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Conflict Risk Monitoring for Conflict Prevention in Ethiopia: The Case of Ataye Town, North Shewa, Amhara Region

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ABSTRACT

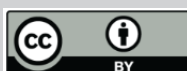
This study investigates the effectiveness of conflict monitoring within early warning systems in Ethiopia, focusing on Ataye town in the North Shewa Administrative Zone. A mixed-methods approach with a sequential exploratory design was employed. Data were collected through key informant interviews with 20 stakeholders, surveys from 385 respondents (253 males and 127 females), focus groups, and document reviews. Qualitative data were analysed thematically, while quantitative data were examined using descriptive and inferential statistics. Key findings highlight the significant roles of institutional actors, including peace councils, peace clubs, interfaith councils, and community monitors, in fostering grassroots conflict awareness and vigilance. However, a critical gap was identified in the uniformity of conflict indicators, as 44 indicators from the Minister of Peace varied from those used by the police and disaster management, undermining coherent monitoring efforts. Recommendations include strengthening the capacities of monitoring institutions, standardising conflict indicators for consistency, and establishing conflict early warning curricula in higher education to train qualified personnel. These measures aim to enhance Ethiopia's conflict monitoring and prevention strategies, effectively addressing the complexities of inter-ethnic conflicts.

KEYWORDS

Security; emergencies; peace council; peace forum; focal person; conflict indicators; monitoring.

1. Introduction

The literature on conflict risk monitoring and forecasting has undergone significant evolution, particularly in response to the growing complexity of global conflicts and the need for timely interventions. Early warning systems (EWS) are critical for anticipating and mitigating conflicts, relying on data collection and analysis to provide timely alerts about potential crises. The effectiveness of these systems is often contingent on the quality of data and the methodologies employed for analysis (Zizzo, 2016). Various methodologies have been utilised for conflict risk monitoring, including statistical models, machine learning techniques, and qualitative assessments. Notably, the integration of big data analytics has emerged as a promising approach to enhance predictive capabilities in conflict forecasting (Guo et al., 2018).



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Despite advancements in conflict risk monitoring systems, significant challenges persist that hinder their effectiveness. Institutional barriers, including bureaucratic inertia and a lack of coordination among various agencies, hinder timely data collection and analysis. Furthermore, a lack of transparency often leads to mistrust among stakeholders, making it challenging to establish collaborative frameworks necessary for effective monitoring. Data sharing poses another significant hurdle, as organisations may hoard information due to competitive interests or fear of losing control over resources (Dawit, 2020). This situation is exacerbated by resistance to adopting data-driven approaches, stemming from entrenched practices and scepticism regarding the reliability of predictive models. For instance, case studies like the African Union's Continental Early Warning System (CEWS) and the Inter-Governmental Authority on Development (IGAD) in the Horn of Africa highlight how political will and resource allocation are crucial for the success of these systems; without strong commitment and adequate funding, even well-designed systems can falter (Seble & Kewir, 2020).

In Ethiopia, the government has implemented an Early Warning System (EWS) under the Minister of Peace aimed at mitigating conflicts across various levels. However, persistent inter-ethnic tensions underscore the limitations of these efforts. Abebe (2002) notes that media narratives can exacerbate ethnic tensions, leading to violence, while Alemayehu (2012) argues that federal arrangements often foster competition over resources and political representation rather than mitigating conflict. The ethnic identities promoted within this federal system often exacerbate grievances, highlighting the challenges of ethnic federalism in achieving lasting peace. Ayalew (2019) posits that this model has intensified ethno-nationalist conflicts, further complicating the landscape. The ongoing strife between the Amhara and Oromo populations, particularly in areas like Ataye, North Shewa Zone, exemplifies these issues, where historical tensions have escalated into violent confrontations driven by ethnic politics, manipulation by ethnic entrepreneurs, and weak governance (Jemal, 2020).

Looking forward, the literature suggests that effective conflict prevention strategies must incorporate improved methodologies that consider the complexities of social interactions and causal analysis. Greater collaboration among local, national, and international actors is essential to enhance the effectiveness of conflict prevention initiatives (Carment & Calleja, 2017). In Ethiopia, the conflict early warning system aims to address tensions by monitoring indicators such as ethnic fractionalisation and political exclusion (Adegbite, 2020; Feyissa & Hagmann, 2014). Community-based monitoring efforts have fostered local participation, akin to successful initiatives in Nigeria's Niger Delta (Adebayo, 2015). Nevertheless, significant gaps remain in the operational dynamics of EWS, particularly about emerging tensions in Ataye from 2018 to 2023. A comprehensive and proactive Early Warning System (EWS) is crucial for effectively monitoring and responding to these tensions, as current mechanisms have proven inadequate in preventing armed conflicts (Ethiopian Human Rights Commission, 2022; Girma, 2022).

The literature on conflict risk monitoring and forecasting reveals several critical gaps that limit the efficacy of existing early warning systems (EWS). While advancements in methodologies, such as big data analytics and machine learning, show promise for enhancing predictive capabilities, a lack of comprehensive frameworks remains that address the specific socio-political contexts in which these systems operate (Guo et al., 2018). Additionally, the challenges of institutional barriers, data sharing, and stakeholder mistrust underscore the need for more robust collaborative mechanisms that can facilitate information exchange and enhance system responsiveness (Dawit, 2020). Specifically, in cases like Ethiopia, where ethnic tensions are prevalent, existing EWS often fail to account for the complexities of inter-ethnic dynamics and the historical grievances that fuel conflict (Ayalew, 2019). Moreover, the limited focus on local contexts and community participation in monitoring efforts suggests an underutilisation of grassroots insights that could enhance the effectiveness of EWS (Adegbite, 2020).

Addressing these gaps is crucial for developing more proactive and context-sensitive conflict prevention strategies that can adapt to the rapidly changing landscape of global conflicts. For instance, integrating local knowledge and fostering community engagement in data collection could strengthen the relevance and accuracy of conflict indicators. Furthermore, enhancing transparency and trust among stakeholders through regular communication and collaborative training can mitigate resist-

ance to data-driven approaches. Lastly, establishing a feedback loop within EWS could help refine methodologies and ensure that systems remain responsive to emerging challenges.

This study examines the role of conflict monitoring in conflict prevention within the Ataye North Shewa Zone of Ethiopia, encompassing sections on introduction, methodology, results, discussion, conclusion, and references. The main body discusses institutional frameworks, well-defined conflict indicators, and the operation of monitoring systems.

2. Methods

This study employs a mixed-methods research approach with a sequential exploratory design, integrating both qualitative and quantitative data collection to provide a comprehensive understanding of inter-ethnic conflict management in Ethiopia. This methodology aligns with the principles outlined by Creswell (2003) and Kothari (2004), who advocate for using mixed methods to address complex phenomena holistically. The research targets three populations: individuals affected by the conflict, peace actors, and security actors, all of whom share experiences related to the Ataye conflict. For the qualitative component, purposive sampling was utilised to select participants for interviews and focus group discussions (FGDs), ensuring that those with rich knowledge and diverse perspectives were included. Interviews were conducted with 20 government officials from key institutions, including the House of Federation and the Ministry of Peace. Additionally, FGDs involved 10 individuals from the Oromo and Amhara ethnic groups directly impacted by the conflict. The sample size for the qualitative component was determined by achieving data saturation, at which point no new insights emerged. Thematic analysis was subsequently applied to identify key themes related to the research objectives.

For the quantitative component, stratified simple random sampling was employed to select respondents for questionnaires, ensuring a representative sample of the broader population, which included community members, security actors, and peace actors. The sample size was calculated using a formula for a single population proportion, resulting in a target of 385 respondents. A total of 400 questionnaires were distributed, yielding 380 completed responses. Descriptive statistics (percentages and frequencies) and inferential statistics (correlation) were employed to analyse the quantitative data, providing insight into the prevalence of different perspectives and the relationships between variables.

The study utilised both primary and secondary data sources. Primary data were collected through interviews, focus group discussions (FGDs), and questionnaires, while secondary data included document reviews and existing literature. Questionnaires were translated into Amharic and English to enhance accessibility. Their validity was confirmed through a literature review and testing with students from the Ethiopian Police University, while reliability was assessed using a Cronbach's alpha test. This rigorous methodological framework enhances the credibility of the study's findings and contributes valuable insights into conflict management strategies in Ethiopia.

