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 **ASSIGNMENT:**

**“UN SUSTAINABLE DEVELOPMENT GOAL 9 -INDUSTRY, INNOVATION AND INFRASTRUCTURE**

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**UN Sustainable Development Goal 9: Industry, Innovation & Infrastructure**

**Introduction:**

The Conception of UN Sustainable Development Goals (SDG) was a follow up on the need to replace the UN Millennium Development Goals. On 25th September 2015, a process Led by the United Nations (UN) resulted in the 193 Member States adopting, 17 global Sustainable Development Goals (SDGs) seeking to end poverty, fight inequality and injustice, and tackle Climate change by 2030. The SDGs cover broad challenges such as economic inclusion, diminishing natural resources, geographical instability, environmental degradation and multifaceted impacts of climate change. They define the agenda for inclusive economic growth through to 2030 and were developed with inputs from businesses, Academia, and nonprofit organizations globally. The SDGs provide a universal and visionary framework for this global cooperation and action, bringing all stakeholders together to proactively address and solve these challenges. It is a universal call to action to end poverty, project the planet and ensure that all people enjoy peace, and prosperity.

Among the 17 SDGs, I shall attempt to address and analyze SDG 9 and find out why is this UN goals of Industry, Innovation and Infrastructure important, How is the state of these Industry, Innovation and Infrastructure in the World?, What Changes need to happen to Achieve Industry, Innovation and Infrastructure?, Why I think it is possible to achieve Industry, Innovation and Infrastructure around the world Or why not and how can education lead to a world with Industry, Innovation and Infrastructure.

**Sustainable Development Goal 9**

Sustainable Development Goal 9 seeks to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. These SDGs encompasses three important aspects of Innovation, Industrialization and Infrastructure. It is all about building the most sustainable future for everyone around the world. According to the UN, Industry, Innovation and Infrastructure are the three Main pillars of sustainable development. They are essential for business and therefore social and economic development. The UN goes on to explain that for example, every 1.1% of Jobs the manufacturing sector creates produces 2.2 % Jobs in other sectors of the economy. But this cannot happen until these three pillars of development are put in the proper and healthy place before it can achieve success. As countries build cities or develop economically, Global Goal 9 is meant to make sure that this happens in a socially and environmentally responsible way. It is to free community of all nations of the world from lack of basic needs and create an atmosphere of abundance without making the world harmful to all living things.

What then is my idea of Sustainable Development Goal 9?

***Infrastructure:*** It means creating a world without Jungle or Slums. A society of people with equal class and having equal access to all basic needs or where everyone has equal access to sustainable durable materials to build a safe, secure home in every location and environment, a world where everyone is accessible by equal standard of Road networks, Energy, Electricity, Transportation either by road, water or air irrespective of their geographical location in a healthy way or and where everyone can access, Good Hospital, Clean Water and Healthy sanitation environment. It can be summarized as having a world where it doesn’t matter whether you live in urban city or in rural communities in terms of social amenities.

In summary, Infrastructure provides the basic physical systems and structure essential to the operation of a society.

 ***Innovation:*** The world is being Driven on modern Technology, Cutting edge technology is very important to everyday life. Innovation as SDG 9 seeks to see a world where every nation or jungle of the world has access to this cutting edge technology so that people can advance and progress together. Innovation brings together people of the world as one. Innovation advances the technological capabilities of industrial sectors and prompts the development of new skills.

***Industry:***  A world where companies and countriesuse the latest available innovative technology and infrastructure to produce healthy, clean sustainable products using renewable energy and share innovative knowledge equally with one another and use raw materials at a sustainable pace. Inclusive and sustainable industrial development is the primary source of income generation which allows for rapid and sustainable increase in living standards for all people and provides the sound technological solutions needed for environmentally sound industrialization.

***Why Is this UN SDGs 9 Infrastructure, Innovation and Industry Important?***

Investment in Infrastructure and Innovation are crucial drivers of economic Growth and Development. With half of the world population now living in cities, mass transport and renewable energy are becoming ever more important, as the growth of new industries and information and communication technologies.

Technological progress is also key to finding lasting solution to both economic and environmental challenges, such as providing new jobs and promoting energy efficiency. Promoting sustainable industries and investing in scientific research and innovation are all important ways to facilitate sustainable development.

Technological and Mechanical progress are additionally key to finding enduring answers to both financial and natural difficulties.

Economic Growth, social development and climate actions are heavily dependent on investments in infrastructure, sustainable industrial development and technological progress.

In the face of a rapidly changing global economic landscape and increasing inequalities, sustained growth must include industrialization that first of all open door for opportunities accessible to all people and is to be supported by innovation and resilient infrastructure. Innovation and technological advancement will also change learning in our institutions easier and better. Research is now carried out and published online and can be used all over the world faster. Communication and information technologies have also made essay industrial production and marketing worldwide. Today, products are sold online due to improvement in information and technology.

