

# Assessing the Role of Community Participation in the Success of Ethiopia's Green Legacy Initiative: Evidence from Sibu Sire Woreda, Oromia Regional State

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**Abstract:** *The Green Legacy Initiative (GLI) has become a flagship environmental program in Ethiopia, aiming to restore degraded landscapes, enhance biodiversity, and promote sustainable economic development through large-scale tree planting. This study assessed the contribution of community participation in the Green Legacy Initiative to economic development in Sibu Sire Woreda, East Wollega Zone, Oromia, Ethiopia. A mixed-methods research design was employed, integrating quantitative survey data from 198 respondents with qualitative data collected through key informant interviews. Descriptive and inferential statistical analyses, including Pearson correlation, independent sample t-tests, and multiple regression analysis, were conducted using SPSS Version 24, while qualitative data were analyzed thematically. The findings revealed a high level of community awareness and participation in the initiative, primarily motivated by environmental conservation and government support. Community participation, supported by development agents, significantly contributed to environmental restoration, improved livelihoods, and local economic development. However, the effectiveness of the initiative was constrained by inadequate technical capacity, limited administrative support, insufficient training, weak monitoring systems, and climate-related challenges affecting tree survival. The study concludes that sustained community engagement, strengthened institutional support, enhanced capacity building, and effective monitoring mechanisms are essential for maximizing the socioeconomic and environmental benefits of the Green Legacy Initiative. The study recommends strengthening extension services, improving governance and stakeholder coordination, and integrating the initiative with broader rural development and climate resilience strategies to ensure its long-term sustainability.*

**Keywords:** *Green Legacy Initiative, community participation, economic development, environmental sustainability, reforestation, climate resilience, sustainable development, Ethiopia.*

## 1. INTRODUCTION

Climate change has become one of the most pressing global environmental challenges, requiring collective efforts to reduce environmental degradation and promote sustainable development. In response, the Paris Agreement of 2015 emphasized the importance of reducing greenhouse gas emissions, strengthening climate resilience, and supporting developing countries in climate adaptation efforts (United Nations, 2015). Ethiopia has responded to these global challenges through initiatives such as the Green Legacy Initiative (GLI), which aims to restore degraded landscapes, enhance ecosystem services, improve livelihoods, and strengthen climate resilience through large-scale tree planting and environmental restoration (Gebretsadik & Uaiene, 2026; Gosa, 2026). The initiative contributes to biodiversity conservation, watershed protection, soil conservation, and the achievement of Sustainable Development Goals (Corbett & Mellouli, 2017).

Despite the growing recognition of green restoration programs, their success largely depends on effective community participation and stakeholder engagement. Previous studies have shown that green initiatives contribute positively to climate change mitigation, environmental protection, and

ecosystem restoration (Razzaq et al., 2023; Ali et al., 2021; Trees for All, 2023). Community participation plays a critical role in ensuring sustainable planning, implementation, monitoring, and maintenance of natural resource management programs (Chadha, 2001). However, empirical evidence regarding the level of community involvement and factors affecting participation in Ethiopia's Green Legacy Initiative remains limited, particularly at the local level.

Ethiopia has developed national strategies, including the Climate Resilient Green Economy (CRGE) and the National Forest Sector Development Program, to address forest degradation and enhance the contribution of forests to economic, social, and environmental development (MEFCC, 2018). Since its introduction in 2019, the Green Legacy Initiative has resulted in the planting of billions of seedlings across the country, contributing to climate change adaptation, ecosystem restoration, and livelihood improvement (Ministry of Agriculture, 2022). However, challenges related to environmental awareness, stakeholder coordination, institutional capacity, and long-term maintenance of planted trees continue to affect the sustainability of such initiatives (FAO, 2021).

Therefore, this study examines community participation in the implementation of the Green Legacy Initiative in Sibu Sire Woreda, East Wollega Zone, Oromia Regional State, Ethiopia. Specifically, the study assesses community involvement during the planning, implementation, and monitoring stages of the initiative and identifies factors affecting effective participation. The findings will contribute to improving community-based environmental management practices and strengthening the sustainability of Ethiopia's green development efforts.

### 1.2. Research Questions

1. To what extent does community participation in the Green Legacy Initiative contribute to economic development in Sibu Sire Woreda?
2. What are the key factors affecting community participation in the Green Legacy Initiative in Sibu Sire Woreda?
3. What strategies can enhance community participation in the Green Legacy Initiative to promote sustainable environmental protection and livelihoods in Sibu Sire Woreda?

