Chapter

Globalization and Education: Trends towards Sustainability

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Abstract

Higher Education Institutions (IES) have a very relevant role in the path towards sustainability. The problem of the implementation of curricular sustainability is the disparity of solutions that can be adopted depending on the political and economic situation of each country. The study of a practical case in the south of Honduras allows the student to approach key decisions in a real scenario to bring improvements to a very disadvantaged population, lacking basic services, such as water and electricity, under the premise of sustainability, facing aspects as relevant such as sustainable mobility, water resources management, energy and construction models, in a context where globalization and technological innovation play a very important role. It is essential to know in depth the real context where structural changes will be applied to understand that there is no single reality, that actions are built adapting to specific situations and that the effectiveness of the measures that can be adopted to establish models that prioritize that part of sustainability that best weighs the balance between the environment, society and the economy for each case.

Keywords: Sustainability, Globalization, Environment, Higher Education Institutions, Technology

1. Introduction

Education for global citizenship is presented as an opportunity within the framework of the 2030 Agenda to promote solidarity, justice and equality in Higher Education Institutions. It is a totally disruptive proposal that offers alternatives and that is the result of an international consensus around economic, social and environmental development and the affirmation of peace and security as an essential pillar of development [1].

Higher education institutions [2] should favor the implementation of the 2030 Agenda for Sustainable Development (SD) approved at the United Nations, and one way to promote in the student an awareness of sustainability a ccompetence-based model so that they can solve the many challenges they will encounter in their career fields. In addition, the university must constitute a turning point between the relations manifested between citizens and the role of the State, based on its eclectic capacity and adaptability to social needs and its role as a transforming entity and promoter of change within the great challenges of the sustainable development and existing processes of discrimination or social exclusion [3].

The advancement of scientific knowledge, technology and innovation constitute a cross-cutting objective for SD within the 2030 Agenda for Sustainable Development [4].

The curricular or academic sustainability does not involve only include environmental content in the agenda, involves one series of changes that include aspects such as those proposed Ull, MA [5]:

- Replace the static and fragmented vision of reality with a complex and dynamic vision, with the ability to overcome the tradition of decomposing reality into unconnected parts and open the University more to collaboration with society and social organizations in the resolution of problems. Socio-environmental problems.

- Strengthen disciplinary flexibility and permeability to promote systemic and relational thinking, through the incorporation of interdisciplinary work projects, between different areas and subjects.

- Improve the functionality and contextualization of teaching, incorporating the study and treatment of local and global problems, and reinforcing collaboration with local entities.

- Promote coherence between theoretical discourse and action, between theory and practice, programming practical work consistent with theoretical proposals and trying to ensure that the management of the academic insitution is also consistent with sustainability.

- Adopt a constructivist epistemology and a comprehensive conception of education, which makes an explicit recognition of diversity (of students, cognitive styles, cultures, situations, etc.), recognizing the active role of individuals and groups as active subjects of the history and construction of your knowledge; and promoting, also, a comprehensive training of students, in their intellectual, psychomotor, affective, social and moral dimensions.

According to Fernández-Sánchez, G & al. [6], the deployment model curriculum sustainability is an important support in the technique of project - based learning (PBL) encouraging students to develop attitudes, skills and knowledge to make it as professionals committed to SD.

This path towards the sustainability of Higher Education Institutions cannot be followed if the concept of globalization is not included. The education is not can escape globalization processes. Globalization has impacted on different areas, the educational field being one of them, indeed, we could say that the phenomenon that has the greatest impact on the educational field is globalization, which includes within itself the advances of new Information Technologies and Communication (ICT), as well as social and cultural changes [7].

According to Fazio, H [8], no brief explanation covers the wide range of real, discursive, imaginary and symbolic contents that the concept of globalization entails and to which it can be alluded. Globalization involves the expansion and intensification of social, economic and political relations across regions and continents [9].

In this sense, Piana et al. [10] define globalization as a contemporary phenomenon determined from its multidimensionality, which allows the generation of new spaces and, therefore, new spaces adapted to a new reality, generating the need to identify concepts that adapt to a changing society, with the possibility of

establishing a relationship between local development and the dynamics proposed from the global scope.

But it is true that the globalization process is experiencing a profound crisis that calls into question the supposed advantages offered by its paradigms. The commercial opening, the control of inflation and the public deficit, as well as the thinning of the states and the dominance of the market; they have only exacerbated poverty and income concentration [11].

