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# SUSTAINABILITY FILTERS AND ENHANCERS TOWARDS IMPROVING INTERVENTION FUNCTIONALITY AND SUSTAINABLE ADVANCEMENT AS A MORE HOLISTIC CONCEPT

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**ABSTRACT:** *In a continuously increasing population situation in the world, non-renewable resources cannot be used sustainably forever, no matter how much frugality is applied since the resources involved are finite and would be exhausted one day. This article proposed that at the micro level, interventions should be reviewed from two perspectives: conditional requirements, I have called sustainability filters and others that will enhance sustainability and functionality, which I have called sustainability enhancers and these issues be considered before intervention decisions are made. It also explained other interrelated factors to be considered at the macro level. The article tried to bring out the interrelationships between peace, development, violence and pollution and graphically showed that no sustainable development can take place without peace. Finally, the article proposed a shift from the constraining mentality, mainly based on population pressure and frugal utilization of resources/attitudes to greater focus on science and technology towards continual reduction of input requirements to achieving greater outputs and utilizing greener alternatives or renewable resources (sustainable advancement), so that the impending world population crisis can be better managed for posterity.*

**KEYWORDS:** Sustainable Development Goals (SDGs), Sustainable Development, Sustainability Filters, Sustainability Enhancers, Sustainability Advancement,

## INTRODUCTION

### The Concept of Sustainable Development

United Nations World Commission on Environment and Development published the report *Our Common Future*, commonly called the Brundtland Report in 1987 which contained the commonly used definition of sustainable development as follows:

> **"***Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*
> *· The concept of 'needs', in particular, the essential needs of the world's poor, to which overriding priority should be given; and*
> *· The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.***"**

— *World Commission on Environment and Development, Our Common Future (1987)*

Sustainable development can equally be described thus:



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> *"Sustainable development is the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depends. The desirable end result is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural systems."*

The modern concept of sustainable development was largely obtained from the 1987 Brundtland Report though the concept had been applied at lower scales in individual efforts like as it was used in sustainable forest management and in the environmental concern initiatives of the twentieth century. The concept later expanded into considerations for economic and social development issues.

Non-renewable resources cannot be used sustainably no matter how much frugality is applied since the resources involved are finite and would be exhausted one day.

Sustainable development had since then developed to include socially inclusiveness and environmentally sustainable economic growth. It is for this reason that the Agenda 21 for sustainable development added information availability as a necessity for development, integration of all environmental and social concerns into all development interventions and broad based participation of all affected to be involved in decision making as critical success factors for adoption by nations.

**Sustainable development goals:**

By September 2015, the United Nations General Assembly had adopted the "universal, integrated and transformative" 2030 Agenda for Sustainable Development, a set of 17 Sustainable Development Goals (SDGs). The goals are to be implemented and achieved in every country from the year 2016 to 2030.

René Passet in 1979 had proposed sustainable development to be based on three components of the environment, the economy and society. However, others subsequently included culture, institutions, governance, equity etc.

The Sustainable Development Goals (SDGs) is a set of 17 "Global Goals" with 169 targets being facilitated by the United Nations. Is a broader intervention than its predecessor the Millennium Development Goals. The philosophy behind SDGs is rooted in the quote of the previous United Nations Secretary-General Ban Ki-moon "we don't have plan B because there is no planet B"

The 17 SDGs with 169 targets cover many sustainable development issues including ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change, and protecting oceans and forests.

Below is the list of the 17 SDGs:

Source: http://www.ng.undp.org/content/nigeria/en/home/post-2015/sdg-overview.html

The SDGs are listed below:

1. No poverty



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2. Zero hunger
3. Good health and well-being
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice and strong institutions
17. Partnership for the goals

The primary concern of this article is the need to discuss how to apply sustainable development principles in order to achieve sustained advancement in every nation and organizations.

**Sustainability Filters and Enhancers**

I have developed two concepts which I believe all developmental projects should be subjected to at the conception phases.

