

WORLD DEVELOPMENT REPORT 2019: AMERICA

GUISAN, Maria-Carmen*

Abstract. This study analyzes the evolution of economic development in American countries for the period 2000-2018, with particular focus on the positive role of industrialization in order to foster development and poverty eradication. Sustainable development implies not only to conceal economic development with environmental protection but also needs a sustainable balance of payments. We analyze manufacturing and non-manufacturing production and some indicators of poverty, environment and quality of life in America. Our main conclusion is that both national policies and international cooperation should be addressed to a quick diminution of poverty, and to foster sustainable development. National policies on human capital, social capital and physical capital are important as well as to foster international cooperation in this regard. JEL Codes: H75, I3, N62, N66, O51, O54

Keywords: Latin America, North America, Manufacturing, Development, Poverty and Welfare, Sustainable Development, Environement, Population, Life Satisfaction, Health Assistance, Quality of Government and Quality of Life.

1. Introduction

The main aim of this study was to put emphasis on the main challenges that may contribute to improve quality of life of hundreds of millions of American inhabitants. In Guisan(2020) we present a comparison of economic development, poverty, environment and quality of life all over the World.

Section 2 presents the evolution of real Gross Domestic Product per capita in 22 countries of America for the period 2000-2015, analyzing the great importance of manufacturing on economic development. Section 3 presents an analysis of the evolution of the most populated countries of America for the period 2002-2018. Section 4 analysis poverty and some indicators of quality of life in American countries. Section 5 presents the main conclusions. In the Annex we include some supplementary data of interest for economic development in America.

2. Economic Development in 22 countries of America, 2000-2015

In previous studies, cited in the bibliography, we have analyzed the evolution of production by sector in American countries for the period 1980-2000. Here we analyze the evolution of manufacturing and non-manufacturing real value-added per capita in 22 American countries for the period 2000-2015.

In table 1 we may notice that in year 2015 Latin American countries were yet very far from the high values of Canada and the United States. While Canada had a value higher than 35000 and the United States over 45000, a few Latin American countries had values only between 10000 and 17000: Argentina 14691, Brazil 10194, Chile 15752, Colombia 10112, Costa Rica 11876, Dominican Republic 10027, Mexico 13358, Panama 16428, Peru 10147, Uruguay 14699 and Venezuela 11132.

For the other 9 countries of table 1 we may find a group of 5 countries, with values of real GDP per capita between 5000 and 10000 (Bolivia with 5256, Ecuador 8286, El Salvador 6427, Jamaica 6977, Paraguay 5500) and 4 countries with very low values, below 5000 (Guatemala 4661, Haiti 1092, Honduras 3824, Nicaragua 3218).

*Maria-Carmen Guisan, Editor of RSES and AEID, Ad Honorem Professor of Economics, University of Santiago de Compostela (Spain): <http://www.usc.es/economet/guisan.htm>

Table 1. GDP per capita, for 2000-2015 in Dollars at 2005 Prices and PPPs

	2000	2010	2015
Argentina	10292	14363	14691
Bolivia	3563	4349	5256
Brazil	7921	10056	10194
Canada	32477	35223	37305
Chile	10475	13596	15752
Colombia	6433	8479	10112
Costa Rica	8117	10377	11876
Dominican R	4957	8387	10027
Ecuador	5491	7201	8286
El Salvador	4975	5981	6427
Guatemala	3963	4292	4661
Haiti	1190	997	1092
Honduras	2898	3519	3824
Jamaica	5758	6883	6977
Mexico	12071	12441	13358
Nicaragua	2115	2613	3218
Panama	8149	12206	16428
Paraguay	3792	4648	5500
Peru	5586	8555	10147
United States	39108	42297	45221
Uruguay	8862	12655	14699
Venezuela. RB	9564	10973	11132

Sources: Elaborated by M.C. Guisan from World Bank statistics. Note: real Gross Domestic Product (GDP) per capita, in US\$ at 2005 prices and Purchasing Power Parities (PPPs). Data for Venezuela in 2015 is based on provisional indicators.

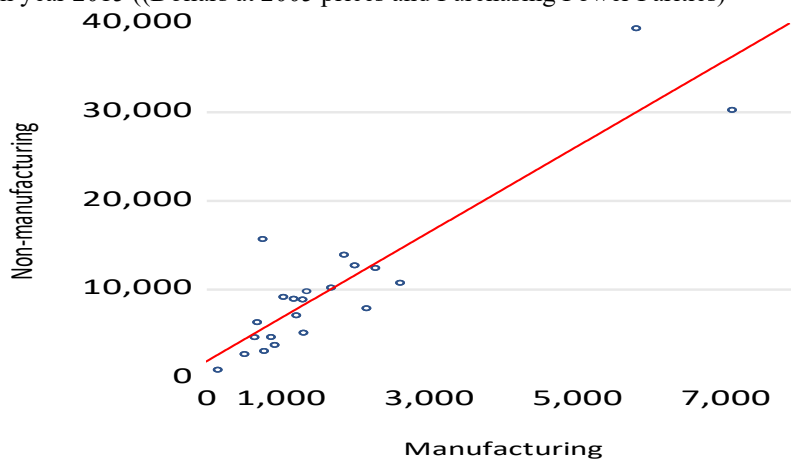
A first group presented, in year 2015, values of production per capita higher than 14000 USD at 2005 prices and PPs: Argentina, Canada, Chile, Panama, United States and Uruguay. A second group presented values between 10000 and 14000: Brazil, Colombia, Costa Rica, Dominican Republic, Mexico, Peru, Uruguay and Venezuela. A third group reached values between 5000 and 10000: Bolivia, Ecuador, El Salvador, Jamaica and Paraguay. A fourth group was below 5000: Guatemala, Haiti, Honduras and Nicaragua. Only 9, out of 22 countries, showed values in year 2015 over the World average as seen in the Annex. In the case of Cuba WB did not include values of Gross Domestic Product per capita at constant PPPs for the period 2000-2015. Accordingly to WB(2019) the evolution at constant Exchange Rates of year 2010 was from 3481 in year 2000 to 5730 in year 2010 and 6522 in year 2015. At current prices and exchange rates of year 2018 the available information shows a level of GDP per capita of Cuba close to that of Brazil. Table 2 present data of real Value-added of manufacturing and non manufacturing per capita. Graph 1 shows the positive relationship between both variables and graph 2 the differences among 22 American countries in the value of manufacturing per capita.

