

The Dynamic Landscape of Geothermal Development in Addressing Gender Along the African Rift Valley: Views and Observations Made From a Review of Select Policy Frameworks

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ABSTRACT

In Africa, geothermal manifestations are mainly found along the African Rift Valley (ARV). The ARV is divided into Eastern and Western branch. It has been argued variously that the Eastern Africa Rift Valley (EARV) is home to some of the highest geothermal potential in the world, with exploration activities of the resource in the region having started many years ago: as far back as 1956 in Kenya and 1969 in Ethiopia. Kenya was the first African country to establish the use of geothermal power in the early 1980's and is currently the eighth (8th) largest geothermal electricity producer globally.

As the demand for green energy, including geothermal has continued to steadily grow in the recent years, the exploitation activities for this resource have also inevitably risen. Ambitious geothermal development plans such as those recently developed by countries in the region, particularly Kenya and Ethiopia will also continue to contribute to this increase in geothermal development-related activities.

Besides the activities, the number and types of actors implied in geothermal-related initiatives have also been on a constant surge and include developers, funders; such as World Bank (WB) and African Development Bank (AfDB) and increasingly; the local populations on whose land the geothermal resource is found. In many cases, these local populations also happen to be pastoralists by virtue of the fact that geothermal resources along the EARV tend to be found on low lands; generally drier than the surrounding plateaus. Some of these local communities are also fisher-folks.

This scenario continues to call for introspection on how the approach to geothermal energy development can be improved to not only reduce conflict, but also enhance sustainable development. Thus, besides the actors, policy changes have also characterized the dynamic landscape of geothermal development along the ARV. These include policies related to gender on one hand and to energy (geothermal in this case) on the other hand.

The WB and AfDB are among the main funders of geothermal development along the ARV, and especially the EARV region. This paper will examine changes that have taken place over the years in the gender and in the energy policy frameworks of these 2 institutions with a focus on geothermal.

Bearing in mind that unlike other energy sources, geothermal allows for a variety of local applications besides electricity production that could therefore change the classical approach of Environmental and Social Impact Assessments (ESIAs), some recommendations for geothermal development activities along the ARV will also be made as a conclusion to the paper.

1. Introduction

The ARV has numerous geothermal manifestations with the highest potential of the resource being found along the EARV region. In the recent past, there has been an increase in geothermal-related activities within the ARV, with most of the undertakings occurring along the EARV axis. About 217MW of geothermal energy had been developed along the EARV by 2013 (most of it in Kenya), out of a possible potential of 10,000MW. It is expected that geothermal activities in the region will continue to escalate.

The WB and AfDB are some of the main funders of geothermal activities in this region. While the WB Group's goals are given as: *End Extreme Poverty and Promote Shared Prosperity* the over-arching objective of AfDB is provided as *to spur sustainable economic development and social progress in its Regional Member Countries (RMCs) thus contribute to poverty reduction*.

WB funding for geothermal-related initiatives along the ARV in the recent years has included the Tendaho Alalobeda and Aluto Langano regions in Ethiopia, Lake Assal project in Djibouti and Kenya's involuntary resettlement project in Olkaria. AfDB's funding on the other hand has included playing a leading role in defining a geothermal development road map in Ethiopia, Lake Assal project in Djibouti, Climate Investment Funds Renewable Energy (RE) program scaling up in Tanzania and Menengai project in Kenya. There are also instances when AfDB and WB work in collaboration. For example, the two organisations collaborated in the finance structuring of Djibouti's Lake Assal geothermal project.

Both WB and AfDB play pivotal roles in the international developmental arena, including along the ARV. Various as for instance seen in World Bank (2004), WB not only positions itself as a leader in formulating policies including on geothermal to guide both its internal and external practitioners in their activities, but is also widely regarded as such. While African Development Bank (2015) considers WB as one of the key players in Africa's energy infrastructure development, Lattanzio (2013) states that the "World Bank Group (WBG) is also the world's largest multi-lateral lending institution for development assistance." Per contra, as demonstrated in African Development Bank (2013a), AfDB deems itself as "having a unique role as the voice for Africa in the development community owing to its position as a pan-African development finance institution" and that it (AfDB) is "called upon

to play a lead role in assisting RMCs to address the energy gap owing to its experience and comparative advantage”. Going by its *Strategy for The New Deal on Energy for Africa 2016–2025*, in African Development Bank (2015), AfDB has positioned itself to lead Africa’s Energy Transformation (ibid, 2015). Regarding gender, WB records indicate that it is the first multi-lateral institution to have made gender issues an overt item of attention by for example appointing a Women in Development (WID) Advisor in 1977 and adopting in 1990, an Operational Policy (OP) which recommended that women’s issues be considered when designing poverty-reduction programmes (World Bank, January 2002; ibid, 2015). AfDB on the contrary states in African Development Bank (2001); ibid (2004) that it introduced considerations for women issues in its operations in 1987 leading to the adoption of a WID policy in 1990 that emphasised women as a special group. African Development Bank (2001) indicates that by 1995, AfDB had committed about US\$ 35 million to initiatives devoted to WID activities and managed to contribute to the WID agenda at regional and international levels.