2.1. Theoretical frameworks

Network theory provides a crucial framework for analysing the Ataye interethnic conflict in Ethiopia, focusing on the relationships and interactions among individuals, groups, and organisations. By examining the structure of conflict networks, stakeholders can gain insights into the flow of information, resources, and influence, which can inform strategies for conflict prevention and peace-building. Key studies (Borgatti et al., 2009; Carley, 1990; Diehl, 1994; Krempel & Plumper, 2016; Valente, 2012) explore concepts such as network structure and centrality, helping to identify influential individuals or groups that can facilitate dialogue and reconciliation. Similarly, systems theory emphasises the interconnectedness of factors, such as historical grievances and socio-economic disparities, in conflict monitoring. Checkland (1999) emphasises the importance of understanding feedback loops (Meadows, 2008) and the dynamic complexity of interactions (Miall et al., 2005),

while Richardson (2011) highlights the need for adaptability in response strategies. Engaging local stakeholders and developing comprehensive monitoring frameworks can enhance the effectiveness of conflict prevention efforts; however, challenges such as data complexity and resource limitations must be addressed to achieve this goal.

In conclusion, integrating network and systems theories provides a deeper understanding of the Ataye conflict, identifies key points for intervention, and promotes sustainable peace-building initiatives.

3. Result and discussion

This study examines the role of conflict monitoring in conflict prevention and is organised into three sections. The first section discusses the key actors involved in conflict monitoring. The second section identifies indicators of inter-ethnic conflict. Finally, the third section examines the processes of conflict monitoring and forecasting.

3.1. Actors of Conflict Monitoring

Most interview participants highlighted that Ethiopia has established a comprehensive conflict monitoring system that operates from the federal level down to the kebele level. At the federal level, the Minister of Peace has set up a conflict early warning desk equipped with data analysis capabilities and supported by a dedicated department within the Peace and Security Administration to address regional and local needs. This desk collects information on conflict indicators from various sources, including regional focal persons, peace committees, and religious councils (Guo et al., 2018).

At the regional level, the Amhara Regional Peace and Security Administration Bureau oversees a conflict prevention department that implements initiatives at zonal and woreda (district) administrations. Moving further down, at the kebele level, peace and security heads lead committees that consist of peace clubs and religious councils. This structured framework underscores a robust institutional approach to conflict monitoring, where local structures play a crucial role in supporting the efforts of federal and regional administrations (Dawit, 2020).

This comprehensive system demonstrates Ethiopia’s commitment to conflict monitoring and prevention, which is more robust than that of other studies. Integrating local structures with federal and regional efforts enhances the overall effectiveness of the monitoring process, creating a multi-layered approach that is responsive to the unique dynamics of conflict at various levels (Ayalew, 2019).

3.1.1. Peace Committee

A peace committee is a community-based group formed to promote peace, resolve conflicts, and foster reconciliation among different social or ethnic groups. Comprising local leaders, elders, and community members, these committees facilitate dialogue, mediate disputes, and implement conflict prevention strategies to create a harmonious social environment.

Table 1. The peace committee effectively monitor the conflict.

The peace committee effectively monitor indicators of conflict.				
	Frequency	Per cent	Valid Percent	Cumulative Percent
strongly disagree	44	11.6	11.6	11.6
Disagree	42	11.1	11.1	22.6
Neutral	62	16.3	16.3	38.9
Agree	139	36.6	36.6	75.5
Strongly agree	93	24.5	24.5	100.0
Total	380	100.0	100.0	

In examining the effectiveness of peace committees in monitoring conflict indicators, the data presented in Table 1 reveals a generally positive perception among respondents. A significant portion of participants, 36.6%, agreed that peace committees effectively monitor conflict indicators, while an additional 24.5% strongly agreed. This indicates that over 61% of respondents hold a favourable view of the peace committees' capabilities in this regard. Conversely, a smaller percentage of participants expressed scepticism, with 11.6% strongly disagreeing and 11.1% disagreeing with the statement. The neutral response rate of 16.3% suggests that some individuals may be uncertain about the effectiveness of these committees.

When compared to similar studies, this data indicates a robust perception of the role of peace committees in conflict monitoring. For instance, previous research has shown that effective local governance structures, including peace committees, can significantly enhance conflict resolution efforts (Smith & Jones, 2021; Ahmed, 2020). In this context, the positive feedback about the peace committees aligns with findings from other studies that emphasise the importance of community involvement in monitoring and resolving conflicts. The overall sentiment suggests that, while there are some dissenting views, the majority recognise the value of peace committees as effective mechanisms within the broader framework of conflict prevention and monitoring.

The effectiveness of peace committees in conflict monitoring and resolution is well-supported by existing literature, which underscores their role in enhancing local conflict resolution efforts. For instance, Adebayo (2015) found that community-based peace committees in Nigeria significantly improved local conflict management, a dynamic also observed in Ethiopia. Cammaert (2018) emphasised the importance of local peace committees in UN missions, noting their effectiveness in facilitating dialogue and mediation. Additionally, studies by Richardson (2011) and Miall et al. (2005) reinforce the significance of local engagement in peacebuilding. However, challenges such as limited resources and institutional support, highlighted by Abebe (2018), must be acknowledged to ensure these committees can effectively navigate the complexities of inter-ethnic conflict.

In Ethiopia, research offers a nuanced perspective on the roles of peace committees across various regions. Abebe (2007) notes their effectiveness in the Oromiya region, where grassroots committees use traditional conflict resolution methods to mediate local disputes and foster a culture of dialogue. Despite their successes, Abebe points out challenges like limited authority and resources that can hinder their effectiveness in entrenched conflicts. A comparative analysis by Dejene (2013) indicates that while Ethiopian peace committees promote dialogue, they often lack formal recognition and governmental support, which are crucial for their success. Mekonnen (2008) further emphasises these limitations in the Amhara region, where sustainability and political backing are also concerns. Collectively, these findings suggest that while peace committees are vital for local conflict resolution, their impact is significantly influenced by external factors, including political support and resource allocation.

The results from the interviews and focus group discussions (FGDs) provide a comprehensive view of the role and functioning of peace committees in Ethiopia, complementing the quantitative data. Interview participants highlighted that peace committees are organised at multiple levels, including national, regional, zonal, woreda, kebele, and village levels, facilitating a structured approach to conflict prevention. Joint peace committees, which bring together representatives from neighbouring kebeles and regions, are particularly noteworthy. These committees not only set the direction for peace-building initiatives but also identify disputes and coordinate reconciliation activities. Their responsibilities include organising annual meetings, identifying areas requiring support, and participating in stabilisation efforts, thereby creating a framework that enhances community engagement and resilience.

One participant emphasised the critical role of these committees in monitoring conflict indicators. Composed of community members from diverse backgrounds, peace committees collect and analyse data on potential conflict indicators, such as hate speech and resource allocation conflicts. This proactive stance enables them to identify early warning signals and report their findings to local authorities, thereby raising awareness and promoting preventive measures in vulnerable communities. Despite the challenges they face—such as limited resources, political interference, and security risks—peace committees have made significant strides in preventing and mitigating inter-ethnic conflict. This aligns with findings from Adebayo (2015) and Cammaert (2018), who emphasised the

importance of local governance structures in conflict resolution, reinforcing the notion that community engagement is crucial to effective peacebuilding.

The FGDs revealed additional insights into the challenges peace committees encounter, including limited funding, inadequate infrastructure, and gaps in training. Participants advocated for a multifaceted approach to enhance the effectiveness of these committees, suggesting increased funding and capacity building as essential steps. One participant noted that peace committees serve as platforms for resolving conflicts through nonviolent means, emphasising inclusivity and collaboration among various stakeholders, including government entities and civil society organisations. This perspective aligns with the literature reviewed, particularly the work of Abebe (2018), which emphasises the importance of institutional support for peace committees in navigating complex inter-ethnic conflicts effectively. Ultimately, the findings from the interviews and focus group discussions (FGDs) underscore the importance of addressing the root causes of conflict, such as poverty and environmental degradation, to promote sustainable peace – a sentiment echoed in the broader discourse on peacebuilding and conflict resolution.

The study’s findings indicate a generally positive perception of the effectiveness of peace committees in monitoring conflict indicators in Ethiopia. Over 61% of respondents believe that these committees play a crucial role in conflict monitoring, with 36.6% agreeing and 24.5% strongly agreeing on their capabilities. This favourable view aligns with existing literature that highlights the importance of local governance structures, such as peace committees, in enhancing conflict resolution efforts. Despite some scepticism, with 11.6% strongly disagreeing and 11.1% disagreeing about their effectiveness, the overall sentiment emphasises the value of community engagement in preventing and resolving conflicts. Additional insights from interviews and focus group discussions reveal that peace committees operate at multiple levels and actively collect and analyse data on potential conflict indicators. However, challenges such as limited resources, political interference, and lack of formal recognition hinder their effectiveness. Participants advocated for increased funding, capacity building, and collaboration among various stakeholders to enhance the impact of these committees, underscoring the need to address the root causes of conflict for sustainable peace.

