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SOCIAL AND ENVIRONMENTAL IDENTITY OF THE INHABITANTS OF THE ISLAND OF FERNANDO DE NORONHA: ASSUMPTIONS FOR THE IMPLEMENTATION OF AN ENVIRONMENTAL EDUCATION PROGRAM

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ABSTRACT

Based on resources from the Research and Development Program of the National Electricity Agency (ANEEL), the Pernambuco Energy Company (CELPE) is developing a research project to implement an innovative electrical energy storage system for the Fernando de Noronha. Through the project Multiobjective Optimization of Distributed Energy Resources aimed at Sustainability and Reliability in Isolated Micro grids including Energy Storage System with Batteries, the Environmental Education Program is being implemented in the region. The Renewable Energy and Education for Sustainability Program seeks to know the local identity of the residents and introduce them into joint actions, seeking changes in individualistic habits and transforming citizens into true agents of sustainable good practices in the archipelago.

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INTRODUCTION

The island of Fernando de Noronha, Pernambuco, Brazil, now known for its natural attractions of extreme beauty, has already been a place of military and civil prison, as well as political prison. Its cultural aspects permeate the peculiarities of living in an insular environment, being part of an Environmental Protection Area (APA), being considered a World Natural Heritage. This attribute attracted the attention of many tourists to the Island, changing the routine of the islanders, reverberating in their quality and way of life, involving the vulnerabilities of a place with delicate structure in front of anthropic and natural pressures. For the implementation of an Environmental Education that meets the real needs of the residents, the Pernambuco Energy Company (CELPE) from resources from the Research and Development Program of the National Electric Energy Agency (ANEEL) is implementing an innovative storage system of electricity to the island of Fernando de Noronha.

In this sense, the researchers of the Advanced Institute of Technology and Innovation (IATI) assumed responsibility for the Environmental Education program that is based on daily life and strengthening popular participation in sustainable activities, seeking a better quality of life on the Island. For this, the concepts of identity and symbolism of social actors were compiled, referring to the urgency of citizenship tied to identity and belonging to a collectivity and, thus, to environmental education. In this context, representations leverage a new way of considering the relationship between humans and nature, rescuing values and aligning with the movements of society, integrating mediation and conflict resolution through the mobilization, organization and participation of people. Through the project Multiobjective Optimization of Distributed Energy Resources aimed at Sustainability and Reliability in Isolated Micro Grids including Energy Storage System with Batteries, the Environmental Education Program is starting in the region. The Renewable Energy and Education for Sustainability Program seeks to know the local identity of the residents and introduce them into joint actions, seeking changes in individualistic habits and transforming citizens into true multipliers of sustainable good

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practices in the archipelago. Environmental Education as a management tool, as Jacobi (2003) asserts, leads to social transformation, focusing on a holistic perspective of action that relates man, nature and the universe, perceiving their interdependencies, widening the concept of belonging. Thus, Leff (2002), states that environmental education achieves a strategic sense for the construction of a new paradigm for sustainable societies. In the middle of 1500, the territory of Fernando de Noronha (Brazil) was discovered and, in the first centuries after its discovery, occupied by French, English and Dutch, until in 1737 was definitively taken over by the Portuguese (MMA, 2004). It is worth noting that the archipelago was a place of exile, military and civil prison in the Empire, and political prison in the republican period. There are records on the existence of exiled people, Welshmen and military personnel condemned to work on the fortifications from the seventeenth and eighteenth centuries. It also housed political prisoners, such as the gypsies of Brazil in 1739, the farroupilhas in 1844, and the practitioners of the art of capoeira in 1890 (Galvão, 2006; Fonseca, 2009). The military rule in Noronha lasted 45 years, between 1942 and 1987. With the transition from military to civilian rule in 1987, the first civil governor of the archipelago was named and conservation units were established, thus opening up higher for tourism on the island (Galvão, 2006; Souza-Filho, 2011). The archipelago of Fernando de Noronha is one of the most valuable Brazilian natural heritage and, therefore, a large part of its territory is a strict environmental preservation area. In this way, it became a destination known throughout Brazil for its natural attractions of great beauty (Galvão, 2006).

MATERIAL AND METHODS

This study was based on a bibliographical survey related to sustainable local development, environmental education, mobilization and social participation, renewable energies and management for sustainability, history of Fernando de Noronha Island. These isolated or integrated themes were the descriptors for surveying research sources through virtual environments (Google Scholar, Scielo, Scopus). The bibliographical material consisted of books, theses, dissertations and scientific articles. All sources found using the descriptors were considered in English, Portuguese and Spanish. Repeated fonts were deleted. No time interval was defined. The compilation of data allowed the construction of chapters, which brought together the sources researched by the affinity of the topics addressed. To all, 13 titles were obtained in the research, between documents, articles and books, published between the year 2000 and 2018.

