

SUSTAINABLE DEVELOPMENT CROSSING BORDERS, BREAKING STEREOTYPES

EDITORS
MIROSŁAWA CZERNY
CIRO ALFONSO SERNA MENDOZA



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Eje cafetero (Coffee belt, Colombia) – houses that once belonged to coffee plantation owners are converted into guesthouses and hotels. This zone is often visited by foreign tourists.

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INTRODUCTION

The scientific discussion on sustainable development has been held in world literature for several decades. The publishers of the University of Warsaw have joined this discussion thanks to their publication. Researchers from the Faculty of Geography and Regional Studies of the University, together with colleagues from Latin American universities, study the application of sustainable development strategies in Latin America and Poland's regions and cities, legal and institutional issues of environmental protection, grassroots development initiatives based on respect for nature, social conditions for the implementation of sustainable development strategies, environmental education and others. This joint research, discussions during seminars and international congresses in Poland and Latin America have resulted in many monographs and scientific articles that have been published over the last decade.

Undoubtedly, an important voice in this discussion are the works published in recent years by the WUW (The University of Warsaw Press), among others, under the scientific editorship of geographers from the University of Warsaw. Among these works one should mention: Czerny M., Serna Mendoza C.A. (eds.). (2018). *Globalización y desarrollo sostenible*; Czerny M., Serna Mendoza C.A. (eds.). (2018). *Texto y contexto en el desarrollo sostenible*. Warsaw: WUW; Czerny M. (2016). *Rozwój zrównowazony obszarów wiejskich na globalnym Południu*. Warsaw: WUW; Czerny M., Doroszewicz W. (eds.). (2015). *Sustainable development in peripheral regions*. Warsaw: WUW, as well as monographs published by other publishers: Czerny M., Córdova Aguilar H. (2018). *Sustainable Development. The Context of Use of Indigenous Plants for Local Economic Growth*. New York: Nova Science Publishers; Córdova Aguilar H., Czerny M., Novoa Goicochea Z. (comp). (2016). *Ordenamiento territorial y desarrollo rural*. Lima, Perú: Sociedad Geográfica; Czerny M., Córdova Aguilar H. (com.). 2015. *Desarrollo sustentable en regiones rurales y periféricas*. Quito, Ecuador: Ediciones Abya-Yala, and others.

This volume on sustainable development is the result of a scientific discussion that has continued for many years with scientists from Latin American universities. Together with the researchers from the Universidad de Manizales, the Universidad Autónoma del Estado de México in Toluca and others, we point out new elements in thinking about sustainable development and the directions of change in both the concept itself and its application.

The texts presented in the monograph analyse six key areas in which discourse on sustainable development is conducted. The first section includes three articles on general sustainability issues. A specific introduction to the whole monograph is the noteworthy article by *Ciro Alfonso Serna Mendoza*, *Eutimio Mejía Soto* entitled “Eco-accounting: a vision for »the Care of the Common Home« from the thought-feeling perspective”, in which the authors address current problems related to the implementation of the sustainable development strategy. The two other texts in this section deal with different aspects of understanding sustainable development.

Part two contains texts on regional issues. As far as regional development is concerned, various processes that have an impact on sustainable development, or lack thereof, are presented and analysed.

In the third part, the invited authors show urban space through the prism of sustainable development. Eight different texts are presented, which are devoted to the issues of metropolisation, architecture, green policies and the role of public space in Polish and Latin American cities.

Part four extends the field of investigation of our monograph to social issues and governance. This part shows examples from Colombia. It emphasises governance issues in the context of sustainable development. Undoubtedly, from a cognitive point of view, the most important article in this part is *Hernando Gil Tovar*’s text on “Citizen electoral participation for Colombian sustainable development”. In general, sustainable development issues in Colombia’s regional strategies and plans are very clearly articulated and can provide a basis for discussion on the role of the authorities in drawing up development plans using this strategy and the active participation of various social groups in this process.

