

Exploring marginalization and exclusion in renewable energy development in Africa

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Chapter 14

Exploring Marginalization and Exclusion in Renewable Energy Development in Africa: A Perspective from Western Individualism and African Ubuntu Philosophy



Yekeen A. Sanusi and Andreas Spahn

Abstract The objectives of this chapter are to understand the ethical principles that are relevant to the achievement of energy justice; to explore energy marginalization in Africa and to analyse this marginalization from the perspectives of Western and Ubuntu ethics; to underscore the violation of ethics in renewable energy deployment; and to find means of addressing energy injustice through proper application of the respective ethical principles. Part of the data for the study were sourced from the reports of the Renewable Energy for Twenty-First Century (REN21).

14.1 Introduction

The critical role of energy in development is not in doubt. Life itself and human activities including economy are energy-driven. Although energy is not seen as a basic need, it is true that access to basic needs is ‘closely connected to the price and availability of energy’ (Kimmins 2001). This also partly explains the position that energy occupies in the UN Sustainable Development Goals (SDGs). The Goal 7 is to ensure access to affordable, reliable, sustainable and modern energy for all. This goal is a justice matter. The world is in a global energy transition from fossil fuel-based to renewable source-based. The renewable option is clearly favourable to most countries of the world but in particular to the developing countries where like in most other situations, people are underserved with desired energy. Sovacool et al. (2017) raised concern over energy dilemma, having too much resulting in

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environmental and social burden on one hand and not having enough indicating lack of access to modern forms of energy services, underconsumption and poverty on the other hand.

The contrasting situation in energy in Africa and Europe is shown by BP Statistical Review (June, 2017) and Akizu-Gardoki et al. (2017). For example, in 2015, while Europe and Eurasia accounted for 29.8% of world's consumption of natural gas, Africa accounted for 3.88%. Similarly, in the case of hydroelectricity consumption, while Europe and Eurasia accounted for 22% of total world's consumption, Africa accounted for 3% (BP Statistical Review, June, 2017). Reports show that in 2014, the annual rate of energy extraction stood at 159,320.85 TWh. Out of this, fossil fuel accounted for 86.36%. Although the global annual average energy consumption per capita was 22 MWh, Africa consumes 35%, less than the world average (Akizu-Gardoki et al. 2017). Against these backgrounds, the global energy transition to renewables is a welcome development particularly for the countries experiencing underconsumption of energy.

The objectives of this chapter are to understand the ethical principles that are relevant to the achievement of energy justice; to explore energy marginalization in Africa and analyse this marginalization from the perspectives of Western and Ubuntu ethics; to underscore the violation of ethics in renewable energy deployment; and to find means of addressing energy injustice through proper application of the respective ethical principles. Part of the data for the study were sourced from the reports of the Renewable Energy for Twenty-First Century (REN21) for 2015, 2016 and 2017 and from reports of other similar global agencies on renewable energy.

This chapter combines two disciplinary perspectives: the part about the West is written from a philosophical perspective; the African part is written from the perspective of urban planning. This leads to a different emphasis. In the part on Western philosophy (3) and its application to energy marginalization in Africa, the focus is on the elaboration of the ethical concepts of the West and how they relate to energy ethics and marginalization while in the third section (4), the emphasis is on the African philosophy of Ubuntu and its application to identification of renewable energy marginalization in Africa. Future research is needed on both levels to deepen the comparison on the conceptual level of western and African philosophy and religion and on the level of factual differences in the stakeholders and types of marginalization.

We emphasize that the data used in this study relate to broad national and continental levels. The simple assumption here is that these broad pictures provide average experiences of the various communities in renewable energy. There is no doubt that there are variations in these experiences within each country; however, this chapter is not concerned with detailed community level marginalization. Broadly and as emphasized in our analysis, energy marginalization has been examined in order to compare deployment of renewable energy of the African continent in relation to global experience, the experiences of other continents and then the experiences among the African countries.

14.2 Marginalization in African Renewable Energy

Marginalization is a situation where disadvantaged groups struggle to gain access to resources and full participation in social life (Anderson and Larsen, 1998 cited by Gurung and Kollmair 2005). It is seen as ‘both a condition and a process that prevents individuals and groups from full participation in social, economic, and political life enjoyed by the wider society’ (Alakhunova et al. 2015). According to Gurung and Kollmair (2005), there are two forms of marginalization: social and spatial. Social marginalization relates to the human dimension, while spatial marginalization relates to physical location and distance from the centre. Being at the margin puts the subject in a peripheral position where he is deprived of the good things from the centre. Hence, marginalization is a process of becoming peripheral and follows ‘centre-edge analogy, in which actors at the edge are disempowered in comparison to actors at the centre, who are privileged and socially dominant’ (Trudeau and McMorran 2011). Bernt and Colini (2013) interpreted marginalization as a process of peripheralization to denote ‘a multidimensional process which includes economic (deindustrialisation, restructuring), social (impoverishment, discrimination, stigmatization) and political (exclusion from decision-making, dependence) phenomena and leads to the emergence of peripheries characterized by dependence, disconnection, poverty and outmigration’.

With reference to renewable energy, Sanusi (2017a) sees marginalization as ‘a situation where territories that have the renewable resources at their disposal fail to key into the global drive of renewable energy deployment and therefore remains outside the drive of the renewable energy system’. Energy marginalization stands to violate most ethical systems. Marginalization is associated with exclusion. Thus, people who are marginalized could not have been included in the respective development activities. Exclusion represents a particular form of deprivation. Mowat (2015) saw marginalization as contextually related, and from the marginalized, Mowat (2015) also posited that marginalization is ‘to feel, and be, excluded’.

The marginalized, excluded and deprived could not have said to experience a fair deal from the society, and from the ethical point of view, they remain ‘not part of us’ where the ‘us’ is the part of the society that has a fair deal of the command over resources, power, protection, patronage and favour. The energy marginalized is the energy excluded and suffers the disadvantages associated with this form of ill-being.

