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GENDER MAINSTREAMING IN ENERGY ACCESS POLICIES: A GHANAIAN CASE STUDY

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Abstract

Access to energy is considered a prerequisite to socioeconomic development and poverty alleviation. According to the United Nations, unequal access to energy and low human development are highly correlated. However, most national policies aimed at improving reliable, secure and affordable access to energy do not show considerations to gender issues, thereby perpetuating inequalities and discrimination. An increasing body of research show that men and women have different productive uses of energy, and this must be taken into consideration in energy planning and policies. Gender considerations are especially crucial in energy planning and access policies, considering women are more vulnerable to energy poverty due to discriminatory socio-cultural and traditional roles and their limited access to productive assets and finance. Also, countries with greater gender inequalities have shown to have higher rates of poverty than countries that prioritise gender equity. This can be attributed to the huge productivity gaps and economic losses resulting from gender-blind policies. Against this backdrop, there has been a growing consensus on the importance of mainstreaming gender considerations in policies to achieve sustainable development by many international and national organisations. However, most energy policies and programmes remain neutral to gender considerations. By employing the energy justice theoretical framework, which assess the distributive, recognition and procedural elements of energy justice, this research explores to what extent, gender is mainstreamed in Ghana's energy policies, which roadblocks and hindrances exist, and possible improvement ways to engender Ghana's energy access policy frameworks towards a more inclusive and gender equitable policy.

Keywords: *gender issues, engender, productive use of energy, energy planning, energy poverty, gender inequalities, gender equity, gender-blind, productivity gaps, gender mainstreaming, energy justice, equitable.*

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List of Acronyms

AEA: Arthur Energy Advisors

DALY: Disability Adjusted Life Years

ECOWAS: Economic Community of West African States

EDGAEP: ECOWAS Directive on Gender Assessments in Energy Projects

EEEP: ECOWAS Energy Efficiency Policy

EPA: Environmental Protection Agency

EPGMEA: ECOWAS Policy for Gender Mainstreaming in Energy Access

EREP: ECOWAS Regional Policy for Renewable Energy

ESP: Electricity Supply Plan

ESSDP: Energy Sector Strategy and Development Plan

EU: European Union

GAD: Gender and Development

GDP: Gross Domestic Product

GFU: Gender Focal Unit

IEA: International Energy Agency

IEG: Independent Evaluation Group

LCLP: Local Content and Local Participation

LPG: Liquified Petroleum Gas

LV: Low Voltage

MDA: Ministry Departments and Agencies

MGCSP: Ministry of Gender, Children and Social Protection

MOE: Ministry of Energy

MS: Member States

NAP: National Action Plan

NEP: National Energy Policy

NES: National Electrification Scheme

PV: Photovoltaics

SDG: Sustainable Development Goal

SHEP: Self-Help Electrification Programme

SNEP: Strategic National Energy Plan

SSA: Sub-Saharan Africa

STEM: Science, Technology, Engineering and Mathematics

UNESCO: United Nations Educational, Scientific and Cultural Organisation

WAD: Women and Development

WEET: Women Engineers in Energy Trainee

WID: Women in Development

Introduction

There has been a growing recognition in the past few decades of the need to ensure that global efforts to transition towards renewable energy do not extend patterns of behaviour that are prevalent in the energy and development ecosystem such as gender inequality and energy poverty. With regard to gender inequality in particular, the issue continues to be addressed in various global, regional, and localized policy circles. Countless policy documents, studies, instruments, and research initiatives have been devoted to the need to mainstream gender, as well as the benefits that are likely to enure to States that prioritise gender mainstreaming in energy access solutions.

However, many discussions, strategies or national action plans on energy access and renewable energy transition tend to adopt varied gender-blind approaches, which focus only on the availability of technological know-how, capital investment and energy resources regardless of the different specific needs of the members of a household.[1] Predictably, such approaches either minimize the role of women in helping to achieve the goal of ensuring access to affordable, reliable, sustainable and modern energy or significantly underappreciates the gendered dimensions of the different energy needs of both women and men.[2]

Research Justification

For developing countries like Ghana, the benefits that are likely to result from a committed approach to gender mainstreaming cannot come sooner. In particular, an urgent conversation is necessary in order to achieve the Sustainable Development Goal (SDG) 7 which focuses on ensuring access to affordable, reliable, sustainable and modern energy for all by 2030, with a focus on increasing the share of renewables in total energy consumption.[3]

[1] Carelle Mang-Benza, 'Many Shades of Pink in the Energy Transition: Seeing Women in Energy Extraction, Production, Distribution, and Consumption' (2021) 73 Energy Research and Social Science 101901, 1 <https://doi.org/10.1016/j.erss.2020.101901>.
[2] ibid.
[3] United Nations, 'The Sustainable Development Goals Report 2020' 12, 12.

An increasing body of research has demonstrated that gender-blind and biased development policies lead to high productivity gaps.[4] This has been especially profound in the African region where economic losses due to gender gaps in effective labour, amounts to high revenue losses. Annual revenue losses for Sub-Saharan Africa (SSA) alone exceeds US$60 billion and US$255 billion for the entire continent.[5] Gender blind policies have mainly been due to pervasive gender stereotypes and cultural biases, being perpetuated by the exclusion and non-recognition of women as drivers of change in development policies and also, in high productivity income earning sectors.[6]

Women make up a disproportionate 74% of the informal low productivity non-agricultural sector which is predominately characterised by poor working conditions and poor pay, leading to a perpetuating intergenerational cycle of poverty and low socio-economic development.[7] Accordingly, the World Bank Gender and Development group found that, development policies and actions which fail to take into consideration gender equality and address any existing inequalities will incur exorbitant costs, and will be limited in their effectiveness to bring about the desired growth and human development.[8] Similarly, historical data also suggests a positive trend between gender equality in literacy rates and high levels of Gross Domestic Product (GDP) per capita, leading to a more sustainable economic development. (See figure 1).

[4] Buvinic, Mayra. 1986. "Projects for Women in the Third World: Explaining their Misbehaviour." World Development 14(5): 653–64.; Dey, Jennie. 1981. "Gambian Women: Unequal Partners in Rice Development Projects?" Journal of Development Studies 17(3): 109–22.
[5] Amarakoon Bandara, 'The Economic Cost of Gender Gaps in Effective Labor: Africa's Missing Growth Reserve' (2015) 21 Feminist Economics 162, 178.
[6] ibid 166–168.
[7] UN Women, *Progress of the World's Women 2015-2016* (2015) 102–105; Bandara (n 5) 179.; Women in informal economy<https://www.unwomen.org/en/news/in-focus/csw61/women-in-informal-economy>
[8] World Bank, 'Gender Equality and the Millennium Development Goals' 4.

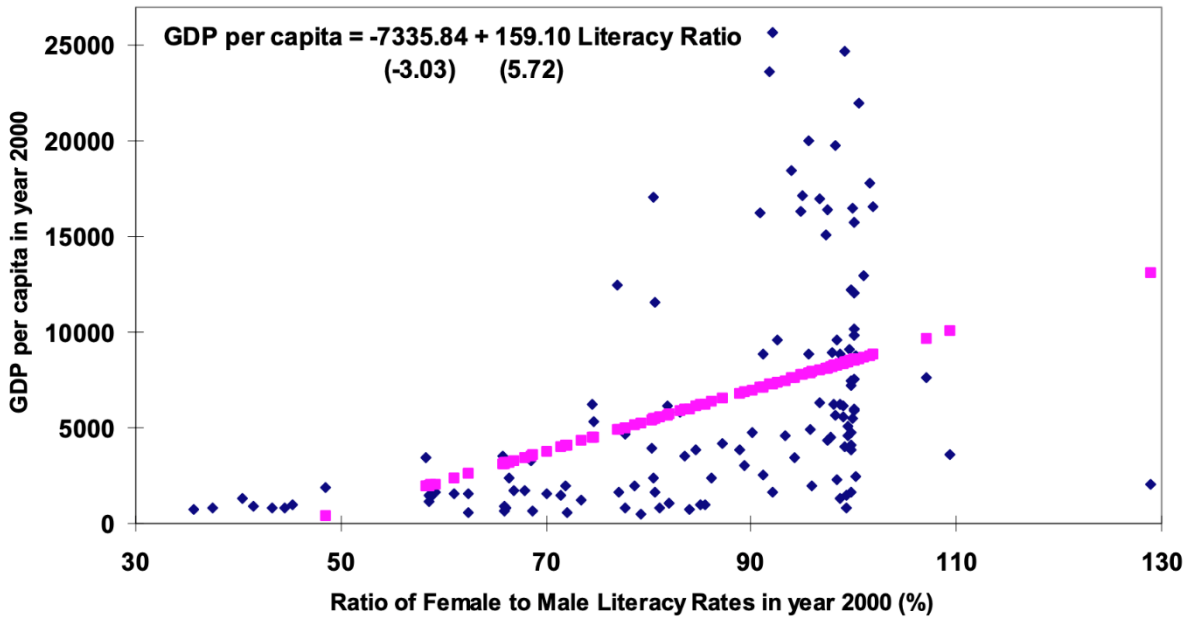

Figure 1: Positive Correlation between Literacy Ratio and GDP per capita[9]

Studies have shown this evident in the 5 Nordic countries: Denmark, Finland, Iceland Norway and Sweden which score high on global gender equality indexes; that gains in gender equality and women empowerment have contributed a substantial growth of 10-20 % of GDP per capita growth over the past 40 to 50 years.[10]

According to Åsa Löfström, there are substantial benefits from a gender equal labour market; as high as an increased GDP of between 15 and 45 % in European Union (EU) Member States (MS).[11] Comparing gender equality as an economic application of Le Chantelier's principle which states that "the fewer restrictions one has to consider the easier it is to achieve a specific goal", she pointed out that gender equality on the labour market allows for greater economic productivity and efficiency, as roles are given to the person most suitable for the position and not on discriminating gender factors.[12]

[9] Derek HC Chen, 'Gender Equality and Economic Development The Role for Information and Communication Technologies' [2004] World Bank Policy Research Working Paper 3285 28.
[10] OECD, 'Is the Last Mile the Longest? Economic Gains from Gender Equality in Nordic Countries' 2018; Nordic Council of Ministers, 'Economy and Gender Equality in the Nordic Countries A Selection of Good Nordic Practices'.
[11] Asa Löfström, 'Gender Equality, Economic Growth and Employment' [2009] Education 5 <http://ec.europa.eu/social/BlobServlet?docId=3988&langId=en>.
[12] ibid 8.

The difference in savings, risk preference and investment behaviours; and consumption patterns of men and women, has also been found to increase economic growth in a gender equitable environment. Women tend to have a high proclivity to saving and investing in sustainable and social areas that focus not only on increasing profit, but also on having a positive impact on the wider society as compared to men.[13] Women have also been found to invest large portions of their income on their households and children, thereby reducing poverty.[14] A study conducted on families in Kerala in India, found that the nutritional well-being of children were in direct proportion to the incomes of their mothers' while there was no direct link to increases in their fathers' income.[15]

Intrinsic Link Between Gender Equality and Socio-economic inequalities

A growing body of research continues to show that there is an intrinsic link between gender, poverty and economic development.[16] Countries with greater gender inequality have higher poverty rates than countries which are more gender equal.[17] Women tend to be more vulnerable to extreme poverty due to the greater burden of unpaid work, socio-cultural roles, and labour-force discrimination which invariably leads to low-income earnings, unequal asset ownership, gender-based violence and early marriages. Each of these factors have in turn been recognised as significant factors in the decrease in labour-force participation of an entire country.

Globally, it has been found that women are more likely to spend twice as much time on unpaid domestic work as compared to men, and this trend is more profound in developing countries.[18] There is also the double burden on women who are employed, in combining paid

[13] Agnieszka Skonieczna and Letizia Castellano, *Gender Smart Financing Investing In & With Women: Opportunities for Europe*, vol 8022 (2020) 8 <https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.>; Löfström (n 11) 10; Janet Gale Stotsky, 'Gender and Its Relevance to Macroeconomic Policy: A Survey' (2006) 06 IMF Working Papers 1, 10–15.
[14] Löfström (n 11); Stotsky (n 13).
[15] Stotsky (n 13) 10.
[16] Moheyuddin Ghulam, 'Introduction to Gender, Economic Development and Poverty Reduction'; Amaia Altuzarra, Catalina Gálvez-Gálvez and Ana González-Flores, 'Is Gender Inequality a Barrier to Economic Growth? A Panel Data Analysis of Developing Countries' (2021) 13 Sustainability (Switzerland) 1; Naila Kabeer, 'Gender Equality and Economic Growth' [2018] Women and Girls Rising 205.
[17] ; OXFAM International, 'Why the majority of the world's poor are women' < https://www.oxfam.org/en/why-majority-worlds-poor-are-women>
[18] USAID, 'Gender and Extreme Poverty' 1, 2–3; United Nations Department of Economic and Social Affairs (UNDESA), *The World's Women 2010* (2010).

work and unpaid domestic work as this leads to extremely longer working hours for women.[19] These activities create "time poverty", where women have no time left to invest in building up their skills, further education and training, and political activities.[20] Young girls also face similar challenges, as they are sometimes forced to drop out of school due to the burden of having to combine both long hours of domestic work with school, creating a cycle of a poverty "lock-in" among women. For example, in Gambia, many daughters in addition to combining schoolwork with house chores also take on additional jobs.[21] A greater part of earnings from these extra jobs are then used to support their parents or brother's expenses.[22]

Further, the existing gender gaps in the agricultural sector have been found to restrict critical economic growth and sustainability, especially in developing countries. Agriculture accounts for an average of 34 % of GDP share and 64 % of employment in SSA.[23] Interestingly, women account for 43 % of the agricultural labour force in developing countries and 50 % in SSA.[24] Despite their high participation in agricultural activities with comparative efficiency in farming as men, women are again disadvantaged as they own less than 5 % of land in many African countries.[25] In Ghana, the mean value of land owned by men is three times that of women.[26] Further, women face the challenge of limited access to markets and credit facilities, making it difficult to purchase productive outputs like farming equipment, improved seed varieties and fertilisers which improves crop yields. Studies in Ghana and Malawi have shown that when women farmers have the same access to fertilizer and other agricultural inputs as men, their maize yields increased by as much as 17 and 11-16 % respectively.[27] Bridging the gender gap thus has the potential of increasing agricultural output in developing countries by

[19] United Nations Department of Economic and Social Affairs (UNDESA) (n 18) 101–103.
[20] ibid 98–103.
[21] Sylvia Chant, 'The "feminisation of Poverty" and the "Feminisation" of Anti-Poverty Programmes: Room for Revision?' (2008) 44 Journal of Development Studies 165, 186.
[22] ibid.
[23] World Bank, 'Agriculture for Development' (2008) 35.
[24] Food and Agriculture Organisation of the United States, *The State of Food and Agriculture Women in Agriculture: Closing the Gender Gap for Development* (2011) 5,7.
[25] ibid 23.
[26] World Bank, 'Gender Equality and Development' (2012) 18; Cheryl R Doss and Michael L Morris, 'How Does Gender Affect the Adoption of Agricultural Innovations?: The Case of Improved Maize Technology in Ghana' (2000) 25 Agricultural Economics (United Kingdom) 27, 35.
[27] World Bank, 'Gender Equality and Development' (n 26) 4,237; World Bank, *Food Prices, Nutrition, and the Millennium Development Goals* (2012) 50 <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1327948020811/8401693-1327957211156/8402494-1334239337250/Full_Report.pdf>.

2.5 - 4 % thereby contributing to sustainable economic development and reducing world hunger by 12 - 17 %.[28]

In addition, despite global progress in education access, girls continue to face the worst forms of exclusion in education. A 2020 report by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) found that globally, three quarters of primary school age children who may never set foot in school are girls.[29] Girls from low-income countries and those living in extreme poverty face the worst forms of acute exclusion with regards to access to education due to significant barriers such as the inability to pay school fees and afford school supplies, time constraints due to girls' roles in house chores, gender-based violence, lack of sanitary facilities and pregnancy.[30] This lack of formal education however reduces the chances of women participating in the labour force, and thereby creates a re-enforcing cycle of deprivation among women and those already living in extreme poverty.

Bridging the gender gap in education - even at primary level - has been found to have significant returns and impact in decreasing maternal mortality by 70 % in SSA.[31] Aside this, formal education has also been a powerful tool for reducing the rate of child marriages in girls. Globally, it has been estimated that some 650 million girls and women today were married when they were children.[32] Also, between 2010 and 2017, the SSA region recorded the highest number of child marriages - with 38 % of women aged between 20 and 24 marrying before the age of 18.[33] Secondary school education has however been considered as having the potential for reducing child marriage by 64 %.[34]

Energy Access for Development

Having shown the gender gap in many different sectors of development, what is the significance of addressing inequalities in energy access?

[28] USAID, 'Gender Equality and Female Empowerment' 6; USAID (n 18) 5.
[29] UNESCO, *Global Education Monitoring Report 2020: Gender Report, A New Generation: 25 Years of Efforts for Gender Equality in Education* (2020) 1 <https://en.unesco.org/gem-report/2020genderreport>.
[30] USAID (n 18) 6.
[31] UNESCO, 'TEACHING AND LEARNING: Achieving Quality for All Gender Summary' [2014] UNESCO 477, 2 <http://en.unesco.org/gem-report/>.
[32] UNESCO, *Building Bridges for Gender Equality* (2019) 22.
[33] ibid.
[34] UNESCO, 'TEACHING AND LEARNING: Achieving Quality for All Gender Summary' (n 31) 2.

