

MANAGEMENT RESPONSE TO THE EAST AND SOUTHERN AFRICA  
REGIONAL SEISMOLOGICAL WORKING GROUP (ESARSWG)  
EVALUATION REPORT.

Fred Alex Tugume (PhD)

Chairperson ESARSWG

1. Summary

Key  
Recommendations

Recommendation (Assessment)	Response/observation/status
The workshop-based analyst training program should continue, longer ( 1 month) visits to a highly capacitated node could be considered if a major lack of capacity develops at a node due to personnel changes.	These workshops are refresher training courses, where we expect analysts to have some knowledge on the subject matter. Therefore two weeks is enough for training at most if it should be longer than this, few trainees from some countries will attend.
lack of PhD-holders within the subject. Sandwich courses between an institution with a number of researchers and a high level of current capacity, such as Ethiopia, and local institutions may be a useful and cost-effective model and could be supported by ISP.	Good suggestion but the course part should be arranged carefully and if possible, PhD by thesis should also be an option
In cases where the nodes are situated at government agencies with universities that lack geophysics programmes, one suggestion to facilitate the cooperation within the network would be to establish part- nerships between the universities in all member states and to incorporate universities in, e.g. Mozambique and Zambia in the postgraduate capacity building.	This is a good idea, but introduction of programs in universities depends on country needs and sustainability of the programs (continuous intake). It should not be an intermittent program

Research and Knowledge Transfer:

Recommendation (Assessment)	Response/ observation/status
Provide network support to allow all members to contribute a minimum of one station, preferable real- time, to the network. Given funding constraints this support should be focused on nations which are struggling to provide any data to the collective, rather than be regarded as a ‘right’ for all members. In some cases this support may need to take the form of equipment purchase, but it could also mean funding for the maintenance of existing equipment.	The recommendation is right and would assist struggling member states acquire data.
Greater emphasis be placed on providing support for equipment maintenance to keep stations running.	Maintenance of equipment is becoming a challenge and has resulted in a drop in volume of data. Support on maintenance is a welcome idea.

Encouraging smaller-scale projects with two-or-three partners would lead to more manageable research questions and more frequent publications (although this must be balanced carefully to ensure that all nodes benefit from network activities).	A good suggestion, however data gaps also hinder this suggestion so network support is important.
--	---

### Network governance and integration:

Recommendation (Assessment)	Response/ observation/status
Develop a more formalised structure for the network in order to acquire funding as a network and to formalise cooperation with other networks	Not very clear, As a group we have tried to put together a draft constitution. We need to finalize the constitution
Develop measures to include younger scientist and technicians in decision-making	Yes we do, but the current young generation is material oriented, decision making can be somehow distorted.
A gender representative within executive committee that discusses with gender representatives at the different nodes possible strategies to encourage more women to join the field of geophysics and to continue in the field of seismology.	This is not an easy issue but our group we have tried to address gender diversity issue, however the challenge lies at the grassroot. Seismology in most member states is part of a Geophysics section in Geology or Meteorology Department. Most women view such careers as men dominated. It requires a lot of campaigning at school level. Usually when job vacancies are available, there would no female or few female candidates qualifying in that field

### 3.3 Network Structure and Personnel (including Gender)

Recommendation (Assessment)	Response/ observation/status
Enquiry into the factors that lead to the poor representation of women in the network and develop gender-related strategies based on the findings.	Good observation, it is being addressed under gender matters
A gender representative within executive committee that discusses with gender representatives at the different nodes possible strategies to encourage more women to join the field of geophysics and to continue in the field of seismology.	Responded to in previous sections
The network and individual nodes should expand outreach activities to target especially girls and young women.	A good suggestion
In cases where the nodes are situated at government agencies with universities that lack geophysics programmes, one suggestion to facilitate the cooperation within the network would be to establish partnerships between the universities in all member states and to incorporate universities in, e.g. Mozambique and Zambia in the postgraduate capacity building (e.g. through sandwich programmes and co-supervision).	Responded to in previous sections