### 1.3. Objectives of the Study

#### General Objective

The general objective of this study was to examine community participation in the Green Legacy Initiative and its contribution to economic development in Sibu Sire Woreda, East Wollega Zone, Ethiopia.

#### Specific Objectives

- 1) To assess the extent of community participation in the Green Legacy Initiative and its contribution to economic development in Sibu Sire Woreda.
- 2) To identify the key factors affecting community participation in the Green Legacy Initiative in Sibu Sire Woreda.
- 3) To identify strategies for enhancing community participation in the Green Legacy Initiative to promote sustainable environmental protection and livelihoods in Sibu Sire Woreda.

## 2. MATERIALS AND METHODS

### 2.1. Research Design

This study employed a mixed-methods research approach combining quantitative and qualitative methods to obtain a comprehensive understanding of the research problem. The mixed-methods approach integrates the strengths of both approaches and helps overcome the limitations of using a single method (Creswell, 2013). A descriptive and explanatory research design was used to describe the characteristics of the study phenomenon and examine relationships among variables. According to Kothari (2004), explanatory research helps identify and explain relationships between variables, while descriptive research focuses on systematically describing existing conditions. The research design provided a framework for data collection, measurement, and analysis to achieve the study objectives (Kothari, 1985).

### 2.2. Data and Data Sources

This study used both primary and secondary data sources. Primary data were collected from household heads and Kebele leaders selected through stratified random sampling, while secondary data were obtained from government offices, relevant reports, publications, and websites. Quantitative data covered household characteristics and socio-economic variables, whereas qualitative data focused on access to resources, information services, land, water, and seedlings.

### 2.3. Sampling Technique and Procedure

In order to minimize variation within sampling procedures, a multi-stage sampling strategy was used in this study to choose sample homes and sample Kebeles. One sub town inside Sibu Sire Woreda was deliberately chosen for the initial stage based on the local population. Second stage, selected sub town comprises four Kebeles namely B.Jima (6,373 Peoples), Lelise (4703 Peoples), C/Jalale (3917 Peoples) and C/Jarso (3871 Peoples) all of them were purposefully chosen because of the larger population (Table 1). In the third stage, 202 homes were selected from the selected kebeles using the probability proportional sampling (PPS) technique, using stratified random selection for urban agriculture participants and simple random sampling for non-participants.

### 2.4. Determination of Sample Size

The sample size was calculated using a Simplified Formula for Proportions. Yamane (1967) offers a simplified formula for determining sample sizes. The sample sizes were determined using this formula. The Yamane (1967) formula for calculating an appropriate sample size from a given population at a 95% confidence level, 0.5 degrees of variability, and 7% accuracy level was used to determine the sample size.

$$n = \frac{N}{1 + e^2 (N)} \quad (1)$$

Where

n = the sample size

N = the total household heads e = the level of precision.

Based on the above formula 202 household heads were selected by the researcher.

Therefore:

$$n = \frac{N}{1 + e^2 (N)} \quad (2)$$

$$n = \frac{18,864}{1 + 0.07^2 (18,864)} \quad (3)$$

$$n = 202$$

### 2.5. Data collection and management

#### Data collection tools

The researcher used primary and secondary data sources to properly accomplish the study's aims. This study's major source of data serves as its foundation. Using questionnaires and interviews, primary data was gathered from households and stakeholders in the Sibu Sire Woreda Kebeles. Secondary sources of information were collected from both published and

unpublished sources, including a variety of documents, yearly reports, directives, and books on related topics. The survey research method was utilized for this study's data gathering since it is a suitable way to gauge respondents' attitudes and opinions. Questionnaires and interviews were the methods utilized to obtain data from sample respondents. To make the interview and questionnaire easier for the respondents to understand, they were created in English and translated into Afan Oromo.

### Data analysis and interpretation

Both quantitative and qualitative data analysis methods were employed to address the research objectives. Quantitative data were analyzed using SPSS Version 24 through descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (correlation and regression analysis). Qualitative data collected through interviews were analyzed thematically, and the findings were integrated with the quantitative results.

### Data quality control

A week prior to the real data collection process, a pretest of the questionnaires and interview guide was conducted to assess the feasibility of the intended study, and significant adjustments were made in response. Ten percent of the entire sample in the chosen Kebele (at list two) was used to test the questionnaires.

