

# The Impact of Low Payment Wages on Somalia's Agricultural Workers: A Case Study in Afgoye, Lower Shabelle, Somalia

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## Abstract

Agriculture is the backbone of Somalia's economy, employing more than 80% of the population and contributing substantially to national GDP and exports (FAO, 2011). However, agricultural laborers remain among the lowest-paid workers, perpetuating poverty and food insecurity in rural communities. This study examines the impact of low payment wages on agricultural workers in Afgoye, Lower Shabelle, Somalia, focusing on the factors driving wage suppression, the socio-economic consequences, and potential policy interventions. A descriptive quantitative design was utilized, targeting a population of 100 individuals, including farm workers, agronomists, and educators. Using the Krejcie and Morgan sampling table, 80 respondents were randomly selected. Data were collected through structured questionnaires on wage levels and household challenges and analyzed using SPSS version 26 with descriptive statistics. Results indicate that 67.5% of respondents earn between USD 3 and 5 per day, insufficient to meet basic needs. Contributing factors include weak labor laws, outdated tools, lack of unionization, poor infrastructure, and cultural norms. These conditions have led to widespread poverty, malnutrition, and limited access to healthcare and education. The study recommends comprehensive labor reforms, modernization of farming practices, infrastructure investment, and social protection measures to enhance rural livelihoods and promote sustainable agricultural development.

## Keywords

Agricultural Wages, Rural Poverty, Afgoye, Somalia, Labor Laws

## 1. Introduction

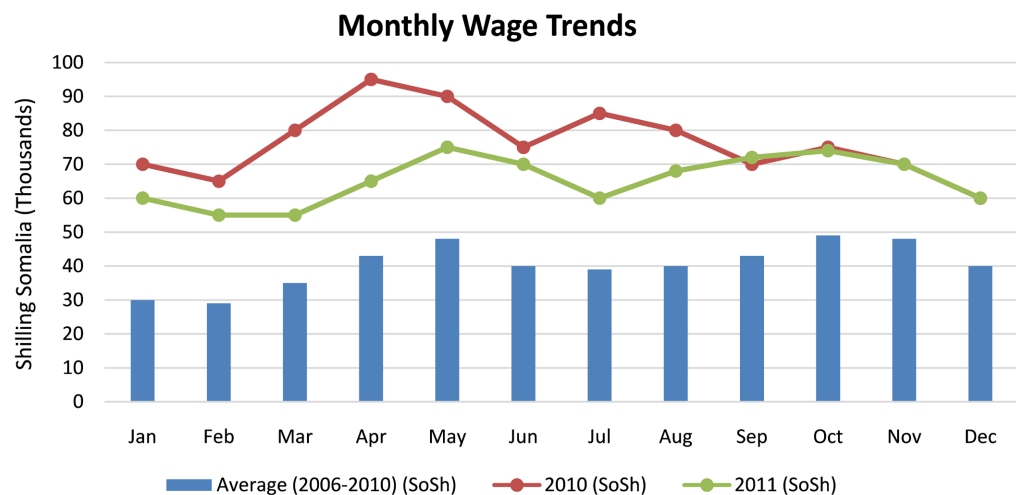
Agriculture and pastoral livestock remain the backbone of Somalia's economy, contributing approximately 65% of GDP, 80% of employment, and 90% of exports (European Union, 2010; Federal Republic of Somalia, 2013). The sector sustains rural livelihoods, particularly in fertile regions such as Lower Shabelle, where both subsistence and commercial farming dominate. Key crops include sorghum, maize, cowpea, bananas, and sugarcane, serving both local consumption and export markets. Despite this centrality, agricultural workers remain among the lowest-paid in the economy. Studies and market surveys confirm that daily wages in rural Somalia average USD 3 - 5 per day, a level insufficient to meet basic needs (FSNAU, 2013; World Bank Group, 2024). Given Somalia's Agro-ecological zones, the climate ranges from desert in the north-east (coastal areas of the Gulf of Aden and Darror basins) to moist semi-arid in the majority of the Juba and Shebelle River basins in the south and mountainous parts near the Gulf of Aden in the north-west (Basnyat, 2007). Southern Somalia's key agricultural zones are distinguished by a diverse range of farming practices. Subsistence rainfed farming is frequent, often as part of Agropastoral arrangements with farm sizes ranging from 2 to 4 hectares. Small-scale irrigation and oasis farming are also common, as are commercial farming, which is often large-scale and substantially reliant on irrigation. These various systems contribute significantly to the region's agricultural productivity (Aquastat, 2005). Farming relies heavily on outdated tools and traditional techniques, constraining productivity (FAO Somalia, 2011; Abdi-Soojeede, 2018).

