



The industrialization challenges of the LAC region in achieving the Sustainable Development Goal 9 and an Inclusive and Sustainable Industrial Development (ISID)

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Executive summary

Nowadays, organizations know the importance of sustainable development and over the past few years it has been a public issue which countries are willing to integrate. Eradicating poverty is a reality, which countries seek to achieve, through the support of organizations, governments, society, and partnerships that will allow them to assure a life of dignity and a basic standard of living for all people. The 2030 Agenda is a plan for action that seeks to strengthen universal peace and eradicating poverty in all its dimensions; thus it is an indispensable requirement for sustainable development [UNIDO, 2015].

The Latin America and Caribbean (LAC) region will face several challenges with the ambitious goals proposed by the 2030 Agenda to achieve in fifteen years. The sustainable development goal (SDG) 9, which seeks to “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”, will be a challenge for the poorest countries from the LAC region; however, with the support from other countries they are all expected to achieve the goals by 2030 as part of their inclusive and sustainable industrial development (ISID) approach.

- Inclusive industrialization
- Protecting natural habitats
- Support from the public and private sector
- Clean energy as a priority
- Decent jobs for young people
- Lack of innovation

These are just some of the challenges that the LAC region will be facing on their journey to achieve the SDG-9 and an ISID.

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Over the past decades various organizations (governments, companies, universities, etc.) have become aware of the social and environmental pressures our world has been facing and the importance of integrating the concept of sustainable development in their activities. It has now been nearly three decades since the World Commission on Environment and Development [UN] has globally inaugurated the concept 'Sustainable Development' (SD) in 1987 as «a development that meets the needs of the present without compromising the ability of future generations to meet their own needs».

The 2030 Agenda is ambitious with the 17 Sustainable Development Goals and the desire of the full implementation of this Agenda by 2030, meaning that countries and stakeholders acting in collaborative partnership will face many challenges. As for the Latin America and Caribbean (LAC) region, one of the biggest challenges they will face will be with goal 17, which seeks to strengthen the means of implementation and revitalize the global partnership for sustainable development. However, the problem with the LAC region with exportations and growth is its limited capacity to add value to exports, compared to other countries such as China and Republic of Korea who stand out as examples of regions that have the highest export growth rates. Nevertheless, LAC countries have not been able to have exportation as a source for changing production patterns and economic growth [CEPAL, 2009].

On the other hand, another challenge LAC countries will face is to ensure the engagement of other LAC countries to commit to their own involvement in the follow-up and review of the implementation of the 2030 Agenda, due to it being a long-term strategy. Monitoring the results and consequences of this Agenda for the next fifteen years, requires considerable commitment from each country in regards to time and finances. Persistent commitment will be necessary not only to support each own's country, but to also support the most vulnerable countries in this journey to achieve an inclusive and sustained economic growth on a global level.

During the Millennium Development Goals (MDGs) framework industrialization was not taken into account; however, an inclusive and sustainable industrialization now features strongly in the post-2015 development discourse as a necessary approach. This led to the UN Open Working Group on Sustainable Development Goals (SDGs) to propose as goal 9, which calls to "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" [UNIDO, 2015]. To be able not only to achieve this goal, but also to fulfill the other goals by 2030 without

leaving any country behind will be a true challenge for every single one of the countries involved.

The United Nations Industrial Development Organization (UNIDO) structured three thematic priorities; safeguarding the environment being one of them which will be discussed along with the challenges of the LAC region in achieving the SDG-9 and an inclusive and sustainable industrial development (ISID). It was in 1972 when Club of Rome published 'The Limits to Growth' where they argued that environmental protection and economic growth were not seen as conflicting objectives, in fact, they could be seen as mutually compatible [Baker et al., 1997].

Inclusive Industrialization

Industrialization can be seen as a key component of economic growth of a country; nevertheless, if industrialization is made without an inclusive and sustainable approach only some countries will achieve this goal. This will result in the poorest countries (without the required resources to be industrialized) not achieving as fast as others with the sufficient resources required for the industrialization; resulting in mitigated economic growth. Therefore, achieving an inclusive industrialization will be difficult by 2030.