Table 2. Manufacturing and Non-manufacturing real value-added per inhabitant (QMH and QNMH), years 2000, 2010 and 2015 (Dollars at 2005 prices and PPPs)

		QMH 2000	QMH 2010	QMH 2015	QNMH 2000	QNMH 2010	QNMH 2015
1	Argentina	1544	2442	2277	8748	11921	12414
2	Bolivia	534	565	645	3029	3784	4611
3	Brazil	1347	1307	1036	6574	8749	9158
4	Canada	6171	6692	7088	26306	28531	30220
5	Chile	1781	1496	1853	8694	12100	13899
6	Colombia	965	1102	1176	5468	7377	8936
7	Costa Rica	2029	1764	1679	6088	8613	10197
8	Dominican R	1289	1929	2158	3668	6458	7869
9	Ecuador	1043	936	1208	4448	6265	7077
10	El Salvador	1244	1196	1307	3731	4785	5120
11	Guatemala	832	858	918	3131	3434	3743
12	Haiti	163	137	150	1027	860	942
13	Honduras	667	669	776	2231	2850	3048
14	Jamaica	633	619	682	5125	6264	6295
15	Mexico	2414	2239	2609	9657	10202	10749
16	Nicaragua	296	418	510	1819	2195	2707
17	Panama	815	732	754	7334	11474	15674
18	Paraguay	618	757	867	3174	3891	4633
19	Peru	950	1283	1294	4636	7272	8853
20	United States	6257	5499	5796	32851	36798	39424
21	Uruguay	1241	1772	1999	7621	10883	12700
22	Venezuela. RB	1913	1536	1347	7651	9437	9785

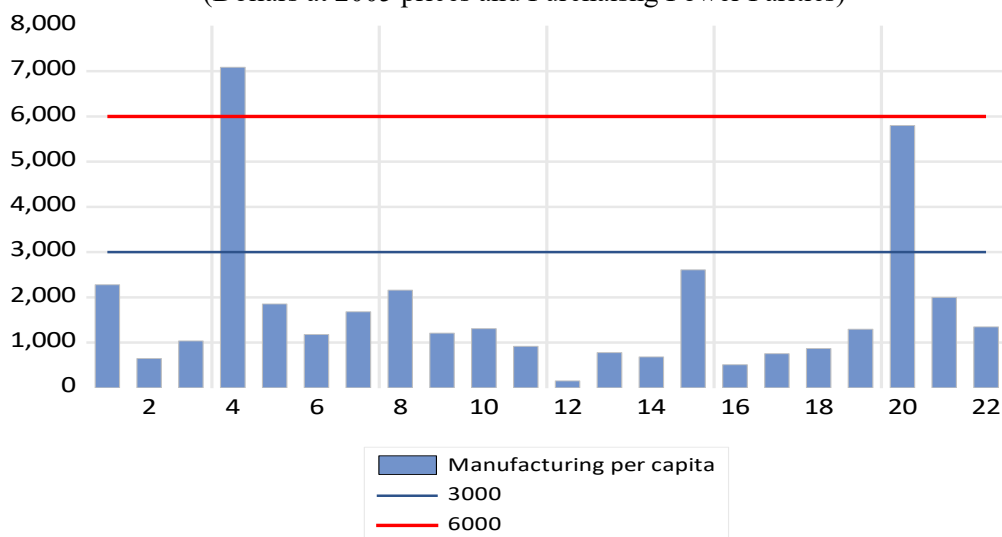
Source: World Bank and provisional estimations by author, for Canada, Venezuela and Haiti in 2015. Values at constant prices and Purchasing Power Parities (PPPs) of year 2005.

Graph 1. Relationship between Manufacturing and Non Manufacturing per capita of 22 American countries in year 2015 ((Dollars at 2005 prices and Purchasing Power Parities)



Source: Elaborated from Table 2.

Graph 2. Real value-added per capita of Manufacturing in 22 American countries
(Dollars at 2005 prices and Purchasing Power Parities)



Source: Elaborated from column 3 of table 2.

In graph 2, we may notice that only Canada and the United States reached values close to 6000 Dollars per inhabitant (at 2005 prices). None of the other countries reached the value of 3000. With a value between 2000 and 3000 are: Argentina (2277), Dominican Republic (2158) and Mexico (2609).

Among the countries of table 2, only the United States and Canada have high levels of manufacturing production per capita, while the other countries of the table have moderate, low or very low values, which should increase in order to foster economic development. Investment per capita is not difficult to get from international sources if the conditions of profitability are reasonable and the risks are low.

Besides manufacturing there are other sectors that may have a positive impact on general development (energy, agriculture, tourism, maritime transport and other ones), because they provide directly or indirectly intermediate inputs necessary to foster the development of infrastructures, services, building and other activities.

In order to eradicate poverty and to increase substantially the quality of life of millions of people in America it is necessary to develop economic policies addressed to increase sustainable industrial production per capita. Sustainable development is not only the increase of production compatible with quality of environment and quality of social and human life, but also sustainable from the point of view of financial support and capacity to compete with world trade.

Usually the countries with the highest levels of industrial development are also those that reach highest levels of non industrial development, due to sectoral interrelationships, as explained in Guisan(2013) and other sources. Human capital, social capital, physical capital have important impacts on economic development as seen in of the study by Guisan(2013) which analyzes demand, supply of primary inputs and supply of intermediate inputs.

3. Development of the 9 most populated countries of America, 2012-2018

The most populated American countries in year 2017 were the United States (325 million), Brazil (207), Mexico (123), Colombia (49), Argentina (44) Canada (36), Peru (32) and Venezuela (31).

Table 3 shows the evolución of real GDP per capita, in USD, at 2010 prices and PPPs, in 9 American countries, accordingly to data of OECD and WB, in comparison with the European Union, OECD total and several big countries (China, India and Russia).

