

# MENDIVE



## REVISTA DE EDUCACIÓN

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### Original article

## Environmental Popular Education, a training program for social actors

### La Educación Popular Ambiental, un programa de capacitación para actores sociales

### Educação Popular Ambiental, um programa de formação de atores sociais

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### ABSTRACT

The environmental problems of the contemporary stage become for man a mitigating factor towards life. In the Popular Council of San Andrés, municipality of La Palma, the environmental problems caused by the lack of awareness and of Popular Environmental Education are evident, which causes inadequate modes of action with the environment. Correspondingly, the present work aimed to present a program of Popular Environmental Education for social actors in the Popular Council of San Andrés, municipality of La Palma. Theoretical and empirical methods were used for the documentary review and the systematization of knowledge. As results obtained, a Popular Environmental Education Program was designed that included the following stages: assessment of the current environmental situation, organization, intervention and evaluation.

**Keywords:** key actors; community; Popular Environmental Education; program.

### RESUMEN

Los problemas ambientales de la etapa contemporánea se convierten para el hombre en una atenuante hacia la vida. En el Consejo Popular San Andrés, municipio La Palma, son evidentes las problemáticas ambientales originadas por la falta de conciencia y de Educación Popular Ambiental, lo que ocasiona modos de actuación inadecuados con el Medio Ambiente. En correspondencia, el presente trabajo tuvo como objetivo presentar un programa de Educación Popular Ambiental para los actores sociales en el Consejo Popular San Andrés, municipio La Palma. Se utilizaron métodos teóricos y empíricos para la revisión documental y la sistematización de conocimientos. Como resultado se diseñó un Programa de Educación Popular Ambiental atendiendo a las siguientes etapas: valoración de la situación ambiental actual, organización, intervención y evaluación.

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**Palabras clave:** actores claves; comunidad; Educación Popular Ambiental; programa.

### RESUMO

Os problemas ambientais da fase contemporânea tornam-se para o homem um fator atenuante para a vida. No Conselho Popular de San Andrés, município de La Palma, são evidentes os problemas ambientais causados pela falta de conscientização e de Educação Ambiental Popular, o que ocasiona modos inadequados de ação com o meio ambiente. Correspondentemente, o presente trabalho teve como objetivo apresentar um programa de Educação Ambiental Popular para atores sociais no Conselho Popular de San Andrés, município de La Palma. Métodos teóricos e empíricos foram utilizados para a revisão documental e sistematização do conhecimento. Como resultados obtidos, foi elaborado um Programa de Educação Ambiental Popular que contemplou as seguintes etapas: avaliação da situação ambiental atual, organização, intervenção e avaliação. Particularizando nos indicadores de consciência ambiental, comportamento ambiental e conhecimento ambiental.

**Palavras chave:** atores-chave; comunidade; Educação Ambiental Popular; programa.

## INTRODUCTION

The deterioration of the Environment is a consequence of the current styles of development with a high impact on the components of nature, such as: water, atmospheric air, soil, biological diversity, climatic changes and cultural, ethical conditions and aesthetics of human beings.

The report of the Club of Rome in 1972 set a pattern in which the possible environmental consequences associated with the growth of populations and their development styles were established for the first time. In that same year, the United Nations Conference on the Human Environment was held in Stockholm, Sweden, which led to the creation of the United Nations Commission on the Environment.

The current environmental crisis shows how human civilization has developed limited from a holistic view of its environment and the dimensions of its interrelation with it. Given this, one of the alternatives that demonstrates the awareness of this situation, raises the need for sustainable development to guarantee the subsistence of present generations and the inheritance of future generations with a favorable quality of life.

The environmental issue is identified as one of the most important concerns of humanity. The boom that this theme has taken in recent years is related to the intensification of numerous problems at all scales, which affect society in a disastrous way. Changes are evident in the patterns of occurrence of extreme events (cyclones, storms, droughts, and rains), the productivity of the land decreases, the air, terrestrial and marine waters are polluted, species of plants and animals disappear, among others, due to those that join great famines, wars, diseases, migrations and social inequalities.

In this regard, Pérez, N. and Oviedo, V. (2019) argue that the environmental problems facing the world must be assumed with a comprehensive approach, with a view to the development of coherent and synchronized public policies, recognizing that the environmental dimension must be present in all the work of the public administration, so that it contributes "to achieving an adequate integration of the environmental dimension in all the economic

and social public policies of the nation" (p. 415).

