ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

Theorizing Context and Situation-Based Approaches for Population Management: Towards Cogent Frameworks for Sustainability Management

Sujay Rao Mandavilli[1]

Publication Date: 2025/08/23

Abstract: The objective of this paper is to throw further light on a hot-button topic, namely population management, and to explain why context and situation-based approaches to population management are indeed required. We also stress and emphasize the need to integrate population management frameworks with sustainability and environmental management frameworks. In sum, no one size fits all approaches are ever possible, and there are many different ways to address shrinking and declining populations as we had previously discussed. Low populations may not therefore be a veritable catastrophe as it is in the case of entirely consumption-driven economies such as the USA. India is ten times more densely populated that the USA, plus it sits on a dangerous global warming hotspot. There is plenty of reserve and underutilized labour in India, plus chronic underemployment which must be differentiated from unemployment. Indian cities are also congested and bursting at their seams due to population pressure. Measures to boost fertility rates through artificial means have virtually failed in every part of the world. Therefore, we argue and believe that improving education systems and leveraging human potential is the only viable and feasible approach. We also reference all our previous publications on education and pedagogy to draw attention of planers towards the urgent and unmet need for pedagogical reform.

How to Cite: Sujay Rao Mandavilli (2025) Theorizing Context and Situation-Based Approaches for Population Management: Towards Cogent Frameworks for Sustainability Management. *International Journal of Innovative Science and Research Technology*, 10(8), 978-983. https://doi.org/10.38124/ijisrt/25aug764

I. INTRODUCTION

The objective of this paper is to throw further light on a hot-button topic, namely population management, and to explain why context and situation-based approaches to population management are indeed required. We also stress and emphasize the need to integrate population management frameworks with sustainability and environmental management frameworks. In sum, no one size fits all approaches are ever possible, and there are many different ways to address shrinking and declining populations as we had previously discussed. Low populations may not therefore be a veritable catastrophe as it is in the case of entirely consumption-driven economies such as the USA. India is ten times more densely populated that the USA, plus it sits on a dangerous global warming hotspot. There is plenty of reserve and underutilized labour in India, plus chronic underemployment which must be differentiated from unemployment. Indian cities are also congested and bursting at their seams due to population pressure. Measures to boost fertility rates through artificial means have virtually failed in every part of the world. Therefore, we argue and believe that improving education systems and leveraging human potential is the only viable and feasible approach. We also reference all our previous publications on education and pedagogy to draw attention of planers towards the urgent and unmet need for pedagogical reform.

- *What is the Environment?*

The environment as most people understands it, is essential to the survival of mankind. But what exactly is an environment? An environment is something which encompasses all living beings and other non-living things that humans and other living entities are surrounded with such as the air, water, atmosphere, oceans, soil, sunlight, temperature, etc, though this is only a small and an indicative list, and by no means an exhaustive list. The environment therefore, comprises of a complex system of interactions between biotic (living things and organisms including all types of plant and animal life, and even microroganisms) and abiotic (non-living things) components. Essentially, everything around us, right from the air we breathe to the complex ecosystems that we inhabit, contributes to our environment. it is the multiple and myriad forms of interactions and interdependence patterns between living and non-living things that we must emphasize at all times i.e. the interaction patterns, and resource utilization patterns. For example, plants use sunlight and air (through the patterns of photosynthesis) to produce food, which is then often consumed by animals and humans. Insects and bees also play a role in the dispersal of plant seeds, and so on and so forth. We also have the concept of

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

food chains, and predators. Some animals such as lions are seen to be apex predators. All animals do play some role – either major or minor –in the preservation of the atmosphere. Those living beings and entities that cannot adapt or adjust perish in due course, and become extinct. Humans are also an intrinsic part of this system and are both affected by and affect the environment. However, only humans damage and pollute the earth's atmosphere in a way that no other beings can. Humans are endowed with an intellect that sets them fundamentally apart from all other species on the planet, and they can often be filled with greed and act irresponsibly as a result.

- *Scope of Environmental Sciences*

The scope of environmental sciences is vast and humungous. The environment is highly complex, structured and multilayered, and it also has multifarious aspects. Environmental sciences therefore seek to attain and accomplish a thorough knowledge about the working of earth's internal mechanisms, its life support systems, its interactions with living and non-living beings, its inbuilt checks and mechanisms, the impact of anthropogenic forces on the environment, environmental damage and pollution. Many fields of study as such sociology, and social and cultural anthropology have also been factored into the study of environments and ecosystems. Besides all this, knowledge of botany, zoology, genetics, soil studies, oceanography, ecology, and even biotechnology can go a long way in achieving and accomplishing a thorough and complete knowledge of the environment and ecosystems. Population studies must also be tightly integrated with environmental studies, and this is a weak area at present. Economics and population studies – based not just on a study of one economy, but different types of economies must also be accomplished, and this is another weak area at present.

