

# ‘But We Cannot Do It All’: Investors’ Sustainability Tensions and Strategic Selectivity in the Development of Geothermal Energy in Kenya



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**Abstract** Several studies have questioned investors’ adequate consideration of the three pillars of sustainable development in the construction of development projects in the Global South. Other studies have proposed and developed frameworks for fostering their adoption and application in the planning and construction of such projects. However, relatively little attention has been directed to understanding the intricate processes and dynamics involved in investors’ adherence to these sustainability triad. This paper explores these sustainability adherence processes, and their associated challenges and imponderability in the context of large-scale geothermal projects development in Kenya. We argue that investors’ commitment to the sustainability framework in the development of such projects is characterized by *sustainability tensions*, reflected in conflicting interests, dilemmas, and power struggles that investors face as they attempt to simultaneously apply the three principles of sustainable development in delivering their projects. In order for investors to manage these tensions, the study shows that they engage in *strategic selectivity*, whereby the extent of adherence to certain components of the sustainability principles are based on winning interests, priorities and convenience. These processes are explored by drawing on perspectives from sustainable development, Triple-Bottom-Line and corporate sustainability discourses. Expert and informal interviews, document analyses, ethnographic fieldwork and field visits are used to track and illustrate these processes, using the case of large-scale geothermal project developments in Olkaria, Kenya.

**Keywords** Sustainability · Tensions · Strategic selectivity · Geothermal · Kenya

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## 1 Introduction

In “The Future We Want” (UN 2012), world nations reaffirmed the need to achieve sustainable development, in its three dimensions of economic, social and environment, in the face of new and emerging challenges. At continental level, African states also reaffirmed their commitment to a new more inclusive and sustainable path for attaining industrialization and economic development in the Agenda 2063 “The Africa We Want” (AUC 2015). African countries, along with most other countries of the Global South, essentially grapple with challenges in all the three dimensions of sustainable development (UN 2013). The breadth and linkages of these challenges and how to simultaneously address them, present sustainability dilemmas, tensions and conflicts (Jayanti and Gowda 2014, Brix-Asala et al. 2018, Newig et al. 2007, Shove and Walker 2007).

There is much skepticism on the possibility to simultaneously address the three dimensions of sustainability given the diverse country-specific political, institutional, and economic capacities and priorities (Romijn et al. 2010). This is particularly true for Africa where resource-intensive investments and industrial expansion remain a key priority for the achievement of rapid economic growth despite their negative socio-environmental impacts. Pressing challenges such as high poverty levels, population growth, and inadequate employment opportunities continue to undermine efforts towards sustainable development (Ahenkan and Osei-Kojo 2014). With these dynamics, reconciling economic growth with social equity and environmental protection becomes an almost elusive endeavor given the many conflicting goals, priorities, and trade-offs (OECD 2013; Ramos-Mejia et al. 2018; Leach et al. 2010).

Such choices, trade-offs and decisions are especially reflected in Kenya’s transition to green energy solutions through the massive investment in geothermal power. Geothermal energy development is expected to play a major role in the country’s transition to a green economy (GoK 2007). In Kenya, investment in renewable energy has increased fourfold from USD 88 billion in 2005 to USD 349 billion in 2015, most of which has gone into geothermal energy development (Koissaba 2018). Olkaria geothermal plants, located in Kenya’s Rift Valley, continues to witness massive investments for expansion and upgrading, while other sites in Menengai and Baringo-Silali are in plant construction and exploration phases. Investors in geothermal in Kenya include the national government (through the Kenyan Electricity Generation Company and Geothermal Development Company), international development financial institutions and private independent power producers (Klagge and Nweke-Eze 2020).

Despite these massive investments by diverse investors and the expected economic potential, geothermal development in Kenya raises concerns over the extent of investors’ commitment to social and environmental dimensions of sustainable development (Mariita 2002; Schade 2017). There is therefore need to take a closer look at *what counts as sustainable? for whom? and by whom?* (Scoones et al. 2015). Answering these key sustainability questions requires understanding the processes, interplays and conditions in which green projects materialize. In this paper, we

explore the processes in which both public and private investors seek to simultaneously adhere to the sustainability triad in delivering large-scale renewable energy projects, using Kenya's largest geothermal projects in Olkaria as case study. In so doing, we reveal the challenges, conflicts and tensions that characterize investors' application of the sustainability triad in the Global South context and how these sustainability tensions and dilemmas are managed through strategic selectivity—that is, through adhering to certain sustainability components while neglecting others, based on winning interests, priorities and convenience.

Going forward, we first set out a conceptual framework on the interface and tensions between different players and perspectives in adherence to sustainable principles, based on sustainable development, corporate sustainability and Triple-Bottom-Line discourses. Thereafter, we present the Olkaria geothermal case study, describing the project site and plants and the socio-economic and environmental contexts of the area. In our analysis, we examine investors' relations with other stakeholders (in this case, local project-host communities and conservationist institutions/groups) in their efforts to apply the sustainability triad in the development of Olkaria geothermal. In so doing, we reveal the conflicting interests, dilemmas and power struggles that investors face and how they manage these tensions through strategic selectivity and trade-offs in the development of such projects. In the discussion and conclusion, we draw the main lessons from the paper and outline future prospects necessary for fostering sustainable development in Africa.