The State in Cuba protects the environment and the natural resources of the country. It recognizes its close link with the sustainable development of the economy and society to make human life more rational and ensure the survival, well-being and security of current and future generations (Asamblea Nacional del Poder Popular, 2019) .

The National Environmental Strategy constitutes the governing document of environmental policy in Cuba. In it, for the 2016-2020 period, the "Promotion of the mainstreaming of environmental education in governmental and non-governmental projects aimed at improving the quality of life of the population" (Citma, 2016) is proposed as a fundamental line .

That is why in recent decades trust has been placed in the educational process to contribute to the response to these environmental problems. One way to achieve responsible environmental conduct is through the search for collective solutions to environmental problems, in a way that transcends the short term, based on the awareness of the analysis and knowledge of its causes by the communities, as a whole with their political and mass organizations and their delegates, thinking of community interests.

The individual, as a basic component of society, has a fundamental role in the creation of an environmental culture at the level of the development of personal ethics, participating in the process of sustainable creation of wealth for the group and being an example and transmitter of positive experiences. A determined individual is a social actor when he represents something for society, embodies an idea, a claim, a project, a complaint; within that concept, in the same way, a political group, a radio station, a group of students, etc. In this way,

for Touraine, A. (1997), the social actor is the man or woman who tries to achieve personal or collective goals, because they are within an environment of which they are a part and therefore have many similarities, making the culture their own and rules of institutional operation, even if only partially, conceiving the social actor as a subject but also as a community with interests, conditions and particular characteristics that identify them as such; capable of building and carrying out, jointly, a project of social transformation for the well-being of a territory.

The concept of social actor is so valuable and substantial to any development process that it can be granted to certain state agencies or not, which have explicit action programs and manage considerable budgets whose actions produce results for the entire community.

The social actors are producers of spaces and configurators of the territory, at the same time that they find in it possibilities to deploy capacities and creations (Sosa, M., 2012). These agents must interact and interrelate, since "it is necessary to diagnose how this relationship occurs, what its characteristics, capabilities and functions are; information that is key for any articulation strategy that you want to design" (Jiménez *et al.*, 2019).



**Fig. 1-** Social Actors according to their social function in the San Andrés community La Palma Municipality

The role played by actors in sustainable development is not an isolated action carried out by an individual or a group. These are initiatives generated and processed within a permanent negotiation system between the various factors that make up a local society.

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It is necessary, then, to search for new proposals aimed at promoting knowledge, skills and values aimed at understanding, preventing, improving and solving these problems, in a way that contributes to promoting an attitude of change and permanent transformation of the natural, social and economic environment in which life unfolds. In this sense, the strategic context is meant.

The participation of social actors in the different communities constitutes a dynamic element of sustainable development, to the extent that they have the capacity to directly influence each of the spheres of social life, from the self-management of their endogenous resources and the subsequent evaluation of the process. They become a subject of change from the analysis of the problems that affect them and their causes, and from the action to face them, being aware of the strengths and weaknesses that they have for it. However, there is no change in the context if people do not transform themselves from the inside first, nor does this awareness, empowerment, or the ability to change spontaneously arise.

In Cuba's National Environmental Strategy (EAN) it is pointed out that, despite the fact that the participation of the government is becoming increasingly evident in the execution of environmental projects in the territories, in general, the management of these projects lacks political will, manifesting in practice an "Inadequate agreement between the base structures in the territories for the development of participatory environmental education processes in the communities" [Ministry of Science, Technology and Environment (Citma, 2016, p. 22)].

It is an arduous and complex process that can be promoted and strengthened through Popular Environmental Education. In conceptual terms, it can be said that Popular Environmental Education (EPA) owes its

name to two related currents, on the one hand Environmental Education, on the other Popular Education.

In this regard, Reyes, J. (1994) in the Assembly of the Adult Education Council for Latin America (CEAAL), of the Popular and Ecological Education Network (REPEC), establishes that "Popular Environmental Education is a synthesis that incorporates the ecological approaches of Environmental Education and the sociopolitical of Popular Education" (p. 7).

The ideas of Freire, P. (1968) are valid for popular environmental education, which aims to make subjects aware of environmental problems. Environmental Popular Education encourages the subjects themselves to carry out a critical reading of the reality in which they find themselves, which enables them to identify problems, select action alternatives and build or reconstruct feasible solution proposals. It does not seek competitiveness, but solidarity, based on the recognition of differences and equal opportunities for human achievement.