Such over-arching central roles and leadership in addressing gender issues played by these two (2) organisations as well as their track record of involvement in energy development initiatives globally and more lately, their increased funding of geothermal projects warrants a critical look at some of their policies that directly have an impact on geothermal development. These include their policies on gender and on energy, particularly geothermal development. Gender is increasingly emerging as an element which can play a determining role in the sustainability of geothermal initiatives. This is especially the case with geothermal initiatives along ARV and more particularly the EARV where currently there is an increase in geothermal-based activities and a big number of the local populations that are pastoralist communities and fisher-folks, with a lifestyle established around certain distinct gender roles that create given gender-based socio-economic needs which geothermal development can respond to as outlined by Onyango and Varet (2014); Onyango and Varet (2016). Some of these communities are also positioning themselves for active participation in geothermal development on their land as portrayed by Gardo, Nebro, Onyango and Varet (2016).

Regarding their gender and their energy (particularly geothermal) policies, WB and AfDB each currently have a policy framework that is specific to gender. The same however cannot be said of geothermal. This is because although WBG has developed: a document titled *Towards a Sustainable Energy Future for all: Directions for the World Bank Groups Energy Sector* in 2013; a briefing note entitled *Integrating Gender Considerations into Energy Operations* also in 2013 and a handbook (dedicated to geothermal electricity production) named *Geothermal Handbook: Planning and Financing Power Generation* in 2012, AfDB by contrast has various documents that constitute its energy policy framework, including RE, but nothing specific to geothermal. Policy related to geothermal development at AfDB would therefore fall under the wider RE framework. Nonetheless, both the gender and the energy policy frameworks of the 2 institutions have undergone various changes over the years in response to scenarios occasioned by internal and also external factors in the wider global development arena.

2 Key Documents Currently Constituting the Gender and the Energy Policy Frameworks of WB and AfDB

WB and AfDB both currently have overall organisational strategies titled *World Bank Group Strategy, October 2013* and *African Development Bank Group at the Center of Africa’s Transformation, Strategy for 2013-2022* respectively (African Development Bank, 2013a; World Bank, October 2013). These are the over-arching documents in each of the

organisation's policy framework. The current gender and energy policy frameworks as applicable to geothermal energy within these institutions is as follows:

Gender

WB:

- Mainstreaming Gender Issues at the bank.
- The Gender and Development (GAD) Policy Framework currently comprising a total of 11 OPs, BPs and Safeguard Policies.
- OP/BP 4.20: The bank's OP focused specifically on GAD. The 2003 OP/BP 4.20 establishes a country-level, strategic approach to mainstreaming gender issues in Bank work.
- Other OPs in the GAD Policy Framework beyond OP/BP 4.20 include OP/BP 8.60 Development Policy Lending and the Safeguard Policies.
- Accountability for Gender mainstreaming.
- Monitoring of Gender mainstreaming implementation and results.
- The Gender Strategy titled *Gender Equality, Poverty Reduction, and Inclusive Growth : 2016 – 2023* (2015).
- World Bank Gender Action Plan: 2016-2021 (2016).

(World Bank, May 2002; *ibid*, March 2012; *ibid*, *ibid*, 2015; June 2015; *ibid* 2016, *ibid*, undated (a); *ibid*, undated (b)).

AfDB:

- African Development Bank, The Gender Policy, June 2001 (2001)
- Investing in Gender Equality for Africa's Transformation: The Gender Strategy 2014–2018 (2013)

(African Development Bank 2001; *ibid*, 2013b)

Energy

WB:

- Geothermal Handbook: Planning and Financing Power Generation (2012)
- Towards a Sustainable Energy Future for all: Directions for the World Bank Groups Energy Sector (2013)
- Integrating Gender Considerations into Energy Considerations (2013)

(Gehringer and Loksha, 2012; World Bank, February 2013; *ibid*, July 2013)

AfDB:

- Strategy for The New Deal on Energy for Africa 2016–2025 (2015)
- Energy Sector Policy of the AfDB Group (2012)

(African Development Bank 2013; *ibid*, 2015)

From the listing of documents above, it can be concluded that in general in regards to gender and to energy policies frameworks, WB seems to have more documentation than AfDB especially for the gender policy.

The Definitions of Gender, of Some Gender-related Terms in WB's and AfDB's Gender Policy Documents and the Concepts' Inter-linked Importance

WB defines gender as “differences created by social constructs that result in different roles for, and power relations between men and women” (World Bank, 2001); “the culturally-based expectations of the roles and behaviours of males and females; distinguishing the socially constructed from the biologically determined aspects of being male and female” (ibid, 2002; ibid, February 2013; ibid, undated (a)), “socially constructed and learned female and male roles, behaviors, and expectations” (ibid, February 2013; ibid October 2013) or “the social, behavioural and cultural attributes, expectations and norms associated with being male or female” (ibid, 2015). The institution underscores that “gender is not another word for women” (ibid, February 2013). AfDB's definition of gender is however not explicitly given in what can be considered its first gender policy document titled *African Development Bank, The Gender Policy, 2001* and subsequent related documents. The focus of this 2001 gender policy (and ensuing documents) is on gender equality, which is defined in the document as “enjoyment of human rights by women and men” (African Development Bank, 2001).