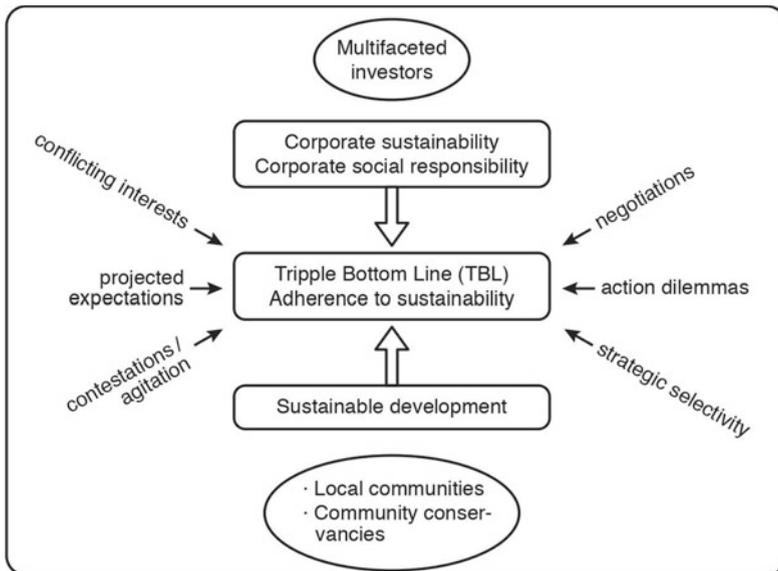
## **2 Sustainable Development, Triple Bottom Line, and Corporate Sustainability**

Despite the popularity and importance of sustainable development, the concept is difficult to define with precision and, therefore, difficult to measure (UN 2008). It is also characterized by tensions, disconnect, ambiguity, contradictions, and paradoxes, which define the incompatibility of the interplay of economic, social, and environmental factors of development, otherwise known as the sustainability triad (see McIntosh 2003). In most developing countries context, there is the tendency to prioritize the economic dimension of sustainable development over the social and environmental dimensions (Enns and Bersaglio 2020; Romijn et al. 2010). This is especially the case for most investors in the developing world where the desire for profits often outweighs sustainability concerns, epitomizing what Alexander (2015) and Lange and Washburn (2012) call Corporate Social Irresponsibility. Given this tendency, the corporate sustainability idea and the Triple Bottom Line (TBL) approach have been forefront in guiding investors in assessing the sustainability of their businesses and the scope of their corporate social responsibilities.

The corporate sustainability concept presents economic, environmental and social concerns as systematically interconnected and interdependent at different levels, and

enjoins firms to address them simultaneously (Hahn et al 2015). Ideas of corporate sustainability are traceable to Carroll’s work of the late 1990s, which largely draw from the report of the Brundtland commission. The justification for corporate responsibility, according to Carroll (1999), stems from an understanding that actions of corporations touch community members at many points and, as a result, corporates or businesses should be responsible for the consequences of their actions to communities and the environments in which they operate. The TBL concept (introduced by Elkington (2004)), on the other hand, is a traditional accounting framework adopted by corporations in examining the extent of their broader company value (Lee 2007). Under the TBL framework, corporate sustainability is anchored on environment, economics and equity dimensions, and with the position that corporation should ideally commit to social and environmental concerns in their operations as they do on profits (Gray and Milne 2004).

However, as Hahn et al. (2015) show, the expectation of companies and businesses to simultaneously address the three pillars of sustainability faces tensions at different levels and scales (also see Brix-Asala et al. 2018 and Ramos-Mejia et al. 2018). In adherence to sustainability in the development of renewable energy projects in the Global South, we identify that these tensions manifest in form of conflicting interests, projected expectations, leading to agitations, contestations and dilemmas, which are managed through negotiations and strategic selectivity (see Fig. 1). The sustainability outcomes are based on interest hierarchies and power pulls among public and private sector investors at international and national levels, and the local



**Fig. 1** Adherence to sustainability principles: players, perspectives, and external factors (Authors’ own)

communities as well as wildlife and bio-diversity conservationist institutions and groups, at the TBL—sustainability adherence interface (see Fig. 1). The local host-communities and conservationists act as face-off actors, facing-off with the investors, in the development of renewable energy projects.

In the following sections, we will empirically explore stakeholder characteristics and their conflicting interests as well as the extent to which tensions in adherence to sustainable development influence decision-making and investors' choices in Olkaria geothermal development in Kenya. Moreover, we explore the extent to which these choices are based on the balanced needs of all stakeholders including investors/shareholders, and government, communities and environmental conservationists (Jamali 2008).

