

# **Ikogosi Warm Spring: History, Regional Development, and Community Engagement in Natural Heritage Conservation**

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## **ABSTRACT**

*The research studied community engagement in conservation and the consequent regional development of the Ikogosi Warm Spring in Ekiti State, Nigeria. The research adopted an interpretivist philosophy. The data was analyzed using descriptive statistical parameters and a descriptive survey method. Findings from the research show that the exact date of the discovery of the spring is not known, although quite a large number attribute the discovery of the spring to the Baptist Mission around 1952. Findings also show that there was more community engagement in harnessing and conserving the spring when the Baptist Mission was in charge of it. The research also shows that the Ikogosi community has experienced development because of the presence of the spring. Recommendations were made to allocate a quota for the employment of people from the community in the Ikogosi Warm Spring Resort; document the history of the Spring in order to preserve the knowledge for generations; and conduct a sensitization campaign to enlighten the community on the importance of conserving the spring.*

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**Keywords:** *Natural Heritage, Conservation, Community Engagement, Community Development*

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## **1.1 Introduction**

The world is blessed with numerous natural heritages that serve as distinct geographical markers, enriching communities and influencing their material culture. As generations come and go, these natural heritages get altered, degraded, or even entirely lost. A number of factors contribute to the loss of the world's natural heritage, including natural disasters like flooding, landslides, erosion, and earthquakes; man-made activities like pollution; overuse due to unsustainable tourism; and overcrowding of these natural heritage sites (UNESCO, 2021).

Natural heritages in a geographical region impact that region's development (Bærenholdt, 2009). They could be seen as "seed" investments, which, if well taken care of, lead to a number of financial and other returns. Whereas the government or its agencies may be responsible for conserving natural heritage, the government's efforts may be futile without community participation.

Recently, the need for history and conservation has been brought to the fore. This is so because society is witnessing the consequences of the unsustainable use of the environment. Almost every natural resource is threatened by unsustainable use, and natural heritage is no exception. Several authors have identified a number of challenges confronting natural heritages.

Climate change endangers natural heritage (Barau, 2010). Rising daily temperatures, decreased rainfall frequency, and abrupt changes in atmospheric humidity all have an impact on natural heritage (Colette, 2007). According to Robaa (2000), similar climatic changes between 1901 and 1995 had a negative impact on the areas around the Egyptian pyramids at Gizeh.

Natural heritage has been identified as being threatened by unguided infrastructure development. If not properly guided, the construction of roads, schools, shopping centers, and residential buildings has the potential to reduce the biodiversity previously present on the project site. This, in turn, topples the very delicate balance in the ecosystem. A prime example of this is the case of the Ilisu dam project in Turkey. According to Demirbag et al. (2021), the dam project directly resulted in the submerging of Hasankeyf, which in turn led to the loss of both natural and socio-cultural heritage that had existed for over twelve thousand years. Incidents like the Ilisu dam project gave rise to the need for environmental impact assessments (EIA) and the global quest for sustainable development.

In addition to climate change and unsustainable infrastructural development, over-tourism is another problem confronting natural heritage. While tourism is good in itself and is one of the ways through which we explore natural heritage, it poses its own challenges when it is not controlled. The effects of excessive tourism on natural heritage sites include pollution, the death of unique flora and fauna, and disruption of the ecosystem (Żemła, 2020).

Beyond the general problems facing the world's natural heritage sites, in third-world nations like Nigeria, regional development rests on the government (Hassan & Ibrahim, 2019). Poverty and a lack of basic amenities still abound in rural areas, despite the government's efforts to drive growth at the grassroots. The over-dependence on government for regional development has left whole regions at the whims and caprices of political gladiators who usually remember these regions, albeit only during election seasons. The few government projects that make it to these areas are sometimes misfits and end up not receiving the needed support from the local populace; in some instances, they get vandalized (Egbe, 2014).

The research therefore aimed to trace the history of the Ikogosi Warm Spring, find out the community's participation in conserving the spring over the years, and, elicit information on the development of the region brought about by the presence of the Spring.