To illustrate the problem of energy marginalization in Africa, it is important to look at the relevant data. Table 14.1 shows the renewable energy capacity of Africa with regard to solar energy, wind energy, concentrated solar power and hydropower. It is seen that from a low base of 54 MW in 2006, solar energy capacity grew to 2491 MW in 2016. Significant increase started in 2014 when 1000 MW was exceeded. In the same manner, wind energy capacity increased from 386 MW in 2006 to 3786 MW in 2016. In terms of concentrating solar thermal power, African recognizable production started in 2014 when 65 MW capacity was achieved. The production rose to 425 MW in 2016. Hydropower capacity increased from 23,623 MW in 2007 to 27,657 MW in 2010 to 30,111 MW in 2015.

Table 14.1 Renewable energy capacity of Africa in solar, wind, CSP and hydropower

Year	Renewable technology in MW			
	Solar ^a	Wind ^a	CSP ^b	Hydropower
2006	54	386		
2007	78	469		23,623
2008	95	639		24,087
2009	138	819		25,317
2010	223	906		26,611
2011	331	1037		26,648
2012	409	1266		27,657
2013	689	1737		28,275
2014	1518	2455	65	28,737
2015	1653	3381	355	30,111
2016	2491	3786	425	33,524

Source: ^aBP Statistical Review of World Energy, June 2017. ^bREN21 2017

Table 14.2 Comparing African and global renewable energy capacities, 2016

Renewable technology	Capacity in GW		Africa as percent of world
	World	Africa	
Solar PV	303	2.491	0.82
Wind	487	3.786	0.78
CSP	4.8	0.425	8.85
Geothermal	13.5	0.676	5.00
Hydropower	1096	33.524	3.05
Total RE with hydro	2017	40.902	2.03
Total RE without hydro	921	7.378	0.80

Source: REN21 2016

Report by Bertani (2015) shows that Africa's geothermal output increased from 45 MW in 1995 to 136 MW in 2005 and to 601 MW in 2015. The capacity increased to 676 MW in 2016 (BP Statistical Review of World Energy 2017). In terms of the relative contributions of the renewable technologies, Bertani (2015) also showed that hydropower is clearly the leading renewable energy provider in the continent, contributing nearly 82% of the renewable energy capacity of the continent. On the other hand, geothermal and CSP contribute less than 2% to the continental capacity.

Table 14.2 shows the capacity of Africa in renewable energy development against the global capacity in 2016. Africa's contribution to global capacity in all the five renewable technologies is less than 10%. It is very poor in the case of solar PV and wind where Africa's capacity is less than 1% each. The marginal position is also seen in hydropower generation where the continent contributed about 3% to global capacity in 2016. Overall, Africa's contribution to global renewable energy capacity was only about 2% in 2016.

The marginal position of Africa in renewable energy can be further seen in relation to the contributions of the other continents. This is seen in the case of wind energy as shown in Table 14.3.

Table 14.3 Installed capacity of wind energy among the world regions

Region	Capacity over the years in GW						
	2010a	2011b	2012c	2013d	2014d	2015	2016
Europe	86.3	96.6	109.817	121.5	134.0	147.8	161.3
North America	44.2	52.7	67.748	70.8	78.1	88.7	97.6
Asia	61.1	82.0	95.715	116.0	142.0	175.8	203.7
Latin America	2.0	2.3	3.530	4.8	8.5	12.2	15.3
Pacific	2.4	2.9	3.2	3.8	4.4	4.8	5.0
Africa and Middle East	1.1	1.1	1.2	1.6	2.5	3.5	3.9
	197.1	238.0	283.2	318.6	369.7	432.9	486.8

Source: Global Wind Energy Council 2011, 2012, 2013, 2014, 2015, 2016

Africa has the least capacity among the six continents shown in the table. However, while Latin America has pushed ahead to generate 12.2GW in 2015 and 15GW in 2016, Africa's wind energy capacity remains well below 5GW. The Pacific is doing well above Africa. A similar picture is seen in hydropower generation which should have given Africa an advantage given its enormous potentials in hydropower. In 2016, Africa contributed about 3% of global hydropower capacity as opposed to 16.1% from North and Central America, 13.2% from South America and 18% from Europe (International Hydropower Association 2017).

In addition to the intercontinental marginality observed, records also show that the contributions to renewable energy progress in Africa come from a few countries. This runs through all the renewable energy technologies.

As shown in Table 14.4, out of the 54 countries in Africa, 15 are the major producers of renewable energy in Africa. These interchange the top five positions in six renewable technologies. As the table shows, South Africa is in first position in four of the six renewables, wind, solar, CSP and biogas, while Ethiopia is first in hydropower and Sudan, first in bioenergy. Indeed, even in these other two, South Africa came second. The emerging picture is that South Africa is the renewable energy super power of the continent. In each of the six renewable sources of energy, the top five countries have commanding control in the African capacity. The combined output in each of the six renewable energy types is shown in Table 14.5.

In the case of wind, the top five countries have a combined output of 3637 MW representing 96% of the Africa total capacity. A similar situation is seen in biogas where the combined output of the top five represents 94% of the total continental capacity. It is an absolute possession by the top five in the case of CSP where all the 429 MW are from the top five countries. It is only in the case of hydropower that the top five generate less than 50% of the total continental capacity (46%). On the whole, about 80% of the renewable energy capacity of Africa is provided by the top five countries. However, the five countries do not necessarily constitute the most populous countries in each of the six renewables. The first five countries in solar energy have a combined population of 27%, 24% in wind energy and only 9% in the case of bioenergy. The table also shows people who are marginalised in this reproduction pattern. The marginalized population is as high as 91% in the case of

Table 14.4 Summary of top 5 renewable energy generating countries, 2016

Renewable technology	Top countries				
	1	2	3	4	5
Wind energy	South Africa	Egypt	Morocco	Ethiopia	Tunisia
Hydropower	Ethiopia	South Africa	Egypt	Democratic Republic of Congo	Zambia
Solar	South Africa	Algeria	Morocco	Egypt	Ethiopia
CSP	South Africa	Morocco	Algeria	Egypt	
Bioenergy	Sudan	South Africa	Swaziland	Zimbabwe	Mauritius
Biogas	South Africa	Reunion	Mauritius	Kenya	Morocco