### 3 Study Area and Methodology

#### 3.1 Study Area

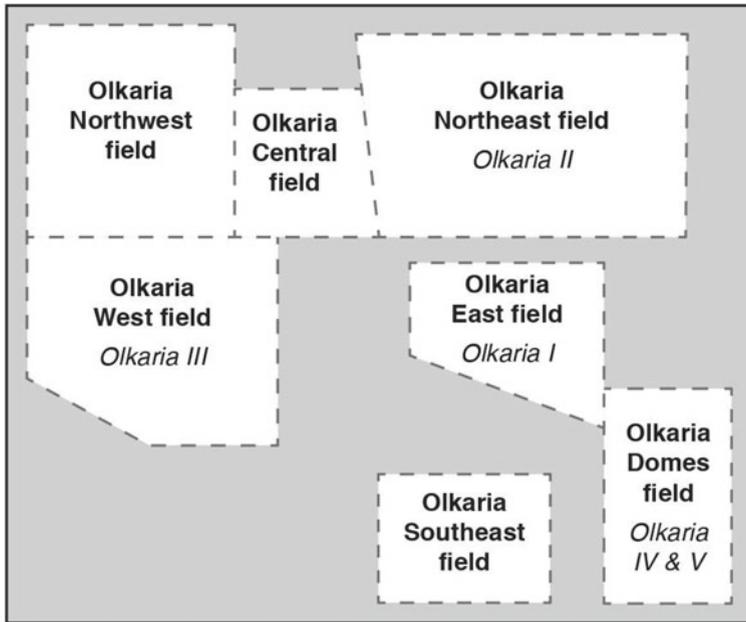
The Olkaria geothermal field is located in the central part of the Kenya Rift Valley, south of Lake Naivasha and about 120 km northwest of Nairobi. The field is divided into seven blocks, which include Olkaria East field serving Olkaria I power plant, Olkaria Northeast field serving Olkaria II, Olkaria West field serving Olkaria III, and Olkaria Domes field serving IV & V (see Fig. 2). Except for Olkaria III,<sup>1</sup> All Olkaria power plants (Olkaria I, II, IV) are operated by a partly government-owned parastatal, Kenya Electricity Generating Company (KenGen). For this study, we will focus on these KenGen geothermal projects. KenGen's Olkaria I, Olkaria II, Olkaria IV currently generate a total of 185 MW,<sup>2</sup> 105 MW and 140 MW of electricity, respectively. Olkaria V is under construction within the Olkaria Dome field, with estimated generation of 165.4 MW; and Olkaria VI of 140 MW is planned for 2021, under a Public Private Partnership (PPP) project development model.

Olkaria I and Olkaria II are located within the Hells Gate National Park—a fact that has elicited some environmental management concerns. Hell's Gate National Park lies on the south of Lake Naivasha and about 120 km north-west of Nairobi. The state gazette the park in 1984, three years after the commissioning of Olkaria I Power Station. The park features rare flora, fauna, and exquisite sceneries. Olkaria IV power plant is located on Kedong Ranch, a property acquired by KenGen, and is about 15 km from the Olkaria I power station. Furthermore, KenGen utilizes water from the nearby Lake Naivasha, which is a wetland of international importance according to the Ramsar Convention on Wetlands.

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<sup>1</sup>Olkaria III is 48 MW power plant, owned and operated by the privately owned U.S. company OrPower 4, a subsidiary of Ormat Technologies Inc., under an IPP arrangement.

<sup>2</sup>With the plans to rehabilitate Olkaria I, units 1–3 and to build a new plant (Olkaria I unit 6, which is estimated to be 83 MW), total capacity of Olkaria I is estimated to reach 237.7 MW from its current 185 MW by 2021.



**Fig. 2** Structural map of Olkaria geothermal fields and plants in Kenya (Field Data 2018 and 2019; Omenda et al. 2014)

The cumulative impacts of the existing Olkaria I & II, the proposed Olkaria IV and Olkaria I Units 4 & 5 power stations on air quality and noise pollution prompted KenGen to earmark the following nearby villages for resettlement: Cultural Centre, Olo Nongot, Olo Sinyat, Olo Mayiana. Interviews with KenGen officials revealed that a Resettlement Action Plan (RAP) to relocate the Project Affected Persons (PAPs) was developed as a mitigation measure against the impacts of prolonged exposure to air and noise pollution promising to provide PAP with social amenities like land, water, modern residential houses, a school, churches, and a health facility.

### 3.2 Methodology

The Olkaria geothermal projects were chosen as case study because of its provision of a high representative material, involving diverse stakeholders and capturing the stakeholder interplays and dynamics in investors' adherence to sustainability in the development of the largest geothermal projects in Africa. The analyses of the study are based on several expert and informal interviews (2018–2019), document analyses (reports, work papers and proceedings), ethnographic fieldwork and field visits (2018–2020). The expert interviewees work at government agencies and parastatals at different levels (Ministry of Energy (MoE), Ministry of Environment and Natural

Resources (MoEN), Kenya Wildlife Service (KWS), National Land Commission (NLC), the National Treasury, County Commission, County Government). They also consist of project developers (KenGen) and staff members in development finance institutions (European Investment Bank (EIB), German Development Bank (KfW), Agence Française de Développement (AFD)). For anonymity reasons, we refrain from providing the identities of our informants. Ethnographic fieldwork and field visits (2018–2020) featured observations, informal interviews and group discussions with community members at the fringes of the geothermal sites (namely, Cultural Centre, Olo Nongot, Olo Sinyat, Olo Mayiana), who had to be displaced to allow for further geothermal development in Olkaria. All the expert interviews were recorded using an electronic audio device, while observations, informal interviews and group discussions were recorded through note-taking. The interviews were transcribed and thematic analysis was carried out. This included coding of data prior to the identification, review and analysis of key themes. Each theme was explored in order to develop an understanding of the perception, interests and motivations of the participants. The interviews provided rich data on the investor-community-conservancy relations, which is vital for our analysis of investors' adherence to the sustainability triad. Ethnographic fieldwork provided evidence on behaviors, expectations, social structures and shared beliefs of the case study communities. Furthermore, in order to augment, validate and triangulate the findings of the study, several project reports, working papers and proceedings were reviewed and analyzed.