The interface between the environment and technology must also be clearly understood, and this is a virgin area at present. Pollution management studies must also be crystallized and concretized. Social sciences studies must also be integrated with environmental studies at all times. The multiple and myriad interfaces between all these must be formalized. We do not need Eurocentric studies alone – we need cross-cultural ones. We do not need dogma. We need pragmatism. We need dynamic and cross-cultural participation at all times, and in the truest sense of the term. Change and reinvention is also always necessary. Environmental movements must be comprehensive and realistic; they must also be rooted in contextual and situational awareness. Awareness generation must also teach personal responsibility, and this must be taught to all, whether they may be rich or poor, urban dwellers or rural dwellers. Long-term views are also always necessary, and global collaboration and cultural collaboration are a must.

II. HISTORY OF THE ENVIRONMENTAL MOVEMENT

Environmental science as a formal, structured and cohesive field of study and inquiry emerged only by the middle of the twentieth century, spurred on by ever-increasing public awareness of the ill and harmful effects pollution and environmental degradation. However, truth be told, the roots of environmental awareness go all the way back to ancient civilizations who were aware of the impact of their activities on mother nature. Early human societies also developed some primitive and rudimentary techniques for survival that impacted their surroundings, while later and more complex civilizations woke up rather late to the impact of their quotidian activities on the environment. Even in ancient Mesopotamia, there were limits on the amount of deforestation permitted, while environmental awareness also existed in ancient Indian culture and tradition both in pre-Buddhist and Jainist texts. Caliph Abu Bakr of the Middle East also ordered against the felling of trees. In the thirteenth century, King Edward I attempted to solve London's pollution problems. However, the industrial revolution which began mainly in the west, led to environmental degradation on a large scale, and this should have led to major environmental concerns. However, such concerns did not manifest themselves until much later, and even to this day, many people, particularly older people, discount or whitewash the human ecological footprint on the environment.

Ralph Waldo Emerson and Henry David Thoreau also generated some environmental awareness. In the early part of the nineteenth century, Alexander von Humboldt managed to generate some environmental awareness. However, in the latter part of the nineteenth century, George Perkins Marsh and others led awareness generation on human-induced pollution. John Muir and his founding of the Sierra Club also managed to generate some awareness on environmental matters. Alfred Newton and others set in motion the process of wildlife conservation on a large scale. The modern field of environmental science gained momentum and widespread popularity after Rachel Carson's published her book "Silent Spring" in 1962, which exposed the harmful effects of pesticides. This, along with growing concerns about pollution, led to the establishment of environmental regulations in many nations such as the Environmental Protection Agency in the USA, and the climate change and biodiversity loss became major areas of concern. This led to the passage of the Clean air act and the Clean water act in the USA. International Panel on Climate Change (IPCC) was founded in 1988 to address the growing concerns about climate change. Al Gore and Rajendra Pachauri also won awards for their efforts to protect the environment. Several summits such as the Rio Summit and the Stockholm conference were organized. The Montreal Protocol to prevent Ozone-destroying materials, and movements to protect Antarctica also widely seen as successful. In Africa, Wangari Mathai launched the green belt movement. Many countries also teach environmental matters in schools. This is a short history; we had written much more on the history of

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

environmental movements, and readers may refer to our previous publications. [1] [2] [3] [4]

➢ *What is Global Warming?*

Climate change as we understand it today, includes aspects such as global warming—current increases in global average temperatures, as well as previous increases —with larger and deeper long-term effects and consequences. This is also caused by increases in carbon dioxide levels which have increased by fifty percent since the dawn of the industrial revolution. Climate change is unquestionably driven by human activities such as fossil fuel consumption – particularly coal, diesel and petrol, the rapid rise of which began as a part of the first and second industrial revolutions. These release harmful greenhouse gases into the atmosphere, and many of these damage the Ozone layer as well. Many other human activities such as meat consumption and agriculture, livestock and dairy are also extremely damaging to the earth's atmosphere – and there are no easy solutions to all these problems. Even electric cars and hydrogen vehicles do have a (smaller) ecological or carbon footprint, and carbon capture and sequestration techniques are impractical and unviable to say the least. Unchecked population growth also causes deforestation and desertification. That is why unbridled pronatalism and environmental responsibility are incompatible twins. We must not fall prey to capitalists such as Elon Musk. We must not adopt copy paste scholarship – different countries have different ground realities – that is why copy paste scholarship can be extremely dangerous.