Globally, agricultural wage laborers constitute one of the most vulnerable labor groups. Of the estimated one billion people working in agriculture, about 450 million are wage laborers, often earning substantially less than industrial workers while facing informality, poor working conditions, and limited protections (Hurst et al., 2007; ILO, 2021). As many as 70% of the poor continue to live in rural areas, the majority of whom get part or all of their income from agricultural pursuits. Millions of small and mainly impoverished farmers live in or near poverty (McCalla, 2001). In Sub-Saharan Africa, casual agricultural workers are disproportionately underpaid and exposed to informality and weak labour protections (ILO, 2010). In Uganda, many rural and horticultural workers earn wages well below local living-wage or subsistence benchmarks due to seasonal contracts and weak collective bargaining (Khan & Buyinza, 2019). In Ethiopia, gender norms and constrained access to inputs and services channel women into lower-paid tasks such as harvesting and weeding (Mulema & Damtew, 2016). In Kenya's export horticulture zones (e.g., Lake Naivasha), infrastructure and market constraints plus short-term hiring practices help explain insecure, low-paid casual work (Ulrich, 2014).

These regional examples provide important parallels for Somalia, where fragile statehood, conflict, and climate variability converge to create a structurally weak labor market. Somalia's rural wage dynamics are shaped by a combination of

structural, institutional, and cultural constraints. The absence of enforceable labor laws and minimum wage regulations leaves workers unprotected (World Bank Group, 2024; ILO, 2021). Repeated shocks have diminished household assets and reduced purchasing power, heightening the risk that more people will slip into poverty. In 2022, around 55% of the Somali population was living below the national poverty line. The 2022 Integrated Household Budget Survey revealed that poverty rates are particularly high among nomadic communities. However, due to the country's rapid urbanization, the majority of the impoverished population now resides in urban areas. Labor force participation rates are alarmingly low, with notable gender disparities: only about one-third of men and just 12% of women are engaged in the labor market. Nearly half of those employed live below the poverty line, indicating that the available jobs tend to be low in productivity (World Bank Group, 2024).

Such wage stagnation perpetuates poverty, malnutrition, and food insecurity, especially in districts such as Afgoye and Lower Shabelle, where seasonal labor demand fluctuates with rainfall patterns and shocks, including droughts or food-price spikes. While global research highlights factors such as weak labor laws, outdated technology, and cultural constraints in rural labor markets, few studies have examined how these structural and socio-economic factors interact specifically in the Afgoye context. This gap underscores the need for localized research to inform targeted policy interventions that address both wage inequities and their broader social impacts. (Figure 1)