The first one discussed some sustainability filters and enhancers that interventions must be subjected to and the fact that there are three categories of such interventions. By this statement, interventions can essentially be grouped into three categories:

- Those that are undertaken principally to raise revenue though boosting employment is inevitable e.g. establishment of industries or export crop farms.
- Those established primarily to provide a social service e.g. establishment of schools or hospitals
- And those to achieve both objectives, for example, transport business



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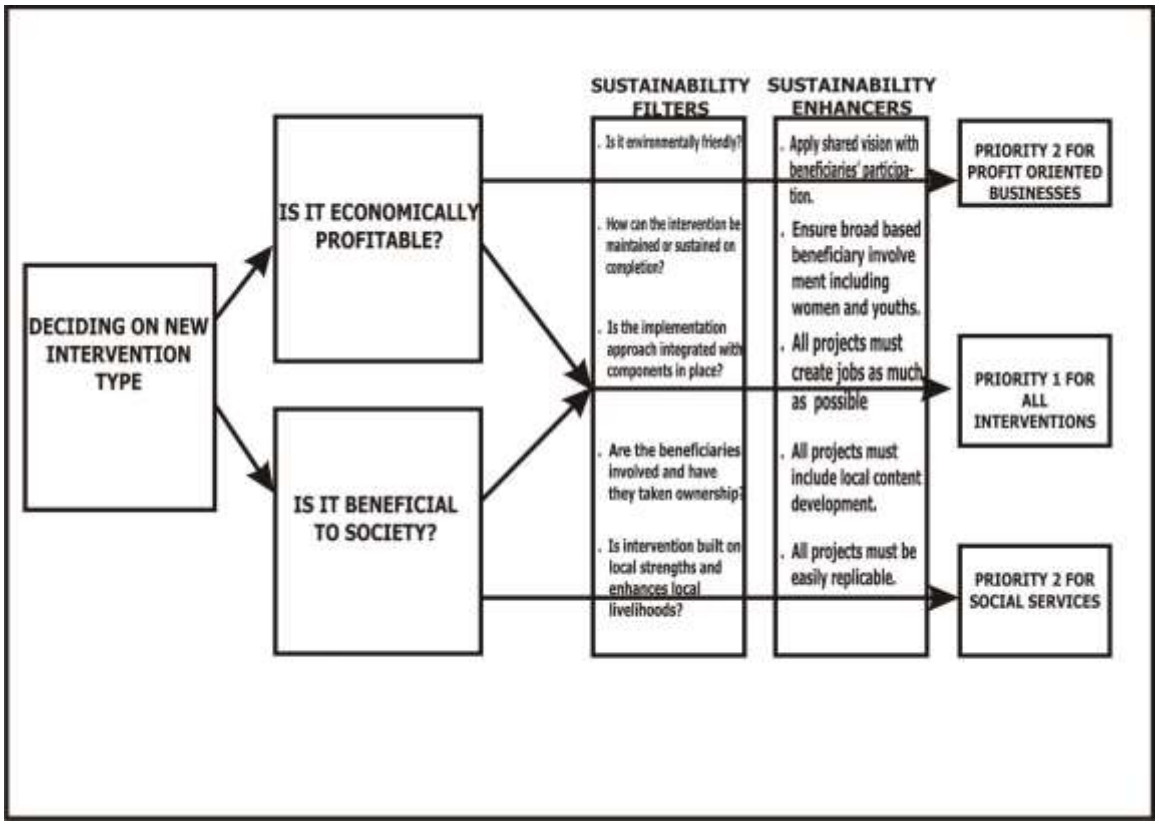
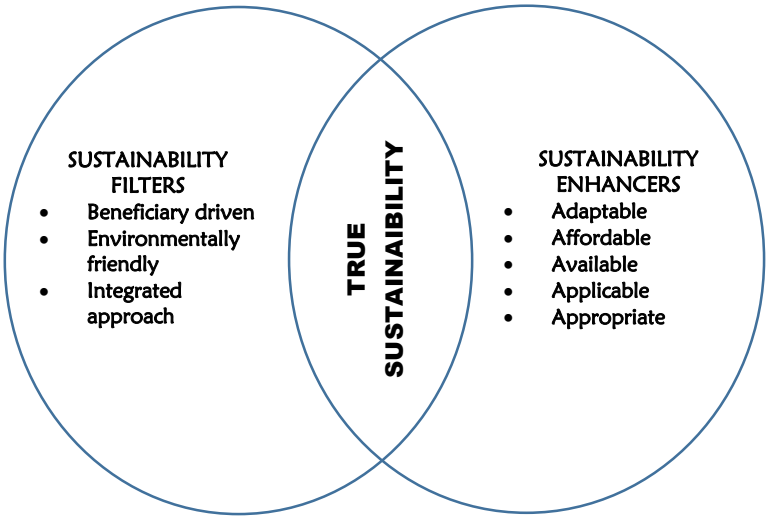