*Table 1:* Respondent's sex

| Sex    | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|-----------|---------|---------------|--------------------|
| Male   | 141       | 71.2    | 71.2          | 71.2               |
| Female | 57        | 28.8    | 28.8          | 100                |
| Total  | 198       | 100.00  | 100.00        |                    |

Source: Own survey

The findings in Table 2 show that 141 respondents (71.2%) were male, while 57 respondents (28.8%) were female. This indicates that male participation was considerably higher than female participation in the study area. The result may reflect gender disparities in participation in environmental and community-based development activities, where men often have greater involvement in decision-making and public affairs.

### Respondent's Age

Table 2 presents the age distribution of the respondents. The analysis was conducted to describe the demographic profile of

### Ethical considerations

The Woreda and Kebele leaders granted ethical approval, and Ethiopian Civil Service University wrote a letter of cooperation for the researcher. Prior to the individuals receiving the questionnaire, their individual consent was requested. They were informed about the study's objectives, the reasons behind their selection, and the opportunity to ask any questions they might have during the consent procedure. By avoiding the use of personal identifiers and analyzing the data in aggregates, participants were reassured about the confidentiality of the information collected from them.

## 3. RESULTS AND DISCUSSION

### 3.1. Demographic information

The demographic information considered in the study was the respondent's sex, marital status, age, Household size, level of Educational attainment and work experience.

### Sex distributions of the respondents

Table 2 presents the distribution of respondents by sex. This analysis was conducted to describe the demographic characteristics of the study participants and to determine the level of male and female representation in the survey.

This finding is consistent with previous studies that reported lower female participation in natural resource management and environmental programs due to socio-cultural and economic factors (Agarwal, 2001; FAO, 2021). From the perspective of participatory development theory, inclusive participation of both men and women is essential for achieving sustainable and effective community-based environmental initiatives.

the study participants and determine the representation of different age groups in the survey.

**Table 2 :** Respondent's Age

| Age         | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| 18-25years  | 45        | 22.7    | 22.7          | 22.7               |
| 26-35 years | 86        | 43.4    | 43.4          | 66.1               |
| 36-45 years | 38        | 19.2    | 19.2          | 85.3               |
| 46-55 years | 23        | 11.6    | 11.6          | 96.9               |
| 56 + years  | 6         | 3       | 3.1           | 100                |
| Total       | 198       | 100     | 100           |                    |

Source: Own survey

The findings in Table 3 indicate that the majority of respondents, 86 (43.4%), were between the ages of 26 and 35, followed by 45 (22.7%) aged 18–25, 38 (19.2%) aged 36–45, 23 (11.6%) aged 46–55, and only 6 (3.1%) aged 56 years and above. This suggests that the study was dominated by economically active and productive age groups who are more

likely to participate in environmental conservation and community development activities. The finding is consistent with previous studies showing that younger and middle-aged adults tend to have higher participation in community-based natural resource management due to their greater physical capacity and active involvement in local development initiatives (FAO, 2021; Pretty, 1995).

### 3.2. Distribution of respondents according to the length of period lived in the area.

Table 3 presents the distribution of respondents according to the length of time they have lived in the study area. This

information helps assess respondents' familiarity with the local environment and the Green Legacy Initiative.

**Table 3 :** Distribution of respondents according to the length of period lived in the area.

| Length of periods lived | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------|-----------|---------|---------------|--------------------|
| Less than 6             | 24        | 12.1    | 12.1          | 12.1               |
| 6-10                    | 49        | 24.7    | 24.7          | 36.8               |
| 11-15                   | 61        | 30.8    | 30.8          | 67.6               |
| 16-20                   | 52        | 26.3    | 26.3          | 93.9               |
| Above 20 years          | 12        | 6.1     | 6.1           | 100                |
| Total                   | 198       | 100.0   | 100.0         |                    |

Source; survey 2017

The results in Table 6 show that 61 respondents (30.8%) had lived in the area for 11–15 years, followed by 52 (26.3%) for 16–20 years, 49 (24.7%) for 6–10 years, 24 (12.1%) for less than 6 years, and 12 (6.1%) for more than 20 years. This indicates that most respondents had lived in the area for a considerable period, suggesting they possess adequate

knowledge and experience regarding local environmental conditions and community activities. This finding is consistent with participatory development theory, which emphasizes that long-term residents are more likely to contribute meaningful information and actively participate in community-based environmental management (Pretty, 1995).