## **1.2 Literature Review**

Several authors have written extensively about heritage and what constitutes a natural heritage. Bleibleh & Awad (2020) define heritage to include all such things as shelters, either stand-alone or connected, having a unique sense of aesthetic appeal in a distinct location. They could also be other things like the tangible production of artwork and hieroglyphics, archeological discoveries, or other creations brought about by man or as a result of man and nature coexisting.

There are two broad classifications of heritage. They are (a) cultural heritage and (b) natural heritage (Hua, 2010). Some authors have gone so far as to propose a third classification for a mixed heritage site. Numerous historic structures and towns, significant archaeological sites, and large-scale pieces of carving or art are all examples of cultural heritage. Cultural heritage could be intangible as well (Kurniawan et al. 2011). Examples of intangible cultural heritage include oral traditions and expressions, traditional techniques, indigenous science, and lifestyle disposition to nature and the world.

The UNESCO Institute for Statistics et al. (2009) define a natural heritage as "natural characteristics, geological formations, or defined regions that serve as the habitat for endangered flora and fauna, and such locations that are valuable from the perspectives of research, conservation, or natural beauty." Such sites could include but are not limited to, natural sites that are either privately or publicly protected, such as zoos, aquariums, botanical gardens, marine ecosystems, sanctuaries, reservoirs, etc. This definition of natural heritage as put forward by the UNESCO Institute for Statistics happens to be the basis upon which a number of authors like Śliwa & Glińska-Lewczuk (2015), Guruswamy et al. (2013) draw their definitions from.

The Australian Natural Heritage Charter largely agrees with the definition the UNESCO Institute for Statistics gives, except that it adds that such sites must have natural significance. Natural significance in this context refers to the value, in the present or in the future, of the properties that make up that particular ecosystem and its inherent diversity of plants and animals, among other geographic properties (Australian Heritage Commission, 2002).

Nikolova, et al. (2021) defined natural heritage as the geographical components of an environment that benefit past, current, and future generations in material and spiritual ways. This definition suggests that natural heritages yield spiritual benefits in addition to the socio-ecological benefits mentioned by other authors.

Dutu-Buzura (2020) adopts a more sociological approach in his definition of "natural heritage." He simply views them as those gifts of patrimony that are meant to be handed down from generation to generation.

It is evident from the definitions by experts as shown above, natural heritages can be viewed from different perspectives. It could be seen as a naturally occurring phenomenon, a gift from nature to enhance and enrich the location in which it is found. It could also be seen as an ethno-geographic phenomenon that marks a people and becomes part of their history and material culture.

Natural heritage has a number of impacts on host communities. According to the works of some authors, most notably Akinbinu et al. (2019), Adetola et al. (2020), Lekaota (2018), and Al-Bqour (2020), natural heritage promotes tourism. People want to immerse themselves in these natural wonders, and in most cases, they are willing to make financial commitments to have these experiences. Aside from visiting such places for leisure, they also visit them for scientific studies, language learning, historical research, or cultural immersion.

The relationship between tourism and the environment cannot be severed. This is because things in the environment that are appealing to tourists are important for the tourism industry to keep

going. The word "environment" refers to the natural or man-made surroundings of a tourist activity (Kukoyi et al., 2013).

Tourism brought about by natural heritage has a number of impacts on the host communities. Where natural heritage sites are properly maintained, tourism activities around them could be guided and monitored. Where this is done well, communities could derive some economic benefit from the presence of these sites in their locale. Even though it has been said that these economic returns, when compared to the cost of maintaining the sites, are usually not the same, it is known that keeping natural heritage sites up just to make money is not a good idea (Alexandrakis et al. 2019). This could be one reason why there isn't enough political will in third-world countries to keep natural heritage sites in good shape.