Another perspective to look at sustainability of proposed interventions




It is important to subject every new developmental intervention to two sets of criteria:

1. Sustainability Filters
2. Sustainability Enhancers



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Sustainability criteria examines issues that would enhance project or intervention success after implementation, be it a cassava processing factory, a new classroom block for a school, electricity producing generator for a community, a potable water scheme etc.

The first set of questions (**Sustainability Filters** which are critical factors that must be considered before an intervention can be considered sustainable) will assess if the proposed implementation process for the intervention will take care of the following:

1. Ensure the participation and involvement of the target beneficiaries in the planning, implementation and management of the project.

2. Ensure that possible health, safety, social and other environmental impacts of implementing the intervention have been evaluated and mitigation measures put in place towards addressing implied negative impacts.

3. Ensure that the intervention has considered all the critical success factors in holistic manner and is using integrated and coordinated approach both at the supra-system (system and its external environment) and sub-system or intra-system (system and its internal environment) levels.

The other set of questions **(Sustainability Enhancers** which are factors when present make interventions more sustainable**)** are aimed at assessing and addressing the following which I have termed the 5 As (Adaptable, Affordable, Available, Applicable and Appropriate):

1. **Adaptable:** Intervention should be easily modifiable and usable in other circumstances that beneficiaries may be exposed to. Interventions that can be easily replicated will be more easily mass-adopted.

2. **Affordable:** Intervention should be cheap enough to attract more investors and ensure mass production, replication and adoption.

3. **Available:** Interventions should be available if others want to replicate it and spare parts also available. You need to assess if the people will be able to secure spare parts to maintain the project on completion.

4. **Applicable:** Interventions should be able to effectively resolve and address the developmental problem that it intends to address. It should be relevant to the needs of the people.

5. **Appropriate:** Is the technology relevant to the level of development of the beneficiaries? For example, it will not be useful providing a public water scheme whose source of power will be from the national electricity grid and if there is no constant electricity supply in that location. An alternate power source must be built into the project to make it functional. Beneficiaries need to understand how to operate the intervention and if not it is important that their capacities are built during and after the implementation of the project.

Based on the above, an intervention that has considered both the sustainability filters and sustainability enhancers is more likely to be truly sustainable and functional.



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**Sustainable development at a Macro Level**


***The figure above tries to explain four interdependent critical factors (Peaceful society, unpolluted environment, wisely managed resources and controlled human population) and that together they enhance sustainable development.***

The interplay of these factors results in varying outcomes as shown in the figure:

A society where all the factors are under control has enabled environment for effective sustainable development.

- Effective interplay of pollution free eco-system with well managed resources will enhance a thriving ecosystem and well protected biodiversity.
- Pollution free eco-system with communities that are not at war means that such societies are peaceful.
- People that manage their resources and control their human population will not suffer lack.
- Societies that are not at war and control their human population growth will have adequate amenities for its citizens.

At the inner level the following can again be deducted:

- People that are at peace and have adequate social amenities will normally experience satisfaction.
- On the other hand, people experiencing peace and also have undisturbed environment will be in harmony with nature.