In table 3, the highest increase for the period 2012-2018 correspond to the United States (4.883) and China (4.354). The European Union, and the OECD total experienced increases higher than 3000, while the Euro-Area was slightly below (2964).

Table 3. Economic Development in 9 American countries for 2012-2018: United States, Canada, Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela and comparisons with other areas (thousand USD at 2010 prices and PPPs)

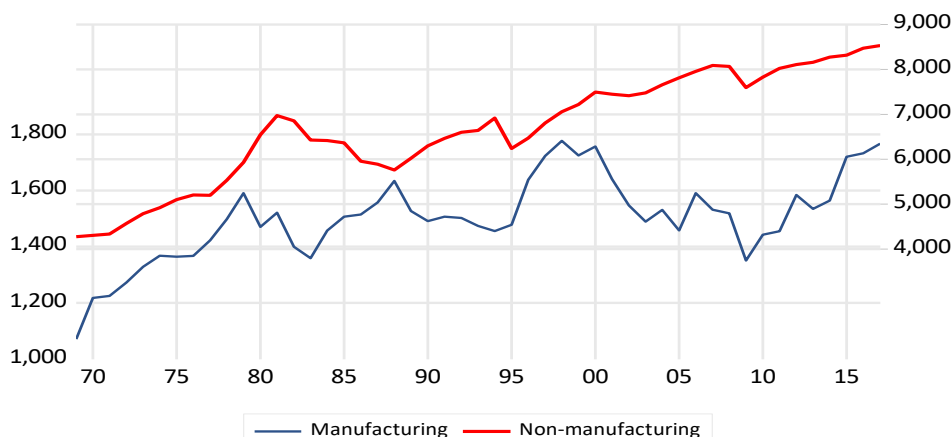
	2012	2013	2014	2015	2016	2017	2018	Increase
<i>9 American countries</i>								
<u>United States</u>	49.518	50.075	50.925	52.005	52.438	53.219	54.401	4.883
<u>Canada</u>	41.195	41.673	42.406	42.498	42.485	43.234	43.430	2.235
<u>Argentina</u>	19.000	19.241	18.552	18.854	18.268	18.562	18.829	-0.171
<u>Brazil</u>	14.979	15.298	15.245	14.577	13.980	14.003	14.026	-0.953
<u>Chile</u>	19.846	20.427	20.559	20.789	20.867	20.855	21.408	1.562
<u>Colombia</u>	11.707	12.101	12.530	12.755	12.876	12.906	13.181	1.474
<u>Mexico</u>	16.004	16.036	16.304	16.660	16.968	17.144	17.315	1.311
<u>Peru</u>	10.731	11.232	11.370	11.570	11.770	11.970	12.169	1.438
<u>Venezuela</u>	14.735	14.721	14.025	15.124	12.589	10.928	8.509	-6.226
<i>Other areas</i>								
<u>Russia</u>	23.794	24.167	23.915	23.188	23.094	23.111	23.128	-0.666
<u>China (PR)</u>	10.870	11.655	12.441	13.233	14.040	14.632	15.224	4.354
<u>India</u>	4.837	5.080	5.388	5.755	6.088	6.239	6.391	1.554
<u>Euro area (19 countries)</u>	36.058	35.893	36.316	36.970	37.580	38.399	39.022	2.964
<u>European Union (28 countries)</u>	33.608	33.633	34.154	34.854	35.461	36.255	36.878	3.270
<u>OECD - Total</u>	36.054	36.411	36.976	37.702	38.152	38.906	39.579	3.525

Source: Elaborated by Guisan, M.C. from OECD(2019) and other internacional sources. Notes: The last column indicates the increase in the period 2012-2018. Some estimations are provisional. Data of Venezuela, without figures in WB(2019) after 2015, has been calculated from information published by the World Factbook and IMF.

Among the 9 American countries included in table 3, the evolution was positive in the USA, Canada, Chile, Colombia, Mexico and Peru while it was negative in Argentina, Brazil and Venezuela. In the Annex we include supplementary information.

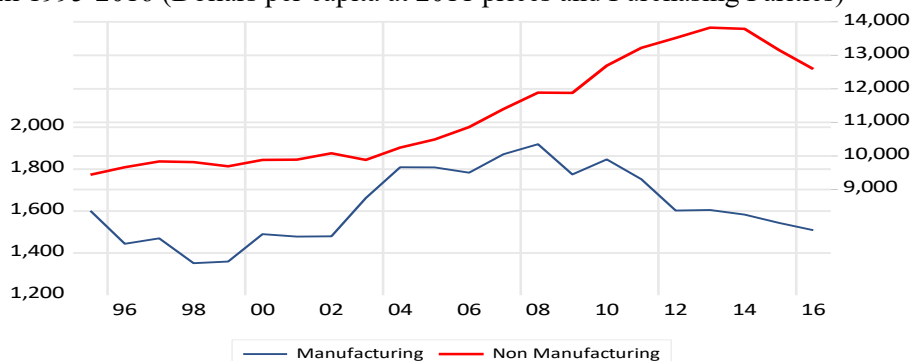
Graphs 3 and 4 show the evolution of real value-added per capita of manufacturing per capita of the two most populated countries of Latin America: Mexico and Brazil. In both cases we may notice that the increase of manufacturing was not enough to support a sustained development of non manufacturing, towards levels of more developed countries.

Graph 3. Real value-added of Manufacturing and Non-Manufacturing per capita in Mexico, 1969-2017 (Dollars at 2010 prices and Exchange Rates)



Source: Elaborated by M.C. Guisan from World Bank Statistics (WB(2019)).

Graph 4. Real Value Added of Manufacturing and Non Manufacturing per capita in Brazil 1995-2016 (Dollars per capita at 2011 prices and Purchasing Parities)



Source: Elaborated from WB statistics. Note: Manufacturing in blue colour and the left scale. Non Manufacturing in red colour and right scale.

In the case of Mexico we may notice a diminution of Manufacturing per capita for the period 2000-2009 and a recovery for 2009-2017.

