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[Yihalem Kebete Kefale](#)*, [Jan van der Borg](#), Amare Sewnet Minale, Getaneh Addis Tessema, [Anton van Rompaey](#), [Jan Cools](#), [Steven Van Passel](#), Enyew Adgo, Amaury Frankl, [Trui Steen](#)

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Article

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Yihalem Kebete Kefale ^{1,2*}, Jan van der Borg ¹, Amare Sewnet Minale ³,
Getaneh Addis Tessema ^{2,9}, Anton van Rompaey ¹, Jan Cools ⁶,
Steven Van Passel ⁷, Enyew Adgo ⁴, Amaury Frankl ⁵ and Trui Steen ⁸

¹ Department of Earth and Environmental Sciences, KU Leuven, Leuven, Belgium

² Department of Tourism and Hotel Management, Bahir Dar University, Bahir Dar, Ethiopia

³ Department of Geography and Environmental Studies, Bahir Dar University, Bahir Dar, Ethiopia

⁴ Department of Natural Resource Management, Bahir Dar University, Bahir Dar, Ethiopia

⁵ Department of Geography, Ghent University, Ghent, Belgium

⁶ Institute of Environment & Sustainable Development, University of Antwerp, Antwerp, Belgium

⁷ Department of Engineering Management, University of Antwerp, Antwerp, Belgium

⁸ Public Governance Institute, KU Leuven, Leuven, Belgium

⁹ Strategic Unit, Ministry of Tourism, Addis Ababa, Ethiopia

* Correspondence: yihalemkebeta.kefale@kuleuven.be or yihalemkebeta19@gmail.com

Abstract

Tourism, being an inherently fragmented and multisectoral phenomenon, requires the involvement of a diverse range of stakeholders. The main aim of the present study is to map local tourism stakeholders and analyze governance networks. The researchers recruited research participants from key tourism stakeholders through purposive sampling techniques. Closed-ended questionnaires, semi-structured interviews, and focus group discussions were used for collecting data. This study applied the power-interest grid for mapping local tourism stakeholders. In addition, by applying the concept of resource dependency theory, the Social Network Analysis technique was employed for mapping the local tourism governance networks. The findings disclosed that the local tourism stakeholder map primarily comprises government institutions, tourism businesses, local communities, and civil society organizations. Even though tourism government institutions and large tourism businesses established strong linkages, the network density was found to be moderate. Implementing effective stakeholder mapping techniques and strengthening local tourism governance networks is crucial to augment sustainable tourism. This study makes a substantive contribution to academia by providing insights into the methods and techniques essential for mapping tourism stakeholders and governance networks. Moreover, the study has practical implications for destination management organizations, policymakers, and destination administrators.

Keywords: actors; Gephi; governance networks; resource dependency; power-interest grid; social network analysis

1. Introduction

The peculiar characteristics of tourism, including its fragmented nature, multisectoral and policy alignment issues with other sectors, and vulnerability to natural and man-made disasters, ultimately necessitate strong stakeholder collaboration [1, 2, 21]. Stakeholder mapping is increasingly used as a crucial tool for identifying stakeholders involved in the tourism governance processes [13]. The local

tourism governance network encompasses numerous autonomous yet symbiotic stakeholders [6]. A well-established stakeholder map and improved governance networks contribute to sustainable tourism [7]. However, there are still gaps in tourism stakeholder mapping and governance network studies. One of the most significant gaps is the lack of theoretical support [8]. As such, given the multistakeholder nature of tourism, applying the Resource Dependency Theory (RDT) helps elucidate how actors in tourism are interdependent [9,10]. RDT states that organizations, regardless of size and the types of activities they engage in, depend on each other's resources for success [11]. Therefore, this theory is crucial for mapping and analyzing local tourism governance networks [12].

There is a lack of evidence regarding tourism governance networks in less developed destinations [8]. Notably, superficial stakeholder involvement in local tourism decisions [13], the limited conceptualization of the link between stakeholder mapping and sustainable tourism [14], and inadequate guidelines that direct tourism stakeholder mapping [20] underscore the need for an immediate empirical study in the field. Luštický et al. [15], Nalau et al. [16], and Roxas et al. [17] also ascertained that the lack of methods and techniques contributes to the limited number of studies in tourism stakeholder mapping and governance networks. According to Connor et al. [18], Hollstein and Dominguez [19], and Maghsoudi et al. [42], considering the complexity of tourist destinations, Social Network Analysis (SNA) is a crucial method that can be applied to study governance networks. Therefore, the present study aims to: (1) map local tourism stakeholders according to their level of power and interest in local tourism decisions, (2) examine the local tourism governance networks, and (3) scrutinize the nexus between stakeholder mapping and sustainable tourism development.

2. Literature Review

2.1. Stakeholder Mapping in Tourism: Insights from Empirical Literature

Being used as a crucial step in promoting effective governance, developing an inclusive tourism stakeholder map can help destination administrators assign clear responsibilities to each stakeholder category [22, 23]. Stakeholder mapping can also contribute to understanding the interest and levels of power of each actor in tourism [3, 4,5]. One of the case studies in Costa Rica has ascertained that ecotourism activities within the nation can balance the interests of the government, civil society organizations, tourism enterprises, and communities through the proper implementation of stakeholder mapping [24]. In the context of Africa, it has been believed that Tanzania experienced well-established community-based tourism, largely due to the effective application of stakeholder mapping, which contributes to the conservation of cultural heritage [25].

Dos Anjos and Kennell [26] have asserted that sustainable tourism governance is realized through the participation of all actors in tourism decisions. In the stakeholder category, stakeholders with low influence should receive considerable attention, while high-influence stakeholders need to be managed well [27]. Considering the nature of tourist sites and the necessity of involving different stakeholder categories, some empirical studies have been conducted on tourism stakeholder mapping (Table 1).

Table 1. Some previous tourism stakeholder mapping studies and key insights obtained .

| Authors ^a | Key insights |
|----------------------|---|
| Grindsted et al.[28] | Identifying stakeholders involved in tourism is crucial to understanding which actors play a vital role in promoting destination development. |
| Shoukat et al.[29] | Specifying the type, power, and interest of key actors in the tourism industry is essential for defining the responsibility of each stakeholder category. |
| Roxas et al.[17] | Tourism stakeholder mapping plays a crucial role in managing destination resources and improving collaborations. |
| Nguyen [14] | Stakeholder mapping highlights the importance of various stakeholders in influencing local tourism decisions and promoting sustainable tourism. |

| | |
|---------------------------|---|
| Waligo et al. [30] | The number of stakeholders involved in achieving sustainable tourism depends on the type and quantity of destination resources. |
| Casimiro & Spenceley [31] | Stakeholder mapping guides how stakeholders interact in the tourism setting. |
| Byrd [32] | Applying a stakeholder mapping approach is one of the most important steps considered in the sustainable tourism development process. |
| Sautter & Leisen [33] | Developing a framework for tourism planning and demonstrating the need to identify stakeholders can contribute to destination governance. |
| Freeman [34] | Understanding stakeholders' behavior and interests is crucial to enhancing sustainable development. |

^a list arranged based on chronological order.