According to the World Health Organization calls climate change one of the biggest threats to global health in the twenty-first century, and this will not only lead to severe and irreparable damages to ecosystems but will also adversely impact human populations as well and their well-being. Green house gas emissions will naturally sharply rise with increases in standard of living, which are inevitable, and which most countries around the world want to pursue at any cost. This is sometimes associated with respectability, and many countries in Asia, and increasingly in Africa and other places, want to counter or break western hegemony. We must also go on to state that poor people damage the environment less than rich people, and poor nations also consequently damage the environment less than wealthy and affluent ones. Global warming is a reality, not a myth, and the recent few years have been the hottest ones on record. Some experts even warn that the earth's mean temperature levels could rise by as much as 2.8 degrees Celsius by the end of the twenty-first century. This has led to widespread support for the environmental movements worldwide with the exception of some conservative American Republicans. Terms such as conservative and progressive must be promptly jettisoned by other countries as they have little relevance there; this is also in keeping with the ideals of our globalization of science movement.

We have made plenty of progress, though. Coal is being rapidly phased out, and petrol and diesel are also on their way out. Wind, solar, ocean wave power, and hydroelectric power are expanding fast. Afforestation is on the rise in many places. However, we are slow in addressing the issues with plastic and wood consumption. Also, since, western countries already have low birth rates, they do not want to adopt antinatalist policies. On the contrary, fertility rates in Subsaharan Africa are extremely high – with Niger being the highest. Nigeria, a country with a high population bases has an alarmingly high TFR. So do Yemen, Afghanistan, and to a lesser extent Philippines and Iraq. Fertility rates in Sub Saharan Africa are falling very slowly. We cannot prevent individuals and people from pursuing and chasing better life styles for their families. This is but human nature. That is why "socialist" solutions for environmental problems will eventually fail. Let populations fall naturally, and let us put alternative solutions in place. Anti-natalist movements may still be required in places such as Africa, and parts of Asia such as the Gangetic plains. As always, a case-by-case approach is required. Not one size fits all approaches are even possible. Different nations have different population densities, and different nations have different natural resource endowments. Concepts such as circular economy and human trusteeship of the planet principle must be popularized as quickly as possible.

III. GLOBAL WARMING HOTSPOTS

Global warming hotspots refer to regions (or in some cases, nations and countries) that are experiencing disproportionately or alarmingly high rates of temperature increases with attendant climate change consequences, exceeding impacts faced by other nations to a very large extent. These hotspots are usually identified based on a combination of various factors, such as an increased temperature levels, increased desertification levels, and increases in frequency and intensity of extreme black swan weather events. Specific hotspot regions include the Arctic, the Amazon Rainforest, the Indonesian archipelago, parts of Africa and the Mediterranean region. India too sits on a global warming hotspot, along with China. Global warming hotspots must be constantly identified as the list must be a dynamic, and by no means a static one. North of India, the Himalayan glaciers in the Hindu Kush region (such as the Gangotri glaciers) are also melting at an alarming rate. This phenomenon threatens the livelihoods of millions given the fact that the Ganga, Yamuna and Bramhaputra provide nourishment and livelihoods to hundreds of millions of people. Problems such as the desertification of the Thar Desert will increase if population increases unchecked. Increased population growth will also put an end to meaningful environmental programs, and even deplete ground water levels at an increased rate.

[1] McCallum, M.L. & G.W. Bury (2013). "Google search patterns suggest declining interest in the environment". *Biodiversity and Conservation*. **22** (6): 1355–1367

[2] Morrison, Denton (September 1986). "Environmentalism and elitism: a conceptual and empirical analysis". *Environmental Management*. **10** (5). New York: 581–589

[3] Neil Paul Cummins "An Evolutionary Perspective on the Relationship Between Humans and Their Surroundings: Geoengineering, the Purpose of Life & the Nature of the Universe", Cranmore Publications, 2012.