In the case of WB, the terms gender mainstreaming and gender integration seem to have more prominence over gender equality in the institution's gender-related documents. The institution's working definition of gender integration is provided as “the requirements for the “integration” of gender considerations into overall Bank assistance for a country” World Bank (2001); that of gender mainstreaming is given as “a process in which gender concerns and women's needs and perspectives are considered in all aspects of Bank operations, including a focus on women's participation in the decision-making process in development activities” (ibid) or “a process that systematically integrates gender perspectives into legislation, public policies, programmes and projects” (ibid, 2015). At the same time, WB defines gender equality as “how factors defining gender determine the way in which women and men relate to each other and to the resulting differences in power between them” (ibid).

Although AfDB's gender policy framework does not seem to have provided its working definition of gender, it nevertheless recognizes the central role gender should play in development initiatives. Focusing on gender mainstreaming as “a means of fostering poverty reduction, economic development and gender equality in Africa”, (African Development Bank 2001), and while acknowledging that “Africa has pronounced, region-specific gender characteristics that are of direct relevance to its economic and social development” (ibid), AfDB's 2001 gender policy singles out the marginalisation of women from participating effectively in economic, social and political life on the continent as one of its most pronounced socio-economic characteristics. The institution then goes ahead to propose gender as an important development intervention and criterion in assigning roles and rights and in shaping women's and men's access to and control over resources (ibid). AfDB further indicates that “gender equality is both a development goal in itself and a precondition for the achievement of other development outcomes policy (ibid, 2013b); adding that “it is both a matter of human rights and a matter of development or ‘smart economics’ as it can enhance economic growth and improve other development outcomes” (ibid). In addition, in most of its documents constituting its gender as well as its energy policy framework, AfDB lays emphasis on the question of the different roles assigned to men and women. It attempts to make the connection between energy and gender roles especially in its *Strategy for The New Deal on Energy for Africa 2016–2025*. This can be seen in statements such as “Different gender defined roles in energy production, distribution and utilization in households, communities and the market mean women and girls are disproportionately affected” (African Development Bank, 2015).

WB on its side articulates variously in its gender policy documents, the importance of gender indicating that “gender issues are important dimensions of its poverty reduction, economic growth, human well-being and development agenda” (World Bank, undated (a)) and considers gender equality as “critical for achieving the potential development impacts of its programs across all sectors” (World Bank, February 2013). Similar to AfDB, WB also endeavours to draw the connection between energy and gender roles particularly in its 2013 briefing note titled *Integrating Gender Considerations into Energy Operations* through for example quoting from a 2008 UNDP document, as follows: “When women have access to adequate fuel, water supplies, and money for school fees, their children are more likely to attend school, especially the girls, who will not be kept home to help their overburdened mothers. Having money for food and the fuel and equipment needed for processing and cooking also promotes better health for women and their families” (World Bank, May 2013).

Gender, Energy Access and Link to Development in WB’s and AfDB’s Gender and Energy Policy Frameworks With Geothermal as Reference Point

Founded in 1944 and 1964 respectively, energy has been one of the main sectors for both WB and AfDB since their inception. For a long time, the institutions’ energy sector was primarily focused on hydropower projects (mega-dams) but RE including geothermal has progressively become one of their key energy sub-sectors in recent years.

Between 1967 and 2011, AfDB devoted 34% of its total infrastructure commitment to energy. Its financing of energy infrastructure programs has significantly increased over the last decade: the total commitments between 2000 and 2013 amounts to 7.6 billion UA, out of which, about 1/6 (i.e. 16.1%), were allocated to the energy sector. A total of 133 energy sector projects were approved during the period from 2000 to 2013. The total funds allocated to the energy portfolio increased by more than fifteen (15) times between 2000 to 2013, from 40 million UA to approximately 650 million UA (African Development Bank, 2015).

Conversely, regarding the WB, the institution had by 2013 financed more than 600 large dams in the past 60 years (Bosshard, 2013). The WB Group’s energy financing has topped US \$49 billion since 2010 and totaled US\$6.5 billion in FY15 (<http://www.worldbank.org/en/topic/energy/projects>).

It should however be noted that despite the escalating inclusion of RE in their energy sector portfolios, which increasingly includes geothermal, the historical affiliation of these 2 financial institutions to mega hydropower projects seems to continue to have a strong influence on their approach to the implementation of energy initiatives to date. For both WB and AfDB, this seems to be the case even with geothermal undertakings along the EARV where different approaches that could enhance sustainable development and local community progress are feasible but are yet to be applied and to be taken advantage of as proposed by Onyango and Varet (2018). Until now, the situation has been the same with other geothermal energy development actors along the ARV. It is important to bear in mind that the different approaches to geothermal development also have varied associated gender-based impacts, some of which can promote sustainable development in more effective ways than others.