Calixto, R. (2010) proposes an even more complex look when speaking of Popular Environmental Education (EPA) from the indigenous peoples of Latin America; not according to a romantic, mythical or uncritical vision of indigenous peoples, but from a "reevaluation of the origins of these peoples, as one of the pedagogical principles necessary to reconstitute the delicate fabric between society and nature, deteriorated as a result of the economic, political and cultural dominations" (Calixto, R., 2010, p. 26). It is notorious that, despite the entire historical colonizing process, in many indigenous people's cosmogonies and ancestral knowledge survive in daily practice, which perceives the Earth as a sacred entity and not as a material good to satisfy resources and needs.

Moving towards a biometric principle that takes care of all forms of life and assigns intrinsic values to Nature offers opportunities for a decent life for everyone. The EPA cannot get away from the enormous commitment that this requires. This means that the work of education must be aligned with the search for a society that lives in harmony with Nature and uses its own creativity to innovate in human formation (Collado, J., 2017).

Environmental Popular Education is based on a holistic vision of the environment, which includes natural, physical, social and cultural aspects, as well as an identification of the subjects with the environment, within a process of transformation, being protagonists of their own reality and their time participants in their own changes, in order to seek solutions to the problems of their communities.

As we have seen, there is complementarities between these two approaches, Popular Education and Environmental Education, linked in an intercultural sense, which connects the various wisdoms and allows a dialogue of knowledge, in a perspective of the "epistemologies of the South". This connection necessarily goes through a collective construction of new values, a new ethic, alternative to the predominant one, regarding the relationship between human beings with other living beings and all the beings that inhabit this planet (Cevallos, B. Andúcar, X., 2019).

The Cuban school, starting with the construction of the Popular Environmental Education Network, has addressed the importance of conceiving the EPA as the analysis of power relations, of domination between human beings and of these towards non-human life, always with the aim of transforming from the new conceptions and narratives of the environment.

According to Perez, MA (2021):

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The EPA intends to train social subjects not only in universities, but in areas of community development and with various social groups, to nurture the thematic axes identified in the training from various disciplinary formations, open dialogue to popular knowledge and experiences in synergy with scientific knowledge, which reinforce the universe of knowledge in environmental management practices (p. 514).

It is about promoting in the community actions to be undertaken that are increasingly felt and promoted by their social actors. In this sense, Popular Environmental Education provides a series of instruments that stimulate and make feasible this task, which presupposes the modification of man's behavior in relation to the Environment.

Environmental Popular Education is responsible for proposing theoretical, conceptual and ethical frameworks, as well as practical actions to ensure that individuals and residents of different communities critically analyze what is ecologically unsustainable and socially unjust in the world in which they are proposed to live and pronounce themselves as decision makers to begin to generate changes in their local performance, which then transcend on a global scale.

The San Andrés People's Council is located in one of the most important basins in the province, the San Diego River basin. It belongs to the Turquino-Manatí Plan, where the Mountain Coordinating Board and other companies, organizations and institutions that distinguish it within the municipality are located.

Based on a preliminary diagnosis, using participant observation and interview as methods, the following were detected among the most frequent environmental problems in this rural community: soil erosion and degradation, intensive agriculture and livestock farming, water pollution, loss of biological diversity, scarcity of drinking water and general deterioration of rivers and riverbanks, due to the use of water for irrigation, the existence of intensive crops in riverbank areas, the dumping of garbage and other waste on the banks of rivers, as well as such as the inadequate disposal of liquid waste in pig farming.

In relation to the above, in this rural context, the activities carried out in the field of Popular Environmental Education that allow the achievement of sustainable rural development, with the conscious and responsible participation of social actors, are still insufficient.

Due to this existing situation in the Popular Council, the objective of this study is to design an Environmental Popular Education program for social actors in the San Andrés Popular Council, La Palma municipality.

## **MATERIALS AND METHODS**

To carry out this research, we started from prior knowledge about the situation of Environmental Popular Education in the San Andrés Popular Council, which made it possible to design it and the methods used in the study.

The research carried out from the perspective of participatory-action-research was supported by the use of a set of highly interrelated theoretical and empirical methods, which facilitated the development of the process.

The overall method of the study was the dialectical-materialist, which studies the object as a process, determining its components and revealing the main relationships and contradictions between the components.