The fifth part contains texts that refer to the original principle of sustainable development, namely environmental protection and conflicts between the use of resources and the human economy. There are six articles, of which the text by *Yuri Sandoval Montes* and *Gema Elvira Ríos Aranibar* on the risks the Amazon faces draws particular attention (“Industrialisation of the Amazon, a dialectical antagonism”). In the same section, we have included two articles on COVID-19, a new approach to spatial (geographical) analysis in a pandemic situation. One of the authors is *Marcela Virginia Santana Juárez*, a specialist in medical geography from the UAEM, who writes with her team about “COVID-19 in Mexico. Space-time behavior from the socio-spatial constraints, February-October, 2020”.

Finally, a short sixth part on education about and application of sustainable development concludes the monograph.

As we mentioned above, this is another joint Polish-Latin American volume on sustainable development issues. Of course, this time, too, we have not exhausted all the possible topics worthy of discussion. With this volume we are initiating a discussion about new challenges and problems – conflicts,

COVID-19 and environmental awareness, unconventional solutions for greenery in cities and others.

This monograph was created as a set of scientific articles for the pre-congress discussion “Local and regional challenges in the context of the implementation of Sustainable Development Goals”. The congress was held at the Faculty of Geography and Regional Studies of the University of Warsaw online from 17 to 19 March 2021 and both the congress and the publication are financed by NAWA – Polish National Agency for Academic Exchange.

Mirosława Czerny, Ciro Alfonso Serna Mendoza

Warszawa – Manizales, January 2021

EQUAL ACCESS TO EDUCATION AS AN ASPECT TO SERVE MEXICO'S VULNERABLE POPULATION BY 2020

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1. Introduction

Creating an egalitarian society is an unprecedented challenge that the government of Mexico must take on to seek the inclusion of all sectors of the population. Reducing existing high levels of inequality and poverty means providing employment opportunities that enable people to raise the quality of life individually and collectively. In basic education it is of particular relevance to offer an access, participation, permanence to all students, assuming their cultural processes in a respectful way.

Governance is therefore visualized as the joint participation of the different sectors involved in the educational process in order to establish the basic mechanisms of management and regulation, which respond effectively and efficiently to the approach established in article Third of the Political Constitution of the United Mexican States, to offer a free and lay education.

The momentum also given through various international organizations is important, such as the United Nations (UN), whose 2030 Agenda formulated in 2015 is a guiding document containing 17 Sustainable Development Goals and 169 targets. The document is titled "Transforming Our World, Agenda 2030, for Sustainable Development".

The document is a guide for the 193 UN member countries to integrate their development plans by prioritizing actions to combat common problems that are recurrent in all societies such as poverty elimination, climate change, women's equality, environmental advocacy, healthy city design and education.

Similarly, Mexico is part of the Organization for Economic Co-operation and Development (OECD), made up of 35 countries, which promote policies to improve the economic and social well-being of the population, where national governments have to work together and share their experiences. For this reason, it participates in regular evaluation activities in education, through the International Student Assessment Program (PISA), in order to assess its progress.

The results obtained by the students in this evaluation leave the country poorly positioned, as they have usually taken the last places. This overshadowed landscape emanates from a whole range of limitations and deficiencies in the educational organization that provides daily care. The attention crisis has long had an impact on education, so the average schooling grade of 7.9 is low compared to those in OECD countries. Now with the COVID-19 health crisis, the negative impact on education will be greater because of the lack of sufficient technological infrastructure.

This study addresses the topic of education, whose 4th objective in the 2030 Agenda is “Quality Education that ensures equitable and quality inclusive education and promotes lifelong learning opportunities”. This objective aims to ensure that education is compulsory, free and lay, equally including all children and young people in the country (ECLAC, 2018).

Providing an equal and inclusive educational service is one of the 10 goals set out in Goal 4 which is currently being challenged by the pandemic that hinders the accessibility of children because of the confinement measures taken to prevent mass contagion. The Secretariat of Public Education (SEP) implemented the “Learn at Home” program, through television, computer and the internet, home-accessible technological and digital means to continue teaching daily classes online in the 2020-2021 school year.

The objective of the work is to analyze the socioeconomic characteristics of the school-age population of basic education in Mexico and how it accesses the program “Learn at Home” through the technological means available to students, thus guaranteeing its inclusion in the school year that takes place.