Over the years, energy has helped transform societies and spur economic growth and development by helping provide basic human needs such as nutrition, heating and lighting. Expanding energy access especially to the poor in developing countries, has shown to improve productivity, the growth and facilitation of enterprises, which help in lifting the rural poor out of subsistence activities, increased employment opportunities, improved local health conditions and a decrease in overall poverty.[35] In light of this, several governments have set national targets to improve access to reliable energy and modern cooking fuels at affordable rates.[36] Despite huge strides in electrification, 789 million people still remain without access to electricity with 72 % in Africa and 27 % in Asia.[37]

With regards to access to clean cooking fuels and technologies, the International Energy Agency (IEA) reports that more than 2.6 billion people still rely on polluting fuels such as biomass, coal, agricultural residues and animal dung for cooking and heating, which comes at great cost to both health and productivity.[38] Since 2010, India and China, have made significant strides with over 450 million people gaining access to clean cooking facilities due to their Liquified Petroleum Gas (LPG) programmes and policies. However, the situation in SSA remains dire, as only 17 % of the population have clean cooking access.[39] This situation is even further threatened with the COVID-19 pandemic, as government priorities continue to shift towards battling the spread of the virus, slowing down clean cooking access programmes.[40] A more nuanced observation can be made by considering the situation along a rural-urban divide, as the number of people without access to clean cooking facilities and electrification is 5 times higher in rural than in urban areas.[41]

The 2020 Ghana National Energy Statics report by the Energy Commission revealed that, biomass (firewood and charcoal) constituted 37.4 % of the final energy consumed in

[35] Shonali Pachauri and others, 'Energy Access for Development' [2012] Global Energy Assessment (GEA) 1401, 1407; Rangan Banerjee and others, 'Global Energy Assessment (GEA)' (2012) 50 Choice Reviews Online 50, 25.
[36] Pachauri and others (n 35) 1407.
[37] IEA and others, 'Tracking SDG 7: The Energy Progress Report 2020' 176, 4,6 <https://trackingsdg7.esmap.org/>.
[38] ibid.
[39] IEA (2020), SDG7: Data and Projections, IEA, Paris https://www.iea.org/reports/sdg7-data-and-projections
[40] ibid.
[41] Dramani Bukari and others, 'Ghana's Energy Access Journey so Far: A Review of Key Strategies' (2020) 15 International Journal of Energy Sector Management 139, 4.

2019.[42] This high use comes with serious associated health implication on users. In 2017 alone, 9,780 deaths were associated with household air pollution in Ghana, ranking household air pollution as the seventh biggest risk factor for health burdens in the country.[43] Indoor air pollution is also responsible for 502,000 disability adjusted life years (DALYs) in Ghana.[44] An increase in clean cooking technologies has been found to have a significantly positive impact on health by a saving of more than 24 DALYs and preventing 2 million premature deaths annually from household air pollution and other related health impacts especially among women and young girls who spend most of their time in the kitchen.[45] Switching from traditional to improved cooking stoves also liberates women from the time spent in collecting biomass and the burden of carrying them over long distances and allows them to invest time in income generating activities which can help break the vicious cycle of poverty.

The ratio of people without basic water supply and basic sanitation in SSA is 42 % and 72 % respectively.[46] With more than half of the urban population living in slums, access to electricity helps play an important role in improving access to safe drinking water and sanitation in low income and peri-urban areas.[47] High agricultural productivity is also facilitated through the use of energy technologies for irrigation and water pumping which helps ensure food supply throughout the entire year in drought prone areas of developing Africa and Asia.[48]

Modern energy services help in creating child-friendly and safe environments that encourage learning in schools and has been found to significantly reduce school dropout rates

[42] Ghana Energy Commission, 'National Energy Statistics 2000-2019' (2020) 3 <http://www.energycom.gov.gh/files/ENERGY STATISTICS-2020.pdf>.
[43] HEI Health Effects Institute-Ghana Working Group, 'Contribution of Household Air Pollution to Ambient Air Pollution in Ghana' [2019] Health Effects Institute Communication 19 36, 17; Health Effects Institute, 'State of Global Air 2019' [2019] Health Effects Institute. 24, 10 <http://www.stateofglobalair.org/sites/default/files/soga_2019_report.pdf>; Jeffrey D Stanaway and others, 'Global, Regional, and National Comparative Risk Assessment of 84 Behavioural, Environmental and Occupational, and Metabolic Risks or Clusters of Risks for 195 Countries and Territories, 1990-2017: A Systematic Analysis for the Global Burden of Disease Stu' (2018) 392 The Lancet 1923.
[44] Energy Commission of Ghana and United Nations, 'Sustainable Energy for All Action Plan - Ghana' [2012] Ghana Sustainable Energy for All Action Plan 25, 17 <http://energycom.gov.gh/files/SE4ALL-GHANA ACTION PLAN.pdf>.
[45] Banerjee and others (n 35) 25,26,40; UNDP, 'UNDP and Energy Access for the Poor: Energizing the Millennium Development Goals' [2011] Environment & Energy, United Nations Development Programme 3.
[46] Rolfe Eberhard and GIZ, 'Access to Water and Sanitation in Sub-Saharan Africa' 16 <https://e4sv.org/wp-content/uploads/2017/05/TR13-Education-and-the-Electrification-of-Rural-Schools_web-1.pdf>.
[47] Stephen Karekezi and others, 'Energy, Poverty, and Development' [2012] Energy and Development 1, 155.
[48] ibid 172.

in low-income countries.[49] For example, Sudan and Tanzania reported a jump in attendance of primary and secondary schools from less than 50 % to close to 100 % after the introduction of solar electricity at schools.[50] Electricity access in developing countries also help bridge the gender equality gap in education. Girls are able to enrol more in schools due to the ease of domestic burdens such fetching fuel wood and cooking.[51] In Nepal for instance, girl child enrolment increased by 23.3 % when a number of schools in villages were electrified.[52] Both boys and girls are also able to study at night which improves their academic performance. A multivariate model of the determinants of teacher absenteeism in Ghana developed by the World Bank Independent Evaluation Group (IEG) found that electricity access in rural areas had a direct relation to the number of teachers willing to relocate there.[53] Communities with electrification also have a much higher probability of having a secondary school and may allow schools to be available for adult literacy in the evenings.[54]

Improving energy access in developing countries is thus crucial in ensuring poverty alleviation and socio-economic growth and development for both male and female members of the household. In order to bring these goals into fruition, an enabling environment which is shaped by sustained government policies and programmes is crucial in ensuring the whole populace has access to clean and affordable energy services.

Energy Supply is not Gender Neutral

Conversely, often times energy policies are designed to be neutral to gender considerations. However, increasing research has shown that public policies and services always have different implications for equality between men and women and those that do not

[49]Mapako, M., (2010): Energy, the Millennium Development Goals and the Key Emerging Issues. Department of Environmental Affairs, South Africa.
[50] United Nations Department of Economic and Social Affairs (UNDESA), 'Electricity and Education: The Benefits, Barriers, and Recommendations for Achieving the Electrification of Primary and Secondary Schools' [2014] Energy and Education Journal 1, 12 <sustainabledevelopment.un.org/index.php?page=view&type=400&nr=160) pp.1–36>.
[51] Karekezi and others (n 47) 176.
[52] Alicia Welland, 'Education and the Electrification of Rural Schools Smart Villages' 1, 16 <https://e4sv.org/wp-content/uploads/2017/05/TR13-Education-and-the-Electrification-of-Rural-Schools_web-1.pdf>.
[53] World Bank, *The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits* (2008) 35,110<http://lnweb90.worldbank.org/oed/oeddoclib.nsf/DocUNIDViewForJavaSearch/EDCCC33082FF8BEE852574EF006E5539/$file/rural_elec_full_eval.pdf>.; Phil Goodwin, The dark side of education, October 8, 2013, <http://www.one.org/us/2013/10/08/the-dark-side-of-education/>.
[54] ibid 142.

fully integrate the strategic needs and situations of its final users may lead to incongruous solutions, and inadequate public fund management that defeats the goal of inclusive sustainable development.[55] Men and women use energy in different ways and when this is not considered in energy planning, it could widen the already existing gender gaps with effects on education, health conditions, welfare and the productive activities of both men and women.

As already emphasised, women are most affected by energy poverty due to discriminatory socio-cultural and traditional roles, limited access to productive assets, finance and training. These constraints limits women in having access to high income job prospects in the energy sector and a greater representation of women in decision-making in every level of the energy sector where they could make their needs known. For instance, in many developing countries, women represent a greater portion of entrepreneurs in micro, small and medium-sized domestic enterprises which provide services such as food preparation, beer brewing and pottery-making to their communities and contribute immensely to economic growth at the national level.[56] A national energy strategy that focuses only on the progressive grid expansion of electricity without factoring in a gendered component will inadvertently discriminate against women in these spheres, as electricity may not be the most inexpensive option to expand their businesses.[57] Policies that promote LPG will be more suitable as they offer affordable access to process heat that is required for these activities.[58]

To achieve the afore mentioned goals of energy access for development, it is important that when policy makers design national energy policies and poverty reduction strategies women are not left out. As noted earlier, women are more vulnerable to poverty and as such, must be mainstreamed into energy access policies, not only as a vulnerable group but as active stakeholders who can help accelerate electrification and sustainable development.

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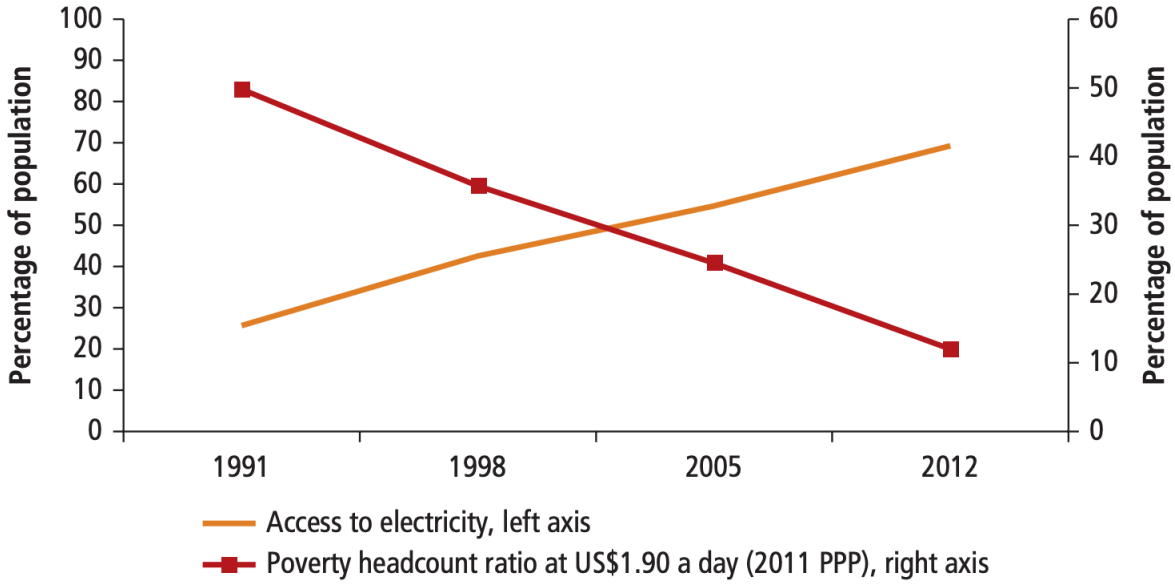
[55] What is gender mainstreaming<https://www.coe.int/en/web/genderequality/what-is-gender-mainstreaming>
[56] UNDP, 'Gender and Energy For Sustainable Development: A Toolkit and Resource Guide' [2004] Gender and Energy For Sustainable Development: A toolkit and resource guide 28 <https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/tie-energia_summary_gender_audits_botswana_kenya_senegal.pdf>; IFC, 'Strengthening Access to Finance for Women-Owned SMEs in Developing Countries' [2011] Equality, Diversity and Inclusion: An International Journal 6, 12–17; Ana Rojas and Jackeline Siles, *Guide on Gender and Energy for Trainers and Managers of Public Policies and Projects* (2015) 25 <http://biblioteca.olade.org/opac-tmpl/Documentos/old0370.pdf>.
[57] UNDP (n 56) 28.
[58] ibid.

Ghana's Electrification Spur

Over the past two decades, Ghana has made significant strides with regards to household electrification, from 31% in 1993 to 78% in 2014.[59] Currently, Ghana is one of the six countries in SSA with higher than 75% access to electricity.[60] The World Bank reports a sharp decline of close to 50% poverty rate in the 1990s to just 14% in 2012, a substantive proof of the correlation between energy access and poverty reduction as shown in figure 2.[61] Ghana's electrification spur has been attributed to its key overarching policies in energy access that have facilitated electricity access.[62] But how inclusive have these policies been? Do they take into account the different energy needs of both women and men?



Source: World Development Indicators.
Note: PPP = purchasing power parity.

Figure 2: Ghana's access to electricity and the evolution of poverty rate[63]

[59] Moussa P Blimpo and Malcolm Cosgrove-Davies, *Electricity Access in Sub-Saharan Africa: Uptake, Reliability, and Complementary Factors for Economic Impact* (2019) 13.
[60] ibid.
[61] ibid 137.
[62] ibid.
[63] ibid 138.

Research Question and Methodology

Against this backdrop, this thesis seeks to analyse and assess the extent to which gender is mainstreamed in Ghana's energy access policies. In answering this question, I will be exploring the gender mainstreaming approaches developed over the years in development policies and assessing their respective strengths and limitations for promoting inclusivity and sustainability in energy access programmes. I will also be deploying the energy justice theoretical framework originally adapted from the environmental justice research.

In determining the extent to which gender is mainstreamed in energy policies in Ghana, this thesis will follow a methodology of desk research and review of policy documents and literature review.

Chapter 1 explores the various gender mainstreaming approaches that have been developed over the years in development policies, as well as the energy justice space by analysing the energy justice theoretical frameworks developed over the past years, which takes into account elements of distributive, recognitional and procedural justice.

Chapter 2 first analyses and evaluates existing energy policies in Ghana based on this theoretical framework to test the cogency, inclusiveness and equitability of these policies, and whether it responds to the energy justice framework before and after the adoption of the Economic Community of West African States (ECOWAS) Policy for Gender Mainstreaming in Energy Access (EPGMEA) in the West African region. Second, the implementation gaps of the EPGMEA and Ghana's National Action Plan (NAP) for gender mainstreaming in energy policies are explored, and lessons are drawn from Rwanda's approach to gender mainstreaming to provide practical examples from which Ghana could take some inspiration from.

1 Chapter 1: Gender Mainstreaming in Energy Planning and the Energy Justice Theoretical Framework

This chapter explores how women's representation, their access to resources and their integration in development policies have evolved over the years from a Women in Development approach (WID) to the Women and Development approach (WAD), and finally to a Gender and Development approach (GAD). The purpose of this chapter is to evaluate and analyse which is more appropriate to be implemented in energy and development policies in order to avoid developing gender-blind and discriminatory policies.

1.1 Gender As a Social Construct

To understand what it means to mainstream gender in policies, clarity must be made between the terms "sex" and "gender". "Sex" and "gender" are often used interchangeably to mean the same thing. However, these are two different concepts. Sex refers to the biological, physical or physiological differences between men and women[64]. While gender refers to the sociological and cultural constructs of roles associated with either being a male or female which can be influenced by ideologies, religion, ethnic, economic or cultural elements. [65] Gender also influences the distribution of responsibilities, power and resources between men and women in society.[66]

Why is this distinction important? First, it is important to note that men and women are not only categorised according to their sex and reproductive roles but also by their productive and community roles and this distinction should be taken into account to avoid creating gender-blind policies. Second, focusing on the concept of gender allows more light to be shed on several crucial gender-related issues like gender imbalance, gender discrimination, gender gaps, gender sensitivity, gender equity and gender equality.

Gender issues stem from historical, social and cultural constructs about the abilities and capabilities of men and women which translates into what is appropriate for women and men

[64] Food and Agriculture Organisation of the United States (n 24) 4.
[65] Agnes R Quisumbing, 'Male-Female Differences in Agricultural Productivity: Methodological Issues and Empirical Evidence' (1996) 24 World Development 1579, 1580; Darcy E Broughton, Robert E Brannigan and Kenan R Omurtag, 'Sex and Gender: You Should Know the Difference' (2017) 107 Fertility and Sterility 1294, 1294 <http://dx.doi.org/10.1016/j.fertnstert.2017.04.012>.
[66] Quisumbing (n 65) 1580; Broughton, Brannigan and Omurtag (n 65) 1294.

to do or to have.[67] In these settings, both men and women are required to conform to roles society assigns to them, and in these roles, women are typically expected to assume lower statuses.[68] Gender imbalance transpires when men and women are denied equal opportunity and participation in development services and resource access and control.[69] Gender discrimination describes the conscious or unconscious biases in the way in which men or women are treated based on their gender rather than in their individual competences and skills. Gender gaps are the resulting statistical indicators of the differences in resource and development access due to gender discrimination and imbalance.[70] Gender sensitivity is the ability to recognize gender issues, and taking into consideration the impact of policies, programmes and projects on both men and women.