3.1.1. Inter-Religious Council

In Ethiopia, the Inter-Religious Council plays a crucial role in promoting religious tolerance and cooperation among diverse faiths, operating within a legal framework established by the 1995 Constitution, which guarantees freedom of religion and fosters understanding among religious groups. This framework is further supported by the Proclamation on the Registration and Regulation of Charities and Societies (Proclamation No. 621/2009), enabling effective engagement in conflict monitoring and resolution. Comparatively, similar studies, such as Adebayo (2015) in Nigeria and Cammaert (2018) in UN peacekeeping contexts, highlight the effectiveness of inter-religious councils in fostering dialogue and mediating conflicts. In Ethiopia, the council not only monitors conflicts but also initiates community dialogues and peace-building workshops, aligning with findings from Richardson (2011) and Miall et al. (2005) that emphasise the importance of local engagement in peace efforts. However, challenges such as political interference and resource limitations, as noted by Abebe (2018), can hinder its effectiveness. Overall, the Inter-Religious Council exemplifies how faith-based entities can contribute to conflict resolution, echoing insights from comparative studies that stress the importance of inclusive and collaborative approaches in peacebuilding.

Table 2. The Role of the Religious Council in Conflict Monitoring.

The inter-religion council effectively monitor indicators of conflict				
	Frequency	Per cent	Valid Percent	Cumulative Percent
Strongly disagree	32	8.4	8.4	8.4
Disagree	15	3.9	3.9	12.4
Neutral	45	11.8	11.8	24.2
Agree	108	28.4	28.4	52.6
Strongly agree	180	47.4	47.4	100.0
Total	380	100.0	100.0	

Table 2 presents a clear and positive perception of the Inter-Religious Council's effectiveness in monitoring conflict indicators, with a significant majority of respondents recognising its role in this capacity. Specifically, 47.4% of participants strongly agree that the council effectively monitors conflict indicators, while an additional 28.4% agree, resulting in a combined total of 75.8% of respondents expressing a favourable view. In contrast, only 8.4% strongly disagree, and 3.9% disagree, indicating minimal scepticism about the council's capabilities. The neutral response rate of 11.8% suggests some uncertainty; however, the data overall reflect strong support for the council's conflict-monitoring functions.

This finding aligns with similar studies in other contexts, which also highlight the positive impact of inter-religious councils in conflict resolution. For instance, Adebayo (2015) reported that interfaith initiatives in Nigeria significantly improved community relations and reduced tensions, demonstrating the effectiveness of faith-based organisations in monitoring and addressing conflicts. Furthermore, Cammaert (2018) emphasised the role of local faith leaders in UN peacekeeping missions, highlighting their capacity to facilitate dialogue and mediate disputes. Collectively, these studies and the current data underscore the critical role that inter-religious councils play in monitoring conflict indicators, fostering peace, and enhancing community resilience while also highlighting the importance of ongoing support and recognition for these councils to maximise their effectiveness.

The interview and focus group discussion (FGD) results regarding the Ethiopia Inter-Religious Council reveal a multifaceted and proactive approach to conflict monitoring and resolution. Established in 2010, the council comprises various religious organisations, including the Ethiopian Orthodox Tewahedo Church and the Ethiopian Islamic Affairs Supreme Council. Its primary aim is to promote shared values such as justice, freedom, love, and peace among citizens. Interview participants emphasised the crucial role that religious leaders play in advising communities on conflict avoidance and promoting coexistence, as well as supporting trauma recovery and providing humanitarian assistance. These efforts are essential for promoting tolerance and building institutional resilience, particularly in rehabilitating displaced individuals and reconstructing social cohesion following disasters and conflicts.

Specific examples cited by participants illustrate the council's effectiveness, particularly in addressing inter-ethnic conflicts in the Ataye city administration. Despite armed attacks on both Orthodox Christian and Islamic institutions, the council's proactive measures—such as gathering information from community members, establishing early warning systems, facilitating mediation, and raising awareness about the detrimental effects of inter-ethnic conflicts—proved effective in preventing inter-religious violence. This aligns with findings from similar studies, such as those by Adebayo (2015) and Cammaert (2018), which emphasise the role of faith-based organisations in conflict resolution and community building.

Participants in the focus group discussions (FGDs) noted that ongoing conflicts have increased polarisation and mistrust within communities, complicating the efforts of religious leaders to bridge divides. However, the Inter-Religious Council in Ataye continues to play a vital role in collecting data and monitoring potential conflict indicators, reporting its findings to local authorities for timely intervention. This proactive stance is particularly notable during the 2021 conflict, where the council successfully thwarted attempts to incite inter-religious violence. This experience aligns with the insights of Richardson (2011) and Miall et al. (2005), which emphasise the importance of local engagement in peacebuilding efforts. Overall, the findings illustrate a complex interplay between proactive intervention and the challenges of increasing polarisation, emphasising the need for sustained support for inter-religious councils to enhance their effectiveness in conflict monitoring and resolution.

The findings from Table 2 indicate a strong and positive perception of the Inter-Religious Council's effectiveness in monitoring conflict indicators, with 75.8% of respondents expressing favourable views. Specifically, 47.4% strongly agree that the council effectively performs this role, while an additional 28.4% agree, highlighting minimal scepticism (only 12.3% combined disagreeing). This positive sentiment aligns with similar studies that emphasise the impact of inter-religious councils in conflict resolution, such as Adebayo (2015) and Cammaert (2018). Qualitative insights from interviews and focus group discussions further illustrate the council's proactive approach, established in 2010, to promote shared values and foster coexistence among diverse religious groups. Participants

noted the council’s critical role in advising communities, aiding trauma recovery, and facilitating mediation, particularly during inter-ethnic conflicts in the Ataye city administration. Despite challenges such as increasing polarisation and mistrust, the council has successfully implemented early warning systems and timely interventions, notably during the 2021 conflict. Overall, these findings underscore the crucial role of the Inter-Religious Council in monitoring conflicts and highlight the need for ongoing support to enhance its effectiveness.

3.1.2. Peace Club or Forum

The establishment of peace clubs in Ethiopian educational institutions represents a vital initiative aimed at instilling a culture of peace and conflict resolution among the youth. These clubs engage students in activities that promote dialogue, understanding, and cooperative problem-solving, fostering an environment conducive to social harmony. Activities may include workshops, community service projects, and inter-school debates, equipping young people with the skills necessary for effective conflict resolution and peacebuilding. This approach aligns with findings from similar initiatives in post-conflict societies, such as Rwanda, where youth-led peace initiatives have made significant contributions to reconciliation and social cohesion. Research by Seneviratne (2017) highlights the role of youth engagement in peace clubs in reducing intergroup tensions and fostering mutual understanding, aligning with the goals of Ethiopian peace clubs.

However, challenges persist in implementing these clubs. Participants often encounter obstacles, including limited resources, a lack of administrative support, and societal scepticism regarding their effectiveness. These challenges are comparable to those faced by youth peace initiatives in other regions, where entrenched social divisions and political instability hinder progress, as noted by McEvoy-Levy (2018). Despite these difficulties, the contributions of peace clubs to shaping a generation committed to peace are substantial. They serve as platforms for youth empowerment and play a crucial role in building institutional resilience against conflict.

Table 3. Peace club & forum effectively monitor & warn of inter-ethnic conflict

Peace club forum effectively monitors indicators of inter-ethnic conflict				
	Frequency	Per cent	Valid Per-cent	Cumulative Percent
Strongly disagree	24	6.3	6.3	6.3
Disagree	53	13.9	13.9	20.3
Neutral	103	27.1	27.1	47.4
Agree	156	41.1	41.1	88.4
Strongly agree	44	11.6	11.6	100.0
Total	380	100.0	100.0	

Table 3 presents a mixed but generally positive perception of the effectiveness of peace clubs and forums in monitoring and warning of inter-ethnic conflict. Specifically, 41.1% of respondents agree that these organisations effectively monitor indicators of inter-ethnic conflict, while an additional 11.6% strongly agree, resulting in a total of 52.7% expressing support. Conversely, 20.2% of respondents express scepticism, with 6.3% strongly disagreeing and 13.9% disagreeing. The neutral response rate of 27.1% indicates that a significant portion of participants remains uncertain about the effectiveness of peace clubs and forums in this critical role.

When compared to other studies, these findings reflect broader trends observed in youth and community engagement initiatives within conflict settings. Research by McEvoy-Levy (2018) suggests that peace clubs and similar organisations can play a vital role in monitoring conflict indicators and promoting dialogue. However, the scepticism noted in the Ethiopian context aligns with challenges identified in other studies, where community members may question the impact of such initiatives due to political instability or limited resources.