## 4 Results

This section discusses the results and the findings of the study in two main clusters. In the first cluster (Sect. 4.1), it discusses the constitution of stakeholders, their characteristics and interests in the development of the Olkaria geothermal project. The second cluster (Sect. 4.2) draws from the first to discuss the conflicting nature of stakeholder interests, sustainability tensions and investors management of these tensions through strategic selectivity.

### *4.1 Stakeholders, their Characteristics and Interests in the Development of Olkaria Projects*

Stakeholders in the geothermal sector in Kenya can be more generally grouped into two: namely, the investors and the local communities and conservationists. Investors, here, covers both public and private sector project developers, managers, financiers and consultants. The stakeholders, their relationships and interests in development

of the Olkaria geothermal projects are discussed along the lines of these groups, in the sub-sections below.

#### **4.1.1 Investors**

Investors in the development of the analyzed Olkaria geothermal projects come from public and private sectors, at international and national levels. They consist of the Government of Kenya (GoK), the project developer (KenGen) and development financial institutions (DFIs). The roles, characteristics and interests of the Olkaria geothermal investors in Kenya are discussed as follows.

##### **Government of Kenya (GoK), Line Ministries and Parastatals**

The Government of Kenya (GoK) is involved in the projects through its various ministries and parastatals, the foremost of which are the ministry of energy (MoE), and the National Treasury (NT). On behalf of the Kenyan government, the Ministry of Energy (MoE) is in charge of all aspects of the energy sector including the development of Olkaria geothermal projects.

Geothermal resource development ranks high in GoK's national development strategy, as contained in its Vision 2030 (GoK 2007). The transition from hydropower to geothermal and other energy sources strengthens Kenya's energy resilience to unpredictable precipitation shocks of which hydropower was often prone to, as well as imported oil-price fluctuation shocks<sup>3</sup> (GoK 2013). Despite the focus on expansion of renewable energy sources to achieve energy sufficiency and security, GoK is also keen on expanding the non-renewable energy sector through exploration of oil fields in northern Kenya and investment in nuclear energy power plants (Field Data 2019 and 2020).

##### **The Kenya Electricity Generation Company (KenGen) and Their Consultants**

KenGen is a 70% government and 30% private sector-owned company, mandated with the responsibility of developing, managing and operating power plants for electricity generation in the country. KenGen is the largest electricity generator in Kenya with 62% of national installed capacity amounting to approximately 1796 MW, with geothermal leading in the installed capacity mix (Maino 2019). Key to KenGen's plan for further expansion of its installed capacity is the development of geothermal energy (Omenda et al. 2014).

KenGen is the sole project developer of the studied Olkaria geothermal projects. It did so in cooperation with actors in the public sector, namely GoK and Development Financial Institutions (DFIs), as well as actors in the private sector—IPPs and consultants (such as GIBB Africa<sup>4</sup>). KenGen has a Geothermal Development Office responsible for all administrative aspects of all geothermal projects. Its regulatory Affairs office plays an interfacing and coordinating role in the RAP implementation process, constantly engaging with the MoE, and KenGen's executive committee

<sup>3</sup>The GoK had relied on Hydropower for energy generation in the past.

<sup>4</sup>GIBB Africa is a consultancy firm hired by KenGen to conduct the census to determine compensation and to draft the Resettlement Action Plan (RAP).

**Table 1** DFIs and roles in the development of Olkaria projects

DFIs	Roles
EIB	Loans, technical assistance in due diligence
AFD	Loans, project procurement, technical assistance in the resettlement of project affected persons (PAPs) and in the implementation of environmental and social safeguards
KfW	Loans
JICA	Loans, technical assistance in field exploration
World Bank	Loans, technical assistance in the resettlement of PAPs

Sources: Field data (2019), Schade (2017)

(which is the highest decision-making organ) and the lenders (all of which are DFIs). The Environment and CDM office regularly supervised the implementation of the social and environmental sustainability frameworks and requirements of the project and regularly reported to the DFIs on progresses in RAP implementation. It achieves this in cooperation with the Social Safeguards Office<sup>5</sup> managed by the community liaison officer, who is responsible for day-to-day implementation of social safeguards and coordination of the Project Affected Persons (PAPs), the Resettlement Action Plan Implementation Committee (RAPIC), and the local administration. The Environment and CDM office also works with the Property and legal manager’s office in issues relating to land transfers and settlements; and with the Project Execution Office for the technical and infrastructural aspects of the RAP implementation.<sup>6</sup>

**Development Financial Institutions (DFIs)**

The development financial institutions (DFIs) involved in the development of Olkaria fields include the European Development Bank (EIB), the French Agence Française de Développement (AFD), the German Kreditanstalt für Wiederaufbau (KfW), Japan International Cooperation Agency (JICA), and the World Bank. The DFIs play an important catalytic role in the development of Olkaria projects by providing financing, in their various forms (loans, grants and mezzanine) as well as technical assistances. Table 1 summarizes the DFIs and their specific roles in the development of one or more of the Olkaria projects.