### 3.3. Survey response on the awareness and participation of the community on Green Legacy Initiative.

The following table presents respondents' awareness of the Green Legacy Initiative (GLI) and the primary sources through which they obtained information about the program. This analysis helps assess the level of public awareness and the effectiveness of communication channels.

**Table 4** Survey response on whether they have heard about the Green Legacy Initiative before and how?

| No | Description                                       | Response                                      | Frequency | Percentage | Total |
|----|---------------------------------------------------|-----------------------------------------------|-----------|------------|-------|
| 1  | Have you heard about the Green Legacy Initiative? | Yes                                           | 189       | 95.4%      | 198   |
|    |                                                   | No                                            | 9         | 4.6%       |       |
| 2  | How did you learn about it?                       | Local administration                          | 66        | 30.3%      |       |
|    |                                                   | Media                                         | 82        | 41.4%      |       |
|    |                                                   | Community meetings                            | 42        | 21.2%      |       |
|    |                                                   | Others (social plat forms like Facebook etc.) | 8         | 4.1%       |       |

Source: Own survey, 2018

The findings show that 189 respondents (95.4%) had heard about the Green Legacy Initiative, while only 9 (4.6%) had not. Among those who were aware, the majority obtained information through the media (41.4%), followed by local administration (30.3%) and community meetings (21.2%). This indicates that awareness of the initiative is high, with mass media serving as the primary source of information. The finding is consistent with the Diffusion of Innovation Theory, which

### 3.4. Role of D'As in facilitating, supporting, and sustaining GLI.

The following table presents respondents' perceptions of the role of Development Agents (DAs) in facilitating, supporting, and sustaining the Green Legacy Initiative (GLI). It assesses the

**Table 5:** Role of D'As in facilitating, supporting, and sustaining GLI.

| No | The level of current community participation on green legacy initiatives on economic development in your Kebele. | N     | Mean | SD   | t-value | Sig (2tailed) |
|----|------------------------------------------------------------------------------------------------------------------|-------|------|------|---------|---------------|
| 1  | Motivation of community to participate on green legacy initiatives.                                              | N=198 | 4.33 | 0.56 | 0.64    | 0.52          |
| 2  | The presence of D'As who can explain the impact of community participation on green legacy initiatives.          | N=198 | 3.44 | 0.64 | 0.46    | 0.74          |
| 3  | Support of D'As to community with participate on green legacy initiatives to carry out practical activities.     | N=198 | 4.02 | 0.46 | 0.67    | 1.87          |
| 4  | The implementation of protection methods in preventing deforestation by D'As in the Kebele.                      | N=198 | 2.89 | 0.43 | 1.22    | 0.56          |
| 6  | Enough on job training for D'As .                                                                                | N=198 | 3.89 | 0.48 | 0.76    | 0.57          |
| 7  | Sufficient administrative support from Kebele Administration on green legacy participation.                      | N=198 | 3.46 | 0.24 | 3.21    | 1.12          |

emphasizes the role of effective communication channels in increasing awareness and encouraging participation (Rogers, 2003). It also supports previous studies showing that media and local government institutions play a significant role in promoting community participation in environmental conservation initiatives (FAO, 2021; Bekele & Hailu, 2025).

contribution of DAs in promoting community participation and strengthening the implementation of green legacy activities.

|    |                                                                                                                                  |       |      |      |      |      |
|----|----------------------------------------------------------------------------------------------------------------------------------|-------|------|------|------|------|
| 8  | All D'As have sufficient awareness about the impact of community participation on green legacy initiatives.                      | N=198 | 2.56 | 0.57 | 2.09 | 0.98 |
| 9  | Enough time is allocated to support community.                                                                                   | N=198 | 3.44 | 0.46 | 0.87 | 0.65 |
| 10 | The presence of trained D'As in green legacy initiatives (Natural resource).                                                     | N=198 | 3.56 | 0.45 | 0.87 | 0.37 |
| 11 | The attitude of D'As that all community can learn the role of participation on green legacy initiatives in economic development. | N=198 | 3.11 | 0.32 | 1.11 | 0.67 |
| 12 | The ability of D'As to identify the level of community participation on green legacy initiatives?                                | N=198 | 2.22 | 0.45 | 0.87 | 0.54 |
| 13 | The capability of D'As to use a variety of approaches to help community participation on GLI.                                    | N=198 | 2.57 | 0.6  | 0.92 | 0.74 |