Therefore, notes Martinez, E. [12] in their article "Ethics of development in a globalized world", in an irreversibly globalized world, development ethics points out the main arguments, concepts and principles that can guide development policies within countries and also in international relations. Since it was born in the 1960s, development ethics have largely driven the transition from an initially very poor development concept to the current complex concept of sustainable human development.

In this context, the key question [13] is, how universities can contribute to better positioning themselves in relation to globalization? The answer is multiple:

- Regarding training:
  - Prepare more citizens to assimilate more knowledge and to participate in a process of permanent and rapid change.
  - Improve human capital, training more scientists and engineers strongly imbued with values.
  - Improve the employability of graduates, giving them an education that encourages entrepreneurial vocation and those prepared to contribute to the innovation process.
- In research and development:
  - Strengthen research: more research and better quality.
  - Strengthen the connection between innovation and business.
- In relation to the structural change of the economy:
  - Support the creation of technology-based companies through "incubators" and other mechanisms
  - Support the technological improvement of existing companies and sectors through systematic technology transfer programs.
- In relation to regional development
  - Contribute to local and regional strategies for the development of the territory in contemporary times (knowledge plus values).

Tools such as service learning in international cooperation projects are shown to improve the acquisition of skills related to sustainability by the student.
The link between service learning and Education for Sustainable Development empowers the student with a deep analysis of poverty, its origin and its link with SD and the importance of adopting alternatives to face the change of unsustainable lifestyles [14].

One of the aspects to be addressed when talking about globalization, sustainability and education is mobility. The different options that you choose at each point of the planet are the subject of deep reflection.

Most of the proposals for urban mobility are based on the correlation given by UN-Habitat, which dictates the guidelines of the city of tomorrow and how to correct those of the present. These are visions from developed countries that they want to impose on those who are underdeveloped. The underlying logic is simple: facilitate the movement of people and goods for production, in countries where there is a risk that their urban systems will collapse, and their commercial interests will be affected. Hence, the proposals, which come closest to promoting subjective well-being, such as creating walkable cities, come from and are implemented in developed countries such as the Nordic ones. While, for poor countries, "sustainable" urban mobility models are imposed on them, based on collective transport [15].

In the documentary "Road to School", directed by Plisso, P [16] is the true story of four children, heroes everyday narrates - *Jackson, Carlitos, Zahira and Samue - who* must deal daily with a multitude of adversities and dangers to get to school. These children live in four distant corners of the earth, but they share the same desire to learn and are aware that only education will s open doors to a better future.

The images of "On the way to school" are shocking due to the strong contrast they suppose in front of the western day life, since in our society we are accustomed to seeing parents driving their children to the door of the school itself, or in his defect accompanying them by the hand or leaving them at the foot of a school bus. None of this exists in the four cases documented by Pascal Pliso in the savannas of Kenya, in the vastness of Patagonia, in the rugged Atlas Mountains and on the winding coasts of India. At the four points, distant from each other, these schoolchildren leave their home very early every morning to make a long journey on foot, on horseback or even in a wheelchair, and thus get to the nearest school. The distances traveled range from four to twenty kilometers and the average duration is between an hour and a half and four hours [17].

A similar case is the one reported by the organization "Céntimos Solidarios" with the acquisition of a vehicle for school transportation for boys and girls from 7 rural communities in Alta Verapaz, Guatemala. The remoteness of some communities from the school it hinders access to education and food that is provided. Some of these children must walk in adverse situations, due to the orography and climate of the place, up to more than 4 hours a day accompanied by their mothers. The acquisition of a vehicle will improve the educational and nutritional development of, initially, 75 boys and girls from 7 villages with a predominantly indigenous population, very impoverished. The schooling of these children is a fundamental tool to get out of the cycle of poverty and exploitation to which they and their families are subjected. The improvement of mobility, with the implementation of adequate school transport, will favor the access and permanence of boys and girls in school.

Save the Children focuses, in its annual report "The Mundia State l Mothers" education of girls as a way to ensure a healthy and prosperous future for all children, the report stresses the need urgently to attend the 58 million girls out of school. The report highlights that there have been countries that have successfully tackled the problem of girls' schooling, thus demonstrating that effective solutions to this challenge can be found, even in the world's poorest countries.

It is worth highlighting the article in the newspaper "El País" entitled "This is how the life of cars is lengthened while that of humans is shortened" Pskowski, M [18] where it is pointed out that when rich countries tighten the regulations on emissions from vehicles, many are exported to the global South. And with them, pollution. Some of the highest air pollution levels are recorded in small countries like Guatemala, Bolivia and Honduras. They all share several characteristics: poor

public transport systems, low purchasing power and the absence of strict regulation of vehicle emissions. Of the 15 Latin American countries analyzed in a report by the Council for the Defense of Natural Resources published in 2014, only seven had regulations on PM2.5.