2.2. Resource Dependence Theory

Coined by Pfeffer and Salancik [35], Resource Dependency Theory (RDT) explains how independent organizations manage dependencies through cooperation, agreement, and resource sharing. It states that independent actors or organizations depend to some extent on resources from other institutions [9]. The decision of a single actor might have a significant impact on the activities of others [36]. Therefore, an organization's strategy needs to be formulated by considering the interests and resources of other organizations [37]. In practice, no government, business, or civil society organization is completely self-contained [38, 56]. Due to the diversity of resources required, actors involved in tourism-related activities are dependent on each other's resources [39]. As such, applying the concept of RDT is vital to guide the creation of the tourism governance network map.

2.3. Bibliometric Analysis

Bibliometric analysis is crucial for mapping the keywords identified in previous studies on tourism stakeholder mapping [40]. Important methods employed in the existing literature for mapping keywords include co-occurrence analysis, thematic mapping, and keyword clustering [41]. Conducting a co-occurrence analysis is vital for identifying keywords that frequently appear in prior studies. This allows researchers to highlight keywords that have been overlooked in previous literature. By using the VOS visualizer, the researchers identified the keywords that appeared in prior tourism stakeholder mapping studies conducted between 2018 and 2024. Those studies were selected based on their conceptual relatedness to the current study. The size and proximity of nodes represent the frequency and strength of connections between key terms, while the co-occurrence of keywords in the study establishes their relationship (Figure 1).

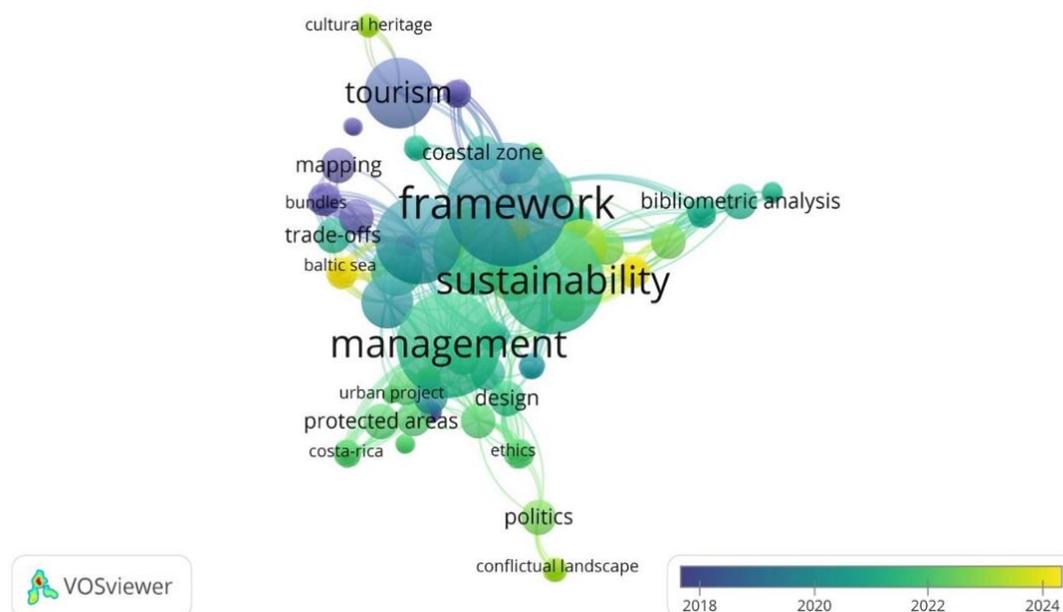


Figure 1. Co-occurrence of keywords from Web of Science collections.

As shown in Figure 1, core themes such as sustainability, frameworks, and management are represented by large nodes, indicating that these terms have been frequently mentioned in previous tourism stakeholder mapping studies. Coastal zone, cultural heritage, and protected areas are also significant terms that signify the presence of context-specific stakeholder mapping studies. However, concepts such as power-interest grid, SNA, resource dependence, and network governance have been overlooked in previous studies.

3. The Study Area

This study was conducted in the Lake Tana region, northwest Ethiopia. Geographically, it is situated approximately 560 kilometers from Addis Ababa, the capital of Ethiopia. The Lake Tana region is located in Amhara National Regional State, one of Ethiopia's twelve regional states. The Blue Nile Falls (Tis Abay), Bahir Dar City, Dek Island, Lake Tana, and the monasteries on Zegie Peninsula are the most popular tourist sites located in the Lake Tana region (Figure 2). In 2015, Lake Tana was designated a UNESCO Biosphere Reserve, highlighting its significant natural and cultural values. As the Lake Tana region contains a diverse range of flora and fauna, it is recognized as a vital ecological site that necessitates careful preservation and conservation. International and local non-governmental organizations are also actively participating in environmental conservation activities in the Lake Tana region.