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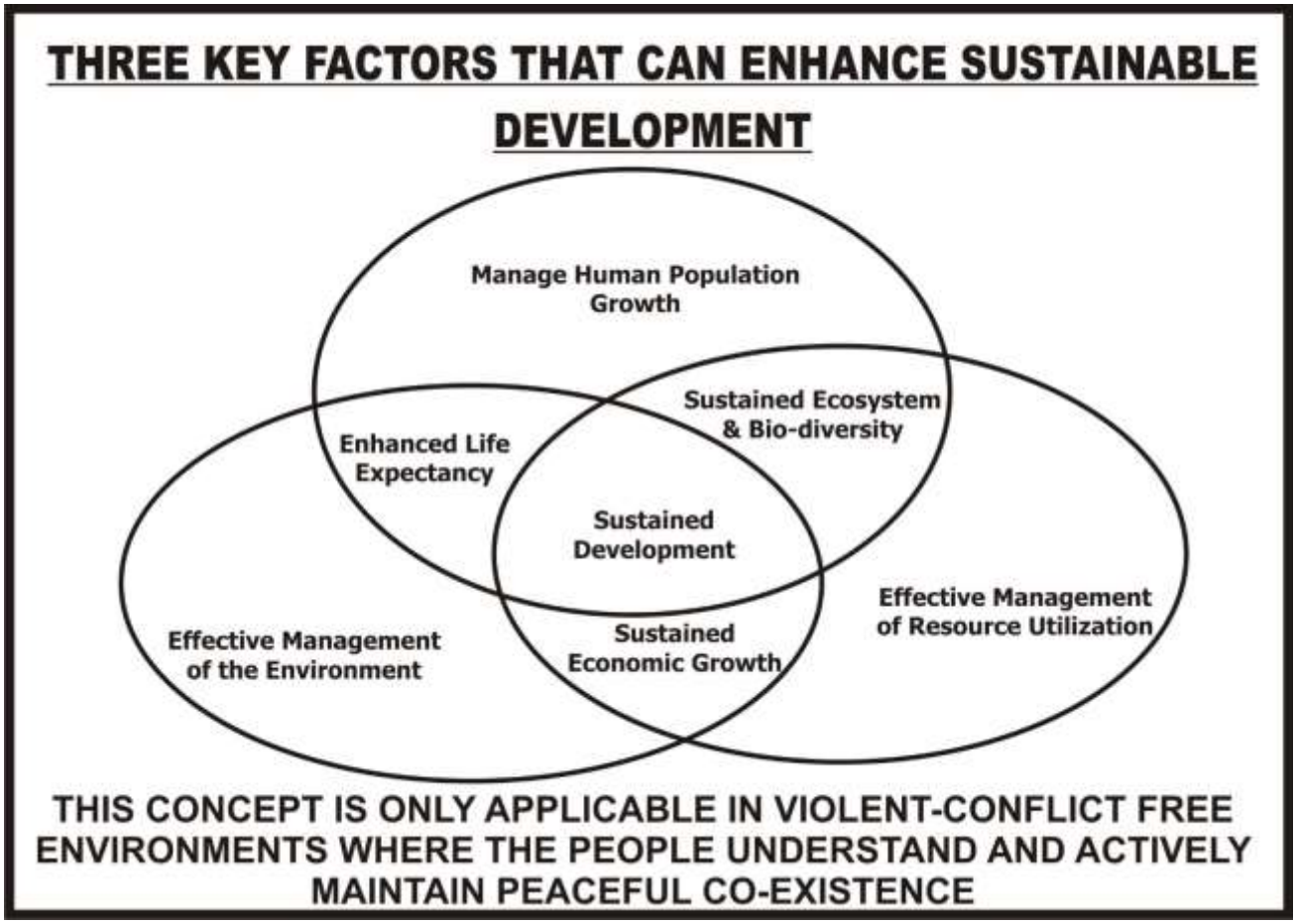
- While those with adequate resources and unperturbed eco-system will continue to have adequate resources for their use.
- People with adequate resources and adequate social amenities will have better quality of life.

Finally, the core message of the concept is that satisfied people, enjoying good environment, good quality of life and having adequate resources will obviously enjoy sustainable development.