In order to organize, coordinate and better focus their actions, some of the DFIs often form groups, which meets periodically (three to four times in a year) for discussions on a broadened and deepened cooperation and coordination. A peculiar example of such groups in the studied context is the Energy Sector Development Partners Group, which includes all DFIs working in the Kenyan energy sector, and whose

<sup>5</sup>The Social Safeguards Office compiled monthly progress reports to share with KenGen, IEP, and the county administration. It also assumed the role of secretary in the Resettlement Action Plan Implementation Committee (RAPIC). The RAPIC was a deliberation platform, which involved all important stakeholders involved or affected by the RAP, including the investors and the Project Affected Persons (PAPs).

<sup>6</sup>Including site layout and tendering, and supervision of contractors doing construction.

convener are rotated from time to time among the member DFIs (Field Data 2018 and 2019). In the energy group, DFIs share experiences of project development as well as indicate interests for cooperation in energy projects development. In addition, the Mutual Reliance Initiative (MRI) was initiated in 2009, among the European DFIs<sup>7</sup> with a view to establishing an efficient division of labor in order to fulfill the development obligations set out in the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action, of which development of renewable energy is among the key priority areas. The operational guideline of the MRI dictates approaches and delegates functions for involvement among member DFIs in a project (OECD 2011). In the case of the development of Olkaria IV, for instance, the AFD was the assigned lead financier and project materials procurer for Olkaria IV as well as lead for the implementation of environmental and social safeguards. EIB was placed in charge of technical due diligence, while AFD together with the World Bank administered resettlements (Field Data 2019 and Schade 2017). Other than the European DFIs, the Japanese JICA and the World Bank has played significant financing and technical assistance roles in the development of Olkaria projects. The RAP was administered based on the World Bank's OP 4.12 on involuntary resettlement. As a result, the World Bank wielded a relative high influence in the resettlement processes. The DFIs got quarterly updates on RAP implementation from KenGen.

#### **4.1.2 Local Communities and Conservationist Institution**

In the development of large-scale renewable energy projects, investors have to deal with other stakeholders who are equally interested or affected by the development of projects. For Olkaria, these are the project-host and neighboring communities (including the Project Affected Persons (PAPs)) and state conservationist institution—the Kenyan Wildlife Service (KWS). The local communities are interested in ensuring that their human rights are adhered to and have the expectation that their socio-economic livelihood will be improved as a result of the presence of the projects. The KWS, on the other hand, act as mediums for the wildlife and biodiversity, ensuring that the habitats of the wildlife and forest covers are maintained during and after the development of the project. The characteristics and interests of these stakeholders are discussed in details below.

#### **Local Communities and Project Affected Persons (PAPs)**

During the development of Olkaria IV and Olkaria I unit 1 & 2, it was determined that the total impact of the overall existing and planned geothermal facilities in the area will adversely affect certain neighboring communities. As a result, four communities (Cultural Centre, OloNongot, OloSinyat, and OloMayiana) were resettled. The four local communities were initially convinced and viewed the resettlement as an opportunity to improve their socio-economic livelihoods (Field Data 2018).

The Cultural Centre is a permanent village and a business center, which until resettlement mainly subsisted on tourism. The other three communities are predominantly pastoralists who lived and still live on a livestock-based economy. Other than

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<sup>7</sup>Including EIB, AFD and KfW.

these main sources of socio-economic livelihood, members of the four communities (mainly men) also gained employment opportunities offered by KenGen and their contractors, as well as by flower farms. The communities could sell pumice stones and women could engage in other small-scale trading. In addition, the communities also engaged in charcoal burning, which was illegal, as they had no license to do so (GIBB Africa 2012, pp. 5–6). Until the resettlement, the Cultural Centre, founded about 30 years ago as a place of a cultural and spiritual significance to the Maasai, consisted of one manyatta.<sup>8</sup> Most members of the Cultural Centre lived in the manyatta. The manyatta conjoined with each other in a circle, creating a space in the middle, where the village performed traditional dances and spiritual rites. There were also few members of the Cultural Centre who lived close to the Olkaria Primary School, away from the manyatta. The OloNongot households lived in manyattas in relatively close proximity to each other, while the OloSinyat households lived further from each other. In OloMayana Ndogo, the most of the manyattas were arranged in a linear form, with some also in clusters.

According to the 2009 GIBB Africa survey (GIBB Africa 2009a and b), the level of socio-economic wellbeing in the four communities was generally considered poor. In 61.8% of the PAP households, water was collected from a distance, mainly by women and girls. Only the Cultural Center had a public water pump, which was installed with the help of a French NGO. Furthermore, 45% of the PAPs were believed to have no access to sanitation services and none of the households had electricity (GIBB Africa 2012). Prior to resettlement, the standard of formal education among the PAPs was also generally poor. According to data compiled for the Environmental and Social Impact Assessment (ESIA) of Olkaria IV (GIBB Africa 2009a and b), 51% of household heads and wives had no education, 22% had some amount of primary education, 12% had some secondary education, 8% had some technical training, and just 3% had attended university (EIB-CM 2015, p. 29). Most of the older members of the community spoke the local Maa language, while some younger literate members spoke Kiswahili and English (Field Data 2018 and 2019). Some community activists, however, contend with this survey finding stating that it was skewed to paint a picture of bringing hope of better welfare among the local communities through the resettlements.