Source: Sanusi [2017a](#)

Table 14.5 Combined capacity of top five in renewable energy technologies compared to Africa's total capacity and population

Renewable technology	Combined capacity of top five countries (MW) ^a	Proportion of Africa capacity	Combined population (2016) ^a	Proportion of African population	Proportion of African population excluded from major players	Proportion contributed by South Africa
Wind energy	3637	96	296,408,034	24	76	38
Hydropower	15,318	46	271,674,073	23	77	11
Solar	2288	78	325,388,765	27	78	60
CSP	429	100	223,565,500	18	82	47
Bioenergy	656	64	114,702,780	9	91	14
Biogas	34	94	139,193,094	11	89	61

^aSource: Sanusi [2017a](#)

bioenergy and 82% in the case of CSP. In general, the top five countries in the six renewables represent about 18% of the African population while 82% are marginalized. The marginality can also be seen in the fact that the dominance of South Africa cuts across the renewable technologies. Its single contribution represents 61% of African capacity in the case of biogas and 60% in solar energy. Overall, South Africa provides about 39% of Africa total renewable energy capacity. On the other hand, South African population is only about 5% of the African population. The emerging marginalization is reflected in the overall access to energy by Africans. Records from REN21 annual renewable energy reports show that access to electricity has remained below 50% over the years, standing at 43% in both 2012 and 2013 and increased only marginally to 45% in 2014. But the situation is poorer in Sub-Saharan Africa as opposed to North Africa where electricity coverage is 99%. On the other hand, electricity access has been below 40% in SSA, 32% each in 2012 and 2013 and 35% in 2014 (REN21 [2015](#), [2016](#), [2017](#)). So, while it is true to say that Africa is on the margin of energy development and access, it is more true to say that SSA is grossly at the margin of this process.

14.3 Western Individualism: Nature, Humans and Society in Western Perspective

On the most basic level, the ecological crisis points at a fundamental problem in the relation between human beings and nature (Hösle 1994; Spahn 2018). We overuse our resources, we pollute the environment, and we are affecting the world climate negatively, rather than living in harmony with nature. The crucial philosophical categories, which are at stake, are thus our understanding of *nature*, or understanding of our duties and our freedom as *individuals*, and the role of the communities or *societies* we live in. Object, subject and intersubjectivity and their philosophical interpretation are the three key categories that we will use to structure our analysis of Western philosophy and its view on marginalization.

We will first explain these three categories with the help of an interpretation of the history of philosophy by Karl-Otto Apel and Vittorio Hösle (Apel 1973; Hösle 1987), which is inspired by Charles S. Peirce's objective idealism. The main claim will be that the categories objectivity, subjectivity and intersubjectivity are central categories in Western philosophy that receive fundamental attention in the unfolding of the history of Western philosophy (3.1). Secondly, we will analyse how the West arrived at a very peculiar interpretation of the three categories of nature, individuals and society (3.2) and how these in turn shape environmental ethics and the discourse on marginalization as seen in the West (3.3).

14.3.1 *Object, Subject and Intersubjectivity as Paradigms of Western Philosophy*

Historically, Western philosophy rests on two pillars: the tradition of Greek philosophy and the influence of the Judeo-Christian religion (Libbrecht 2007). It is equally true that over the recent centuries the West has become a highly secularized culture, even though within the secularised West, many Christian ideas still live on (Taylor 2007). We will argue that the West has a very specific understanding of nature, individuality and society, which distinguishes its worldview from other cultures. This thesis has a historical and a contemporary systematical perspective.

Historically speaking, it has been argued that Western philosophy moves from a position of harmony and unity of humans and nature (in Greek antiquity) to a sharp dualism of *res cogitans* (humans or 'subjects') and *res extensa* (nature or 'objects') in modernity with the birth of Cartesian dualism (Jonas 1984; Hösle 1994).

For the history of philosophy, Hösle and Apel have defended the idea that 'object', 'subject' and 'intersubjectivity' form key categories of different historical epochs: In Greek antiquity and early medieval Christian thinking, the *prima philosophia* is metaphysics or ontology. The quest of philosophy is to understand the fundamental principles of the world either as the harmony and logos of the cosmos (in the Greek interpretation) or as the Divine logos and its relation to its cre-

ation (in Christianity). With early modernity, we find a remarkable shift from the ‘object’ and ontology towards the discovery of modern ‘subjectivity’. For Descartes, the evidence of the *cogito* is the starting point of philosophy; the main ontological division is the above-mentioned dualism between subjects (*res cogitans*) and objects (*res extensa*). Philosophy now starts from the subject, since knowledge about the outside world is fallible and might be illusionary. That I exist is, however, certain according to Descartes and can thus serve as *fundamentum inconcussum*. This turn towards the subject leads to the fact that epistemology becomes a more prominent discipline within philosophy: metaphysics is slowly replaced by a reflection on the knowledge claims of the subject as in Kant’s Copernican revolution.

This shift prepares two influential Western ideas: the notion of the subject as ‘rational agent’ and the sharp dualism between subjects and (value-free) objects. Science takes on it the task to *explain* the realm of nature in a value-free, quantifiable mechanical way (in contrast to prior metaphysical or religious interpretations of the world); the humanities emerge as a counter-point to *interpret* the products and activities of human societies. The emergence of the humanities and the social sciences prepares the third paradigm according to Apel and Höhle: the paradigm of intersubjectivity with the discovery of the inner logic of societal relations, as in, e.g. *Marxism, hermeneutic philosophy, pragmatism* and the *linguistic* turn of analytic philosophy (Höhle 1997; Spahn 2008). All of these very different schools of thoughts have in common, that the rational subject is no longer seen as the central category of philosophical inquiry, but is being replaced by a turn towards intersubjective dimensions. Marxism and critical theory focus on societal relations; analytic philosophy soon emphasizes the importance of language (and thus intersubjective thought instead of individual rationality); pragmatism emphasizes the embeddedness of the individual in a societal context—a thought we also find prominently in continental philosophy from Heidegger’s *Mitsein* to Foucault’s analysis of the societal power relations.