According to research conducted in Thailand's Luang Namtha region by Schipani (2008), tourism based on national heritage had an impact on the host community. Seeing the influx of tourists into their region, they saw the need to further preserve some of their material culture. Places of accommodation were built to suit the tastes of the foreign tourists; even foreign meals were added to the menus of their local restaurants. The economy of the region was not left out either. Being a poor locality, many of the residents found jobs as cooks, tour guides, makers of various local gift items, or sellers of antiquities.

There is also a sense of prestige in living in a place designated as a heritage region (Johansson, 2015 & Jimura, 2011). Such places enjoy quite a number of benefits, like increased political and economic support, better conservation management, and improved destination perception (Al-Bqour, 2020). It is expected that a community's quality of life might be improved through tourism. This in turn strengthens links to the community, its culture (both tangible and intangible), and the environment at large (Cochrane, 2018).

Incidences of environmental pollution due to tourism have been reported. However, in some cases, these incidences have not caused serious alarm because they are localized, seasonal, and occur at very minimal scales. Furthermore, these incidences reveal a potential flaw in the locality's environmental sanitation mechanism (Schipani, 2008)

Adetola et al. (2020), in studying the natural heritage of Idanre Hills, Ogun State, southwest Nigeria, reported that tourism had both positive and negative effects on the community. The significant societal impacts included the introduction of additional festival-related activities and an increase in the number of relaxation centres in the region; an increase in the rate of drunkenness, perhaps due to the growing number of relaxation centres; and the adoption of foreign phrases into the people's daily vocabulary.



*Figure 1 showing Idanre Hills, Ogun State. Source: Leigh, (2022)*

In a similar study by Akinbinu et al. (2019), on eleven heritage sites in another southwest state of Nigeria, Osun State, it was found that tourism had environmental, economic, and social impacts on the host communities. According to the study, increases in noise pollution, traffic congestion, prostitution, and the proliferation of small businesses were reported around the areas housing the heritage sites. Community members' enthusiasm to join the planning committee in charge of overseeing the heritage site's operations in order to protect their interests and to inform the authorities about the nuances and peculiarities of their local cultural and socioeconomic values was also reported. This gives a hint on the viability of community engagement in possibly future conservation efforts on heritage sites.

### **1.3 Methodology**

The philosophy guiding this research is interpretivism. The interpretivist method relies on naturalistic methods of data collection, such as conducting interviews and keeping detailed records of the researcher's observations (Chowdhury, 2014). The research adopted a qualitative design. A descriptive survey methodology was deployed in the research. Descriptive survey design affords the researcher time and efficiency and engages the individuals who are at the heart of the research objective (Manjunatha, 2019).

Ikogosi is found on latitude 7° 35' 38.9" and on 4° 58' 52.6". The elevation of Ikogosi ranges between 457.0m - 487.5m (Ikudayisi et al., 2015). Data from the 2006 national census, released by the National population commission pegs the population of Ikogosi at 176,892 living on an area of 366 square kilometers. These figures peg the population density of Ikogosi at 483 people per square kilometer. Ikogosi falls within the tropical rainforest vegetation belt (Keay, 1949). The spring itself has an approximate area of 0.32 square kilometers, and is protected by a dense vegetation of deciduous trees and other foliage. The inhabitants of the community are farmers, traders, civil servants, hunters, students, job seekers, and artisans (Hairul et al., 2013).

Data collection for the project was done in two phases using two methods. Unstructured oral interviews, which were the first phase of the research, were used mainly to trace the history of the spring and the resort, and the initial practices surrounding the spring. The second phase of the research involved the use of a questionnaire, and the intent was to confirm findings from the first phase of the research.

Due to the heterogeneous nature of the population, Taro Yamane's (1967) formula for sample size determination was used at a 95% confidence level. The formula is given as,  $n = N/1+N(e)^2$  Where n, N, and e stand for sample size, population of study, and coefficient of error, respectively.

The population of the study was taken from the 2006 census data released by Nigeria's National Population Commission, and a sample size of 399 was determined. Unstructured oral interviews were administered to 40 respondents, aged sixty-five and above. Whereas 360 questionnaires were distributed, 273 were returned.

