



Ethics and Values in Sustainable Development

A paper by

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Origin of Sustainable Development & the Advent of Ethics & Values: The study of ethics and values in sustainability is a recent off-shoot of the global environmental movement. The environmental movement in turn was galvanized by a chain of events of the mid to late 80s. First, scientific monitoring of the stratosphere over the Antarctica revealed a hole in the earth’s ozone layer. This meant that the global emissions of greenhouse gas (GHG) were at levels higher than atmospheric absorption capacity, and this was precipitating a change in the global climate. This was very disturbing given that energy production and consumption patterns were the principal sources of these ghg emissions. To arrest this potential disaster, the United Nations commissioned a study on the link between economic development and the environment. The resulting World Commission on Environment Development (WCED), led by Gro-Harlem Brundtland, coined the term, ‘sustainable development’ in their 1987 Report. The concept of sustainable development was an understanding that peoples of the world must rely on sourcing and consumption of energy for a balanced living, however, it was decided that people do not lose sight of the exhaustible nature and detrimental effect of fossil fuel to our environment. To this effect, we are required to consume energy in an ethical manner, by;

- Moving towards energy sources that are inexhaustible (renewables)
- We should not dwell on the planet in a seeming terminal form, but rather think of ourselves as custodians of the planet for future generations.

Prior to the coinage of the term, ‘sustainable development’ by the WCED Report, the UN had found it difficult putting out the apparently paradoxical message that one the one hand, ‘energy sourcing and consumption is essential for daily living and national economic survival’, but on the other hand, that people should reduce their dependence of energy. The WCED Report posited that in order to address the emerging global environmental problems, both the industrializing and industrialized countries needed to

complement each other in levels and scales of cooperation that have never been witnessed before. Hitherto, developing countries had prioritized the need for unfettered economic development, with little concern to ecological protection. The WCED however provided the theoretical structure for coordinated global response to the menace of climate change. The Report proposed that all nations should come under one umbrella and jointly promote economic development. Most significantly, it sought a new brand of development, coined ‘sustainable development’. Sustainability was promoted as an integral framework, in which economic development, social equity, and environmental protection are seen as mutually joint goals.

The Brundtland led WCED has been indisputably credited with pioneering the study into, and advancement of the understanding of the correlation between economic advancement of developing countries and global environmental protection. The unanimous adoption of the WCED Report by the UN General Assembly (document A/42/427) in 1987 set the groundwork for the Rio de Janeiro ‘earth summit’ of 1992. It was the Rio convention that triggered the formation of several movements, NGOs, and other form of formal and informal watchdogs, all aimed at making resolute and irreversible, the environmental protection initiatives of the UN and planned sustainable development agenda.

While the WCED Report defined sustainable development as; "meeting the needs of the present generation without compromising the ability of future generations to meet their needs," The UN officials working definition of sustainable development is elaborated to include 3 dimensions, termed the "Three Es" of sustainability; (i) environmental protection, (ii) economic development and, (iii) social equity.

Sustainable development has since then become a popular global mantra. It is now an integral part of practically every aspect of human endeavour. Sustainability is being

argued to be presently trendier than traditional environmental conservation, given that it offers a positive vision for the future of the human race.

Nigeria Power Sector and the Ethics of Sustainability: Recent developments in the Nigerian Electricity Supply Industry (NESI) do connote ethical issues of huge significance. These ethical issues can be attributed to the fact that the Nigerian power sector landscape irreversibly shifted well over 12 years ago. Immediately upon the return of democratic governance in 1999, the then administration having realized that the abysmal state of public power supply to need to be fundamentally addressed, if Nigeria was to ever experienced a balanced and sustained economic development. To this effect, the then administration inaugurated the Electric Power Implementation Committee (EPIC) in 2000, with the mandate to make the NESI effective. EPICs Report of 2001 was adopted by the federal government. It led to the Nigerian Electric Power Policy (NEPP) which was adopted in 2002.

