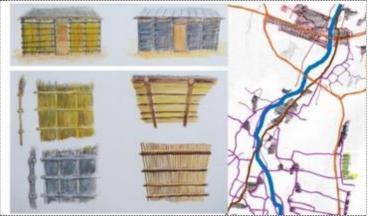


Fig. 4. Space representation as a tool for analysis. Source: Own elaboration, 2018.

Figure 5 outlines the methodology used in the research. With the occurrence of the emergency in Bajo Piura during the El Niño 2017 event, an approach was made to the shelters located near the Panamericana Norte highway at Km. 980. From then on, the hypothesis was formulated, which consisted of the identification of criteria taken into account by the population for the choice of land for seasonal occupation or for definitive resettlement. Then began the spatial study with the use of secondary sources for the bibliographic review, which consisted in the search and consultation of information that helped in the elaboration of a theoretical framework to explain the construction of the territory, communal property in the framework of the commons, risk management and vulnerability in the territory. In order to have a state of the art, a review of resettlement proposals as a disaster mitigation measure was made. Then, the context of land occupation processes in the Piura river basin was studied using historical information on land occupation and tenure in the lower Piura, taking into consideration important elements such as the geographical feature of the Piura river and the presence of the El Niño phenomenon, with an impact on the course of the Piura river and on the territory of the lower Piura.

This information was complemented with the spatial study using primary sources with ethnographic approach, for which field work was carried out.

After both studies with the use of primary and secondary sources, the spatial information was systematized. Maps, plans, diagrams and synthesis of information were prepared to show, describe and analyze, on the one hand, the historical process of occupation of the territory by the relocated population, the preceding events of the Piura River overflow, the State's proposal in the face of the emergency, the population's response and the social management manifested in the process of the new occupation.

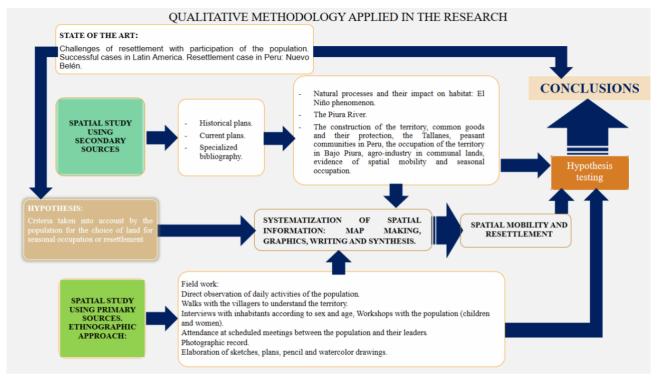


Fig. 5. Outline of the qualitative methodology used in the research work. Source: Own elaboration, 2018.

3. Results

3.1 Housing And Common Spaces Of The Population Involved In The Seasonal Occupation Process In Bajo Piura.

Housing in Cura Mori, particularly in the Santa Rosa and Nuevo Santa Rosa population centers, is made up of family housing with the particularity of a corral with access associated to common spaces; these spaces can be used by two or more families.

The materiality of housing in Santa Rosa does not respond to our logic in terms of durability and resistance of the building. The original inhabitants of this area understand that materials have a life cycle and are prepared to replace what is necessary in the event of deterioration or to build their homes anew.

3.1.1 Housing in Santa Rosa

The materials used in the construction of the typical dwelling in Santa Rosa correspond to the resources of its geographic location, being consistent with the climate, topography, customs and use of traditional construction systems. Materials from the area are used, easily assembled, with construction techniques passed down from generation to generation (Figure 5 and figure 6). In the typical dwelling of Bajo Piura, specifically in the Centro Poblado Santa Rosa, the rooms are of generous dimensions, which are arranged to give priority to the use, needs, requirements or activities of productive housing: such as the preparation of chicha de jora, raising barnyard animals, and maintaining small vegetable gardens.



Fig. 5. The house in Santa Rosa. Typical house, built with local materials. Source: Own elaboration, 2018.



Fig. 6. Facade of an unplastered quincha house in Santa Rosa, and facade of a quincha house, with mud plaster, in Santa Rosa.

Source: Own elaboration, 2018.

Figure 7 shows a schematic of the distribution of rooms in the typical dwelling in Santa Rosa, Cura Mori. At least three quarters of the house is used for production activities. The sleeping area is separated and its use is restricted almost exclusively to nighttime resting activities. Toilets are usually located in the common areas.