A report published in July 2018 by the New Delhi Center for Science and Environment (CSE) pointed to "*tartanas*" that are exported to underdeveloped countries in Asia and Africa as the main source of air pollution. in those areas. The report calls the practice a form of "toxic dumping," and recommends that developed countries apply stricter controls on the vehicles they export. The CSE report recommends that developed countries limit the age of the vehicles they sell and take steps to ensure that obsolete cars are scrapped or recycled rather than sent to other countries.

In a globalized economy, both developed and underdeveloped countries have a role to play in reducing emissions from the transport sector. Enjoying a clean environment is a human right, but people in developing countries are too often short of breath [18].

As Barkin, D. [19] points out, in the world, poor people are accused of destroying their environments. These accusations, then, justify the policies that later threaten the very existence of traditional social groups and their productive systems. Their inability to adapt is evidence that reinforces the idea that these groups are the cause of social and economic backwardness in rural areas. Even in the most modern societies, "blaming the victim" for their own situation and their lack of collective progress is a common phenomenon. The poor plunder the land not because of their callous waste of resources, but because of the lack of an equitable distribution of available social wealth and the ruthless way in which the rich and powerful defend their control. The disparity in the prevailing social and productive systems is leading to disaster. With rising unemployment and discrimination against small-scale rural producers, environmental degradation is proceeding rapidly.

Therefore, the question, are developed countries to blame for environmental degradation? and, therefore underdeveloped countries do you have the right to pollute more? These issues raised Pérez-Blanco, CD [20] question the model of extensive growth that is taking place in certain countries and regions, which in some cases is destroying the wealth of these regions and their future prospects development (overexploitation of water resources and non-renewable energy mix in the newly industrialized countries; desertification and overexploitation of forest resources in failed African states; deforestation in large emerging states). Should we not question whether poor countries should have the same right to pollute (or more) than the rich (assuming that the right to pollute any), but if a model of aggressive growth with the environment report to those some benefit beyond the short term or, on the contrary, it will condition its possibilities for future development.

Another of the key aspects in terms of sustainability are those related to the management of water resources and sanitation networks. Access to drinking water and basic sanitation at the rural level is a challenge for many countries. Regarding the origin of the water, groundwater is considered as the hidden scaffold that underpins much of modern life. Around the world, almost 40% of the food we grow is irrigated with water extracted from the earth's subsoil [21].

Without water there is no health. No education. Nor equality between the sexes. Can that some of these relationships is not to obvious, but all there. The first is perhaps the clearest: the World Health Organization (WHO) estimates that for every dollar invested in drinking water supplies, between 3 and 34 are saved in sanitation . The hours that minors spend transporting this liquid instead of going to school explains the second. The fact that it is women who usually carry the burden of providing for their communities after endless journeys in search of wells or rivers

clarifies the third. And they are just three examples: agriculture, energy, nutrition, infant mortality has a close relationship with water. Without it there is no development or a way out of poverty [22].

In this sense, according to Pulido, A [23], the question to ask is whether the use of groundwater is compatible with the sustainable development of a region? Is it overexploitation? The answer is not easy given the wide variety of circumstances that may exist. Now, there are many cases in which overexploitation is the only solution while other resources arrive, coming from other basins or of diverse origin (desalination of marine waters, brackish waters, ...). Numerous aquifers around the world are subject to exploitation because of increased demand for agricultural and domestic use.

If the overexploitation of aquifers can be considered as something necessary and justifiable under certain circumstances, what is critical in this equation is the lack of sanitation networks. Getting water to any corner of the planet could become a useless effort if the waste generated by its inhabitants contaminates it. The problem of sanitation is twofold: on the one hand, it requires more complex infrastructures; on the other, investments are less visible, according to Aziza Akhmouch, director of the OECD's Water Governance program: "When a politician, a mayor, for example, brings drinking water to a population where there was none, recognition is immediate and the revenue, too. Sanitation is a second stage that is more complicated to implement but has a great impact, since its absence pollutes the aquifers and affects the health of the communities" [22].

Another sector that is considered key when it comes to sustainability and globalization is electricity. Although the overall electrification rate continues to rise, with more than one 89% of the world population with access to a reliable source of electricity, it is estimated that there are still about 840 million people who lack this service.