Aging, degraded or absence of infrastructure makes conducting business challenging. Basic infrastructures, supporting technologies, communications, transportation and sanitation that business relies on are not available, hindering economic growth and social progress in most developing countries of the world.

Infrastructures like energy. Electricity, clean water, Roads and mass transport foster industrialization faster. Today, most of the African countries are far lacking behind in industrialization due to lack of the above infrastructures, improvement in innovation and industrialization.

The job multiplication of industrialization has a positive effect on the society. An improvement in industrial growth can also lead to increase in come and improve health and wellbeing of the society. Similarly, technological progress increases the wellbeing of countries and our planet as a whole.

 ***How is the state of Industry, Innovation and Technology of the World?***

To sit on the table and talk is easy, but to put what was deliberated and agreed into reality is another. It has been talked, it is important and beneficial to implement and sustain it. But what actually is the reality of things? Any progress?

Today, about 4 billion people of the world lack access to the internet, and more than 90% of them are in developing countries. Bridging this digital gap between developed countries and developing nations is crucial to ensure equal access to information and knowledge as well foster innovation and entrepreneurship. Industrialization also in developing countries is very low compare to developed nations of the world. Critical infrastructures like; energy, clean water, Transportation, Roads, Electricity and access to mobile connectivity and sanitation remained limited in the developing countries with African nations recording the worst. Developing countries’ industries often lack the necessary infrastructures and innovation opportunities to achieve sustainable economic growth. The resultant effect create disconnect between their rural and urban communities, lack of innovation and stagnating productivity.

UNDP Facts data 2022 shows that, 2.5 Billion- worldwide lack access to basic sanitation and almost 800 million people lacks access to clean water.

It also has it on record that about 40% in some low income African countries, infrastructure constraints cut businesses productivity. 2.6 Billion People in developing countries do not have access to constant electricity. Furthermore, the renewable energy sectors currently employ more than 2.3 Million people; the number could reach 20 Million by 2030 but mostly in the developed world. Finally, about 30% of developing countries’ agricultural products do not undergo industrial processing before going to the market thereby creating more unemployment gap and low GDP.

Let’s take Africa as a case study, Africa suffer from poor infrastructures compare to other parts of the world. It was on record this season that about 8 African countries lost their hosting right of world cup because of poor infrastructural development. Energy is primary important to development but take Nigeria and Cameron for example; more than 60% of the population does not have access to electricity. Nigeria is a country with 200 people but currently still struggling with generation of electricity of only 4000 megawatts as at the time of writing this article. Similarly, the country is an oil producing nation but cannot refine oil for its industrial use. It applies to most of the African countries. Africa faces infrastructural problems, currently about 60% lacks infrastructural development.

Closing this huge gap of infrastructural development, innovation and industrial development between the Developed nations and developing country by 2030 will go a long way in actualizing the Sustainable Development Goal 9. But if we continue the way it is now, the goal may only end up as a dream rather than a vision.

***What changes need to happen to Achieve Industry, Innovation and Infrastructure?***

Achieving SDG 9 is a collective responsibility of the Government, the Private sector, the Civil Society and the Citizens alike to make sure we leave a better planet for future generations. Investing in more resilient infrastructure, cooperating across borders, and encouraging small enterprises will all be critical to ensure sustainable industrial development. We will also have to improve our existing infrastructure, and here, technological innovation will be key. Governments and Businesses will have to contribute to creating a hospitable policy environment to innovation, encourage scientific research and improve access to information technology universally. More robust industrial development programs will have to be flag up with modern innovative technological tools with information and communication back up to create more employment in the developing world.

Private sector involvement and accountability - Private sector holds a lot of power and resources when it comes to the SDG 9. And with societal awareness, business social responsibility is becoming more and more important. Government should mobilize all the private companies and get them involve in developmental projects for the communities where they are located, that will fat track the economic development quickly. Technology patent laws can also be looked into with a view of changing it to enable sharing universally. Providing access to education so that everyone can have the opportunity to innovate, create, and build a better future.

Prioritizing investment for infrastructure in developing countries, lack of infrastructure as discussed is one of the biggest barriers to achieving many of the SDGs like Clean water, Roads, Sanitation, Schools, Market Facilities, Transportation, putting more investment into such basic projects are some of the solutions to ending poverty and balancing the SDG 9 between the developed nations and the Developing countries.

Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular the developing countries. Encouraging innovation and substantially, increasing the number of research and development workers per 1 million people and public and private research and development spending.

Facilitate sustainable and resilient infrastructure development in developing countries through financial, technological and technical support to AFRICAN countries and least developed countries, land- locked developing countries and small island developing states.