One of the best ways to present the link between energy access, gender and development in the case of geothermal energy is through the diversified range of uses presented by the development of the resource. This variety of utilisations, which unlike other RE sources extends beyond electricity production as depicted by Achieng’, Omenda, Onyango and Varet (2014) as well as Mariita, Onyango and Varet (2016), places geothermal energy in a unique

and advantageous position for development as a whole and for gender-related impact in particular. In addition, besides energy, geothermal can also be used to provide water; a resource that at household level in many African communities, just like energy, is increasingly becoming scarce, particularly among pastoralist populations, given that they are currently some of the hardest hit by climate change effects. The provision of water and energy at household level forms a big part of the gender roles within local African communities including the ones found along the ARV.

In 1994 and 2001, AfDB developed its first energy and first gender policies respectively, although gender had been identified as a cross-cutting issue within the institution earlier in 1996. On its end, WB developed its first gender policy in 1994, but does not seem to have had any energy policy in place up to this point in time. Its first energy strategy was however developed in 2001. This overall situation depicting a lack of synchrony in the policy formulation activities related to the 2 sectors can probably be translated as portraying the siloed way in which these 2 sectors have historically related to each other from the point of view of programme implementation. The explained lack of harmony between the 2 sectors seems to be even more pronounced in the geothermal energy sub-sector.

For example, an assessment of the 2 organisations' current gender and energy policy frameworks with a focus on geothermal reveals a related occurrence. AfDB's current gender strategy is titled *Investing in Gender Equality for Africa's Transformation (2014 - 2018)*. It however makes no mention of geothermal or even energy in its broader sense. At the same time, among AfDB's current operational documents on energy is the 2013 *Energy Sector Policy of the AfDB Group*, and its 2015 *The Africa Development Bank Group's Strategy for The New Deal on Energy for Africa, 2016 –2025*. None of these 2 documents is specific to geothermal. Although they allude to various gender concepts, they are general documents on energy with cursory mention of geothermal. In the same vein, the institution's current 10 years' strategy, *African Development Bank Group at the Center of Africa's Transformation Strategy for 2013–2022* also seems to consider geothermal very superficially. For instance, on page 25 of the 10-year strategy under the sub-topic of *Guidelines for specific energy sub-sectors*, several energy sources are mentioned indicating that consultations will be carried out with various stakeholders to develop project guidelines and criteria but geothermal is not one of those listed. Also, worth noting is that AfDB's current gender strategy vision talks of "including creation of opportunities for women, disadvantaged and marginalised people and communities so that they can participate in, and benefit from, the development of their communities and nations." This is an interesting point because disadvantaged and marginalised people are generally not categories that are singularly mentioned in gender groupings.

On its side, WB's current gender strategy is titled *Gender Equality, Poverty Reduction and Inclusive Growth (2016 – 2023) Gender Strategy*. Similar to AfDB's current gender strategy, WB's gender strategy also makes no mention of geothermal or even energy in the broad sense for that matter. This, despite the fact that in its conceptual framework, it identifies tasks such as fetching water and wood (both of which geothermal can provide solutions to) as tasks or unpaid work household members negotiate decisions and spend time on; even going further to acknowledge that traditionally, it is women that mostly carry out the non-market work of this nature. AfDB's *The Africa Development Bank Group's Strategy for The New Deal on Energy for Africa, 2016 –2025* also gives statistics of women and children dying from inhaling toxic fumes due to the use of wood/feedstocks for cooking or lighting. It should be noted that from a gender perspective, the mention of corresponding male roles and associated health hazards respectively, are missing from these details. The risk of these types

of omission is an eventual over-emphasis on female-related issues to the detriment and exclusion of male-related perspectives – a situation that would have and has been known to have its own negative effects. It is also assumed that girls' roles even if not alluded to in the phrase on water and wood given above, is included in the discussed one of women.

In terms of geothermal-specific documentation, the WB seems to be ahead of AfDB as it has in place a handbook specifically dedicated to geothermal titled *Geothermal Handbook: Planning and Financing Power Generation*, that was developed for the first time in 2012. Nonetheless, this handbook has no mention of gender or gender-related concepts. The resource is also dedicated to large-scale electricity-production geothermal projects therefore leaves out the perspective of the other applications of geothermal proposed in Mariita, Onyango and Varet (2016) through which a gender aspect can be considered, as indicated in Onyango and Varet (2014). This inevitably means that the opportunity to make the link between gender and geothermal development also stands a high chance of being missed.

The organisation's other relevant document on energy titled *Integrating Gender Considerations into Energy Operations* however talks of the need to focus on among other issues: gender-based inequalities related to choice, including voice in decision-making as well as gender integration in project cycles. The document further underscores the fact that women and men have different roles, responsibilities and voice within their spaces which lead to differences in access, use and impact of energy on their lives. Time poverty (ie lacking time for productive work), associated to gender roles especially among women as well as participation or influence in decision-making are also mentioned in the document as gender issues (World Bank, 2010; *ibid*, February 2013). Although off-grid, mini-grid and RE are discussed in the document, there is no mention of geothermal. There is also WB's *Towards a Sustainable Energy Future for all: Directions for the World Bank Groups Energy Sector*. In this document, stand-alone mini-grid, off-grid and decentralised solutions are mentioned (even if not in detail), thus a possible window of opportunity for geothermal interventions. Geothermal is equally mentioned in the document as a possible RE option, but rather fleetingly. Nonetheless, the document also brings in the question of gender in a very superficial way.