Gender equity refers to fair treatment of both men and women with reference to both responsibilities and benefits; whereas gender equality comprises the equal enjoyment of opportunities and resources by both men and women.[71] Gender equality aims to empower women to ensure that women are able to share equally in decision making, given equal treatment under the law, equal access to education and equal pay for work.[72] These social constructs around gender and gender roles can however be transformed and changed through well formulated social and public policies.

1.2 Gender Mainstreaming in Energy Planning

Mainstreaming gender in energy planning and development policies refers to recognising that men and women have different levels of access to energy and energy technologies, different uses and perception of benefits of new energy technologies and are not impacted the same way by energy provision.[73] These differing perceptions and uses of energy and energy technologies are not necessarily in conflict, as they most often complement one

[67] Mariëlle Feenstra, 'Towards a Gender-Aware Energy Policy. A Case Study from South Africa and Uganda' 1, 21 <http://essay.utwente.nl/58197/1/scriptie_M_Feenstra.pdf>.
[68] Bosena Tebeje, 'Gender Issues: For Health Extension Workers' 1, 8.
[69] Feenstra (n 67) 21.
[70] ibid.
[71] Tebeje (n 68) 34.
[72] ibid.
[73] Elizabeth Cecelski, 'The Role of Women in Sustainable Energy Development' 20 <http://sustainability.thomsonreuters.com/2012/10/10/the-role-of-women-in-sustainable-economic-development/>; Peter Alstone and others, 'Expanding Women's Role in Africa's Modern Off-Grid Lighting Market' 7.

another.[74] However, they do have different implications for energy policy and planning, priority end uses and marketing.[75] In order to mainstream gender effectively into energy development policies, the peculiar and distinct needs of women and men, their different roles and responsibilities, have to be incorporated as an integral component of the design, implementation, monitoring and evaluation of these policies. This would ensure that both men and women benefit equitably from legislations, projects, policies and programmes.

To help facilitate gender mainstreaming in development policies, three approaches have been developed: The Women in Development (WID), Women and Development (WAD), and the Gender and Development (GAD).

1.2.1 Women in Development Approach (WID)

The WID approach emerged in the early 1970's when feminist liberalists, researchers and development practitioners championed the cause for greater representation of women in aid programmes and development policies with an argument for equity and economic efficiency.[76] The WID approach however only focuses narrowly on women's lack of access to resources and the inclusion of women into existing development processes but fails to address the process whereby the role of gender restricts women's access in the first place thus, ignoring the inherent social, cultural, legal and economic factors associated with the development of the framework itself which gives rise to these inequalities in society.[77] The WID approach adopts a passive approach by accepting existing social structures of women subordination and oppression and focuses only on how to integrate women into ongoing development initiatives without actually assessing why women are not benefiting from development strategies.[78] WID also fails to take into account specific social, class, race, and cultural contexts of women's lives, and rather categorizes women and gender as a single homogenous unit of analysis without considering the differences that exist among women.[79]

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[74] Cecelski (n 73) 20.
[75] ibid.
[76] Gina Koczberski, 'Women in Development: A Critical Analysis' (1998) 19 Third World Quarterly 395, 396–402.
[77] ibid 397; S Razavi and C Miller, 'From WID to GAD: Conceptual Shifts in the Women and Development Discourse' (1995) 1 Occasional Paper - United Nations Research Institute for Social Development 12; Feenstra (n 67) 25; Lucy Muyoyeta, 'Acknowledgements Women, Gender and Development' 32, 6 <https://www.developmenteducation.ie/media/documents/women_gender_dev.pdf>.
[78] Eva M Rathgeber, 'WID, WAD, GAD: TRENDS IN RESEARCH AND PRACTICE' 229, 6–8.
[79] ibid 2–7.

1.2.2 Women and Development Approach (WAD)

The WAD approach was developed in the late 1970's with a Marxist feminist approach, arguing that the WID approach to integrate women in development was incorrect because women have always been a part of the development process and have contributed towards economic and social growth with their work inside and outside the home.[80] In effect, the WAD perspective recognises that women are important economic actors in their societies and that women's work in the public and private spheres is crucial to maintaining and sustaining societal structures.[81] The WAD approach found the WID as having a high tendency to increase international structures of inequalities and therefore focused more on an integration between women and development processes.[82] The WAD perception identifies the structure of inequality stemming from international systems where both men and women are affected as a result of biased global economic structures which leads to an uneven distribution of wealth and a lack of access to resources.[83]

The WAD approach thus offers a more in-depth analysis of women's status than the WID but dismisses questions surrounding gender roles and the role of patriarchy in restricting women's development; as well as the relationship between men and women and its impact on development.[84] Also, the WAD approach tends to discourage an in-depth analysis on the problems of women independent of those of men because women and men are both seen to be disadvantaged on the same level with repressive global economic structures.[85] Further, the WAD approach implicitly assumes that once international structures become more equitable, women's statutes are certain to improve.[86]

[80] Muyoyeta (n 77) 6–7; Rathgeber (n 78) 8–11.
[81] Muhammad Umair Javed, 'WID, WAD, GAD: Theoretical debates and Issues'. <https://www.slideshare.net/MuhammadUmairJaved1/wid-wad-gadlec3>
[82] Comité Québécois Femmes et Développement (CQFD), 'Training Kit Gender and Development' 1, 22.
[83] Khalid Chauhan, 'Gender and Development. In: Gender Inequality in the Public Sector in Pakistan' (Palgrave Macmillan, New York 2014) 13; Muyoyeta (n 77) 7.
[84] Rathgeber (n 78) 10.
[85] Chauhan (n 83) 13; Muyoyeta (n 77) 7.
[86] Rathgeber (n 78) 10.

1.2.3 Gender and Development Approach (GAD)

The GAD approach originated in the 1980s from socialist feminist critiques as an alternative to the WID approach.[87] It offers a holistic perspective into looking at all aspects of women's lives by questioning the basis of which specific roles are assigned to different sexes, and acknowledging the negative effects of patriarchy within and across classes in oppressing women.[88] Unlike the WID and the WAD approaches, the GAD approach seeks to understand elements that foster women subordination and to offer solutions that produce a more egalitarian society, focused not only on women but on men. It highlights the role men have to play in bridging gender inequality and promotes the empowerment of women who are most often placed in socially and economically weaker positions than men. The GAD approach emphasises the need for an integrated gender planning assessment in all development policies, programmes and projects, and does not seek to relegate men but increase women's participation in all arears such as decision making; control and benefit from resources; and access to services and labour.[89] With the GAD perspective, women are recognised as active agents of change rather than passive recipients of development assistance. (See Appendix 1 for comparative analysis of WID, WAD and GAD approaches).

To sum up, the GAD provides a more comprehensive guide for genderizing an energy policy due to its inclusivity of the needs of both sexes by encouraging equal participation in decision making among both women and men from project design to implementation. This approach therefore encourages good governance, decreases gender gaps, reduces systematic discrimination, supports women's rights and empowerment and improves gender relations towards a more equitable society devoid of bias in energy access and services. GAD projects however take a longer duration to implement due to the complexity in enforcing claim rights, the need to engage political action, gender awareness and use of media. Despite this, it addresses root causes of problems by changing entrenched discriminatory attitudes and beliefs towards gender equality. More importantly, the GAD approach has been found to build more

[87] Comité Québécois Femmes et Développement (CQFD) (n 82) 8.; Muhammad Umair Javed (n 64)
[88] ibid.
[89] Tim O'Shaughnessy, *Gender-and-Development Approach (GAD)* (2002) 57 <https://www.worldvision.com.au/docs/default-source/publications/health/learning-from-the-past-hope-for-the-future-5.pdf?sfvrsn=8>; Japan International Cooperation Agency (JICA) Department Gender Equality Team Planning and Coordination, 'Trends and Approaches on Gender and Development (GAD)' 2.

sustainable energy policies as compared to the WID and WAD approaches.[90] For instance a survey in 5 SSA countries namely: Ghana, Ethiopia, Kenya, Tanzania and Zambia, found that small businesses as energy consumers exhibit gender-linked preferences in energy products.[91] This was mainly as a result of the nature of businesses operated, which often varied by gender.[92] Using the GAD approach in energy access policies in this case, avoids situations where energy consumers are treated as a single homogenous group undifferentiated by gender roles and encourages practical mainstreaming of gender needs and strategic interests.[93] This allows for structural changes which encourages equality and empowerment of women and men, as well an equal partnership between women and men in decision making.

1.3 Energy Justice Theoretical Framework

In recent years, much attention has been given to ensuring all individuals have access to clean, safe and affordable energy. Emerging scholarship has focused on applying a justice lens to energy policies, energy production and systems, energy consumption, energy activism, energy security, the energy trilemma, political economy of energy and climate change to ensure they do not entrench systemic injustices.[94]

Comparative to the GAD approach, the energy justice framework assesses the root causes of these systemic injustices; identifies which groups of people are discriminated against and how these issues must be addressed in order to decrease and eliminate these injustices.[95] The framework is based on tackling the three tenets of injustice by identifying and questioning ways in which energy benefits and the associated harms are distributed (distributional justice); recognising those whose needs are disregarded or misrepresented (recognitional justice); and identifying a just procedural approach for redress (procedural justice).[96] The conversation

[90] Feenstra (n 67) 26–27.
[91] Alstone and others (n 73) 14.
[92] ibid.
[93] Monica Maduekwe and others, 'Gender Equity and Mainstreaming in Renewable Energy Policies—Empowering Women in the Energy Value Chain in the Economic Community of West African States (ECOWAS)' (2019) 6 Current Sustainable/Renewable Energy Reports 13, 6.
[94] Kirsten Jenkins and others, 'Energy Justice: A Conceptual Review' (2016) 11 Energy Research and Social Science 174, 175 <http://dx.doi.org/10.1016/j.erss.2015.10.004>.
[95] ibid.
[96] ibid.

revolving around these three tenets of energy justice is an important one to be considered, as it has become critical to increasing energy security from production to consumption.[97]

Table 1: Evaluative and normative contributions of energy justice[98]

Tenets	**Evaluative**	**Normative**
Distributional	Where are the injustices?	How should we solve them?
Recognition	Who is ignored?	How should we recognise?
Procedural	Is there a fair process in the decision making?	Which new processes to adopt?

1.3.1 Distributional Justice

The first tenet of energy justice, distributional justice, emerged from an environmental justice framework in response to the unequal distribution of environmental harms and risks from waste and pollution facilities which more often than not are situated in already vulnerable, indigenous and economically marginal communities.[99] This framework called for an incorporation of the "right of all individuals to be protected from environmental degradation, a fair treatment, meaningful involvement of all people regardless of race, colour, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies".[100] Distributional justice thus, recognises the disproportionate physical unequal allocation of environmental and energy benefits and ills and calls for an equal and fair distribution of impacts and responsibilities. Due to the natural uneven distribution of energy resources such as fossil fuels, water bodies, and wind, the citing of energy infrastructure has raised concerns about just distributional impacts and equitable access to affordable energy options.[101] An indicative example of this can be found in the hydroelectric dam construction projects in Ghana.

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[97] Elisabet Dueholm D Rasch and Michiel Köhne, 'Practices and Imaginations of Energy Justice in Transition. A Case Study of the Noordoostpolder, the Netherlands' (2017) 107 Energy Policy 607, 609 <http://dx.doi.org/10.1016/j.enpol.2017.03.037>.
[98] Jenkins and others (n 94).
[99] Karen Bickerstaff, *Energy Justice in a Changing Climate : Social Equity and Low-Carbon Energy / Edited by Karen Bickerstaff, Gordon Walker and Harriet Bulkeley.* (2013) 5; R Heffron, H Stephan and K Jenkins, 'Advancing Energy Justice: The Triumvirate of Tenets' (2013) 32 International Energy Law Review 107, 2.
[100] Robert Bullard, 'Environmental Justice in the 21st Century.' (2000) Directory Environmental Justice Resource Group 1, 3 <http://www.ejrc.cau.edu/ejinthe21century.htm>; Heffron, Stephan and Jenkins (n 99) 1.
[101] Jenkins and others (n 94) 176.

Despite the numerous positive effects such as accelerated economic growth and a surge in industrialisation brought about by electrification through the construction of hydro dams in Ghana, local communities have had to bear brunt of the uneven socio-economic effects, negative health effects and degradation of their ecosystems.[102] The implementation of the Akosombo hydroelectric project in 1961, led to the creation of the world's third largest man-made lake and the largest artificial reservoir by surface area.[103] This paved way for two subsequent hydroelectric dams to be constructed as well: the Kpong hydroelectric dam in 1982 and the Bui hydroelectric dam in 2013.[104] The creation of these dams, led to unfavourable and poor resettlement alternatives with inadequate or no compensations; disintegration of cultural practices; loss of agricultural livelihoods and a spike in water-borne diseases such as bilharzia, malaria and onchocerciasis among local lake side communities. (See figure 1 below).

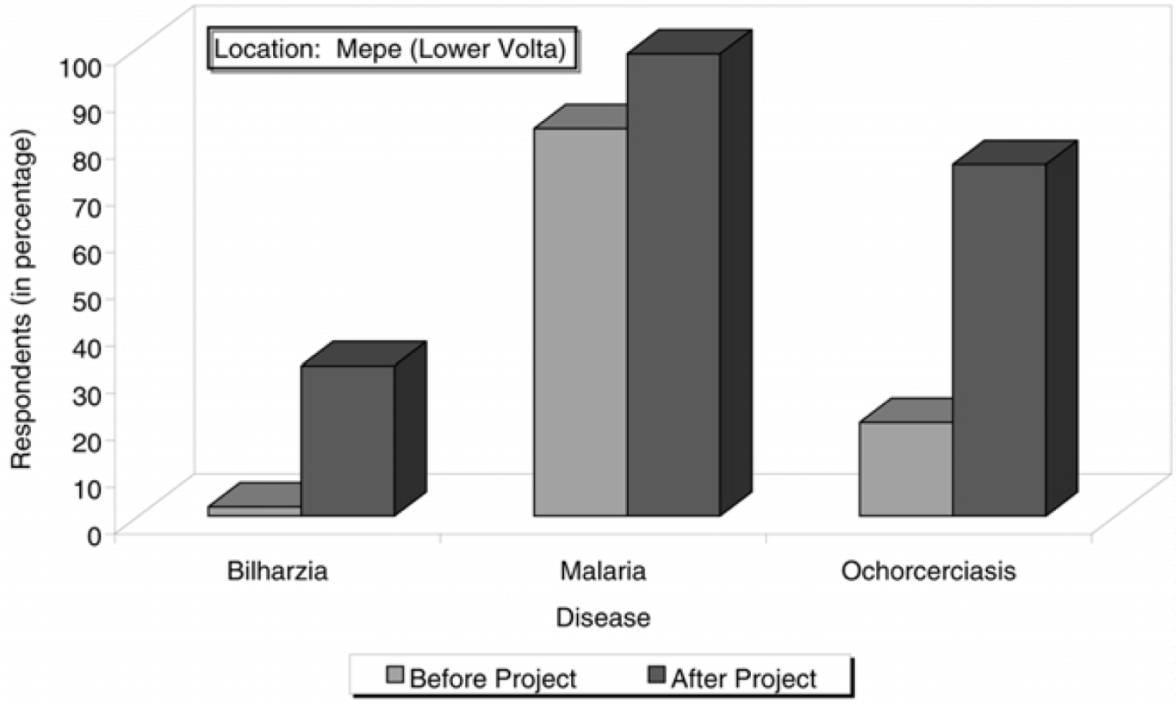

Figure 3: Health impacts of the Akosombo Hydroelectric Dam on local communities[105]

[102] P Gyau-Boakye, 'Environmental Impacts of the Akosombo Dam and Effects of Climate Change on the Lake Levels' (2001) 3 Environment, Development and Sustainability 17; Deborah Darko and others, *The Context and Politics of Decision Making on Large Dams in Ghana: An Overview* (2019).
[103] Gyau-Boakye (n 102); Darko and others (n 102).
[104] Darko and others (n 102) 3.
[105] Gyau-Boakye (n 102) 24.

Further research in Ghana shows that despite being electrified and connected to the grid, women continue to face a greater disproportionate burden from relocation and the unequal or gender-neutral distribution of energy sources.[106] This is due to the way in which legal compensation is usually combined with customary rights, as most of the compensation in the form of money and newly registered land goes to the head of the household who are usually men.[107] This leaves women with no sources of income to start or expand their business and equally, no access to land. Also, since women and men have different productive uses of energy, the gender-neutral electricity access approach by the government and policy makers, disadvantages women more. This is because most women in Ghana operate in informal micro-enterprises (comprising 90% of the informal labour force) which make use of process heat for activities such as cooking, pottery, baking and fish mongering.[108]

1.3.2 Recognition Justice

Recognition justice is the fair representation of social, cultural, gender, racial and political rights of all individuals with regards to energy issues, and their protection from associated physical threats.[109] It seeks to avoid the creation of any intended or unintended 'spaces of misrecognition' where culture and institutional processes are denigrated, disrespected or stigmatised, which may devalue some people and places identities as compared to others.[110]A lack of recognition in effect, constrains a specific group of people or individuals and usually forms the basis for distributive and procedural injustices.[111] That is, if you are not recognised, you are unlikely to benefit from resources and not allowed to participate in decision making.