Preliminary findings from the oral interview were first summarized and then structured into the questionnaire. Findings from the questionnaire were then collated and analyzed using descriptive statistical parameters of frequencies and percentages.

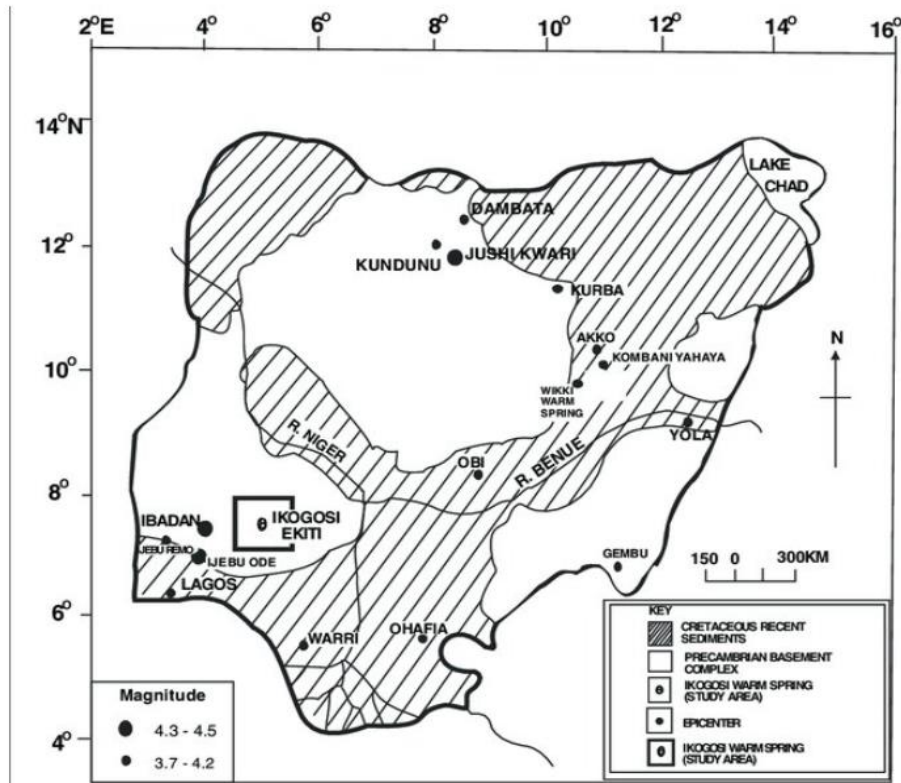


Figure 7 Showing map of Nigeria, indicating the location of Ikogosi. Source: Adegbuyi & Abimbola, 1997)

## 1.4 Findings and Discussions

### Demographics

The demographic findings are as follows: 85.7% of the respondents were natives of Ikogosi, 12.8% were non-natives who were residing in the community; and 1.5% were short-term visitors; 56.04% of them were males, while 43.96% were females; corresponding to a ratio of approximately 1.3 males to 1 female. This is slightly higher than the country’s ratio of males to females, as reported by Digun-Aweto et al., (2015) in similar research. The predominant age group, at 37.4%, was 30-39 years. The respondents were predominantly Christians (81.8%), 12.1% were Muslims, and 6.1% were traditional worshippers. The number of Christians is slightly less than what Orimaye et al. (2018) reported. It is found that the people of Ikogosi are mostly traders, who account for 37.4% of the respondents. Civil servants, farmers, hunters, artisans, job seekers, and students were found to be 8.1%, 18.3%, 5.9%, 8.1%, 14.7%, and 7.7%, respectively. The study also shows that a majority of the community is literate; 37.4% had tertiary education, 33% had secondary education, 15.8% had primary education, and 13.8% had informal education. These figures on the level of education corroborate those of Orimaye et al., (2018). Table 4.1 below summarizes the findings on the demographics of Ikogosi.