Save for one (1) - and in which it so happens that gender is not mentioned at all - all these energy documents cited above therefore cover the wider energy sector so from the point of view of geothermal development, have a very general view of issues, even when gender is addressed in them. Where geothermal is considered, it is in terms of huge undertakings, thus a focus on large scale geothermal projects. Even though *The Africa Development Bank Group's Strategy for The New Deal on Energy for Africa, 2016 – 2025* mentions (isolated) stand-alone, mini and off-grid systems this seems to be in relation to other REs such as solar and not geothermal, going by the standard approach to geothermal development along the ARV until now as argued in Onyango and Varet (2018).

At the same time, gender is currently considered as a cross-cutting issue both at the WB and AfDB. This means that there is a general gender policy specific to each of these institutions that applies to all the operations of each institution respectively. There is therefore no specific gender policy that applies specially to geothermal development projects or even to the wider energy sector. Thus, despite the inter-relation between energy access and gender, high energy sector budgets, long institutional history with energy projects, unique advantage introduced by geothermal resources and the potential geothermal projects (if carefully planned and implemented) present for sustainable development along the ARV, the reference points for gender considerations related to geothermal energy are contained in the general

organisational cross-cutting gender policy frameworks where institutional emphasis is on large-scale geothermal projects. The result of this is that the distinct gender-based benefits that would arise from the varied options of geothermal development are diluted, if not missed and altogether not considered; a situation that is again replicated by all other geothermal development actors within the ARV as already argued in preceding parts of this paper.

Tied to the history of huge hydropower projects development, is the involuntary resettlement approach applied until now to geothermal initiatives along the ARV in instances where there are populations living around sites targeted for development. In such cases, nearby local populations are customarily relocated and compensated for their land to create room for the venture. Mega projects increase the chances of evoking involuntary resettlement. Both WB and AfDB have involuntary policies in place; namely *World Bank Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects, 2004* and *African Development Bank Involuntary Resettlement Policy, 2003*. The former issued its earliest policy statement on the subject in 1980 and the latter released its premier guidelines on the same in 1995 (Cernea, 1988; African Development Bank, 2003). Unless very carefully studied before implementation, involuntary resettlement can potentially have far-reaching, long-term social and economic gender-related impacts that ironically, would negate the development that the projects causing the relocation first set out to attain.

A Summary of the Main Changes, Updates and Activities to Date Related to WB's and AfDB's Gender and Energy Policy Frameworks With Geothermal as Reference Point

Chronology of the major changes to WB's and AfDB's gender and energy policy frameworks with geothermal as a reference point can be summarised as follows:

Gender

WB:

1977: Appointment of a Women in Development (WID) Advisor.

1984: The *Operational Manual Statement (OMS) 2.20 - Project Appraisal* issued. It mainly recommended the inclusion of women-related issues in the social analysis of projects when women were an important group affected by the project, but provided little or no basis for a firm benchmark.

1986: A full WID unit created.

1990: An Operational Policy (OP) adopted recommended that women's issues be considered when designing poverty-reduction programmes.

1993: WB's first gender strategy, *Enhancing Women's Participation in Economic Development* presented to the board as part of the overall poverty reduction initiative.

1994: A statement policy, *OP 4.20 - The Gender Dimension of Development* issued. OP 4.20 required gender analysis and integration in Country Assistance Strategies (CASs), as well as support for client countries to collect gender-disaggregated data.

1994: Shift to a country-level approach requiring WB to address gender for poverty reduction in client countries, with focus on gender disparities and economic participation of women.

1998: Head of Gender and Development Board post raised from Chief/Manager to Director.

2001: The strategy *Integrating Gender into the World Bank's Work: A Strategy for Action* (also called the 2001 Gender Strategy) adopted and released in January 2002. By this time, WB had shifted to a focus on gender equality as a means to help reduce poverty.

2002: The release of the Gender Action Plan (GAP) *Integrating Gender into the World Bank's Work: A Strategy for Action* which presented a strategy for mainstreaming gender-responsive actions into the development assistance work of the bank.

2006: The release of Gender Mainstreaming Action Plan entitled *Gender Equality as Smart Economics*, that expanded from education and health to include the economic sector thus focusing on land, labour, agriculture and finance as well as the infrastructure related to these markets introduced. This move raised the chances of gender consideration in energy projects.

2013: The briefing note *Integrating Gender Considerations into Energy Operations*, providing guidance on gender mainstreaming in the energy sector issued. An analysis of the document however reveals that geothermal is not included in its content.

2015: The Gender Strategy titled *Gender Equality, Poverty Reduction, and Inclusive Growth (2016 – 2023)* issued.

(Gender Action, 2007; World Bank, 1990; *ibid*, January 2002; 2006; *ibid*, March 2012; *ibid*, February 2013; *ibid* 2015; *ibid*, June 2015; *ibid* 2016; *ibid*, undated (b)).