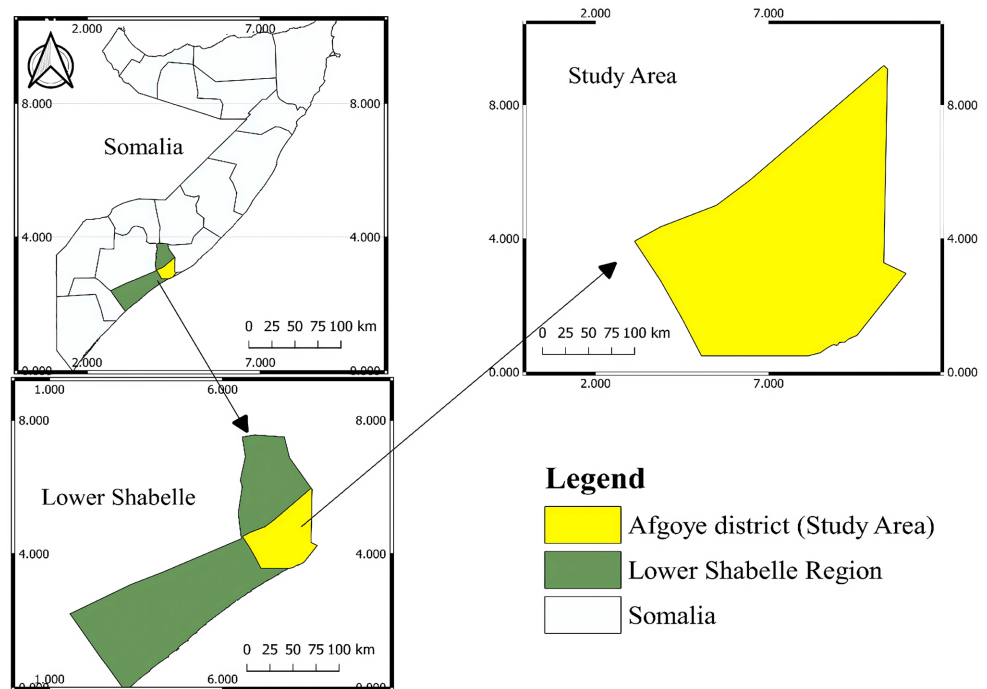


**Figure 1.** Daily labor wage rates in Lower Shabelle (Source, FSNAU, 2013).

Agricultural workers in Afgoye continue to face persistently low wages and seasonal income instability, conditions that perpetuate poverty, food insecurity, and restricted access to essential services. The purpose of this study is to investigate the underlying drivers of wage suppression, evaluate its socio-economic consequences, and recommend policy measures to enhance livelihoods and foster sustainable agricultural development in the region.

## 2. Methodology

This study employs a descriptive design and utilizes a quantitative research approach, focusing on collecting numerical data to generalize findings across different groups or to explain a specific phenomenon.



**Figure 2.** Study area (Afgoye district).

The research was conducted in Afgoye, located in the Lower Shabelle region of Somalia, during the Gu' season in 2023, which spans from April to June. Afgoye is a town in the Somali region of Lower Shebelle (Shabellaha Hoose). It serves as the administrative center for the Afgoye District. Afgoye is an agrarian town with large farming activities, and the Shabelle River passes through the town. Afgoye is the third largest city in the Southwest State. The population of Afgoye was estimated to be approximately 79,400 residents (Abdi-Soojeede, 2018). Afgoye is one of the oldest towns in the lower Shebelle Valley, located 30 kilometers north of Mogadishu, and our study has chosen a target population of about 100, including farm workers, agronomists, educators, and other academicians.

This study employed a purposive sampling strategy to select 80 respondents from the accessible population of agricultural stakeholders in Afgoye, primarily farm workers, along with agronomists and educators, because these groups possess direct, diverse, and context-specific knowledge of wage dynamics.

Primary data were gathered using structured questionnaires with closed-ended questions on wage levels, household challenges, and causes of low wages. Data were analyzed in SPSS Version 26 using descriptive statistics. Ethical standards were maintained through voluntary participation, informed consent, and confidentiality of responses. (Figure 2)

### 3. Results

#### 3.1. Demographic Profile

According to **Table 1**, most respondents (42.5%) were between 26 and 35 years old, while 33.8% were aged 18 to 25. Additionally, 10% were over 40 years old, 8.8% fell between 36 and 40, and 5% were under 18.