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[106] Jamie Skinner, 'Women pay heavier price for big dams' [2016] IIED < https://www.iied.org/women-pay-heavier-price-for-big-dams>
[107] ibid.>
[108] Joy Clancy and Soma Dutta, 'Women and Productive Uses of Energy: Some Light on a Shadowy Area' [2005] UNDP Meeting on Productive Uses of Renewable Energy 1, 2 <www.energia.org/fileadmin/files/.../dutta_clancy_productive_use.pdf>; Veronica Peprah, Daniel Buor and David Forkuor, 'Characteristics of Informal Sector Activities and Challenges Faced by Women in Kumasi Metropolis, Ghana' (2019) 5 Cogent Social Sciences 2 <https://doi.org/10.1080/23311886.2019.1656383>.
[109] Heffron, Stephan and Jenkins (n 99) 2.
[110] Gordon Walker, 'Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice' (2009) 41 Antipode 614, 625–626.
[111] David Schlosberg, 'Reconceiving Environmental Justice: Global Movements and Political Theories' (2004) 13 Environmental Politics 517, 519.

However, there has been much contention in literature about categorising recognition as a distinct element of justice. Reference is made to John Rawls *A Theory of Justice* (1971), which explores justice as fairness and distributive justice.[112] The assertion is that recognition or respect, forms an intrinsic prerequisite for 'distributive justice' and 'justice as fairness' as described by Rawl and thus, should not be a distinct element of justice.[113] Contrarywise to this opinion, Rawl discusses 'good as a rationality' in his fourth chapter, which affirms the need and importance of self-respect.[114] In fact, Rawls describes this as 'the most important primary good' of the conception of goodness as a rationality, which enables a person to appreciate the sense of their own value and a confidence in their abilities.[115] He again stresses the importance of avoiding social conditions that threaten to undermine self-respect and self-esteem.[116] It is clear from this perspective that Rawls description and acknowledgement of 'self-respect', is in fact, an important aspect of recognition as a distinct justice element.

Jenkins et. al identified two classes of injustice in this respect, in regard to recognitional injustice: injustice as non-recognition and injustice as misrecognition and disrespect.

Non-recognition injustice occurs when policy makers fail to recognise the specific needs of a particular group of people who end up being marginalised. These include social groups such women, the elderly and chronically ill who tend to have a higher-than-average need of room temperatures and thus use more energy.[117] To address energy poverty in this case, government programmes and policies have often focused on providing education, information and other economic subsidies to enhance energy efficiency without trying to understand the motivations behind the high consumption patterns in order to address them efficiently.[118]

Misrecognition injustice occurs when the views and opinions of a particular group of people or individuals to be affected by a particular energy project or infrastructure citing are considered selfish, misinformed, conservative and ignorant, without policy makers,

[112] John Rawls, *A Theory of Justice : Original Edition*, vol Original e (Harvard University Press 1971) <https://ezp.lib.cam.ac.uk/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=282760&site=ehost-live&scope=site>.
[113] Schlosberg (n 111) 520.
[114] Rawls (n 112).
[115] ibid 440.
[116] ibid.
[117] Jenkins and others (n 94) 177.
[118] ibid.

government or investors taking into consideration the historical or current substance interests voiced by local opposition in order to have their concerns fairly addressed.[119]

Boamah and Rothfuß also identify another aspect of recognition which they term as "practical recognition". Much like misrecognition justice, their study brings to light the importance of analysing socio-political considerations driving energy demand or informing energy choices in order to grant recognition to all groups equitably.[120] Practical recognition is crucial in understanding and addressing the issue of energy justice in that, it helps appreciate that energy use is more often than not, entrenched in social practices and the social constructs of what a group of people or individuals find important or valuable.[121] This necessitates the need for a tailored approach in ensuring just energy distribution to advance the interests of different social groups and individuals.[122] Boamah and Rothfuß's research was based on a study in Ghana, where the government through its rural electrification scheme aimed at achieving spatial energy justice, provided decentralised solar Photovoltaics (PV) systems to non-electrified and remote communities. However, many residents were still keen on having access to the national grid, as they felt the solar home systems reduced them to 'second-class or old-fashioned' citizens compared to other citizens with grid access.[123] This argument is not baseless, as the study found that most recipients felt this way because of the inability of the solar PV systems to power modern and energy-intensive appliances such as refrigerators, water pumps, electric stoves and electric irons, necessary to enhance their standard of living .[124] Access to the main grid thus represents to a lot of people, a sense of recognition by the government, national identity and enlightenment.[125]

Though their research could be described as having a gender-neutral approach, it did note that in cases where households were connected to the decentralised solar PV systems, energy intensive appliances such as food blenders, microwaves were not used due to the limited load capacity of the solar systems. These decisions were made by the male household head and

[119] ibid.
[120] Festus Boamah and Eberhard Rothfuß, '"Practical Recognition" as a Suitable Pathway for Researching Just Energy Futures: Seeing like a "Modern" Electricity User in Ghana' (2020) 60 Energy Research and Social Science 101324, 2 <https://doi.org/10.1016/j.erss.2019.101324>.
[121] ibid.
[122] ibid.
[123] ibid 10.
[124] ibid 2.
[125] ibid.

other male members of the household.[126] The female household members' advocacy for an expansion of the load capacity of the solar PV systems to enable them use these electrical appliances was categorised as an expression of wanting to live a 'bourgeoise' urban lifestyle.[127] However the study does not take into account the specific needs of the female household members who have need of these appliances to reduce the burden of household chores imposed on them due to discriminatory socio-cultural roles of cooking, washing and cleaning. The formation of a just society is therefore dependent on the acknowledgement of recognition as a "vital human need, formation of identity and self-realisation through interpersonal relations and multiple forms of injustices or oppression".[128]

1.3.3 Procedural Justice

Procedural justice is characterised by the concept of non-discriminatory and equitable procedures that engage all stakeholders in energy decision-making.[129] It involves a fair process of conflict resolution and resource allocation, a reasonable notice, full information disclosure, transparency, and sufficient time for preparation and hearing of all groups affected.[130] Procedural justice encompasses processes which addresses the lack of recognition which produces a lack of fair representation in decision making and subsequently an unequal distributional outcome.[131] Access to information, access to effective participation in decision making and legal access for redress, form the fundamental building blocks of an effective procedural justice system.[132] Jenkins et. al identified three ways of achieving just procedural justice outcomes. These include local knowledge mobilization, a greater information disclosure and better institutional representation.[133]

Local knowledge mobilisation seeks to break the pattern where the knowledge of indigenous peoples concerning their local ecosystems are ignored and not included in decision

[126] ibid 5.
[127] ibid.
[128] ibid 2.
[129] Rasch and Köhne (n 97) 608; Heffron, Stephan and Jenkins (n 99) 2.
[130] Margot Hurlbert and Jeremy Rayner, 'Reconciling Power, Relations, and Processes: The Role of Recognition in the Achievement of Energy Justice for Aboriginal People' (2018) 228 Applied Energy 1320, 1322; <https://doi.org/10.1016/j.apenergy.2018.06.054>; Jenkins and others (n 94) 178.
[131] Sarah Marie Hall, 'Local Environment : The International Journal of Justice and Sustainability Energy Justice and Ethical Consumption : Comparison , Synthesis and Lesson Drawing' 37, 72.
[132] ibid.
[133] Jenkins and others (n 94).

making. Procedural justice in this regard, seeks to go beyond inclusion, by adopting an early and effective consultation process and an engagement with the local communities in establishing an energy project or infrastructure in a fair manner which does not impact negatively on communities. Unfortunately, the resettlement planning and execution of all 3 hydroelectric dam projects: Akosombo, Kpong and Bui, led to worsened socioeconomic conditions of the inhabitants due to a lack of procedural justice. The affected groups displaced by these projects, were not engaged in the decision-making process concerning relocation preference, housing design, agricultural or fishing production model preference and their preferred employment prospects.[134] The repercussion of this procedural injustice was a negative socioeconomic impact experienced by both men and women, who had to engage in unfavourable and unprofitable new occupations they were unaccustomed to.[135] For example, the Bui project alone recorded 43% of fishermen and 28% of women fishmongers shifting to farming, which was not their traditional occupation or area of expertise.[136] Further studies and interviews with the inhabitants revealed that, had they been engaged in the decision-making process concerning resettlement assistance and planning, they would have been able to state their preferred interest in other agro-enterprises such as bee-keeping and grass-cutter rearing, instead of farming which they had little or no expertise in, imposed on them.[137]

Further, greater information disclosure also allows for an effective, impartial engagement of government, industry and communities. It encourages sustainable consumption practices, energy production choices and provides an effective legal system to address injustices communities may face.[138]

The unequal representation of minority groups, women, indigenous population remain prevalent in many local, national, government and international institutions. This tends to have negative impacts on decisions made, as all affected groups are not equitably represented. However, these issues concerning the just administration of these institutions and the systems of political making decisions are seldom discussed, leaving it to "reproduce distributive

[134] Darko and others (n 102) 26.
[135] ibid; Peter Bilson Obour and others, 'The Impacts of Dams on Local Livelihoods: A Study of the Bui Hydroelectric Project in Ghana' (2016) 32 International Journal of Water Resources Development 286, 10.
[136] Obour and others (n 135) 7.
[137] ibid 10.
[138] Jenkins and others (n 94) 178; Hall (n 131) 72.

inequality and unjust constraints on people's lives."[139] For example, despite representing over half of the population (51.2%), women in Ghana represent less than 30% of ministers, members of Council of State, heads of public institutions and boards, and account for only 13.8% of members of parliament.[140] The resulting effect is an under-representation of women on national and sub-national level in all levels of governance and decision-making, resulting in a just democratic deficit, which cuts across all sectors of the economy, including income and wages.[141] For instance, Ghana is one of the only two SSA countries where women's income is less than 30% of that of men.[142] These injustices lead to a system of governance where women's right to access and their control of productive resources are not adequately addressed in most legislative systems.[143] Increasing research continue to show that women's participation in the same governance space as men is limited, as men continue to wield final decision-making powers due to their positions.[144]

In effect, procedural justice goes beyond mere parity of participation but should ensure that the voices of all participants are given equal weight on decisions and matters pertaining to their communities, in order to find effectual environmental and energy solutions for their communities to remedy environmental degradation and energy poverty that disproportionately affects women and culturally marginalised groups.[145]

Essentially, it can be observed that the three frameworks of energy justice discussed are intricately connected and complimentary. Distributive justice has implications for recognition because the inequitable distribution of benefits of resources often disadvantages the already marginalised and poor who suffer from a lack of recognition, perpetuating a cycle of social

[139] Iris Marion Young and others, *Justice and the Politics of Difference* (REV-Revi, Princeton University Press 2011) 22–23.
[140] UNDP Ghana, 'Women's Participation in Decision Making: Why it Matters' (2020) <https://www.gh.undp.org/content/ghana/en/home/presscenter/articles/2020/women_s-participation-in-decision-making--why-it-matters.html>
[141] MEWC, 'Ghana: Under-representation of women in governance and decision-making a democratic deficit-NALAG' (2019) </index.php/blog-main/political-participation-a-leadership/11179-ghana-under-representation-of-women-in-governance-and-decision-making-a-democratic-deficit-nalag>
[142] World Economic Forum, *Global Gender Gap Report 2021* (2021) 29 <http://reports.weforum.org/global->.
[143] ibid.
[144] Ellen Abakah, 'Participation without a Voice? Rural Women's Experiences and Participation in Local Governance Activities in the Abura–Asebu–Kwamankese District of Ghana' (2018) 4 Cogent Social Sciences 1, 3 <https://doi.org/10.1080/23311886.2018.1549768>; Petronella Munemo, 'Women's Participation in Decision Making in Public and Political Spheres in Ghana: Constrains and Strategies' (2017) 37 Journal of Culture, Society and Development 47.
[145] Hurlbert and Rayner (n 130) 1322.

exclusion.[146] Procedural justice recognises economically marginalised groups as equal citizens who are to be provided with equal opportunities to have their voices heard in decisions that impacts them.[147]

The energy justice frameworks, together with the GAD approach, thus offers a just and more sustainable framework for the development of more equitable energy access policies, devoid of systemic discrimination. The inclusivity and equitability of Ghana's energy policies over the years with regards to mainstreaming gender will be explored in Chapter 2.

[146] ibid 1320.
[147] ibid.

2 Chapter 2: Gender Mainstreaming in Ghana's Energy Access Policies

In developing sustainable and inclusive energy policies, policy makers and development planners thus have to adopt preferably, the GAD approach to reduce systematic discrimination, decrease gender gaps, support women's rights and enhance good governance. Also, the energy justice framework provides policy makers a just structure in developing more equitable energy policies. Ghana in recent years, has made considerable efforts in mainstreaming gender considerations in its energy access polices. However, a detailed study shows that most of these policies lack concrete actionable plans and implementation measures to bridge the gender inequality gap in energy access. In recognition of gender inequalities and the gendered nature of energy poverty in the West African Region, the Heads of State of ECOWAS, a 15 member regional group in West Africa comprising Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo, with the mandate of promoting economic integration and growth, adopted the ECOWAS Policy for Gender Mainstreaming in Energy Access (EPGMEA), together with the ECOWAS Directive on Gender Assessments in Energy Projects (EDGAEP) in 2017. [148] The directive that establishes the legal framework of the EPGMEA in 2017, through a Supplementary Act, amending the ECOWAS Treaty.[149] The Revised ECOWAS Treaty legally binds MS to coordinate and harmonise their energy policies and programmes to enhance the socio-economic and cultural conditions of women.[150]

First, this chapter aims to explore, through the lens of the energy justice theoretical framework and gender mainstreaming, energy access policies and legislations that existed in Ghana, prior to the adoption of the EPGMEA in 2017 and beyond.

Second, I analyse the EPGMEA, as it forms the basis of Ghana's National Action Plan (NAP) for Gender Mainstreaming in Energy Access, in order to determine which gender mainstreaming approach was employed and whether or not, to which extent it takes into consideration the elements of energy justice.

[148] ECOWAS, 'ECOWAS POLICY FOR GENDER MAINSTREAMING IN ENERGY ACCESS' <http://www.ecreee.org/page/publications>; ECOWAS, 'ECOWAS DIRECTIVE ON GENDER ASSESSMENTS IN ENERGY PROJECTS' (2017).; ECOWAS <https://www.ecowas.int/about-ecowas/basic-information>
[149] ibid
[150] ECOWAS, 'ECOWAS REVISED TREATY' (2010).

2.1 National Legislative, Policy and Institutional Framework for Mainstreaming Gender in Energy Access Programmes Prior to the ECOWAS Policy for Gender Mainstreaming in Energy Access (EPGMEA)

In this part, I will be reviewing the national legislative, policy and institutional frameworks for energy access in Ghana prior to the adoption of the EPGMEA, (See Table 1), in order to ascertain the extent to which gender mainstreaming was prioritised and if so, how such attempts took in consideration the elements of energy justice explored above in chapter one. The review also allows a contextualization of how gender mainstreaming in energy access policies have evolved in national policy and law-making, as well as to explore the extent to which Ghana's energy access policies have been intentional in addressing the systemic issues of energy access that faces both men and women.

The review proceeds from an awareness of Ghana's constitutional, legislative frameworks on gender equality and women's empowerment which, though not specific to energy access, can effectively be deployed to enhance gender mainstreaming in all public policies including those pertaining to energy access. For instance, Articles 17 and 27 of the 1992 Constitution of Ghana prohibits gender discrimination and unequal access to training. Sections 10, 14, 87 and 127 of the 2003 Ghana Labour Act also proscribes the discrimination on grounds of gender.[151] Similarly, various international instruments ratified by Ghana such as the Universal Declaration of Human Rights, 1984 prohibits in its Article 2, the discrimination of any kind in respect to race, colour, sex, language, religion, political opinion or social origin[152]. The 1979 Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) mandates all MS to take all appropriate measures to eliminate discrimination against women and to ensure their participation in all levels of development[153]; the 1985 Nairobi Forward Looking Strategies for the Advancement of Women, urges all governments to involve women not only as beneficiaries of development but as active

[151] The Constitution of the Republic of Ghana 1992, as amended to 1996 https://www.wipo.int/edocs/lexdocs/laws/en/gh/gh014en.pdf; The Labour Act, Ghana https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=66955

[152] United Nations, 'United Nations Human Rights Declaration' [1948] Human Rights 1, 2, 6 <https://www.un.org/en/universal-declaration-human-rights/>.

[153] General Assembly and others, 'Convention on the Elimination of All Forms of Discrimination against Women.' (1979) 13 5, 2,4,5.

stakeholders in decision making [154]; and the 1995 Beijing Declaration and Platform for Action, states that women's rights are human rights and such all discrimination must be eliminated by governments in order to create an equitable society.[155]

However, despite the ratification of these national and international frameworks, gender equality remains an issue in Ghana, and still represents a crucial problem for energy access.

Table 2: National Energy Policies prior to the adoption of the EPGMEA

Policy	Year Implemented
The National Electrification Scheme (NES)	1990-2010
Strategic National Energy Plan (SNEP)	2006-2020
The National Energy Policy (NEP)	2010-2020
Energy Sector Strategy and Development Plan (ESSDP)	2010
Annual Energy Outlook for Ghana	2010
The NES Master Plan Review	2011-2020
The Renewable Energy Act, 2011	2011
Annual Electricity Supply Plan (ESP)	2017

As would be noticed, one of the main issues that would jump at any researcher trying to piece together Ghana's energy access policies would be the fact that several of these policies cover overlapping implementation time frames. Yet, most of the policies do not address whether they have a complementary or overriding relationship to each other. It is difficult to establish whether all were at the same time applicable and were being implemented or that the latter in time was intended to override the former in time; or to complement the policies. This lack of policy clarity entails then a significant risk of mandate overlap, non-implementation, regulatory confusion and a general lack of clarity of what the prevailing policy priories are.