In developed countries there is a boom in the development, manufacture and use of clean and renewable energies. But this does not happen in poor or underdeveloped countries that continue with the old scheme in their energy matrix based on oil, gas and coal and, as happens in very poor areas, the use of waste plastics to light the kitchen and make the food. Not only that they invest little in increasing their power capacity which is not only essential for economic development but to improve the quality of life of its population, but they are wrong when they do. It is common to hear that in Latin America or Asia it is planned to build a new coal plant.

One fact that calls for reflection is that the 19.5 million inhabitants of New York consume the same electricity in a year as the 791 million of sub-Saharan Africa. Secure access to modern energy sources is the foundation on which the prosperity of advanced economies rests. In these, the energy debate revolves around the security of supply and the decarbonization of the mix, while in many other countries the priority is to have enough energy to satisfy the basic needs of its inhabitants. Not surprisingly, access to affordable and reliable energy services is essential to reduce poverty, improve health, increase productivity, increase competitiveness and promote economic growth [24].

Poor countries must use and exploit renewable energy to improve the quality of life of their population, combat climate change and achieve sustainable economic development.

And finally, this document analyses the impact of construction. The construction technology institute maintains that around 2 tons of raw materials are needed per square meter of home construction, that the amount of energy needed to obtain these raw materials represents the energy consumption of a family in 12 years and that construction and demolition waste represents more than one ton per year per inhabitant.

According to Rodriguez, L et to the [25] the construction sector it generates a significant impact on the means by resource consumption and waste generated and, therefore, is a sector with high responsibility in the context of sustainability. A sustainable architecture begins from its design, including as determining variables of its production the forms of consumption, use of soil resources, energy, water and the selection of the appropriate materials for each typology and ecosystem where they are developed.

In this context this document tries to relate sustainable mobility, management of water resources, energy and construction models economic environmental and social globalization, technological innovation, education and political realities, countries, where economic capacity determines decisions in these areas and the way to face the challenges that arise.

2. Scope and objectives

In 2009, the Department of Civil Engineering of the School of Architecture, Engineering and Design of the European University began an international cooperation project to offer students the opportunity to carry out final degree projects (TFG) and final projects. Master's degree (TFM) in real contexts, but in countries with lower rates of economic development than Spain.

The first three years the students travel to Ethiopia, in 2012 to Guatemala and, from 2013 to 2019, to Honduras. It was about putting into practice the knowledge learned in the classroom in real contexts but very different from those existing in their environment. In these circumstances the student was forced to set different working schemes, with significant opening exercise in relation to the knowledge acquired in a Higher Education Institutions (HEIs) from Europa. Some advances in these works have been published by Bernaldo, MO et al. [14].

One of the main differences was in the considerations that they had to adopt in relation to sustainability, the weighting of the balance between environment, society and economy and the possibility of implementing solutions that would bring technological innovation to the project.

The objective of this article is to carry out an essay and propose a reflection on the state of knowledge in relation to the different sustainability proposals in different contexts in relation to a real case, as well as to review the trends of the western world and the needs of the third world.

3. Practical case

The Universidad Europea (EU) has an international cooperation program, which has been carried out since 2009, where students of all years are incorporated with the aim of carrying out, as already mentioned, the TFG and TFM in real contexts in order to apply the knowledge acquired in the classroom through formal learning to concrete practical cases.

The first project was carried out in Ethiopia with the design and construction of some basic infrastructures identified as priorities for the local society (construction of dams, implementation of water distribution networks, irrigation and sanitation) and the performance of work related to health in the environment of orphanages (studies of diseases, deformities, medication and health system). This project involved disciplines of civil engineering, physiotherapy, pharmacy and medicine. It was financed and supported by the Spanish Agency for Development Cooperation (AECID) and the University of Addis Ababa. Within this framework, it was decided

to incorporate the students of the project through a volunteer program, through the development of microprojects and end-of-degree projects/end-of-master projects in real contexts. In the Ethiopia project, a total of seven end-of-degree projects/end-of-master projects were carried out in different disciplines (physiotherapy, information and communication engineering and civil engineering).

Subsequently, five students from the Civil Engineering Degree traveled to Guatemala to carry out a study on water distribution systems in the city of Tecpan with the aim of analyzing different alternatives that would guarantee the supply of drinking water to the population. Two final degree projects were carried out in Guatemala.

In 2013 he started a new volunteer program in collaboration with the Cerro Verde Foundation (FCV). It focused on a small village, Cerro Verde, in the Choluteca region of Honduras. This project in Honduras (2013–201 9) is the selected case study.