[4] McCallum, M.L. & G.W. Bury (2013). "Google search patterns suggest declining interest in the environment". *Biodiversity and Conservation*. **22** (6): 1355–1367

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

We need epistemic coherentism at all times; we need long-term approaches; we need global yet region specific approaches. We need tradeoffs; we need prioritization; we need optimization; population-related issues are still pursued in a western-centric fashion; that is why we have launched the globalization of science movement, and have been running it successfully for twenty years. What is meant by long-term? Long-term may even require thinking in terms of hundreds or even thousands of years; that is why we have been promoting terms such as aeternitism and omnimodism. What are worst-case scenarios? A worst-case scenario refers the most unfavorable outcome that could realistically occur in a given situation. We need worst-case scenario-based planning. As the popular adage goes, hope for the best, but be prepared for the worst. We must be prepared for all scenarios and outcomes. Only such approaches can save mankind in the long-term and save him from impending doom and catastrophe. [5] [6] [7] [8] [9]

➢ *What is Environmental Planning?*

Environmental planning as a structured process aims to tightly integrate environmental considerations into processes of decision-making in aspects such as land development and resource management. Environmental planning also needs to be closely intertwined with population management; however, this has not been done for the most part. Environmental planning also involves balancing human needs with the latent capacity of the larger environment to sustain those needs in the long-term. It therefore seeks to ensure and postulate a sustainable relationship between development and the environment. Key aspects of environmental planning includes an integration of social, cultural and economic factors, a holistic and a well-knit approach, the adoption of sustainable development models, proper resource management strategies, the prevention of environmental degradation, etc. Environmental planning needs to be performed at a grassroots level for it to be successful; however, overarching concepts and frameworks need to be borne in mind. We also need context-based planning and situation-based planning. What is situation-based planning? What is context-based planning? Context-based planning is an approach wherein planning and decision-making processes are made on the basis of the specific circumstances of a case. This may also be a particular context, or a situation. We must also focus on the "here and now" more than anything else, while encouraging and promoting research as a global level. Localized issues must also be carefully separated from non-localizable ones.

There is a difference between a context and a situation that we must bring out here. A context is more permanent and relatively non-changing, while a situation is generally impermanent and fast-changing. We must also always base decision making based on data; many nations with relatively low birth rates are doing relatively well for themselves, while Subsaharan nations with sky high TFR's are performing poorly, if not abysmally. We need logic and reasoning in addition to tradeoffs, prioritization and optimization. Logic and reasoning must flow smoothly like butter, and override everything else in the process. Statements such as "experts", "warn" and "latest", are totally superfluous and unnecessary. The more Eurocentric or ideology-centric a researcher is, the more oblivious he is to reality. The more Eurocentric or ideology-centric he is, the less he has his eyes and ears to the ground. In such a case, even a non-expert can beat him hollow. Such ideologies may even override his common sense. Copy paste scholarship exists in India because of the poor quality of the education system there. Students are not taught to critically think. These are all serious issues, and serious matters because each generation builds a base upon which succeeding generations are built. As August Comte once said, "Demography is destiny". There is also a documentary by the same name, and this was screened the Tata Institute of Social Sciences recently. [10]

IV. POPULATION MANAGEMENT

We had written extensively about population management in the recent past. This includes a book, and several papers. We had also proposed that relatively low fertility rates could lead to an "Evergreen demographic boon" given the fact that parents with less number of children tend to lavish more care and attention on their children and raise them better. Relatively low birth rates will also provide governments with a greater incentive to improve education systems. It may also provide researchers with a greater incentive to improve pedagogical research, and generate better theories. Also there are several options to deal with relatively lower birth rates such as immigration, outsourcing, offshoring, automation, robotics, the silver dividend and the gender dividend, besides a couple more. We had discussed all these previously in our ebook. Of course, all research must be data-driven and ethnography-driven, in addition to it being context-driven and situation-driven. Also, attempts to artificially boost birth rates have almost never worked till data. At best, they have produced fleeting and ephemeral results with marginal increments. Besides, such measures may boost the supply of unskilled labour in countries such as India, and the poor may tend to beget more children. India's economic model is also different from that of the USA, as it is not entirely consumption-driven. India's pension and social security system is also different from that of the USA, all these differences needed to be factored in all the time in any analysis. We will now attempt to demonstrate why measures to boost fertility rates artificially have failed utterly for the most part, all across the world. We must therefore treat low fertility as the new normal, and proceed accordingly. Root cause analyses must also be performed at all times, and independent, dependant or intervening variables defined as a part of a qualitative or a quasi-statistical study. Logic and

