



Scan to know paper details and author's profile

# "Generational Union to Guarantee Sustainable Development"

*Cristopher Cardenas-Cruz M.D., Lizeth Jiménez Santana M.D., Rodrigo Rueda De León Serna M.D., María E. González-Serrano M.D. & Rogelio Martínez-Wagner M.D*

*Universidad de Guanajuato*

## SUMMARY

**Background:** We have adopted an uncontrolled and unplanned development that has led us to our current reality. To arrive at this problematic situation, it is necessary to count on political will, as well as intergenerational community co-responsibility, based on the 17 goals of the 2030 agenda for sustainable development. Intergenerational co-responsibility will be achieved when we understand the "biology" of generations, each one can create a universe, and working together we will walk towards our utopia.

**Methods:** A systematic review of the literature was conducted using "PubMed" and "Google Scholar" in August and September 2022. We made different searches using keywords: Baby boomers' generation (bb), X generation, millennium generation (y), Z generation, Sustainable Development, Brundtland Report, and Intergenerational co-responsibility. The search was limited to the studies published in Spanish and English.

**Keywords:** baby boomers' generation (bb), x generation, intergenerational co-responsibility, millennium generation (y), z generation.

**Classification:** DDC Code: 338.90091724

**Language:** English



London  
Journals Press

LJP Copyright ID: 573344  
Print ISSN: 2515-5784  
Online ISSN: 2515-5792

London Journal of Research in Humanities and Social Sciences

Volume 23 | Issue 2 | Compilation 1.0



© 2023 Cristopher Cardenas-Cruz M.D., Lizeth Jiménez Santana M.D., Rodrigo Rueda De León Serna M.D., María E. González-Serrano M.D. & Rogelio Martínez-Wagner M.D. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License <http://creativecommons.org/licenses/by-nc/4.0/>, permitting all noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.



# “Generational Union to Guarantee Sustainable Development”

Cristopher Cardenas-Cruz M.D.<sup>a</sup>, Lizeth Jiménez Santana M.D.<sup>a</sup>,  
Rodrigo Rueda De León Serna M.D.<sup>b</sup>, María E. González-Serrano M.D.<sup>c</sup>  
& Rogelio Martínez-Wagner M.D.<sup>#</sup>

## SUMMARY

**Background:** We have adopted an uncontrolled and unplanned development that has led us to our current reality. To arrive at this problematic situation, it is necessary to count on political will, as well as intergenerational community co-responsibility, based on the 17 goals of the 2030 agenda for sustainable development. Intergenerational co-responsibility will be achieved when we understand the “biology” of generations, each one can create a universe, and working together we will walk towards our utopia.

**Methods:** A systematic review of the literature was conducted using “PubMed” and “Google Scholar” in August and September 2022. We made different searches using keywords: Baby boomers’ generation (bb), X generation, millennium generation (y), Z generation, Sustainable Development, Brundtland Report, and Intergenerational co-responsibility. The search was limited to the studies published in Spanish and English.

**Discussion:** There is a great virtue that coincides among all the generations which is the search for a better world. Starting the millennial generation, which is the one with the highest demographic density in the world and the advantage of having globalized thinking. Initiate with a continuum of teaching, departing from this generation, that is an authentic engine of change and a key to reach other generations such as the Z generation and X generation, which will act as a bridge to the BB generation, a fundamental piece as they are wisdom and experience. Each generation can create a universe, this will be the task of the Z generation, which will transmit what has been learned in these chaotic and overwhelming times. The

consequences of the non-sustained development that we had are already here. It is implicit in each generation to adopt the change. So, is there room for this yet? Eight years have passed since the creation of the 2030 agenda and 36 years since the Brundtland report, we see the solution on the horizon.

**Contributions:** All authors contributed to the study's conception and approved its publication.

**Funding:** Authors have no conflict of interest, financial or otherwise. There is no financial relationship with any institution, organization, or company.