**Table 1.** Demographic data.

<b>Age of respondents</b>			
	Respondent	Frequency	Percent
Valid	Under 18	4	5.0
	18 - 25	27	33.8
	26 - 35	34	42.5
	36 - 40	7	8.8
	Above 40	8	10.0
	Total	80	100.0
<b>Gender of respondents</b>			
	Respondents	Frequency	Percent
Valid	Female	14	17.5
	Male	66	82.5
	Total	80	100.0
<b>Marital status of respondents</b>			
	Respondent	Frequency	Percent
Valid	Married	47	58.8
	Single	33	41.2
	Total	80	100.0
<b>The education level of respondents</b>			
	Respondent	Frequency	Percent
Valid	Informal	48	60.0
	Primary	9	11.2
	Secondary	3	3.8
	University	20	25.0
	Total	80	100.0
<b>Occupation of respondents</b>			
	Respondent	Frequency	Percent
Valid	Agronomist	12	15.0
	Farm worker	57	71.2
	Student	11	13.8
	Total	80	100.0

Continued

Wage per working day			
	Respondent	Frequency	Percent
Valid	\$0 - 3	13	16.2
	\$3 - 5	54	67.5
	\$5 - 7	6	7.5
	\$7 - 10	7	8.8
	Total	80	100.0

Notably, a large majority of the respondents, representing 82.5% (66 individuals), were male, while female respondents made up a smaller portion at 17.5% (14 individuals). The data also shows that most respondents (58.8%, or 47 individuals) were married, with 41.3% (33 individuals) single. Interestingly, 60% of respondents had informal education, 25% attended university, 11.2% completed primary school, and 3.8% had secondary education.

Regarding their occupations, a significant portion of the respondents (71.2%) identified as farm workers, while 15% were agronomists and 13.8% were students. When it comes to daily wages, the majority of respondents (67.5%) earned between \$3 and \$5. Meanwhile, 16.2% earned between \$0 and \$3, 8.8% earned between \$7 and \$10, and 7.5% earned between \$5 and \$7.

### 3.2. Reliability

Reliability refers to the consistency with which respondents answer the items in the questionnaire. Essentially, an instrument is deemed reliable if it consistently produces the same results when used multiple times to measure the same phenomenon, even by different researchers. In this study, a reliability test was conducted to assess the internal consistency of a set of scale items. Specifically, we used Cronbach's coefficient alpha to evaluate the reliability of the data. The Cronbach's alpha value ranges from 0 to 1, with values closer to 1 indicating greater reliability of the scale for our variables. As shown in **Table 2**, the Cronbach's alpha for this research was 0.832, demonstrating a strong level of reliability.

**Table 2.** Reliability of the data.

Reliability of the data		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.832	0.827	15

### 3.3. Comparative Analysis of Factors That Cause Low Payment Wages

As shown in **Table 3**, the impact of low payment wages on Somalia's agricultural workers varies among different respondents. The responses from the participants varied significantly within the target population, reflecting different levels of

agreement, including categories such as agreed, strongly agreed, neutral, disagree, and strongly disagree. Most respondents indicated that they agreed (48.8%), while 32.5% strongly agreed. Additionally, 13.8% remained neutral, 3.8% disagreed, and only 1.2% strongly disagreed, resulting in a mean score of 1.76. This variation in responses also highlights the concerns of small-scale farmers regarding the use of outdated technologies, such as hand hoes.

**Table 3.** Factors that cause low payment wages.

Descriptive statistics			
Factors that cause low payment wages	N	Mean	Std. Deviation
Low payment wages are caused by the absence or weak labor laws in the agricultural sector	80	1.76	0.917
Utilization of antiquated technologies such as the hand hoe	80	1.63	0.891
Low payment wages are simply a lack of Unionization in the agricultural sector	80	1.65	1.032
Poor infrastructure and illiteracy are contributing factors that cause low payment wages	80	1.84	1.012
Cultural Norms and expectation in the Agricultural Workforce	80	1.80	1.036
Valid N (listwise)	80		

The data shows that 55% of the farmers responded positively, with the largest group strongly agreeing (35%), followed by those who simply agreed. Some respondents rated multiple statements similarly, resulting in 7.5% disagreeing and another 7.5% strongly disagreeing. Lastly, 5% of participants remained neutral, leading to a mean score of 1.63.