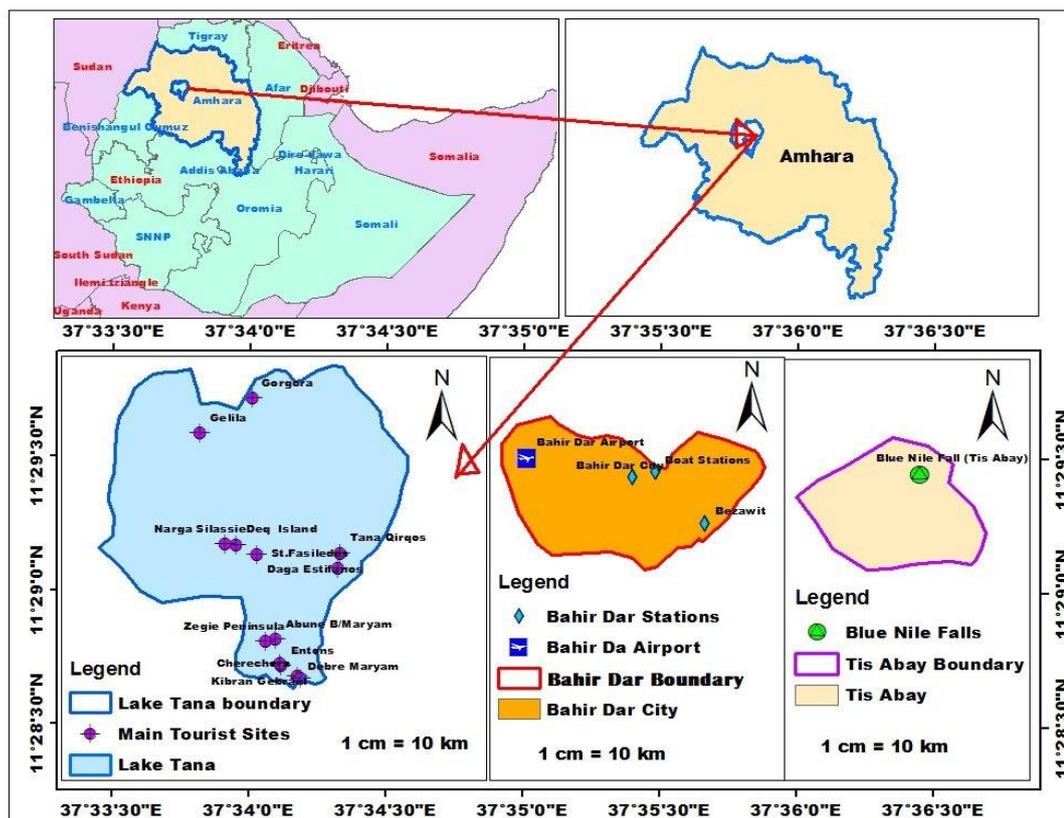


Figure 2. Map of the Lake Tana region.

4. Materials and Methods

After taking inputs from research participants, the current study applied the power-interest grid for conducting tourism stakeholder mapping. Along with this, for mapping the local tourism governance networks, the study pursued the techniques of SNA. According to Valeri and Baggio [43], SNA is a preferred analytical method applied to inspect governance networks. Before collecting data, the first author held discussions with five tourism experts from the Regional Culture and Tourism Bureau and seven university academic staff to gain insights about how to proceed with the data collection process. These discussions also helped determine how to select research participants from key tourism stakeholders. Since data collection for stakeholder mapping and network analysis involves listing all actors and administering saturation surveys [44], it was helpful to determine the number of respondents who participated in the current study. Research participants were selected through purposive sampling techniques.

By applying the concept of resource dependency theory and drawing insights from tourism professionals, the researchers prepared closed-ended questionnaires aiming to map local tourism stakeholders and governance networks. Because of the saturation point, 40 research participants, including six hotel managers, three restaurant managers, three tour and travel operators, seven tour guides, two academic staff, five tourism experts at the government tourism bureau, three boat service providers, five representatives from civil society organizations, three souvenir sellers, and three local community representatives were involved in filling out the closed-ended questionnaires. Respondents were provided with lists of potential actors. As such, they were asked to indicate stakeholders involved in the local tourism decisions. For the purpose of conducting the tourism stakeholder map through employing the power-interest grid, respondents were also asked to indicate stakeholders' level of power and interest in the local tourism decision. In addition, to add qualitative results and ensure data triangulation, key informant interviews with 13 experts and FGD with 12 participants were conducted (Table 2).

Table 2. Interviewees and FGD participants.

| Interview participants | Number of interviewees | Codes assigned | Gender | Experience (in years) |
|--|------------------------|----------------|--------|-----------------------|
| Tourism experts at government tourism institutions | 3 | TR 1 | Male | 15 |
| | | TR 2 | Female | 13 |
| | | TR 3 | Male | 10 |
| Tourism businesses | 6 | TB 1 | Male | 20 |
| | | TB 2 | Male | 17 |
| | | TB 3 | Female | 8 |
| | | TB 4 | Female | 10 |
| | | TB 5 | Male | 14 |
| | | TB 6 | Male | 16 |
| Representatives from civil society organizations | 2 | CS 1 | Male | 22 |
| | | CS 2 | Male | 18 |
| Academics and researchers | 2 | AC 1 | Male | 16 |
| | | AC 2 | Male | 14 |
| FGD participants | | | | |
| Hotels and restaurants | 3 | FGD 1 | Female | 8 |
| | | FGD 2 | Male | 12 |
| | | FGD 3 | Male | 10 |
| Tour operator and travel agent | 1 | FGD 4 | Male | 17 |
| Local tour guides | 2 | FGD 5 | Male | 17 |
| | | FGD 6 | Male | 6 |
| Boat service providers | 2 | FGD 7 | Male | 20 |
| | | FGD 8 | Male | 13 |
| Souvenir seller | 1 | FGD 9 | Female | 14 |
| Local community representative | 1 | FGD 10 | Male | 16 |
| Tourism government institutions | 2 | FGD 11 | Female | 14 |
| | | FGD 12 | Male | 7 |

Data Analysis

The present study applied the power-interest grid for mapping stakeholders and Gephi software to visualize the local tourism governance network map. Gephi is an important tool to illustrate the relationship between actors [45]. To understand the cohesion and connection between actors in the local tourism governance network, the network density was computed. The density of a network is determined by dividing actual connections by its maximum potential connections [18]. In addition, the degree of centrality measures was also computed to identify which actors play a central role in the local tourism governance networks. To do so, the raw degree and normalized degree have been calculated, taking into account the number of ties each actor has. According to Butts [46], raw degree is the number of direct connections that each actor has, whereas normalized degree is calculated by dividing the raw degree by the maximum possible connections in the network (total number of nodes minus 1) (Appendix Three). Along with conducting quantitative SNA, qualitative analysis was also included concurrently to add additional insights obtained from interviews and FGD participants.

5. Results

5.1. Local Tourism Stakeholder Mapping

In the stakeholder map, actors are positioned based on their level of power and interest in the local tourism decisions. This stakeholder map mainly includes tourism government institutions, other government institutions involved in tourism development, local and international civil society organizations, tourism businesses, local communities, and associations (Figure 3).

