Forest restoration with area exclosure has the hopeful restoration strategy for nature conservation and social development goals as a countermeasure against deforestation and forest degradation. However, the status of these restoration interventions is not well known with scientific evaluation. Thus, this study aimed to evaluate the social and institutional status of forest restoration with area exclosures. To do this, three districts in three agroecologies were selected purposively based on exclosure availability, and in each district, three exclosures were selected. The questionnaire survey was administered to households near the selected exclosures for both user and nonuser groups selected with simple random sampling. Required data were collected and analyzed by descriptive and inferential statistics and then compared against the best practices of Ostrom's design principles (ODPs). The result revealed that the local community has good trust and participation in highland (63%) and mid-altitude (70%) areas, but low trust and participation in lowland areas (85%). In the highland and mid-altitude areas, local communities have the right to use exclosure for multiple uses. In lowland areas, the use right is very restricted for local communities. Exclosure institutions and governance showed medium compliance in the highland, very good compliance in mid-altitude, and very poor compliance in the lowland with the ODP. This was triangulated when 79% of the respondents in highland and 82% in mid-altitude argued that area exclosure is successful and 82% of respondents argued that area exclosure is failed in the lowland. For successful and sustainable forest restoration practice with area exclosure, the approach should start at the bottom and the activity should require the full participation of the local community in all stages.

1. Introduction

Deforestation has long-term local and global effects such as climate change and biophysical changes that in turn have environmental, social, and economic impacts with the immediate effects on the communities that depend on forests for part or their entire livelihood [1]. This calls urgent intervention by different approaches such as restoration of cleared and degraded forest with area exclosure [2]. Danano [3] explains that area exclosure and protecting an area of open grazing land from human use are an important practice in Ethiopia to permit natural rehabilitation, enhanced by additional vegetative and structural conservation measures.

Forest restoration as area exclosure has the hopeful restoration strategy in get-together both nature conservation and economic development goals [4]. According to the above scholar, degraded forests under area exclosure in Ethiopia are bringing social, economic, and ecological benefits to the participating communities. According to Kidu et al. [5], communities downstream of the protected forest have better access to water for their livestock, thereby increasing the livestock productivity of the communities. Additionally, forest under are exclosure provides timber and poles for construction and fuelwood and to serve as a windbreak, boundary markers, and for stabilizing river banks and controlling soil erosion for the entire community near the protected forest [5].
There are many forest restoration practices with area exclosure in the northern degraded lands of Ethiopia. However, their status is not well known whether area exclosure is successful or not in terms of economic and social gains. This is because there are limited synthesis and methodological research to develop indicators and evaluation criteria. Due to this, the determinants for success and failure of forest restoration with area exclosure were not identified in the study areas.

Thus, this research is designed to evaluate the status of enclosures on social and institutional status after passive restoration intervention of area exclosure. Therefore, this study was designed to determine social and institutional factors for the success of forest restoration with area exclosure in the study areas and then compare the resilience of current management of exclosure when evaluated against Ostrom’s design principles (ODPs).

2. Theoretical Framework

Most natural resources in Ethiopia [6] are the common resources without any management intervention, which leads to the tragedy of the commons. The tragedy of the commons is a situation where all have access and shared the resources, which resulted in high depletion of resources [7]. To solve this situation, two scientists [7, 8] have a contrasting idea that Hardin believes the solution is dividing the resources and converting them to private resources, while Ostrom said the best solution for the tragedy of the commons is common pool resource management. Most scientists [6, 9–12] support Ostrom’s design principles.

Thus, for this research Ostrom’s design principle (ODP) was applied. The principles have not only the strategy of managing the common pool resources but also show evaluation of the successes and failure of the common pool resource management with community organization and participation. Mainly, the ODP has set out 8 principles for the evaluation of whether the organized community have successfully managed the common resources or not. These are biophysical extent; institutions and local rules; collective choice of actions; monitoring and evaluation; conflict resolving mechanism; graduate sanctions; the right to organize; and work nested within larger networks.

These principles have been applied in different studies [6, 11–16] around the world. This is why this research applied the principles to evaluate the institutions organized for forest restoration with area exclosure to avert the tragedy of the commons.