The following were assumed as theoretical methods:

The historical-logical: With the application of this method, it was possible to study the various approaches in terms of sustainable development, participation and community, and led to an affiliation to positions consistent with the social purpose of this research study. The analyzed theoretical references of Popular Environmental Education demonstrated the need to assume it as a conception of life for self-management and sustainability.

The analysis-synthesis, induction-deduction, which were present throughout the entire research process, both in the analysis and understanding of the results and in the study of the bibliography consulted.

The systemic-structural method made possible the interrelation between the structural components and their systemic analysis for the conformation of a program. Similarly, it facilitated the analysis of the relationships established between the various participating actors, who were the architects of the construction, evaluation and validation of the proposal.

As empirical methods:

Document analysis: with the use of this method, it was possible to characterize the process of Popular Environmental Education in the social actors in the rural community of San Andrés, in the municipality of La Palma. From the analysis of background, concepts and practical experiences in different national and international contexts, it was

possible to determine the theoretical foundations for this research.

The Participation Action Research (IAP), which allowed promoting the active participation of the subjects involved in the transformation and improvement of the lifestyles of the People's Council, based on the enhancement of the educational nature of the research.

The techniques used were:

Participant observation, technique that was present throughout the investigative process and that facilitated the understanding of certain positions; witness the acceptance of group criteria in defense of collective interests over individual ones and the collective construction of knowledge from the conjunction of such diverse knowledge and experiences. The participant observation recognized the real situation of the social actors in relation to the activities carried out in the community and, therefore, collect part of the information necessary for the development of the research. The observation was made from within the group, constantly interacting with the studied sample.

The semi-structured interview was applied to specialists to determine the current situation of Popular Environmental Education in the social actors of the community of San Andrés. Valuable data were obtained from this technique, especially regarding the considerations made by the experts regarding errors made and their possible solution in existing experiences. It was applied to specialists from the Environmental Research and Services Center (ECOVIDA), Citma and professors from the University of Pinar del Río "Hermanos Saíz Montes de Oca".

Discussion group: this technique made it possible to approach the assessments and points of view of the social actors on the

subject of Popular Environmental Education and the importance it represents for the community. From it, the joint construction of knowledge and participation in the proposal was achieved.

As a whole, these methods and techniques facilitated the implementation of the Popular Environmental Education program that guides the participation of the main actors of the community in the execution of actions that systematize the work of Popular Environmental Education and promote changes in their lifestyles.

## RESULTS

From the analysis carried out by the different instruments applied, the following diagnostic regularities can be defined:

- There is no program for the training of social actors in relation to the topic of Popular Environmental Education.
- An integrating analysis aimed at solving the environmental problems that arise in the Popular Council is not appreciated.
- The planning, organization and control of the actions of Popular Environmental Education aimed at raising awareness, reflection and awareness of the actors with the problems that are manifested in their environment are insufficient.
- The development of actions to improve the environmental situation of the community was considered pertinent.

The programs are used in environmental education to trace the paths and actions to be carried out at a given time, with the use of certain resources, and achieve the desired change. This term is widely used because of the meaning it has and the importance it has to obtain the final objectives outlined in any

strategy. Several authors have worked on this subject: Landaburo, M., and Monzón, D. (2010); Gonzalez, M. (2012); Martínez, M. (2015), who agree on the importance of its implementation to improve and preserve the Environment.

The most detailed definition is provided by González, M. (2012), who states that a program is a "group of operations or projects that combine resources, problems and opportunities to produce as a result a change in the situation favorable to the strategies and objectives of the organization, aimed at obtaining certain specific results at a future moment in time" (p. 12).

For the design of this program, the following stages are proposed:



**Fig. 2-** Steps to develop a Popular Environmental Education Program

## I. Program Rationale

Based on the diagnosis of the environmental situation and the current state of knowledge possessed by the social actors of the Popular Council of San Andrés, municipality of La Palma, the relevance of a Popular Environmental Education program for the improvement of the environmental problems of the Popular Council San Andrés, La Palma municipality is considered.

It is valid to highlight in this sense that, depending on the topic addressed, this research focused on knowledge and awareness of environmental problems, in addition to stressing the importance of social actors participating in the community and carry out actions to improve the

environmental situation of the surroundings where they are developed.

This Popular Environmental Education program is designed with the intention of creating a space for exchange, dialogue, growth in knowledge and values, search for collective solutions, where everyone has the same opportunity to express themselves, participate and be taken into account.