According to MiningWatch Canada [2001], the issue of safeguarding the environment is not the same for industrialized and middle-income countries than to least developed countries. For industrialized and middle-income countries safeguarding the environment is a must for quality of life; on the contrary, for the least developed countries to whom are facing poverty, providing a basic standard of living for their people is their priority before looking after the environment.

Looking back to the results of the MDGs, the LAC region, although slowly, they certainly have had some progress towards achieving the goals. Nevertheless, there was faster progress towards some targets more than others, which are unlikely to be met by this region. Moreover, the results show huge disparities; the poorest countries show a slow progress in reducing extreme poverty compared to middle-income and industrialized countries [ECLAC, 2013]. This shows that it will be a challenge for the countries to manage an ISID without leaving anyone behind.

Protecting natural habitats

As the Inter-American Development Bank (IDB) [2014] states, infrastructure improves productivity, reduces production costs and creates employment through demand for the goods and services used to provide it. Nevertheless, infrastructure may have some negative impacts on quality of life or economic growth given to the long life cycle that it has, by destroying natural habitats or contributing to climate change. The LAC region will face some challenges, especially in regards to road constructions, as part of their desire to develop superior, reliable and sustainable infrastructure by 2030 without compromising the region's natural habitat. Failure to incorporate social and environmental aspects into the process may have a negative impact with lasting consequences.

The LAC region is home to some of the world's most immaculate and diverse ecosystems [IDB, 2015]. According to the UNEP [2010], this region holds almost one half of the world's tropical forests, 33% of its total mammals, 35% of its reptilian species, 41% of its birds and 50% of its amphibians. The LAC region depends on natural resources as part of its resource to generate economic growth. However, one of the current pressures that these natural habitats have been facing, especially in Central and South America is the problem with infrastructure, particularly roads, which lead to an increase on deforestation rates [UNEP, 2010].

The national road agency in Ecuador built a road, which resulted in millions of deforested hectares in the Amazon region and in Brazil, roads forged through the Amazon are responsible for major deforestation and loss of biodiversity. Peru's Pacific region due to road construction has suffered from major erosion, deforestation, biodiversity loss and degradation of archeological treasures [Quintero, 2012]; these are only some of the examples of the impacts that infrastructure in the LAC region in the past years has had. It is clear that the LAC region is rich in biodiversity and it is one of their first resources to generate their economic growth. Finding a balance between industrializing a country and avoiding over-exploitation, pollution, habitat destruction and climate change is a challenge for society.

Nowadays, organizations are aware of the importance of the necessity to respect natural habitats, if not for the sake of the environment, for the negative image that they will create if society were to find out. Nevertheless, there are some great examples of the "win-win" features of sustainable infrastructure; in Brazil there was a Mato Grosso

do Sul State Road Transport Project, which saved about US\$46 million by identifying and implementing more sustainable approaches to erosion control [Montgomery, 2015]. For this, the World Bank has created a knowledge platform for Latin America and the Caribbean to apprise them with the latest information concerning sustainable infrastructure and aims to become a forum to contribute ideas and solutions related to environmentally sustainable infrastructure construction.

Support from the Public and Private Sector

It is true that the primary responsibility of each country is their own economic and social development; therefore, to ensure that countries support one another is something that not all countries will be willing to do. Especially when the industrial sector is the one that should be taking action for poverty reduction, inclusive globalization and environmental sustainability. To combat climate change, it is required that both the public and private sector understand fully the concept in order to be able to change, design and implement necessary policies and to work towards resource efficient societies [UNIDO].

For the public sector of the industry is easier to apply necessary measures that support the cause because they are related to the government; thus they are aware of the true problem that society is facing in this day and age. An example is in El Salvador, which worked along the UN with the Government in 2006 to ensure that the MDGs would become a state policy, rather than a commitment by the government administration, this assured that the goals would be taken into account during that period of time. According to the UNDP, partnerships will be a key element to achieve the new SDGs [McDade, 2015].