3. Methodology

3.1. Description of the Study Area. The study was conducted in Waghemira and Semen Wollo Zones, in three agroecologies (lowland, mid-altitude, and highland) in the Amhara Region (Figure 1). It is located between 12°15′ north latitude and 39°17′34 east longitude. Waghemira is an administrative zone in eastern Amhara having six districts namely Sekota, Dehana, Gizgilba, Abergele, Sihala, and Ziquala. Sekota Town, the capital of the zone, is 720 km north of Addis Ababa and 540 km northeast of the regional state capital, Bahir Dar [17]. Lasta District is one of the administrative districts in Semen Wollo Zone, which is geographically located between 123°3′31″ N latitude and 39°0′30″ E longitude (Figure 1 and Table 1).

3.2. Sampling Procedure and Data Collection. Three districts in different agroecological zones were selected purposively. The districts were Abergele (lowland), Sekota (mid-altitude), and Lasta (highland). The criteria for selection were the presence of exclosure intervention and their accessibility. Then, in each agroecology (district), three area enclosures were selected. The questionnaire survey was used to collect data on selected socioeconomic and institutional characteristics. Respondents were selected by simple random sampling. Key informants were selected purposively for the interview. The proportion of the respondents was 10% of the total population in the study site. Based on this, 48, 40, and 45 respondents were interviewed in the highland, mid-altitude, and lowland areas, respectively. Three group discussions having seven members and seven key informants were interviewed in each agroecologies. Social, economic, and institutional indicators were measured by structured questionnaires and interviewing the key informants, and group discussion about the area exclosure activities in the study areas.

3.3. Data Analysis. Social and economic institutional indicators were analyzed based on Ostrom [19], Fisher [20], and Unger’s [4] principle of effective participatory forest management. Then, finally, the data were tested with SPSS Vr. 25.

4. Results

4.1. Motivation and Levels of Participation in Area Exclosure. There were a high significant difference and association ($p < 0.000$) of participation within and among the agroecologies. High participation with the reason and level of participation was observed in highland and mid-altitude (>75%) enclosures, but low participation in lowland enclosures (69%). The respondents in highland and mid-altitude areas participated in area enclosure practices for ecological and economic use, but in lowlands community participation was for incentives. In highland and mid-altitude areas, respondents participated at the planning stage led by the decision-makers, while in lowland enclosures the participation is after planning as a consultancy and information giving and most respondents were not participated (Table 2).

4.2. Economic Indicators of Area Exclosure in the Study Areas. There were a high significant difference and association ($p < 0.000$) of economic benefit within and among the enclosures at different agroecology. Most respondents in highland and lowland areas (69%) persuade that the area exclosure is used for cutting and carrying grass, while in mid-altitude areas (78%) exclosure is important for seasonal crop production, honey production, fattening, and cut and
carry grass for landless youth. For most respondents in the highland, exclosure supports their livelihood, and in mid-altitude, it improved their livelihoods, but in the lowland parts, the exclosure does not change their livelihoods (Table 3).

4.3. Successfulness of Area Exclosure Based on Ostrom’s Design Principles. Based on Ostrom [19], Fisher [20], and Unger’s [4] design principles, formal and informal institutions organized for area exclosure should be evaluated by the clearly stated boundary, organization of the members, decision-making, local rules and institutions, monitoring, and management, conflict, and penalties.

4.4. Clearly Defined Boundary (Biophysical Extent). There was a clearly defined biophysical resource boundary at highland and mid-altitude area exclosures. The community have a map with a land certificate, and the boundary was well-defined for users (are the organized local community who are the member of area exclosure) and nonusers (are the

### Table 1: Characteristics of the study area [18].

| Attributes       | Highland          | Mid-altitude     | Lowland          |
|------------------|-------------------|------------------|------------------|
| Altitude (m.a.s.l.) | 2129 to 3600      | 1340 to 2200     | 500 to 1300      |
| Rainfall (mm)    | 500 to 1000       | 350 to 700       | 250 to 750       |
| Temperature (°C) | 24.5              | 16 to 27         | 23 to 43         |
| Soil             | Eutric Cambisols (51%) | Umbric Leptosols (52%) | Eutric Leptosols (29%) |
| Agroecology      | Dega (52.7%)      | Woyena Dega (65%) | Dry Kolla (55%)  |
| Topography       | Chain of mountains, hills, ad cliffs |                      |                  |
| Vegetation       | Bushy woodlands and forest only at churches |                      |                  |

![Map of the study site](image)
local communities who are not the member of area exclosure). However, in lowland areas, there is no clearly defined biophysical resource boundary of area exclosure and the boundary is not well-defined (Table 4).