In the case of Brazil, we may notice, stagnation of manufacturing for 1995-2002, a positive evolution for the period 2002-2008, with a positive impact on non-manufacturing, and a decrease for the period 2008-2016. In the period 2008-2014 there was an increase of non-manufacturing in spite to the diminution of manufacturing, but finally both sectors of production experienced a diminution for the period 2014-2018.

4. Poverty, sustainable development and quality of life in America

In section 3.1 we analyze poverty in American countries. Section 3.2 comments on the policies of sustainable development for the environment. Section 3.3 on several indicators of quality of life (life satisfaction, health assistance and quality of government).

4.1. Poverty: causes and solutions.

Accordingly to CEPAL(2018) the number of people living in poverty, in Latin America, reached 184 million (30.2% of population), with 62 million in extreme poverty (around 10% of population).

Accordingly to Guisan and Exposito(2010) the percentage of extreme poverty in year 2005 in Latin America and the Caribbean was approximately 22%, lower than World average (42%). Although the percentage of extreme poverty (less than 1.5 Dollars of 2005 per capita and day) has diminished for the period 2005-2018, there are already high percentages of people living in other levels of poverty and deprivation.

Table 4 presents one indicator of poverty measured by the percentage of people with low family income: less than 5.5 Dollars at 2011 prices and Purchasing Power Parities (PPPs).

Table 4. Poverty in American countries, in the period 2006-2016
(% of population with income below 5.5 Dollars per capita a day, at 2011 PPPs)

	Country	Percentage of people with less than 5.5\$ a day
1	Argentina	7.1%
2	Bolivia	24.7%
3	Brazil	21.0%
4	Canada	1.0
5	Chile	6.4%
6	Colombia	27.6%
7	Costa Rica	9.7%
8	Dominican R	19.9%
9	Ecuador	23.2
10	El Salvador	29.0
11	Guatemala	48.8%
12	Haiti	78.9%
13	Honduras	52.6%
14	Jamaica	29.7%
15	Mexico	34.8
16	Nicaragua	34.8%
17	Panama	14.1
18	Paraguay	18.6%
19	Peru	23.9%
20	United States	2.0
21	Uruguay	2.9%
22	Venezuela. RB	35.6%

Source: World Bank statistics. Notes: Data of Venezuela correspond to year 2006 and other available information indicates an increase for the period 2015-2018. In Guisan(2020) we present a comparison of America with other areas of the World.

Besides there are data of other American countries or territories: Belize (53%), Saint Lucia (20.3), Guyana (56.4), Suriname (55.7), Trinidad and Tobago (32.9). Cuba appeared as NA (not available) at the WB statistics.

Accordingly to table 4 below, in several American countries the percentage of people living with less than 5.5 Dollars, at 2011 prices and PPPs, for the period 2000-2016 was higher than 25% and in a few cases higher than 33%.

Many institutions, politicians, economists, social reformers, and citizens have insisted, along the last centuries, on the need to avoid poverty, but advancement has not been enough in all countries. Many of us think that, with the means of knowledge and resources of the 21st century it is time to foster sustainable development and eradicate poverty in all American countries.

Other sources consulted indicate special features of Cuba, with some social services available to all the population but with high levels of deprivation of some goods and private income below poverty level for a high percentage of population, alike other countries with similar level of economic development.

The problem of poverty is multifactorial, not only related with low family income but also with deprivation of important public and social services that have impact on the quality of nutrition, health assistance, quality of dwellings, and other factors.

WB(2002) presented a chapter dedicated to "The causes of poverty and a framework for action". The report points to the important impact of the increase of real production per capita in the eradication of poverty, and thus concentration on the causes of low development of stagnation of many American countries should be a priority and states:

"National economic development is central to success in poverty reduction. But poverty is an outcome of more than economic processes. It is an outcome of economic, social, and political processes that interact with and reinforce each other in ways that worsen or ease the deprivation poor people faces every day....it generally is necessary to consider scope for action in all three areas -opportunity, empowerment and security, because of their crucial complementarities".

In Guisan(2013) and other studies, we have presented a detailed list of actions that have demonstrated positive effects to increase development and diminish or eradicate poverty. They are addressed to increase physical capital (with security for investments), human capital (through education and research), social capital (through quality of government and voice of citizens) and sustainable evolution of foreign trade.

4.2. Policies for sustainable development and environment.

Many human activities may have negative consequences on the natural environment and quality of life. Currently there is an important concern about the effects of CO₂ on World temperature and its negative consequences on climate. It is of uppermost importance to develop sustainable policies of industrial development, concealing the increase of production, to avoid poverty and deprivation, and the quality of natural environment.

Table 5 shows the evolution of CO₂ emissions per capita in 22 American countries in comparison with other areas.

Table 5. CO2 emissions per capita and year in American countries and comparison with other areas (Tm per inhabitant)

	Country	1970	2013
1	Argentina	3.66	4.48
2	Bolivia	0.66	1.65
3	Brazil	1.09	2.56
4	Canada	16.49	15.67
5	Chile	2.75	5.47
6	Colombia	1.29	1.77
7	Costa Rica	0.79	1.51
8	Dominican R	0.84	2.26
9	Ecuador	0.75	2.25
10	El Salvador	0.41	1.17
11	Guatemala	0.46	0.89
12	Haiti	0.11	0.19
13	Honduras	0.45	1.03
14	Jamaica	3.16	3.61
15	Mexico	2.19	3.88
16	Nicaragua	0.67	0.83
17	Panama	1.71	3.56
18	Paraguay	0.27	0.79
19	Peru	1.37	1.57
20	United States	21.10	16.55
21	Uruguay	1.93	1.94
22	Venezuela. RB	5.61	5.95
	Average of 22 American countries	10.42	7.97
	<i>Other Areas</i>		
	China	1.16	7.42
	India	0.42	1.65
	Japan	7.69	10.70
	Russian Federation	11.17	12.62
	Spain	3.74	5.27
	Switzerland	6.63	5.78
	European Union-28 countries	9.74	7.35
	World	4.23	4.94

Source: Elaborated by Guisan(2019) from statistics EDGAR statistical database: See European Commission(2014): EDGARv4.2FT2012, European Commission, Joint Research Centre (JRC)/PBL Netherlands Environmental Assessment Agency. Emission Database for Global Atmospheric Research (EDGAR), release version 4.2. <http://edgar.jrc.ec.europa.eu>, 2014. Note: Cuba evolved from 2.30 in 1970 to 3.48 in 2013.