Among the 80 respondents, the overall mean score was 1.65, with 61.2% agreeing and 23.8% (19 individuals) strongly agreeing, indicating a strong level of conviction among the smaller segment of respondents, accounting for 7.5% (6 individuals), who took a neutral position on the issue, while 3.8% expressed disagreement and another 3.8% strongly disagreed. The data reflect a mean score of 1.84, with 43.8% of respondents agreeing that poor infrastructure and illiteracy are significant factors contributing to low wage payments. Following this, 41.2% strongly agreed with the statement, while 6.2% remained neutral. Additionally, 5.0% of the respondents chose to disagree, and 3.8% strongly disagreed, indicating the least support for this viewpoint. In **Table 3**, the data show that 51.2% of the respondents agree that cultural norms and expectations within the agricultural workforce contribute to low wages. This is closely followed by 28.8% who strongly agreed with the same notion. Meanwhile, 11.2% were neutral, 6.2% disagreed, and 2.5% strongly disagreed, resulting in a mean score of 1.80.

### 3.4. Comparative Analysis of the Economic Impacts of Low Payment Wages

As indicated in **Table 4**, the majority of the respondents (52.5%) strongly agree that agricultural workers suffer low payment wages, (40.0%) agreed that farm workers are underpaid, (5%) were neutral, whereas (1.2%) and (1.2%) disagreed and strongly disagreed that agricultural laborers are paid poorly with a mean score of 1.76.

**Table 4.** Economic impacts of low payment wages.

Descriptive statistics			
Economic impacts of low payment wages	N	Mean	Std. Deviation
Agricultural workers suffer low payment wages	80	1.76	.917
Face difficulties in meeting basic household needs	80	1.63	.891
High prevalence of malnutrition in farmers	80	1.65	1.032
Inadequate market access or purchasing power	80	1.84	1.012
Difficulties to visit doctors and occurrences of endemic diseases such as malaria, Typhoid, etc.)	80	1.80	1.036
Valid N (listwise)	80		

The majority of the respondents (52.0%) strongly agreed that they have difficulties meeting basic household necessities. While (42.5%) of the respondents agreed, (2.5%) were neutral. The (1.2%) and (1.2%) responded as disagreed and strongly disagreed, respectively, with a mean score of 1.63. A high prevalence of malnutrition among farmers also exists, and the majority of the respondents (47.5%) agreed, and 32.5%) were strongly agreed. Some participants (11.2%) were neutral, and 2.5%) respondents disagreed that farmers have a significant prevalence of malnutrition. Whereas (6.2%) were adamantly opposed, believing that farmers do not suffer a high frequency of malnutrition, with a mean score of 1.65.

Per **Table 4**, responses of 80 participants with a mean score of 1.84, 47.5% strongly agreed that inadequate market access or purchasing power is a concern. 36.2% agreed. A smaller proportion, 11.2% (9 individuals), remained neutral. In contrast, 3.8% disagreed, and 1.2% strongly disagreed. As seen in **Table 4**, out of 80 participants, 30.0% agreed, and a majority of 62.5% strongly agreed that difficulties exist when it comes to visiting doctors. On the other hand, a small proportion of 6.2% remained neutral on the subject, while only 1.2% disagreed with a mean score of 1.80.

### 3.5. Comparative Analysis of Potential Solutions to Address Low Payment Wages

**Table 5** illustrates the existence of variations among the target population regarding the establishment of effective agricultural labor laws. 48.8%) strongly agreed that the establishment of effective agricultural labor laws is necessary, 36.2% of

respondents agreed, while 8.8% of the respondents answered as neutral. (1.2%) and (5.0%) of the participants strongly disagreed and disagreed respectively with a mean score of 1.71. Agricultural extension services and training farmers with new skills as effective solutions for low payment wages on Somalia's agricultural workers, the majority of respondents (60.0%) strongly agreed, (33.8%) agreed, some responses showed (2.5%) strongly disagreed, (2.5%) disagreed, and (1.2%) were neutral with a mean score of 1.66.