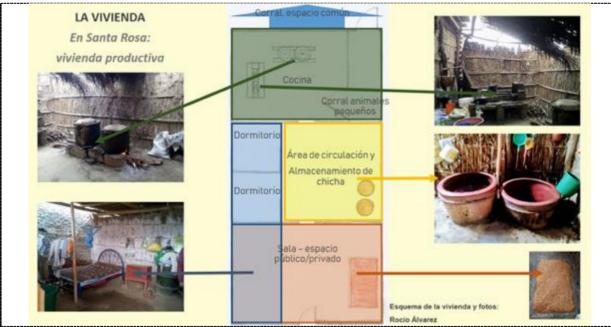


Fig. 7. Floor plan layout diagram - rooms of the productive dwelling, typical of Santa Rosa. Source: Own elaboration, 2018.

3.1.2 Common spaces in Santa Rosa

There is a system of common spaces found in areas of Bajo Piura, such as the Centro Poblado Santa Rosa. These common spaces are found between the houses and public spaces (roads, paths, plazas, etc.), thus forming the population center.

The dwelling usually has a rear exit, after the corral, to open spaces for common use (Figure 8). These open spaces have generous areas, due to the activities for which they are used. The most frequent uses are as a place to unload water or firewood, a place for horses, a place for drying corn, a place to store, gather or leave construction materials or firewood in the open air. These common spaces are of larger dimensions and are an antechamber or a space prior to the cultivation fields or farms.

The households that access these common spaces do so as an extension of the family's productive activities. As these spaces are for common use, they are not fenced, but have a virtual delimitation, generated by the use of some families. Although it has been mentioned that the common spaces have generous areas, there is a variation in terms of the area they present. The spaces that are usually shared by two, three or four dwellings, usually have between 300 to 400 meters and the common spaces that border the fields, have larger areas that can reach 1000 m2 approximately (Figure 9). The existence of these common spaces helps to strengthen the ties of cooperation between families or between community members and also strengthens the vision of the territory as communal property.

Something characteristic of the areas of Bajo Piura, in communal territory, is that even when there is no physical demarcation, with fences, all the villagers know how far the common spaces reach or how far each family's small farms reach.



Fig. 8. Floor plan layout diagram - rooms of the productive dwelling, typical of Santa Rosa. Photo: The author, 2018.



Fig. 9. System of open spaces or common spaces in Santa Rosa - Distrito De Cura Mori.

Source: Google Earth.

Note: The indications with place labels, legend and arrows on the image correspond to own edition,

2018. Photos: The author, 2018.

3.1.3 Housing in Nuevo Santa Rosa

Housing in the resettlement area of Nueva Santa Rosa seeks to adapt the same design pattern as housing in the place of origin. They have lots with dimensions and topography conducive to productive housing: animal raising activities and small vegetable gardens and open outdoor spaces for common activities for two or more dwellings.

The population uses the same construction techniques with local materials such as crushed cane, wooden beams, reeds and fast construction processes. In some cases, they incorporate the use of non-local materials, such as plywood and calamine (Figures 10 and 11). It is noticeable the advance of the presence of calamine as a covering, which diminishes the sensation of comfort inside the house. It is convenient and necessary to disseminate the correct use and improve local construction systems, since the incorporation and use of foreign materials such as calamine distorts the final construction product, reducing the benefits of the use of local resources.



Fig. 10. Exterior of an unplastered quincha house in Nuevo Santa Rosa

Photos: The author, 2017



Fig. 11. Interior of an unplastered quincha house in Nuevo Santa Rosa.

Photos: The author, 2017

The housing in Nuevo Santa Rosa, given its dimensions and distribution, allows for the maintenance of customs, which are directly related to activities parallel to the use for family housing, such as raising animals and productive gardens from which they obtain products for family consumption and for sale. Villagers build facilities that serve as corrals at the same time they build their homes. This allows them to keep the animals they bring with them from their place of origin.

What tends to modify the landscape is the presence of tents and small temporary housing modules, provided by the state to meet the immediate demand for roofed spaces, but which do not respond efficiently to the climate of the region.

