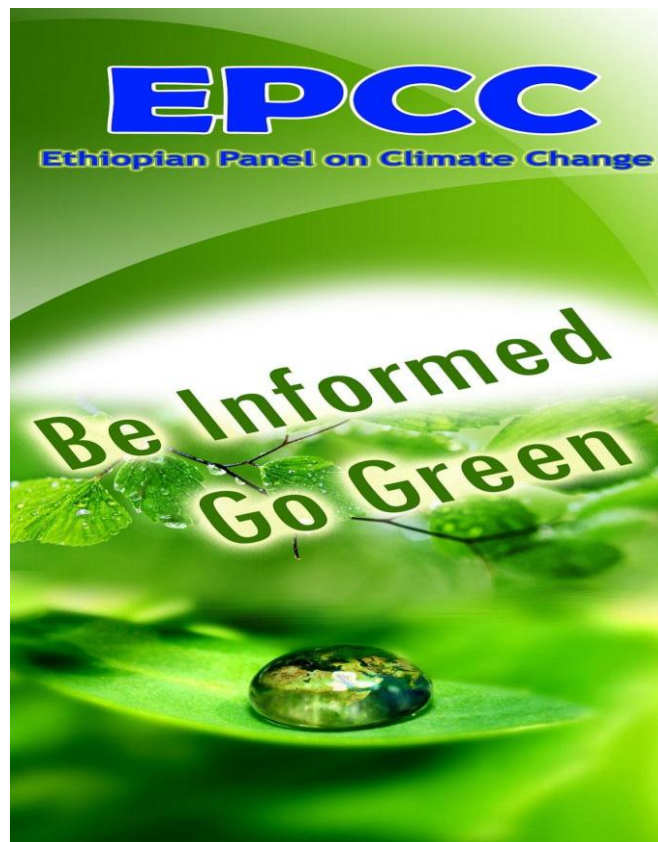


The Ethiopian Panel on Climate Change (EPCC)

Draft Report of The Second Technical Meeting of the EPCC



**Venue: Conference Hall of the Ethiopian Academy of Sciences
May 14 April 2014
Addis Ababa,**

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Acknowledgment

The Ethiopian Panel on Climate Change highly appreciates the Ethiopian Academy of Sciences for hosting the institution and availing the conference facilities. It also would like to extend its gratitude to participants of the meeting for their efforts and dedication.

2nd EPCC preparatory meeting

Opening Remarks

Dr. Belay Simane, Chairperson, welcomed participants to the meeting and requested Ato Gebru, Project Coordinator, EPCC, to brief about EPCC for the new people who were not present in the first meeting.

Ato Gebru thanked the participants for attending and participating in the proceedings to establish the EPCC and appreciated the dedication of the participants in the efforts to make the project successful and briefed about the main objectives of the EPCC. The Ethiopian Panel on Climate Change (EPCC) is a scientific interdisciplinary body organized under the Ethiopian Academy of Sciences (EAS) as a scientific platform to enable the MoEF and Climate Resilient Green Economy (CRGE) sector Ministries and Regional Governments to monitor environmental changes of Ethiopia over time and take the necessary response measures in line with the CRGE strategy. He underscored that it is a project funded through Strategic Climate Institutions Programme (SCIP) to compile reports for policy inputs. He also presented a summary of the first EPCC meeting and the tasks that were assigned by two committees with one that dealt with clarifying the relationship with NMA and the other to look into revising Procedural documents presented during the first technical preparatory meeting of EPCC respectively.

Ato Gebru requested Ato Workneh, member of the committee to deal with NMA, to present the developments on outstanding issue with NMA.

Ato workneh briefed about the discussion that the committee had with the senior management of the NMA. He explained that the major issues that were raised by the NMA were concerning legitimacy and mandate since NMA is the focal point for IPCC. Hence, there is a notion that NMA should have been consulted during the inception of the project and to sort of spearhead the project. The other outstanding issues raised are:

- **Naming:** The name is confusing and should be changed (e.g. Task force)
- **Structure:** It should not be the mirror image of IPCC
- **Synthesis report:** The report to give policy advise but not to conduct basic research
- **Contributors:** there is no need to have lead authors, authors, etc.. As IPCC but rather should only have reviewers.