The aim of this chapter is not to challenge these theses about the history of philosophy, but to use it as a starting point for an analysis of these three central categories insofar as they are relevant for our context.

14.3.2 ‘How the West Was Won and Where It Got Us’: Nature as Physical Objects, Individuals as Rational Utility Maximizers and Society as Social Contract

In what follows, we aim to pick out three ideas that we regard as significant and prominent assumptions made in the West. It goes without saying that this summary is an oversimplification. The aim is not to render justice to the different approaches within the West to topics as broad as the interpretation of nature, the self-understanding of mankind and the quest on how to organize society. We rather aim to highlight those ideas that can be seen as typical for the West, certainly in line with Western Individualism and Western Rationalism.

All of these ideas are contented, even within the West. But nevertheless, they point to core assumptions that are shared by many prominent ‘classical’ thinkers of the West. We will summarise the three key ideas as three interpretations: ‘nature as value-free resource’, ‘human individuals as autonomous, rational utility maximizers’ and ‘societies as social contract of rational individuals for common benefit’.

Nature as Value-Free Resource

The view on nature in the West changes from Greek ontology and the Christian worldview towards a modern scientific interpretation that underlies a modern naturalistic understanding of the world. In this modern view on nature, several key ideas are relevant.

Since Descartes, nature is regarded as the collection of value-free extended objects in space and times. Highlighting ‘extension’ as the key feature implies that nature can be quantified. This allows for the application of mathematics to nature, especially in *physics*. This way perceived qualities (e.g. ‘colours’) can be transformed into quantities (‘wavelength’) (Jonas 2001; Husserl 1994). It has been argued that this ontological picture of nature goes hand in hand with a de-evaluation of nature in ethics: nature in itself is value-free; it is only humans who possess intrinsic value and can value things (Hösle 1994). In the mechanistic worldview, animals are mere complicated machines that do not have any intrinsic value. We find echoes of this in Kant’s reflections on the moral treatment of animals. While the ancient worldview has interpreted *biology* as a teleological harmony and could thus give ethics and virtues a rooting in biology; this seems no longer possible in modernity. Modern Darwinian biology rather tends to see nature as a struggle for existence. Ethics slowly loses its link to metaphysics and ontology (Jonas 2001; Ballet and Bazin 2017).¹

It has been argued that this de-evaluation of nature has been prepared by Christian Monotheism. On the one hand, understood as ‘creation’ by God, nature can be seen as valuable, and humans can be regarded as the steward of nature; environmental ethics could thus be based on religious grounds (Carvalho 2015; Biviano 2018). On the other hand, if God is transcendent and ‘outside’ of nature, his ‘creation’ can be understood as organized according to rational principles and as a domain over which humans can reign as they see fit (Passmore 1980).

Heidegger has famously sketched this modern view of nature in his essay on the *Question Concerning Technology* (Heidegger 1977). His main argument is that the modern scientific worldview regards nature as a mere resource (‘Bestand’) that we can exploit as we like. We see in Heidegger—as in early environmental philosophy—criticisms of this Western conceptualisation of nature and attempts to re-

¹ This tendency might be strongest within deontology; modern virtue ethics still uses the notion of flourishing and can thus cover animal welfare. Similarly, the capacity to experience happiness is common to humans and animals, so that utilitarianism can more easily be applied to non-humans.

evaluate nature to overcome the Cartesian dualism and the disregard for the value of nature (Sylvan 1993; Lee 1994).

In summary, nature is seen as a realm of value-free objects that can be studied with the help of observation and quantification and be put to use to fulfil the needs of humans. The advantages of such a worldview are obvious: sciences allowed us to drive technological progress, which in turn has helped us to improve the conditions of life dramatically. On the other hand, this view of nature has been criticized, because it de-evaluates nature and might lead to over-exploitation and pollution of natural resources.

Humans as Rational Utility Maximizers

The main starting point in the West is to focus on the fact that human beings are 'rational —agents'. The Greek philosophy emphasizes the importance of logical argumentation and a taming of the passions and emotions with the help of reason. For the Christian worldview, the soul is immortal and linked to our capacity to think and follow reason, whereas the body is mortal and linked to our impulses and emotions and/or desires that must be controlled. The tendency to give reason predominance in ethics over emotions is probably most clearly visible in Kant's attempt to base ethics on a theory of practical rationality.

It has often been argued that the scientification of the worldview has narrowed down the interpretation of nature from a cosmic harmony or a divine creation to a (value-free) interaction of casually interdependent matter and energy. Max Weber has famously called this process the disenchantment of the world in western. A similar reduction happens in the notion of rationality. For the Greek, the highest principle of rationality was wisdom, which combined a practical knowing-how to achieve something with a moral knowing whether it was worthwhile or valuable to strive for the thing in question (Mitcham 1994). For the Greek, the *logos* was furthermore also the principle of cosmic harmony and not just a mere human capacity of reasoning. For Kant, reason was both connected to science and theoretical philosophy (that discovers how the world is descriptively), but it could also answer which ends you should strive for morally. The distinction between a strategic rationality ('if you want to do x, you should do y!') and a communicative rationality ('we jointly agree that we should strive for value v') is still visible in Habermas (1987).

On the other hand, we find a narrowing down of rational behaviour as referring to either strategic or hedonic behaviour. This is especially the case in the context of economical or psychological theories: a person is rational if she can use the right means for her ends. Furthermore, a person might also be called irrational if she chooses ends that harm her and she thus ignores and/or endangers her own wellbeing. A rational agent is thus supposed to strive to maximize her happiness (or utility). Altruistic behaviour appears as irrational (or as rational only insofar as altruistic behaviour also makes the agent happy). In utilitarianism and game theory alike, western rationality is too often identified with utility maximization. It has been

argued that the focus on rationality at the extent of human emotions and the reduction of rationality to strategic rationality are problematic tendencies in the West.

While that is a plausible criticism, there is on the other hand a valuable insight linked to Western Individualism, namely the idea of a fundamental equality of all humans and a strong focus in political theory on human rights that are non-negotiable (2017). As human rights point towards the sphere of the political, we will come back to them in the next section.