4.5. Institutions and Local Rules. There were a high significant difference and associations (p < 0.000 and 0.013) of the presence of institutions, types of intuitions, and who have established the instructions within and among the exclosures in different agroecologies. Above 72% of the respondent agreed that local institutions have legally signed local bylaws in all agroecologies. Most of the institutions (>72%) were formal institutions led and organized by the government in a top-down approach (Tables 5 and 6).

There were a high significant difference and associations (p < 0.000) of the presence of local bylaws, legally signing, and community trust within and among exclosures at the different agroecologies (Tables 6 and 7). Confidentally in all agroecology, most respondents argued that there is no problem of law and legal problem; however, in lowland exclosures, there was low trust with local bylaws.

| Characteristics | Categories | Participation | Frequency | Chi-square (X²) |
|-----------------|------------|---------------|-----------|----------------|
| Have you participated in forest restoration works? | Yes | 48 | 48 |
| Mid-altitude | No | 30 | 40 | 35.47* (df = 2; p < 0.000) |
| Lowland | 19 | 23 | 42 | |
| Total | 97 | 33 | 130 | |

| Characteristics | Categories | For all benefit | Frequency | X² |
|-----------------|------------|----------------|-----------|----|
| If say “yes” for participation why you have participated? | Highland | 27 | 48 |
| Mid-altitude | 25 | 10 | 5 | 7.8* (df = 2; p < 0.099) |
| Lowland | 26 | 18 | 1 | 45 | *significant at 0.1 level |
| Total | 78 | 48 | 7 | 133 | |

| Characteristics | Categories | At beginning | At implementation | After implementation | Information giving | Consultation only | Frequency | X² |
|-----------------|------------|--------------|-------------------|----------------------|-------------------|-----------------|-----------|----|
| At the level of participation, you have engaged | Highland | 17 | 14 | 6 | 10 | 1 | 48 | 66.3* (df = 10; p < 0.000) |
| Mid-altitude | 16 | 10 | 5 | 0 | 9 | 40 | | |
| Lowland | 5 | 0 | 4 | 13 | 23 | 45 | | |
| Total | 38 | 24 | 15 | 23 | 33 | 133 | | |

Table 2: Social indicators for area exclosure.

Table 3: Benefits of area exclosure.

| Variables | Response | Highland (n = 48) | Mid-altitude (n = 45) | Lowland (n = 40) |
|-----------|----------|-------------------|-----------------------|------------------|
| Economic benefits | Cut and carry grass | 68.8 | 7.5 | 66.7 |
| | Fuelwood | 10.4 | 7.5 | 22.2 |
| | Timber | 4.2 | 7.5 | 11.1 |
| | Honey production, crop, fattening, and grass | 16.7 | 77.5 | 0.0 |
| | \(X² = 44.3^* (df = 8; p < 0.000)\) | | | |
| Livelihood change | Yes | 31.3 | 40 | 13.3 |
| | Support | 37.5 | 22.5 | 11.1 |
| | No | 20.8 | 5 | 55.6 |
| | Negative impact | 10.4 | 7.5 | 20.0 |
| | \(X² = 55.016^* (df = 9; p < 0.000)\) | | | |

Table 4: Biophysical extent of area exclosure at different agroecologies.
4.6. Collective Choice of Actions. There were a high significant difference and associations ($p < 0.000$) of local community freedom to take actions and self-organization, within and among the exclosures at different agroecologies. Mid-altitude user groups have to some extent better collective choices of actions; however, highland and lowland user groups have been ordered and led by the government and the officials (Table 8).

In the highland and lowland exclosures, the rule and all decisions are from top to down approach. The user groups have the right to add but not reduce the local bylaws. They do have not regular meeting times for decision-making and solving conflicts (Table 9).

4.7. Monitoring and Evaluation. The user groups in all agroecologies have the responsibility of controlling and managing the area exclosure. More than 79% of respondents in highland and mid-altitude areas agreed that the exclosure status was evaluated by the government at the district and community level. They evaluated based on vegetation cover, grass biomass, and protection from encroachment (Figure 2).