AfDB:

Phase 1 - (1986 to 1990): Laying of foundation for, setting up and staffing of the WID unit (including WID Senior Advisor appointment), what AfDB is in its 2001 Gender Strategy calling gender mainstreaming approach introduced in its operations, adoption and initial operationalisation of the WID policy in 1990.

Phase 2 – (1991 to 1995): WID policy implementation, AfDB's WID Unit with full internal funding responsibility established, women's access to credit promoted, incorporation of gender issues in selected project cycle done.

Phase 3 – (1996 onwards): Gender identified as a cross-cutting issue, gender mainstreamed in AfDB's projects (including Rural Development) as well as in the Lending Policy and Guidelines. Worth noting is that Energy was still not included on the gender mainstreaming list by this time, despite it being a sector of historic focus for AfDB.

2001: AfDB's policy titled *African Development Bank, The Gender Policy, 2001* with gender analysis as an integral part launched.

2004: AfDB's first gender plan, *Gender Plan of Action (GPOA) - 2004 to 2007 For The African Development Bank Group* adopted.

July 2008: The Gender, Climate Change and Sustainable Development Unit established to chart the Bank's work in gender equality in Africa. To be noted is that this move heightens possible considerations for geothermal as it is a RE so linked to climate change resilience.

2009: AfDB's second gender plan *African Development Bank Gender Equality and Women's Empowerment: An Updated Gender Plan of Action (UGPOA) 2009 – 2011* adopted.

2013: The current gender strategy titled *Investing in Gender Equality for Africa's Transformation: The Gender Strategy 2014–2018* launched.

(African Development Bank, 2001; *ibid*, 2004; *ibid*, 2007; *ibid* 2009; *ibid* 2013(b)).

In summary, energy or specifically geothermal for that matter is not tackled in the above gender documents so the link between geothermal development and gender is not clarified.

Energy

WB:

1999: An environmental strategy for the energy sector, titled *Fuel for Thought* produced.

2001: An informal strategy titled *The World Bank Group's Energy Program: Poverty Alleviation, Sustainability and Selectivity* released.

2009: A paper titled *World Bank Group Energy Strategy Approach Paper* that was intended to eventually lead to the adaption of an energy strategy developed.

2011: The document *Energizing Sustainable Development: Energy Sector Strategy of the World Bank Group (ESS)* presented to WBGs Committee on Development Effectiveness (CODE) for consent and delivery to Executive Directors' Board but process stalled at CODE.

2012: The process of consenting to the ESS discontinued.

2012: The handbook titled *Geothermal Handbook: Planning and Financing Power Generation* specific to geothermal development released. It guides geothermal operations for electricity production/generation.

2013: The briefing note *Integrating Gender Considerations into Energy Operations* released. It addresses RE but has no specific mention of geothermal energy, even though off-grid, mini-grid solutions, etc are mentioned.

2013: The guide titled *Towards a sustainable energy future for all: directions for the World Bank Groups energy sector* produced. It alludes to off-grid, mini-grid and mentions geothermal, even if fleetingly.

(Gehring and Loksha, 2012; Lattanzio, 2013; World Bank, February 2013; ibid, July 2013)

AfDB:

1994: AfDB's first Energy Policy launched.

2012: Second energy policy titled *Energy Sector Policy of the AfDB Group* replacing the 1994 policy and constituting AfDB's response to the challenge of low access to modern energy services in Africa launched. Geothermal is mentioned as a RE option.

2012: *Climate Change Action Plan (CCAP) for 2011-2015* (to support AfDB's RMCs adapt to climate change and mitigate its effects while supporting the Bank's focus on infrastructure development and regional operations) developed.

2013: AfDB Group's 10 years' strategy titled *African Development Bank Group At the Center of Africa's Transformation, Strategy for 2013–2022* released.

2016: The partnership-driven effort *New Deal on Energy for Africa* is launched. Africa's high geothermal potential especially along the EARV is acknowledged and the resource listed as one of the potential green energy solutions.

(African Development Bank, 2013(a); ibid, 2015).

In summary, geothermal is either treated as isolated from gender or within the broader view of REs so the gender-based advantages of its development are either blurred or even totally missed in the above energy document.

On the Gender and the Energy Policy Frameworks Trail: Tracing Back Some of the Triggers of Change at WB and AfDB With Geothermal Energy as Point of Reference

Factors that have influenced changes in the gender and the energy policy framework landscape over the years at WB and AfDB have included: internal issues (lessons from experience, restructuring, increased awareness over an issue, etc) external circumstances (challenges, opportunities, given changing global landscape, increased awareness and concern over a subject), consultations held as well as documents such as papers, reviews, evaluations and reports produced. Some of these factors are:

Gender

- Adoption of the WID and later GAD policies within the institutions, provided an enabling environment, which gave impetus to numerous gender-related activities.