These volunteer work is carried out in the village of Cerro Verde in Honduras at the request of the Fundación Cerro Verde (FCV) which, knowing the work carried out by the UE in Ethiopia and Guatemala, decides to establish a collaboration agreement to generate synergies between the needs of the local population and the knowledge that the UE has in the university field and in the field of International Cooperation projects to technically solve the requirements of the projects to be tackled in the area.

The village of Cerro Verde is located in southern Honduras, one of the most depressed areas of the country, without water or electricity, where for some years they have suffered a severe drought that has decimated crops and forced part of the population to emigrate. to the United States and Europe. In this context, a series of changes in the village are addressed, aimed at improving the quality of life in the village.

Among all these improvements, it is worth highlighting the significant change that has occurred at the educational level. In the village there was a school that allowed the population of the area to undertake primary studies, from first to sixth, from 6 to 11 years. High school and university studies forced students to move to other towns. This situation meant that the inhabitants of that area, both in the village of Cerro Verde and in the neighboring villages, dropped out of school given the economic difficulty of assuming the economic expenses that for the families the displacement of their children to other towns. This economic difficulty has two biases, the first one to pay the economic amount that the trip to school and the other, although it is indirect, it is no less important, and it is the one that has to do with the poor condition of the accesses between populations and the time that children/young people would spend on these movements. It must be taken into account that, in the conditions in which this population lives, the participation of all members of the family in domestic, agricultural and livestock tasks is essential, if a lot of time is spent traveling to school, it is not necessary. They can dedicate themselves to these tasks.

In this context, the FCV decided to expand the school that would include all the courses prior to entering the University and avoid dropping out at an early age. This expansion greatly benefited the inhabitants of the village of Cerro Verde, but for the population of nearby villages the problem remained the same. This meant going from a school that housed studies for 53 children to a school that currently has 355 children from the Cerro Verde Village and 15 other nearby villages.

For this reason, it was decided to design a mobility plan that would prevent students from walking the path, in some cases the time exceeded two hours for each route, and a mobility plan was designed that consisted of hiring the services of a bus with a tour that will reach most of the surrounding villages, funded by the FCV,

and allow students to invest less time on the route to school. This tour is done in a gasoline bus, with many years old.

Although it is considered an ideal solution to favor the highest possible schooling of students in the area, the analysis of this mobility plan from the perspective of some indicators of sustainability, such as environmental and economic ones, holds up worse.

From an environmental perspective, student mobility plans in more developed countries are being designed, thinking of low-polluting vehicles and/or the creation of safe routes for the student to either walk or cycle by favoring and promoting healthy exercises from an early age.

And, from the economic perspective, the non-institutional nature of the economic endowment of the mobility plan leaves the continuity of the project and, therefore, its sustainability to the risk of the financing of a private foundation.

Regarding water resources, the village of Cerro Verde did not have a water distribution network. This forced the inhabitants to make long journeys on foot for sourcing when sources close to the village were exhausted, a situation that happened several times over a year. This provision was not only for human consumption, but also for livestock and agriculture, sectors that constitute the way of life of the population.

This situation led the FCV to execute a drinking water distribution network for human consumption from the water extracted from one of the two wells, it executes two.

The critical situation in the population 's has led to the use of the water obtained drinking from this well not only for human consumption, but for agriculture and livestock. In addition, if the estimated water consumption before implementation of the distribution network water was about 10 times less than the usual consumption in a developed country is logical to think that this value increases significantly with the ease and convenience reporting n networks water distribution. This situation can generate in the future a situation of overexploitation of the aquifer that can lead to a decrease in the piezometric or water table level to the point that the springs dry up and the flow of the rivers is diminished or exhausted, even to their contamination.

Since this is the only viable solution for a population so neglected by the institutions, from the perspective of sustainability, agricultural, technological and management policies that consider the local/regional context would be necessary to provide solutions that considering the social, economic and environmental impact, it would allow establishing strategies at the regional level to guarantee the continuity of the project. The proper management of the water resources is the key to ensuring the sustainability of a water project and that requires institutions to be involved in a holistic manner in decision-making and financing of projects.

The abandonment of institutions in this region affects both the supply of water to the population and the installation of sanitation networks, both in relation to the very existence of the infrastructure and the quality and provision of services of the existing ones.

Regarding the electricity supply, the village did not have electricity, there were only some houses with solar panels that allowed them to charge batteries and light a light bulb, the rest of the population depended on the solidarity of the neighbors. About recharging mobile phone batteries, it must be considered that many family members work far or even abroad, so their only way to maintain family ties is through this type of device.