According to the updated edition of the 2009 GIBB Africa Census (GIBB Africa 2009a and b), 1,209 community members were qualified for compensation, of which 948, made up of landowners with properties and homes, were qualified for resettlement. A total of 284 persons from OloNongot, 139 persons from OloSinyat, 299 persons from the Cultural Center and 226 persons from OloMayana were deemed suitable for housing on the RAP site (GIBB Africa 2009a and b). The Maasai had some polygamous households, which implied that each spouse of a one-male household head and their respective children had their own house unit. The husband of these wives rotated among them and was liable for providing for them and their dependent children (Field Data 2018, 2019, Schade 2017). On this basis, the overall

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<sup>8</sup>Traditional Maasai housing units or clusters.

number of housing units to be constructed was estimated to be 164 (GIBB Africa 2012), as opposed to the planned 150 housing units based on the first RAP estimates.

The resettlement land of 1700 acres is located within the Olkaria geothermal block. Upon relocation, the PAPs were, for the first time, eligible to get their title deeds, making them formal landowners—a move, which served as a major incentive for the communities to accept the relocation (Field Data 2019). At the RAP-land, KenGen provided the communities with a primary and early childhood school for 320 pupils and a health facility<sup>9</sup> (Field Data 2018 and 2019). All public facilities, the schools, and the dispensary were connected to the newly installed electricity grid, with cost covered by the communities (Field Data 2019).

### **The Kenya Wildlife Service (KWS)**

The Kenya Wildlife Service (KWS) is a GoK parastatal created in 1990, under the Ministry of Tourism and Wildlife. Its mandate, according to a senior KWS official, is “to take care of wildlife, for the prosperity and for the people of Kenya, the citizens of Kenya and for the next generation” (Field Data 2019). Before its creation as a parastatal, the wildlife department within the Ministry of Tourism and Wildlife of the GoK initially undertook the activities of the current KWS. It was created at a time when the GoK was committed to strengthen conservation through law and policies for the protected areas (Field Data 2019).

KWS manages most of the National Parks and Reserves in Kenya. It’s activities are run from its own generated revenues from tourist fees, complemented with supplementary funds from the GoK, public and private donors and other partners. In order to better achieve its mandate, KWS often works together with the Ministry of Environment, Water and Natural Resources, as well as the Kenyan Police and the National Intelligence Service to combat environmental crimes. For ease of reach, effectiveness, and resource allocation, KWS functions are devolved into eight regions consisting of the northern region, the mountain region, the central rift region, the southern region, the Tsavo’s, the coast region, the western region and the eastern region. The Hell’s Gate National Park, where most of the studied Olkaria geothermal projects are located, is within the Rift Valley region.

## ***4.2 Conflicting Interests, Sustainability Tensions and Strategic Selectivity***

As shown in the previous Subsect. 4.1, the stakeholders in Olkaria’s geothermal plants are multiple, diverse and with different interests. The interests of the investors are aligned, to some extent, because of their perceived goal of ensuring the development of geothermal energy as an engine to socio-economic growth and development in Kenya. DFIs, in line with their sustainability agenda, required that KenGen adhere to their social and environmental sustainability principles, which are enshrined in

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<sup>9</sup>The communities previously relied on local herbal medicines for curing ill health.

their Environmental and Social Impact Assessment (ESIA) frameworks, as a condition for accessing financing for project development. However, as we will see in the sub-sections below, this mechanism alone is inadequate to fully enforce and investigate the extent to which KenGen and other investors adhere to the sustainability principles. ESIA's do not guarantee whether concerns for possible negative environmental impacts will be addressed or whether the need to invest sustainably will be adhered to at the post-finance unlocking phase (that is, during the project implementation phase).

KenGen also has to abide by the GoK laws and regulations during and after the projects' development. These laws and regulations are meant to protect the human rights of PAPs as well as help in the conservation of biodiversity and promotion of tourism (a sector that the government also earns revenues from). The extent to which KenGen adheres to these sustainability frameworks, laws and regulations is, however, questionable. There are allegations that ministry representatives collude with KenGen to push agendas that mainly favor cost-effective and face-paced development of the projects to the detriment of thorough consideration of social and environment concerns (Field Data 2019).

For the GoK, such projects are often political projects that are meant to inspire public confidence that the government "is doing something" (with reference to development). They inspire high expectations of change and are therefore popularized as success stories in a bid to limit any possible counter narratives. For DFIs, the financial support are interpreted as being "part of a big thing" (with reference to transition to a green and clean alternatives). These DFIs are the channel through which climate mitigation financing reach the projects at the local levels. Local communities (individuals and groups) have their immediate concern on expected socio-economic benefits, whether perceived or real. Their hopes are that the existence of such projects directly improves their socio-economic wellbeing. On its part, KWS prioritizes environmental conservation and preservation of biodiversity. However, KWS is state-owned and therefore does not have the capacity and legitimacy to change state decision with regard to the implementation of a project.

These conflicting interests and expectations between investors and their face-offs (local community and the KWS) generate tensions at the interface of sustainable project implementation as will be discussed in details below. These tensions and dilemmas created by conflicting sustainability interests among stakeholders are managed through sustainability trade-offs; that is the choice to implement a certain sustainability principle over others—a practice we refer to as strategic selectivity.

#### **4.2.1 Investors and the Local Communities**

As stated earlier, the construction of Olkaria projects necessitated the evacuation and relocation of a number of Project Affected Persons (PAPs). The Resettlement Action Plan Implementation Committee (RAPIC) was the key forum for the PAPs to engage in decision-making on the relocation process. It was the place where recommendations and negotiations on the execution of the RAP were taken in consultation with selected representative members of the PAP (Field Data 2018 and 2019).