**Significant level = 0.05, t-critical value = 1.97, Sig (2-tailed) = P, Mean scores 1-1.80 = very low, 1.81-2.60 = low, 2.61-3.40 = moderate, 3.41-4.20 = high, and 4.21-5.00 = very high**

The findings indicate that respondents rated community motivation (M = 4.33) and the practical support provided by Development Agents (M = 4.02) as the strongest contributors to community participation in the Green Legacy Initiative. Most of the remaining indicators received high to moderate mean scores, suggesting that DAs play an important role in awareness creation, technical support, and capacity building. However, lower ratings for DAs' awareness (M = 2.56), their ability to identify participation levels (M = 2.22), and the use of diverse participation approaches (M = 2.57) indicate areas requiring improvement. These findings support participatory development theory, which emphasizes that effective facilitation and local capacity building are essential for

successful community-based environmental programs (Pretty, 1995). They are also consistent with empirical studies showing that well-trained extension workers significantly enhance community participation and the sustainability of environmental initiatives (Budhathoki, 2010; Jalleta, 2021).

The following table presents respondents' perceptions of the contribution of Development Agents (DAs) in promoting community participation in the Green Legacy Initiative. It assesses the effectiveness of DAs in providing technical support, awareness creation, training, and administrative facilitation for successful implementation of the initiative.

**Table 6:** Response on the role of D'As

| No | The level of current community participation on green legacy initiatives on economic development in your Kebele. | 5           | 4          | 3          | 2          | 1          |
|----|------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|------------|------------|
| 1  | Motivation of community to participate on green legacy initiatives.                                              | 102 (51.5%) | 89 (44.9%) | 7 (3.6%)   | --         | --         |
| 2  | The presence of D'As who can explain the impact of community participation on green legacy initiatives.          | 52 (26.3%)  | 78 (39.4%) | 46 (23.2%) | 10 (5.0%)  | 12 (6.1%)  |
| 3  | Support of D'As to community with participate on green legacy initiatives to carry out practical activities.     | 99 (50%)    | 67 (33.8%) | 12 (6.1%)  | 9 (4.5%)   | 11 (5.6%)  |
| 4  | The implementation of protection methods in preventing deforestation by D'As in the Kebele.                      | 8 (4.1%)    | 25 (12.6%) | 68 (34.3%) | 54 (27.3%) | 43 (21.7%) |
| 6  | Enough on job training for D'As .                                                                                | 67 (33.8%)  | 45 (22.7%) | 46 (23.2%) | 22 (1.1%)  | 18 (0.9%)  |

|    |                                                                                                                                  |             |             |            |            |            |
|----|----------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|------------|------------|------------|
| 7  | Sufficient administrative support from Kebele Administration on green legacy participation.                                      | 51 (25.7%)  | 74 (37.4%)  | 31 (15.7%) | 29 (14.6%) | 13 (6.5%)  |
| 8  | All D'As have sufficient awareness about the impact of community participation on green legacy initiatives.                      | 16 (8.1%)   | 22 (11.1%)  | 36 (18.2%) | 68 (34.3%) | 56 (28.3%) |
| 9  | Enough time is allocated to support community.                                                                                   | 44 (22.2%)  | 34 (39.17%) | 72 (36.4%) | 31 (15.6%) | 17 (8.6%)  |
| 10 | The presence of trained D'As in green legacy initiatives (Natural resource).                                                     | 16 (8.08%)  | 23 (11.6%)  | 68 (34.3%) | 54 (27.2%) | 37 (18.7%) |
| 11 | The attitude of D'As that all community can learn the role of participation on green legacy initiatives in economic development. | 24 (12.12%) | 19 (9.6%)   | 63 (31.8%) | 56 (28.3%) | 36 (18.2%) |
| 12 | The ability of D'As to identify the level of community participation on green legacy initiatives?                                | 19 (9.6%)   | 26 (13.1%)  | 24 (12.1%) | 66 (33.3%) | 63 (31.8%) |
| 13 | The capability of D'As to use a variety of approaches to help community participation on GLI.                                    | 32 (16.2%)  | 39 (19.7%)  | 32 (16.2%) | 50 (25.3%) | 45 (22.7%) |

N.B: Mark (✓) in the corresponding box for each of the following: 5 = very high, 4 = high, 3 = undecided, 2 = low, and 1 = extremely low.