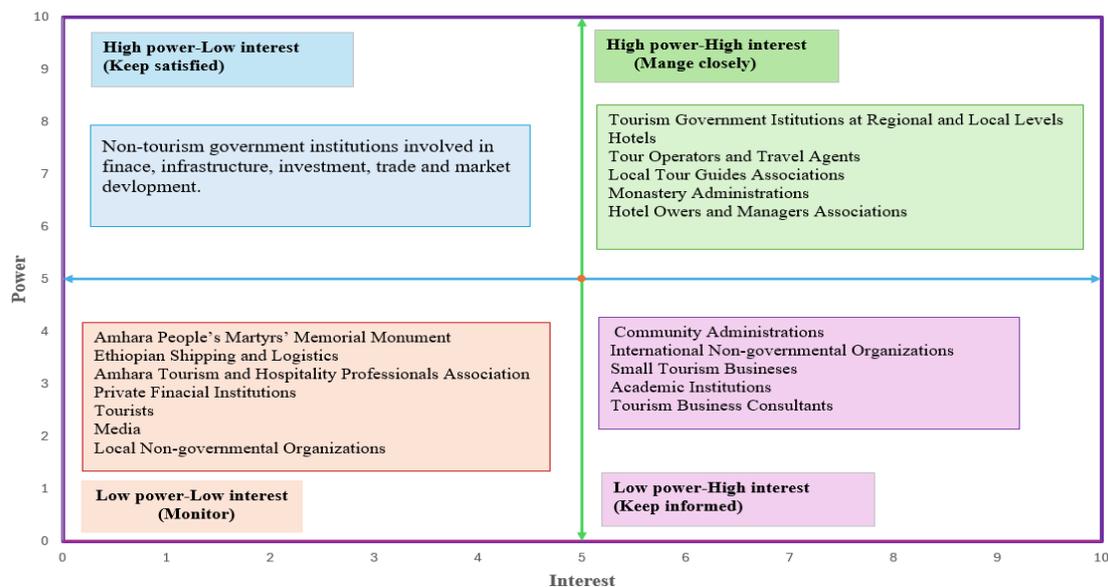


Figure 3. Local tourism stakeholder map (power-interest grid).

As shown in Figure 3, in the local tourism stakeholder map, the most prominent actors involved in local tourism decisions and governance are grouped under the High power-High interest category. In this category, tourism government institutions functioning at different levels are included. For instance, as shown in Appendix One, at the regional level and city administration level, the Amhara National Regional State Culture and Tourism Bureau and the Bahir Dar City Culture, Tourism, Youth, and Sport Department experienced high power and interest in local tourism decisions. At the zonal and district level, the North Gojam Zone Culture and Tourism Department and the Bahir Dar Zuria District Culture and Tourism Department are categorized under the High power-High interest group since these institutions are responsible for governing most rural tourist sites. The High power-High interest category also comprises main tourism service providers in the Lake Tana region, such as hotels, tour operators, and travel agents, Zegie Tour Guides Association, Tis Abay Tour Guides Association, and Bahir Dar Tour Guides Association (Appendix One).

In the local tourism stakeholder map, the High power-Low interest category involves the most crucial non-tourism government institutions. As depicted in the comprehensive local tourism stakeholder map (Appendix One), non-tourism government institutions participated in local tourism decisions embraces the Amhara National Regional State Finance Bureau, the Amhara National Regional State Transport and Logistics Authority, the Amhara National Regional State Environment and Forest Protection Authority, the Amhara National Regional State Urban and Infrastructure Bureau, the Amhara National Regional State Health Bureau, and the Bahir Dar City Mayor's Office. In addition, other High-Power-Low-interest stakeholders involved in the local tourism governance process include the Amhara National Regional State Road Bureau, the Amhara National Regional State Peace and Security Bureau, the Amhara National Regional State Industry and Investment Bureau, and the Amhara National Regional State Trade and Market Development Bureau (Appendix One).

According to the result of the current study, the Low power-Low interest stakeholder category encompasses those actors with little involvement in the local tourism governance and decision-making process. This category embraces the Amhara People's Martyrs' Memorial Monument, Ethiopian Shipping and Logistics, and the Amhara Tourism and Hospitality Professionals Association. Along with these institutions, the low-power and low-interest stakeholder category includes private media, public media, domestic visitors, and international tourists. It also comprises private financial institutions, including banks and insurance companies. Local non-governmental organizations, including the Amhara Development Association and the Organization for Rehabilitation and Development in Amhara, are also grouped under the low power and low interest category.

The Low-Power-High-interest category of the local tourism stakeholder map mainly comprises community administrations and international civil society organizations. As shown in Appendix One, Zegie, Tis Abay, and Dek Community administrations and international civil society organizations, including Society for Ecotourism and Biodiversity (SETBD), Nature and Biodiversity Conservation Union (NABU), German Corporation for International Cooperation (GIZ), and Jerusalem Children and Community Development Organization (JeCCDO) are incorporated in the Low power-High interest category. According to the result of the present study, small tourism businesses such as Souvenir Sellers, Souvenir Producers, Small-Scale Food and Beverage Providers, Private Boat Service Providers Associations, Cultural restaurants, Airport Taxi Service Providers, Hotel Management Supporting Technology Providers, Car Rentals, Pensions, and Fishermen are included in the Low power-High interest stakeholders group. This category of the stakeholder map also comprises the Ethiopian Orthodox Tewahido Bahir Dar Diocese, Tourism Business Consultants, and Academic Institutions.

5.2. Local Tourism Governance Network Map

The local tourism governance network map shows the presence of interaction among tourism stakeholders in the Lake Tana region (Figure 4). In the network map, nodes represent actors, whereas the arrows or edges connect actors that share complementary resources.

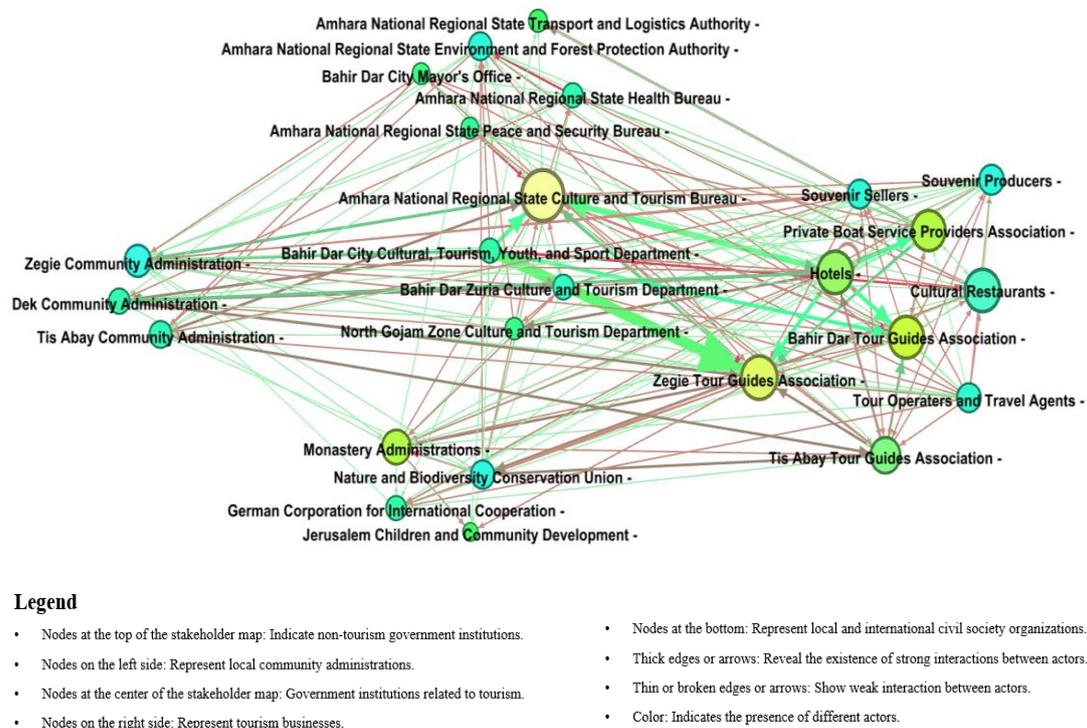


Figure 4. Local tourism governance network map.