- Global and organisational evolution; increased awareness of gender issues; a general environment demanding for change.
- Production of pertinent documents eg relevant reports, position papers, etc.
- Reviews/evaluations of the respective institution's gender policy framework implementation.
- Creation of units dedicated to gender issues.
- Agenda for women's development at the international level giving renewed emphasis and expanded focus on gender issues.
- The expectation that natural resources would in the coming years generate revenue streams thus a great opportunity for African countries to drastically reduce the continent's poverty levels.
- Realisation that gender equality is not just a human right issue but that for development to happen, women need to be fully involved in the process.
- Acknowledgement that recent economic growth has not translated into increased well-being for everyone in Africa as poverty levels still remain high and have even deepened with the trend expected to get worse (projections of 85% living in poverty in Africa by 2025).
- Need to pursue human development opportunities for men and women through good policies and sustained investment.
- High inequalities between men and women in Africa (among the highest) with African women and girls being among the poorest of the segment.

(African Development Bank, 2001, *ibid*, 2013(b); World Bank, 1990; *ibid*, 2002; *ibid*, 2015; 2009; 2012; *ibid*, 2015; *ibid*, undated (b); World Bank IEG, 2009, *ibid*, 2010; *ibid*, undated; Park and Vetterlein, 2012).

Energy

- Production of pertinent documents eg relevant reports, position papers.
- Internal and external consultations.
- Largely unexploited geothermal potential (especially in Africa) despite its potential benefits and role in green energy growth.
- Global (community) movements eg Climate Change agreements, Millenium Development Goals (MDGs), Sustainable Development Goals (SDGs).
- Energy poverty in some of the funders' countries of focus.
- Rich RE resources mix in some of the funders' countries of focus.
- Increased global environmental, climate change and climate-change adaptation concerns, resulting in calls for low greenhouse gas (GHG) emission energy sources.
- Need for women empowerment in the energy sector.
- Need for local community involvement in energy issues.
- Need for social equity in the exploitation and use of energy resources in funders' countries of focus.

(African Development Bank, *ibid*, 2012; *ibid*, 2013(a); *ibid*, 2015; World Bank, 1990; *ibid*, 2012; *ibid*, February 2013; *ibid* July 2013; *ibid*, October 2013).

4. Challenges Encountered in Implementing the Policies Relating to Gender and to Energy at WB and AfDB With Geothermal as a Point of Reference

Some of the challenges that would apply to gender and to geothermal development that have been associated with implementing gender and energy policies at both AfDB and WB include:

Gender

- Limited resources assigned for gender issues hindering effective implementation.
- Slow systemic uptake of gender issues both within and outside the institutions (lack of political will).
- Limited relevant gender-disaggregated data or analysis.
- Energy sector policy and planning that have in the past not taken into account the reality that energy sector decisions and implementation can differently impact men and women.
- Insufficient steps to implement an accountability framework for gender mainstreaming.
- Limited capacity of client institutions to address gender.

(African Development Bank, 2001; *ibid* 2013(b); Gender Action, 2007; World Bank, 2002, *ibid*, 2006; *ibid*, 2010; *ibid*, 2015; World Bank Group IEG 2009; *ibid*, 2010, undated).

Energy (With a Focus on Geothermal)

- Slow progress in RE uptake.
- Insufficient data and information on the African energy sector.
- Geological and resource exploration risks associated with exploitation of geothermal manifestations which discourage investment.
- Involuntary resettlement.

(African Development Bank, 2013(a); *ibid*, 2015; Cernea, 1988; World Bank, 2004, *ibid*, July 2013; *ibid*, October 2013; *ibid*, 2010).

5. Views and Observations

The following are views and observations emanating from the analysis done to come up with this paper:

1. Instances where the different energy policy framework documents that have been studied for this paper omit either one or more gender or the roles traditionally attributed to one sex category in their discussions. For example, in WB's 2013 briefing note titled *Integrating Gender Considerations into Energy Operations*, the consideration of boys and girls is missing although the aspect of women and men has been taken into account. The risk with this kind of omission is that perspectives such as considerations and impact of energy access/development to the excluded gender are also likely to be neglected in the energy project cycles as a result. Separately, WB's *Gender Equality, Poverty Reduction and Inclusive Growth (2016 – 2023) Gender Strategy* mentions tasks such as fetching water and wood which along the ARV are generally known to be done by females, but makes no reference to related male-oriented responsibilities. In addressing gender and energy, and particularly geothermal energy, both the question of gender category and the corresponding roles are essential elements, especially in the African context, where along the ARV, all the four (4) gender categories have varying roles that revolve around water and energy provision at household level. At the same time, geothermal resources have the potential to provide both water and energy and so its development would impact the 4 genders differently. A tendency to over-emphasise women/female issues to the disservice of men/male matters has over the years brought in the confusion that gender is synonymous to women, a situation which often poses challenges for gender practitioners, especially in the African context.

2. Contrarily, AfDB's current gender strategy titled *Investing in Gender Equality for Africa's Transformation: The Gender Strategy 2014–2018* takes into account the aspect of boys (and men) by highlighting that “gender equality focuses on eliminating any inequalities between the sexes therefore covers more than addressing women's status.” It rightly points out that “as men and boys can also face disadvantages, it is important to recognise that while gender equality often involves addressing discrimination or disadvantage against women and girls, discrimination or disadvantage against men and boys must also be tackled to make gender equality a reality.” In addressing gender, there has often been a tendency to downplay the men and boys' consideration. The organisation's *Strategy for The New Deal on Energy for Africa, 2016 – 2025* on its side however variously mentions women, men and girls but seems to leave out boys.