**Declaration of interests:** The authors declare they have no conflict of interest.

**Keywords:** baby boomers’ generation (bb), x generation, intergenerational co-responsibility, millennium generation (y), z generation.

**Author a:** Instituto Politécnico Nacional (IPN), CDMX, México.

**a:** Universidad de Guanajuato, Guanajuato, México.

**p:** Universidad Nacional Autónoma de México (UNAM), CDMX, México.\*\*\*

**c:** Instituto Nacional de Pediatría, CDMX, México.

**#:** Hospital "Dr. Manuel Gea González", CDMX, México.

“Utopia is on the horizon. I move two steps closer; It moves two steps further away. I walk another ten steps and the horizon runs ten steps further away. So, what’s the point of utopia? The point is this: to keep walking.”

-Eduardo Galeano-

## I. INTRODUCTION

We have adopted an uncontrolled and poorly planned development that has led us to our

current reality. A development in which natural resources have been used, generating waste, which has affected the quality of the environment for a long time. Humanity can make development sustainable, to guarantee the satisfaction of present needs without compromising future generations. The purpose of this article is to present and analyze the characteristics of each generation studied by sociology and how they can interact in a co-responsible manner to meet the 17 goals proposed to achieve the much sought-after sustainable development.

## II. METHODS

A systematic review of the literature was conducted using “PubMed” and “Google Scholar” in August and September 2022. We made different searches using keywords: Baby boomers’ generation (bb), X generation, millennium generation (y), Z generation, Sustainable Development, Brundtland Report, and Intergenerational co-responsibility. The search was limited to the studies published in Spanish and English.

In total, 32 articles were found. 14 of these articles were rejected for not complying with the objectives addressed in this review. We included 18 articles in which the 2030 development and environment agenda, sustainable development goals, homo-sapiens development, generational characteristics, youth theories, sociology, brain division theory, and generational learning were included.

## III. HUMAN DEVELOPMENT

Humanity in its 120,000 years of apparition<sup>1</sup> has encountered multiple challenges to survive and develop as a whole, especially 12 thousand years ago, in the Neolithic revolution<sup>2,3</sup>, at present it has been achieved, but at what cost?...

We have adopted an uncontrolled and unplanned development that has led us to our current reality. A development in which natural resources have been used, generating waste, which has affected the quality of the environment for millions of years. The lifestyle of genus Homo had been a

hunter-gatherer. The first specimens of the genus Homo, the Homo habilis, lived millions of years ago (between 2.4 and 1.8 m. y) in the Lower Paleolithic<sup>4</sup>. In the gathering stage of humanity, it was wanted to possess all the resources, when these began to decrease, primitive man migrated to other places, damaging the ecosystem due to uncontrolled consumption and its generated waste.

Humanity can make development sustainable, to ensure that it meets the needs of the present without compromising future generations.

This is how Gro Harlem Brundtland, a Norwegian physician, and politician in April 1987, defined the concept of sustainable development in the report “Our Common Future”, best called the Brundtland Report<sup>5</sup>.

In this way, from the environment, a peaceful and gradual social change is postulated, which helps us to modify our relationship with ourselves, humanity, and nature, creating a harmonious relationship that remains for generations.

Which would contribute to building a global program for change, with a single objective... A more promising common future.

This is by combining the treatment of three important pillars of sustainable development.

On the one hand, economic sustainability aims to generate economic wealth profitably, maintaining the conservation of natural resources. Likewise, social sustainability has a focus on human quality, through the change of attitudes and personal practices. Added to this is environmental sustainability, which is based on avoiding the depletion of non-renewable resources and avoiding the excessive generation of waste.

With the adoption of sustainable development goals around the world, it is clear that there is a mandate to ensure sustainable human development for all; however, the main challenge for countries is effective implementation.