[154] UN General Assembly, Implementation of the Nairobi Forward-looking Strategies for the Advancement of Women: resolution / adopted by the General Assembly, 13 December 1985, A/RES/40/108, available at: https://www.refworld.org/docid/3b00f2255c.html

[155] Beijing Declaration and Platform for Action https://www.un.org/en/events/pastevents/pdfs/Beijing_Declaration_and_Platform_for_Action.pdf

2.1.1 The National Electrification Scheme (NES)

In 1972, Ghana developed a Rural Electrification Programme with the objective of increasing electricity access to rural areas and towns with population between 1000 and 5000 inhabitants.[156] It was replaced with the National Electrification Scheme (NES) in 1989 with a broader focus to provide a 100% electrification to the entire country including remote areas with more than 500 inhabitants over a 30-year period, from 1990 to 2020.[157]

The NES's objectives were to provide electricity access with the aim of alleviating poverty and increasing the standard of living of all citizens especially people living in the lower income rural areas. Its main focus was to reduce rural urban migration by enhancing socio-economic development in rural areas through the creation of small and medium scale industries and develop agricultural, education and health sectors.[158] The NES was designed in 6 phases: Phase 1 comprised of the electrification of district capital towns and villages close to the district capitals between 1990 and 1995.[159] Phase 2 from 1996 to 2000, Phase 3 from 2001 to 2005, Phase 4 from 2006 to 2010, Phase 5 from 2011 to 2020 and Phase 6 from 2016 to 2020.[160] The NES relied on 2 programmes: the Self-Help Electrification Programme (SHEP) and an alternate supply of electricity to isolated communities. With the SHEP, communities within a 20km distance were provided technical assistance by the government to connect to the national electricity grid if they provided their own Low Voltage (LV) poles required for the connection.[161] The resulting consequence from this approach was a low access to electricity in remote communities due to the inability of most of these communities to procure the required

[156] Fondazione Eni Enrico Mattei, 'Access to Energy and Economic Development in Ghana' 47, 20; Francis N Botchway, 'The State, Governance and the Energy Industry in Ghana' (2000) 33 Verfassung in Recht und Übersee 176, 182; Yaw George Obeng and others, 'GIS-BASED ENERGY ACCESS PROJECT A Review of Trends , Policies and Plans for Increasing Energy Access in Ghana' 25.

[157] IEA/IRENA Renewables Policies Database, 'National Electrification Scheme' (2012) < https://www.iea.org/policies/4956-national-electrification-scheme>;Mattei (n 156) 20; Ministry of Energy, 'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (2010) 1.

[158] The World Bank, 'Memorandium and Recommendation of the President of the International Development Association To the Executive Directors on a Propsed Development Credit to the Republic of Ghana for a National Electrification Project' (1993); Ministry of Energy, 'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (n 157).

[159] Ministry of Energy, 'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (n 157) 1.

[160] ibid.

[161] Ministry of Energy, 'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (n 157).

number of low voltage poles.[162] The alternate supply involved a solar photo-voltaic project using a fee-for service[163] payment system for isolated and remote communities.

Unfortunately, there is little data on the electricity access framework for Phases 1 to 4 by the Ministry of Energy (MOE) to enable an in-depth analysis of the policy. The only assessment available was a brief environmental impact assessment by the World Bank which classified the project under environmental category B. [164] Under which, the project was thus expected to have limited negative potential environmental and social impacts due to limited land use, since much of the sub transmission system will follow already existing roadways.[165]

2.1.2 The NES Master Plan Review

Under Phase 5 and 6 of the NES, the MOE in January 2010 engaged Arthur Energy Advisors (AEA), an energy and consultancy firm, to undertake a comprehensive review of the NES implementation in order to accelerate its completion from 2011 to 2020.[166] This was known as the NES Master Plan Review. Under this Review, which was completed in July 2010, AEA undertook a number of tasks, among which included the evaluation of NES strategies and incorporation of productive uses.[167] The NES strategies from 1990 to 2010 were then evaluated by the technologies employed; the contracting and packaging; implementation and monitoring, the lessons learnt from the scheme's effectiveness such as project benefits and costs, multiplier impacts of induced development and socioeconomic impacts and induced; and finally, the incorporation of productive uses of energy.[168]

Through the review, AEA observed that there was a slow uptake of electricity for productive purposes during Phases 1 to 4 due to the non-implementation of a productive use of energy component.[169] Further studies showed that of the few households connected to electricity during these periods, most consumed less than 50kWh per month due to the fact that

[162] ibid 22,23.
[163] Fee-for-service (FFS) is a payment model where services are unbundled and paid for separately.
[164] The World Bank (n 158); The World Bank, 'Environmental and Social Screening Checklist'.
[165] The World Bank (n 158); The World Bank (n 164).
[166] Ministry of Energy, 'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (n 157).
[167] ibid 3–11.
[168] ibid 3–5.
[169] ibid 5.

electricity use was principally for domestic lighting.[170] Again, studies on the effectiveness of the NES by AEA showed that Phases 1 to 4 of the NES had failed to incorporate or mainstream gender considerations. AEA noticed that the benefits of electrification for men and women were unequal. Men used and owned more electrical appliances than women and areas such as the kitchen and bathrooms which was mostly used by women were not lighted on concerns of high electricity bills or limited budget for wiring.[171]

Thus, AEA recommended strategy changes for the 2011-2020 NES. These included the development of comprehensive national programmes to be seen and marketed as part of a national economic development programme rather than just a rural development plan.[172] This recommended strategy could thus be seen as addressing the need for a fair and just distribution and allocation of energy resources which involves equal priority given to both rural and urban areas– distributive justice.[173]

Further, the recommendations highlighted the need for the government to ensure affordability of electricity for all communities when they were provided with energy access, which addresses another component a fair distributive justice.[174] There was also the need for a fair representation of all individuals with regard to energy access in their communities in order to avoid creating "spaces of misrecognition", where people especially in the rural communities, may be devalued compared to others, thus addressing the need for procedural and recognition justice.[175] The recommended changes also stressed on the need to ensure that the productive needs of women are not overlooked in energy access programmes; and highlighted, in particular, the need to recognize women not only as beneficiaries, but also as major stakeholders in driving and catalysing change.[176] AEA also acknowledged the procedural justice element, by recommending the participation of rural communities in development projects that affects them and the need to engage all stakeholders in energy decisions, to allow for full information disclosure to help establish the needs and priorities of communities. [177] In effect, the NES Master Plan, addressed the elements of recognition, distribution and procedural

[170] ibid 35.
[171] ibid 32.
[172] ibid 37.
[173] ibid.
[174] ibid 37,38.
[175] ibid 37.
[176] ibid.
[177] ibid 37,38.

of the energy justice framework but failed to detail an implementation strategy to facilitate the process.

Further, AEA employed the WID approach to mainstream gender concerns, thereby failing to advance structural changes which would better address questions of the systemic and routine production of gender inequality in how energy access policies are formulated and implemented. Also, it is unclear if the recommendations by AEA concerning energy justice and gender mainstreaming were actually implemented by the MOE for Phases 5 and 6 of the schemes, as there is no available report to be assessed.

2.1.3 Strategic National Energy Plan (SNEP)

Sometime in 2006, the Energy Commission[178] developed the Strategic National Energy Plan (SNEP) for the period 2006-2020 to complement the NES.[179] Its main objective was to review Ghana's energy supply structure and present a comprehensive plan that efficiently manages available energy resources, with a focus on renewable energy potential.[180]

The SNEP was divided into 2 volumes to cover both the demand and supply side of the energy sector. Volume one comprised of the demand side: residential (household); commercial and services; agriculture and fisheries; and industry and transport. Volume two comprised of the supply side of the energy sector and as such was divided into three parts: Part 1- Electricity; Part 2: Petroleum and Part 3: Wood fuels and Renewables.[181]

The SNEP found that wood fuels accounted for over 60% of the country's energy demand in the form of firewood and charcoal.[182] It also contributed to about 2% of the country's GDP and supported the livelihood of 3 million Ghanaians.[183]

However, the Plan found that women accounted for more than 65% of people engaged in the wood fuel business leading to a negative disproportionate effect on women's health and

[178] The Energy Commission regulates and manages the development of energy in Ghana, and provides legal regulatory and supervisory framework for all energy providers in the country
[179] Energy Commission, 'Strategic National Energy Plan' [2006] Main report 36, 14.
[180] ibid 9.
[181] ibid.
[182] ibid 15.
[183] ibid.

time burden due to their gendered socio-cultural roles in fuel wood collection and charcoal production.[184] The SNEP also underscored the importance of gender-disaggregated data to capture women's energy needs and mainstream gender in energy access policies, thus inferring to the need for recognitional and distributional justice.[185] However, the SNEP provided no clear framework for how this was to be achieved.

Further, the SNEP recognised the gender imbalance in various levels of decision-making such as policy formulation and implementation in the energy sector due to the under-representation of women in all stages of energy production, transportation, and distribution. However, perfunctory recognition of a problem without setting out clear mechanisms for dealing with the problem provides no effective pathway for addressing the procedural injustice element of the energy justice framework.[186]

In effect, the SNEP failed to outline clear, actionable and detailed implementation strategies to address the elements of the energy justice framework. Further, the policy appears to employ a WID approach to gender mainstreaming, where it focuses only on minimizing discrimination of women in the productive sector without an explicit increase in empowerment. It is worth noting that, although gender mainstreaming was identified as a crucial aspect of energy access which had been excluded in previous energy policies, there was no women's group represented among the 59 institutions represented at the stakeholder meetings.[187]

The major committees set up during the SNEP process included the Ministry of Finance, Ministry of Energy, Energy Commission, Royal Danish Embassy (SNEP sponsor) and RAMBOLL Consultancy (Secretary).[188] The Ministry of Gender, Children and Social Protection (MGCSP)[189], responsible for ensuring gender concerns were incorporated into

[184] Energy Commission, 'Woodfuels and Renewables' [2006] Danish International Development Agency 36, 6 <http://energycom.gov.gh/files/snep/WOOD FUEL final PD.pdf>.; See also, Energy Commission, 'Strategic National Energy Plan' (n 179) 68,69.
[185] Energy Commission, 'Strategic National Energy Plan' (n 179) 68,69.
[186] ibid 68.
[187] ibid 129,130.
[188] ibid 131.
[189] The MGCSP was formerly known as the Ministry of Women and Children Affairs (MOWAC). Its mission is to contribute to the development of the nation by achieving gender equality in development policies and legislations.

sector policies, plans and programmes of all Ministry Departments and Agencies (MDAs), was excluded.[190]

2.1.4 The National Energy Policy (NEP)

In March 2010, the National Energy Policy (NEP) was approved by the Cabinet of the government of Ghana and adopted in order to provide an efficient framework for the development and management of Ghana's energy sector.[191] The policy also sought to establish a framework to achieve universal energy access through the development of energy infrastructure to all communities by 2020, to facilitate sustainable development.[192] The NEP highlighted the disproportionate impacts of biomass on women and girls and as such, noted the importance of mainstreaming gender concerns in energy access policies, thereby acknowledging the need for recognitional justice.[193] Apart from identifying these gender and energy challenges in relation to the energy sector and outlining policy recommendations, there were no clear implementation strategies outlined on how to address them.[194] Further the policy failed to address the distributive, and procedural elements of energy justice. The Policy also appears to use the WID approach by failing to address structural changes for equal rights and opportunities for both women and men in energy access solutions.

2.1.5 Energy Sector Strategy and Development Plan (ESSDP)

The ESSDP was also adopted in 2010. It details strategies, programmes and projects in the energy sector including the energy sector institutions; power sub-sectors; the petroleum sub-sector; and waste-to-energy.[195] The ESSDP addresses issues of energy efficiency and conservation; energy and environment; energy and gender; financing the energy sector development and communication strategy.[196]

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[190] Ministry of Gender Chlidren and Social Protection, 'National Gender Policy: Mainstreaming Gender Equality and Women's Empowerment into Ghana's Development Efforts' (2015).
[191] Ministry of Energy, 'National Energy Policy: Republic of Ghana' 1 <http://www.petrocom.gov.gh/assets/national_energy_policy.pdf>.
[192] ibid 13.
[193] ibid 27.
[194] ibid.
[195] Energy Commission, 'Strategic National Energy Plan' (n 179) 2.
[196] Energy Commission, 'Strategic National Energy Plan' (n 179).

The Plan contains details of proposed objectives, verifiable indicators, possible sources of financing sources, responsible actors, a time frame and verifiable indicators to facilitate policy implementation.[197] It would seem that the ESSDP was intended to complement the NEP, as they both follow the same outline. However, there is no indication or reference in either policy which show that they are complementary. Like the NEP, it also acknowledges the uneven brunt borne by women in relation to energy access and addresses this lack of recognition justice with the goal of mainstreaming gender considerations in energy access policies by engaging the WID approach of merely integrating women into development initiatives, without encouraging gender equity through women and men empowerment.[198] To facilitate a just distribution of energy resources by minimizing the disproportionate health impacts of biomass borne by women, 2 key programmes were outlined. These include the promotion of LPG programmes for women, and the engagement of women in energy efficiency programmes.[199] Further, for the procedural element of the energy justice framework the Plan outlined two projects: the establishment of a gender desk at the MOE and a capacity building for women in the energy sector.[200]

2.1.6 The Renewable Energy Act, 2011

The Renewable Energy Act, 2011 was passed by the Parliament of Ghana in 2011, in line with the NEP and SNEP to provide for the development, management and utilisation of renewable energy for the provision on heat and power in an efficient and sustainable manner.[201] It included a framework to support renewable energy development; investment in renewable energy sources; the promotion of renewable energy use; diversification of renewable energy supply for energy security; improved access to electricity through renewables; building of local capacity in renewable energy technologies; public education on renewable energy use and the production and the regulation of wood fuel and bio-fuel production and use.[202]

The Act, however, failed to address the gendered dimension of renewable energy access and the productive use of energy, focusing only on the provision of a legal and regulatory

[197] ibid.
[198] ibid 46.
[199] Ministry of Energy, 'ENERGY SECTOR STRATEGY AND DEVELOPMENT PLAN' 48.
[200] Energy Commission, 'Strategic National Energy Plan' (n 179) 48.
[201] Government of Ghana, 'Renewable Energy Act 2011: Act 832' 1 3.
[202] ibid 3,4.

framework for expanding and developing the renewable energy sector. In essence, even though the Act was passed to provide legislative backing to the NEP and SNEP, it failed to address the several gendered concerns raised and provided no framework for how they can be addressed. Further, there were no elements of the energy justice framework addressed in the Act. Among the 12 relevant stakeholders and institutions outlined in the Act as responsible for renewable energy sources development, promotion and management, the MGCSP was again excluded.[203]

2.1.7 Annual Electricity Supply Plan (ESP) (2017-2020)

The Electricity Supply Plan (ESP) was introduced in 2017, as an annual plan detailing projected electricity demand and supply for the year based on available data of the previous year.[204] It highlights challenges faced in the previous year and provides recommendations on actions to be taken in ensuring reliable and stable electricity demand and supply.[205] Also, the Plan makes projections medium term electricity supply and demand projections to adequately inform stakeholders and the general public on the state of affairs of electricity generation, transmission, and distribution in the country.[206] However since its inception in 2017 till 2020, the Plan has been gender neutral in its analysis and assessments.

2.1.8 Energy Outlook for Ghana (2010-2020)

Again in 2009, the Energy Commission started implementing an annual Energy Outlook, which comprises of electricity, petroleum and wood fuels demand and supply, to serve as a guide for energy sector operators and potential investors.[207] It is interesting to note that just like the ESP, each Energy Outlook since 2010, has had no gender considerations in its assessments.[208]

2.2 ECOWAS Policy for Mainstreaming Gender in Energy Access Policies (EPGMEA)

[203] ibid 6.
[204] Energy Commission and others, 'ELECTRICITY SUPPLY PLAN FOR GHANA'.
[205] ibid; Energy Commission and others, 'Electricity Supply Plan For Ghana' (2018) <http://www.gridcogh.com/electricitysupplyplan>.
[206] Energy Commission and others (n 204).
[207] 'Energy (Supply and Demand) Outlook for Ghana 2010' 44; Energy Commission and others, '2011 Energy (Supply and Demand) Outlook for Ghana' 44.
[208] Ministry of Energy, 'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (2020) 15,16.

In this part, I discuss the EPGMEA which was adopted on June 2017 by ECOWAS Heads of State, as the first regional policy instrument to mainstream gender considerations in energy access policies. [209] Its focus was on gender equality and women and men empowerment, in order to address all existing barriers that hinders equal participation of men and women in expanding energy access in the region.[210] This was in recognition of the distinct and different energy needs, level of access and impacts of men and women, and to create an awareness about the gendered aspects of energy poverty which had more often than not, been either marginalized or had no concrete action and targets set in most national energy policies of MS.[211] The main purpose of this is to explore the extent to which the EPGMEA mainstreams gender, by applying the energy justice theoretical framework discussed in Chapter 1.