**Table 5.** Potential solutions to address the issue of low payment wages in the agricultural sector.

Descriptive statistics			
Potential solutions to address the issue of low payment wages in the agricultural sector	N	Mean	Std. Deviation
Establishment of effective agricultural labor laws	80	1.71	.732
Agricultural extension services and Training farmers with new skills	80	1.66	.711
Market access and subsidies for agricultural workers	80	1.87	1.118
Improved basic infrastructure such as roads, health centers, clean water, energy, free schools, etc.	80	1.86	.853
Encouragement of agricultural workers and Investment towards sustainable agriculture	80	1.79	.610
Valid N (listwise)	80		

In addition, the majority of respondents (46.2%) agreed that market access and subsidies for agricultural workers can be potential solutions for low payment wages in the agriculture sector, and also (42.5%) strongly agreed, (7.5%) were neutral, (3.8%) disagreed with it, with a mean score of 1.87.

Furthermore, **Table 5** shows that most of the participants with a mean score of 1.86, (67.5%) strongly agreed that improving basic infrastructure such as roads, health centers, clean water, energy, free schools, etc can become a potential solution for low payment wages, and (23.8%) agreed, (3.8%) were neutral, whereas (3.8%) disagreed and (1.2%) were strongly disagree. Encouragement of agricultural workers and Investment towards sustainable agriculture, (67.5%) strongly agreed, (23.8%) agreed, (5.0%) were neutral, (2.5%) strongly disagreed with this idea, while (1.2%) disagreed with a mean score of 1.79.

#### 4. Discussion

Low payment wages among agricultural workers in Afgoye significantly affect both livelihoods and broader rural development, with interconnected socio-economic consequences. The findings reveal that 67.5% of respondents earn between \$3 and \$5 per day, wages insufficient to meet basic household needs, leading to chronic poverty and food insecurity.

This aligns with previous studies by [FSNAU \(2013\)](#) and [Zanini et al. \(2018\)](#),

which highlight persistent wage disparities in Somalia's agricultural sector as a key driver of rural vulnerability. Limited income results in restricted access to healthcare, education, and nutritious food, contributing to widespread malnutrition and endemic diseases such as malaria and typhoid, as reflected in the responses, where over 80% strongly agreed that low wages hinder access to doctors and exacerbate health risks.

Structural and institutional factors underpin these wage challenges. The majority of respondents identified weak or absent agricultural labor laws, outdated farm tools, and a lack of unionization as critical causes of low wages. This finding supports labor market segmentation theory, which posits that informal rural labor markets often lack regulatory oversight, thereby perpetuating low wage cycles (Hurst et al., 2007). In addition, cultural norms and gender roles contribute to wage disparities, with women frequently relegated to low-paying tasks like harvesting and grading. These socio-cultural dynamics mirror findings from global agricultural labor studies, including those in Uganda and Ethiopia, where women face systemic wage discrimination (FAO, 2011).

The study also highlights infrastructure deficiencies, including poor road networks and limited market facilities, that raise transportation costs and restrict access to higher-value markets. This corroborates World Bank Group (2024) findings that rural infrastructure gaps in Somalia suppress both farm productivity and labor incomes. The reliance on seasonal labor exacerbates these challenges; agricultural workers in Afgoye are employed for approximately 175 days per year, leaving significant income gaps during off-season.

#### **4.1. Theoretical Implications**

The findings of this study contribute significantly to the theoretical discourse on rural labor economics and wage dynamics in agrarian societies, particularly within fragile state contexts such as Somalia. The results reinforce the labor market segmentation theory, which posits that informal labor markets are structurally distinct from formal markets, often resulting in persistent wage inequalities and limited worker mobility. The evidence from Afgoye demonstrates that the absence of agricultural labor laws and collective bargaining mechanisms perpetuates wage suppression and worker vulnerability. Furthermore, the reliance on outdated farming technologies substantiates human capital theory, wherein limited skills and technological inefficiencies constrain productivity and, consequently, income levels. By integrating these theoretical perspectives, this study provides a nuanced understanding of how institutional, cultural, and technological factors collectively shape wage outcomes, thereby enriching the existing literature on rural labor markets in developing economies.