There were a high significant difference and associations ($59.5 * (df = 2; p < 0.000)) of local community response of whether the exclosures were successful or not based on the participatory evaluation. Based on the ecological, social, economic, and institutional setup of area exclosure, most

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**Table 5: Institutions of area exclosure.**

| Variables               | Response | Highland ($n = 48$) % | Mid-altitude ($n = 45$) % | Lowland ($n = 40$) % |
|-------------------------|----------|-----------------------|---------------------------|----------------------|
| Institutions            | Yes      | 79.2                  | 72.5                      | 77.8                 |
|                         | No       | 20.8                  | 70                        | 22.2                 |
| $X^2 = 21.4.016$ (df = 2; $p < 0.000$) * significant at 0.01 level |
| Type of institution     |          |                       |                           |                      |
| Senbete                 | Formal   | 72.9                  | 75                        | 62.2                 |
| Mahiber                 |          | 16.7                  | 12.5                      | 8.9                  |
| $X^2 = 12.6$ (df = 4; $p < 0.000$) * significant at 0.05 level |
| Who organized the       | Government | 81.3                  | 62.5                      | 77.8                 |
| institutions            | Self-organized  | 18.8                  | 37.5                      | 22.2                 |
| $X^2 = 38.9$ (df = 6; $p < 0.000$) * significant at 0.01 level |

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**Table 6: Local rules and institutions of area exclosure in the study area.**

| Principles          | Highland | Mid-altitude | Lowland |
|---------------------|----------|--------------|---------|
| Local rule and      |          |              |         |
| institutions        | (i) Have local rules and institutions | (i) Have local rules and institutions | (i) They have local rules and institutions |
|                     | (ii) But led and organized by the government | (ii) The rules and institutions developed and organized by the participation of members | (ii) But weak and led by the government |
| Evaluation          | Medium   | Strong       | Very weak (absent) |

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**Table 7: Local bylaws.**

| Categories                  | Highland | No | Frequency | $X^2$ |
|-----------------------------|----------|----|-----------|-------|
| Have your institution local bylaws |          |    |           |       |
| Highland                    | 48       | 0  | 48        |       |
| Mid-altitude                | 31       | 7  | 38        |       |
| Lowland                     | 39       | 0  | 39        |       |
| Total                       | 118      | 7  | 125       |       |
| $X^2 = 16.9$ (df = 2; $p < 0.000$) * significant at 0.01 level |

| Have you trusted and truly acted in the local bylaws? | Highland | No | Frequency | $X^2$ |
|-----------------------------------------------------|----------|----|-----------|-------|
| Highland                                            | 48       | 12 | 50        |       |
| Mid-altitude                                        | 29       | 7  | 36        |       |
| Lowland                                             | 38       | 0  | 38        |       |
| Total                                               | 115      | 7  | 122       |       |
| $X^2 = 31.24$ (df = 2; $p < 0.000$) * significant at 0.01 level |

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respondents (>72%) said that area exclosure is successful in the highland and mid-altitude areas, but most respondents (>82%) in lowland areas perceived that area exclosure is failed (Figure 3).

4.8. Conflicts and Resolving Mechanism: Graduated Sanctions. The high conflict was recorded in the highland and lowland, while the low occurrence of conflict was recorded in the mid-altitude areas. The conflict was solved by negotiation with elders and local committee in all agroecologies. Most respondents argued that there are penalties for violation of local bylaws in all agroecologies (Figure 4 and Table 10).

There were a high significant difference and associations (58.05* (df = 2; p < 0.000) of conflicts, penalties, and conflict resolving mechanisms) of locally organized community for area exclosures within and among the agroecology (Figure 4).

4.9. The Right to Organize. In highland and lowland areas, members were organized by the government, while in mid-altitude areas the members were organized by themselves and then facilitated by the government. In terms of the ownership security, in highland and mid-altitude areas, the members have a land certificate for use right forever but not ownership right. In lowland areas, they have no use and
ownership right still. In mid-altitude areas, the landless youth have the hope to benefit but are frustrated that state change may affect their investment (Table 11).

5. Discussion

5.1. Motivation and Levels of Participation in Area Exclosure. The local communities in the highland and mid-altitude areas have good participation (>75%) in exclosure practices. Mulugeta & Achenef [21] and Mohammed Kasim et al. [22] in the northern and central rift valley of Ethiopia argued a similar idea that the majority of the local people also expressed positive attitude and have high participation towards the rehabilitation activities through exclosure. However, there was low participation in lowland areas; even some participants take part after the decision for only incentives during the meeting and conservation works. Birhane [23] in the West Amhara Region reasoned a similar argument that the local communities and most of the people have negative views about exclosure and they feel disadvantaged because of the exclosures. People argued that the exclosure losses culturally and spiritually valuable places, reduction in grazing areas, and fewer opportunities to harvest fuelwood and dung.