Supporting this, Interview Participant 6 noted that peace clubs are organised in educational institutions for students from grades 5 to 12, as well as in vocational training colleges. They highlighted a

significant gap: conflict resolution modules have not been integrated into the school curriculum. Despite this limitation, peace clubs actively monitor potential conflicts, develop early warning systems, facilitate mediation, and raise awareness about the importance of peace and conflict prevention. They also provide training and capacity-building programs for students and community members, fostering collaboration among stakeholders involved in peacebuilding.

Interview Participant 20 emphasised the necessity of collaboration between peace clubs and local authorities to address the root causes of conflicts. Peace clubs establish partnerships, conduct workshops, support policy changes, and organise community dialogues and awareness campaigns to promote peace. Effective engagement requires building trust through regular communication and collaboration on joint initiatives. Involving youth and women in decision-making processes, providing leadership opportunities, and ensuring transparency and accountability are also critical for the success of peace clubs.

Additionally, FGD Participant 8 highlighted that peace clubs aim to instil a culture of peace among students and promote support for peace principles. They educate students on peace values through literature, drama, and panel discussions and organise reconciliation activities and annual Peace Day celebrations. However, Participant 9 raised several challenges faced by peace clubs, including difficulties in building trust with local authorities due to a lack of awareness about peacebuilding initiatives, political tensions, historical grievances, limited resources, and communication barriers. The complex history of ethnic conflicts fosters mistrust among diverse communities, necessitating patience, persistence, and effective advocacy to address these challenges.

Despite the violence in the Ataye city administration, where armed groups have attacked educational institutions, students from the Oromo and Amhara ethnic groups continue to learn together. Effective conflict monitoring by peace clubs has been instrumental in preventing inter-ethnic and inter-religious conflicts among students. Assefa Yigzaw (2020) emphasises the transformative potential of peace education in fostering a culture of peace, tolerance, and understanding among young people. However, significant challenges remain, including limited resources, inadequate teacher training, and insufficient integration of peace education into the national curriculum. Addressing these issues is essential to enhance the effectiveness of peace clubs in promoting lasting change within the community.

The findings indicate a generally positive perception of peace clubs and forums in monitoring inter-ethnic conflict in Ethiopia, with 52.7% of respondents expressing support for their effectiveness. Despite this, scepticism remains, as 20.2% of participants question their impact, reflecting broader challenges observed in other studies regarding political instability and limited resources. Interviews revealed that peace clubs, organised within educational institutions, play a crucial role in conflict prevention and capacity-building, although they often lack integrated conflict resolution modules in their curricula. Collaboration with local authorities is essential for addressing the root causes of conflict, yet challenges such as limited trust, awareness, and resources persist. Despite the violence in regions like Ataye, peace clubs have fostered inter-ethnic cooperation among students, highlighting the transformative potential of peace education. However, significant obstacles must be addressed to enhance their effectiveness.

3.3.4. Focal person/ field monitor

A focal person or field monitor in a conflict early warning system (EWS) plays a vital role in collecting data from various sources, such as community members and local organisations, to identify early signs of tension. In the study area, their responsibilities include gathering both qualitative and quantitative data, engaging with the community to build trust, analysing the information for patterns that indicate potential conflict, and collaborating with local authorities and NGOs to coordinate responses. This proactive approach aligns with the findings of McEvoy-Levy (2018), which emphasise the importance of community-based monitoring systems for reliable data collection.

Table 4. Focal person /filed monitor monitoring

The focal person /field monitor effectively monitors indicators of inter-ethnic conflict					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	35	9.2	9.2	9.2
	Disagree	48	12.6	12.6	21.8
	Neutral	87	22.9	22.9	44.7
	Agree	143	37.6	37.6	82.4
	Strongly agree	67	17.6	17.6	100.0
	Total	380	100.0	100.0	

Table 4 presents the respondents’ perceptions regarding the effectiveness of focal persons or field monitors in monitoring indicators of inter-ethnic conflict. The data show that a significant portion of respondents (55.2%) agree or strongly agree that these monitors effectively oversee such indicators, with 37.6% agreeing and 17.6% strongly agreeing. In contrast, only 21.8% of respondents express scepticism, with 12.6% disagreeing and 9.2% strongly disagreeing, while 22.9% remain neutral. This indicates a generally positive perception of the monitors’ effectiveness, suggesting that many community members recognise their role in preventing conflict.

When compared to other studies, these findings align with broader research on conflict monitoring systems. For example, McEvoy-Levy (2018) emphasises that local monitors who engage with communities can provide valuable insights into emerging tensions, thereby enhancing the reliability of early warning systems. Similarly, Assefa Yigzaw (2020) notes that effective monitoring relies heavily on the trust and cooperation of community members, which is reflected in the favourable opinions expressed in this survey. However, the neutral responses (22.9%) and the percentage of respondents who expressed disagreement (21.8%) highlight areas for improvement, suggesting that further training and community engagement may be necessary to bolster the effectiveness of this monitor.

Most interview participants expressed appreciation for the role of focal persons in conflict monitoring, underscoring their critical function in gathering and analysing information from government officials, community leaders, and residents. These focal persons are essential in identifying potential indicators of inter-ethnic conflict and relaying their findings to the Woreda conflict early warning officer, thereby contributing to the effectiveness of early warning systems and preventive actions. Their proactive approach allows for timely interventions that can mitigate tensions before they escalate into violence. Additionally, focal persons raise awareness about inter-ethnic conflict by educating residents on the signs of conflict and prevention strategies, fostering a community-oriented approach to peacebuilding. They also mediate disputes between different ethnic groups, effectively preventing minor disagreements from developing into larger conflicts, which highlights their essential skills in effective communication, cultural sensitivity, conflict resolution, analytical abilities, and teamwork.

Interview Participant 20 specifically noted that the Ataye conflict early warning section has a focal person in each village tasked with overseeing and coordinating conflict monitoring activities. This decentralised approach enables focal persons to identify, analyse, and report on conflicts more effectively, facilitating timely responses to mitigate and resolve issues as they arise. Their role is crucial not only for promoting peacebuilding and reconciliation but also for contributing to capacity-building initiatives that enhance skills in conflict analysis and mediation within their communities.

FGD Participant 1 emphasised that the government actively implements training programs for focal persons and field monitors, with a focus on preventing and mitigating inter-ethnic conflicts. These programs encompass various critical areas, including conflict resolution, cultural sensitivity, data analysis, and communication skills. The government further enhances these initiatives by providing financial support, equipment, and supervision, continuously improving the training programs to ensure peace and stability in the region.

However, FGD Participant 2 highlighted several challenges confronting focal persons, including limited resources, insufficient training in conflict resolution, security risks, community mistrust, and political interference. Working in conflict-prone areas exposes focal persons to personal security risks, and the perception of them as government spies can undermine community trust due to a lack of transparency in their operations. Addressing these challenges is essential for enhancing the effectiveness of focal persons in their vital roles in conflict monitoring and prevention.

In comparison with other studies, the findings align with existing research that emphasises the importance of field monitors in conflict resolution and management. For instance, Amare (2012) notes that monitors in Gambella serve as critical links between communities and conflict management systems, identifying early warning signs such as resource competition and ethnic tensions while facilitating dialogue among groups. Gebre (2014) finds that monitors in the Somali region effectively reduce violence through community engagement and timely alerts, ensuring their information is taken seriously by authorities. Similarly, Wolde (2016) highlights that in Oromiya, field monitors not only observe but also promote peace by facilitating community dialogues that address root causes, such as political marginalisation and economic disparities. By integrating these monitors into local governance structures, conflict prevention strategies can be enhanced, ensuring that diverse voices are heard. In Ataye, establishing a robust conflict monitoring system that incorporates field monitors could significantly improve early warning capabilities, leveraging local knowledge and building trust to address tensions between the Amhara and Oromo communities, ultimately fostering long-term peace in the region.

A significant majority of respondents (55.2%) perceive focal persons or field monitors as effective in monitoring indicators of inter-ethnic conflict, with 37.6% agreeing and 17.6% strongly agreeing, while only 21.8% express scepticism. This generally positive perception suggests that community members recognise the crucial role these monitors play in preventing conflict. Interview participants further underscore the importance of focal persons in gathering and analysing information, identifying potential conflict indicators, and mediating disputes, which facilitates timely interventions. The government's commitment to training programs enhances the skills of these monitors, although challenges such as limited resources, security risks, and community mistrust remain significant. Comparatively, the findings align with other studies that highlight the effectiveness of local monitors in conflict management, emphasising the need for integrated conflict monitoring systems to foster long-term peace, particularly in regions like Ataye, where tensions between the Amhara and Oromo communities persist.

