

Global Astronomy Survey : Ethiopia

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SpoC Approved : No

1. Professional (Research) Astronomy:

i. Number of universities offering Astronomy (and their names)

Two Universities are currently offering astronomy and space science and both are offering only at graduate level.

- Addis Ababa University offers theoretical Astronomy at Msc and PhD level
- Bahir Dare University offers Space science at graduate level

ii. Number of universities offering Physics (and their names)

10 Universities

- Addis Ababa University
- Bahir Dare University
- Adama University
- Alemaya University
- Jimma University
- Mekelle University
- Hawasa University
- Debub University
- Arbaminch University
- Gonder University

iii. Number of academics who have been trained in Astronomy (ideally with their names and levels of qualification)

2 faculty members and 8 graduate students

- Dr Legesse Wetso (Phd)
- Dr. Abebe Kebede (Associate Professor of physics)
- Mr. Sultan Mohammed (MSc)
- Yabibal Fantaye (Phd candidate)
- Nebiha Shafi (PhD candidate, NASSP)
- Amare Abebe (Msc candidate, NASSP)
- Kamil Hussein (Honors, NASSP)
- Bekele Tujuba (MSc candidate, NASSP)
- Abiy G. Tekola (PhD candidate)
- Solomon Belay (PhD candidate)
- Abiy Zerfu (MSc)

iv. Number of astronomical facilities (observatories, telescopes, etc) and as much detail about each as possible (websites/contact details)

- Currently there is no astronomical facility in the country. However there is one

observatory in the process of being built. When it comes to Space science, there is only one geospace radar observatory situated on mount Entoto in the capital. This observatory is fully dedicated for research.

v. Self evaluation (according to the different phases above, how would you rate your country in terms of Professional Astronomy? Please include any other relevant information to motivate your choice.)

- Generally speaking, interns of developing qualified professional astronomer and also offering astronomy at school level and university level, the level is poor.

2. Public Understanding of Astronomy:

vi. What governmental astronomy/science outreach programmes for the public take place (co-ordinated either by government departments or national facilities)

- So far is very little is organized in the country. Basically there is no governmental astronomy outreach programs are going on. However, the Ethiopian Space Science Society is trying to reach out to schools and the general society as much as it can with the limited resources it has. One of the success is establishing different astronomical and space science society at school level.

vii. What non-governmental astronomy/science outreach programmes for the public take place (NGO activities or international programmes that your country is involved in)

- Ethiopian Space Science Society (ESSS) is a non-governmental organization promoting Astronomy and Space Science related activities in the country. This society, being limited by resources and human power, is trying to reach out to the different parts of the society especially students by helping the establishments of school based astronomy and space science clubs.

- The other non-governmental organization promoting astronomy and science in the country is a virtual society established by different astronomy enthusiastic Ethiopians located all over the glob. This group organized different high schools and Universities in the country so that they participate in the astrophotography project using different robotic telescopes situated in Australia and USA and in the all African Astroid search campaign in which students from South Africa are also participating. This same virtual organization is also engaged in translating different astronomical documents to the different local languages of the country so that the community could get access to astronomy in their local language.

viii. Comment on the presence of astronomy in the media (TV, radio, newspapers). Is it very prominent? Are there specific programmes on astronomy? Is the media generally willing to publish news on astronomy?

- There is only a 20 minute radio program about astronomy and space science which features in the state media on a weekly basis. This program generally aims at addressing

the different astronomy and space science issues raised by the general public and students. It also works in creating awareness about hot issues in astronomy to the public. Ethiopian space science society (ESSS) is working on extending this program into television program.

ix. Comment on the presence of astronomy/science in the general culture of the people. Are there any specific challenges or setbacks? Is astronomy a welcome subject of conversation?

- Ethiopia is one of the ancient civilization in the world and its culture is rich in different astronomical legends and indigenous knowledges. Even today there are a number of surviving cultures with a strong connection with stars, e.g. the mursi people. In the ancient literatures of Ethiopian Orthodox church astronomy is highly recognized and it is even stated that some of the names of the constellations had some connection in the then spoken Ethiopia languages. In the present days, it seems that this historical connections to astronomy are getting weak and a lot has to be done in terms of bringing the different indigenous astronomical knowledge and the modern one to the general public. On the other hand, Astronomy is enjoying its popularity among the new generation especially school kids and those with access to modern education and information.

x. Self evaluation (according to the different phases above, how would you rate your country in terms of Public Understanding of Astronomy? Please include any other relevant information to motivate your choice.)

- Even if there is a big interest for astronomy among the young generation, there is still a lot of work to be done in reaching out and creating awareness among the general public.

3. Astronomy in Schools:

xi. What governmental astronomy/science education and outreach programmes for schools take place (co-ordinated either by government departments or national facilities)

- There is no well organized governmental astronomy outreach programs for schools at all.

xii. What non-governmental astronomy/science education and outreach programmes for schools take place (NGO activities or international programmes that your country is involved in)

- Only Ethiopian Space Science Society (ESSS) is working in reaching out to different schools with its limited resources. One of the main success this society achieved is establishing different school level astronomical society. However this effort is only limited in the central part of the country near the capital.

xiii. Comment on the presence of astronomy in the school curriculum. Is it part of the school curriculum? Is it very prominent? What age groups?

- Astronomy is not part of the school curriculum by its own at any level. However there are some part of the different curriculum at different level which touches astronomy. These include geography(solar system and related topics),physics (gravitation and the like) .

xiv. Comment on the status of astronomy/science in schools. Are there any specific challenges or setbacks? Sufficient number of students studying maths and science? General interest in maths/science/astronomy in schools?

- Even if there is a strong interest among students in school towards astronomy/science and maths, there is a big challenge in promoting and popularizing them in the school. The first and the main one is the lack of resources prepared in the local language the kids could understand and the other problem is lack of training to educators.

xv. Self evaluation (according to the different phases above, how would you rate your country in terms of Astronomy in Schools? Please include any other relevant information to motivate your choice.)

Any other general comments or information that you feel would be useful for this survey?

- Astronomy at school level in Ethiopia is very poor. It is not well represented in the school curriculum and as a result much is expected to be done.