The EPGMEA builds on existing regional policies such as the ECOWAS Regional Policy for Renewable Energy (EREP), the ECOWAS Energy Efficiency Policy (EEEP), and international commitments such as the 1984 UN Declaration of Human Rights, the Convention on the Elimination of Discrimination Against Women (1979), the Nairobi Forward Looking Strategies (1985), the Vienna Declaration (1993), the Beijing Declaration and Platform for Action (1995) which have been ratified by MS but are hardly taken into consideration in the formation of energy policies.[212]

In order to mainstream gender considerations, the EPGMEA goes a step further than Ghana's national policies by outlining 5 strategic objectives and associated targets that address structural barriers and shift cultural norms. (See Table 3) This was to be achieved by employing an integrated gender planning assessment in all energy policies, programmes and projects to increase women's participation in decision-making, control and benefit from resources and access to services and labour. This to a large extent, adopts the GAD approach to gender mainstreaming. To realise this goal, the policy sought to address challenges and constraints for gender equality, women and men empowerment, at three energy access levels: the political level; the level of the supplier (public and private actors) and the consumer level.[213]

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[209] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' 1 <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/ECOWAS_Policy_for_Gender_Mainstreaming_in_Energy_Access.pdf>; Maduekwe and others (n 93) 3.
[210] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209); Maduekwe and others (n 93) 3.
[211] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209) 8,10,22.
[212] ibid 11,12.
[213] ibid 19.

Table 3: EPGMEA Objectives and Targets[214]

Strategic Objectives	Targets
1.Achieve widespread understanding of energy and gender considerations at all levels of society	100 percent of energy sector government employees will have received some relevant training by 2020 (and routinely thereafter); 50 percent of citizens will be exposed to some form of relevant public service announcement by 2020 growing to 90% by 2030; At least 50 new scientific articles about gender and energy in West Africa published in peer-reviewed scientific journals by 2020, and 20 per year after that
2.Ensure that all energy policies, programmes and initiatives, including large energy infrastructures and investments, are non-discriminatory, gender-inclusive, gender-balanced and directed towards addressing inequalities, particularly energy poverty, differentially affecting men and women in the region	50 percent of energy policies by 2020 and 100 percent by 2030 will be gender-sensitive; 50 percent of energy projects, programmes, and initiatives with government participation will include gender dimensions in planning, implementation, analysis, and evaluation by 2020, rising to 100 percent in 2030
3.Increase women's public sector participation in energy-related technical fields and decision-making positions	At least 25 percent women in the public sector energy workforce by 2020 and an equal (50-50) gender balance by 2030
4.Ensure that women and men have equal opportunities to enter and succeed in energy-related fields in the private sector	At least 25 percent women participation in energy-related fields in the private sector by 2020 and an equal (50-50) gender balance by 2030, as determined through statistically rigorous random sampling.
5.Establish and maintain a gender responsive monitoring, accountability and review framework for objectives 1-4	100 percent compliance by 2017 in the monitoring, accountability and review framework

The political level focuses mainly on overcoming the lack of a gender-aware discourse in energy planning and policy making due to gender stereotypes and the historical absence of gender balance in national and international politics, and in Science, Technology, Engineering and Mathematics (STEM) fields.[215] As Clancy and Roehr noted, a sector dominated by one gender is prone to making political decisions that reflect the interests and values of that gender. Thus, male dominated sectors are more likely reflect masculine needs in policies and planning.[216]

[214] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209).
[215] ibid 19.
[216] Joy Clancy and Ulrike Roehr, 'Gender and Energy: Is There a Northern Perspective?' (2003) 7 Energy for Sustainable Development 44, 48.

In view of the implications that what is included in policies mostly results from different gender inclinations and preferences, the EPGMEA found it imperative that there is the need for an equal and fair representation of genders in the political level for decision-making on energy policies and planning, where the needs of male and female stakeholders and beneficiaries are taken into full account.[217] The EPGMEA thus set the objective to increase women's public sector participation in the public sector energy workforce and decision-making positions by at least 25 % by 2020 and an equal gender balance of 50-50 by 2030.[218] This recognises the need for recognition and procedural justice in energy policy planning and decision making.

In addition, Objective 1 of the EPGMEA outlines the need to achieve a widespread understanding of energy and gender considerations at all levels of society through a sensitisation of Energy Ministry staff and a public awareness campaign on the importance of energy and gender considerations.[219] However, though this to some extent addresses recognition injustice as discussed in Chapter 1, recognition justice goes beyond just recognising and creating awareness of the need for a fair representation of genders. It involves understanding and addressing the specific needs of people who are being marginalised, the socio-political considerations that inform their energy choices and demands and taking into account their views and opinions on energy projects and services. The EPGMEA however, fails to address these issues that fall under non-recognition, misrecognition, and practical recognition justices.

At the supplier level the policy seeks to bridge the gap in the low representation of women in the energy industry, especially in management and decision-making positions where they can be more instrumental in defining and benefiting from investments in the energy sector.[220] To do this, EPGMEA set strategic objectives with detailed outlines to increase women's public sector participation in energy-related technical fields and decision-making positions to a level of 25 % in the medium-term and 50 % in the long-term.[221]This strategy

[217] Janet K Swim and others, 'Gendered Discourse about Climate Change Policies' (2018) 48 Global Environmental Change 216, 222 <https://doi.org/10.1016/j.gloenvcha.2017.12.005>; Maduekwe and others (n 93) 8.
[218] ECOWAS, 'ECOWAS POLICY FOR GENDER MAINSTREAMING IN ENERGY ACCESS' (n 148) 29.
[219] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209) 52.
[220] ibid 20; Maduekwe and others (n 93) 7.
[221] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209) 26.

employs the GAD approach where women are encouraged to gain more political control to facilitate the establishment of equitable procedural system, taking the needs and concerns of both genders into account.

Again, it is important to note that a fair procedural system goes beyond ensuring a mere parity of genders in decision-making positions. Procedural justice in energy access involves most importantly, an equal consideration or weight given to the voices of all participants on decisions. However, this aspect of procedural justice, which ensures a system that moves beyond a "numbers game" of equal representation in decision-making is not addressed in the EPGMEA.

At the consumer level, the Strategic Objective 4 of ensuring men and women have equal opportunities in the energy sector by 2030, through support mechanisms such as gender aware financing, targeted technical, vocational, and entrepreneurship programmes in the energy sector, can be seen as a step in addressing a just distribution of energy resources.[222] However, distributive justice also goes beyond a just allocation of energy resources or opportunities , to most importantly, eliminating instances where all energy consumers are considered a homogenous energy consumption group. It does this by taking into recognition, the need for the productive use of energy of both genders. Although the need for a differentiated gendered productive use of energy is mentioned several times in the EPGMEA, no plans or strategies are outlined to address this important element.

To conclude, the EPGMEA to some extent, does well to address the elements of energy justice framework via its formulation and outlined strategy objectives and engages the GAD approach in most instances. However, it leaves out certain critical components of the energy justice framework that ensures gender equity and inclusivity in energy access policies.

Further, although the EPGMEA outlines an estimated budget per MS, it fails to provide a detailed source of how these projects are to be funded by the MS. In addition, the set objectives in the Policy, seem unattainable within the given midterm targets in 2020 and final targets in 2030. Considering many countries in the region released their national action plan on gender mainstreaming in energy access policies in 2020. Thus, the policy targets will have to

[222] ibid 27.

be reviewed to set well defined midterm targets so as to provide MS with clear-cut timelines and key deliverables for effective implementation.

However, since the EPGMEA tries to integrate all three tenets of the energy justice framework by engaging the GAD approach in gender mainstreaming, it provides to some extent, a framework for Ghana to mainstream gender considerations in its energy access policy documents in a more coherent, inclusive and just manner. (See Appendix 2 for a comparative analysis)

2.3 Ghana's National Action Plan (NAP) for Gender Mainstreaming in Energy Access: A Way Forward

Despite making considerable efforts to mainstream gender considerations in its energy access policies, most Ghanaian energy access policies as shown, have lacked the needed consistency, inclusivity and equity to engender energy access polices. Following the adoption of the EPGMEA and the EDGAEP, Ghana developed and validated its National Action Plan (NAP) for gender mainstreaming in energy access. This chapter aims to explore to what extent the EPGMEA and EDGAEP are integrated in Ghana's NAP, its implementation process, and whether it has produced more concrete or successful outcomes compared to previous energy policies.

2.3.1 Contextual background

The EDGAEP serves an operational guide for MS to develop a harmonised cost effective legal and regulatory policy framework to mainstream gender in energy projects.[223] The adoption of the ECOWAS policy and directive, was in line with Article 5 of the ECOWAS Revised Treaty on General Undertakings. The Treaty mandates all MS to

> "undertake to create favourable conditions for the attainment of the objectives of the Community, and particularly to take all necessary measures to harmonise their strategies and policies, and to refrain from any action that may hinder the attainment of the said objectives; and in accordance with its constitutional procedures, take all

[223] ECOWAS, 'ECOWAS DIRECTIVE ON GENDER ASSESSMENTS IN ENERGY PROJECTS' (n 148) 4,5.

necessary measures to ensure the enactment and dissemination of such legislative and statutory texts as may be necessary for the implementation of the provisions of the Treaty".[224]

The MOE, the overall policy formulation body of the NAP, adopted a localised baseline analysis of each strategic objective, and set out national strategic objectives (proposed activities and targets), drawing from the EPGMEA and the EDGAEP.[225] The NAP also includes a 5-year implementation strategy, legal and administrative steps for implementation and a monitoring and reporting plan.[226] (see Appendix 4 for implementation strategy)

However, in setting localised proposed targets for Ghana, the MOE scaled down several of the targets contained in the EPGMEA and the EDGAEP, by casting them as being too "ambitious" to be achieved within the EPGMEA timeframes. As such, the MOE revised the targets down and rather than set specific objectives, it employed less binding language or framings.[227] (See Appendix 3 for Ghana's proposed targets and objectives)

2.3.2 Accounting for Energy Justice in Gender Mainstreaming under the NAP

Ghana's baseline analysis of gender and energy issues revealed a lack of a well-structured awareness on energy and gender issues among energy policy planners and the entire populace.[228] This was exacerbated by the lack of gender disaggregated data on energy usage and production, influencing the formation of gender-neutral energy policies and legislations.[229] This assessment conducted by the MOE, reveals a lack of recognition justice. Further, studies also showed that none of the three main public energy agencies responsible for granting permits of energy projects in Ghana: The Energy Commission; the National Petroleum Authority, and the Petroleum Commission, had gender considerations in their licencing procedures.[230]

[224] ECOWAS, 'ECOWAS REVISED TREATY' (n 150) 7.
[225] Ministry of Energy, 'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (n 208).
[226] ibid.
[227] ibid 26.
[228] ibid 14–16.
[229] ibid.
[230] ibid 19.

To facilitate a fair representation of all individuals with regards to energy issues, the MOE proposed a three-step approach in line with the EPGMEA. First, conducting public awareness campaigns to promote public understanding on issues surrounding gender and energy access, and the importance of mainstreaming gender considerations into policies. Second, developing a gender assessment methodology for energy infrastructural development for both public and private energy agencies to encourage an equal participation of both women and men in public consultations during the planning of energy projects. Third, sensitizing energy ministry staff and energy policy officers and planners on gender issues, especially in relation to the different levels of access to energy and the productive uses of energy of both men and women.[231] Though this approach employs the GAD approach in addressing recognition injustice to some extent, much like the EPGMEA, it fails to address issues of non-recognition, misrecognition and practical recognition justices.

Further baseline analysis by the MOE revealed significant gender imbalance of women participation in energy related technical fields and decision-making positions. For instance, a study found that women occupied only 20% of energy management positions in the energy sector agencies.[232] In addressing this, the MOE details key proposals such as the establishment of a Gender Focal Unit (GFU) at the MOE. The GFU's main aim will be to facilitate the mainstreaming of gender considerations in energy planning and decision-making. Further, a development of an energy infrastructural development assessment methodology, facilitated by the Environmental Protection Agency (EPA), is to mandate an equal participation of men and women in public consultations during project planning and development.[233] In adopting these initiatives, the MOE addresses to an extent, the lack of procedural justice in Ghana's energy access policies. Worth noting as well is the inclusion of the MOGCSP as key stakeholder in the implementation of policies outlined in the NAP, which was formerly, excluded in the decision-making process of most energy access policies. Also, Ghana's NAP seems to go beyond EPGMEA for a mere parity of genders in decision-making to taking measures which can actually ensure that the voices of all participants are given equal weight. The NAP makes mention of the Affirmative Action Policy of 1998 which requires a 40% representation of

[231] ibid 16.
[232] ibid 20.
[233] ibid 22.

women on public boards, commissions, councils and committees, to be implemented.[234] However, it fails to outline measures which will actually ensure the realisation of this policy.

Finally, the NAP developed by the MOE seeks to increase the number of businesses, employment opportunities and financing for women in the energy sector with a proposed target of increasing the number of women in the public sector energy technical workforce and the private sector by at least 25 % by 2025, and 40 % by 2030.[235] For instance, a study of Ghana's Local Content and Local Participation (LCLP) responsible for setting quotas for local industry participation petroleum and electricity supply regulation, had no gender considerations in their regulations.[236] This led to an imbalance in the number of female employees in the energy sector.

Of over 9,800 employees surveyed in 60 electricity supplying, manufacturing and service providing sectors, only 2.6% were female.[237] This imbalance has also thus resulted in an unfair disproportionate allocation of energy resources which as the figures show, have benefited mostly men, leading to distributional injustice. To address this, the MOE detailed the implementation of a Women Engineers in Energy Trainee (WEET) programme facilitated by the LCLP secretariat, to enable the mentorship of female engineers, and the provision of jobs and networking opportunities for women in the energy sector.[238] Although this initiative addresses a component of distributional justice by enabling a fair and equal access to energy benefits through job opportunities, similar to the EPGMEA, the different productive uses of energy of both women and men are not addressed.

Based on the analysis of Ghana's NAP policy document, we can conclude that the three tenets of the energy justice framework and applying the GAD approach to gender mainstreaming have somewhat, been addressed. Also, unlike previous energy policies, the NAP also goes a step further to outline implementation, and a monitoring and evaluation strategy for the Plan.

[234] ECOWAS, 'ECOWAS Policy for Gender Mainstreaming in Energy Access' (n 209) 27; Ministry of Gender Chlidren and Social Protection (n 190) 8.
[235] Ministry of Energy, 'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (n 208) 26.
[236] ibid 23.
[237] ibid.
[238] ibid.

Unfortunately, since the policy was implemented last year (2020) with most programme start dates commencing in June 2021, there is still no available information which would allow an assessment of the preparative work done, or the state of progress and implementation of most of the activities.

However, it is worth noting that the recently the updated ESP and the Energy Supply Outlook energy policies, put out in the early part of 2021, still do not have gender considerations.

The 2021 ESP and Energy Outlook conduct in-depth analysis of the impact of the COVID-19 pandemic on electricity distribution and supply in the country as well as influencing factors for energy consumption and its associated cost impacts on the populace. [239] However, they fail to provide disaggregated gender data on the situation, or any specific actions to address the difficult situation of women related to energy access and its differential impacts on both men and women, as presented in Chapter 1.

It might be tempting to argue that the NAP implementation start date has been officially set for June 2021 and that as such, there is no binding need to incorporate the gender considerations outlined in the NAP into policy documents adopted prior to that start date.[240]

However, this would be missing the point that afore mentioned national and international ratified policies and legislations, already mandate gender considerations in all development policies, even prior to the June start date. In addition, it sends the wrong policy message regarding implementation intent to still be adopting new energy policies, that repeats the very errors that the NAP seeks to correct, even after its validation, with steps already put in place towards its implementation. Tangentially, it also bears noting that this is not a good sign for the ability of ECOWAS to influence MS to engender their energy policies. However, as the aim of this chapter is not to evaluate the relationship between the supranational entity and the national governments, this will require further research.

[239] Power Planning Technical Committee, 'Electricity Supply Plan' 3–5 <http://energycom.gov.gh/files/2021 Electricity Supply Plan_Final.pdf>; Energy Commission, *ENERGY OUTLOOK FOR GHANA* (2021) 1–43.
[240] Ministry of Energy, 'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (n 208) 34.

2.4 Implementation Gaps of the EPGMEA and the Ghana NAP

The analysis of Ghana's NAP and the EPGMEA shows that to some extent they do integrate the elements of the energy justice framework in engendering energy policies. However, in this part, I explore the implementation gaps of both policies and provide practical gender mainstreaming implementation strategies employed in Rwanda, and from which Ghana could take some inspiration from.

2.4.1 Gender Responsive Budgeting

One of the main hindrances in policy implementation in SSA is the lack of adequate financing due to constrains resulting from weak or underdeveloped revenue bases.[241] Most SSA countries budget operate with limited revenue below 25% of GDP, leading to an inability to adequately fund public services without aid from donors.[242]

One way of overcoming this challenge is undertaking public financial management reforms which allows countries to integrate gender mainstreaming objectives into program-based budgeting.[243]

However, Ghana's efforts in mainstreaming gender considerations into its energy policies have consistently failed to detail sources of funding or budget allocations in this respect. The NAP makes an effort to address this gap. However, the source of funding listed in euros as in the EPGMEA, is to be funded by the MOE and developing partners. But that is as far as it gets. No specific details are given as to how or which development partners are targeted or if provisions are underway for gender mainstreaming in the national budget.[244]

Rwanda, also a low-income country in East Africa and thus not a part of the ECOWAS, has rather made significant strides in gender mainstreaming and gender responsive budgeting.