### 3.4 Network Governance and Communication

Recommendation (Assessment)	Response/ observation/status
Develop a more formalized structure for the network	Draft ESARSWG constitution is in place needs further consultation and agreed upon I all member countries
Set up a website for the network and a communication platform to share information	Website was developed but keeping it up and running is an issue.
Set up a regional data centre that can be accessed by network members	Data is always shared during regional meetings
Set up a Whatsapp group to facilitate communication among younger members.	Whatsapp group exists
Set up a yearly plan for activities, so that members can block the time of the workshops in advance	Good suggestion
Include technicians in the network meetings, so they can exchange knowledge and information.	Technicians are always included in general meetings of the group
Develop measures to include younger scientist and technicians in decision-making.	Yes we do but the current young generation is material oriented, decision making can be somehow distorted.

### 4.2 RESEASRCH DATA COLLECTION

Recommendation (Assessment)	Response/ observation/status
The lack of operational instruments. In some cases this is because there has been no funding to re- place obsolete analogue instruments, but in others it is due to difficulties in repairing, maintaining and safeguarding deployed stations.	Yes, this should be looked into thoroughly as most nodes use archaic instruments. It would be good if there could be small amount of money as an incentive for network running
An inability to fund trips to existing stations to service them and collect the data (this is particularly a problem for university-based nodes where such routine activities are typically not funded by local government).	Member countries are encouraged to source local funding to cater for such activities.
Unresponsive procurement processes and excessive delays in the release of funds which can greatly delay operational	Good obsevation

## 5.2 Key recommendations

The following non-hierarchical recommendations draw from the challenge-ranking and the assessment presented in section four of this report. All following key recommendations complement each other and could lead to higher levels of sustainability for the network:

Recommendation (Assessment)	Response/ observation/status
<p>. Acquiring and diversifying funding/support for either training and staff retention, research (including instrumental capacities) and knowledge transfer forms a prerequisite and consequence for the sustainability of ESARSWG. It should be further developed to support the long-term objectives of the network and to create new momentum for international collaboration. It should hence be attributed a higher position in the ranking of challenges.</p> <p>Some governments of the network have already applied for international funding to strengthen the nodes and its capacities (MZ), others plan to build new centres and include geophysics (ET, TZ). These initiatives could be starting points to strengthen the network. ISP and the review panel could be helpful in connecting the network to further potential supporters. Other nodes could be learned from similar networks (e.g. MSSEESA), who have institutionalised and formalised their relationship and which installed membership fees.</p>	<p>Membership fee can be introduced. However it would be quite difficult to convince government run networks to subscribe, if they are already failing to maintain the network stations and other equipment.</p> <p>Much as governments appreciate the need for earthquake monitoring, in most nodes, the seismology section is not top priority.</p> <p>It would be good if there could be small amount of money as an incentive for network running</p>
<p>PhD-training and technician training will be crucial to increase the capacity in seismology and geophysics. Given the limited number of M.Sc. and PhD-programs in the region, the network could work towards international scholarships and regional placements (e.g. in Ethiopia) as well aim to form a training agreement with a higher degree of formality. Mobility of former students and researchers within the network proves that it can be feasible also in the future. Regional and international mobility of network members is also more likely to increase the visibility of ESARSWG in scientific and policy networks. Moreover, a formalised network is also more likely to be perceived as a group by potential funders and supporters</p>	<p>This cannot increase capacity as long as there no brain drain.</p>
<p>The network should participate in the general efforts to include more women researchers and technicians in their midst. A network and node-level strategy and an assigned post on the board seem necessary for this. The gender-issue should receive a higher priority for the network</p>	<p>This is a good recommendation that the group ought to pursue</p>
<p>To contribute to knowledge-transfer and science communication, more bilateral and multilateral research and publications would be desirable.</p> <p>The network provides a formidable starting point for this due to its regional coverage and its trans-disciplinary composition of government institutes and university departments. Research and moreover publications can also have the effect of more visibility in scientific and policy networks and lead to more interactions with other regional and international seismological networks. Moreover, power publications underline the growing importance of research that is responding to local needs at the intersection of science and development</p>	<p>This is a good recommendation that the group ought to pursue</p>