3.1.4 Common Spaces in Nuevo Santa Rosa

The distribution of lots in Nuevo Santa Rosa intends to maintain the system of common spaces. However, these spaces appear as areas of generous dimensions, inserted in a reticular grid forming what would be the public space in an urban context such as the one destined for transit, the streets (Figure 12). A layout has been detected that develops along what would be a large avenue of about 30 meters in section, which could be in the future an element similar to a mall, instead of being a space for productive activities. This apparent avenue is used as a place for vehicular traffic, since it is used by vehicles traveling to some agro industrial facilities to transport personnel or cargo. This road has also served to facilitate the arrival of humanitarian aid to Nuevo Santa Rosa. A space that resembles a plaza or similar is not yet identified among the layout of the lots (Figure 13).



Fig. 12. Common spaces in Nuevo Santa Rosa. Photo: The autor, 2017



Fig. 13. Main avenue in Nuevo Santa Rosa. Photo: The autor, 2017

3.2 Actors Involved in The Seasonal Occupation In Bajo Piura.

In the context of the process of spatial mobility in three scenarios: seasonal mobility, permanent resettlement and dual location, it is important to identify the role of three groups of actors, whose actions, mainly during emergency management, contribute to strengthening seasonal or permanent occupation in a new location. Thus, the following are identified:

3.2.1 The population of the peasant community

The population of the peasant community; has particular social, cultural and economic characteristics, such as: poverty; its tallan-indigenous origin; the existence of strong cultural and ceremonial ties between inhabitants and brotherhoods through religious celebrations; the experience of living in the desert, with ancestral practices that are passed down from parents to children; the dedication mostly to agricultural activities and small livestock with strong dependence on the ecosystemic services of the river.

3.2.2 Private investors

The private investors, are attracted by favorable conditions for investment due to factors such as: the low price of land, the geographic characteristics of the territory, and connectivity due to the proximity to the Pan-American Highway North, which facilitates the development of agricultural industry by offering very good accessibility. The land in this area of Bajo Piura is predominantly flat, adjacent to vehicular access and close to the city of Piura; it is also located in safe areas. The proximity to high and medium-voltage power lines is important, which assures the provision of energy with very little investment.

In many cases, these actors choose to disseminate certain practices that give them credibility and acceptance among other actors through actions such as: recognition of the relevance of land occupation by community members, generation of jobs in the agro-industrial sector for the displaced population, dialogue with the population in the resettlement process, promoting harmonious coexistence, and respect for the cultural landscape prior to the development of productive activities. Under these practices, the State would not intervene in the solution to the land dispute between the private company and the community members.

3.2.3 The State

Represented by the central government and public institutions or agencies, the regional, municipal and district governments; are actors involved in the resettlement process, although in most cases, they do not comply with the time and efficiency required by the emergency situation. The State is involved: (a) In emergency management with direct attention to housing, food and health issues for the population affected by disasters due to the occurrence of natural phenomena; (b) In disaster risk prevention and mitigation. Population displacements in Bajo Piura are magnified by the poor management of the Piura river basin in the highlands of the region. To the extent that work is done to reduce flood risk, spatial mobility processes in Bajo Piura will decrease. The State must take a leading role in undertaking projects to treat the Piura river basin from its source in the Piura highlands. It must also implement reforms that simplify the procedures for attending to the victims, eliminating the existence of bureaucratic barriers and coordinating the handling of the same information by all government entities. It is essential to ensure that State institutions handle the same information on population, geography, resources and other data. The overlapping or difference between the data that State institutions handle generates delays.

3.2.4 External agents:

Represented by the non-local population, the Church, universities, NGOs or any supporting body; They are actors who help in matters of humanitarian aid during the emergency, monitoring of dialogue processes in the face of conflicts, and participation in projects to improve the management of the Piura River basin. These actors complement the State's response to the emergency.

We can mention the role played by some institutions such as the University of Piura, which was a center for the collection and distribution of humanitarian aid, during the emergency, and which had to assume this role, in the face of state institutional wear and tear, demonstrated by the distrust of other institutions. or of the population that preferred to channel its aid for the victims, delivering it for distribution, to the aforementioned academic institution. During the emergency, workers and students from said institution participated as volunteers to channel and distribute material aid to the areas most affected by the rains and river overflows in Bajo Piura in the presence of El Niño 2017.

3.3 Social Management In Nuevo Santa Rosa, For The Recognition Of The Occupation Of The Territory.

The residents are forced to seek to obtain a delimited piece of land, to face the advance of private investment in their own communal territory. The community must use negotiation mechanisms to have a space for action within the new terms of access to land, which was previously freely available due to its communal nature.