To summarize, Western rational Individualism has brought forth the idea of a fundamental equality of humans, a focus on freedom and human rights and a quest to base (ethical) decisions on reason and the strength of the better argument. The advantages of these ideas seem obvious. On the downside however, one can argue that other aspects of human nature, such as emotions and biases, have been neglected. Finally, the definition of rationality as strategic rationality has endangered the project of a rational ethics that goes beyond preference coordination and maximization. The downsides of this will be particularly valuable if one looks at the interpretation of society.

Society as Social Contract

One of the most interesting contribution of Western philosophy to the interpretation of the relation of society and individuals is the concept of human rights. As seen above, the individual is the highest category in ethical theory and has basic fundamental rights that must be protected by society. The concepts of human rights might be based in different ethical traditions, ranging from ideas of moral agency and human dignity in the context of deontology or in the idea of the striving for happiness in utilitarianism or virtue ethics. In the political and legal domain, it has led to a shift from status-based societies, where the position you hold in the society determines your societal rights, to an interpretation of the society as a contract of equal individuals that enjoy in principle the same moral status and universal rights (Maine 1996; Donnelly 2013).

It is therefore no surprise that political philosophy, including ethics of technology and energy ethics, often takes the form as a subpart of a theory of justice (Pols and Spahn 2014; Sovacool 2013; Sovacool and Dworkin 2014, 2015). If we interpret society as a relation between rational free agents, then most political problems can be framed as questions of fair distribution of benefits and burdens (material justice) or as questions about how to establish a fair and transparent decision making about these distributions (procedural justice).

The ideas of justice, a social contract and human rights are thus important contributions to political philosophy. However, social contract theories that interpret the sphere of the social as rooted in the contract of rational utility maximizing individuals also have their limits (Hösle 2004; Beyleveld et al. 2015; Spahn 2018). As game theory shows, the coordination of utility maximization may lead to prisoner's dilemmas. It is not always possible to reduce the social good to the effective coordination of extended self-interests. This is particularly true in the case of sustainability (Care

2000; Gardiner 2001). It is thus not surprising that next to Western Individualism, philosophers have tried to highlight the role of community values (in, e.g. communitarianism) or the importance of virtues that got lost in the process of modernization—a critique that goes back all the way to the romantic reaction to enlightenment in Rousseau and finds its peak in Heidegger’s critique of the logo-centric West (that then gets elaborated by his post-modern followers).

For our context, two shortcomings of the social contract theory in political philosophy are relevant. First, it ascribes values only to humans; the idea of an intrinsic value of nature is alien to many modern thinkers. This is the famous criticism of early environmental ethics and deep ecology (Sylvan 1993). Second, future generations cannot interact with current generations; they have no way to alter the social contract towards their needs. It remains an open question how to best incorporate their needs in the economic market, as their demands do not affect prices, and how to incorporate their rights into current policies, as future generations cannot affect the outcome of elections (Hösle 1994; Beyleveld et al. 2015). We will analyse next how the downsides of these influential ideas—nature as a mere object, humans as rational egoists and society as a contract—affect marginalisation and energy ethics.

14.4 Ubuntu and Energy Marginalization in Africa

In this section, the African ethical philosophy of Ubuntu and its relevant concepts for understanding energy marginalization in the continent are explored.

14.4.1 *Understanding Ubuntu Ethical System*

Ethical systems ‘specify life’s basic values and appropriate means to achieve them’ (Verharen 2011) and are concerned with fairness, the bedrock of justice. In respect of Africa, Munyaka and Motlhabi (2009) see this as value systems, beliefs and practice that reflect the African worldview, while Mangena (2016) sees it as ‘the guiding injunctions as well as the norms and values peculiar to the communities of Africa’. In Africa, the most abiding principle of this worldview is Ubuntu which represents a philosophy and way of life that has sustained African communities for many centuries (Munyaka and Motlhabi 2009). Broader image captured by Ubuntu ethics is seen in the descriptions by Munyaka and Motlhabi (2009):

Ubuntu is more than just a manifestation of individual acts. It is a spiritual foundation, an inner state, an orientation, and a disposition towards good which motivates, challenges and makes one perceive, feel and act in a humane way towards others. It is a way of life that seeks to promote and manifest itself and is best realised or made evident in harmonious relations within society.

The central theme of Ubuntu is the idea of being human and the idea of community. It is a worldview or philosophical approach to human relationships that elevates the importance of human and shared community (Brubaker 2013). It is a complex concept with the duo of humanity and community (Arthur et al. 2015; Mangena 2016). It derives strength from the Bantu maxims: *Umuntu ugumuntu ngabanye abantu* (Hailey 2008) or *matho le motho ba bangwe or umuntu ugumuntu ngabantu* (Mokgoro 1997). These phrases share the meanings of a person is a person through others, or a human being is a human being through human beings or a person can only be a person through others. All these affirm the unity of the individuals within the community.

According to Jolly (2011), Ubuntu is a belief that a person is a person through other persons, that my humanity is caught up, bound up, inextricably with yours. When I dehumanize you, I inexorably dehumanize myself. Put differently, humanity is only complete if it re-affirms that of others (Chibvougodze 2016). The product of Ubuntu is humanity and humanness within the broader image of the community resulting in ‘persuasive spirit of caring, and community, harmony and hospitality, respect and responsiveness that individuals display to one another’ (Hailey 2008).

Mangena (2016) showed that there are both geographic and linguistic sources to Ubuntu. Geographically, it is said to have originated from Egypt through interregional interactions and is seen in the Egyptian word ‘ma’at’. So it might have been corrupted to read *muthu*, *umuntu*, *botho* and *munhu* in Bantu. Ma’at represents highest good. From linguistic point of view, Ubuntu originated from Bantu speaking people of Southern Africa. The suffixes *utu*, *tho* and *nhu* suggest that they (the suffixes) have the same linguistic roots (Mangena 2016). In the account of Ramose (2002), Ubuntu is the fundamental ontological and epistemological category of African thought. While *ubu*, generalized understanding of being, is ontological, *mbu*, the nodal point at which being assumes concrete form or a mode of being in the process of continual unfoldment, is epistemological.