[5] Adams, Simon; David Lambert (2006). *Earth Science: An illustrated guide to science*. New York NY 10001: Chelsea House. p. 20

[6] Allaby, Michael, and Chris Park, eds. *A dictionary of environment and conservation* (Oxford University Press, 2013), with a British emphasis

[7] Jamieson, Dale. (2007). "The Heart of Environmentalism". In R. Sandler & P. C. Pezzullo. *Environmental Justice and Environmentalism*. Massachusetts Institute of Technology Press. pp. 85–101

[8] Johnson, D. L.; Ambrose, S. H.; Bassett, T. J.; Bowen, M. L.; Crummey, D. E.; Isaacson, J. S.; Johnson, D. N.; Lamb, P.; Saul, M.; Winter-Nelson, A. E. (1997). "Meanings of Environmental Terms". *Journal of Environmental Quality*. **26** (3): 581–589

[9] Smil, V. (2000). *Cycles of Life*. New York: Scientific American Library.

[10] Gunder, Michael (2003). "Passionate Planning for the Others' Desire: An Agonistic Response to the Dark Side of Planning". *Progress in Planning*. **60** (3): 235–319

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

reasoning may also vary in social sciences research (we had discussed this concept previously given that this is an extremely important one) and different people, and people in different parts of the world may think differently, and reason differently. This approach is somewhat alien to the non-social sciences, though it must be integral to the social sciences.

Some suitable examples where pronatalist policies have not worked We now provide some examples below as of the year 2025. South Korea's Total Fertility Rate is currently the lowest recorded worldwide, now said to at around 0.68 children, significantly below the replacement level of 2.1 children per woman. While minor rebounds have been noticed, the situation remains largely unchanged. Populations are expected to age, shrink, and even halve by the end of the present century. Pronatalist policies have also not helped significantly. Japan's TFR is much higher than South Korea's, at around 1.2 children per woman, though it is also rapidly ageing. Pronatalist policies in Japan have largely failed for several years. The causes of low fertility may however vary on a case-to-case basis, and ethnography-driven and data-driven research is required as each case may be different. China's TFR currently hovers at the one child woman mark. China once has a one child policy which was revised to two, and then three children per woman. Pronatalist policies such as baby bonuses, and maternity leave (even paternity leave) are barely helping. TFR's in Macau, Taiwan and Singapore are below one child per woman, and even Thailand and Malaysia are now below replacement. The same is the case for Europe, and among all European nations, Italy and Spain are the lowest. The TFR in USA has tended to buck the trend, though it is now falling. The TFR in Canada is lower than the USA, though it is now flooded by immigrants, particularly Indian ones. The TFR in Australia, and the TFR in New Zealand are low too, and are well below replacement, just as they are below all developed countries, and many developing countries. Many nations have therefore been trying out pronatalist policies for years, sometimes even decades with limited to no success. [11] [12]

- *What is the Way Forward?*

So what is the way forward? We have had many successes in the environmental movement as discussed in our previous papers and publications, and earlier in this one. We will be faced with the problem of expanding per capita footprint for a long time, perhaps even forever. This would of course depend on how technology progresses and matures. We may or may not reach a carbon-neutral economy by 2070, but we will remain a nuisance for the environment for a long time to come, perhaps virtually forever. Need new metrics and measurements both in population management and in environmental management, and in relation to these two put together. We particularly need new metrics and measurements for India and other developing countries. This may be a time-consuming process, but it must be done. For example, we may measure changes in population tendencies, population densities in relation to natural resources endowments, TFR by sociocultural groups, TFR by socioeconomic groups, TFR for occupational groups, TFR based on income levels, TFRs based on parents' educational attainment, correlation (positive or negative) between TFR's and parents' ability to educate their children.