Table 1: Demographic Characteristics of Respondents

| <b>Item</b>                  | <b>Frequency (%)</b> |
|------------------------------|----------------------|
| <b>Origin of Respondents</b> |                      |
| Natives                      | 234 (85.7)           |
| Non-natives                  | 35 (12.8)            |
| Short-term visitors          | 4 (1.5)              |
| <b>Gender</b>                |                      |
| Male                         | 152 (56.04)          |
| Female                       | 120 (43.96)          |
| <b>Age</b>                   |                      |
| 60 & above                   | 25 (9.2)             |
| 50 - 59                      | 19 (7)               |
| 40 - 49                      | 69 (25.3)            |
| 39 - 30                      | 127 (46.6)           |
| Below 30                     | 33 (11.9)            |
| <b>Religion</b>              |                      |
| Christians                   | 223 (81.8)           |
| Muslims                      | 33 (12.1)            |
| Traditional Worshippers      | 17 (6.1)             |
| <b>Occupation</b>            |                      |
| Civil servants               | 22 (8.1)             |
| Traders                      | 102 (37.4)           |
| Farmers                      | 50 (18.3)            |
| Hunters                      | 16 (5.9)             |
| Artisans                     | 22 (8.1)             |
| Job seekers                  | 40 (14.7)            |
| Students                     | 21 (7.7)             |
| <b>Level of Education</b>    |                      |
| Tertiary education           | 102 (37.4)           |
| Secondary school             | 90 (33)              |
| Primary school               | 43 (15.8)            |
| Informal Education           | 38 (13.8)            |

Source: Field Survey, 2023

### **What is the history of Ikogosi Warm Spring?**

93.8 % of the respondents knew Ikogosi well. This is not surprising because a large number of the respondents were natives of the community. A little over half of the respondents (51.6%) think



that the source of the spring was discovered in 1952. About a quarter of them (25.7%) hold the view that the source of the spring was discovered earlier than 1952. 13.1% think it was discovered later than 1952, while 9.6% of them have no idea when it was discovered. This implies that quite a number of the members of the community do not know the exact date of the discovery of the spring. However, this is understandable because many who knew the history of the spring may have passed away due to old age, or may have long since relocated to the city or somewhere else.

61.8% of the respondents reported that the first person to discover the source of the spring was the Baptist Missionary Rev. John S. McGee, slightly a higher number (65.6%) held the view that the Baptist Mission rallied both financial and human resources to harness the spring. A large number of the respondents (72.6%) believe that the Baptist Mission congregation was primarily made up of community members. 62.4% of the respondents had no idea of any periodic sanitation exercise that may have been carried out during the period when the Baptist Mission had oversight of the spring. Opinions were divided nearly equally (47.5% affirming, 42.6% denying, and 9.9% having no idea) about whether the community ever held the notion that spring was sacred to them. Respondents held that the location of the spring at the time was used as a venue for Christian retreat (88%), leisure and holidays (73%), hunting (40%), and farming (18%). From field observation by the researchers, the terrain would have been difficult for farmwork because the thick foliage presently in the area would not have allowed for adequate penetration of sunlight to reach the crop that would have been planted. Table 4.2 summarizes the findings from the first research question.

Table 2: Respondents knowledge of the history of the spring

| Item   | Frequency (%)   |
|--|---|
| How well do you know Ikogosi?  | <ul style="list-style-type: none"> <li>● Very well: 256 (93.8)</li> <li>● Well: 17 (6.2)</li> <li>● Not so well: 0 (0)</li> <li>● No idea: 0 (0)</li> </ul>                               |
| When was the source of the spring first discovered?                            | <ul style="list-style-type: none"> <li>● 1952: 141 (51.6)</li> <li>● Much earlier than 1952: 70 (25.7)</li> <li>● Much later than 1952: 36 (13.1)</li> <li>● No idea: 26 (9.6)</li> </ul> |
| Who was the first recorded person to have discovered the source of the spring? | <ul style="list-style-type: none"> <li>● Rev. John S. McGee: 169(61.8)</li> </ul>   |