14.4.2 The Relevant Concepts of Ubuntu Ethics

In our presentation of the relevant concepts, we follow the categories ‘nature’, the ‘individual’ and ‘society’ that have been used above to characterize western ethics. This way the differences and similarities of the two traditions become visible. The relevance of Ubuntu ethics to energy discussion is seen in its basic concepts of community, communitarian, participation and inclusiveness, human rights, relationship and the unity of nature (environment).

Unity of Nature

Africans ‘conveniently utilize the cultural beliefs and norms embedded in taboos, totems and proverbs to promote human tolerance of plants, animals, mountains and rivers’ (Chibvougodze 2016). In the Ubuntu concept, ‘The environment is part of the communitarian concept of life’ (Norren 2014). There is the concept of communal ownership of resources. Norren (2014) also discussed the concept of Seriti (aura). This is seen as ‘not only a personal field, but also as a field which connects all living beings’. In Ubuntu’s web of life, humans, other living things and animated natural objects are all related (Norren 2014). The unity of the community extends to unity of nature reflecting comic harmony based on the tripartite relationship of the human, natural and spiritual. ‘All people including elements of the natural environment possess a life/vital force and all forms of life are related. Indigenous people see themselves as part of the whole (the group and the environment) belonging to it are complimenting other entities’ (Mkabela 2015). The conservation of the environment is part of Ubuntu with the primary objective of maintaining the integrity of the connective life force, the collective (Mkabela 2015). The conservation of the environment is seen in the meshing of clan identities with that of the animal names as a means of communal commitment to conservation of animals. For example, among the Shona people of Zimbabwe, there are clan names such as Mhofu (Eland), Samanyanga (elephant), Simboli (leopard), Shamba (lion) and Dube (Zebra). Hence, ‘it is the collective duty of the clan bearing the name of the animal to keep that animal from harm and extinction’ (Chibvougodze 2016). We can see, thus, that in contrast to the West, nature plays a more dominant role in Ubuntu ethics and the relationship between humans and nature is emphasized more. This is in contrast to the idea of nature as ‘value-free resources’ (see above), but in line with attempts in the West to revitalize the value of nature (as in deep ecology).

The Individual: The Importance of Human Rights

Similar to Western philosophy also, Ubuntu recognizes the importance of the individual and individual rights. These concern the following.

Freedom of expression: The individuals within the community have a right to freely express themselves, and the leaders provide the listening ears and provide summary of various viewpoints in order to arrive at group consensus. In Ubuntu, all persons are equal; ‘no one is superior or inferior in humanity’ and holds the sanctity of life supreme (Munyaka and Motlhabi 2009). It affirms equality of people. In Shona, Zimbabwe, it is stated that ‘men are all the same, when their beards burn they help each other to extinguish the fire’ (Mandova and Chingombe 2013).

Equality of persons: Irrespective of differences between people, ‘persons are recognized, accepted, valued and respected for their own sake’ (Munyaka and Motlhabi 2009). Equality is guided by the concept of *U-Ukulu-Ukulu*, the greatest of the great, the ineffable; the ineffable is neither male nor female. If it is genderized at all, it is ‘female-male’ (Ramose). Right to dignity of all persons is embedded in Ubuntu.

For example, Munyaka and Motlhabi (2009) state that by the Ubuntu ethic, all people have *isidima* (dignity), that life is the greatest gift of God and that ‘no one is either superior or inferior in humanity’.

The Importance of the Community

In contrast to the more individualistic approaches in the West, Ubuntu ethics emphasizes the role of the community and the relations between the individual. With regard to that aspect, Ubuntu is closer to approaches such as communitarianism and in contrast to more neo-liberal individualistic tendencies in the West.

The community is ‘a network of delicate relationships of interdependence’ (Hailey 2008). It is a dynamic association of man and woman who have a special commitment to one another and have developed a distinct sense of their communalism (Ramose 2002 in Gumbo 2014).

Communitarian

The wellbeing of individuals is derived from ‘communal imperatives’ (Petersen 2006). The individual wellbeing is valued within the framework of group aspirations. Hence, ‘the reality of communal world takes precedence over the reality of individual life histories’ (Mandiva and Chingombe 2013). The emphasis of Ubuntu is ‘living well together’ (Denealin and McGregor in Norren 2014). Connel (2005) sees individual capacity within the collective as ‘freedom to be together in a way that enhances everyone’s capability to transform themselves in their society’ (cited in Norren 2014). Ubuntu is also about collective responsibility that serves as ‘a basis upon which social order is constructed’ (Mtabela 2015). Communal action is to alleviate sufferings and provide assistance ‘with the stronger helping the weaker members of the community’ (Munyaka and Motlhabi 2009).

Participation and Inclusiveness

The community is active through participation and inclusiveness; All human beings have relevance in the community. Hence, ‘no single human being can be thoroughly and completely useless’ (Norren 2014).

Relationship

The community members are interrelated. According to Chibvougodze (2016), ‘Ubuntu is concerned with human relations where one’s being is tied to another’. The theme of Ubuntu points ‘to a strongly constructivist ontology in which a person’s sense of being cannot be detached from the social context in which they found

themselves' (Bolden 2014). Ubuntu places emphasis on cooperation rather than competition. The group solidarity is central to the cohesion of the community. Community members form a common front in facing the challenges that threaten their existence (Mandiva and Chingombe 2013).

14.5 Applications of the Ethics to Energy Marginalization in Africa: Comparative Reflections

14.5.1 *The Western Individualism*

The outcome of the observed marginalization in renewable energy development in Africa is summarised as shown in Table 14.6.

Elaboration and Reflection: Strength and Limits of the Western Framework

Looking at the foundation of Western Individualism and the application to the case of energy marginalization in Africa, one can see the strength and the weaknesses of the central ideas with regard to marginalization. If nature is seen as a mere resource, this explains the anthropocentrism of many approaches in energy justice (Sovacool et al. 2016). If the rational individual is seen as the starting point and the societal force field is seen as contract of rational individuals, this can both explain the strength and the limits of many approaches.