If a population lives with the uncertainty of what will happen in the immediate future, due to food shortages, insecurity, in addition to being exposed to unhealthy conditions due to the scarcity of basic services, and the absence of a minimum infrastructure that shelter or protect from extreme environmental conditions; They see their capacity to protest diminished and opt for negotiation, a figure that represents possibilities of finding improvements for the community and at the same time the risk of being harmed by treatment under unequal conditions.

To address the changes in the pattern of occupation in communal territory, the population of Nuevo Santa Rosa organized itself by electing neighborhood leaders, who negotiated with the municipalities of Piura and Cura Mori, the legal obtaining of the land they have occupied since March 2017. The leading residents of Santa Rosa also held negotiations with agro-industrial companies to generate alliances such as the provision of jobs for the residents who occupy the new location, the provision of water or other services that contribute to improving the living conditions of people. the residents. These alliances allow them to coexist due to the bordering of the lands they occupy, reducing social conflict, which is not convenient for any of the actors.

4. Conclusions

It is corroborated that the criteria identified for seasonal occupation as a territorial management strategy should be implemented jointly and integrally. However, the new logics of private property with productive purposes in the communal territory make this spatial mobility result in three scenarios: (1) temporary occupation of the area to which the population moves, i.e., when the flooded lands dry up, the population returns to their places of origin to recover their livelihoods, (2) permanent occupation or definitive resettlement in the area to which the population moved in the face of the emergency, This practice is also based on the fact that if these lands are abandoned, they cannot be reoccupied by the community members in the event of another flood, (3) double occupation, whereby the settlers maintain a house in their place of origin and in the place of reception.

The criteria identified for the choice of land to be occupied seasonally or for permanent resettlement are:

- The place, where the population moves to, is communal property. This is how this process of spatial mobility has been carried out for centuries. This criterion is fundamental for all the others to occur together.

By following the particular case of occupation in Santa Rosa and Nuevo Santa Rosa in the district of Cura Mori, we have found ways of occupying the territory, which obey a historical process, in a system of communal land ownership.

The practices of spatial mobility are based on the conception of a communal territory. If the community members recognize the space as their own, the other criteria will appear together with a deployment of strategies of adaptation to the environment.

- When an El Niño event occurs, and with the consequent river flooding, the population moves to higher places, but maintaining a close relationship with their place of origin.

Moving to higher ground is related to the security sought in the face of the danger of flooding due to river overflows. It should be pointed out that the logic of occupying low-lying land is not based on exposure to danger, but is related to the proximity to the Piura River, which favors agricultural activities.

The proximity to the place of origin is positive because: it makes it easier for the population to return to occupy their land when the floods subside; it allows for community connectivity, which is based on the use of rural roads that are traveled on foot or with the help of pack animals; it facilitates double occupation and allows them to maintain their cultivated land or farms, continuing with their economic activities; and it allows them to maintain their economic activities.

- The place to which the population moves are connected to the Panamericana Highway, which facilitates humanitarian aid and the maintenance of social cohesion with coexistence relations of ancestral practice. The proximity to an important highway not only connects the population centers in the resettlement process, but also connects them to intermediate cities, which allows them to maintain relationships with actors and services at other territorial scales.
- The location chosen by the population allows them to have generously sized spaces, to install housing and to have open spaces for common and productive use. In Santa Rosa, the size of housing plots ranges between 300 and 400 m2 and the common or shared space between houses has areas of no less than 400m2, which increases when the common spaces approach the limits of the population center or the community's farmland. The dimensions of the lots are maintained in Nuevo Santa Rosa, since the concept of productive housing is maintained.
- The process of spatial mobility is historical and dynamic: It is constructed. It incorporates new practices and learning: in the last two decades, with the occurrence of El Niño in 1998, 2008, 2017 and in the face of new laws aimed at promoting the free land market to promote private investments in the territory of peasant communities, the settlers develop the strategy of resettlement and double occupation.

Mobility is present throughout the territory, which strengthens its conception as a living organism, in which there are processes of change and adaptation to circumstances. Currently, seasonal mobility is being transformed into permanent resettlement at the initiative of the settlers to defend their right to occupy communal territory in the face of land use pressure from private investors.

- The ancestral knowledge of living should be taken into account in the State's proposals on architectural, urban and territorial planning. The state today uses standardized models that do not respond to the context, reality and idiosyncrasies of the population, resulting in failed planning models.