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[241] Christian Ebeke and Helene Ehrhart, 'Tax Revenue Instability in Sub-Saharan Africa: Consequences and Remedies' (2012) 21 Journal of African Economies 1; Michael Keen and Mario Mansour, 'Revenue Mobilization in Sub-Saharan Africa: Challenges From Globalization' (2009) 09 IMF Working Papers 1.
[242] Janet G Stotsky and others, 'Sub-Saharan Africa: A Survey of Gender Budgeting Efforts IMF Working Paper Strategy, Policy, and Review and Research Departments Sub-Saharan Africa: A Survey of Gender Budgeting Efforts Prepared By' 4.
[243] ibid.
[244] Ministry of Energy, 'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (n 208) 33–36.

Rwanda currently ranks 7th in the world in its efforts towards gender mainstreaming and gender parity.[245] Rwanda enacted the Organic Law on State Finances and Property in 2013, which mandates gender balance in State finance management.[246] This includes a gender budget statement in the national budget framework and most importantly, a monitoring report by public agencies to specify gender balance implementation.[247] Having this gender responsive national budget mandated by law, has ensured an effective implementation of gender mainstreaming objectives in Rwandan energy policies.[248] For instance, Rwanda recorded an increase in electricity access for female and headed households from 7.7% in 2010 to 20.3% in 2017, in addition to an overall decrease in the use of firewood as a main source of fuel for both male and female headed households.[249]

2.4.2 Accountability and Specific Definition of Roles and Responsibilities

The EPGMEA mandates the creation of a minimum 3-person Gender Focal Unit (GFU) within the MOE to ensure implementation of the NAP.[250] The first problem with this approach is a conflict of interest, as the MOE is mostly the responsible institution for the implementation of the policy objectives. In order to ensure effective implementation and institutionalisation of the strategic objectives outlined in the NAP, there is the need for a well-structured accountability framework or institution that could ensure that these objects are carried out by the MOE.

For instance, to ensure gender mainstreaming accountability is institutionalised in all sectors and levels, the Rwandan Government instituted and mandated the Gender Monitoring office (GMO) by law, as an overarching institution to monitor and ensure gender mainstreaming in all development frameworks, policies, strategies and legislations, for an increased gender accountability and gender equality in Rwanda.[251] This well-established

[245] World Economic Forum (n 142).
[246] The Republic of Rwanda, 'Organic Law on State Finances and Property' 16.
[247] ibid 44,73.
[248] Republic of Rwanda Ministry of Gender and Family Promotion, 'THE NATIONAL GENDER POLICY' 3; Stotsky and others (n 242) 19.
[249] Gender Monitoring Office, 'The State of Gender Equality in Rwanda: From Transition to Tranformation' 1, 51 <http://gmo.gov.rw/fileadmin/user_upload/Researches and Assessments/State of Gender Equality in Rwanda.pdf>.
[250] ECOWAS, 'ECOWAS POLICY FOR GENDER MAINSTREAMING IN ENERGY ACCESS' (n 148) 39.
[251] The Republic of Rwanda, 'N° 51/2007 of 20/09/2007 Law Determining the Responsibilities, Organisation and Functioning of the Gender Monitoring Office in Rwanda'; The Republic of Rwanda Gender Monitoring Office, 'GMO STRATEGIC PLAN 2017-2022'.

gender mainstreaming machinery also ensures that there are no conflicting interests with implementing institutions, thus facilitating an effective compliance to gender objectives.

It is also worth noting that the Strategic Plan (2017-2022) designed by the GMO in promoting gender accountability by state and non-state actors in Rwanda, contains clearly defined sources of funding and cost for the implementation of the Plan, as well as a risk analysis and mitigation strategy which identifies potential obstacles which could hinder the realisation of the Plan.[252]

[252] The Republic of Rwanda Gender Monitoring Office (n 251) 23,34.

3 Conclusion

This paper set forth to analyse and assess the extent to which gender is mainstreamed in Ghanaian energy policies, legal frameworks and legislations, by deploying the different gender mainstreaming approaches developed over the years and applying the energy justice theoretical framework to address gender energy injustices.

Over the years, the inclusion of women in energy projects and planning has been recognized as crucial to the successful implementation, realisation and sustainability of energy projects.

In response, there have been three approaches developed over the years to ensure a more equitable energy planning and development: the WID, WAD and GAD.

The WID and WAD approaches, however, fail to adequately address the root causes of the problems of inequalities and discrimination. The WID approach employs a social welfare and anti-poverty approach, focusing only on how to integrate women into ongoing development initiatives, and accepts the fact that women are passive recipients of development while the WAD focuses on equitable international and class economic structures, disregarding the role of patriarchy in restricting women's development and empowerment. By far, the most sustainable and inclusive approach identified is the GAD approach, which not only addresses gender equality and the empowerment of women and men but calls for structural changes which advocate for equal rights and opportunities.

Further, the energy justice theoretical framework allows energy access policies and programmes to be analysed by employing a justice lens on the fair representation of all individuals, an equal distribution of ills and benefits of energy resources and an equitable procedural system that ensures that all stakeholders are involved in decision-making in relation to energy programmes and policies, production and consumption.

Ghana has over the years, made considerable efforts in mainstreaming gender in its energy access policies and frameworks, in recognition of the benefits that enure to states that mainstream gender in development policies and programmes, and also to fulfil legal obligations and mandates in national and international legislations and legal frameworks. However, these

efforts when analysed with the energy justice theoretical framework, shows an inconsistent, lack of inclusivity and equity in mainstreaming gender considerations.

ECOWAS, in recognition of the marginalisation and exclusion of gender considerations in national energy policies of MS, as well as the differential impacts of energy poverty on women, adopted the EPGMEA in June 2017, which provides a framework ensuring the specific needs and interests of both men and women are taken into consideration in the development of energy projects. MS were mandated by the ECOWAS Treaty on General Undertakings to develop harmonized policies and legal frameworks in line with constitutional procedures, drawing from the EPGMEA.

The EPGMEA, unlike the other Ghanaian energy access policy frameworks and legislations analysed in this paper, applies the GAD approach to gender mainstreaming and adequately address all the 3 elements of the energy justice theoretical framework: distributive, recognition and procedural. Thus, providing to an extent, a framework for Ghana to draw from.

On January 2020, Ghana developed and validated its NAP for gender mainstreaming in energy access, in line with the EPGMEA, employing the GAD approach and integrating all 3 tenets of the energy justice framework. However, a critical analysis reveals a repetition of previous policy mistakes which do not foster an effective implementation of mainstreaming gender considerations.

In order to ensure inclusive and equitable energy access policies which mainstreams gender considerations, Ghana's NAP must adopt enabling mechanisms such as gender budgeting and an effective accountability system implemented by other African countries such as Rwanda, which have been successful in mainstreaming gender considerations.[253] These measures further ensure issues of gender are not merely considered as an afterthought in energy planning and policies but are actually implemented.

This paper however has its limitations. The implementation strategies and progress of the NAP could not be analysed as most of the objectives have their start date in June 2021. Given this, future research could explore to what extent these objectives have actually been

[253] World Economic Forum (n 142).

implemented; whether there have been any unforeseen limitations to their realisation; and the concrete outcomes they produce to help improve the situation of women in energy access and in the energy sector.

4 Bibliography

Abakah E, 'Participation without a Voice? Rural Women's Experiences and Participation in Local Governance Activities in the Abura–Asebu–Kwamankese District of Ghana' (2018) 4 Cogent Social Sciences 1 <https://doi.org/10.1080/23311886.2018.1549768>

Alstone P and others, 'Expanding Women's Role in Africa's Modern Off-Grid Lighting Market'

Altuzarra A, Gálvez-Gálvez C and González-Flores A, 'Is Gender Inequality a Barrier to Economic Growth? A Panel Data Analysis of Developing Countries' (2021) 13 Sustainability (Switzerland) 1
Assembly G and others, 'Convention on the Elimination of All Forms of Discrimination against Women.' (1979) 13 5

Bandara A, 'The Economic Cost of Gender Gaps in Effective Labor: Africa's Missing Growth Reserve' (2015) 21 Feminist Economics 162

Banerjee R and others, 'Global Energy Assessment (GEA)' (2012) 50 Choice Reviews Online 50

Bickerstaff K, *Energy Justice in a Changing Climate : Social Equity and Low-Carbon Energy / Edited by Karen Bickerstaff, Gordon Walker and Harriet Bulkeley.* (2013)

Blimpo MP and Cosgrove-Davies M, *Electricity Access in Sub-Saharan Africa: Uptake, Reliability, and Complementary Factors for Economic Impact* (2019)

Boamah F and Rothfuß E, '"Practical Recognition" as a Suitable Pathway for Researching Just Energy Futures: Seeing like a "Modern" Electricity User in Ghana' (2020) 60 Energy Research and Social Science 101324 <https://doi.org/10.1016/j.erss.2019.101324>

Botchway FN, 'The State, Governance and the Energy Industry in Ghana' (2000) 33 Verfassung in Recht und Übersee 176

Broughton DE, Brannigan RE and Omurtag KR, 'Sex and Gender: You Should Know the Difference' (2017) 107 Fertility and Sterility 1294 <http://dx.doi.org/10.1016/j.fertnstert.2017.04.012>

Bukari D and others, 'Ghana's Energy Access Journey so Far: A Review of Key Strategies' (2020) 15 International Journal of Energy Sector Management 139

Bullard R, 'Environmental Justice in the 21st Century.' (2000) Directory Environmental Justice Resource Group 1 <http://www.ejrc.cau.edu/ejinthe21century.htm>

Cecelski E, 'The Role of Women in Sustainable Energy Development' <http://sustainability.thomsonreuters.com/2012/10/10/the-role-of-women-in-sustainable-economic-development/>

Chant S, 'The "feminisation of Poverty" and the "Feminisation" of Anti-Poverty Programmes: Room for Revision?' (2008) 44 Journal of Development Studies 165

Chauhan K, ‘Gender and Development. In: Gender Inequality in the Public Sector in Pakistan’ (Palgrave Macmillan, New York 2014)

Chen DHC, ‘Gender Equality and Economic Development The Role for Information and Communication Technologies’ [2004] World Bank Policy Research Working Paper 3285

Clancy J and Dutta S, ‘Women and Productive Uses of Energy: Some Light on a Shadowy Area’ [2005] UNDP Meeting on Productive Uses of Renewable Energy 1 <www.energia.org/fileadmin/files/.../dutta_clancy_productive_use.pdf>

Clancy J and Roehr U, ‘Gender and Energy: Is There a Northern Perspective?’ (2003) 7 Energy for Sustainable Development 44

Comité Québécois Femmes et Développement (CQFD), ‘Training Kit Gender and Development’ 1
Commission E and others, ‘2011 Energy (Supply and Demand) Outlook for Ghana’ 44

‘Electricity Supply Plan For Ghana’ (2018) <http://www.gridcogh.com/electricitysupplyplan>

Darko D and others, *The Context and Politics of Decision Making on Large Dams in Ghana: An Overview* (2019)

Doss CR and Morris ML, ‘How Does Gender Affect the Adoption of Agricultural Innovations?: The Case of Improved Maize Technology in Ghana’ (2000) 25 Agricultural Economics (United Kingdom)

Ebeke C and Ehrhart H, ‘Tax Revenue Instability in Sub-Saharan Africa: Consequences and Remedies’ (2012) 21 Journal of African Economies 1

Eberhard R and GIZ, ‘Access to Water and Sanitation in Sub-Saharan Africa’ <https://e4sv.org/wp-content/uploads/2017/05/TR13-Education-and-the-Electrification-of-Rural-Schools_web-1.pdf>

ECOWAS, ‘ECOWAS Policy for Gender Mainstreaming in Energy Access’ 1 <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/ECOWAS_Policy_for_Gender_Mainstreaming_in_Energy_Access.pdf>

‘ECOWAS REVISED TREATY’ (2010)

‘ECOWAS DIRECTIVE ON GENDER ASSESSMENTS IN ENERGY PROJECTS’ (2017)

‘ECOWAS POLICY FOR GENDER MAINSTREAMING IN ENERGY ACCESS’ <http://www.ecreee.org/page/publications>

‘Energy (Supply and Demand) Outlook for Ghana 2010’ 44

Energy Commission, ‘Strategic National Energy Plan’ [2006] Main report 36

‘Woodfuels and Renewables’ [2006] Danish International Development Agency 36

<http://energycom.gov.gh/files/snep/WOOD FUEL final PD.pdf>

ENERGY OUTLOOK FOR GHANA (2021)

'ELECTRICITY SUPPLY PLAN FOR GHANA'

Energy Commission G, 'National Energy Statistics 2000-2019' (2020) <http://www.energycom.gov.gh/files/ENERGY STATISTICS-2020.pdf>

Energy Commission of Ghana and United Nations, 'Sustainable Energy for All Action Plan - Ghana' [2012] Ghana Sustainable Energy for All Action Plan 25 <http://energycom.gov.gh/files/SE4ALL-GHANA ACTION PLAN.pdf>

Feenstra M, 'Towards a Gender-Aware Energy Policy. A Case Study from South Africa and Uganda' 1 <http://essay.utwente.nl/58197/1/scriptie_M_Feenstra.pdf>

Food and Agriculture Organisation of the United States, *The State of Food and Agriculture Women in Agriculture: Closing the Gender Gap for Development* (2011)

Gender Monitoring Office, 'The State of Gender Equality in Rwanda: From Transition to Tranformation' 1 <http://gmo.gov.rw/fileadmin/user_upload/Researches and Assessments/State of Gender Equality in Rwanda.pdf>

Ghulam M, 'Introduction to Gender, Economic Development and Poverty Reduction'

Government of Ghana, 'Renewable Energy Act 2011: Act 832' 1

Gyau-Boakye P, 'Environmental Impacts of the Akosombo Dam and Effects of Climate Change on the Lake Levels' (2001) 3 Environment, Development and Sustainability 17

Hall SM, 'Local Environment : The International Journal of Justice and Sustainability Energy Justice and Ethical Consumption : Comparison , Synthesis and Lesson Drawing' 37

Health Effects Institute, 'State of Global Air 2019' [2019] Health Effects Institute. 24 <http://www.stateofglobalair.org/sites/default/files/soga_2019_report.pdf>

Heffron R, Stephan H and Jenkins K, 'Advancing Energy Justice: The Triumvirate of Tenets' (2013) 32 International Energy Law Review 107

HEI Health Effects Institute-Ghana Working Group, 'Contribution of Household Air Pollution to Ambient Air Pollution in Ghana' [2019] Health Effects Institute Communication 19 36

Hurlbert M and Rayner J, 'Reconciling Power, Relations, and Processes: The Role of Recognition in the Achievement of Energy Justice for Aboriginal People' (2018) 228 Applied Energy 1320 <https://doi.org/10.1016/j.apenergy.2018.06.054>

IEA and others, 'Tracking SDG 7: The Energy Progress Report 2020' 176 <https://trackingsdg7.esmap.org/>

IFC, 'Strengthening Access to Finance for Women-Owned SMEs in Developing Countries'

[2011] Equality, Diversity and Inclusion: An International Journal

Japan International Cooperation Agency (JICA) Department Gender Equality Team Planning and Coordination, 'Trends and Approaches on Gender and Development (GAD)'

Jenkins K and others, 'Energy Justice: A Conceptual Review' (2016) 11 Energy Research and Social Science 174 <http://dx.doi.org/10.1016/j.erss.2015.10.004>

Kabeer N, 'Gender Equality and Economic Growth' [2018] Women and Girls Rising 205

Karekezi S and others, 'Energy, Poverty, and Development' [2012] Energy and Development

Keen M and Mansour M, 'Revenue Mobilization in Sub-Saharan Africa: Challenges From Globalization' (2009) 09 IMF Working Papers 1

Koczberski G, 'Women in Development: A Critical Analysis' (1998) 19 Third World Quarterly 395

Löfström A, 'Gender Equality, Economic Growth and Employment' [2009] Education <http://ec.europa.eu/social/BlobServlet?docId=3988&langId=en>

Maduekwe M and others, 'Gender Equity and Mainstreaming in Renewable Energy Policies—Empowering Women in the Energy Value Chain in the Economic Community of West African States (ECOWAS)' (2019) 6 Current Sustainable/Renewable Energy Reports 13

Mang-Benza C, 'Many Shades of Pink in the Energy Transition: Seeing Women in Energy Extraction, Production, Distribution, and Consumption' (2021) 73 Energy Research and Social Science 101901 <https://doi.org/10.1016/j.erss.2020.101901>

Mattei FEE, 'Access to Energy and Economic Development in Ghana' 47

Ministry of Energy, 'ENERGY SECTOR STRATEGY AND DEVELOPMENT PLAN'

'NATIONAL ELECTRIFICATION SCHEME (NES) Master Plan Review (2011-2020)' (2010) 1

'National Energy Policy: Republic of Ghana' 1 <http://www.petrocom.gov.gh/assets/national_energy_policy.pdf>

'National Action Plan On Policy for Gender Mainstreaming in Energy Access For The Republic of Ghana' (2020)

Ministry of Gender Chlidren and Social Protection, 'National Gender Policy: Mainstreaming Gender
Equality and Women's Empowerment into Ghana's Development Efforts' (2015)

Munemo P, 'Women's Participation in Decision Making in Public and Political Spheres in Ghana: Constrains and Strategies' (2017) 37 Journal of Culture, Society and Development 47