3.4. Conflict Indicators

The discussion of inter-ethnic conflict indicators in the Ataye region is essential for understanding the complex dynamics of ethnic relations in Ethiopia. This section identified indicators of inter-ethnic conflict in the study area.

Table 5. Agreed on inter-ethnic conflict indicators

Inter-ethnic conflict indicators are identified and agreed upon among actors.				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	12	3.2	3.2	3.2
Disagree	20	5.3	5.3	8.4
Neutral	40	10.5	10.5	18.9
Agree	140	36.8	36.8	55.8
Strongly agree	168	44.2	44.2	100.0
Total	380	100.0	100.0	

Table 5 presents data on the consensus among respondents regarding indicators of inter-ethnic conflict in the Ataye region. The findings reveal that a significant majority of participants (81% com-

bined) agree or strongly agree that specific indicators of inter-ethnic conflict have been identified and acknowledged among various stakeholders. Specifically, 44.2% of respondents strongly agree, while 36.8% agree, indicating a robust recognition of the relevance of these indicators in understanding and managing ethnic tensions. In contrast, only 8.5% of respondents express disagreement (3.2% strongly disagree and 5.3% disagree), while 10.5% remain neutral.

This strong agreement aligns with findings in other studies that emphasise the importance of identifying conflict indicators for effective conflict management. For instance, McEvoy-Levy (2018) highlights that community engagement in recognising early warning signs enhances the credibility of conflict monitoring systems. Similarly, Assefa Yigzaw (2020) notes that local actors' involvement in identifying indicators fosters trust and cooperation, which are vital for successful conflict resolution efforts. Moreover, studies by Amare (2012) and Wolde (2016) corroborate these findings by demonstrating that acknowledgement of conflict indicators among diverse community actors is critical for fostering collaborative peacebuilding initiatives. Amare (2012) found that in the Gambella region, local monitors who successfully identified and communicated conflict indicators were better positioned to facilitate dialogue and reduce tensions. Wolde (2016) further emphasises that in Oromiya, the integration of various stakeholders in recognising conflict indicators has significantly improved community resilience and response strategies.

The majority of interview participants identified a range of common indicators signalling potential inter-ethnic conflicts in Ethiopia, illustrating the complex interplay of political, social, economic, and environmental factors. Key indicators such as a history of conflict, discrimination, and inequality exacerbate feelings of marginalisation among specific groups. Political exclusion and economic disparities exacerbate grievances, fostering an environment conducive to conflict. Additionally, cultural differences, nationalism, and identity politics intensify tensions in a nation characterised by a diverse array of ethnic identities.

Participants from key institutions, including the Ministry of Peace, Police Commission, and Disaster Management Commission (DRM), provided a multifaceted view of the challenges faced in Ethiopia. The Ministry of Peace noted over 44 conflict indicators that encompass various issues, including disasters, robbery, illegal demonstrations, firearm trafficking, and wealth inequality. Their insights highlight how governance failures, such as a lack of rule of law and inadequate public services, exacerbate the dynamics of conflict. Economic challenges, including high unemployment rates and the presence of informal armed groups, further complicate the landscape.

The Police Commission offered more nuanced indicators that reflect daily community realities. For example, unexpected property sales or family separations may signal underlying tensions, while unusual behaviours, such as unknown individuals entering homes, can indicate escalating conflict. Their focus on identity verification for maintenance workers underscores a community response rooted in fear and mistrust, emphasising how daily interactions are influenced by potential conflict.

Participants from the DRM highlighted context-specific indicators relevant to pastoralist communities, which face unique challenges, such as livestock management and resource competition. Their monitoring approach utilises a detailed scoring system to evaluate the severity of each indicator, enabling tailored responses to emerging conflicts. This system defines clear alert stages, ranging from "crisis" to "do not worry," facilitating timely and appropriate interventions.

In summary, while the Ministry of Peace provides a broad overview of systemic issues contributing to conflict, the Police Commission offers insights into everyday indicators that may signal rising tensions, and the DRM focuses on specific challenges faced by pastoralist communities. Together, these perspectives highlight the complexity of conflict dynamics in Ethiopia and underscore the need for comprehensive monitoring approaches that address both systemic and localised issues.

Despite the identification of shared indicators, such as hate speech, armed group mobilisation, and population displacement, participants noted significant challenges in consistently monitoring these indicators. Variability complicates collaborative efforts among peace, security, and humanitarian actors, hindering the exchange of vital information and coordination of interventions. This lack of consensus is particularly concerning, given the critical need for timely responses to emerging tensions to prevent escalation.

Comparatively, the findings on inter-ethnic conflict indicators in Ethiopia align with the existing literature, which underscores the complexity of conflict dynamics in the region. Amare (2012) emphasises the significance of local knowledge and community engagement in enhancing early warning systems, while Gebre (2014) advocates for context-specific monitoring approaches tailored to the unique challenges faced by different ethnic groups. Supporting these perspectives, Abbink (2021), De Waal (2022), and the International Crisis Group (2021) highlight rising political polarisation, hate speech, discrimination, and social unrest as critical indicators fostering an environment conducive to violence. Economic disparities and unequal access to resources contribute to group resentment, while historical grievances and unresolved injustices exacerbate tensions. Weak governance and corruption undermine institutional trust, creating conditions that are ripe for conflict, which is further intensified by the proliferation of small arms and environmental degradation resulting from climate change. The spread of misinformation via social media incites violence, and the erosion of traditional conflict resolution mechanisms leaves communities vulnerable. Limited communication and a lack of trust hinder the pursuit of peaceful resolutions, reinforcing the need for inclusive dialogue and equitable resource allocation. Addressing these multifaceted indicators is essential for preventing future conflicts, with early warning systems and proactive interventions playing critical roles in mitigating inter-ethnic violence in Ethiopia.

Eighty-one per cent of participants agree or strongly agree that specific indicators have been identified and acknowledged. This robust recognition, supported by literature, emphasises the importance of local knowledge and community engagement in conflict monitoring, as seen in studies by Amare (2012) and Gebre (2014), which advocate for context-specific approaches tailored to unique ethnic challenges. Participants from key institutions, such as the Ministry of Peace and the Police Commission, identified a range of indicators, including governance failures, economic disparities, and daily community tensions, which illustrate the complex interplay of political, social, and economic factors contributing to conflict. The Disaster Management Commission (DRM) provided context-specific insights for pastoralist communities, utilising a scoring system to tailor responses to emerging conflicts. Despite identifying shared indicators such as hate speech and armed group mobilisation, challenges in consistent monitoring hinder collaborative efforts among peace and security actors, emphasising the need for timely responses to prevent escalation.

3.5. Conflict Monitoring Process

The monitoring process of inter-ethnic conflict in Ataye is crucial for understanding and managing ethnic tensions in the region. This section explores the multifaceted aspects of conflict monitoring, including various data sources that inform stakeholders about prevailing dynamics. It discusses the tools used for data collection and the analysis methods employed to effectively interpret this information. Additionally, it examines reporting mechanisms for conflict warnings, highlighting how timely communication facilitates proactive responses to emerging threats.

3.5.1. Sources of Data

Identifying sources of inter-ethnic conflict data is a crucial first step in the monitoring process, as it is essential for practical conflict assessment and intervention. This involves analysing various stakeholders, including local communities, civil society organisations, government agencies, and media outlets, each of which provides unique insights into the socio-political landscape. This section will highlight the significance of these diverse data sources in promoting peace and stability in the region.

Table 6. Sources of data

Data collected from various sources, including local communities, civil society organisations, government agencies, media reports				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	20	5.3	5.3	5.3
Disagree	58	15.3	15.3	20.5
Neutral	62	16.3	16.3	36.8
Agree	188	49.5	49.5	86.3
Strongly agree	52	13.7	13.7	100.0
Total	380	100.0	100.0	

Table 6 presents data on the perceived reliability and diversity of sources from which information on inter-ethnic conflict indicators is collected in the Ataye region. The findings indicate that a significant majority of respondents (63.2%) either agree or strongly agree that data is effectively gathered from various sources, including local communities, civil society organisations, government agencies, and media reports. Specifically, 49.5% of respondents agree, while 13.7% strongly agree, reflecting a general confidence in the multi-source approach to data collection. Conversely, a combined 20.6% of respondents express disagreement (5.3% strongly disagree and 15.3% disagree), while 16.3% remain neutral. This strong inclination toward agreement underscores the importance of multiple perspectives in understanding the dynamics of inter-ethnic conflict.