Ato workneh informed participants that NMA assured that it will be on board of the process and an eventual MOU will be drafted to work together once the team reach consensus on issues discussed. Further meetings are scheduled for negotiations

Ato Gebru thanked the committee for being vigorous and taking the initiative to meet the NMA senior management and asked the participant for a round of applause.

Dr. Belay also reiterated the significance of NMA to the EPCC process and congratulated the committee for their relentless efforts. He explained that the science component would have been difficult without the involvement of NMA and underscored the steps taken to bring NMA were essential and paramount.

Presentation

Second Preparatory meeting for the Establishment of EPCC, Gebru Jember, Project coordinator, EPCC

- Ato Gebru started his presentation by describing the inception process of EPCC and the preceding meetings held so far in establishing the EPCC.

He indicated that the first consultative high level inception meeting was held on 30th of October, 2013.

He mentioned A National operational workshop of EPCC was held from 27-28 February 2014

- According to Ato Gebru, the major objectives of the workshop include:
 - Introducing the project to relevant stakeholders;
 - Articulating the activities of EPCC vis a vis IPCC; and
 - Discussing the composition and activities of the working groups which will be established later this year.
- The major Outcomes of the workshop he noted include:
 - The participants reached consensus that the establishment of the Panel is timely;
 - Emphasized the need to be inclusive of all stakeholders including NMA
 - Identified key institutions which can contribute, Proposed Criteria and suggest technical team members (institutions/individuals) whose job description will be developed latter.
 - Suggested mechanisms for a horizontal and vertical interaction and collaboration (regional and sectoral).
 - Agreed EPCC to have two Working Groups and Gender task Force: (W1) on the Physical Science of Climate Change and (W2) on Impacts, Vulnerability, Adaptation and Mitigation
 - The second group was also sub-categorized by sector as:
 - ✓ Agriculture and Food Security
 - ✓ Water and Energy
 - ✓ Health and Settlement
 - ✓ Industry, Infrastructure and Transport
 - ✓ Ecosystems and Biodiversity
- Suggested the composition and key issues to be addressed by each Working Group,
- Selected technical team members who will facilitate the establishment of the panel including the working groups
- The technical team members are to have two preparatory meetings in order to finalize their responsibilities before the first session(July/August2014)

The first preparatory meeting was held on April 9, 2014

- He indicated that the outlined Objectives of the meeting were:

- To enrich the draft principle governing EPCC
- To set and further enrich the selection criteria for TSU, Lead Authors, Authors, reviewers, and review editors
- To identify responsibility of TSU, Lead Authors, Authors, reviewers, and review editors
- The Outcomes from the first meeting are :
 - Criteria placed for TSU, Lead Authors, Authors, reviewers, and review editors
 - Responsibility identified for TSU, Lead Authors, Authors, reviewers, and review editors
 - Two committee's established for:
 1. Settling the outstanding issues with NMA
 2. Finalizing the draft principle governing EPCC

The second preparatory meeting on May 14, 2014

Ato Gebru, highlighted the major objectives and expected outputs of this specific meeting outlining the objectives and expected outputs

- Objective of the meeting
 - To enrich the draft baseline assessment
 - To set and further enrich the content of the report
 - To share responsibility among Lead Authors, Authors, and review editors
- Expected outcomes
 - The content of each report finalized
 - Responsibility among Lead Authors, Authors, and review editors identified,
 - The draft baseline survey further enriched