5.2. Economic Indicators of Area Exclosure in the Study Areas. In the highlands and lowland areas, there was a high conflict of interest among user groups and the government (>71%). This is because the right to use and becoming user group in an exclosure in the highland exclude landless youths. In lowland areas, the local community has restricted to use right only fuelwood collection of dead woods. Even, cut and carry grasses collected by the local community have been given to the kebele administrations in the lowland exclosures. In mid-altitude exclosures, there was a low conflict because of the members, and the right to use is given to landless youths. Mengistu Tekerra et al. [24] realize that the issue of benefit, equitable distribution among community members, and security of ownership are the basis for the development and success of area exclosure and good attitude and trust in forest restoration with area exclosures.

As Mammo [25] apart from the biodiversity and soil quality improvement, the local community has benefited from the exclosure in the form of forage for livestock by the cut and carry system and farmland protection from clotting with silt and mud from the upper catchments. This has developed a positive attitude by the local communities towards exclosure development. Standing from this, the respondents (69%) in highland areas said that area exclosure supports our livelihood, while in mid-altitudes, 63% of the respondent said that the area exclosure supports and improves our livelihood. However, in lowland areas, most respondents argued that the area exclosure does not improve our livelihood.

5.3. Institutions of Area Exclosure Against Ostrom’s Design Principles

5.3.1. Clearly Defined Boundary. All organized communities in highland and mid-altitude areas managing the forest restoration practices in all agroecology have clear boundaries with a legally prepared map. However, there is still boundary conflict, which has made the lagging of forest restoration successful. In lowland areas, the boundary is not clear, which is a means of conflict between users and nonusers. This is one of the determining factors for the unsuccessfulness of forest restoration. This idea is similar to [11, 15] that clear boundary is a key principle for successful forest restoration with community participation, which makes distinct uses of resources between users and nonusers. This indicates a clear and define resource boundary reduced the probability of conflict is occurrence. According to [26] well-defined community boundaries in common-pool resource management distinct access and use rights of users and nonusers which increases the chances of management success. Furthermore, the study by [27, 28] used Ostrom’s design principle for the institutional evaluation of common-pool resource management and argued that clearly defined boundary of the natural resources identifies the use and owner rights leading to the successfulness of the resources management in organized communities.

5.3.2. Institutions and Local Rules. The institutions, local bylaws, trust, conflicts, and the conflict resolving mechanism affect the successfulness and development of area exclosure. Most respondents (77–87%) perceived that all exclosure has local bylaws, which are legally signed. However, the most proportion of respondents from the population argued that the government in the top-down approach developed the local bylaws (Table 6). In terms of trust in institutions and local bylaws, most respondents (73–75%) in mid-altitude and highland areas have high trust, while in lowland areas, the local community (60%) have no trust in local bylaws and institutions (Table 7). Yami et al. [29] argued that in northern Ethiopia the village bylaws should be respected and aware of their importance to the communities to address forest degradation. Village bylaws prevented overexploitation of forest resources by facilitating users to have common goals in the management of exclosure and defining users who have access to the exclosure. If local rules are not aware and accepted by local people, bylaws were not effective in meeting the high expectations of users to get economic
benefits from exclosure. Biophysically, there is some improvement in lowland areas, but the institutions are weak to implement the local bylaws. Local people and members of exclosure should be benefited, but it is not in the lowland areas. The presence and sustainability of institutions with strong local bylaws make a clear difference in whether the area exclosures are successful or not. The experience in different parts of the world [28] shows that the common pool resource management without an organized community is not successful.

5.3.3. Collective Choices of Action. In highland and lowland areas, the user groups have the right to add to the local rule but not minimize the rule formulated by the government at the official level, while in mid-altitude areas the local rules
and institutions were developed by the discussion with members. Group members must be able to create at least some of their own rules and make their own decisions by consensus [13].