3. Available documents attest to the fact that AfDB developed 2 consecutive action plans thus *GPOA 2004- 2007* and *UGPOA 2009-2011* to operationalise the 2001 Gender Policy. As the 2004 -2007 was its first ever gender action plan, it is subsequently not clear what document was used for this operationalisation before 2004, then between 2007 to 2008 and finally between 2011 and 2014 before the current 2014-2018 gender strategy was launched.

4. It seems that there are instances in some of the studied gender policy framework documents where certain working definitions of key words are either not clearly articulated, are missing or principal terms such as gender and women are used inter-changeably. This can be seen in given statements in the documents that eventually end up presenting some contradictions. For example: African Development Bank's (2001) indicates that it “introduced the gender mainstreaming approach in its operations in 1987 leading to the adoption of a WID policy in 1990 that emphasized women as a special group ...” Yet this is a period the bank was operating under the WID (and not GAD) umbrella as attested to by the 3 gender evolution phases where WID approach was in operation at the bank from 1986 until 1996. There is also the statement in the organisation's 2004-2007 GPOA document saying that “Gender as a cross-cutting issue (or the GAD approach) has been operational since 1996 when the Board of Directors ... established a unit to promote the mainstreaming of gender issues, among others and to enhance their visibility in Bank activities.” This scenario of using terms interchangeably in the policy documents leads to ambiguity which can then cause confusion during the design, planning, implementation, monitoring and/or evaluation of given development initiatives. Ambiguities have also been cited in WB's gender policy framework documents as substantiated by statements like the one by World Bank (2002) which states: “The existing policy documents contain ambiguities that need to be removed if Bank staff are to fully understand the policy's implications for operations”

5. Looking at the policy framework documents in the energy and the gender spectrum at both WB and AfDB from a geothermal perspective, one sees that save for the resource titled *Geothermal handbook : planning and financing power generation* (which nonetheless has no gender perspective) we generally have documents covering the broad energy range or RE sector with some mention of gender on the one hand or documents addressing gender with very minimal to no regard for geothermal. This situation is similar in the case of the other geothermal actors as well.

6. There seems to have been a lot of activity related to updating both the gender and the energy policy frameworks at WB and AFD around 2012 – 2013.

7. There are numerous similarities between some of the policy framework documents of WB and AfDB that have been analysed for this paper. This is especially the case with the current

energy policy documents. Some of the parallels to be drawn in the energy documents of AfDB and WB include focus on: the poor, lower GHG emissions, local community involvement, women empowerment/gender equality, energy as a catalyst for wider social and economic growth, energy and environment/climate change link, decentralised energy solutions (mini and off-grids systems), green energy/RE with geothermal mentioned as well as some mention of both coal and hydropower. The term “smart economics” also appears in gender policy documents of both institutions.

8. Gender, energy access and environmental issues are closely interlinked. Attesting to this, is the fact that some of the changes in the studied energy policy frameworks have been directly motivated by environmental issues/climate change concerns which have then ended up bringing up new gender-related perspectives in the energy policy documents.

9. Implementing gender at both banks has faced its challenges and the organisations’ attempts to integrate gender in energy initiatives is a very recent development.

10. Tracing the trail of activities and changes that have occurred in regards to gender and energy policy frameworks at AfDB and WB, it seems that there has been more activity across the gender landscape than in the energy sector. However, there is still room to do much more in terms of incorporating gender considerations in geothermal development along the ARV. Additionally, in the recent years, global concerns and initiatives around environmental and climate change issues have resulted in more action and dynamism in the energy sector landscape and it is expected that this trend will continue. The scenario this combination presents for the ARV is an opportunity to implement an approach to geothermal development that enhances sustainable development for the region’s local populations by linking the resource’s development to gender considerations that take into account the specific context of this region and the local communities that live around geothermal sites.

6. Conclusion

In relation to gender and to energy policy frameworks, there is need for geothermal actors to consider having a gender policy document that is geothermal-specific as currently there is none of this nature in place. This situation translates to a gap that results in the gender-based advantages that could be advanced by geothermal’s possibility for multiple applications being obscured in the general energy policies presently in place. There is an even stronger case for a geothermal-specific gender policy for actors working along the ARV and particularly the EARV because in this region, there is promise for heightened geothermal activities as well as the triple combination of gender-specified roles, the current climate change impact in the area and high-potential geothermal sites that could enable the local communities to benefit immensely from geothermal development’s varied applications options as described in Achieng’, Omenda, Onyango and Varet (2014); Onyango and Varet (2014); Mariita, Onyango and Varet (2016); Onyango and Varet (2016); Onyango and Varet (2018). Lumping geothermal with other energy sources in policy documents that address issues from a gender perspective therefore has had the result of missing out on the added gender-based opportunities, benefits and advantages that geothermal development potentially presents.

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