The PAP had 24 participants included in the RAPIC, consisting of five gender-balanced representatives from each of the communities (three men, two women) (GIBB Africa 2012, p. 10). The youths, the vulnerable and disadvantaged members of the communities, the Council of Elders and the Administrative managers of the Cultural Center, each had one selected representative member in the RAPIC (GIBB Africa 2012, p. 10). Other RAPIC representatives included the Naivasha Deputy County Commissioner<sup>10</sup> who chaired the RAPIC, the county-level heads of line ministries, county-level heads of line ministries, one provincial-level administrative delegate,<sup>11</sup> and the KenGen implementation team. Since the World Bank's guideline on social safeguard was adopted, the framework and functions of RAPIC was therefore greatly informed by the guidance of the Bank's local social security experts. In addition to the RAPIC, there was also the institution of the Community Advisory Council (CAC). The CAC consisted of two elders from each village who had been chosen from among their peer and age groups. It was the first stage of the operational-level dispute mediation process, where complaints and grievances relating to resettlements and resettlement process were laid (Field Data 2018 and 2019). It was meant to provide recommendations and feedback to the developers and investors on how best to deal with problems such as land registry issues and how to navigate or compensate for activities that require meddling with certain culturally or spiritually sensitive sites (Field Data 2018 and 2019).

For the resettlement of the PAPs, KenGen built only 150 houses, although a later census suggested that it should be 180 houses. To explain this discrepancy, the Tacitus report explained that the "forgotten cases" claimed by some of the communities, in particular the Cultural Centre, did not change the number of PAP under the category of Land Owners with Assets, and thus did not affect the number of houses to be constructed (Tacitus 2012). Tenants who built their own houses were liable for monetary compensation at cost of construction but not to a house on the resettlement land (Tacitus 2012, p. 57). The same compensation mechanism applied to landowners who owned extra houses that they rented out (Tacitus 2012, p. 58). Business community members of the Cultural Centre that did not live in the village were considered not to be liable for compensation. This is because the Cultural Centre continued to exist in its original location as a business and commercial centre (Tacitus 2012, p. 33). The non-resident opportunists, who falsely claim abode among the PAPs, were also not considered (Field Data 2018 and 2019).

The PAPs claimed that the settlement was not culturally appropriate. The physical geography of the land, which had steep-sided valleys, restricted the accessibility and movement of polygamous men from one house-wife to another, a situation which was further exacerbated during the rainy seasons when the valleys and gullies are flooded. Since some of the households were at Narasha (—a village not available for resettlement), some polygamous families were divided. Furthermore, members of the Cultural Center, who were accustomed to living together in a clustered and circular environment in close proximity, considered it psychologically unacceptable

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<sup>10</sup>The Naivasha District Commissioner had this position prior to the devolution of government.

<sup>11</sup>This position no longer existed after the devolution of government.

to live in isolated family groups at comparatively wide distances from each other (also see Schade 2017).

Concerning the allocation of houses, the PAPs claimed that there was insufficient consideration given to the needs of vulnerable persons (elderly, orphans, some female-headed households, and disabled). The Tacitus report stressed that GIBB Africa did not identify this category of PAPs and encouraged KenGen to quickly identify them and their needs in order to determine the type and level of support to be offered to them (Tacitus 2012, p. 59). Until the time of this study, such grievances persisted. In the same manner, several of the rights of indigenous people were not sufficiently addressed. The PAPs seemed not to be aware of these rights and therefore did not raise this, although conditions for addressing these needs were contained in the World Bank OP 4.10 on indigenous people (also see Schade 2017).

Furthermore, the Muslims among the PAPs complained about not been offered a mosque in the resettlement land, nor a travel cost compensation alternative for visiting the mosque located in Naivasha (Field Data 2018 and 2019). When confronted with this complaint, KenGen claimed that they were uninformed about this situation, stating that the census recorded the existence of only one Muslim family in the area and that they had limited funding to delve into religious requirements outside of the RAP compensation guidelines (Schade 2017).

Since relocation, the accessibility of the PAPs to each other decreased considerably due to expanded distances and limited access to existing transport facilities, with the Cultural Centre being the most affected (Field Data 2018 and 2019). On a regular basis, those PAPs who had previously stayed at the Business Center now had to cover a distance of 14 km in either direction (Schade 2017). The Tacitus study, had however, foresaw and listed this issue in their report (Tacitus 2012, p. 49), but it was not addressed (Field Data 2018–2020).

Regarding the question of the land's adequacy to maintain livestock and the absence of alternatives to address the issue, the Tacitus report makes the following statement:

*“According to the GIBB report, the PAPs requested that even after the relocation, they should be allowed to continue grazing their livestock in the areas of their current settlements. KenGen, however, informed the PAPs that it could not commit itself to ensure the PAPs continue grazing in their current settlement areas since the land on which they are currently settled either belong to Kedong Ranch [a property associated with the current GoK president] or to KWS, and KenGen cannot make commitments on their behalf. KenGen hopes though, that because the resettlement site is in close proximity to the current PAPs settlements and grazing command areas, the status quo would be maintained. In this respect, if there was to be any interference by the legal landowners, it would not have been occasioned by the fact of the resettlement”.*

(Tacitus 2012 p. 16)

Another issue raised by the PAPs and the financiers was that it was necessary to make provision for a second piece of land for the Cultural Centre, in response to the land request made by the Centre, for the establishment of the Business Centre in a location elsewhere where it is possible to stay overnight (Schade 2017). KenGen agreed to the request and searched for suitable land north of the existing Cultural

Centre (Schade 2017). However, KenGen later rejected the identified parcel of land because of a pending court case and because certain development activities were already planned on the land (Field Data 2018 and 2019).