The strength lies in the ideas of justice and individual rights: energy justice in the West has been conceptualized in the context of cosmopolitanism of equal individuals (Sovacool et al. 2016). Justice demands that all individuals around the globe are treated fairly with regard to energy. This means that the benefits must be distributed fairly; the same holds for the burdens. Finally, the procedure must be transparent and fair. Sovacool et al. (2016) have therefore listed availability, affordability, due process and transparency; sustainability, intra- and intergenerational equity; and responsibility and central demands of energy justice (ibid.). All of these aspects can be justified morally in the light of the rights of the individuals to a fair and equal treatment.

Marginalization can then be identified on two levels. The first level lies in the lack of current *institutions* to meet the demands of energy justice; the second level concerns shortcoming of the *framework* itself. Let us look at both in turn.

With regard to the first, marginalization concerns the groups that lack political power. Minorities or the distant (either groups distant in space or distant in time) are negatively affected by the current state of institutions that rely on participation and representation to organize the distribution of resources or access to energy. Minorities and poor people often lack the resources to affect decision making in politics or in economical contexts. We can see this effect from the data in Africa.

Table 14.6 Outcome of renewable energy marginalized in the eye of the European ethics

Concept	Interpretation in renewable energy terms
Nature	<i>Cartesian dualism: nature as value-free resources</i> This perspective regards nature as a source of energy and food and neglects possible intrinsic values of nature
	<i>Environmental ethics: intrinsic value of nature</i> The ecological imperative calls for a shift to renewable energy production. As shown above, Africa has the least capacity among the six continents; however, the percentage of renewable energy is growing. Arguably, it is growing too slowly from an ecological perspective
Individual	<i>The individual as utility maximizer</i> The first principle of a utility-maximizing perspective would be to lift people out of physical poverty, followed by covering energy poverty. This might explain the slow uptake of renewable energy ^a
	<i>The individual and human rights</i> The right to adequate, reliable and convenient energy has been violated. The rights of future generation towards equal opportunity are endangered by a large-scale unsustainable energy production. However, this burden is arguably caused primarily by rich countries outside Africa with high GG emissions per capita. It is thus a problem of global justice (see next category)
Society	<i>Society as a contract: justice</i> The strength of the Western framework lies in the (anthropocentric) conceptualization of energy justice. However (apart from communitarianism), the community is not regarded as a central category Justice and access A large proportion of the people is excluded from access to renewable energy and the benefits of its services. Energy exclusion can explain low livelihood capability and poverty among many members of the African community. This is a problem for justice Representation of marginalized groups Participation and representation of the poor are low Representation of future generations The urgency to fight challenges of current energy poverty puts considerations for future generations second place

^aAs an anonymous reviewer has pointed out, it might constitute a burden rather than a right for the poor people to use more renewable energy with the consideration of the higher cost and inconvenience of renewable energy as opposed to traditional large-scale energy production of unsustainable sources, such as coal

However, it is arguably a global problem. For example, minorities in the USA, such as people of colour or native Americans, are disproportionately affected by environmental hazards or health issues (Sovacool et al. 2016; Allen 2001; Holifield 2012; Ard 2015). Per definition, marginalized people are less capable to have an impact in the distribution mechanisms of the market or the democratic decision-making procedures. Therefore, it is maybe not surprising that they are disproportionately negatively affected. These effects might be disproportionately more dramatic in countries with low GDP, such as on the African continent. It is thus important to strengthen impact of marginalized groups by means of representing their voices in policymaking and by turning away from top-down decision making towards deliberation and fair participation (Sovacool et al. 2016).

The same holds for ‘distant’ groups, such as the globally distant whose voices are not represented in decision making or the temporarily distant: future generations. Neither of these groups can affect market or policies. Since participation of distant people is either difficult (as in the case of citizens of distant countries) or impossible (as in the case of future generations), their needs and rights must be properly represented in parliament and (western) legislation (Pols and Spahn 2014; Beyleveld et al. 2015). Again, this effect is more prominent in poor countries, as the moral imperative of overcoming existing marginalization and poverty in the present might be seen as more urgent than long-term challenges. The more resources a country has, the more duties it has to address global challenges (Hösle 2004). International energy justice is, for example, increased if the West outsources his environmental challenges to other continents, as discussed in the debate about the ethical challenges of biofuels (to reduce western carbon footprint), produced for export to the West in countries with higher food and energy poverty (Pols and Spahn 2014).

This points to challenges for the framework of contractualism itself (Spahn 2018).

Furthermore, we have duties towards future generations that go beyond what is ‘rational’ from the perspective of game theory (Gardiner 2001). The relation of energy depletion and pollution between us and future generations remains an unsolvable prisoner’s dilemma, unless we accept that our moral duties go beyond the demands of enlightened egoism. This brings us to the fact that in order for the individual to be willing to make the necessary sacrifices for distant people (either in the future or in distant countries), we need to first overcome energy poverty and increase capacity to meet your basic needs. In richer countries, such as the West, we need to develop a mindset that goes beyond care for one’s own interest and includes respect for the interests of others. Care suggested to re-evaluate traditional notions of love, community identification and shared-fate motivations that go beyond Western Individualism (Care 2000). This might thus include a re-evaluation of the notions of community and nature, for which we in the West could learn from other cultures—such as Africa—or from prior conceptualizations within our own culture (as in Greek philosophy or in some aspects of Christian religion). The urgency of the problem of energy marginalization should be a call for philosophers to engage in cross-cultural learning with the aim to seek motivational and theoretical resources from a rich reservoir of philosophies that can help conceptualize the moral demands and motivate individuals to make moral choices.

14.5.2 Ubuntu Interpretation

The outcome of the observed marginalisation in renewable energy development in Africa is summarized as shown in Table 14.7. As shown in the table, the basic concepts of the Ubuntu have been violated. The Ubuntu interpretation of energy marginalization in Africa is made in respect of six Ubuntu ethical principles. These are community, resource management, participation, relationship, inclusiveness and human right. In respect of the community, the renewable energy situation in Africa

undermines the community. The community is in energy pain and then its dignity compromised. Both the joint ownership of renewable energy resources and beneficial exploitation have been ignored.