For this reason, local institutions were involved in the construction of the electrical network and thus provide the area with electricity supply. This has meant a very significant improvement to the population that has allowed them to expand

their way of life with businesses that were previously unviable and, in addition, the use and access to common technologies in any home that were not possible without electricity. It goes without saying that, in addition, it makes lighting possible inside and outside the houses. It was difficult to study in school on rainy days without lighting.

According to the analysis of the electricity sector and its efficiency carried out by Flores, MA [26] in Honduras, it points out the lack of interest on the part of the administrations as the reason for the lack of energy efficiency in the country, a fundamental element for sustainable development. In addition, the study leads him to conclude that there is no rational use of energy, an aspect that reduces competitiveness, in the sense that the production of wealth has a high economic cost and a significant environmental impact. Among the general energy policy objectives set by the government in 2010, 2 are worth highlighting:

1. Achieve, under a comprehensive approach, a greater share of renewable energy resources within the energy balance and articulate a system to promote efficiency and rational use of energy, thus reducing dependence on imported fuels, considerably increasing the share of generation. of electricity from renewable sources and improving the sustainability of the long-term supply and of the own resources

2. Achieve significant progress in the access of the rural and urban-marginal population to energy, especially electricity, within the framework of integrated development strategies for productive activities and basic social infrastructure, in addition to achieving a significant improvement in use efficient use of firewood, raising the quality of life, at the same time as the sustainability of the wood energy supply.

This approach clashes head-on with the reality that the FCV encountered in 2013 when it first arrived in the village.

By last in the part relating to the building, l should mention that a large majority of the houses are built with local materials, constructions of clay, tile and wood requires high maintenance. The torrential rains, which are common in that area, along with use and age of the houses, generates significant impairments that require significant and costly repairs. This has led the inhabitants to use more resistant materials that require less maintenance, such as the concrete that they use both for repairs and for the construction of new homes.

The use of the area's own materials for the construction of buildings, in addition to being a more sustainable practice, has generated, throughout the history of humanity, a seal of identity of the peoples favoring constructions that show a certain mimicry with the environment. The village of Cerro Verde is characterized using materials from the environment for construction, but a gradual transformation is observed, coupled with the growing purchasing power of its inhabitants. This transformation has led to the change towards the use of more resistant materials that require less maintenance to the detriment of the use of indigenous materials.

It is necessary to consider how to optimize the use of materials in the area, preserving the type of construction that had been used, taking advantage of its advantages and, looking for a way to improve its properties to favor its use and maintenance, as stated by Rodríguez et al. [25], thus avoiding the economic and environmental costs of acquiring non-native materials.

There is no doubt that the work carried out by the FCV has led to a significant improvement in the quality of life of the inhabitants of the Cerro Verde village and

nearby towns, allowing a very significant number of children and adolescents to opt for the education, with access to drinking water that prevents both children and women from spending part of their time on family water supply and carrying heavy loads from an early age, as well as opting for electricity that has led them immediately into the 21st century.

Now an important question should be raised: the improvement in the quality of life is more or less sustainable than what they had before the FCV intervention. The fact that these actions are not sponsored by a reliable state that ensures the life of the project is a negative indicator. The lack of that holistic view of the problems in the area and the medium and long-term solutions in the region that can only be provided by administrative managers by evaluating the priorities and real technical and economic possibilities of the country is also a negative indicator.

The importance of accessibility, transport, mobility and infrastructure in improving people's quality of life is not questionable, but this makes environments more unsustainable if they are covered by second or third lives of Western projects and there is no institutional support to ensure the life of the project.

4. Discussion

Involve students in this type of projects where the formal knowledge acquired at university are put to the service of the most disadvantaged populations contributes to the skills student perspectives, values and, ultimately, competitions, that the accompanying in their professional lives by incorporating a way of looking at the real situation of the most disadvantaged population, the possibilities for improvement that can be incorporated and their role in society.

The profile of the student and his environment are different from the reality of life in the village and therefore the life experience of the student in this environment involves a thorough analysis of poverty, its origin and its relationship with the D S.

The lack of resources with which the student works, both in terms of means such as light and internet connection, as well as those that exist in the environment to adopt sustainable technical solutions, favors developing skills that they have not needed to use in learning Formal classroom and now are necessary to achieve the most appropriate solutions for addressing specific context.