***The above figure tried to explain the benefits of sustainable development but this time using three critical factors on the assumption that the forth factor (Peace) is given as being in place.***



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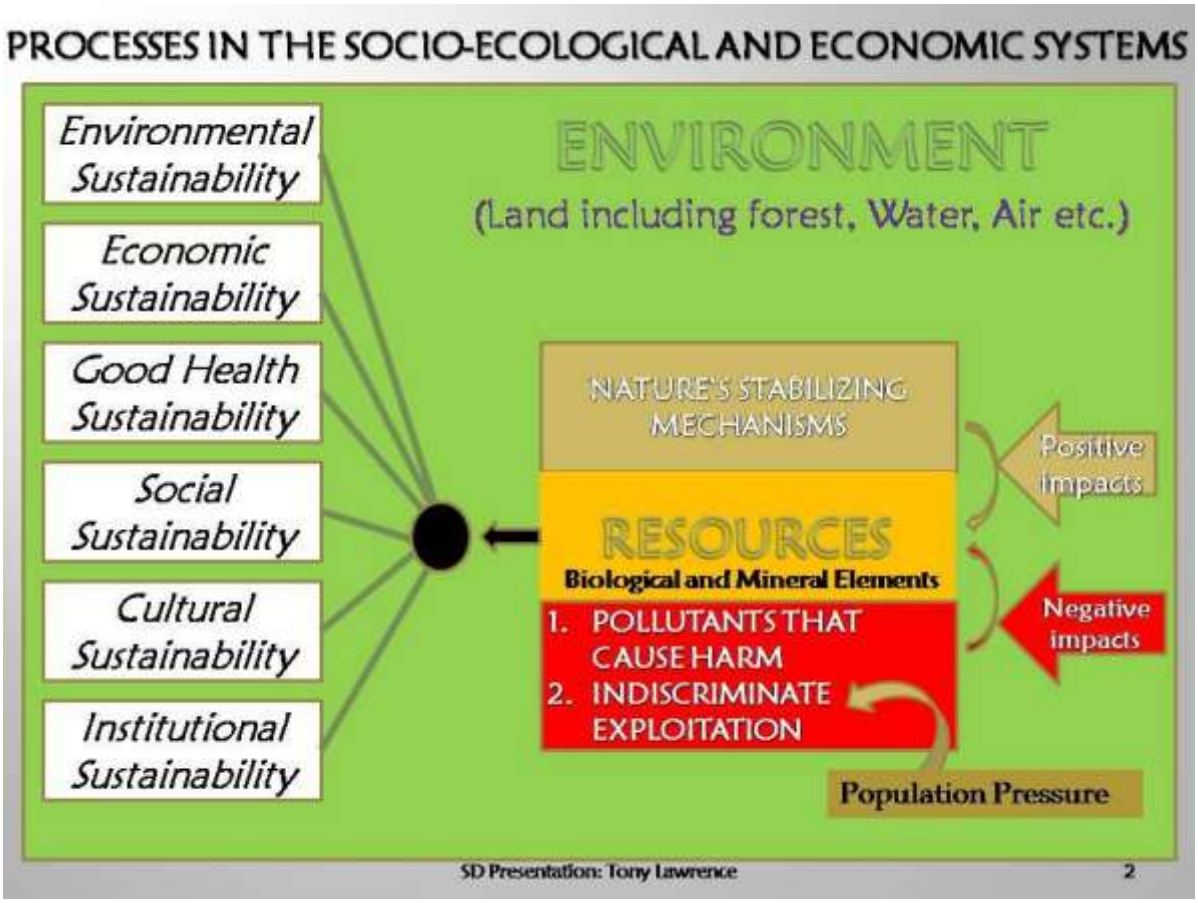


***As shown in the above figure, sustainable development is a holistic approach in managing resources so that their exploitation does not negatively affect any aspect of the system.***

It involves dynamic and integrated management of environmental, economic, health, social, cultural and institutional sustainability. Living and renewable resources have to be managed in a way that they are within their carrying capacities to avoid deterioration in their individual systems as well as total ecosystem. Equally non-renewable resources have to be frugally and responsibly exploited so that they serve for as long as possible.