The findings indicate that respondents highly valued community motivation (51.5%) and the practical support provided by DAs (50.0%) in implementing the Green Legacy Initiative. However, respondents reported relatively low performance in the implementation of deforestation protection measures, the awareness of all DAs, and their ability to assess participation levels, suggesting gaps in technical capacity and institutional support. These findings imply that while DAs have contributed to mobilizing communities, strengthening training,

administrative support, and monitoring systems is essential for improving program effectiveness. This result supports participatory development theory, which emphasizes that skilled facilitators and institutional support are fundamental for sustainable community participation (Pretty, 1995), and is consistent with empirical studies highlighting the importance of extension services and capacity building in environmental conservation programs (Budhathoki, 2010; Jalleta, 2021; Abdurezak et al., 2026).

### 3.5. Reactions on the contribution of Kebele administrators in GLI.

The interview findings indicate that Kebele administrators perceive community participation in the Green Legacy Initiative (GLI) to be generally high, with strong farmer engagement and awareness contributing to the implementation of the program. Respondents also reported encouraging performance in tree protection and community involvement in conservation activities. However, the effectiveness of implementation is constrained by limited in-service training, weak administrative support, inadequate incentives, and insufficient access to resources, which reduce the long-term sustainability of the initiative.

The findings suggest that although the Green Legacy Initiative has achieved considerable community acceptance, strengthening institutional capacity remains essential for improving its effectiveness. These results are consistent with participatory development theory, which emphasizes that effective local governance, continuous capacity building, and stakeholder support are critical for sustainable environmental management (Pretty, 1995). Similarly, previous studies have shown that adequate training, institutional support, and community awareness are key determinants of successful environmental conservation programs (FAO, 2021; Ministry of Agriculture, 2022).

### 3.6. Level of community understanding about participation in GLI.

The interview findings reveal that community participation in the Green Legacy Initiative (GLI) extends beyond environmental conservation and contributes to local economic development. Key informants indicated that community members actively participate in tree planting, seedling protection, and land restoration activities, which improve soil fertility, conserve water resources, and create opportunities for sustainable livelihoods through forest and non-timber products.

The informants also emphasized that Development Agents (DAs) play a vital role in mobilizing communities, raising awareness, and providing technical support. These findings are consistent with previous studies showing that active community participation and effective extension services enhance the sustainability of environmental restoration programs and improve local livelihoods (Samuel & Stubbs, 2013; Lambert & Deyganto, 2024; Kim et al., 2025).

### 3.7. Strategies used to mobilize the community.

The interview findings indicate that community mobilization for the Green Legacy Initiative is primarily achieved through

awareness creation, mass participation campaigns, and strong support from local government structures. Key informants

explained that Kebele administrators, Development Agents (DAs), schools, community gatherings, and the media play a significant role in encouraging community participation. They also emphasized that community ownership, local leadership, and active involvement of government officials strengthen accountability and sustain participation in tree planting and

### 3.8. Response on what are the major limitations of the initiative and what strategies would improve effectiveness of GLI.

The following section presents respondents' views on the major limitations of the Green Legacy Initiative (GLI) and the strategies required to improve its effectiveness. It also summarizes the overall contribution of community involvement. **Table 7** . An overview of the impact of community involvement.

environmental conservation activities. These findings are consistent with previous studies showing that effective community mobilization, local leadership, and stakeholder engagement are critical for the success of large-scale environmental restoration programs (Gebretsadik & Uaiene, 2026; MA, 2025).

participation to environmental and socioeconomic outcomes in the study area.

| Impact Area               | Role of Community Involvement     | Result in Sibu Sire Woreda                                    |
|---------------------------|-----------------------------------|---------------------------------------------------------------|
| Tree persistence & growth | Local care & nursing              | Higher survival rates, reduced deforestation                  |
| Soil & water conservation | Community-led land repair         | Decreased erosion and increased soil fertility                |
| Socioeconomic resilience  | Jobs in nurseries, agroforestry   | Employment of women and youth, a variety of sources of income |
| Climate mitigation        | Planting trees and storing carbon | Participation in the Paris Agreement and CRGE                 |
| Awareness & stewardship   | Mobilization and education        | Greater accountability for the environment                    |