|   |   |
|---|---|
|   | <ul style="list-style-type: none"> <li>● A village hunter: 34 (12.4)</li> <li>● No idea: 70 (25.8)</li> </ul>   |
| The Baptist Mission first initiated the move to rally funds and support to harness the spring   | <ul style="list-style-type: none"> <li>● True: 179 (65.6)</li> <li>● False: 28 (10.2)</li> <li>● No Idea: 66 (24.2)</li> </ul>  |
| The congregation of the Baptist Mission who conserved the spring before government takeover was primarily made up of community people.    | <ul style="list-style-type: none"> <li>● True: 198 (72.6)</li> <li>● False: 33 (12.1)</li> <li>● No idea: 42 (15.3)</li> </ul>  |
| Before the government takeover of the spring, did the community regularly hold environmental sanitation exercises to maintain the spring? | <ul style="list-style-type: none"> <li>● Yes: 46 (17)</li> <li>● No: 56 (20.4)</li> <li>● No idea: 171 (62.6)</li> </ul>  |
| When the Baptist Mission was managing the spring, was it ever considered sacred by the Ikogosi community?                                 | <ul style="list-style-type: none"> <li>● Yes: 130 (47.5)</li> <li>● No: 116 (42.6)</li> <li>● No idea: 27 (9.9)</li> </ul>  |
| What use was the spring put to at the time the Baptist Mission managed the area?  | <ul style="list-style-type: none"> <li>● Christian retreat: 240 (88)</li> <li>● Leisure and relaxation: 197 (72)</li> <li>● Hunting: 109 (40)</li> <li>● Farming: 49(18)</li> </ul> |

Source: Field Survey, 2023

### **How has the community participated in conserving the spring over the years?**

Access to the spring is controlled as reported by 93.4% of the respondents. Findings show that whereas the water from the spring is drinkable, it is not the source of potable water for the community. This indicates that the chances of spring contamination of the ensuing river are low. A vast majority of the respondents (an average of 94.9%) report that members of the community

do not throw refuse into the spring, nor defecate in the spring, nor hunt nor farm around the spring. These figures imply that currently, the community does not engage in activities that could pollute the spring. This could be because of the controlled access to the spring. Table 4.3 summarizes findings on the community's participation in conserving the spring over the years

Table 3: Summary of findings on community's conservation of the spring

| Item  | Frequency (%)   |
|---|---|
| How does the community access the place now?                    | <ul style="list-style-type: none"> <li>● Free access: 18 (6.6)</li> <li>● Controlled access at a fee: 256 (93.4)</li> <li>● No access: 0 (0)</li> </ul> |
| Is the spring a source of potable water for the Ikogosi people? | <ul style="list-style-type: none"> <li>● Yes: 18 (6.6)</li> <li>● No: 241 (88.3)</li> <li>● No idea: 14 (5.1)</li> </ul>                                |
| Do the people throw refuse into the spring?                     | <ul style="list-style-type: none"> <li>● Yes: 0 (0)</li> <li>● No: 268 (98.2)</li> <li>● No idea: 5 (1.8)</li> </ul>                                    |
| Do the people of Ikogosi defecate in the spring?                | <ul style="list-style-type: none"> <li>● Yes: 0 (0)</li> <li>● No: 273 (100)</li> <li>● No idea: 0 (0)</li> </ul>                                       |
| Do people hunt for animals in the spring?                       | <ul style="list-style-type: none"> <li>● Yes: 0 (0)</li> <li>● No: 241 (88.3)</li> <li>● No idea: 32 (11.7)</li> </ul>                                  |
| Do people farm in the spring?                                   | <ul style="list-style-type: none"> <li>● Yes: 0 (0)</li> <li>● No: 254 (93.1)</li> <li>● No idea: 19 (6.9)</li> </ul>                                   |

Source: Field Survey, 2023

### What development has been brought to the region by the presence of the spring?

A large number of respondents believe the following developments came to the region because of the presence of the spring: better road network (77%), electricity (88.3%), Gossy water factory (98.2%), improved ICT (66%), hotels or guest accommodation (93.4%), and increased patronage of local business (92.3%). These findings agree with the findings of Al-Bqour (2020), Orimaye et al. (2018), and Schipani (2008) who hold that natural heritage-induced tourism brings with it a measure of development to the host community. Table 4.4 below summarizes the findings on developments brought to the region because of the spring.

