

# Postwar Consequences on Tigray Female Physicist on Northern Ethiopia

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# Introduction

- Ethiopia is a large country, a home of more than 120 million citizens<sup>1</sup>. The number of women to men is comparable. Women are traditionally expected to work at home, taking care of domestic chores, raising children, and serving their husband.
- Before right 20 years there was not a single physics instructor in any of the Ethiopian universities. ands.
- This time however, there are few female physicists in the country, including in the Tigray region, which has been severely affected by COVID-19, a locust invasion, and a two-year conflict since 2020. Before the war, the region was at 29% poverty level<sup>2</sup>.
- We people of the least developed countries have issues of survival before any of poverty reduction, development and sustainability.

# Introduction

- However, solution of any of the above agenda is education. Specially, science play vital role. Physics as one of the basic sciences, it well understood and entertained equal to the other sciences. A harmonized curriculum is prepared and implemented that bench marks European countries<sup>3</sup>.
- The numbers of universities in the country has substantially increased in twenty years and so do the Science physics teaching.
- Despite the low enrolment of physics at the beginning, currently enrolment encouraging. However, the enrolment might not be interest based. In Tigray, north of Ethiopia, the situation used to be shared almost equally. However, the war might have changed the situation.
- This study assesses the postwar situation of female physicists in Tigray including university instructors.

# Data and Results

## Data

- Since, the war has complicated reaching the female physics teachers in the region, we have interviewed only five (two high school teachers and three university).
- Data is collected through interview (five questions) and questionnaire (six questions).

## Results: Questions and answers

- Interview questions and responses
  - Was it your interest to join physics?
    - 4: yes, 1: No
  - Why do you love physics?
    - 4: Its nature, 1: instructors after joining
  - Are you satisfied with your teaching?
    - I love teaching it but still have concerns (input)

- How did you respond to the conflict?
  - All: Very difficult (depressed)
- Would change your disciple if you get a second chance:
  - Yes: all ... life during the war was difficult
- Questionnaire questions and responses
  - Do you have kids?
    - Four: yes
  - How was teaching physics?
    - All: Interesting
  - What was the impression of the students and community during your teaching?
    - Most of them respect but few undermine our ability

# Data analysis and Discussion

- How was life during the conflict?
  - All: Very difficult
- Do you enjoy physics still now?
  - Before: yes but now I doubt
- What do you plan to do as a physicist?
  - I am in a confusion
- How would you like to interact with the international community of physics professional?
  - Scholarship, funding researches and different networking platforms.

## Discussion

- Most of them were interested learning and teaching physics.
- They have become an inspiration to many boys and girls at the young age.
- They are middle income and do not get any special incentive.
- Life during the war was so difficult because they did not have any savings in the bank
- After the war, they also plan to engage themselves in trade issues as well.
- They are so eager to work with similar profession women in the world.

# Discussion and Conclusion

## Discussion

- During the conflict, the region was under siege, with no work or salaries for nearly a year and six months. Despite being on the frontlines of providing humanitarian aid, the female physicists felt that their contributions were not enough. They report feeling that they have been left behind, with traders and merchants better equipped to rescue their families during this challenging time. This trauma has affected their post-war decisions, as well as the aspirations of the youth, particularly young girls. Many of them are already considering changing disciplines or leaving the country altogether.

## Conclusion

- Though most of the females were interested in Physics, the war has changed most of their minds. Hence, to address the formerly mentioned challenges, we recommend an integrated effort from the local government and the international community. This includes providing special support and incentives, funding for research, and offering short and long-term training or summer schools to inspire and uplift these women. It is also important to form a national and international physics working platform/networking to connect female physicists in Tigray and beyond.
- It will be very inspiring and benefiting to all Ethiopian women physicists if the next IWCIP could be prepared in Ethiopia.

# References

1. Ethiopian Government reports
2. Tigray regional state government 2020 report to the state council.
3. Ethiopian Ministry of Education

**Thank you!**