Serving the population living in marginalized areas is a priority now, by providing basic services and strengthening technological infrastructure to reduce the digital division that increases inequality in access to education, which is a necessity that must be addressed in the face of the inadequacy and inefficiency; therefore, to ensure access to the educational service, emphasis must be placed on rural and indigenous areas, so that it can reduce the gap between the country and the city (Fernández et al., 2020).

The fact that not the entire national territory has the same basic and connectivity services, which allow accessibility to the educational service equally and efficiently, causes tension and uncertainty to society and parents, especially in marginalized regions and municipalities because students are unable to access daily classes, due to the lack of electricity, television, computer or internet signal (UNAM, 2020).

2. Theoretical aspects of attention to equal education

It is categorical that educational activity would not make sense if it were not for the strategic objectives that it must meet: to provide citizens with solid academic training and useful knowledge that can be applied in their

daily lives as well as the strengthening of a number of skills, values and attitudes, all based on the principles of democracy, justice and freedom, which promote harmonious development in the individual and the society, with humanistic and technological scientific capacities, so that they can participate in the transformation and formation of a country and a more competitive and equal state.

In Mexico, it is the state that has the obligation and duty to provide the educational service and does so through the Secretariat of Public Education, responsible for providing society with the plans and school programs, teacher textbooks and the administration of school services. It generates educational access according to the needs of the population, promotes equal access, eliminates administrative barriers that promote inequality and develops culture that eliminates prejudice with respect to certain groups.

In the 2030 Agenda, the criteria for inclusion and equal access to education are considered for vulnerable people, such as women, older adults, people with disabilities and indigenous people who historically lagged behind, which has gradually been compensated through policies targeting these population groups. Today, basic education tuition is gender balanced as 49% of students are women and 51% are men (INEGI, 2017).

Economic accessibility

Education must be available to all people, and they cannot, for economic reasons, be excluded from this right. The principle of gratuitousness requires that no charge be made by the state in order to access the service. Following Uprimny in Ronconi (2017), it is possible to establish three conceptions of gratuitousness:

- a) The minimalist conception, which states that the gratuitousness of education implies that only the costs of tuition and academic rights must be exempted from payment.
- b) The intermediate conception, which states that, in addition to the above costs, the gratuitousness of education implies that a state should subsidize indirect costs, such as uniforms, books and transport.
- c) A third, more robust conception states that gratuitousness must cover compensatory expenses, i.e. that the state would have to subsidize the cost of opportunity incurred by the family in sending a child to school.

In this sense, free of charge implies not only that children attending school do not pay any money as a fee or school insurance, but also that the state must have all those measures in place to make education possible (Ronconi, 2017).

To understand the "Learn at Home" Program better, the concept of Distance Education is defined, supported by the "Observatory of Technological Innovation" the publishing body of the Technological of Higher Studies of Monterrey (Ibañez, 2020), which reads as follows.

Distance education

According to CONAPO (2010), it is a multidimensional and structural phenomenon ultimately caused by the economic production model expressed in the unequal distribution of progress, in the productive structure and in the exclusion of various social groups, both from the process and from the benefits of national development.

Marginalization

According to CONAPO (2010), it is a multidimensional and structural phenomenon ultimately caused by the economic production model expressed in the unequal distribution of progress, in the productive structure and in the exclusion of various social groups, both from the process and from the benefits of national development.

Educational vulnerability

It refers to those individuals who experience a number of marked difficulties throughout their school career that prevent them from taking advantage of the curriculum and teachings within the classroom (Diaz, Pinto, 2017).

Inclusion

It is the recognition of the social rights of the population that is based mainly on articles 2nd, 3rd, 4th, 5th and 123 constitutional which point out that non-discrimination, education, health, food, housing, a healthy environment, work and social security, are rights guaranteed to all Mexicans (Nemer, 2015).

3. Methodology

The methodology used for development this work was contemplated in the following stages: regionalization; collection of population data from various institutions working on current and reference data such as INEGI and the UN Department of Economic and Social Studies, the National Institute for Educational Assessment (INEE, 2019), the National Population Council (CONAPO) and the National Poverty Assessment Council (CONEVAL), among others.