In mid-altitude areas, the member and local communities have the power of decision-making guided by professionals at the kebele level. The user groups have the right to add but not reduce the local bylaws. They have a monthly meeting of the committee and the user groups and have an annual meeting like the general assembly. In particular, in highland and lowland areas the economic and institutional conditions are not examined, while in mid-altitude areas the institution and economic condition of exclosure are evaluated annually (Figure 2). In the highland areas, the management plan was prepared at the district level and the members applied that plan guided by kebele officers, while in mid-altitude areas the management plan of area exclosure was developed and applied by the full participation of members. However, there is no management plan for lowland areas. This is why in the highland and mid-altitude areas, the social, economic, and institutional setups for exclosure are to some extent strong. In these areas, local communities and user groups have the use right. There is a strong institutional setup to implement the benefit and cost-sharing and local bylaws. Thus, the local community develops a sense of ownership and control of the exclosure. This makes area exclosure successful to achieve conservation and social development goals. If there are no strong institutions with legally signed local bylaws and a lack of benefit to local communities, the community has not cared for violations of local bylaws. This leads to the exclosure that became failed. However, as Stanturf et al. [30] restoration success is tremendous, which means difficult to detect or grasp by the mind or analyzed. It depends on the history of land uses, institutions and local rules, community trust, acceptance and participation, government priority, and reference sites.

5.3.4. Monitoring and Evaluation. In all agroecologies, some guards protected the exclosure employed by the government. However, there are high livestock and human encroachment in the lowland areas. The guards are employed by the government so the members have no right to control guards in repeated violation of local bylaws (Table 12). This shows that users of organized community for forest restoration with area exclosures have no freedom to evaluate and monitor the resources, which make low trust and reduced the sense of the ownership. If the user groups have low trust and limited participation, the restoration may not be successful. The research by [31] argued a similar idea that freedom of local decision-makers enhances the successfulness of forest restoration with area exclosures as a common pool resource management. It makes the local communities more empowered, develops trust, and becomes actively participated, and finally, the restoration becomes successful with ecologically sound, economically profitable, and widely accepted.

The mid-altitude and highland area exclosure institutions have relatively the right to evaluate and monitor their biophysical resources. However, the institutions in the lowland exclosures have no freely monitoring and evaluate the biophysical resources (Table 12).

### Table 12: Monitoring and evaluation of area exclosure in the study areas.

| Principles | Highland | Mid-altitude | Lowland |
|------------|----------|--------------|---------|
| Monitoring and evaluation | (i) The resource protected by guards employed by the government | (i) The resource protected by guards employed by the user groups | (i) The resource protected by guards employed by the government |
| | (ii) The user does not control the guard in repeated encroachment | (ii) So, they have the right to control guard for repeat encroachment | (ii) The user does not control the guard in repeated encroachment |
| | (iii) Exclude landless youth who makes repeated violations | (iii) The users are only landless youths | (iii) Biophysical condition evaluated by the government with not clearly stated criteria |
| | (iv) Biophysical condition evaluated by the government with not clearly stated criteria | (iv) Biophysical condition evaluated by the members guided by professionals | (iv) Biophysical condition evaluated by the government with not clearly stated criteria |
| | (v) But they have not stated criteria to evaluate the biophysical, social, and institutional strength | (v) They monitor their cost and benefit and have the account book | (v) Still, the members have not used right |
| | (vi) The benefit is for the kebele administration | | (vi) The benefit is for the kebele administration |
| Evaluation | Medium | Very good | Very weak (absent) |

5.3.5. Conflict, Resolving Mechanism, and Graduate Sanction. In lowland and highland area exclosures, there were repeated violations of local bylaws. The repeated violators have not that much punished, which makes the high conflict in addition to excluding landless youths from user groups. In mid-altitude area exclosures, the user groups were landless youths and there is a high graduate sanction up to excluding from user groups. Thus, the chance of occurring conflict was limited. The conflicts in all area exclosures were solved with negotiation mostly and sometimes with local rules. The elite elders take lead in conflict resolution with indigenous solving mechanisms. Thus, the exclosures in mid-altitude areas were in good compliance than lowland and highland exclosures. Most global and regional evaluations [13, 27, 28] of institutions organized for common pool resource management argued that repeated violations, graduate sanctions, and conflict resolution mechanisms are the best principles to determine whether the resource management is successful or not. The conflict must be solved quickly with indigenous knowledge; otherwise, the institution and local rules may decline and the resources become the tragedy of the commons again.
5.3.6. The Right to Organize. The model area exclosure institution in terms of the condition of the organization is mid-altitude area exclosure, in which the user groups were organized by the government with their interest, and they have the right to ask for additional resources and support. This makes them take the resources as their resources and have a great commitment to take responsibilities with revenues. However, lowland and highland area exclosures were weak in terms of self-mobilization, which means the user groups were organized by the government and did have not the right to ask, and were not self-organized. This makes reservation among and within the user groups, which finally leads to the decline of the institution and the resources too. Similarly, [13] argued that user groups for common pool resource management must have the authority to conduct their activities for active and strong participation in resource management for the success of averting the tragedy of the commons. Furthermore, [26, 27] argued that self-mobilization and organization of local communities for common pool resource management increase trust and participation, which achieves the goal of common pool resource management.