However, the private sector is still not fully committed to the cause because most of them do not see it as a real problem, as it is not always present in their own environment and the damage is not always immediate when destroying a natural habitat or polluting the environment. For that it will be truly necessary to let the companies know the true benefits that the integration of sustainable development to their business model would mean to not only the company, but also society and the environment as a whole.

Improving access to information and broadening the dissemination on mass media on sustainable development is a real challenge for countries to obtain the support of the private sector. The only way to control the private sector would be by implementing policies related to this new Agenda, meaning that insisting to the private sector that they must safeguard the environment by: avoiding habitat destruction, over-exploitation, pollution, increasing water-use efficiency, recycling and implementing new technologies. This will not be possible if they do not see the benefits that this “win-win” approach has for business or if the public sector does not regulate these actions by integrating policies to support the endeavor.

Clean Energy as a Priority

It is necessary to understand that it is not as easy for some countries as it is to others to integrate the use of clean energy. This is since it is an expensive alternative and most of the countries have other priorities contingent on the problems they are facing. The use of clean energy has benefits in the long-term and most of the countries that are facing other problems such as: extreme poverty, malnutrition, lack of clean water, etc. will not have the integration of clean energy as a priority. Therefore, the integration of clean energy in the LAC region as an inclusive goal would be a challenge to ensure that no one is left behind.

The World Bank [2016] estimated the percentage of alternative and nuclear energy used by each country, with Iceland being the top contender with 89.7% as of 2013. Some of the Latin American countries such as El Salvador and Costa Rica have reached a high percentage of use of alternative and nuclear energy used in their own country, with Costa Rica being on the top of the Latin American countries in 2012 with 38.7% and El Salvador with 33.8%. However, most of the jurisdictions within the LAC region base their core electric generation on fossil fuels; hence, it has a long journey to increase the use of clean energy on their activities because most of them range from 0% to 15.5% being the highest from the rest of the Latin American countries apart from El Salvador and Costa Rica [World Bank, 2016; ACORE, 2014].

Global investment in renewable energy is one of the largest and most dynamic segments of the electricity industry according to the investment it reached by 2013. However, LAC countries only represented 6% of the world total with Brazil accounting for more than a third of the regional share. Furthermore, renewable power is the most

economic option for new generation capacity, especially for countries in Central America and the Caribbean since they depend on fuel oil for power generation and it has created job opportunities in the countries where it has grown the fastest, with Brazil being on the top of the LAC region [Hill, 2014; Flavin et al. 2014]. Clearly, most of the LAC region has not compromised enough to increase the levels of clean energy used in their own country. This is most likely due to the fact that most of the countries are not informed about the economic and social benefits that the integration of clean energy has; apart from the environmental benefits that they are aware of for the most part.

Decent jobs for young people

According to the GINI index estimated by The World Bank [2013], in the past decade the Latin American and Caribbean (LAC) countries have not diminished on average more than two points in the scale from 0 (representing perfect equality) to 100 (implying perfect inequality) in the index. This index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. The distribution of these countries is between 42.3 and 60.8, meaning that they are far from building strong economic foundations since this will only be accomplished if wealth is shared and income inequality is addressed [Division for Sustainable Development].

Although, young people nowadays prove to be more prepared with access and understanding of new technologies, more years of education, and able to adapt to changing conditions, compared to adults, they do not have access to more opportunities or better working conditions. Only 8% of entrepreneurs from the LAC region are young people due to lack of affordable credit, lack of contacts, lack of support for the development for the company and more barriers that young people face during the process [CEPAL, 2013].