The participation of the people in renewable energy development cannot be seen in the current renewable energy situation in Africa. The community members have not invested enough in terms of real engagement, financing, organization and partnership in making renewable energy available to household, institutions and the economic enterprises. There is a clear loss of positive relationship between renewable energy resources and the people on one hand and among people and relevant energy institutions on the other hand. The sense of harmony embedded in Ubuntu is lacking in the renewable energy development process. In terms of inclusiveness, a large proportion of the people is excluded from access to renewable energy and the benefits of its services. The spillover effect is deprivation in productive activities for which energy is required and low livelihood capability and poverty among many members of the African community. Similarly, the right to adequate, reliable and convenient energy has been violated. The implication of all these is that the basic principles of Ubuntu are evidently violated in renewable energy development in Africa.

In spite of all these violations of the true spirit and intent of Ubuntu and its criticisms, the ethical philosophy clearly has relevance in the quest for better service delivery in general and renewable energy development in particular. When a part of the community is underserved with basic services, the spirit of Ubuntu should be

Table 14.7 Observed marginalization in relation to Ubuntu concepts

Concept	Interpretation in renewable energy terms
Community	There is a clear evidence of violation of the values of community and communality in renewable energy development in Africa. A large segment of the community is in energy pain. Dignity of the members of the community is already undermined, and the energy welfare is grossly absent. A visibly unfair situation exists, and so, energy justice is threatened
Resource ownership	There is a gap between the renewable energy resources of the community of Africa and the taking of its possession in terms of active and beneficial exploitation and development for the welfare of the people. Energy as a property of the community has been ignored
Participation	Both marginalization and its cause can be associated with lack of participation. Community members have not invested enough in terms of real engagement, financing, organization and partnership in making renewable energy available
Relationship	The relationship is loose. The sense of accountability to the spirit that encourages positive action is absent in this case. By failing to mobilize renewable energy resources, nature is also neglected. There is lack of harmony that should engender positive action for energy development
Inclusiveness	A large proportion of the people is excluded from access to renewable energy and the benefits of its services. Exclusion leads to further deprivation as productive activities for which energy is required are affected. Energy exclusion can explain low livelihood capability and poverty among many members of the African community. It is also seen in the large disparity in access to energy between rural and urban areas
Human right	The right to adequate, reliable and convenient energy has been violated

invoked to create a better deal for all, to make the delivery institutions responsive and to make the distribution of responsibility and benefits even from and to all. To overcome these obvious deviations from the principles of Ubuntu, we recall the earlier suggestions by (2017b):

- Ensuring fair treatment for land owners when land is appropriated for energy development
- Adopting a decentralised renewable energy development that can ensure close link between communities and energy supply sources and to guarantee a fair internalization of energy benefits
- Adopting participatory system that ensures partnership, sharing of risk and sharing of benefits
- Providing energy leadership that ensures efficient renewable energy development and community trust to participate
- Ensuring intra-continental cooperation that effectively employs the true spirit of ‘I am because we are; we are because I am’
- Adopting the concept of community energy where community energy-based resources are used by the people for energy development
- Developing effective energy citizenship that attracts commitment of community members, respects energy resources, honours energy obligations and obeys the rules of energy development

14.6 Conclusion and Future Research Questions: What the Two Perspectives Can Learn from Each Other

We have analysed energy marginalization from two disciplines (philosophy and urban planning) and from two perspectives: one focusing on relevant concepts in the West and the other one starting from the African Ubuntu framework. It is difficult to render justice to such a complex comparison in a short essay. Our attempt is a first step in the direction of a comparative approach of Western and African perspectives.

We have noted that the West emphasizes the rights and roles of the individual and tends to regard energy ethics a question of justice. This is an important perspective; however, the West might learn from other cultures, such as the African Ubuntu ethics to re-evaluate the importance of nature and of community alike.

There are both overlaps and differences between the western and the Ubuntu perspectives. The most striking difference lies in the relative importance of the community in Ubuntu framework which is community-focused. It emphasizes communal life. Here, the rights, dignity, obligations and entitlements of the individuals depend on the community. The joy and pain of the individuals are community-based. It emphasizes cooperation rather competition and communality rather than individuality. The chapter by Peligrini et al. in this volume goes into detail by investigating the different notions of ‘justice’—a western individualistic framework as opposed to a more communitarian perspective. We see overlap in the emphasis of ethics in the West and Africa for the needs of people: it is a moral imperative to overcome

energy poverty and to allow equal access to opportunity, both for currently living people and with regard to future people. Another striking difference might lie in a different view on 'nature' within Africa and the West, even though this difference relates more to an underlying cultural interpretation of the role of nature and is difficult to pinpoint it down to very specific, empirically observable differences in the concrete field of implementation and development of renewable energy production. However, we would argue that the 'nature as resource' view, which is quite common in the West, needs to be overcome since one can argue that it rests on a problematic metaphysics of nature and since it may stand in the way of further developing an environmental ethics that goes beyond anthropocentric conceptions. Another striking difference is in the realm of formality of the two frameworks. The individuality philosophy has been allowed to permeate the practical life of the people; it has been made to be reflected in the institutions of the state and in the conduct of the people. This cannot be said of the Ubuntu philosophy. Its influence on institutions is limited, while its application among people is only informal. While progress is achieved at both formal and informal levels, the difficulty of enforcement of basic rules under informal arrangement in the modern times undermines the utility of the Ubuntu framework.

Taking these findings into account, we suggest the following questions for further research in comparative philosophy.

We would like to argue that two strands of comparative work are needed in the future. The first one concerns the level of conceptual analysis and is mainly a task for philosophy and the humanities: What are the similarities and differences between Western and African frameworks? How do e.g. religions in the West conceptualize notions of individuality, nature and community and how does this relate to African interpretations of these same notions? Where do we find common emphasis and where do we find striking differences?

The second strand of research question requires the work of empirical social scientists: If we are able to identify differences in philosophical and ethical conceptualizations, how do these in turn affect energy politics in the real world? How much of the decision making is currently influenced by widely held beliefs about what the value of nature is, what the core of human existence entails and how communities are understood? This comparative work is a broad field of research; our joint essay could only offer a modest first step towards a comparative philosophy of energy justice.

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