The proactive thinking of how to innovate and actually use technology to reduce consumption and achieve minimal exploitation of non-renewable resources and also identify renewable substitute is outside sustainable development.

Combining the two aspects of sustainable development and technology is what I have called sustainable advancement.

**The concept of Sustainable Advancement**

Sustainable advancement is centered on the human being and since he cannot exist in isolation, it also looks at the total ecosystem in harmony with man.

Sustainable development as a concept has been around for a long time but unfortunately most people just regard it as a buzz word that has no relevance to their everyday life. Recent happenings in the world however are making people now want to understand the implications of living without adequate care of the environment and other life-support resources. There are



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now many incidences of very aggressive hurricanes that behave as if they have scores to settle with humanity. There is massive air, water and land pollution that is reducing life expectancy. Sea level is rising with the continuous melting of the polar ice and many lowland islands in the world have been submerged. With global warming, some tropical disease vectors are now gradually seen at the fringes of our temperate neighbours. With the evidence of progressive depletion in the ozone layer and the attendant increase in the penetration of the ultra violet rays, I will not be surprised Ultraviolent radiation is not one of the actors contributing to the increasing incidents of cancer among human beings. We are equally destroying nature's resources to meet out selfish and immediate wants and we are populating the world in a way that soon the earth cannot take care of the excessive population of human beings living in it.

John D. Shutter of CNN in a report Sixth titled "mass extinction: the era of biological annihilation" stated that three quarters of all species could disappear in the coming centuries. He reported the work of a number of scientists published in the Proceedings of the National Academy of Sciences. Gerardo Ceballos, an ecology professor at the Universidad Nacional Autónoma de México, and his co-authors, that nearly one-third of the 27,600 land-based mammal, bird and amphibian and reptile species studied are shrinking in terms of their numbers and territorial range. The researchers called that an "extremely high degree of population decay.

The scientists equally stated that all of 177 mammal species had at least lost 30% of their territory between 1900 and 2015; and more than 40% of them had experienced population declines.

Another way to look at it is that the homes of most wild species which account for the vast number of organisms are the natural vegetation and these vegetation are being cleared annually for human use.

This may sound theoretical and academic but life expectancy is reducing especially in developing nations where the greater impact of these things exist. Our forest buffers are going at an alarming rate, many species of life in the oceans, forests and everywhere have gone extinct. This is the true reality of life and we should not be afraid that one day humanity will go extinct too as the Dinosaurs have done. Apart from these enumerated issues, man will obviously accelerate the demise of humanity with the continuous stockpiling of nuclear bombs by some who think that possession of nuclear weapons gives them power and respect. Man is indeed a foolish being and all our knowledge, scientific inventions and ingenuity have made us even more foolish, proud and arrogant. The way things are therefore, it is man that shall make mankind extinct.

Sustainable development which the world through the UN and others are facilitating has culminated in the adoption of Sustainable development goals and associated targets.

I am however of the opinion that at this point, sustainable development may not be exactly what we want. While it should not be disregarded I think we want a more holistic and a less restrictive concept that gives greater attention to technology and science. A concept that would allow each and every one of us to think outside the box ensuring the continuous existence of mankind on earth.

I therefore propose a new concept which I will like to call SUSTAINABLE ADVANCEMENT



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Sustainable Advancement looks at the issue from a more holistic perspective (an integration of sustainable development and targeted scientific efforts to radically improve the system) and it is based on some of the following premises and reasoning;

1. Mankind is a critical factor and is contributing more than other living being in the eventual destruction of humanity and nature. We are destroying the forest systems and polluting our water bodies with gaseous, liquid and solid pollutants. These activities are adversely affecting biodiversity.

2. Overharvesting of any resource that is self-replenishing will result in down spiral in productivity and eventual extinction. This is accounting for the reduction of biodiversity along with pollution and direct destruction through other means.