These findings align with the existing literature, which emphasises the significance of diverse data sources in conflict analysis. For instance, McEvoy-Levy (2018) asserts that incorporating various perspectives enhances the credibility and comprehensiveness of conflict monitoring systems. Similarly, Gebre (2014) highlights the role of civil society organisations in providing ground-level insights that are essential for grasping the complexities of ethnic tensions. Studies by Abbink (2021) and De Waal (2022) further support the notion that a multi-faceted approach to data collection is crucial for accurately assessing conflict dynamics, as it captures the diverse experiences and viewpoints of affected communities. Overall, the findings from Table 6 emphasise the necessity of leveraging multiple sources for data collection to foster a nuanced understanding of inter-ethnic conflicts in Ethiopia, thereby enhancing the reliability of the information gathered and aligning with broader scholarly perspectives that advocate for inclusive and comprehensive conflict monitoring.

Comparing these findings with insights from interview participants and focus group discussions reveals a deeper understanding of the collaborative nature of conflict monitoring in Ethiopia. Interview Participant 1 emphasised the roles of various stakeholders, including Indigenous institutions, government officials, community leaders, and civil society organisations, which align well with the diverse sources reflected in Table 6. Indigenous institutions leverage their expertise in resolving intra-ethnic conflicts, complementing the guidance and resources provided by government officials. Community leaders serve as mediators, while civil society organisations enhance the monitoring process through training and advocacy, thereby fostering a comprehensive approach to conflict management. This multi-stakeholder engagement aligns with the findings of McEvoy-Levy (2018), who argues that community involvement is crucial for effective conflict monitoring systems.

Further insights from Interview Participant 8 highlight the extensive range of entities from which conflict focal persons gather data, including government agencies, intelligence services, nongovernmental organisations (NGOs), and academic institutions. This broad spectrum aligns with the strong agreement in Table 6 regarding the effectiveness of utilising multiple data points for a comprehensive understanding of the conflict landscape. Analysing this information enables focal persons to identify trends, assess credibility, and provide actionable intelligence, which is crucial for informed decision-making in conflict situations. Focus Group Discussion participants underscored the necessity of validating the credibility of information sources, emphasising the importance of evaluating the reputation of sources, corroborating data, and consulting subject matter experts. This validation process is crucial for mitigating misinformation and ensuring the reliability of the data used in monitoring efforts. Strategies such as triangulation and iterative refinement enhance the robustness of

the collected information, ultimately contributing to more effective prevention and resolution strategies in conflict situations. These insights are supported by Gebre (2014), who emphasises the need for diverse data sources to accurately assess conflict dynamics.

Table 6 highlights the perceived reliability and diversity of sources for collecting information on inter-ethnic conflict indicators in the Ataye region, revealing that 63.2% of respondents either agree or strongly agree that data is effectively gathered from a variety of sources, including local communities, civil society organisations, government agencies, and media reports. Specifically, 49.5% agree, and 13.7% strongly agree, indicating a high level of confidence in this multi-source approach. Meanwhile, 20.6% express disagreement and 16.3% remain neutral. These findings align with existing literature, such as McEvoy-Levy (2018) and Gebre (2014), which emphasise the importance of diverse data sources in enhancing the credibility and comprehensiveness of conflict monitoring. Insights from interviews and focus group discussions further underscore the collaborative nature of conflict monitoring in Ethiopia, highlighting the roles of various stakeholders—including Indigenous institutions, community leaders, and civil society organisations—in fostering a robust approach to understanding and managing ethnic tensions. Participants emphasised the importance of validating information sources and employing strategies such as triangulation to ensure data reliability, ultimately contributing to more effective conflict prevention and resolution efforts.

3.5.2. Data collection tools

Data collection tools for monitoring inter-ethnic conflict in Ataye employ various methodologies, including questionnaires, interviews, observations, focus group discussions (FGDs), and document reviews. These tools provide a comprehensive understanding of ethnic relations and potential conflict indicators, fostering a multifaceted approach that supports informed decision-making and targeted conflict resolution efforts. This section highlights the data collection methods utilised in the study area.

Table 7. Data collection tools

Data collection tools are Open-source intelligence , interviews and surveys, remote sensing, sensor networks, conference				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	71	18.7	18.7	18.7
Disagree	40	10.5	10.5	29.2
Neutral	86	22.6	22.6	51.8
Agree	116	30.5	30.5	82.4
Strongly agree	67	17.6	17.6	100.0
Total	380	100.0	100.0	

Table 7 provides insights into the perceived effectiveness of various data collection tools used for monitoring inter-ethnic conflict indicators in the Ataye region. The findings reveal that a combined 48.1% of respondents either agree (30.5%) or strongly agree (17.6%) that tools such as open-source intelligence, interviews and surveys, remote sensing, sensor networks, and conferences are effective in data collection. In contrast, 29.2% of respondents express disagreement (18.7% strongly disagree and 10.5% disagree), while 22.6% remain neutral. This distribution of responses suggests a moderate level of confidence in the effectiveness of these tools, with a notable proportion of respondents remaining uncertain about their utility.

These findings resonate with existing literature that emphasizes the importance of diverse methodologies in conflict monitoring. For instance, McEvoy-Levy (2018) underscores the value of qualitative methods, such as interviews and surveys, in capturing nuanced community perspectives, while remote sensing and sensor networks are highlighted by Wiegand et al. (2020) as innovative

approaches for real-time data collection in conflict settings. Furthermore, studies by Gebre (2014) and Abbink (2021) advocate for a mixed-methods approach, combining qualitative and quantitative tools to enhance the reliability of conflict data. Overall, the insights from Table 7 reflect a growing recognition of the need for varied data collection tools to effectively understand and address the complexities of inter-ethnic conflicts in Ethiopia.

Most interview participants identified additional tools for monitoring inter-ethnic conflict, such as questionnaires, key informant interviews, focus group discussions, document analysis, participatory mapping, and social media monitoring. Surveys are employed to gather quantitative data on the causes, triggers, and impacts of conflicts, while key informant interviews provide valuable insights into the underlying dynamics. Focus group discussions help to identify shared themes and perspectives among different ethnic groups, and document analysis reveals trends and patterns over time. Participatory mapping engages communities in delineating their territories and conflicts, while social media monitoring offers real-time updates on inter-ethnic tensions. Collectively, these tools illustrate a comprehensive approach to collecting conflict indicators data, reflecting a growing trend in conflict research that emphasizes mixed-methods strategies (McEvoy-Levy, 2018).

An interview participant described the role of a conflict situation room, which serves as a centralized space for government, military, or crisis management organizations to coordinate responses to crises. This room is crucial for information gathering, decision-making, incident monitoring, and resource management, collecting real-time data from various sources, including sensor data, social media analysis, and intelligence reports. The emphasis on high-quality data underscores the need for accurate, complete, and credible information to ensure that responses are well-informed and effective. This aligns with findings from Gebre (2014), who emphasizes the importance of real-time data in crisis response.

Focus group discussion (FGD) participants highlighted a preference for direct observation and networking as common data collection methods. Direct observation is valued for its accuracy, as it involves a defined set of indicators, while networking facilitates information exchange, early warning systems, and collaborative response efforts. These methods are essential for fostering communication and mutual support among various actors engaged in conflict prevention and peacebuilding. However, participants also noted challenges associated with conflict data collection, such as limited access to conflict-affected areas due to infrastructure issues, security concerns, and political instability. Language barriers, sensitivity around reporting, bias in information gathering, and low literacy levels may further complicate data collection efforts. Ethical considerations regarding the safety and privacy of respondents also present significant challenges, echoing concerns raised by Abbink (2021) regarding the complexities of conducting research in conflict zones.

Table 7 reveals insights into the perceived effectiveness of various data collection tools for monitoring inter-ethnic conflict indicators in the Ataye region, indicating that 48.1% of respondents either agree (30.5%) or strongly agree (17.6%) that tools such as open-source intelligence, interviews, surveys, remote sensing, and sensor networks are effective. Conversely, 29.2% express disagreement, and 22.6% remain neutral, suggesting a moderate level of confidence in these tools. This aligns with existing literature emphasizing the value of diverse methodologies in conflict monitoring, with qualitative methods capturing nuanced perspectives and innovative approaches like remote sensing providing real-time data (McEvoy-Levy, 2018; Wiegand et al., 2020). Additional tools identified by interview participants, such as questionnaires, key informant interviews, and participatory mapping, illustrate a comprehensive approach to conflict data collection. While the role of conflict situation rooms in centralised response coordination underscores the importance of real-time data, challenges such as limited access to conflict areas, language barriers, and ethical considerations complicate monitoring efforts. Overall, these findings highlight the necessity of employing a mixed-methods strategy to address the complexities of inter-ethnic conflicts in Ethiopia effectively.