Table 4: Summary of respondents' perceptions of development brought to the region by the presence of the spring

| Title   | SA<br>Frequency (%) | A<br>Frequency (%) | D<br>Frequency (%) | SD<br>Frequency (%) |
|---|---------------------|--------------------|--------------------|---------------------|
| Good road network was constructed in Ikogosi because of the Ikogosi Warm Spring                     | 30 (11)             | 180 (66)           | 36 (13.2)          | 27 (9.8)            |
| Electricity was brought to the community because of the Ikogosi Warm Spring                         | 121 (44.3)          | 121 (44.3)         | 16 (6.9)           | 13 (4.8)            |
| The Gossy water factory owned by UAC was built in the community because of the Ikogosi Warm Spring  | 166 (61.1)          | 101 (37.1)         | 3 (1.1)            | 2 (0.7)             |
| There is improved ICT services in the community because of the Ikogosi Warm Spring                  | 59 (21.7)           | 121 (44.3)         | 42 (15.4)          | 51 (18.6)           |
| There are better guest accommodation and hotels in the community because of the Ikogosi Warm Spring | 180 (65.9)          | 75 (27.5)          | 13 (4.8)           | 5 (1.8)             |
| There is increased patronage of local businesses because of the Ikogosi Warm Spring                 | 72 (26.4)           | 180 (65.9)         | 13 (4.8)           | 8 (2.9)             |

SA: Strongly Agreed; A: Agreed; D: Disagreed; SD: Strongly Disagreed; Source: Field Survey, 2023

### 1.5 Conclusion

From the foregoing, it is safe to conclude that the Baptist Mission historically first harnessed the spring. However, the congregants of the Baptist Mission at the time were primarily made up of people from the community. From the unstructured oral interview, it is established that the community had more engagement in the conservation of the spring during its nascent years. It is probable that the congregation held the notion that the spring was a gift from God, and thus needed to be protected. The locals of Ikogosi had more access to the spring in the days when the Baptist Mission owned it. With the government's takeover of the place and the subsequent concession granted to the private company that runs the spring presently, access to the spring has become controlled.

Evidently, from the research, the community does not engage in activity that could endanger the spring. However, whether this is a result of the controlled access to the spring or a result of a generally agreed practice by the community is not established in this research. Further research is needed to establish the correlation.

The presence of the spring aided the regional development of the community. Faith-based organizations like the Baptist Mission, over time, have proven to be a reckoning force with regards to community action. This view is shared by Ukommi et al. (2015); Olarinmoye (2012); and Kariuk (2018).

### 1.6 Recommendations

It appears from direct field observations that although some developments have been brought to the Ikogosi community, for which the residents are grateful, more needs to be done to meaningfully engage them in the management of the Ikogosi Warm Spring Resort. A quota of employment should be marked out and given to the natives of the community; this will reduce the population of job seekers as reported in the demographics of the respondents. The quota system of employment has been recommended by authors such as Said & Tahniyath, (2022), Nazarov et al., (2015), and Pande & Ford, (2011) for its efficiency in promoting inclusive employment for target demographics.

Again, the history of the Ikogosi Warm Spring needs to be accurately documented and published so that it can be made available to future generations. This is important because, by the time the current generation of elderly people reported in the demographics passes on, not much will be known about the history of the spring. According to the World Intellectual Property Organization (2017), documenting history ensures that the sociocultural heritage of communities is preserved.

Lastly, there is a need for community sensitization campaigns on the need for sustained conservation of the spring. This is especially needed because it is yet to be clearly established that the community's practices towards the spring are the result of mutually agreed-upon community engagement rather than the present controlled access to the spring. Such campaigns raise awareness about the importance of natural heritage conservation, as reported by Jaafar et al. (2015), and Kisusi (2014).

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