Humans have the right to a healthy and productive life in harmony with nature so that their social and economic needs are met within

the limits of natural resources and thus enable sustainable human development. Continued, synchronized, and joint efforts are needed to advance poverty eradication, human rights, and equity, while achieving more sustainable patterns of consumption and production, stabilizing climate changes, and effectively managing environmental resources. (UNICEF, 2013).

To reach this goal, it is necessary that we have a political will as well as intergenerational community co-responsibility, because the economic and political systems are the ones that mostly oppose sustainability, for this fact is that today we need a new era of politics, economics, social, and cultural growth, which integrates as a basis the 17 objectives of the 2030 agenda for sustainable development, a document approved in September 2015 by the United Nations General Assembly. The sustainable development goals are a set of goals within a universal global agreement signed by the 193 member states of the UN to end poverty, protect everything that makes the planet habitable and ensure that all the people enjoy peace and prosperity, now and in the future.

This is to create inclusive and fair societies at the service of humanity, emphasizing future generations and therefore leading global growth, this is a path for the development of all countries, showing our ethics and solidarity with the less developed countries as well as our concern for the environmental situations that hit us and mobilize us<sup>6</sup>.

As a fundamental part of history, the sustainable development goals complemented and deepened the millennium development goals, which for 15 years provided important experience and important lessons to update and continue with the work that had already begun in 2000.

These goals demonstrated; that their ambition generates new collaborations on the part of other countries and encourages public opinion to work together and in harmony and achieve the task that in those years was mainly focused on the eradication of poverty to the halting of the spread of HIV /AIDS.

The 17 goals and 169 targets will be achieved if progress is made collectively and collaboratively, often among people and groups with whom they have traditionally adopted languages, cultures, and separated approaches, likewise, these goals are closely related to each other, as is recognized that if you work and make progress on one of the objectives, the others will consequently also be affected.

This represents a great commitment of humanity towards our world since sustainable development can only be pursued if the size of the population is in harmony with the changing productive potential of the ecosystem<sup>7</sup>. Intergenerational co-responsibility will be achieved when we understand the "biology" of generations and delve into the study of each of them to elucidate cooperation strategies.

The term "generation" cited by Gilburg (2007) is referred to as "an age group that shares throughout its history a set of formative experiences that distinguish them from their predecessors<sup>8</sup>".

According to Dilthey's idea: "when the generation is being formed, it seizes the accumulated spiritual heritage, as well as that of the intellectual culture<sup>8</sup>" which will be of vital importance, since each generational segment has a moral duty to transmit values and knowledge to the succeeding generation<sup>9</sup>. In the same way, the new generations are the basis of change and are creating new identities and possibilities for action. Therefore, generations do not follow each other as an hourglass, a generation can last ten years, or it can last several centuries as it happened in pre-modern societies.

There are four generations, all of them with a great capacity to face the challenges of the 21st century:

#### IV. BABY BOOMERS (BB)

It is the generation born in the postwar period, between 1946 and 1970 (hence its name), experiencing the expansion of individual freedom and the birth of movements for social rights. They are currently between 55-73 years old <sup>9-11</sup>, they

represent 14.9% of the world population, they are people with values, adaptable, loyal, with a spirit of sacrifice, they are against war, they think that everything is possible, they have skills to handle crises, they are idealistic, they plan to transform the world, they have political experience, they are non-profit leaders, their expertise and experiences are of vital importance for future generations, their ability to guide, generate and be flexible to change is unique<sup>8-13</sup>.

## V. X GENERATION

Defined by most authors as those born between 1971 and 1981, they are currently in an age range of 35-45 years, representing 13.3% of the world population.