A mixed methodological design was structured, considering the ethnographic method which proposes access to educational equality, the geographical method that supports the visualization of the distribution of digital media used by the educational program “Learn at Home” and the phenomenological method to know the implications of program application for parents and society.

The analysis criteria used were the description of the national territory, of the total existing population, of technological infrastructure in Mexican households; connectivity across the country to relate to learning. Subsequently, the academic life of the schools is compared with the distance classes and their implications, to end with the analysis of discrepancies taking as a guide the provisions of the Political Constitution of Mexico, the 2030 Agenda and what the Federal Government is doing to serve the school population in this pandemic situation.

Results

Description

The Mexican Republic is part of a community of countries that share common geography. However, it is distinguished by physical and human characteristics that show the reality of the environment: it covers the area of 1,964,375 km² (INEGI, 2020), with a total population of 136,528,571 inhabitants (UN, 2020), and a density of 69.5 inhabitants per km².

The economically active population is 57,328,364 inhabitants (41.9%); the economically inactive population is 28%; people start working when they are 15 and older people who still work represent the 70%; the population under the age of 15 is 40,743,943 and accounts for 30% of the total. In terms of marginalization, the age group of young people aged 12 to 29 accounts for 12% and extreme poverty 2% in total are 19,000,000 young people who lack the essentials to meet their basic needs.

There are 283 (11%) municipalities with a high level of marginalization located in 13 states of the Mexican republic, belonging to the socioeconomic area of the south, where approximately 26 million inhabitants live in conditions of marginalization and poverty, which equates to 6.5 million households that do not have basic services such as drinking water, electrical power or adequate access roads. Such states are Warrior, Oaxaca, Chiapas, Veracruz, Puebla and Michoacán, which consist of the population with the highest margination rate (*La Jornada*, 2020).

Of the 30% of the population under the age of 15, 25,447,467 students are served in basic education at the Preschool, Primary and Secondary levels, including physical education and cultural promotion, with 1,219,862 teachers in 226,188 schools established in all regions of the country: the student/teacher ratio is at the rate of 20.8 pupils per teacher; the student/school ratio is 112.5 pupils per school; proportions on average show that they are within the parameters set in care (INEE, 2019).

The "Learn at Home" Program was designed to cater for children with distance classes through open tv, radio or mail channels and the materials used are usually physical: notebooks, pens, colors, USB sticks, CDs, among others. Many educational materials and lessons are sent by mail and updated (Ibañez, 2020).

Comparison

Attending school was a tradition and custom: students took classes, under-resourced children got their meals and the school building was a center to attend other types of social activities (polling stations and vaccination centres were often located in a school building). These activities have always been present throughout the national territory, so the school has always been the center and axis of a society, especially in marginalized regions and areas.

The sudden metamorphosis of the educational service, forced by the confinement generated by COVID-19, has become a challenge to all, students, teachers and administrative staff involved in the sector, since it was thought that everyone had experience in the use of technologies. Therefore, the curriculum was to be followed at home so as not to miss the school year.

And so we have to enroll 25,447,467 basic education students in 226,188 schools in the 2018-2019 school year to receive their classes on television, radio, mail, online, supported by platforms such as Classroom, Microsoft Teams and the new Mexican school, where students and teachers can consult and download the classes and PDF versions of Learn at Home II, school calendars, respective programming and guidance from free formatting programs and textbooks (Wong, 2020).

As 11% of households do not have any services and are cared for by CONAFE, it delivered school packages containing infographics that guide parents and educational figures on home learning and accompaniment required by students to more than 22 thousand high-marginalization locations (*La Jornada*, 2020).

Online education causes cultural clash as in most households television is used for entertainment in the evening; now it is used as an educational tool (albeit boring and annoying) in the morning.

Educational gap is a kind way of saying that rich children will often be able to get a better education than poor children. This was a problem even before the coronavirus forced schools to close in March. The pandemic could exacerbate what was already an acute problem and television and radio cannot solve the underlying disparities.

Analysis of discrepancies

The Political Constitution of the United Mexican States, in Article 3, states that every individual has the right to receive education, which the State must provide, harmoniously developing the faculties of the human being, fostering love of the homeland, respect for human rights and awareness of international solidarity in independence and justice (Chamber of Deputies, 2012).