The findings indicate that the major limitations of the Green Legacy Initiative include implementation gaps, inadequate follow-up and monitoring, limited training, resource shortages, weak institutional coordination, and low community ownership. Respondents emphasized that improving seedling survival, strengthening capacity building, enhancing community ownership, improving resource provision, and integrating GLI with broader rural development strategies would significantly improve the initiative's effectiveness. The overview further shows that active community participation has contributed to higher tree survival, improved soil and water

### 5. Conclusion and Recommendation

Ethiopia is currently the world's largest tree-planting nation. Ethiopia's prime minister introduced the GLI, a massive tree-planting initiative. Dr. Abiy Ahmad in 2019 with the goal of lessening the effects of climate change and enhancing forests' contribution to the nation's green economy. The study's primary focus was on how community involvement affected GLI's effectiveness in Sibu Sire Woreda. The particular objectives included analyzing the roles of local community engagement in GLI projects at the Woreda level and assessing the extent of citizen participation in different phases of the GLI projects initiative at the Woreda and Kebele levels and its impact on the initiative's efficacy. One of the study's main accomplishments was persuading local officials to value and include citizens in decisions and development issues related to their well-being. The study also looked at other academics' perspectives on

conservation, increased employment opportunities, climate change mitigation, and greater environmental awareness. These findings support participatory development theory, which emphasizes that sustainable environmental management depends on strong community ownership and institutional support (Pretty, 1995), and are consistent with previous studies highlighting the importance of capacity building and stakeholder collaboration for successful restoration initiatives (Bekele & Hailu, 2025; FAO, 2021).

community involvement and the literature on assessing community involvement in GLI initiatives.

Over all at both the national and regional levels, the GLI is effective in involving many societal groups. According to the result from this current study as it was stated by above 75% of the respondents. The last seven tree-planting events have involved a variety of social groups, including young and old, men and women, literate and illiterate, etc. Seasonal rainfall, carbon sequestration, water protection, mitigating the effects of climate change and improving ecosystem services, financial benefits from reforestation and afforestation programs, revenue from both timber and non-timber products, livelihood improvement, and the ability to fulfill national and international restoration and reforestation commitments are just a few of the opportunities offered by the GLI in the Woreda.

## 5.1. Conclusions

The study concludes that community participation is a fundamental determinant of the success of the Green Legacy Initiative (GLI) in Sibu Sire Woreda. Active involvement of local communities has significantly contributed to environmental restoration through improved tree survival, reduced soil erosion, enhanced soil fertility, and the rehabilitation of degraded land. The initiative has also generated important socioeconomic benefits by creating employment opportunities, particularly for women and youth, while promoting agroforestry and diversified livelihood opportunities. Furthermore, community participation has

## 5.2. Recommendations

Based on the findings and conclusions, the following recommendations are proposed to enhance community participation and improve the effectiveness of the Green Legacy Initiative (GLI) in Sibu Sire Woreda.

- Strengthen community participation through continuous awareness creation, environmental education, and inclusive decision-making to foster local ownership of the initiative.
- Improve monitoring and evaluation by conducting regular baseline and follow-up assessments, emphasizing tree survival rates, land restoration, and community participation rather than focusing only on the number of seedlings planted.
- Enhance the capacity of Development Agents (DAs), kebele administrators, and community leaders through continuous technical training on ecological restoration, climate adaptation, and participatory resource management.
- Increase institutional collaboration among local governments, schools, cooperatives, religious institutions, and community organizations to improve coordination and ensure the long-term sustainability of the initiative.
- Promote livelihood-oriented green interventions by integrating agroforestry, fruit trees, and other income-generating activities that provide direct economic benefits while encouraging environmental conservation.
- Strengthen governance and accountability by improving communication between communities and local authorities, establishing community-based monitoring committees, and ensuring transparent implementation of GLI activities.
- Utilize modern technologies such as GIS, satellite imagery, and digital monitoring systems to assess changes in forest cover, land restoration, and environmental outcomes over time.
- Conduct comparative and longitudinal studies across different kebeles and woredas to identify best practices, evaluate long-term impacts, and support evidence-based improvements in the implementation of the Green Legacy Initiative.

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strengthened climate change mitigation efforts by supporting Ethiopia's Climate Resilient Green Economy (CRGE) strategy and its commitments under the Paris Agreement. The study also found that the initiative has enhanced environmental awareness, community ownership, and collective responsibility for natural resource conservation. Overall, sustaining the Green Legacy Initiative requires continued community engagement, strengthened institutional support, and effective stakeholder collaboration to ensure long-term environmental sustainability and local economic development.

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