Their high technological competence, and acceptance of diversity and change, are presented as advantages to solving organizational problems effectively, they have high resilience, learning capacity, adaptability, versatility, self-motivated, self-demanding, and persevering, and they know how to work in a team, it is considered as a bridge generation between the millennial generation and the BB, they have an uncertainty of the world they have to face or the world they will leave, they seek a better world with values such as generosity, solidarity, altruism, adaptability, and resilience<sup>8-14</sup>. According to the theory of the hemispheres proposed by Roger Wolcott Sperry, Nobel Prize in Medicine and Physiology (1981), in his work "split-brain"<sup>15,16</sup> where he classifies the brain into two hemispheres; the left, which is related to language, analytical thinking and logic, and the right hemisphere, which is related to the control of spatial skills, imagination, and creativity. This generation is in correspondence with the left hemisphere<sup>8-14</sup>.

## VI. MILLENIUM GENERATION (Y)

Those born between 1982 and 1992, are currently in an age range of 24-34 years, representing 15.3% of the world population.

Characterized by the use of technology as an integral part of their lifestyle.

This generation wants to change the world, and be more correct, honest, ecological, and organic, thanks to globalization its characteristics are more similar between different countries. They are the generation with the least political or religious affiliation in history, they are connected by social networks.

Their defining characteristics are civic duty, high morale, social ability, focus on change using technology, possess political knowledge, a strong sense of service, expect to make contributions to the world, the ability to absorb vast amounts of information, and their generation is related to the right hemisphere of the brain<sup>8-14</sup>.

Unquestionably, this generation would become the first to begin to see a transcendental change in environmental policies, because the aforementioned concept of sustainable development of the Brundtland commission (1987) would become present in history.

## VII. Z GENERATION

It is the generation most conscious of the rapidity of changes, they are currently in an age less than 23 years, born after 1993, representing 7.6% of the world population; not much is known about the Z generation yet, they are digital natives, their history is being written, it is called "The age of enlightenment", they have willpower, belief in change and they are dreamers<sup>8-15</sup>.

So much so that if we look at the time-space relationship<sup>17</sup>, this is the generation that has seen these changes and is more aware of the community and intergenerational co-responsibility that must exist to achieve these goals.

## VIII. DISCUSSION

If we analyze quantitatively the world's population, we would ask ourselves, how could we create the entity where we consolidate and put into practice, the values and knowledge, which guarantee sustainable development, we find the concept in all its magnitude of the family, a crucial term in our study, Isabelle Bertaux- Wiame (1988), in her studies about family memories,

shows the existence of a “distant memory” of which family members are unintentional carriers.

It is a memory made up not only of personal memories but also of those that have been passed down from previous generations and have become an integral part of thought. The influence of this distant memory is made even more persistent by the affective nature of the family memory, which is its most intimate element<sup>18,19</sup>. The action of the family memory consolidates the social ties between the members of the family group that are in constant interaction, since, as we remember, there are similarities in the experiences of each generation, safeguarding group unity<sup>20,21</sup>.

The key to our success will come when we analyze the behavioral dynamics of each generation<sup>21</sup> and thus have the tools that generate strategies to ensure that all generations walk in only one direction: sustainable development<sup>22</sup>.

There is a great virtue that coincides among all the generations mentioned which is the search for a better world<sup>23-25</sup>, here is the shared challenge, the guideline for all, starting from the millennial generation<sup>26,27</sup>, which, as we have studied, is the one with the highest demographic density at the world and with the advantage of having globalized thinking. Initiate with a continuum of teaching departing from this generation, that is an authentic engine of change and a key to reach other generations such as Z generation and X generation<sup>28</sup>, which will act as a bridge to the BB generation<sup>29</sup>, a fundamental piece as they are wisdom and experience.

Each generation can create a universe, this will be the task of Z generation<sup>30</sup>, which will transmit what has been learned in these chaotic and overwhelming times.

The consequences of the non-sustained development that we had are already here. It is implicit in each generation to adopt the change. So, is there room for this yet? Now that eight years have passed since the creation of the 2030 agenda and thirty-six years since the Brundtland report, we see the solution on the horizon, and working together, remembering Eduardo Galeano, that is what we will do... walk.