## II. Diagnosis

The purpose of the diagnosis, in this second moment of the investigation, was to develop an internal analysis, where the strengths and weaknesses were identified; and based on an external analysis, identify the existing threats and opportunities to implement the Popular Environmental Education program to improve the environmental problems of the Popular Council of San Andrés, municipality of La Palma.

The foregoing is based on the application of methods and techniques to the selected sample, which allowed the creation of a SWOT Matrix from the internal analysis.

weaknesses	threats
<ul style="list-style-type: none"> <li>• Presence of environmental problems in the Popular Council.</li> <li>• Insufficient knowledge of social actors on environmental issues.</li> <li>• There are no proposals for Popular Environmental Education for the preservation of the natural environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of environmental problems in the Popular Councils surrounding the one studied.</li> <li>• Lack of economic budget.</li> </ul>

Strengths	Opportunities
<ul style="list-style-type: none"> <li>• The existence of the Department of Mountain Agronomy stands out as the leading institution in research on environmental conservation.</li> <li>• The social actors express a sense of belonging to the Popular Council.</li> <li>• They express willingness to be protagonists of environmental change.</li> <li>• They feel affected by the environmental situation of the People's Council.</li> </ul>	<ul style="list-style-type: none"> <li>• There are Environment specialists from the Department of Mountain Agronomy and Citma.</li> <li>• The social actors, for the most part, run institutions directly related to the environment.</li> </ul>

### III. General objective of the program

Develop actions of Popular Environmental Education aimed at improving the environmental problems of the Popular Council of San Andrés, municipality of La Palma.

### IV. Audience Identification

It is made up of the social actors of the Popular Council of San Andrés, municipality of La Palma. In this sense, the work is directed towards the group in particular: managers, taking into account the results obtained in the diagnosis and the actions that are proposed for the fulfillment of the

objective of the Popular Environmental Education program in question.

### V. Selection of educational strategy

The educational strategy will be training, which is based on the formulation of a group of actions aimed at expanding knowledge, developing skills and attitudes to raise the individual and collective capacity of social actors and achieve the transformation of the current situation to the desired one, in its interaction with the environment, increasing its effectiveness in achieving the objectives.

### VI. Planning of the actions for each of the stages that are part of the Popular Environmental Education Program, for the social actors of the San Andrés community of the municipality of La Palma

- **Stage 1.** Assessment of the current environmental situation

In this initial stage of the program, the current environmental situation was analyzed and assessed. Subsequently, we proceed to work with the second indicator, which is related to the environmental knowledge of the sample, for which it was pertinent to direct a group of actions aimed at its environmental training, particularizing in knowledge, skills and values that allow to the sample of the investigation to fully recognize the environmental problems that exist in the Popular Council of San Andrés, municipality of La Palma.

#### Action 1: awareness of the environmental situation

The objective of this action was to sensitize the social actors of the Popular Council of San Andrés, municipality of La Palma, with the current environmental problems.

## **Action 2:** environmental training

In this second action, the objective was aimed at training social actors in topics on: Environment, Sustainable Development, Environmental Management and Popular Environmental Education. International documents, international and national legislation, among others, were also worked on.

## **Action 3:** analysis of the environmental situation of the Popular Council

After working on essential elements such as environmental awareness and training, it is up to the social actors to analyze the environmental situation of the environment where they develop their lives and identify the environmental problems that exist in it.

- **Stage 2.** Organization

After having carried out an analysis of the environmental situation of the Popular Council, it was necessary to organize, decide, propose and design a system of actions to be carried out, based on the opinions already found in its members. The organization was an important stage for the correct planning of the actions that will allow to solve or mitigate the different environmental problems found in the Popular Council.

## **Action 1:** group conciliation of the activities to be carried out

This action was to reconcile, as a group, the activities proposed for the solution and/or mitigation of the environmental problems presented by the People's Council.

- **Stage 3.** Intervention

The fundamental purpose of this stage was to carry out actions to improve the environmental situation of the People's Council, based on a group of actions that from different perspectives manage to

generate dynamic spaces, stimulate the already defined spaces, and achieve greater involvement of its actors. Change styles of thinking and ways of acting in its community.

## **Action 1:** promotion of environmental culture in the Popular Council

This action was aimed at strengthening and increasing the environmental culture possessed by the social actors of the San Andrés People's Council, La Palma municipality.

- **Stage 4.** Evaluation

As the last of the stages, the evaluation, in this case in an integral manner, is carried out to assess the development of the different stages contained in the Environmental Popular Education program, for the improvement of the environmental problems of the San Andrés Popular Council, municipality of La Palma.