Generally, based on Ostrom’s design principles (ODPs), exclosure in the highland is in medium compliance with the ODP, and strong and very good compliance with the ODP was observed in the mid-altitude area exclosures. The governance structure in the lowlands showed very poor compliance with the ODP. This was triangulated when 79% of the respondents in highland and 82% in mid-altitude argued that area exclosure is successful, compared with the lowland where 82% of respondents argued that area exclosure is not successful [32].

6. Conclusion and Recommendation

There are good participation and trust of local communities for area exclosure in highland and mid-altitude areas but not in lowland areas. This is because of economic benefit and institutional strength in mid-altitude and highland areas. As a result, in highland and mid-altitude areas of exclosure the user groups and local communities are supported and improved. This develops a positive attitude of the local community towards area exclosure. However, in lowlands, the biophysical condition of area exclosure is good, but there are no strong institutions, and the benefits are not distributed for user groups. Thus, the local community in this area has a negative attitude and does not sense responsibility for exclosure practices. Thus, the area exclosure is weak and it became failed.

Based on Ostrom’s [19] design principles (ODPs), exclosure in the highland is in medium compliance with the ODP, and strong and very good compliance with the ODP was observed in the mid-altitude areas. The governance structure in the lowlands showed very poor compliance with the ODP. This was triangulated with the respondents in highland and mid-altitude that claimed area exclosure is successful, compared with the lowland that area exclosure is failed. Therefore, forest restoration with area exclosure is the best-degraded forest restoration tool with a strong intuitive, economic, and social setup.

In the highland areas, area exclosure supports and improves the local communities and the local community has good participation and trust. The institution is in good condition based on Ostrom’s design principle. However, there is a high occurrence of conflict due to user rights. Their bylaw and institution exclude landless youth from user groups. Therefore, the landless youth should become a user group for successful and sustainable forest restoration. The other problem in the highland area is that the institution organized for area exclosure is mostly formal institutions organized by the government. Informal institutions such as “Mahiber and Senbete” should be participated in strong and sustainable institutions. In mid-altitude areas, exclosure supports and improves the local communities and the local community has good motivation and trust. The institution is a very good condition based on Ostrom’s design principle. The members are landless youth and have high government support. In this area, the members have the right to the production of seasonal cropping. The livestock for cropping practice moves into the exclosure during rainy season. This time is a critical time for natural regeneration. Thus, the livestock may be injured by the seedlings and soil condition by browsing and trampling. Thus, care and professional advice should take during seasonal crop production.

In lowland areas exclosure, there were low participation and trust of local people. This is because the local communities and user groups are not yet benefited. The institution is in a weak condition based on Ostrom’s design principle. This resulted in the institutions for area exclosure do not meet the ecological and human well-being objectives. Thus, first of all, the benefit should be shared for the local community and user groups. The user groups should be get used right. The institution should be renewed and strengthened.

Generally, for successful and sustainable forest restoration practice with area exclosure, it should follow the following strategies: the approach should start at the bottom, which means that the activity should require the full participation of the local community starting with site selection, planning, and final evaluation and building a strong institutional setup first; before starting the restoration practices, the factors should identify and prepare the appropriate plan and state that the technique and approach depend on identified factors, which means state solution for determinant before starting the activity; after the exclosure is applied, indicators should be selected and the practice is evaluated; and successes and failure factors should be identified and then finally the failure practice taking experiences from successes factors are improved.

Further, the research will be required on the ecosystem goods and services of the forest under area exclosure.

Data Availability

The data will be shared upon authors request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.
**Supplementary Materials**

The provided Excel contains the data. *(Supplementary Materials)*

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