## REFERENCES

1. Valdebenito, Carolina. (2007). DEFINIENDO HOMO SAPIENS-SAPIENS: APROXIMACIÓN ANTROPOLÓGICA. *Acta bioethica*, 13(1), 71-78. <https://dx.doi.org/10.4067/S1726-569X2007000100008>.
2. Blakemore, E. (2021, 4 mayo). What was the Neolithic Revolution? Culture. <https://www.nationalgeographic.com/culture/article/neolithic-agricultural-revolution>.
3. Pimenta, J., Lopes, A. M., Comas, D., Amorim, A., & Arenas, M. (2017). Evaluating the Neolithic Expansion at Both Shores of the Mediterranean Sea. *Molecular biology and evolution*, 34(12), 3232–3242. <https://doi.org/10.1093/molbev/msx256>.
4. Carrillo González, R. (2011). La vida de los cazadores recolectores. [https://www.academia.edu/11443500/LA\\_VIDA\\_DE\\_LOS\\_CAZADORES\\_RECOLECTORES](https://www.academia.edu/11443500/LA_VIDA_DE_LOS_CAZADORES_RECOLECTORES).
5. Report of the World Commission on Environment and Development: United Nations Digital Library System. <https://digitallibrary.un.org/record/139811>.
6. Bárcena, A. & Prado, A. (2016, mayo). Agenda 2030 y los Objetivos de Desarrollo Sostenible Una oportunidad para América Latina y el Caribe. CEPAL Naciones Unidas. <https://www.cedhnl.org.mx/bs/vih/secciones/planes-y-programas/Agenda-2030-y-los-ODS.pdf>
7. Valcárcel, M. (2006, junio). GÉNESIS Y EVOLUCIÓN DEL CONCEPTO Y ENFOQUES SOBRE EL DESARROLLO Documento de investigación. Departamento de Ciencias Sociales Pontificia Universidad Católica del Perú. <https://www.uv.mx/mie/files/2012/10/SESION-6-Marcel-Valcarcel-Desarrollo-Sesion6.pdf>
8. Chirinos, N., (2009). Características generacionales y los valores. Su impacto en lo laboral. *Observatorio Laboral Revista Venezolana*, 2(4), 133-153.
9. Leccardi, Carmen, & Feixa, Carles. (2011). El concepto de generación en las teorías sobre la juventud. *Ultima década*, 19(34), 11-32. <https://dx.doi.org/10.4067/S0718-22362011000100002>.