This evaluation took into account the development of each of the stages and actions previously designed. This allows knowing the achievements and the difficulties encountered in the development of the activities, indicating their effectiveness, as well as new considerations to take into account for a better development of the program.

## **Action 1:** evaluation

Its objective was for the social actors to self-assess with respect to the knowledge and skills they possess after the implementation of the program, as well as to comprehensively evaluate the developed proposal.

## **General guidelines for the implementation of the program:**

- Have methodological assurance for the development of activities.

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- Plan and organize the use of economic and human resources.
- The program included among the participants a specialist in the Environment (leads the development of the meeting and promotes the debates), a reporter (records the development of the meeting in detail with the prior consent of the group), the selected sample and observers.
- The frequency of the meetings by work groups was carried out weekly, with duration of one hour, taking place in the Popular Council itself.
- Participatory techniques oriented to educational work on environmental issues were used within the program.
- New information and communications technologies were used for the development of activities, based on more interactive proposals.
- The activities were developed within each working group, based on the selection of the research sample.
- Each activity had a logical order of work, taking into account elements such as: structure, title, objective, explanation of the methodology to be used and the general guidelines that allow organizing the activity.

### **VII. Preparation of teaching material**

The use of PowerPoint, video debates, among others, is proposed as didactic materials, considering what it is explained in the characterization, as well as the different topics raised.

### **VIII. Validation and evaluation**

Evaluation is a vitally important process in any activity that is carried out. It is necessary to systematically provide feedback, in order to establish a judgment of value and relevance to those proposals that were drawn up with transformative objectives.

In general, the program in question is assessed, identifying the achievements and difficulties encountered in the development of the proposal. Therefore, evaluation is understood as a process of reflection, of analysis, which allows the objectives and actions to be developed to be outlined with greater precision.

The fulfillment of the proposed actions must have a monthly follow-up and must be incorporated into the annual plan of activities of the University, so they will appear in the monthly work plan; the analysis of its compliance will be carried out, they will analyze the successes and the possible weaknesses to make the pertinent changes. Compliance with the objectives of the program will have an annual follow-up and will be carried out with the application of a survey at the end of each year; subsequently, it is processed and, from there, the proposed actions for the following year are adjusted, if necessary.

## **DISCUSSION**

What is presented in the work shows coincidence with the criteria expressed by González, M. 2012; Simons, B. (2009), stating that environmental education programs are considered as a support instrument to solve different problems, fulfilling the principle of participation allowing training, organization, understanding, awareness and motivation of the people involved.

The Environmental Popular Education Program for social actors of the San Andrés Popular Council proposes the combination of theory and practice, from the development of activities aimed at improving the environment in a process of education, training, based on the critical reflection that leads to the solution of problems present in the communities. This is how Urrea-

Camargo, D. and Gómez-Andrea, M. (2020) state that the EPA "provides a new view of the shared world that allows us to think and act creatively together and from another starting point, assume the challenge of collectively seeking substantive alternatives to the predatory model imposed as an inevitable destiny" (p. 45).

Leff, E. (2010), meanwhile, states that:

The EPA goes beyond the approaches of critical popular education and the pedagogy of liberation, to propose new ways for the construction, transmission and appropriation of knowledge. This demonstrates the need, according to this author, to internalize in the science of education the concepts of environment, the analysis of complexity and the methods of interdisciplinary, thus transforming pedagogical practices (p. 20).

Promoting environmental education from the grassroots means assuming the broad nature of a process, in which increasingly broad sectors of society participate. In this way, a participatory diagnosis was started where the social actors identify the main environmental problems that exist and, together, make proposals for their solution.

The Program presented shows consistency with what was proposed by García, O. (2020) in that "the EPA is based on the promotion of collaborative, meaningful and dialogical learning, which builds knowledge and knowledge collectively and through essential means of the dialogue" (p. 12).

The research concludes that the proposed Environmental Popular Education Program is based on the conscious participation of social actors in the face of environmental problems that exist at the community level; particulating the indicators of environmental awareness, environmental behavior and environmental knowledge. As a first moment, a diagnosis of the reality is produced where the existing socio-

environmental problems are identified and, later, they participate in the proposals for solutions, developing skills for efficient environmental management.

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### Conflict of interests

The authors declare no conflict of interest.

### Authors contribution

All authors managed the information, reviewed the writing of the manuscript and approved the version finally submitted.



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