 Support domestic technology development, research and innovation in developing countries, by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Significantly increase access to information and communication technology and strives to provide universal and affordable access to the internet in least developed countries.

Least developed countries and developing countries need to accelerate the development of their manufacturing sector if they are to meet the 2030 target.

Consult and engage a wide range of stakeholders, including minority groups to ensure that infrastructure development benefits and creates opportunities for all.

Establish standards and promote regulation that ensure company projects and initiatives are sustainability managed.

Collaborate with NGOs and the public sector to help promote sustainable growth within developing nations.

 ***Possibility of Achieving the Infrastructure, Innovation and Industry around the world***

We have seen so far that they are a lot of Areas that the SDG 9 has recorded progress particularly in the developed countries. This indicates that a lot are being put in place worldwide but mostly in developed countries. For example, the global share of manufacturing value added in GDP increased from 15.2% in 2005 to 16.3% in 2017, driven by the fast growth of manufacturing in Asia. In 2019, the amount of new renewable power capacity added (excluding Large Hydro) was the highest ever at 184gigwatts, 20gw more than in 2018. This included 118gw of new solar systems, and 61gw of wind turbines. Developing countries continued to out space developed economies in renewables in investment in 2019, they committed 152.2 Billion dollars compared to developed countries’ 130 Billion dollars recorded. These record shows that a lot of progress has been recorded especially in regions like East and South Asia who made remarkable progress in achieving development goals in the areas of infrastructure, Innovation and Industrialization. However, SDG 9 by 2030 will require addressing a range of resources constraints especially, in the context of developing countries vulnerable small Island Developing states, least developed countries, Landlocked Developing countries and Small Island Developing States.

The industrial sector still posed a lot of challenge in geographical area like Sub Saharan Africa. Their level of industrialization has either stagnated, remain low or getting worse than before. Thus undergoing a much slower pace of progress in poverty eradication.

Research and Development trend indicate that there is overall significant growth globally, although not much in least developed countries and developing countries. Available data shows that the growth was 2.4% of GDP for developed countries, 1.2% for developing regions, and 0.3% of GDP for less developed countries. This disparity can also be seen in number of researchers.

When it comes to infrastructure and Technological development, there are large disparities in access to infrastructure worldwide, a lot of people still have no access to electricity, people lack access to clean water, and do not have adequate sanitation. About one third of the world’s population is not served by all-weather roads.

Closing the gaps of disparity between the developed and developing countries to achieve SDG 9 would require large investment.

In summary, to think about the possibility of achieving industry, innovation and infrastructure by 2030 looking at the disparity recorded above between the developed country and developing countries especially Africa will require overcoming resources, building and strengthening developing countries capacities and exploring innovative ways to solve developmental challenges. Without putting these necessary measures, 2030 will soon knock at the UN door and the disparity will continue.

***How can education lead to a world with industry, innovation and infrastructure?***

Education is the bed rock of development of any society. With quality education given to its citizenry from Nursery to higher institutions, countries will have greater capacity to assemble and maintain the physical building blocks of progress, health and security.

As a country’s citizens become better educated, they will be more likely to acquire their own critical technical skills and creative problem solving necessary to build and sustain roads and bridges, ICT systems, ports and airports, health and financial systems, governance practices and the many other structures that enable life in a country to improve and flourish.

One of the major backwardness of the developing countries that is creating the disparity in achieving the SDG 9 is lack of education, without quality education, it will be difficult to achieve the SDG 9. In Africa today, almost 60% of countries are in one form of internal insecurity or insurgency. In Nigeria since 2008 Insurgency started in the North Eastern part of the country and has soon spread to the North central part, making it difficult to fast track infrastructural development like roads, Mobile network and water projects, or electricity needed to meet the SDG 9 by 2030, likewise Industry also, almost all industries and investments have short down due to the insecurity. The same applies to Mali, Southern Sudan, and many more. Most of these insurgency participants are people that did not receive any form of education.

 Without quality education, it will be difficult to undertake research that fosters technological and innovation needed to meet the SDG 9. Also, ICT and information and communication technology cannot be developed with quality education. We build and construct using education, we maintain using education. if we must meet the target of SDG 9 target by 2030, then state of emergency in education have to declared on developing countries especially Africa.

***Conclusion***

Sustainable Development Goal 9, Infrastructure, Innovation and Industry are the three pillars needed to change our world for better by 2030. Fixing the disparity between the Developed world and the developing countries will require a lot of determination and proactive steps. For our world to be better and for us to live in peace, all stakeholders, the Governments, Private sectors, Civil Societies and All citizens alike must contribute actively to achieve this noble SDG 9 by 2030 .

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