As shown in Figure 4, actors indicated by large nodes are influential in local tourism decisions. For instance, among tourism government institutions, the Amhara National Regional State Culture and Tourism Bureau is the most prominent in making and shaping strategic decisions. Tourism businesses, represented by large nodes, include hotels, cultural restaurants, private boat service providers, and tour guide associations, which contribute to local tourism governance in providing quality service to tourists. Actors specified by small nodes are also important in supporting local tourism development.

The Regional Culture and Tourism Bureau and the Bahir Dar City Culture, Tourism, Youth, and Sport Department support local tourism activities in Bahir Dar City, Blue Nile Falls, and the Zegie Peninsula monasteries. An interviewee, TR 2, said, *“In my opinion, tourism policy in the Lake Tana region is fragmented. Hence, improving the network between tourism government institutions is essential in enhancing the implementation of local tourism policies”*. In addition, a key informant, TR 2, provided the following statement:

“In the Lake Tana region, the network between tourism and non-tourism government institutions mainly relies on strengthening the implementation of local tourism rules, regulations, and standards. In my opinion, involving other government institutions in the local tourism governance network is also beneficial to enhance tourism infrastructure”.

However, as noted by an interviewee, TR 3,

“.....As I have observed, in the Lake Tana region, despite their importance in improving tourism infrastructure, non-tourism government institutions working on finance, transport, investment, trade, and market development experienced sporadic interaction with tourism government institutions and tourism businesses. So, this scenario retards, sustainable tourism development.....”.

As depicted in the detailed governance network map (Appendix Two), tourism businesses interact mainly with local communities, visitors, tourism government institutions, and local and international civil society organizations. In this regard, a key informant, TB 3, pointed out that:

“To the best of my experience, large hotels, tour operators and travel agents, tour guiding associations, and boat service providers interact with governmental and non-governmental organizations. Government institutions support the tourism industry by providing additional investment opportunities. Civil society organizations also support tourism businesses in terms of skill development”.

Regarding the network between monastery administrations and tour organizers, a research participant, TB 5, emphasized that:

“As far as I know, no tourist activity is allowed within a peninsula or island monastery without the permission of the monastery administration. Therefore, tour operators and local tour guides work in harmony with monastery administrators, which strengthens local tourism governance networks”.

As stated by an interviewee, TR 1,

“The involvement of monastery administrators, local communities, civil society organizations, tourism businesses, and domestic and international visitors in the local tourism governance network map is crucial in improving tourism decisions. However, in the Lake Tana region, local and international non-governmental organizations established poor linkages with tourism government institutions”.

A key informant representing academic institutions, AC 2, noted that:

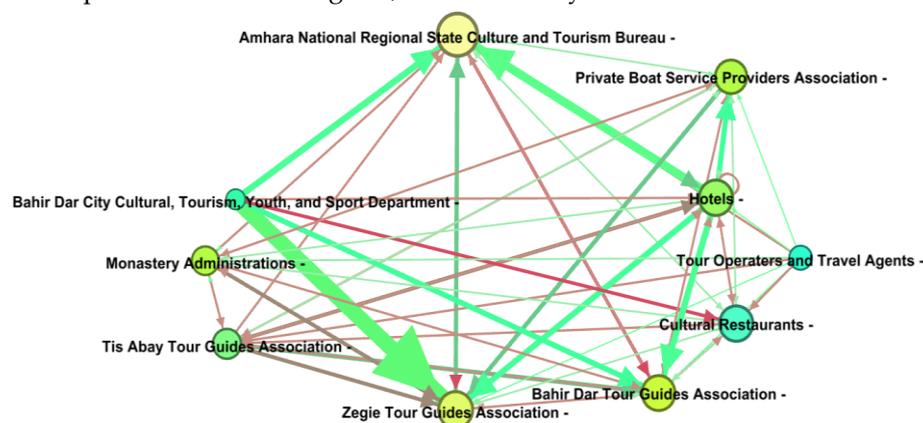
“.....Weak interactions are also exhibited between tourism government institutions and small tourism businesses. Therefore, as far as I am concerned, in light of the existing network between tourism stakeholders in the Lake Tana region, it is essential to ensure that each stakeholder’s interest is considered in the local tourism decision-making process...”.

In addition, FGD4, a focus group participant representing tourism businesses, explicated that:

“.....one information I would like to add is concerning the importance of tourism stakeholders for each other’s existence in the sector. To the best of my expertise, it is always feasible to ensure strong interaction between actors involved in tourism service provisions. As such, actors with strong networks need to encourage those actors with weak networks to participate in local tourism decisions. In this regard, actors feel more responsible in the local tourism activities.....”.

5.2.1. Actors with Strong Ties

In the Lake Tana region, some actors involved in the local tourism governance network established strong ties with each other. As shown in Figure 5, tourism government institutions, including the Amhara National Regional State Culture and Tourism Bureau and the Bahir Dar City Culture, Tourism, Youth, and Sport Department, built strong interaction with hotels, cultural restaurants, tour operators, private boat service providers, and local tour guides. Local tour guides associations, such as the Bahir Dar tour guides association, the Zegie tour guides association, and the Tis Abay tour guides association, formed robust interactions with hotels, cultural restaurants, private boat service providers associations, and tourism government institutions. Other actors with strong ties include tour operators and travel agents, and monastery administrations.



Legend

- Nodes: Represent actors largely influencing local tourism decisions.
- Thick green arrows or edges: Indicate the presence of strong interactions or collaborations between actors.
- Light edges or arrows: Show the existence of resource interdependency between actors.

Figure 5. Actors with strong interactions in the local tourism governance networks.