Faced with natural processes such as El Niño, which brings floods, the population has developed resilience manifested with a strategy of spatial mobility within the communal territory. When low-lying areas are flooded, in many cases the houses are lost, but they are easily rebuilt due to the use of local materials and construction techniques. The materiality of the housing of the inhabitants of Santa Rosa and Nuevo Santa Rosa responds to the knowledge of the life cycle of the materials. However, the use of local materials is observed or rejected in the proposals by the state, due to a different

conception of concepts such as the useful life of housing and a lack of knowledge of the relevance of local typologies in a coastal desert climate.

- Knowledge about living in communal territory can be obtained by applying qualitative methodology. In the research carried out, this methodology was applied with the following activities: Field work, with walking tours of rural roads, accompanying settlers dedicated to agricultural activities in communal territory; conducting workshops with children and adult population; interviews with settlers; experiential activities in houses, educational center of Santa Rosa and Nuevo Santa Rosa, with the accompaniment of women, teachers and students, in the development of the activities they perform daily; making freehand drawings, diagrams, sketches and notes that helped to build the spatial analysis that was then systematized with the development of plans.

All these activities contributed to identify the valuable living culture that the people of this area of lower Piura possess.

This type of research requires an openness of thought and action in the face of situations that obey other logics of living. This is the only way to recognize the reality of the particularities of a territory whose occupation has ancestral roots.

According to the study carried out, it is recommended that a review and improvement of the legal framework with respect to communal property, which protects the native peoples and grants them rights over their territory, without ambiguities in the interpretation of the law or overlapping and contradictions between laws.

In this communal territory, the logic of occupation, which is based on a dynamic of territorial spatial mobility, becomes a double location, due to the fact that the legitimacy of the ownership and availability of communal land is being discussed, due to the pressure exerted by agro-industrial companies on rural land, resulting in the modification of the logic of territorial occupation.

Acknowledgement

This research was not funded by any grant.

References

- [1] Álvarez Sánchez Rocío del Alba (2019). Procesos naturales y ocupación estacional en el territorio. El caso de Nuevo Santa Rosa, Distrito de Cura Mori Piura, ante el Fenómeno El Niño 2017. Trabajo de investigación para optar el grado de Magíster en Arquitectura, Urbanismo y Desarrollo Territorial Sostenible. Lima, Perú. Pontificia Universidad Católica del Perú PUCP. URI http://hdl.handle.net/20.500.12404/14253
- [2] BANCO MUNDIAL. (2011). REASENTAMIENTO PREVENTIVO DE POBLACIONES EN RIESGO DE DESASTRE. BANCO MUNDIAL. Recuperado el 21 de Agosto de 2017, de https://www.gfdrr.org/sites/default/files/documents/Preventive%20Resettlement%20%28Spanish%29.pdf
- [3] Bernex, N. (17 de Mayo de 2018). Clase del curso Vulnerabilidad y Sostenibilidad, para la Maestría en Arquitectura, Urbanismo y Desarrollo Territorial Sostenible.
- [4] Beuf, A. (2017). El concepto de territorio: de las ambigüedades semánticas a las tensiones sociales y políticas. Recuperado el 17 de Setiembre de 2018, de https://www.researchgate.net/publication/320740951/download
- [5] Canziani, J. (2017). El reto es recuperar el territorio. Puente, Revista de Ingeniería, Sociedad, Cultura del Colegio de Ingenieros del Perú, 10-19.
- [6] Hardin, G. (1968). The Tragedy of the Commons. Science, 162(3859), 1243-1248.
- [7] Humanitarian Response. (2018). Recuperado el 25 de Setiembre de 2018, de https://www.humanitarianresponse.info/fr/operations/peru/gesti%C3%B3n-de-albergues-campamentos
- [8] Magnaghi, A. (2011). El Proyecto local : hacia una conciencia del lugar. Arquitectonics. Mind, Land & Society.
- [9] Malinowski, B. (1973). Los argonautas del Pacífico Occidental: Un estudio sobre comercio y aventura entre los indígenas de los archipiélagos de la Nueva Guinea melanésica. Barcelona: Península.
- [10] Ostrom, E. (1990). Governing the commons. The evolution of institutions for colective action. Cambridge University Press.
- [11] Tonucci, F. (2015). La ciudad de los niños. Barcelona: Grao.