Works in real projects it means is that their proposals are going to be implemented, therefore any errors and/or failure will hurt very significantly to very vulnerable population. Each of their decisions in relation to the project design, types and quality of materials, implementation procedure, useful life and maintenance are key to the SD of the local population.

Now, when you talk about SD of a project, is it based on the same premises that the student learns in the classroom? It is here where the trends of developed and underdeveloped countries are shown compared to innovative projects in both places in infrastructure, building, transport and mobility. Here the role of the teachers who accompany the student is complicated. Is the distance when talking about SD between the different countries based on their economy?

The difficulties of reconciling economic development, social improvements linked to the quality of life of the population and protection means environmental magnified when there is no opportunity to propose the best solution if not just before solving concrete problems of the population.

The complex balance between spatial planning and the integration of mobility plans has a significant impact on SD. The sustainable mobility trends that are developing in Europe are generally more holistic in nature, although it must be considered that there is some neglect when it comes to mobility in urban areas.

Mobility and transport are dependent, this implies that, to improve mobility, it is necessary to improve transport. Transport should be understood as the action of moving people and goods from one place to another; therefore, transport is conceived as the technical element of mobility. Therefore, sustainable mobility must be understood as a new way of facing transport problems from an integral framework, which seeks the equitable use of the road system, the reduction of environmental degradation and the increase of accessibility [27].

According to Esteve, J. [28] the new trends expected to take hold in the next decade on the way in which we move are the autonomous driving, " carsharing " by vehicle rentals for short periods of time, intelligent traffic that allows sharing data such as the state of the road, time and destination, mobility understood as a service and intelligent public transport, increasingly clean and efficient to increase frequencies of passage and thus transport more travelers.

All this promoted and managed by public administrations that apart from regular or regulate include mechanisms to promote good practices, encourage innovation in sustainability and favor a change in transport habits in cities and the adoption of healthy habits.

The options of populations neglected by public administrations, in the case of mobility, leave the transportation possibilities of their inhabitants in a very vulnerable situation. In the specific case of the Cerro Verde village and its surroundings, with very deficient infrastructures, consisting of dirt tracks in a very bad condition and a single bus that makes a single round trip per day, mobility is reduced by very significantly and contingent on the particular vehicle, scarce in this area.

In this situation, school mobility plans cannot be governed by the same parameters or approach current trends in sustainable mobility. While in the occidental world, mobility plans are sought based on the number of places offered and the distance that gives more weight to collective and sustainable modes of transport, reduction of greenhouse gas emissions, reduction of noise pollution, increase of social equity in access to all goods and services and access that favor walking to get to school [29]. In less developed areas, students can go to school and be educated academically. It is a look towards sustainability from a solely social perspective, but key to favor the advancement and improvement of the population from the academic training of children and young people.

A similar reflection has to be raised in the part related to the management of water resources, where the priority is that the population have potable water and that diseases associated with the consumption of untreated water are minimized, until public institutions adopt the management of water resources in the area and include a sanitation plan to avoid contamination of aquifers, among other damage to the environment.

The growing trend in the use of renewable energies is practically exclusive to developed countries. It is part of energy policies and is reflected in the legislation of many countries. As noted, Honduras is an example of this type of politics, but the reality is that it is only on paper, is what is also providing electricity, although not renewable, the rural areas across the country, but also only on paper. Therefore, we return to the same point, the actions that can be undertaken are not done looking for sustainability, they only seek to provide the population with energy sources and, therefore, the only indicator that is appealed is the improvement of the conditions of life of society.

The advantages of using native materials for construction are undeniable, both because they avoid the transport of foreign materials, and because of their natural origin and the possibility of recycling that they report. In the case of the town of Cerro Verde, in addition, being an area that reaches very high temperatures many months a year, the houses made of clay, wood and tile preserve temperatures lower than the outside temperatures.

As has been pointed out, the lack of resistance of the materials to inclement weather and the wear and tear of use together with the construction typology is what leads to repairs/new constructions with non-native materials, moving away from the sustainable housing models that are currently being promoted in the developed countries.

The case reinforces the idea of the different needs between the first and the third world (mainly in villages) although with certain similarities in rural environments. Rural depopulation in some countries has underlying problems of the same characteristics as those indicated around the Cerro Verde village, all of which are linked to the loss/shortage of basic services and the lack of employment. The characteristics of agricultural and industrial technology, the economic geography of business activity and the highly dispersed nature of the rural population, among other factors, make it difficult for rural populations to resolve these problems [30].