10. Gorraiz, J. M. O. (1989). La sociología en Ortega y Gasset. *Anthropos*.
11. Khoury, R., & Grossberg, G. T. (2022). Alcohol, Drugs, and Baby Boomers. *Clinics in geriatric medicine*, 38(1), xiii–xiv. <https://doi.org/10.1016/j.cger.2021.07.012>
12. DIAGNÓSTICO DE LA DIVERSIDAD GENERACIONAL ANÁLISIS DEL TALENTO INTERGENERACIONAL EN LAS EMPRESAS. (2016). Observatorio GT. [https://generaciona.org/wp-content/uploads/2020/04/Estudio-Diagnóstico-Diversidad-Generacional-Análisis-del-Talento-Intergeneracional-en-la-organizaciones-Obse.asd\\_.pdf](https://generaciona.org/wp-content/uploads/2020/04/Estudio-Diagnóstico-Diversidad-Generacional-Análisis-del-Talento-Intergeneracional-en-la-organizaciones-Obse.asd_.pdf).
13. Twenge, J. M., Campbell, W. K., & Freeman, E. C. (2012). Generational differences in young adults' life goals, concern for others, and civic orientation, 1966-2009. *Journal of personality and social psychology*, 102(5), 1045–1062. <https://doi.org/10.1037/a0027408>.
14. Twenge, J. M., Exline, J. J., Grubbs, J. B., Sastry, R., & Campbell, W. K. (2015). Generational and time period differences in American adolescents' religious orientation, 1966-2014. *PloS one*, 10(5), e0121454. <https://doi.org/10.1371/journal.pone.0121454>.
15. Puente, A. E., (2007). LA HISTORIA INCOMPLETA DEL DESCUBRIMIENTO DE LA DIVISIÓN CEREBRAL Y ROGER W. SPERRY. *Suma Psicológica*, 14(2), 225-231.
16. Demarin, V., Bedeković, M. R., Puretić, M. B., & Pašić, M. B. (2016). Arts, Brain and Cognition. *Psychiatria Danubina*, 28(4), 343–348.
17. Riemer, M., Shine, J. P., & Wolbers, T. (2018). On the (a)symmetry between the perception of time and space in large-scale environments. *Hippocampus*, 28(8), 539–548. <https://doi.org/10.1002/hipo.22954>.
18. Muñoz González, G., (2012). JÓVENES, CULTURAS Y PODERES. BOGOTÁ, D. C.: SIGLO DEL HOMBREEDITORES, UNIVERSIDAD DE MANIZALES, CINDE.. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 10(1), 712-714.
19. Szypula, J., Ahern, A., & Cheke, L. (2020). The role of memory ability, depth and mode of recall in the impact of memory on later consumption. *Appetite*, 149, 104628. <https://doi.org/10.1016/j.appet.2020.104628>
20. Brainerd C. J. (2021). Deep memory distortions. *Cognitive psychology*, 126, 101386. <https://doi.org/10.1016/j.cogpsych.2021.101386>.
21. Flascherud J. H. (2013). Culture and memory. *Issues in mental health nursing*, 34(2), 133–135. <https://doi.org/10.3109/01612840.2012.693576>.
22. Bajpai, S., & Srivastava, V. C. (2022). Environmental issues for sustainable development. *Environmental science and pollution research international*, 29(48), 72185–72186. <https://doi.org/10.1007/s11356-022-22681-x>.
23. Bogen, J. E. (1999). Roger Wolcott Sperry (20 August 1913-17 April 1994). *Proceedings of the American Philosophical Society*, 143(3), 493–500. <http://www.jstor.org/stable/3181963>.
24. Masnick, G. (2017, 16 febrero). Defining the Generations Redux. *Joint Center for Housing Studies*. <https://www.jchs.harvard.edu/blog/defining-the-generations-redux>.
25. Schulze-Makuch, D., Heller, R., & Guinan, E. (2020). In Search for a Planet Better than Earth: Top Contenders for a Superhabitable World. *Astrobiology*, 20(12), 1394–1404. <https://doi.org/10.1089/ast.2019.2161>.
26. Chaudhuri J. D. (2020). Stimulating Intrinsic Motivation in Millennial Students: A New Generation, a New Approach. *Anatomical sciences education*, 13(2), 250–271. <https://doi.org/10.1002/ase.1884>.
27. Schrager S. (2021). Adapting Medical School Curriculum to Millennial and Generation Z Learners. *WMJ : official publication of the State Medical Society of Wisconsin*, 120(1), 6.
28. Betz C. L. (2019). Generations X, Y, and Z. *Journal of pediatric nursing*, 44, A7–A8. <https://doi.org/10.1016/j.pedn.2018.12.013>.
29. Kim, B., Kim, K., Burr, J. A., & Han, G. (2020). Health Behavior Profiles of Korean Baby Boomers. *International journal of aging*

- & human development, 90(4), 363–384.  
<https://doi.org/10.1177/0091415018811095>.
30. Shatto, B., & Erwin, K. (2017). Teaching Millennials and Generation Z: Bridging the Generational Divide. *Creative nursing*, 23(1), 24–28.<https://doi.org/10.1891/1078-4535.23.1.24>.

*This page is intentionally left blank*

---

*"Generational Union to Guarantee Sustainable Development"*