Young people is a source of great ideas and a different perspective needed to innovate at the workplace; however, even with the benefits that youth come with 6 out of 10 youth that get a job have no other choice but to take informal low-quality jobs meaning that they have poor working conditions, no rights, low wages and low productivity [OIT, 2015]. New generations are the ones that come from a different background and know how the world works today, they come with different ideas and

entrepreneurship and innovation are approaches that schools have started integrating into the new education programs.

Lack of Innovation

Society wanting to open their own small-scale industry when there are already huge multinational enterprises competing in the same industry, even if they get affordable credit, it is still not an easy path for society to follow. Many small enterprises open and in less than a year close because they are not able to integrate in value chains and markets as they were expecting from a beginning. Nowadays, according to the World Bank [2014], organizations are aware that entrepreneurs are not bi-products of growth and development but important drivers of these.

Creative entrepreneurs do not only innovate, but they also expand production, and create employment opportunities. In Latin America there are about 50 million of small and medium enterprises that generates about 150 millions of jobs [Olmedo, 1996]. These medium and large enterprises which are usually run by dynamic entrepreneurs are more likely to export to foreign markets, obtain patents, invest in research and development, improve production processes, import new technologies and export capital to establish affiliates in foreign markets [World Bank, 2014].

According to the Global Innovation Index (GII) since the past couple years Chile, Costa Rica and Mexico are the top three economies in the GII rankings for the LAC region. Although, the LAC region have been slow to improve in this area compared to other countries that stand out in innovation, there is a consistent over performance of Chile, Costa Rica and Colombia compared to others of similar economic development [World Bank, 2015].

It can be said that the LAC firms grow more slowly compared to other regions due to the lack of innovation. Most of the firms open, but in order to grow or even survive on the market they have to continuously innovate and this is the field where LAC businesses score relatively badly [World Bank, 2014]. Nowadays, innovation is a necessary approach in order to keep your business growing, but also for today's challenges such as climate change, green growth and the integration of sustainable development it is necessary for change mindsets and business models in order to fulfill these new challenges that have no easy solution.

Conclusions and recommendations

It is clear that there are many challenges that the LAC region will face with the implementation of the 2030 Agenda. The 17 goals are quite ambitious to achieve as an inclusive matter throughout the world, especially for low-income countries. Hopefully with the support of middle-income and industrialized countries they will eradicate poverty in all its dimensions. It is going to be fifteen years full of challenges for the countries that are part of this project, but if they are aware of most of these challenges they will be able to overcome them with the support of one another. Nowadays, we have enough resources to eradicate poverty in all its dimensions without leaving anyone behind, but the only way to achieve these ambitious goals is by the UN strengthening partnerships with governments and the private sector [McDade, 2015], as well as the support from each country.

Moreover, society is aware of the risks of climate change and the impacts that it has already affected people and ecosystems; safeguarding the environment is a true challenge since it requires a considerable amount change and the use of new technologies to avoid pollution, over-exploitation of natural resources, habitat destruction and climate change. The true challenge will be to achieve an inclusive industrialization with a sustainable development approach in order to have a positive social, economic and environmental impact. This paper suggests the following recommendations:

- Since the 2030 Agenda aims to achieve an ISID, it will be necessary a slower industrialization for poor countries to eradicate poverty in all its forms and dimensions, assuring to all people a life of dignity and basic standard of living.
- Support from the public and private sector will be needed for this to integrate clean power in the industry as a necessary tool to avoid polluting any longer and start reversing the impacts of climate change.
- If countries manage to balance the economic aspects along with the social and environmental quality of life will improve, industrialization will be achieved along with an inclusive and sustained economic growth.
- The access to young people to better job opportunities will give them access to innovate and share their perspective of the new world and challenges that society is facing. Also, by giving them opportunities they are assuring the future of society.

- Safeguarding the environment while developing and building infrastructure will assure countries positive impacts on quality of life and economic growth. Otherwise, negative impacts will come along and may have irreversible consequences on a long term.

Based on all that it was mentioned, for the next fifteen years the future relies on all countries and all stakeholders acting in collaborative partnership along this plan.

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