Regarding the presence of a robust network among tourism businesses, TB1, stated that: “...since tourism businesses in the Lake Tana region are highly dependent on each other’s resources, they experience strong interaction. As far as I know, in the Lake Tana region, tour operators rely on hotel rooms, car rentals, boat service providers, and local tour guides to serve local and international tourists. Large hotels and car rentals also depend on tour and travel organizers that arrange tours for international tourists who visit Bahir Dar City, Blue Nile Falls, and Lake Tana monasteries...”.

5.2.1. Network Density

Since the local tourism governance network map in this study consisted of 54 nodes or actors, a maximum of $54 \times 53 = 2,862$ edges or networks were expected (Table 3). However, the result showed that the total number of actual edges or connections in the network is 712 (Appendix Three). The network density is the ratio of the number of actual edges to the total number of expected edges or

interactions, which is computed as $712/2862$. Therefore, in the present study, the network density is about 0.25 (25%).

Table 3. Main Network metrics.

| Number of actors | 54 |
|--------------------------------|-----------|
| Total number of expected edges | 2862 |
| Total number of actual edges | 712 |
| Average degree | 13.18 |
| Network density | 0.25 |

5.2.3. Degree of Centrality

The result of the current study revealed that the average number of edges or connections that each actor has in the network is 13.18, which is calculated as the total number of actual edges (712)/total number of actors (54). The degree of centrality for an actor is computed as the number of direct connections it has divided by the total number of actors in the network minus one. For instance, as shown in Appendix Three, the Amhara National Regional State Culture and Tourism Bureau has connections with 46 actors, indicating a high degree of centrality, which is 0.87 ($46/54-1$). The Bahir Dar City Culture, Tourism, Youth, and Sport Department established links with 43 actors with a degree of centrality of 0.81. However, according to the results of the present study, some local tourism stakeholders, such as Banks, Hotel Management Support Technology Providers, Media, Jerusalem Children and Community Development Organization, were found to have a limited number of edges or connections. As such, they have a low degree of centrality.

5.3. The Nexus Between Stakeholder Mapping and Sustainable Tourism Development

Stakeholder mapping contributes to improving sustainable tourism, as a key informant, TR 1, mentioned in his statement:

“In my view, developing an inclusive stakeholder map is essential to consider the perspectives of multiple stakeholders in local tourism governance. It is also important in promoting local tourism decision-making that necessitates the participation of different tourism stakeholders, thereby reinforcing sustainable tourism development”.

According to an interviewee, CR 2,

“.....In the Lake Tana region, identifying tourism stakeholders and the resources they control is crucial for understanding their level of influence in local tourism. It is also vital to facilitate resource sharing and collaboration. This ultimately supports and guides the development of sustainable tourism....”.

A tourism professional, TB 1, mentioned that:

“To the best of my experience, tourism service provision in the Lake Tana region is struggling with a lack of coordination among actors involved in tourism activities. Therefore, mapping stakeholders by considering their power and interest in local tourism decisions would improve collaboration. It is also helpful to specify stakeholders’ roles in local tourism, thereby contributing to sustainable tourism development”.

A tourism expert, AC 1, also said that: *“...Including local communities and civil society organizations in the local tourism stakeholder map enables them to contribute to promoting environmental conservation and preservation, thereby enhancing sustainable tourism...”.*

All the above professionals' views indicated that the Lake Tana region, as a developing geo-tourism site, needs to incorporate and implement the concept of stakeholder mapping in the sustainable tourism development process. Hence, given that the Lake Tana region consists of diversified stakeholder groups, conducting tourism stakeholder mapping is vital for addressing the

particular interests of each stakeholder category, thereby contributing to sustainable tourism development.

6. Discussion

The existence of several actors with diverse interests manifests the complexity of tourist destinations. Understanding the level of influence and interest of each actor in the local tourism decision guides the creation of the local tourism stakeholder map. This is in line with what Purboyo and Briliayanti [49] pointed out, that developing an inclusive tourism stakeholder map helps destination administrators comprehend the power of each stakeholder in the local tourism governance process. Since most stakeholders do not adequately understand each other's roles in local tourism governance, implementing an effective stakeholder mapping approach is also crucial. Corresponding to this finding of our study, Lestari et al. [47] and Wu et al. [48] ascertained that stakeholder mapping is instrumental in guiding effective tourism governance in terms of specifying the key responsibilities of each stakeholder. Since tourism is complex in its very nature, stakeholder mapping is vital to include a variety of perspectives in local tourism decisions in the Lake Tana region. Consistent with this, Afni [22] emphasized that since stakeholder mapping involves several actors with diverse insights, it contributes to destination governance in terms of making strategic decisions.

Building strong relationships between the government, tourism businesses, civil society, and local communities is essential for promoting the sustainable use of destination resources. Consistent with this, Nguyen et al. [14] argued that reconnoitering the governance network would be crucial to pinpointing prominent actors contributing to local tourism development. Promoting the local tourism governance network improves collaboration among stakeholders and enhances sustainable tourism in the Lake Tana region. In line with this, Sudini and Wiryani [51] asserted that networks formed by actors functioning at the same level of governance contribute to the establishment of sustainable partnerships between stakeholders.

In the Lake Tana region, the network between different stakeholder categories varied depending on the extent to which actors are interdependent. According to Derr [52], a network with a density value above 0.5 is considered high, moderate density is between 0.2 and 0.5, and low density consists of a value below 0.2. Since the network density in our study is 0.25 (Table 3), it is considered to be moderate. Networks with moderate density imply the presence of some balanced interaction between actors [53]. A moderate density often indicates that actors create connections or networks that suit their interests. Since some actors developed strong networks and others had little interaction, there was a certain extent of fragmentation in the local tourism governance network in the Lake Tana region. A weak interaction was observed among small-scale tourism businesses, non-tourism government institutions, and civil society organizations. Despite this finding of the present study, some non-tourism government institutions, such as the Amhara National Regional State Environment and Forest Protection Authority and the Amhara National Regional State Health Bureau, play a crucial role in maintaining the environmental qualities of tourist sites. Corresponding to this, Becken and Loehr [53] and Jamal and Stronza [54] emphasized that non-tourism government institutions contribute to strengthening tourism in promoting destination resources and improving infrastructure crucial for sustainable tourism development.

According to Provan and Kenis [55], there are three main types of governance structures in a network: centralized, decentralized, and network administrator. In the Lake Tana region, since actors share resources for fulfilling their interests and goals, the network structure is considered shared or decentralized, albeit with some limitations. Moreover, since stakeholders share complementary resources, the application of resource dependency theory was found to be an important standard or guiding tool crucial for examining and creating the local tourism governance network map.