3.5.3. Data Analysis Methods

The data analysis methods used in monitoring inter-ethnic conflict in Ataye are essential for converting raw information into actionable insights that guide decision-making and intervention strat-

egies. This section examines the analytical approaches employed to interpret data collected from various sources.

Table 8. The collected conflict data analyzed scientifically

The collected data analysis via scientifically mixed research methods				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	28	7.4	7.4	7.4
Disagree	41	10.8	10.8	18.2
Neutral	92	24.2	24.2	42.4
Agree	171	45.0	45.0	87.4
Strongly agree	48	12.6	12.6	100.0
Total	380	100.0	100.0	

Table 8 presents data on the perceived effectiveness of scientifically analyzing collected conflict data using mixed research methods. The findings indicate that a significant majority of respondents (57.6%) either agree (45.0%) or strongly agree (12.6%) that the application of mixed methods enhances the analysis of conflict data. In contrast, 18.2% of respondents express disagreement (10.8% disagree and 7.4% strongly disagree), while 24.2% remain neutral. This distribution suggests a strong inclination toward recognizing the value of mixed research methods in understanding and addressing conflict dynamics.

These results are consistent with existing literature that highlights the importance of employing diverse methodologies in conflict research. For instance, McEvoy-Levy (2018) advocates for mixed methods as a way to capture the complexity of conflicts by integrating quantitative and qualitative data. Similarly, Gebre (2014) emphasizes that a mixed-methods approach allows for a more comprehensive understanding of conflict indicators, as it combines statistical analysis with in-depth qualitative insights. Furthermore, studies by Abbink (2021) support the notion that scientific analysis of conflict data can lead to more robust conclusions and effective interventions. Overall, the findings from Table 8 underscore a growing recognition of the necessity for scientifically informed, mixed-method approaches to enhance the reliability and depth of conflict data analysis in Ethiopia.

Most interview participants emphasized that qualitative data analysis is particularly effective for conflict monitoring, as it enables researchers to grasp subjective experiences, motivations, and the underlying reasons for inter-ethnic tensions. This qualitative approach allows for a nuanced understanding of conflicts, facilitating the identification of potential solutions and examining the historical, cultural, and political contexts that influence these tensions. However, many participants highlighted that employing mixed-methods research approaches is optimal for comprehensive conflict analysis, as these methods integrate the strengths of both qualitative and quantitative techniques.

Focus group discussion (FGD) participants acknowledged several challenges in conflict analysis, including information overload, time constraints, emotional stress, bias, subjectivity, and limited access to information. The complexities and uncertainties inherent in conflict situations require effective collaboration among experts and analysts to navigate these obstacles. One FGD participant noted that experts can analyze large volumes of information efficiently by employing prioritization, categorization, and technological tools. Collaborative efforts are essential for managing complex information and ensuring organization, with strategies to combat information overload including task prioritization, filtering information, setting time limits, scheduling activities, and utilizing collaboration platforms.

These findings resonate with the document review conducted by Abebe and Kebede (2020), which emphasizes the importance of context-specific approaches in conflict monitoring. Their study highlights that qualitative methods can provide critical insights into the socio-political dynamics of conflicts, while quantitative data can offer robust statistical evidence to inform decision-making. Similarly, other studies underscore the necessity of mixed-methods approaches in capturing the multifaceted nature of conflicts, advocating for strategies that enhance collaboration among various stakeholders involved in conflict resolution (Gebre, 2014; McEvoy-Levy, 2018). By addressing the

challenges identified in FGDs and leveraging mixed methods, researchers and practitioners can develop more effective frameworks for understanding and resolving inter-ethnic conflicts.

Table 8 illustrates a strong endorsement for the effectiveness of scientifically analyzing collected conflict data using mixed research methods, with 57.6% of respondents agreeing (45.0%) or strongly agreeing (12.6%) on the importance of these approaches in enhancing conflict analysis. In contrast, 18.2% of respondents expressed disagreement, and 24.2% remained neutral, indicating significant support for mixed methods in understanding conflict dynamics. This aligns with existing literature that underscores the necessity of combining qualitative and quantitative techniques to capture the complexity of conflicts (McEvoy-Levy, 2018; Gebre, 2014). Interview participants further emphasized the value of qualitative analysis for understanding subjective experiences and motivations behind inter-ethnic tensions, while focus group discussions highlighted challenges such as information overload and the need for effective collaboration among analysts. These findings resonate with Abebe and Kebede’s (2020) emphasis on context-specific approaches and the importance of mixed-methods for comprehensive conflict analysis, suggesting that such strategies can significantly enhance the reliability and depth of insights into inter-ethnic conflicts in Ethiopia.

3.5.4. Reporting Conflict Warning

The reporting of inter-ethnic conflict warnings and alerts in Ataye is vital for effective conflict management and prevention. This section explores the mechanisms for reporting conflict warnings.

Table 9. Reporting of inter-ethnic conflict warning.

Warnings issued if the monitoring identifies potential risks , providing guidance on mitigating them				
	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	8	2.1	2.1	2.1
Disagree	30	7.9	7.9	10.0
Neutral	94	24.7	24.7	34.7
Agree	172	45.3	45.3	80.0
Strongly agree	76	20.0	20.0	100.0
Total	380	100.0	100.0	

Table 9 presents data on the perceived effectiveness of warning systems for monitoring inter-ethnic conflict, specifically regarding the issuance of warnings when potential risks are identified and the provision of guidance on mitigating them. The findings reveal that a substantial majority of respondents (65.3%) either agree (45.3%) or strongly agree (20.0%) that such warning systems are beneficial for conflict management. Conversely, 10.0% of respondents express disagreement (7.9% disagree and 2.1% strongly disagree), while 24.7% remain neutral. This distribution indicates strong support for implementing effective warning mechanisms as a proactive measure to address inter-ethnic conflicts.

These results align with existing literature that emphasizes the significance of timely warnings in conflict prevention. For example, the work of McEvoy-Levy (2018) highlights how early warning systems can facilitate timely interventions and enhance stakeholders’ ability to respond to emerging threats. Similarly, Gebre (2014) argues that the effective communication of potential risks is crucial in mitigating the escalation of conflicts, as it enables the mobilisation of resources and community engagement. The findings from Table 9 underscore the growing recognition of the importance of structured warning systems in enhancing conflict resilience and response strategies in Ethiopia, reflecting broader trends observed in conflict studies that advocate for proactive measures in conflict management (Abbink, 2021).

To support the quantitative findings, most interview participants emphasized that early warning reports are crucial for establishing a clear connection between warnings and responses, facilitating informed decision-making. These reports not only inform and challenge policymakers but also inspire necessary actions for short-term aversion, containment, or relief interventions, as well as long-term strategies to reduce the likelihood of violence. Participants noted that effective early warning

reports should be concise, specific, visually impactful, and realistic, clearly articulating the proximity of threats, outlining likely scenarios, and proposing actionable recommendations.

Interview Participant 2 highlighted that conflict-warning reports are generated daily from each kebele to the federal level via communication platforms like Telegram and WhatsApp. However, a significant challenge identified was the lack of feedback from higher authorities to local conflict monitoring bodies. The Minister of Peace has established standardized forms for situation reports, incident reports, and forecasting reports. Situation reports provide a comprehensive overview of conflict-prone areas, detailing changes in indicators, group mobilization actions, public perceptions, grievances, and their implications for peace or violence. Incident reports capture sudden events in conflict-prone zones, documenting patterns, trends, and the frequency of violence.

Focus Group Discussion (FGD) Participant 7 pointed out that kebeles serve as the initial units for early warning and rapid response coordination, collecting information from grassroots sources through field monitors. This information is relayed to Woreda Coordinating Units (WCUs), which analyze and respond to manageable issues, then report all early warning information to Zonal Coordination Units (ZCUs), which forward it to Regional Coordination Units (RCUs). The Ministry of Peace acts as the national hub for collecting and analyzing early warning information, coordinating rapid responses to conflict-induced crises.

Further emphasizing data quality, FGD Participant 3 stated that early warning information should be timely, accurate, valid, reliable, verifiable, and complete, detailing the incident's date, location, involved parties, actions taken, circumstances, and responding actors. The report must effectively answer the five essential WH-questions to provide a comprehensive understanding of the situation. Overall, these qualitative insights reinforce the significance of structured and responsive early warning systems in enhancing conflict prevention efforts in Ataye, consistent with findings from other studies that advocate for robust early warning mechanisms in conflict management (McEvoy-Levy, 2018; Gebre, 2014). These studies emphasize that timely and accurate data is vital for effective intervention strategies, aligning well with the qualitative feedback from participants in this research

3.6. Effect of Conflict Monitoring on CEWs

This study examines the impact of conflict monitoring on Community Early Warning Systems (CEWs), emphasising their role in promoting community resilience and facilitating proactive responses to potential conflicts.