#### **4.2. Practical Implications**

The practical implications of this study are considerable for policymakers, development agencies, and stakeholders in Somalia's agricultural sector. The findings

underscore the urgent necessity for comprehensive wage reforms to protect the most vulnerable segment of the labor force. Specifically, the establishment and enforcement of minimum wage laws tailored to the agricultural sector would address systemic exploitation and wage disparities. Moreover, the study highlights the critical importance of capacity-building initiatives, such as agricultural extension services and vocational training programs, which can enhance worker productivity, promote technological adoption, and increase earning potential. Equally important is the development of rural infrastructure roads, markets, water systems, and health facilities, which would not only improve market access and reduce post-harvest losses but also enhance the overall quality of life in rural communities. Implementing such strategies within broader rural development and poverty alleviation frameworks can generate long-term benefits for food security, economic stability, and social resilience in Somalia.

## 5. Conclusion

This study investigated the impact of low payment wages on agricultural workers in Afgoye, Lower Shabelle, Somalia. The findings revealed that wages for most farm workers remain critically low, averaging between \$3 and \$5 per day, which is insufficient to meet basic household needs. Contributing factors include weak or absent agricultural labor laws, outdated farming tools, inadequate infrastructure, lack of unionization, and entrenched socio-cultural norms. These structural challenges lead to persistent poverty, food insecurity, malnutrition, and limited access to essential services such as healthcare and education. The results further highlight how seasonal agricultural cycles exacerbate wage fluctuations, leaving workers without income during off-seasons and deepening household vulnerability. Addressing these challenges requires coordinated interventions that combine regulatory reforms, improved rural infrastructure, modernization of agricultural practices, and targeted social support.

Tackling wage inequities is not only vital for improving the livelihoods of agricultural workers but also for achieving broader national objectives of food security, poverty reduction, and sustainable rural development.

Based on the study findings, several measures are recommended to address low wages among agricultural workers in Afgoye. Establishing and enforcing agricultural labor legislation is critical to ensuring minimum wage protections and reducing exploitation. Modernization of farming through training and improved technologies should be prioritized to enhance productivity and incomes. Investment in rural infrastructure, including roads, irrigation, storage, and markets, would improve access and reduce losses. Strengthening farmer cooperatives can enhance bargaining power, while targeted social safety nets such as cash transfers and food assistance would mitigate seasonal income instability. Market support and subsidies are also needed to stabilize earnings against price fluctuations. Finally, further empirical research across Somalia is essential to deepen understanding of wage dynamics and inform evidence-based policy interventions.

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## Author Contributions

**Abdishakur Sheikh Mohamud Hassan:** Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Resources, Software, writing - original draft, Writing - review & editing

**Ibrahim Jamal Ahmed:** Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Resources, Software

**Mohamed Amin Jamal Ahmed:** Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Resources, Software

**Omar Aweis Ali:** Methodology, Reviewing, Draft preparation, data analysis

**Orlando Jose Bastidas:** Conceptualization, Formal Analysis, Investigation, Methodology, Resources, Software

**Yasin Sheikh Amir Sheikh Ibrahim:** Reviewing, Draft preparation for publication.

## Conflicts of Interest

The authors declare no conflicts of interest.

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## **Abbreviations**

**FAO**—Food and Agriculture Organization

**FSNAU**—Food Security and Nutrition Analysis Unit

**GDP**—Gross Domestic Product

**ILO**—International Labour Organization

**NGO**—Non-Governmental Organization

**SDGs**—Sustainable Development Goals

**UNDP**—United Nations Development Programme

**USD**—United States Dollar

**FGS**—Federal Government of Somalia

**IMF**—International Monetary Fund

**WFP**—World Food Programme

**WB**—World Bank

**NDP**—National Development Plan

**MoAI**—Ministry of Agriculture and Irrigation (Somalia)

**CBS**—Central Bank of Somalia