Therefore, the State must ensure equal access to education for all children who are of school age (3 to 15 years), without excluding them because of their social status, race or economic factor. In this regard, significant progress has

been made, although the growing population expresses dissatisfaction with not caring for all school-age children.

Social exclusion resulting from marginalization creates problems arising from the current economic structure of consumption. Inequality persists due to poverty, ethnicity, and language that curb advances in education. As it is coupled with little or no training of teaching staff in technologies, it creates a wider digital divide. At this time, other gaps such as socioeconomic, gender and technological that express inequality are added to the digital divide. This is presented on the map of the country, showing the connectivity in all states (Figure 1).



Figure 1. States with good or poor connectivity in Mexico

Source: information taken from CEO, based on INEGI. <https://elceo.com/tecnologia/desigualdad-conectividad-negocio-att-telcel/>

On this map you can see that the states with the poorest connectivity are the States of Guerrero, Oaxaca, and Chiapas, in contrast to the Northern State and Yucatan Peninsula, which shows that marginalized population lives in the

south of the country. It causes high emigration of unqualified labor, and many personal needs have to be met.

And in the face of this inquisitory picture, education is not exempt from it. The most palpable thing now is that COVID-19 has exposed social inequalities exacerbated by an economic system aligned to market swings: jobs without social security, a growing informal sector, an inefficient and disvalued health system.

It should be noted that the pandemic itself is equal because it does not discriminate. It places us on an equal level of contagion, the possibility of losing loved ones and living in a world of constant threat; however, it reveals the speed of radical inequality that includes racial and gender supremacist ideologies, as well as capitalist exploitation within pandemic zones.

Finally, the closure of schools carries high social and economic costs for people in all communities. Its impact will be particularly severe for the most vulnerable and marginalized children and their families, because of the disparities already existing within the education system, but also in other aspects of their daily lives.

4. Conclusions

Having analyzed equal access to basic education for children, the following conclusions are drawn:

- Mexico's Education System is conventional. It is based on attending schools, so the pandemic showed the deficit of the structures that provide the service.
- The closure of schools is notorious, since apart from educating students, they are used for other activities such as feeding the population with few resources and being a center of organization and social coexistence.
- The most devastating effect of COVID-19 on the country's education will be the increase in the dropout rate, which will be especially true for those who lack the digital, economic, and school resources to deal with the crisis: indigenous people, children of migrant day laborers and young people in extreme poverty. In all these cases, women are at a greater risk than men.
- The pandemic has exposed many adaptive problems: teachers experience difficulties with using platforms, are not able to explain the documents they write, which results in boredom of the students.
- The effectiveness of learning is uncertain, due to the rapid metamorphosis of education and the change of instruments used in this new pedagogy such as television, radio mail, computer, internet and other digital media available to students at home.
- Parents are not prepared for online learning at home. Closing schools makes it difficult to keep up with schoolwork, especially for students with limited resources.

Childcare gaps: in the absence of alternative options, working parents often leave children alone when schools close and this can lead to risky behaviors.

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ABSTRACT**Equal access to education as an aspect to serve Mexico's vulnerable population by 2020**

Equal access to education is of relevance to serving Mexico's vulnerable population by 2020 and without a doubt, they are premises that need to be implemented to achieve sustainable development. However, the educational diagnosis is a shadow rather than the COVID-19 health crisis, which is now looming and will have great repercussions in academic training in the short, medium and long term. The objective of the work is to analyze the socioeconomic characteristics of the school-age population of basic education in Mexico and how it accesses the program "Learn at Home", through the technological means available to continue their studies in the school year 2020-2021, supported by the digital means they have at home. The methodology for conducting the study has been built by combining the geographical, ethnographic, and phenomenological method, which helps to understand human behavior towards this new national educational normality. As a result, data and mapping on population marginalization were obtained at the national level, as well as the data related to health services in basic education, taking into account inclusion and equity under the current situation, which becomes more vulnerable due to COVID-19.

Keywords: equal access, education, vulnerability, marginalization