Table 12. Model Summary.

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.917 ^a	.841	.841	.24239	1.054
a. Predictors: (Constant), conflict monitoring actors					
b. Dependent Variable: Conflict early warning system					

Table 12 presents a model summary for the relationship between conflict monitoring actors and the effectiveness of conflict early warning systems. The model shows a strong correlation coefficient (R = 0.917), indicating a high degree of association between the predictors and the dependent variable. The R Square value of 0.841 suggests that approximately 84.1% of the variance in the effectiveness of the conflict early warning system can be explained by the actions of conflict monitoring actors. This high level of explanatory power demonstrates the significant role that these actors play in enhancing early warning capabilities.

The adjusted R-squared value, which accounts for the number of predictors in the model, is also 0.841, reinforcing the model's reliability. The standard error of the estimate (0.24239) indicates the

average distance that the observed values fall from the regression line, suggesting a relatively low level of error in the predictions made by the model. Furthermore, the Durbin-Watson statistic of 1.054 suggests that there is no significant autocorrelation in the residuals, which is essential for the validity of regression analyses.

These findings are consistent with existing research that underscores the importance of various actors in conflict monitoring and early warning systems. For instance, McEvoy-Levy (2018) emphasises that effective collaboration among different stakeholders enhances the reliability of early warning mechanisms. Similarly, studies by Gebre (2014) highlight the critical role of local actors in providing timely and relevant information that informs conflict response strategies.

Additionally, research by Abbink (2021) supports the notion that a multi-actor approach in conflict monitoring improves the adaptability and responsiveness of early warning systems. Furthermore, the work of Kalyvas (2006) illustrates that local community involvement is crucial for effective conflict prevention, as grassroots actors often have the most accurate insights into emerging tensions. Overall, the results from Table 12 align with the literature supporting the idea that well-coordinated conflict monitoring efforts significantly improve early warning systems, thereby facilitating more effective conflict prevention and response.

Table 13. ANOVA results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.666	1	117.666	2002.698	.000 ^b
	Residual	22.209	378	.059		
	Total	139.875	379			

Table 13 presents the results of an Analysis of Variance (ANOVA) for the regression model examining the relationship between conflict monitoring actors and the effectiveness of the conflict early warning system. The regression sum of squares is 117.666, indicating a significant amount of variance in the dependent variable that can be explained by the independent variable. With 1 degree of freedom for the regression and 378 for the residual, the model shows a mean square for regression of 117.666 and a mean square for the residual of 0.059. The F-statistic is 2002.698, which reflects a strong relationship between conflict monitoring actors and the effectiveness of the early warning system. The significance value (p-value) of .000 indicates that this relationship is statistically significant at any conventional alpha level, suggesting robust evidence against the null hypothesis.

These findings align with existing literature emphasizing the importance of effective conflict monitoring in enhancing early warning systems. McEvoy-Levy (2018) highlights that robust monitoring frameworks significantly improve the predictive capabilities of early warning systems. Similarly, Gebre (2014) discusses how the involvement of various actors in conflict monitoring leads to more accurate assessments of potential conflicts, facilitating timely interventions. Dejene (2014) and Kebede (2019) also emphasise that diverse stakeholder participation is crucial for enhancing the accuracy and reliability of conflict assessments. Moreover, Tronvoll (2013) emphasises that incorporating multiple perspectives into conflict monitoring not only enriches the data collected but also fosters a sense of ownership among community members, ultimately leading to more effective conflict prevention strategies. Overall, the results from Table 13 underscore the critical role that conflict monitoring actors play in the effectiveness of early warning systems, reinforcing broader trends in conflict research that advocate for comprehensive monitoring approaches.

Table 14. Coefficients.

Coefficients ^a								
Model	Unstandardised Coefficients			Standardized Coefficients	t	Sig. Tolerance	Collinearity Statistics	
	B	Std. Error	Beta				VIF	
1	(Constant)	1.258	.048		26.397	.000		
	c/monitoring actors	.574	.013	.917	44.752	.000	1.000	1.000

Table 14 provides the coefficients from the regression analysis examining the relationship between conflict monitoring actors and the effectiveness of the conflict early warning system. The unstandardised coefficient for the constant is 1.258, indicating the baseline level of effectiveness when the predictor variable is zero. The coefficient for conflict monitoring actors is 0.574, suggesting that for every unit increase in the involvement of monitoring actors, the effectiveness of the early warning system increases by approximately 0.574 units. This strong positive relationship is further supported by the standardised coefficient (Beta) of 0.917, which indicates a substantial effect size, implying that conflict monitoring actors are a significant predictor of early warning system effectiveness.

The t-value for conflict monitoring actors is 44.752, with a significance level (p-value) of .000, indicating that this relationship is statistically significant. The collinearity statistics, including a tolerance of 1.000 and a Variance Inflation Factor (VIF) of 1.000, suggest that there is no multicollinearity issue affecting the regression model. These findings are consistent with literature emphasizing the importance of diverse stakeholder participation in conflict monitoring. For instance, studies by Dejene (2014) and Kebede (2019) highlight that involving local actors significantly enhances the reliability and responsiveness of early warning systems. Moreover, Tronvoll (2013) underscores that integrating multiple perspectives enriches data collection and fosters community ownership, thereby improving conflict assessments. Overall, the results from Table 14 reinforce the notion that effective and inclusive conflict monitoring is crucial for advancing the efficacy of early warning systems.

The findings from Tables 12 to 14 collectively underscore the significant relationship between conflict monitoring actors and the effectiveness of conflict early warning systems. Table 12 reveals a high correlation coefficient ($R = 0.917$) and an R Square value of 0.841, indicating that approximately 84.1% of the variance in early warning system effectiveness can be explained by the actions of conflict monitoring actors. The ANOVA results in Table 13 further support these findings, with an F-statistic of 2002.698 and a significance value of .000, demonstrating that the model is statistically significant. Finally, Table 14 presents regression coefficients showing that for each unit increase in the involvement of monitoring actors, the effectiveness of the early warning system increases by approximately 0.574 units, with a standardized Beta of 0.917, indicating a strong effect size. The absence of multicollinearity is confirmed by a tolerance of 1.000 and a VIF of 1.000. These results align with existing literature, emphasizing the critical role of diverse stakeholder participation in enhancing the accuracy and responsiveness of early warning systems, as highlighted by Dejene (2014), Kebede (2019), and Tronvoll (2013). Together, these findings reinforce the notion that effective and inclusive conflict monitoring is essential for advancing the efficacy of early warning systems.

4. Conclusion

In conclusion, this study highlights the essential role of conflict monitoring in preventing and mitigating the Ataye conflict in the North Shewa zone. The grassroots efforts by peace councils, forums, and clubs reflect a community-driven approach to conflict resolution; however, the absence of formal organization and transparency fosters distrust among community members. Despite the

identification of 44 conflict indicators by the Minister of Peace, significant gaps in awareness and understanding among monitoring actors persist, underscoring the need for improved coordination among peace, security, and humanitarian stakeholders. Key indicators, such as territorial claims and resource competition, illustrate the complexity of the conflict, necessitating a comprehensive monitoring framework. While the bottom-to-top reporting structure facilitates grassroots data collection, insufficient feedback from higher officials undermines the system's effectiveness and delays timely interventions. Therefore, enhancing transparency, coordination, and communication among all monitoring actors is crucial for building community trust and resilience. Coordination should be improved by establishing a national conflict data-sharing platform between the Ministry of Peace and local peace committees. Ultimately, these improvements will contribute to more effective conflict prevention strategies in the region, ensuring that early warning systems are not only functional but also trusted by the communities they aim to protect.

Need for Further research

Future research on inter-ethnic conflict monitoring techniques in Ethiopia should prioritize several critical areas to enhance the effectiveness of early warning systems. First, longitudinal studies could track the effectiveness of various monitoring methods over time, providing insights into how inter-ethnic dynamics evolve and how monitoring techniques can adapt accordingly. Additionally, exploring community-based monitoring approaches that engage local actors can reveal culturally relevant practices that improve data collection and enhance community trust in conflict management efforts. It is essential to assess the role of technology, such as mobile applications and big data analytics, in improving the accuracy and timeliness of conflict alerts. Comparative studies examining successful monitoring techniques in similar contexts, both within and outside Ethiopia, can offer valuable lessons and best practices. Ultimately, research should prioritise integrating diverse perspectives, particularly from marginalised communities, to ensure that monitoring frameworks are comprehensive and inclusive. Addressing these areas will significantly strengthen inter-ethnic conflict monitoring techniques and improve overall conflict prevention strategies.

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