As seen in Guisan(2020) and other studies, the increase of total CO2 excessive emissions at World level for the period 1970-2013, was due more to the high increase of population (85%) than to the increase of the average level of pollution per capita (15%). The average World levels of CO2 per capita evolved from 4.23 Tm per inhabitant in year 1970 to 4.93 in year 2015. The average CO2 per capita increased by a 16.5%. while the World population evolved from, approximately 3682 million people in 1970 to 7252 in year 2015, with an increase of nearly 97%.

Emissions of CO₂ per capita of 22 American countries experienced a decrease for the period 1970-2013, but it is already over World average. Canada, Chile, United States and Venezuela were over World Average, and the other countries were below.

Total contamination by CO₂ has increased in America, from 5133 to 7504 million Tms, in spite of the American average of emissions per capita (from 10.42 Tm in year 1970 to 7.97 in year 2013), due to the increase of population. Population of those countries increased by 01.0%, from 493.8 million people in 1970 to 941.7 in year 2013. For the future it is expected a moderation in population growth, because fertility rates have diminished during the last years in countries which previously have had very high rates, what indeed will contribute to the moderation of the emissions of CO₂.

WB(2019) show that emissions of CO₂ per capita increased for the period 1960-1970, experienced and stagnation, with some fluctuations, for the period 1970-2002 and have shown an important increase for the period 2002-2015.

It is important to have into account that the moderation of the increase of population, in countries with excessive average fertility rates, contribute to increase investment per capita and to diminish pollution per capita. The increase of the educational level of population is usually of uppermost importance to moderate excessive average fertility rates as seen in Guisan, Aguayo and Exposito(2001) and other studies.

4.3. Quality of life

Quality of life depends on many factors like health assistance, security, quality of government, social services, social relationships, labour quality, climate, environment, personals stress, family income and other ones.

Clifton(2018) analyze averages of life satisfaction, based on Gallup World Poll surveys conducted in 2014-2016. The happiest countries indica have en average greater than 7 points, in the interval 0 to 10, and the unhappiest declare less than 3 points on average.

Among the American countries the highest average levels, between 6.00 and 7.32 corresponded to: Canada (7.32), Costa Rica (7.08), the United States (6.99), Chile (6.65), Brazil (6.63), Argentina (6.60), Mexico (6.58), Uruguay (6.45), Guatemala (6.45), Panama (6.45), Colombia (6.36), Nicaragua (6.07), Ecuador (6.01) y El Salvador (6.00). In these countries more than 50% of women and men show that they are very optimist about their lifes, with the highest percentages in Canada (70% of women and 68% of men).

Other countries had values between 5 and 5.99: Belize (5.96), Bolivia (5.82), Peru (5.72), Paraguay (5.49), Jamaica (5.31), Venezuela (5.25), Dominican R. (5.23), Honduras (5.18).

The country with lowest level of GDP per capita, Haiti, appears with only 3.60 in the average points of quality of life in that study. In that country only 8% of wome and 11% of men show "thriving" that in the survey means very optimistic about their lifes.

Table 6. shows the evolution of life expectancy in the United States and in Latin America and Caribe, in comparison with other areas of the World, for the period 1960-2014. Life expectancy evolved from 56 to 75 years, for the period 1960-2014 in Latin America, what implies a great advancement and the USA evolved from 70 to 79. Table 7 shows adjusted death rates (ASDR), not affected by age composition, in major areas of the World, for the period 2000-2015.

Table 6. Life Expectancy at birth 1960-2014 World areas

Country Name	1960	1970	1980	1990	2000	2014
World	52	59	63	65	68	71
Sub-Saharan Africa	40	44	48	50	50	59
East Asia & Pacific	45	58	65	68	70	74
Europe & Central Asia T	67	69	70	72	73	77
Latin America & Caribbe	56	60	64	68	71	75
MENA Total	47	52	58	65	69	72
South Asia Total	42	48	54	58	63	68
United States Total	70	71	74	75	77	79

Source: Elaboration by Guisan and Exposito(2016) from WB statistics. Notes: East Asia & Pacific (IDA & IBRD countries).Latin America & Caribbean (excluding high income) MENA=Middle East & North Africa (excluding high income). South Asia (IDA & IBRD)

Guisan and Exposito(2016) indicate that there are differences by gender, with 78 years for women and 72 for men in Latin America and 81 for women and 77 for men in the United States.

There was a diminution of the deaths per 100 thousand people in the World and in each area. In both years North America and Latin America presented values below World average, or Global index,

Table 7. Annual death rates per 100 thousand people 2000-2015: Age Specific (ASDR)

2000-2015	ASDR 2015	ASDR 2000	Variation ASDR
Global	735.6	943.5	-207.9
East Asia and Pacific	619.4	777.9	-158.5
Europe and Central Asia	555.7	755.6	-199.9
Latin America and Caribbean	593.2	737.5	-144.3
Middle East and North Africa	748.5	876.3	-127.8
North America	448.8	549.8	-101.0
South Asia	912.3	1153.3	-241.0
Sub-Saharan Africa	1372.4	1876.1	-503.7

Note: Elaborated by Guisan and Exposito(2016) from WHO(2016). Major Areas accordingly to World Bank (WB) classification. ASDR=Age Specific Death Rates (not affected by age composition).

We may notice a diminution of ASDR death rates per 100 thousand people, with Latin America and North America better results than World average.

5. Conclusions

It is important to foster international cooperation in order to increase economic development in many countries of America and to eradicate poverty and deprivation. There are yet percentages of poors higher than 25% in many countries, with low levels of quality of life. The main conclusion of this study is that development is multifactorial and needs to conceal the increase of manufacturing activities in many Latin American and Caribbean countries, with protection of quality of environment. Regarding environment it is important to have into account that moderation in fertility rates is necessary to avoid increases of total contamination. Besides to conceal production with lower average levels of contamination per capita is also important.