The natures of economies are also not exactly the same worldwide. For example, India is not a primarily consumption driven economy like the USA, and even Japan is different from the USA. Likewise, South Korea is different from Japan. In India, we have plenty of reserve labour particularly of the unskilled variety which will keep it growing for a long time to come. However, internal migration within India may be an inevitability. In India we have chronic underutilization of labour and chronic underemployment (disguised and shadow unemployment) which is a huge untapped reserve for future economic growth. We also have poor-quality education in India, and improving the quality of education on the lines we have been discussing all along, will greatly improve economic outcomes, and expand economic opportunities for its citizens. We have crowded cities and crumbling infrastructure in India and all these must be borne in mind as well. The impact of better education on resource consumption patterns, and the impact of increased consumption on the environment also need to be understood. The impact of different TFRs on different types of economic activities and wealth creation patterns also likewise needs to be understood. All these need to be evaluated scientifically, and on a case-to-case basis through better ethnographic methods. We need scientific method, proper epistemology, and epistemic coherentism. There can be no one size fits all approach, and we must be aware of the dangers and limitations of copy paste scholarship. Synchronic diachronic analysis must also be performed wherever possible. Studies may be required on the impact of low birth rates on different types of economies and studies may be required on the impact of affluence on the environment. A negative correlation must be established between population growth and the impact on the environment. Success stories must be studied and replicated. For example, Tamil Nadu has been doing well in spite of a low birth rate.

- *We also Propose to Categorize Activities (for the Purpose of any Environmental Study, and Particularly in Relation to Populations, though not Always) into the Following three Categories:*

- *Type A Activities:*

Type A activities may refer to those activities whose effects we may counter or significantly mitigate though scientific progress, or existing and anticipated technology. For example we may do away with fossil fuels completely and switch to electric propulsion, hydrogen vehicles, wind and solar energy. Nuclear energy too holds some promise, though it is not without its attendant dangers. We may therefore achieve a carbon neutral economy in due course, say by the year 2070. In such a case, metrics and measurements are also easy to develop and use. This might

[11] Craig, J (1994). "Replacement level fertility and future population growth". *Population Trends* (78): 20–22

[12] Kligman, Gail. "Political Demography: The Banning of Abortion in Ceausescu's Romania". In Ginsburg, Faye D.; Rapp, Rayna, eds. *Conceiving the New World Order: The Global Politics of Reproduction.* Berkeley, CA: University of California Press, 1995 :234–255. Unique Identifier : AIDSLINE KIE/49442

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25aug764

pose no dangers at all. We might claim victory here for the time being.

- *Type B Activities:*

Type B activities include activities such as agriculture, livestock rearing, fishing and poultry farming. These activities are directly related to human consumption, but are relatively difficult to control and measure. Technological progress will be limited here, though some is indeed possible. For example, drip irrigation and organic farming may help to some extent and degree. The negative impacts of these activities will therefore increase more or less linearly with increases in population, including due to increases in land requirements. However, they may not increase linearly with affluence. This is because of the income elasticity of demand, a cornerstone of traditional and classical economics. Rich people tend to splurge more money on other goods, and this will have different kinds of impacts on the environment.

- *Type C Activities:*

Type C activities refer to indirect activities whose expansion will be curtailed or derailed with expansions in population, though not directly. These cannot be easily or directly measured to increases in population. For example, population increases may curtail afforestation efforts, as more agricultural land will be required as well as more land for housing. Even if we adopt vertical growth models, ground water restoration will be impacted. Population growth will naturally lead to desertification, and encroachment of deserts on human habitats, though not uniformly in all places.

Therefore, from the above analysis we can easily infer and understand that humans will never be able to live in perfect harmony with the environment. We may at best make some progress. Countries may not be able to raise their populations through artificial mechanisms as these will mostly fail. Our best bet is to improve the quality of education systems – as these will greatly boost economic growth. However, even this may have some negative impact on the environment. The effects of this will gradually be countered as populations begin to decline. We have had metrics such as environmental footprints and ecological footprints in the recent past. We must gravitate towards consumption analysis-based models in environmental studies, sooner than later. The sooner, the better.

V. CONCLUSION

The objective of this paper was to throw further light on a hot-button topic, namely population management, and to explain why context and situation-based approaches to population management would indeed be required. We also stressed and emphasized the need to integrate population management frameworks with sustainability and environmental management frameworks. In sum, no one size fits all approaches would ever be possible we concluded, and there would be many different ways to address shrinking and declining populations as we had previously discussed. Low populations may not therefore be a veritable catastrophe as it is in the case of entirely consumption-driven economies such as the USA. India is ten times more densely populated that the USA, plus it sits on a dangerous global warming hotspot. There is plenty of reserve and underutilized labour in India, plus chronic underemployment which must be differentiated from unemployment. Indian cities are also congested and bursting at their seams due to population pressure. Measures to boost fertility rates through artificial means have virtually failed in every part of the world. Therefore, we argue and believe that improving education systems and leveraging human potential is the only viable and feasible approach. We also referenced all our previous publications on education and pedagogy to draw attention of planers towards the urgent and unmet need for pedagogical reform.