Muyoyeta L, 'Acknowledgements Women, Gender and Development' 32

<https://www.developmenteducation.ie/media/documents/women_gender_dev.pdf>

Nordic Council of Ministers, 'Economy and Gender Equality in the Nordic Countries A Selection of Good Nordic Practices'

O'Shaughnessy T, *Gender-and-Development Approach (GAD)* (2002) <https://www.worldvision.com.au/docs/default-source/publications/health/learning-from-the-past-hope-for-the-future-5.pdf?sfvrsn=8>

Obeng YG and others, 'GIS-BASED ENERGY ACCESS PROJECT A Review of Trends , Policies and Plans for Increasing Energy Access in Ghana'

Obour PB and others, 'The Impacts of Dams on Local Livelihoods: A Study of the Bui Hydroelectric Project in Ghana' (2016) 32 International Journal of Water Resources Development 286

OECD, 'Is the Last Mile the Longest? Economic Gains from Gender Equality in Nordic Countries' 2018

Pachauri S and others, 'Energy Access for Development' [2012] Global Energy Assessment (GEA) 1401

Peprah V, Buor D and Forkuor D, 'Characteristics of Informal Sector Activities and Challenges Faced by Women in Kumasi Metropolis, Ghana' (2019) 5 Cogent Social Sciences <https://doi.org/10.1080/23311886.2019.1656383>

Power Planning Technical Committee, 'Electricity Supply Plan' <http://energycom.gov.gh/files/2021 Electricity Supply Plan_Final.pdf>

Quisumbing AR, 'Male-Female Differences in Agricultural Productivity: Methodological Issues and Empirical Evidence' (1996) 24 World Development 1579

Rasch EDD and Köhne M, 'Practices and Imaginations of Energy Justice in Transition. A Case Study of the Noordoostpolder, the Netherlands' (2017) 107 Energy Policy 607 <http://dx.doi.org/10.1016/j.enpol.2017.03.037>

Rathgeber EM, 'WID, WAD, GAD: TRENDS IN RESEARCH AND PRACTICE' 229
Rawls J, *A Theory of Justice : Original Edition*, vol Original e (Harvard University Press 1971) <https://ezp.lib.cam.ac.uk/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=282760&site=ehost-live&scope=site>

Razavi S and Miller C, 'From WID to GAD: Conceptual Shifts in the Women and Development Discourse' (1995) 1 Occasional Paper - United Nations Research Institute for Social Development
Republic of Rwanda Ministry of Gender and Family Promotion, 'THE NATIONAL GENDER POLICY'

Rojas A and Siles J, *Guide on Gender and Energy for Trainers and Managers of Public Policies and Projects* (2015) <http://biblioteca.olade.org/opac-tmpl/Documentos/old0370.pdf>

Schlosberg D, 'Reconceiving Environmental Justice: Global Movements and Political Theories' (2004) 13 Environmental Politics 517
Skonieczna A and Castellano L, *Gender Smart Financing Investing In & With Women: Opportunities for Europe*, vol 8022 (2020) <https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.>

Stanaway JD and others, 'Global, Regional, and National Comparative Risk Assessment of 84 Behavioural, Environmental and Occupational, and Metabolic Risks or Clusters of Risks for 195 Countries and Territories, 1990-2017: A Systematic Analysis for the Global Burden of Disease Stu' (2018) 392 The Lancet 1923

Stotsky JG, 'Gender and Its Relevance to Macroeconomic Policy: A Survey' (2006) 06 IMF Working Papers 1

Stotsky JG and others, 'Sub-Saharan Africa: A Survey of Gender Budgeting Efforts IMF Working Paper Strategy, Policy, and Review and Research Departments Sub-Saharan Africa: A Survey of Gender Budgeting Efforts Prepared By'

Swim JK and others, 'Gendered Discourse about Climate Change Policies' (2018) 48 Global Environmental Change 216 <https://doi.org/10.1016/j.gloenvcha.2017.12.005>

Tebeje B, 'Gender Issues: For Health Extension Workers' 1

The Republic of Rwanda, 'N° 51/2007 of 20/09/2007 Law Determining the Responsibilities, Organisation and Functioning of the Gender Monitoring Office in Rwanda'

'Organic Law on State Finances and Property'

The Republic of Rwanda Gender Monitoring Office, 'GMO STRATEGIC PLAN 2017-2022'

The World Bank, 'Environmental and Social Screening Checklist'

'Memorandium and Recommendation of the President of the International Development Association To the Executive Directors on a Propsed Development Credit to the Republic of Ghana for a National Electrification Project' (1993)

UN Women, *Progress of the World's Women 2015-2016* (2015)

UNDP, 'Gender and Energy For Sustainable Development: A Toolkit and Resource Guide' [2004] Gender and Energy For Sustainable Development: A toolkit and resource guide <https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/tie-energia_summary_gender_audits_botswana_kenya_senegal.pdf>

'UNDP and Energy Access for the Poor: Energizing the Millennium Development Goals' [2011] Environment & Energy, United Nations Development Programme

UNESCO, 'TEACHING AND LEARNING: Achieving Quality for All Gender Summary' [2014] UNESCO 477 <http://en.unesco.org/gem-report/>

Building Bridges for Gender Equality (2019)

Global Education Monitoring Report 2020: Gender Report, A New Generation: 25 Years of Efforts for Gender Equality in Education (2020) <https://en.unesco.org/gem-report/2020genderreport>

United Nations, 'United Nations Human Rights Declaration' [1948] Human Rights 1 <https://www.un.org/en/universal-declaration-human-rights/>

'The Sustainable Development Goals Report 2020' 12

United Nations Department of Economic and Social Affairs (UNDESA), *The World's Women 2010* (2010)

'Electricity and Education: The Benefits, Barriers, and Recommendations for Achieving the Electrification of Primary and Secondary Schools' [2014] Energy and Education Journal 1 <sustainabledevelopment.un.org/index.php?page=view&type=400&nr=160) pp.1–36>

USAID, 'Gender Equality and Female Empowerment'

'Gender and Extreme Poverty' 1

Walker G, 'Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice' (2009) 41 Antipode 614

Welland A, 'Education and the Electrification of Rural Schools Smart Villages' 1 <https://e4sv.org/wp-content/uploads/2017/05/TR13-Education-and-the-Electrification-of-Rural-Schools_web-1.pdf>

World Bank, 'Gender Equality and the Millennium Development Goals'

'Agriculture for Development' (2008)

The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits (2008) <http://lnweb90.worldbank.org/oed/oeddoclib.nsf/DocUNIDViewForJavaSearch/EDCCC33082FF8BEE852574EF006E5539/$file/rural_elec_full_eval.pdf>

Food Prices, Nutrition, and the Millennium Development Goals (2012) <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1327948020811/8401693-1327957211156/8402494-1334239337250/Full_Report.pdf>

'Gender Equality and Development' (2012)

World Economic Forum, *Global Gender Gap Report 2021* (2021) <http://reports.weforum.org/global->

Young IM and others, *Justice and the Politics of Difference* (REV-Revi, Princeton University Press 2011)

5 Appendices

Appendix 1: Comparative analysis of WID, WAD and GAD Approaches[254]

	Women in Development (WID)	**Women and Development (WAD)**	**Gender and Development (GAD)**
Focus	Women	Relationship between women and development process	Gender relationships/roles between men and women
Objectives	Integrating women into development	Equitable international and class economic structures	Equality between sexes through women and men empowerment
Type of Change	Functional Change (Non-confrontational)	Functional Change (Non-confrontational)	Structural Change (Confrontational/ Provocative/ Equal rights and opportunities)
Type of Service	Anti-Poverty; Social wellbeing; Accepting the fact that women are passive recipients in development.	Stabilization and Economic Adjustment of policies based on women participation in development	Equity, Empowerment–Reform and liberation. Women viewed as active participants in development.
Strategies	Minimize disadvantages of women in the productive sector and ending discrimination against them Focus only on how women could be integrated into ongoing development initiatives Women's 'participation' in projects without explicitly increased empowerment Gender relations will change of themselves as women become full-fledged economic partners in development	Boost production and make poor women more productive. Increase women's productivity and income generating activities Women's position will improve when international economic structures become more equitable.	Encourages equal partnership between women and men in decision-making Women as agents of change rather than passive beneficiaries of development assistance Combine activities that meet practical gender needs and strategic interests Projects that increase women's and men's knowledge of and capacity to negotiate their rights

Feenstra (n 67) 26; Comité Québécois Femmes et Développement (CQFD) (n 82) 8, 21–27; Rathgeber (n 78) 2–14.

			Increase women's capacity and skills to introduce themselves in non-traditional employment Encourages the need for women to organise to gain more political control
Limitations	The exclusion of men Acceptance of existing social structures Disregards the impact of class, race and culture All women were considered a single unit	Sole focus on women's productive role at the expense of reproductive aspect of women's lives. Does not take into account strategies to integrate women into development	Requires greater justice and participation of women
Critiques	Women's multiple roles not considered Miscalculation of elasticity of women's time and labour Men are not integrated Not sustainable in the long term	Does not question relation between gender roles Does not encourage analytical focus on problems of women independent of men since both sexes are seen to disadvantaged by repressive global economic structures Based on the assumption that women's lives will improve when international economic structures are more equitable	More complex to implement and requires a long-term commitment Allows for a sustainable development but only in the long term. There have been no clear implementation strategies

Appendix 2: Comparative Analysis of Ghana's Energy Access Policies before and after the adoption of the EPGMEA

Policy	**Year Implemented**	**Productive Use of Energy**	**Gender Mainstreaming**	**Energy Justice Principle**
National Electrification Scheme (NES)	1990	No	No	None identified
Strategic National Energy Plan (SNEP)	2006	Yes	Yes- WID Approach	Recognition, Procedural, Distributive
National Energy Plan	2010	No	No	None identified
Energy Sector Strategy and Development Plan	2010	Yes	Yes- WID Approach	Distributive, Recognition, Procedural
Energy Outlook for Ghana	2010-2020	No	No	None identified
NES Master Plan Review	2011	Yes	Yes- WID Approach	Distributive, Recognition, Procedural
The Renewable Energy Act 2011	2011	No	No	None identified
Annual Electricity Supply Plan	2017-2020	No	No	None identified
ECOWAS Policy for Gender Mainstreaming in Energy Access (EPGMEA)	2017	Yes	Yes- GAD Approach	Distributive, Recognition, Procedural
National Action Plan for Gender Mainstreaming in Energy Access 2020	2020	Yes	Yes- GAD Approach	Distributive, Recognition, Procedural
2021 Electricity Supply Plan	2021	No	No	None identified
2021 Energy Outlook	2021	No	No	None identified

Appendix 3: Ghana's NAP Proposed Objectives and Targets

	Strategic Objectives	**Targets**
1.	Achieve widespread understanding of energy and gender considerations at all levels of society	At least 80 % of energy sector government employees will have received some relevant training by 2022; At least 50 % of citizens will be exposed to some form of relevant public service announcement by 2025 growing to 80 % by 2030; and At least 3 new scientific articles about gender and energy in Ghana published in peer-reviewed scientific journals by 2022.
2.	Ensure that all energy policies, programmes and initiatives, including large energy infrastructures and investments, are non-discriminatory, gender-inclusive, gender-balanced and directed towards addressing inequalities, particularly energy poverty, differentially affecting men and women in the region	At least 50 % of energy policies by 2021 and 100 % by 2030 will be gender sensitive; at least 50 % of energy projects, programmes, and initiatives with government participation will include gender dimensions in planning, implementation, analysis, and evaluation from 2021, rising to 100 % in 2030.
3.	Increase women's public sector participation in energy-related technical fields and decision-making positions	At least 25 % women in the public sector energy technical workforce by 2025, rising to at least 40 % by 2030.
4.	Ensure that women and men have equal opportunities to enter and succeed in energy-related fields in the private sector	At least 25 % women participation in energy-related fields in the private sector by 2025
5.	Establish and maintain a gender responsive monitoring, accountability and review framework for objectives 1-4	

Appendix 4: Ghana's NAP Implementation Strategy[255]

Activity	Responsible Institution	Implementing Organisation	Start Date & End Date	Budget (EUR)	Source of Funds	Indicators	Baseline Value	Target Value by Date
Objective One								
Update the 2010 gender assessment / gender audit of the energy sector	Ministry of Energy (MOE)	Energy Commission (EC)	January 2020 to December 2020	30,000	MOE; EC; Development partners	Complete Assessment Report	20%	100% by December 2020
Sensitise and train staff of Ministry of Energy and sector agencies on gender	MOE	Ministry of Gender, Children and Social Protection (MGCSP)	January 2021 to June 2022	40,000	MOE	Number of staff sensitised	-	At least 80% by June 2022
Design and roll out awareness initiatives targeted at addressing cultural beliefs and practices	MOE; EC	Gender Focal Units and Public Relations Offices of MOE, EC and MGCSP; Ministry of Local Government	June 2021 to May 2024	10,000 /year	MOE; EC	%age of citizens exposed to announcement	-	At least 50% by 2024
Objective 2								
Create a Gender Focal Unit (GFU) at the Ministry of Energy with a clearly defined role and resource	MOE	HR Directorates MOE; EC	June 2020 to December 2020	20,000 /year	MOE	GFU Created	0%	100% by December 2020

[255] ECOWAS, 'ECOWAS POLICY FOR GENDER MAINSTREAMING IN ENERGY ACCESS' (n 148) 33–36.

allocation in line with its function								
Include gender dimension in procurement announcements and terms of references with implementing partners	MOE	MOE; EC; Petroleum Commission (PC), National Petroleum Authority (NPA)	January 2021 and thereafter	-	-	%age of energy procurement announcements with gender dimension	-	At least 80% starting from January 2021
Mainstream gender in all subsequent energy projects	MOE	MOE; EC; PC; NPA	June 2021 and thereafter	-	-	%age of energy projects with gender dimensions	-	At least 50% from June 2021
Develop gender assessment methodology for energy infrastructural development	EPA	EPA	January 2021 to December 2021	30,000	Development Partners	Developed gender assessment methodology	0%	100% by December 2021
Sensitise and train developers of energy policy and planning documents on gender issues	MOE	MOE; EC; Women in Energy; MGCSP	June 2020 to December 2021	30,000	MOE	Energy Policy Developers Sensitised	-	At least 80% by December 2021
Objective 3								
Implement Ghana's affirmative action policy in the energy sector Boards and Commissions	Office of the Presidential Adviser, Gender and Development	MOE	January 2021 to December 2024	-	-	%age of women on public boards and commissions	20%	At least 40% by December 2024
Increase female access to STEM education and skills training	Ministry of Education (MOEd)	Tertiary institutions	January 2021 to December 2024	-	MOEd	%age of females enrolled in STEM courses in tertiary institutions	20%	At least 30% of slots occupied by females by 2024

Reduce qualification grade points for women entering STEM programmes	MOEd STEM programmes	Tertiary institutions programmes in all institutions	2021/2022 academic year, for 5 years entering STEM programmes	-	-	Grade point reduction for women entering STEM programmes	1 grade point in selected STEM programmes	At least 2 grade point for all STEM programmes in all institutions
Reserve a quota of national scholarship from Scholarship secretariat for females in STEM programmes	MOEd	Scholarship Secretariat	August 2021 to December 2025	-	-	%age of scholarship reserved for females	0%	At least 30% from the 2021/2022 academic year
Reserve a quota of GNPC scholarships for women enrolled in STEM courses	MOE	GNPC	August 2021 to December 2025	-	-	%age of scholarship reserved for females	0%	At least 30% from the 2021/2022 academic
Institutionalise internship programmes in the Ministry of Energy and related energy agencies for women pursuing STEM studies	MOE	EC; NPA; PC; PURC; GNPC; Electricity Generation Companies; Transmission Utility; Distribution Utilities, others	January 2020 to December 2024	50,000 / year	MOE and Implementing agencies (as allowance for interns)	Number of interns hosted	200	At least 500 / year
Encourage female application for open technical positions	MOE	HR Directorates of MOE and sector agencies	June 2021 to December 2025	-	-	Number of technical position adverts that encourage female application	Less than 10%	100% by 2025
Objective 4								
Increase local participation preference for women to up to 15% difference in financial costs	MOE	MOE; EC; PC; NPA	January 2021 to December 2025	20,000	MOE	Preference for women businesses increased to 15%	10%	15% from January 2021
Increase local participation preference for women to	MOE	MOE; EC; PC; NPA	January 2021 to	20,000	MOE	Preference for women	10%	15% from January 2021

up to 15% difference in financial costs			December 2025			businesses increased to 15%		
Increase local participation preference for women to up to 15% difference in financial costs	MOE	MOE; EC; PC; NPA	January 2021 to December 2025	20,000	MOE	Preference for women businesses increased to 15%	10%	15% from January 2021
Increase local participation preference for women to up to 15% difference in financial costs	MOE	MOE; EC; PC; NPA	January 2021 to December 2025	20,000	MOE	Preference for women businesses increased to 15%	10%	15% from January 2021
Increase local participation preference for women to up to 15% difference in financial costs	MOE	MOE; EC; PC; NPA	January 2021 to December 2025	20,000	MOE	Preference for women businesses increased to 15%	10%	15% from January 2021
Increase local participation preference for women to up to 15% difference in financial costs	MOE	MOE; EC; PC; NPA	January 2021 to December 2025	20,000	MOE	Preference for women businesses increased to 15%	10%	15% from January 2021