3. New technology can improve productivity and enhance the continuous reduction of input items to get far increasing output and productivity. The implication is that, we will not over harvest resources to get work done or satisfy the needs of the teaming masses anymore. For example, if we improve the fuel energy consumption technology so well, we will require little or no fuel to drive our cars. If input reduces to get same or increased output, then increasing population on earth can be better managed.

4. While we fear resource depletion as is the case with fossil fuel for example, we must pursue technological progress which will find greener resources to do the same work or more. That way, the fossil fuel will no longer become useful to mankind and the associated pollution and carbon emissions will equally be eliminated. The implication of this concept is that technology can play a key role in reducing the negative impacts of living in none sustainable manner.

5. We must understand that while sustainable development is looking at how we can utilize resources in a way that it will be beneficial to us and future generations, sustainable advancement is not only looking at sustainable development but also other options that will finally eliminate that particular threat through invention of new and improved technology.

6. Sustainable advancement is not only looking at health, safety and environmental impacts of our activities, it also looks at how we must continuously improve our performances, efficiency and the best ways to get the best result in any activity we are involved.

7. Sustainable advancement, is also looking at economics, opportunity costs and investment components of every activity to secure the future.



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**The Relationship between Development and Peaceful co-EXISTENCE**

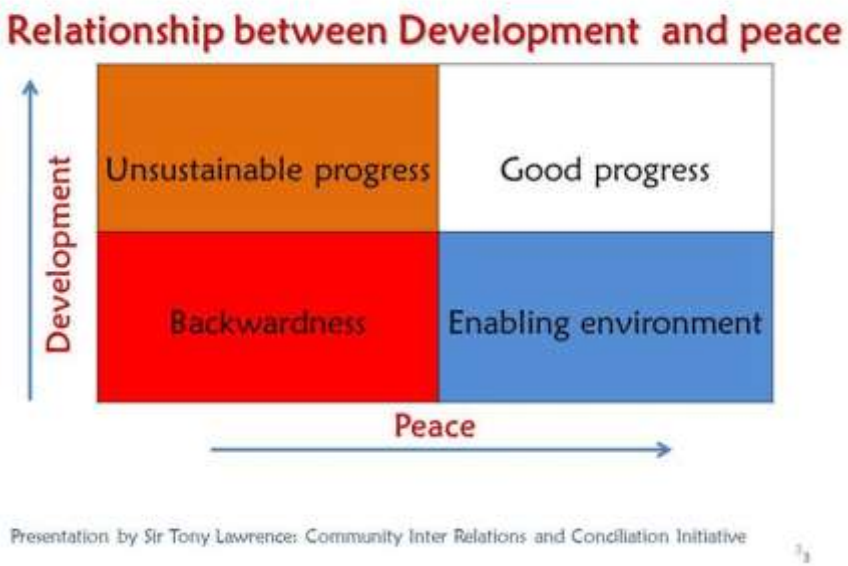


***Figure above shows positive relationship between peace and development.***

The best condition for sustainable development is when a community is experiencing the best condition of peaceful coexistence and harmony on one hand and having great developmental strides as shown in the top right quadrant above.

The next best condition is when the community is experiencing peaceful coexistence and without corresponding effort to develop themselves. Even if sustainable development will not be rapid, there is an enabling environment for growth and development as shown in the bottom right quadrant of the figure above.

The top left quadrant shows that if a community is developing rapidly economically, socially etc., implementing infrastructure and other amenities but if there is no peace then one single devastating war will destroy all the developmental efforts made and so such situation is not sustainable.

The worst situation as shown in the bottom left of the quadrant in the figure above is when a community is not experiencing peace but suffering violent conflicts and at the same time is not making enough effort to grow itself development wise.

One of the key issue that had been repeated several times in this book is the futility of sustainable development if war will precede efforts and destroy achievement and take us developmentally back several years. The figure above shows that peace is a prerequisite for development.