The NEPP provided for the drafting of a new Electricity law to provide the legal framework for a complete sectoral reform. The NEPP Report which apparently studied the lessons behind efficiency in the power sector of other jurisdictions, found that the monopoly that was NEPA constituted a clog in the progress of the sector, and that the NESI must be opened up to private investors for optimal services to be realized. To the above effect, NEPA was vertically unbundled into generation, transmission & distribution in 2004. The Electric Power Sector Reform (EPSR) Act came into effect in March 2005. In May 2005, PHCN Plc emerged as a holding company for the assets, liabilities, employees & obligations of NEPA. Finally, the regulator, NERC was established & inaugurated in October 2005 under the EPSRA, with the mandate of devising and deploying regulatory instruments that are capable of sustainably developing the NESI, so as to assure sufficient, affordable and nation-wide spread electricity supply.

NERC the emerging sector watchdog has in turn envisioned fiscal self-sustenance as the key to achieving overall government objectives. It has thus set out on a corporate mission to; promote and ensure investor-friendly industry and efficient market structures. As the NESI steps on the threshold of the historic transition to competitive electricity market, justified questions arise bothering on ethics and values. On one hand, **ethical issues** arise, particularly in this era of global climate change menace, the regulator must be alert to the cut throat, under-hand and other unethical tactics of private investors as they attempt to invest sparsely and reap bountifully. A speck of regulatory under-sight or a lapse in monitoring could cause disastrous environmental problems for our future generations. Despite the cons, the pros of modern electricity are enormous. The essence of contemporary day living depends on electricity, the more sufficiently abundant it is supplied to a society, the more prosperous and fulfilling they exist. For this reason, the world today assumes a routine which rapidly consumes fossil energy (natural CO₂-storages and CH₄ emitters). This will certainly pose environmental problems for the globe and upcoming generations. On the other hand, as we open up the sector to competitive market forces, **questions of values arise**, especially, given the high rate of poverty in our society. Elementary market practice dictates that companies will naturally be attracted to the rich, thus generators and distributors in a competitive market structure might attempt to neglecting designated poor neighborhoods and focusing on the affluent areas. Even when effectively served, the poor might struggle in paying a cost-reflective tariff, this could in turn lead to energy poverty. The regulator has a duty to use regulatory instruments to tackle these and other related ethics and values issues in the new NESI. For instance, NERCs policy directions have guided government into setting up targeted subsidy in the form of Power Consumer Assistance Fund (PCAF). NERC has also been instrumental in redesigning and reviving the hitherto corrupt ridden Rural Electrification Programme (REA). Part of our several regulations aimed at facets of the discussed problems is the Renewable Energy Feed-in-Tariff

(REFIT) which aims to incentivize renewable development. There is also the Independent embedded generation and distribution, which are aimed at spreading the reach of electricity across our national landscape. Setting up of HYPADDEC as well as MYTO2, which reclassified rural dwellers and reduced their energy bill by almost 50%, are equally strong ethics and values signals.

Despite the fiercely urgent desire to solve our national energy crises, we seek to assure the public that future of the NESI will reflect a steadily ascending reliance on low emitting and non-fossil energy sources which we are naturally endowed with. To this effect, we are steadily moving towards a low carbon economy, and the future of NESI is green.

The last statement must however be taken with a caution, as renewable energy technologies are yet to shed of certain drawbacks that still make them difficult to rely on, such as;

- They are weather, or season reliant. E.g., solar PVs perform best in dry seasons, while hydro-energies have their peak in rainy periods. Geo-thermal perform best in hot season, while wind turbines are optimal in falls (windy seasons)
- Renewable are notoriously expensive, hence they often rely on special tariffs;- REFIT. This is posing serious problems for electricity regulators the world over, as our natural duty is to promote true competition and unadulterated economic regulation.
- Energy cannot be stored, thus given that each renewable has its ‘peak- periods’, complete dependence on them therefore become jeopardized.
- They are often subject to breakdowns, and require constant service. This is particularly worrisome for electricity regulator in a country like Nigeria, whose

dearth of technology is near absolute, and who is technology-dependent. The dilemma here is that the core function and key mandate of the regulator is to ensure adequate national supply of electricity.