5. Conclusion

The acquisition of skills by students with the incorporation of this type of project is very relevant. Being first-hand participants in decision-making in some cases opposed to the proposals that are currently being made in the classroom allows them to assume and understand that there is no single reality and that actions are built adapting to specific situations. And, the most important thing, that the context where you are going to work must be known in depth to act with coherence and rigor.

In addition, the student verifies that the incorporation of new technologies in some cases brings significant and necessary improvements to the projects, in other cases they are unfeasible because they require elements that are not accessible in the area and in other cases it requires the adoption of innovative solutions to make it viable in that context.

And, on the other hand, it understands and applies a vision of sustainability where it prevails to solve the basic needs of a population, such as water, electricity and education, trying to get as close as possible to the ideals of SD.

They are also witnesses of how populations that were closer to the ideals of sustainable construction revert their situation when using new technologies they could apply improvements to avoid "going backwards" on the road to sustainability.

The important thing in the university is to learn to think, to develop a critical spirit. Development cooperation and international service learning allows us to know other realities, other problems, and even to reflect on given solutions and their consequences. To realize that development cooperation should not be one-off volunteering, but rather a commitment to the planet and sustainable development and a deepening of the anthropological world and its different conceptions of the world. To understand that what they have learned in all the years in college solves some problems for some, but not for all, and that not everything is black and white.

Globalization in the actions carried out by the FCV has had positive effects on the part related to relations with local and national institutions, which are based on good international relations between Spain and Honduras, and which have been favored by the role that the ambassadors who have been in Tegucigalpa have played with the support of the projects carried out. In addition, it is worth noting the cultural exchange that has meant that both the members of the FCV, as well as students and teachers of the European University, lived together in the village in private homes.

The negative effect of globalization is linked to the creation of an ideal of Western life and consumption, which accept models of Occidental Word, traditions

and cultures, which generates the loss of their own roots. Market growth proposed globalization occurs only in the countries with raw materials of interest. Therefore, certain countries (in Africa, Asia or America in the developing world) cannot grow or develop because they do not have the ideal raw materials. Globalization only benefits a few because the economic expansion is only sought if it is profitable and also supports a business system that does not respect SD.

The solutions adopted in matters of sustainability are not universal. Not even the order of priorities is. The progress made in certain countries generates different priorities than the countries that have not yet reached them in terms of citizen insecurity, pollution, health systems, infrastructures, etc. In addition, there are situations, such as the sale of used vehicles to the third world that generates more pollution than the existing one.

Furthermore, adopting "western" solutions may lead to situations of greater "unsustainability" than the existing ones. Kapuscinski [31] already related the different needs and conceptions of the world and the problems of different parts of Africa. Perhaps the solution is not to repeat the Western success/failure model, but to devise new solutions from the EMIC perspective (perspective in which the researcher obtains the internal point of view) of the local and not from the ETIC superiority (the researcher looks at the field of research objectively from a distance) of the one who "believes himself superior".

In fact, the solutions adopted do not always work. One of the most important aspects for the management of international cooperation projects for development is the definition of its success and failure factors. However, the perception of what is considered as success or failure varies depending on the perspective from which to observe said management and its results achieved. One of the main problems of international cooperation projects is that the interested of the NGOs/foundations is focused mainly on meeting the project objectives, they do not necessarily reflect at all times the interests, needs and the real expectations of the population to whom they are addressed, but they tend to respond more directly to the institutional policy guidelines of the international cooperation agencies responsible for their financing [32].

In addition, as l to cooperative development rests on microprojects and not in structural soundness of local and national (governance) institutions remain in short - term projects and serve as a "band - aid" but do not solve the problem and even accrue [33].

A very significant fact in this regard is that, after the millions invested in cooperation projects, the data relating to the sustainable development of the most disadvantaged populations does not improve globally.

The role of FCV has been key to improving the living conditions of the inhabitants of the village Cerro Verde and towns nearby, but institutional support is required so that, based on this basis, work is done to provide all these actions with the sustainability they require to guarantee their continuity and preserve the environment. The FCV has been working to achieve this institutional support since the project began. It is being a long and arduous road. Hopefully the FCV succeed.

All this has led to an evolution in the cooperation proposals that are raised in the UE, trying to configure more multidisciplinary teams, with broader points of view, that allow reaching more adapted and sustainable solutions, that understand the complexity and the real scenario, that revert to specific solutions to specific problems.

In any case, it is considered that education in the Occidental Word cooperatively with the third world allows students to learn new solutions, understand new problems and unlearn what they have learned, to adapt, to be critical, to ultimately seek SD that It is different in every part of the world.

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