#### 4.2.2 Investors and the Kenya Wildlife Service (KWS)

Before Hell's Gate was gazetted as a national park, KenGen had already acquired the land for geothermal development in the early 1960. Bearing this fact in mind, in addition to being a parastatal under the GoK, KWS was willing to negotiate and compromise where necessary to see to the development of the projects (Field Data 2019). KWS's key interests and concerns, however, bordered on water quality system for wildlife, air pollution, loss of food and forages for the animals as well as noise and vibrations (Field Data 2019).

In order to ensure that the interests of KWS were not completely compromised, KWS formed the Hells Gate Park Action Committee (PAC), which held monthly update-meetings. This provided a platform for the mediation of most sustainability concerns (Field Data 2019). The committee included all the concerned stakeholders, including KenGen, community representatives, GoK representatives, as well as Tourism hoteliers that are located around the Hell's Gate Park (Field Data 2019). KWS then held regular separate meetings with the DFIs and their consultants to report their sustainability concerns. This meeting between KWS and DFIs was of particular concern to KenGen as it got financing and technical support from DFIs on the condition that it address and adheres to environmental and social concerns stipulated by KWS (Field Data 2019). For KenGen, expression of dissatisfaction had the potential to slow the release of expected financial assistance from the DFIs.

Within these mediating frameworks, KenGen agreed to wear KWS recommended clothing colours, adhere to speed limits, move away from strategic animal habitats and other potential areas that many endanger the animals, while carrying out operations in the Hell's Gate park (Field Data 2019). When asked on the efficiency of the PAC, a KWS senior warden in charge of the negotiations noted:

*"The committee really assisted. Because if you are dealing as one person against them, it is very difficult to achieve any results. There were local people [community representatives and Tourism Hoteliers] who asked very difficult questions that a government officer would not ask another government officer. They asked the hardest questions and that really helped to balance out some of the sustainability concerns".*

(Field Data 2019).

When asked to rate the extent to which KenGen adhered to their stipulated sustainability concerns, the KWS senior warden replied:

*"We did not achieve everything, but they were a very responsible organization...I would place them at 80%".*

(Field Data 2019).

## 5 Discussion and Conclusion

There is no doubt that African countries appreciate the sustainable development approach as critical for the realization of complex development problems. This is visible in both regional and country-specific development blue prints and in the attempts towards transitioning to green economies. However, reconciling the three dimensions of sustainability—society, economy and equity—is rather difficult given the diverse continental and state-specific priorities. As OECD (2013:27) observes, developing countries have the greatest need and demand for economic growth and welfare improvement in the short term, which makes the balance between more long-term welfare gains from socio-environmental improvements, challenging. Our case study analysis reflects this observation. In the development of Olkaria geothermal projects, diverse investors face challenges in balancing the delivery of a cost-effective and an economically viable project with the socio-economic expectations of local communities and the environmental conservation concerns of conservationist institutions/groups. As such, the interests and priorities of the investors' often clash with those of the local host communities and conservationists. Investors are not able to meet all the expectations of their face-offs, thus the phrase "*But we cannot do it all*" from a senior staff in the project developing company, KenGen.

We also see that investors manage these sustainability tensions through strategic selectivity. They tend to focus on implementing certain components of the sustainability triad (mainly the economic components) while neglecting the others (mainly social and environmental components). In this manner, the investors' interests and priorities, take the upper hand, and geothermal projects are pursued and advanced notwithstanding the existence of some unresolved sustainability issues, especially regarding land and compensation. When the sustainability principles are juxtaposed, we find that the economic dimensions (economic viability and cost effectiveness) of the sustainability triad are mildly compromised as against the largely pending and unaddressed socio-economic welfare, livelihood, bio-diversity and environmental issues and concerns, contained in the social and environment dimensions. These findings resonate more generally with current experiences of large-scale investments throughout Africa (Lind et al. 2020).

The study, however, shows that strategic selectivity is not acted out in a 'blunt', direct and purposeful manner. Investors do make efforts to balance-off these sustainability tensions. Such efforts include the establishment of rules, laws and frameworks (such as the ESIA's and the Community Land Acts), the implementation of Corporate Social Responsibility (CSR) projects and activities, and the formation of stakeholder groups (also see Klagege et al. 2020). These endeavors have, however, proven to be insufficient as the socio-economic concerns of local communities are not fully and sustainably addressed. In order to improve sustainability outcomes, there is need to prioritize in-person monitoring of the implementation of the projects to ensure that they go on according to stipulated standards as contained in the ESIA's, Laws and Acts (also see Muthuri and Gilbert 2011). Furthermore, mechanisms and spaces

for interactions between the investors and the local communities and conservationists, should be increased, and made more inclusive, diverse and representative of affected communities and conservationists. This will foster proper deliberation and consideration of sustainability options among all stakeholders during the planning and implementation stages of the projects.

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