- Renewables sometimes come with side-environmental problems (e.g, dams affect aqua-culture, while wind-mills can endanger birds. Also, wind-mills some times are best positioned in waters, however, they are known to cause waterways blockades, and sea-bed distortion)
- Generally, renewable energy has to solve most of its teething problems, if it is to become a major alternative, and eventual replacement to traditional fossil energy.

NERCs approach to Renewables dependence; Given all that we now know, it s clear that the best sensible route for NERC in regulating for the energy future of Nigeria is to first is to stick to traditional ways of producing energy and add technical options to diminish the risks. These include carbon capture and storage (CCS) technologies for incoming coal powered plants, the eventual construction of modern nuclear power plants given that Environmental Impact Assessments (EIA) are certifying them as being climate neutral. All these will inevitably build up a rich pot of national energy diversity. This is equally similar to the position being adopted by nearly all western countries that have strong renewable credentials, like Germany, UK, and the Scandinavians.

Citizen’s participation is important in inculcating ethics and Values in energy sustainability: Rather than becoming ‘armchair critics’ of the revolution that is taking place in the Nigerian power sector, everyone can actually get involved in ushering in our low carbon economy by precipitating it. To this effect, NERC have established soft entry points to encourage what I may safely term, ‘energy farming’. Our REFITs are some of the best in the world, as we lure people to take to renewables. Every citizen can now

actually choose what kind of energy supply structure they want. This development would allow Nigerians play an active part in their energy future, and thus, in the future of Nigerian energy sector. NERCs renewable energy future allows citizens to become producers themselves.

Other ethics and values issues that are global in dimension; Since the discovery of climate change, and the occasioning advent of environmentalism, moral theorists have always been pained by the fact that although it is man’s combined lifestyle that is causing climate change, yet there is a huge divide in life style on the planet earth, and responsibilities for human destruction of the environment. While the life style of the rich is largely attributing to the problem of climate change, it is the poor that must bear the consequences as they are ill-prepared for its negative aftermath as the rich. Likewise, the rich nations contributed and still are accountable for the largest volume of anthropogenically generated ghg. Yet it is these rich nations that have developed technologies to protect themselves from the impacts of a rapidly changing earth.

The wealthiest, who are in the very minority, consume immensely more than their fair share of earth’s resources. The overwhelmingly majority poor peoples of the earth who make up over 75% of human society, but live on less than \$2 per day, in turn have no alternative but to use natural resources in a inconsiderate ways; they fish ceaselessly in the absence of preservation mechanics, thereby distorting aqua-life. They unsustainably chop down trees for firewood, these trees are natural absorbents of CO₂. They give birth to large number of children, so as to increase farm hands.

The UN, through its various development agencies is joining forces with moral theorists in highlighting the fact that the rich countries are capable of leading the way by making the choices for more sustainable lifestyles. It is also being argued that the poorest members of the human community should understandably not be expected to change their way of living, until they are economically supported in doing so. Therefore,

building a sustainably developing world is predicated upon relating better with the poor's of the world, and eventually weaning them off their unsustainable dependence and over-reliance on nature, by introducing them to modernized living. Fostering economic development for the poor will surely enhance global sustainability. Economic development in turn hinges on energy consumption as the WCED Report found. Given that Nigeria is by far, the most populous black nation, and is home to a great percentage of people classed by the UN as the world poor, NERC therefore has a duty of care to the global community. We at NERC are very much aware of the enormous responsibility we owe the world as we regulate for the provision of modern energy services to these rural poor dwellers. This in effect is the only hope of weaning them off the current poor energy practices, which have significant negative global impacts. Please, do support us in overcoming these articulated challenges.

Thank You.

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