RESULTS AND DISCUSSION

Cultural aspects in the Fernando de Noronha Archipelago

The environmental dimension is the main attraction of the Fernando de Noronha archipelago for tourism, in addition to the particularity of its ecosystems and geographic location represents, in fact, a high global ecological value. The National Marine Park of Fernando de Noronha - PARNAMAR, and Environmental Protection Area, - APA, together cover an area corresponding to 70% of the total of the Archipelago, formed by 2/3 of the main island as far as the sea reaches the depth of 50m, including all the secondary islands (Cazzeta, 2009). These conservation units restrict human uses and interaction with representative and significant elements in the daily life of

the island's residents, promoting conflicts in environmental management. The local population suffers from the rigidity set by the APA Management Plan that prevents the expansion of the urban area (Cazzeta, 2009). The Archipelago is also part of an international category of Conservation Unit, the Atlantic Forest Biosphere Reserve. International reserves are established by the United Nations Educational, Scientific and Cultural Organization (UNESCO), and in 2001 Fernando de Noronha was awarded the title of World Natural Heritage Site, reaffirming the environmental importance of the Archipelago, which growing demand from visitors around the world (Lima, 2000). This demands a structure and infrastructure, as well as a process of preparation of the residents legitimized by the desire to convert the island into that tourist destination, which consequently modified the work routine of the islanders, impacting on their quality and way of life. As a Natural World Heritage Site, this attribute is the main attraction for visitors. Cazzeta (2009) reports that in the mapping of the National Historical Heritage of the Archipelago carried out by the National Historical and Artistic Heritage Institute (IPHAN), during the last twenty years some cultural facilities were identified in the archipelago: the Noronhense Memorial, the Celpe Energy Memorial, the Embratel Photographic Memorial on Earth Station, the Open Turtle Museum and the Shark Museum. This equipment aims to rescue the history of the Archipelago, aiming to maintain the local identity, bringing the living memory of the main environmental symbols and personalities that make up the imaginary framework of Fernando de Noronha. According to Cazzeta (2009), the local cultural equipment represents significant value for the citizen's awareness of issues related to island cultural and environmental heritage. However, it is necessary to develop attractive strategies through pedagogical materials, actions of tourism, cultural and scientific valorization. Many of the historical structures and monuments go unnoticed to the residents and visitors, facing the paradisiacal landscape that is the main tourist product sold worldwide. Preserving history and material heritage is essential to produce protagonist and emancipatory behavior of environmental education focused on sustainability.

The socio-environmental identity and symbolism in Fernando de Noronha: Lima (2000) discusses the importance of understanding the concepts of representation by stating that the fragments of space-time in this locality are articulated by meanings and codes that promote a trace of symbolism and references, and provide unity and movement to life in the Archipelago. In this context, there is an urgent need to understand concepts of representation, identity and symbolism that emerge from the recognition of what Fernando de Noronha represents, means, symbolizes, for the social actors involved. The representation, according to Espig (2004) is the basis for the social imaginary. The author establishes three modes of relationship with the social world: (1) the work of producing multiple meanings for the real, since reality is constructed differently by different social groups; (2) practices aimed at establishing an identity in the world; and finally the (3) institutional forms by which some people represent others. The representation can either give you to see something absent, as it may display a presence, such as presentation of something or someone. In both cases, it will put "something in the place of", that is, it will simulate a presence endowed with symbolic meaning. (Chartier, 1990 apud Espig, 2004). Following this categorization, the study of the identity and socio-environmental in Fernando de Noronha, is primordial,

considering the labor relations, daily practices such as social movements and cultural manifestations, and under the eyes of institutions, through governmental and non-governmental bodies that in the Island, bringing the reality that confers the characteristics of particularity or peculiarity of those involved. For those who live on islands, insular space is the place of their life, hard and difficult, where basic health and education services are precarious, geographically limited territory scarce natural resources and management depends on decisions and policies defined on the continent. For those who come from the mainland, especially from large cities, the islands are seen as a positive image and, together with the tourist, symbolize a state of isolation from the continental world. It is from this image representation of freedom and paradise that the islands, especially the small ones, become of interest to the travelers and, consequently, enter the market through their commercialization through the travel agencies (Cordeiro& Gomes, 2016). But the demand for rigging and structure to serve the tourist disfigured the community of the island.

And people began to create dependence on the relationship between tourism and the routine of life, work, and the cultural agenda. There is even a lot of difficulty in mobilizing leaders to articulate important decisions in the treatment of public policies on the Island. Social research carried out in Fernando de Noronha revealed difficulties in mobilizing the local community. Cleto (2013) realized that the "SOS Noronha" movement turned out to be a way of seeking community involvement to understand the subject "sustainability" and to mobilize, through strategies of communication and historical and cultural rescue of the Island. With the increase in tourism flow and the lack of adequate basic infrastructure and support, the island faces a serious socio-environmental problem, among which Feitosa& Gómez (2013) highlight waste management, which becomes difficult and inefficient on the spot. It is therefore evident that the island's environmental vulnerability is exposed to the risks inherent in local activities, revealing fragility in relation to anthropic and / or natural actions. Thus, vulnerability runs through the accelerated and uncontrolled processes of urban and tourist development uses incompatible with the architecture or typology of the site, as well as abandonment and natural calamities (UNESCO, 2006). This fact, it is understood that the inability to demonstrate solutions and answers to the difficulties mentioned above, also configure the vulnerability of the site, making it necessary to interpret and understand how the ecosystem of the Fernando de Noronha Archipelago is reacting to the existing natural and anthropic pressures, to elucidate the ability to cope with problems.

CONCLUSIONS

In view of this scenario, the implementation of an environmental education program with planning of actions for the involvement of the local community, dispensed with a survey of expectations, representations and symbolisms, not only from documentary and bibliographical sources, but mainly from listening of the actors involved: islanders, permanent and floating residents, as well as visitors, who with their multifaceted contributions can aggregate and produce

information of significant value for the development of projects that enable the sustainable development of Fernando de Noronha, where the dynamic economy social equity and the balance of the environment.

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