7. Implications for Tourism Governance

7.1. Theoretical Implications

The findings of the present study indicated that the tourism government institutions and large tourism companies hold considerable power in controlling many tourism resources and influencing local tourism decisions. Power imbalance among actors reflects the need to exercise effective governance [27]. Stakeholders with limited power need to be adequately represented in local tourism decisions. Our study's findings shed light on how applying RDT and SNA can provide a robust insight into the local tourism governance network. As this study was the first in Ethiopia in terms of introducing methods and techniques of conducting stakeholder mapping and analyzing the governance networks, it can be used as a reference for future studies.

7.2. Practical Implications

To foster tourism governance at the destination level, destination administrators need to identify stakeholders based on their power and interest [17]. In this regard, the current study offers valuable insights. Since our study specified prominent actors involved in the local tourism governance, it enables destination managers to understand which local tourism stakeholders hold significant power and interest in tourism decisions in the Lake Tana region. Additionally, for tourism policymakers and planners, the findings of the present study are useful for identifying areas that require immediate policy interventions. The methods and techniques applied in this study can also serve as a reference for other destinations.

7. Conclusions

The main aim of the present study was to conduct a local tourism stakeholder map and examine the local tourism governance network. This study also scrutinized the nexus between stakeholder mapping and sustainable tourism development. Since the local tourism stakeholder map comprised actors with different levels of power and interests, it is helpful to devise appropriate stakeholder engagement strategies. Actors with high power and high interest play a significant role in local tourism governance. Hence, they need to be managed thoroughly to facilitate the local tourism governance process. Non-tourism government institutions with high power and low interest in tourism should be kept satisfied to promote their role in sustainable tourism governance. Tourism government institutions should develop an appropriate monitoring strategy to consider other tourism stakeholders with low power and interest in local tourism decisions. In addition, to improve local tourism governance with the participation of actors with low power and high interest, tourism government institutions should always consult them.

In the local tourism governance network map, some stakeholders, including civil society organizations, small tourism businesses, local communities, and non-tourism government institutions, have limited interactions. This, in turn, implies gaps in terms of resource sharing, communication, and coordination between actors. Therefore, tourism government institutions should introduce mechanisms to enhance the network between central actors and less-connected actors. It is feasible to involve and empower actors with fewer connections to reduce excessive resource dependence and prevent information asymmetry. Hence, encouraging the participation of local communities and civil societies in local tourism decisions would be substantial in enhancing tourism governance and sustainable tourism development. The mode of interaction among tourism government institutions was also hierarchical and primarily based on power dynamics. Accordingly, higher-level tourism government officials should establish a more democratic and flexible approach to involve lower-level tourism administrators operating at a destination level. Establishing effective communication channels facilitates the flow of information among tourism government institutions, civil society organizations, and the private sector. Moreover, destination administrators should implement effective strategies to ensure that stakeholders included in the local tourism stakeholder map actively contribute to the economic, socio-cultural, and environmental sustainability of tourist sites.

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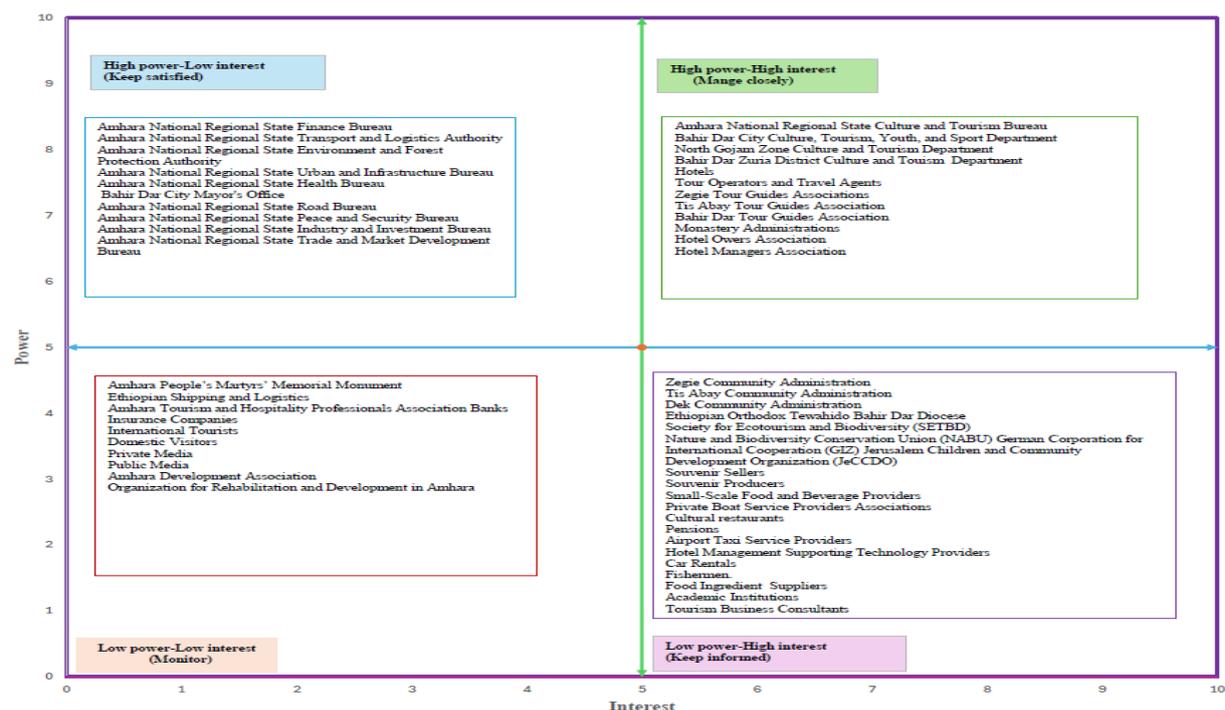
Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The current study comprised interviews, focus group discussions, and survey responses. The data generated for the study contains context-specific insights. As such, the datasets are not publicly available. However, anonymized data can be made available from the corresponding author upon reasonable request.