Bibliography

Carvalho, A.C., Carvalho, D.F. (2019). Brazilian Economy Performance: Development Of Inflation, Growth And Unemployment. *Revista Galega de Economía*, Vol. 28-1.

Carvalho, A. C, Carvalho, D. F. (2019). Econometric Models of Inflation In Brazil: Structuralists, Monetarists and Rational Expectations Approaches, 1995-2017. *Applied Econometrics and International Development*, Vol. 19-2. On line at: <http://www.usc.es/economet/eaat.htm>

Clifton, J. (2018). Gallup.

CEPAL(2018). Panorama social de América Latina em 2018.

<https://www.cepal.org/es/comunicados/la-pobreza-america-latina-se-mantuvo-estable-2017-pero-aumento-la-pobreza-extrema>

CEPAL (2019) Perspectivas económicas de América Latina en 2019. https://repositorio.cepal.org/bitstream/handle/11362/44525/1/S1900182_es.pdf

European Commission(2014). EDGARv4.2FT2012, European Commission, Joint Research Centre (JRC)/PBL Netherlands Environmental Assessment Agency. "Emission Database for Global Atmospheric Research" (EDGAR), release version 4.2. <http://edgar.jrc.ec.europa.eu>, 2014

Guisan, M. C.; Cardim-Barata, S. (2003). Industria y desarrollo regional en Brasil. *Estudios Económicos Regionales y Sectoriales*. Vol.3-1, pp. 25-48.

Guisan, M. C. (2017). Manufacturing And Economic Development In The World For 2000-2015: Main Features And Challenges. *Revista Galega de Economía*, Vol. 26-3. On line at Ideas. Repec.

Guisan, M. C. (2020). World development Report 2020. Forhtcoming at Applied Econometrics and International Development, Vol. 20-1.

Guisan, M. C.; Cardim-Barata, S. (2003). Indústria E Comércio Externo Na Economia Do Brasil, 1960-2000. Working Papers Series *Economic Development*, Nº 73, <http://www.usc.es/economet/eaat.htm> and at Ideas. Repec.

Guisan, M.C., Aguayo, E. (2017). Employment, Wages and Economic Development In Mexico And The U.S.: Impact Of Industry And The Effects Of NAFTA, *Applied Econometrics and International Development*, Vol. 17-2.

Guisan, Aguayo and Exposito(2001) Economic growth and cycles: Cross-country models of Education, Industry and Fertility and International Comparisons, *Applied Econometrics and International Development* Vol. 1-1.

Guisan, M.C., Exposito, P. (2016). Life Expectancy, Education and Development in African Countries 1980-2014: Improvements and International Comparisons, *Applied Econometrics and International Development* Vol. 16-2.

OECD. National Account Statistics.

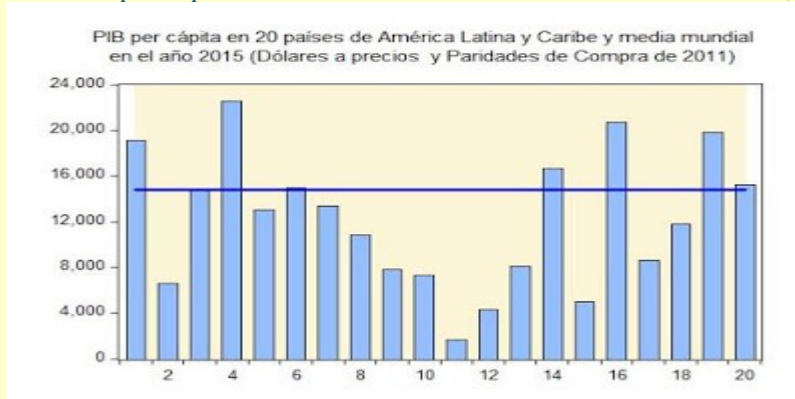
WB(2002). World Development Report 2000-2001.

WB(2019). World Development Indicators and emission of CO2 indicator: <https://data.worldbank.org/indicator/en.atm.co2e.pc>

Annex on line at the journal Website: <http://www.usc.es/economet/eaat.htm>

Annex: Entries of our Blogs <https://euroamericanassociation.blogspot.com> and <https://economyaydesarrollointernacional.blogspot.com>

Graph 1.1. GDP per capita in 20 Latin American and Caribbean countries, year 2015

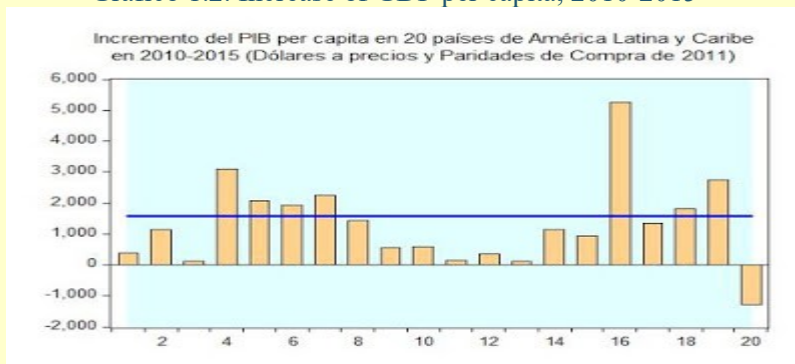


Elaborated by Guisan(2018). Euro-American Association: Spanish versión in Entry 32 of Blog: <https://economyaydesarrollointernacional.blogspot.com>

Countries in descending order: 1. Argentina, 2. Bolivia, 3. Brazil, 4. Chile, 5. Colombia, 6. Costa Rica, 7. Dominican R., 8. Ecuador, 9. El Salvador, 10. Guatemala, 11. Haiti, 12. Honduras, 13. Jamaica, 14. México, 15. Nicaragua, 16. Panamá, 17. Paraguay, 18. Peru, 19. Uruguay, 20. Venezuela. RB

Countries over World average: 1. Argentina (19101), 4. Chile (22537), 14. México (16668), 16. Panamá (20674) y 19. Uruguay (18831). These values are yet very much below 42000 Dólares per cápita of Canadá and more than 52000 Dollards of the United States.