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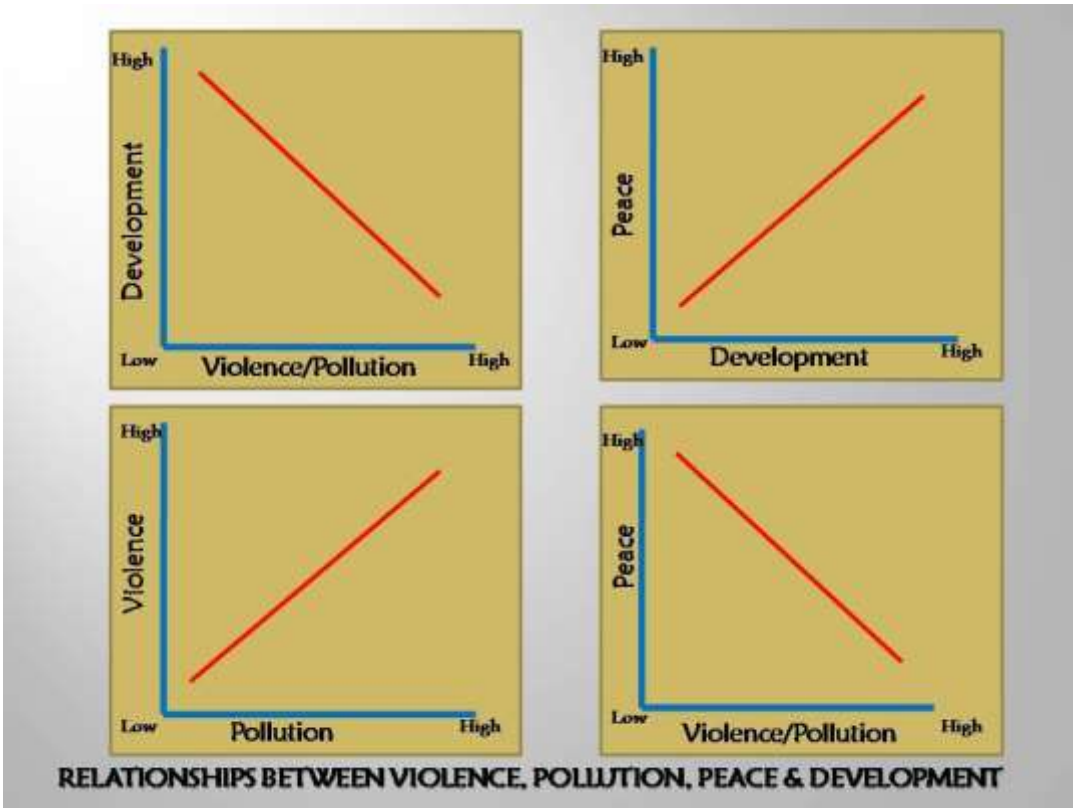


***The above figure on the other hand explains the relationship between development, peace and violence and describes pollution as a form of violence. It is clear that there are inverse relationships between development and peace on one side and violence and pollution on the other.***

## CONCLUSION

From the above it can be deducted that the application of the concept of sustainability filters will ensure that any proposed intervention on completion will be functional and sustainable. On the other hand the application of sustainability enhancers will further improve the functionality and sustainability of such interventions.

At the macro level, a drill down analysis is proposed to identify key problems to be addressed in any setting.

Finally the article attempted to advance a more progressive concept to sustainable advancement to move us out of this unsustainable sustainable development concept since most resources we are trying to utilize sustainably are finite and will eventually be depleted with the increasing population pressure.

## REFERENCES

http://anthonywakwelawrence.com/
https://www.facebook.com/Anthony Wakwe Lawrence



2053-2199 (Print), 2053-2202(Online)

http://www.ng.undp.org/content/nigeria/en/home/post-2015/sdg-overview.html
Mathew Boesler - Business Insider on the 8th of August 2013
This Day Newspaper of December 10 2016 cited the report of World Health Organization (WHO)
United Nations World Commission on Environment and Development 1987 report: *Our Common Future (— World Commission on Environment and Development, Our Common Future (1987)*



2053-2199 (Print), 2053-2202(Online)