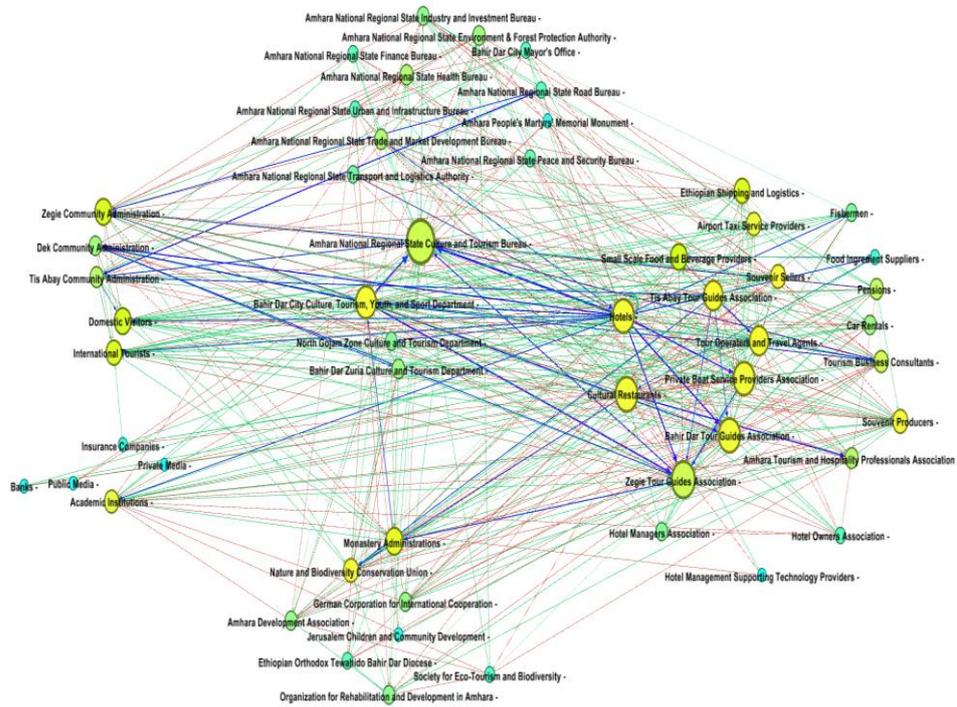
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Appendix One: A Comprehensive Local Tourism Stakeholder Map



Appendix Two: A Detailed Local Tourism Governance Network Map



Legend

- Large nodes: Represent actors with a strong impact on local tourism decisions.
- Small nodes: Signify actors with minimum impact on local tourism decisions.
- Nodes at the top of the stakeholder map: Indicate non-tourism government institutions.
- Nodes on the left side: Represent local community administrations, domestic visitors, international tourists, and other supporting institutions.
- Nodes at the center of the stakeholder map: Government institutions related to tourism.
- Nodes on the right side: Represent tourism businesses.
- Nodes at the bottom: Represent local and international civil society organizations.
- Thick edges or arrows: Reveal the existence of strong interactions between actors.
- Thin or broken edges or arrows: Show weak interaction between actors.
- Color: Indicates the presence of different actors.

Appendix Three: Degree of Centrality (DC) report

| No. | List of actors | Raw degree | Normalized degree |
|-----|--|------------|-------------------|
| 1 | Amhara National Regional State Culture and Tourism Bureau | 46 | 0.87 |
| 2 | Bahir Dar City Culture, Tourism, Youth, and Sport Department | 43 | 0.81 |
| 3 | Hotels | 41 | 0.77 |
| 4 | Zegie Tour Guides Association | 35 | 0.66 |
| 5 | Cultural Restaurants | 34 | 0.64 |
| 6 | Bahir Dar Tour Guides Association | 31 | 0.58 |
| 7 | Private Boat Service Providers Association | 28 | 0.53 |
| 8 | Tour Operators and Travel Agents | 28 | 0.53 |
| 9 | Tis Abay Tour Guides Association | 24 | 0.45 |
| 10 | Monastery Administrations | 20 | 0.37 |
| 11 | Ethiopian Shipping and Logistics | 19 | 0.36 |
| 12 | Amhara National Regional State Environment and Forest Protection Authority | 18 | 0.34 |
| 13 | Tourism Business Consultants | 17 | 0.32 |
| 14 | Souvenir Sellers | 16 | 0.30 |
| 15 | Domestic Visitors | 16 | 0.30 |
| 16 | Souvenir Producer | 15 | 0.28 |
| 17 | Small-Scale Food and Beverage Providers | 14 | 0.26 |
| 18 | Airport Taxi Service Providers | 14 | 0.26 |
| 19 | Nature and Biodiversity Conservation Union | 13 | 0.25 |
| 20 | Pensions | 13 | 0.25 |
| 21 | International Tourists | 13 | 0.25 |
| 22 | Amhara National Regional State Health Bureau | 12 | 0.23 |
| 23 | Bahir Dar Zuria Culture and Tourism Department | 11 | 0.21 |
| 24 | Hotel Managers Association | 11 | 0.21 |
| 25 | Zegie Community Administration | 11 | 0.21 |
| 26 | North Gojam Zone Culture and Tourism Department | 10 | 0.18 |
| 27 | Amhara National Regional State Trade and Market Development Bureau | 10 | 0.19 |
| 28 | Amhara National Regional State Peace and Security Bureau | 10 | 0.19 |
| 29 | Ethiopian Orthodox Tewahido Bahir Dar Diocese | 10 | 0.19 |
| 30 | Bahir Dar City Mayor's Office | 9 | 0.17 |
| 31 | Car Rentals | 8 | 0.15 |
| 32 | Amhara Tourism and Hospitality Professionals Association | 8 | 0.15 |
| 33 | Amhara National Regional State Transport and Logistics Authority | 7 | 0.13 |
| 34 | Amhara National Regional State Road Bureau | 6 | 0.11 |
| 35 | Amhara National Regional State Industry and Investment Bureau | 6 | 0.11 |
| 36 | Amhara National Regional State Urban and Infrastructure Bureau | 6 | 0.11 |
| 37 | Academic Institutions | 6 | 0.11 |
| 38 | Fishermen | 6 | 0.11 |

| | | | |
|----|---|------------|------|
| 39 | Amhara Development Association | 6 | 0.11 |
| 40 | Tis Abay Community Administration | 5 | 0.09 |
| 41 | Hotel Owners Association | 5 | 0.09 |
| 42 | Dek Community Administration | 5 | 0.09 |
| 43 | Food Ingredient Suppliers | 5 | 0.09 |
| 44 | Insurance Companies | 5 | 0.09 |
| 45 | Organization for Rehabilitation and Development in Amhara | 5 | 0.09 |
| 46 | Society for Eco-Tourism and Biodiversity | 5 | 0.09 |
| 47 | Amhara National Regional State Finance Bureau | 5 | 0.09 |
| 48 | Amhara People Martyrs' Memorial Monument | 4 | 0.08 |
| 49 | German Corporation for International Cooperation | 4 | 0.08 |
| 50 | Banks | 4 | 0.08 |
| 51 | Hotel Management Supporting Technology Providers | 3 | 0.05 |
| 52 | Private Media | 2 | 0.04 |
| 53 | Public Media | 2 | 0.04 |
| 54 | Jerusalem Children and Community Development Organization | 2 | 0.04 |
| | Total number of actual edges or connections | 712 | |

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