Gráfico 1.2. Increase of GDP per capita, 2010-2015



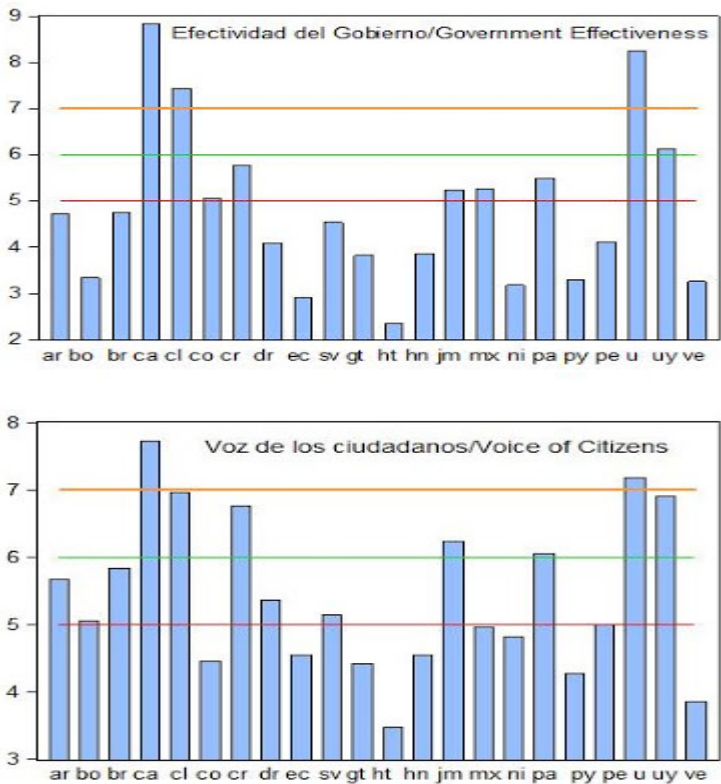
See information about the impact of industry on economic development in Guisan and Aguayo (2015) and Guisan(2017) and Entry 22 of our International Development Blog in Spanish (<https://economyaydesarrollointernacional.blogspot.com>)

Voz de los ciudadanos Entry 12

en América. Entrada 12 Blog EEDI. Informe 2009

World Development

<https://euroamericanassociation.blogspot.com/search/label/América>



Fuente: Indicadores en escala de 1 a 10 elaborados por [Guisán\(2009\)](#) a partir de los datos de Kaufmann y otros autores(2008)

Áreas	% 2000	% 2005	Millones de personas en pobreza extrema en 2005
Asia Este y Pacífico	45.51	36.58	690
Europa y Asia Central	16.67	9.79	46
Latinoamérica y Caribe	25.03	22.17	122
Oriente Medio y Norte de África	22.78	19.70	60
Asia Sur	80.18	77.12	1134
África Subsahariana	75.17	71.97	534
Otros países	...	9.79	99
Total: Mundo	46.81	41.70	2685

Tabla de Pobreza extrema en el mundo. Elaborado por [Guisán y Expósito\(2010\)](#), EEDI, Vol. 10-1

See Entry 17 of Blog: <https://economyaydesarrollointernacional.blogspot.com>

<https://www.efc.com/efe/america/portada/casi-la-mitad-de-poblacion-mundial-vive-con-menos-5-50-dolares-al-dia-segun-el-bm/20000064-3783513>

"En 2015, más de 1.900 millones de personas, es decir, el 26,2 % de la población mundial, vivían con menos de 3,20 dólares al día, mientras que cerca del 46 % de los habitantes del planeta tenían menos de 5,50 dólares diarios."

Data of CO2 emissions per capita

Country	1970	1980	1990	2000	2008	2009	2010	2011	2012	2013
American Samoa	0,227	0,229	0,226	0,282	0,339	0,350	0,360	0,372	0,382	0,389
Antigua and Barbuda	3,343	3,723	5,170	4,351	4,895	4,968	5,041	5,178	5,234	5,187
Argentina	3,663	3,672	3,275	4,034	4,454	4,211	4,253	4,317	4,412	4,485
Aruba	0,512	6,755	9,912	2,745	3,335	3,584	3,828	3,962	4,029	4,015
Bahamas	20,251	19,160	12,766	9,842	11,377	11,654	11,927	12,195	12,273	12,108
Barbados	2,292	2,822	3,860	4,205	4,359	4,421	4,520	4,656	4,640	4,660
Belize	1,071	1,182	1,563	2,185	2,935	2,949	2,962	3,010	3,005	2,933
Bermuda	6,263	7,758	10,212	7,609	7,922	8,083	8,243	8,573	8,750	8,730
Bolivia	0,659	0,909	0,953	1,031	1,256	1,296	1,401	1,505	1,600	1,654
Brazil	1,086	1,641	1,461	1,979	2,139	1,984	2,230	2,318	2,426	2,555
Canada	16,492	18,287	16,202	17,923	16,938	16,079	16,219	16,103	15,718	15,669
Cayman Islands	6,520	4,718	10,751	6,563	6,770	6,892	7,023	7,180	7,220	7,111
Chile	2,748	2,316	2,766	4,147	4,799	4,487	4,685	5,063	5,299	5,472
zChina	1,164	1,644	2,122	2,749	5,763	6,076	6,393	6,972	7,166	7,420
Colombia	1,292	1,495	1,562	1,561	1,488	1,553	1,549	1,625	1,675	1,775
Costa Rica	0,789	1,064	0,951	1,326	1,560	1,467	1,510	1,560	1,531	1,515
Cuba	2,303	3,258	2,963	2,452	2,867	3,717	3,577	3,422	3,471	3,480
Dominica	0,321	0,373	0,925	1,174	2,002	2,051	2,112	2,191	2,230	2,220
Dominican Republic	0,844	1,186	1,153	2,197	2,187	2,222	2,270	2,219	2,257	2,263
Ecuador	0,752	1,539	1,556	1,669	1,907	2,054	2,139	2,117	2,166	2,247

El Salvador	0,41 4	0,44 6	0,48 6	0,97 3	1,145	1,158	1,104	1,142	1,164	1,168
Falkland Islands (Malvinas)	4,18 7	5,75 7	14,3 15	9,75 9	13,06 4	13,52 7	14,00 0	14,54 4	14,83 0	14,78 5
Grenada	0,29 2	0,41 3	1,26 2	4,20 6	5,602	5,830	6,055	6,288	6,407	6,379
Guadeloupe	1,04 7	1,38 3	3,30 3	3,72 9	4,489	4,539	4,613	4,752	4,830	4,833
Guatemala	0,45 8	0,66 5	0,44 3	0,88 4	0,971	1,029	0,954	0,928	0,910	0,890
Guyana	1,44 1	1,70 6	0,95 1	1,92 5	2,132	2,155	2,178	2,257	2,296	2,283
Haiti	0,11 3	0,15 1	0,16 0	0,18 8	0,244	0,240	0,202	0,199	0,196	0,193
Honduras	0,45 2	0,51 4	0,47 6	0,78 9	1,177	1,076	1,057	1,069	1,050	1,031
zIndia	0,41 6	0,47 4	0,75 9	1,01 6	1,329	1,417	1,473	1,492	1,604	1,654
Jamaica	3,16 2	3,16 8	3,18 1	3,98 7	4,325	3,648	3,496	3,671	3,655	3,615
zJapan	7,69 2	8,59 9	9,50 9	10,1 54	9,835	9,263	9,712	10,08 8	10,75 2	10,70 1
Martinique	1,52 2	2,04 5	4,49 0	3,92 7	5,146	5,341	5,562	5,750	5,862	5,876
Mexico	2,19 1	3,37 0	3,60 9	3,63 5	3,886	3,806	3,901	3,928	3,962	3,879
Montserrat	0,90 8	1,14 0	3,49 2	73,9 73	103,8 78	108,9 75	113,6 21	117,3 43	118,9 30	117,8 27
Nicaragua	0,67 0	0,61 0	0,47 3	0,73 7	0,809	0,832	0,866	0,855	0,843	0,827
Panama	1,70 6	1,59 8	1,05 4	1,62 5	2,814	3,208	3,403	3,688	3,644	3,562
Paraguay	0,26 6	0,48 1	0,52 6	0,69 7	0,694	0,744	0,827	0,828	0,814	0,795
Peru	1,37 1	1,32 6	0,96 5	1,11 4	1,273	1,328	1,432	1,506	1,547	1,573
Puerto Rico	0,28 7	0,21 1	0,17 7	0,16 4	0,157	0,157	0,170	0,016	0,017	0,017
zRussian Federation	11,1 73	15,1 19	16,4 68	11,3 38	12,55 0	11,83 0	11,90 9	12,54 6	12,70 1	12,62 5
Saint Kitts and Nevis	0,65 3	0,92 4	1,57 2	2,44 3	2,492	2,537	2,581	2,660	2,689	2,658
Saint Lucia	0,90 8	1,00 3	1,52 3	2,08 9	2,655	2,728	2,804	2,887	2,925	2,902
Saint Pierre and Miquelon	0,00 2	0,00 3	0,00 4	1,20 6	1,033	1,018	1,003	1,046	1,070	1,069
Saint Vincent and the Grenadines	0,30 0	0,35 9	0,86 5	1,53 7	2,083	2,152	2,222	2,316	2,368	2,367
Sao Tome and Principe	0,24 4	0,33 9	0,49 8	1,16 1	0,732	0,703	0,676	0,690	0,698	0,705
zSpain	3,73 7	5,63 4	5,86 5	7,62 2	7,351	6,541	6,115	6,067	5,931	5,271
Suriname	4,80 0	5,85 0	4,02 2	2,82 6	2,840	2,841	2,844	2,972	3,059	3,050
zSwitzerland	6,63 3	6,80 2	6,69 9	6,15 9	6,085	5,841	6,001	5,436	5,513	5,779
Trinidad and Tobago	6,54 0	7,62 3	9,65 0	13,7 40	30,79 4	30,14 8	32,04 2	30,59 6	27,86 2	29,75 2

United States	21,0 97	20,8 99	19,6 04	20,6 15	18,73 0	17,19 7	17,61 4	17,06 7	16,28 2	16,55 2
Uruguay	1,92 7	1,97 3	1,25 4	1,66 3	1,687	1,775	1,661	1,944	1,949	1,937
Venezuela	5,61 2	6,33 6	5,60 8	5,84 9	5,737	5,679	6,415	5,636	5,765	5,955
Virgin Islands_British	1,51 3	1,72 4	3,16 3	2,60 9	3,419	3,546	3,686	3,772	3,809	3,773
Virgin Islands_USA	0,01 6	0,02 0	0,02 2	0,01 4	0,014	0,014	0,014	0,014	0,014	0,014
World	4,23 5	4,43 4	4,26 7	4,14 6	4,742	4,629	4,780	4,870	4,894	4,936
EU-28	9,74 4	10,5 39	9,18 8	8,43 8	8,252	7,678	7,838	7,586	7,534	7,348

<https://datacatalog.worldbank.org/co2-emissions-metric-tons-capita-3>

<https://data.worldbank.org/indicator/en.atm.co2e.pc>

<iframe src="https://data.worldbank.org/share/widget?indicators=EN.ATM.CO2E.PC" width='450' height='300' frameBorder='0' scrolling="no" ></iframe>

<https://www.ucsusa.org/global-warming/science-and-impacts/science/each-countrys-share-of-co2.html>

In year 2015 the lowest value among industrialized countries correspond to Switzerland, with a value of 4.83 slightly below World average, in spite of its highest value of industry per capita. Some countries like Spain, France, Italy and the UK have values of CO2 per capita slightly over World average. China with 7.73, Germany with 9.64 and the USA with 16.07 have very high values.