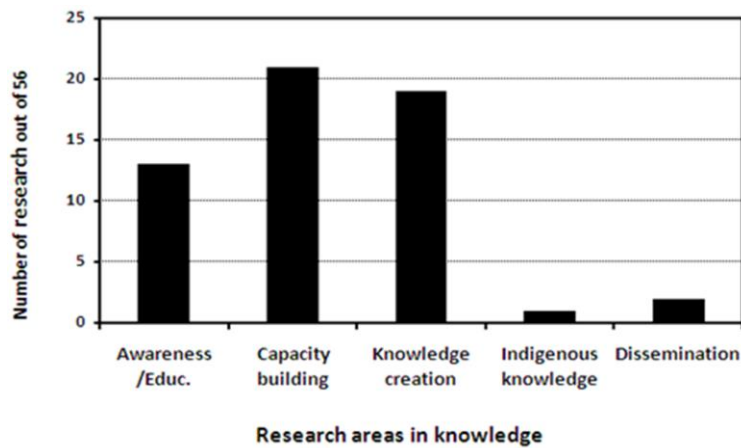
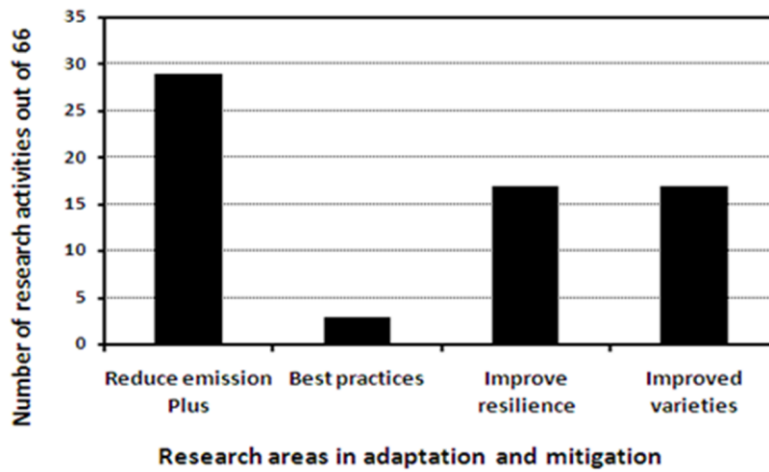
Baseline Studies on Climate Change Research in Ethiopia, Prof. Brook Lemma

- Prof. Brook introduced himself and started his presentation by giving a brief overview about climate change and said that it is
 - Real, whatever the causes.
 - Transcends all natural systems and livelihoods.
 - Global with no certainty how to pull through.
 - He indicated that most vulnerable are poor countries
- **Identified Actors in climate change research**
 - Many and spread out into governmental and non-governmental institutions
 - Efforts are spread out wasting precious time and resources.
 - Streamlining efforts is timely and cost effective.
- **Prof. Brook described the Objectives of the study**
 - Survey what everyone is doing
 - Compile activities along actors
 - Bring in an inclusive platform
 - Synergize activities

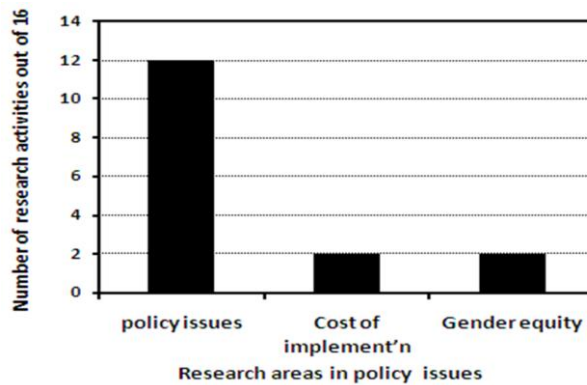
- Feed into consolidated national directives (strategy, policy, ...)
- Add value to global efforts as Climate Change is a road no one travels alone.
- **In relation to methodological Tools used Prof. Brook listed the following:**
 - Developed a questionnaire
 - Interview questions based on questionnaire
 - Developed check list of actors (stakeholders)
 - Developed work-plan
 - Secondary data: Mostly websites
 - First EPCC Conference by EAS
 - Data syntheses: Classify current research and gaps
- **Listed Central questions in the questionnaire/interviews**
 - What are the current activities by the stakeholder?
 - Who are the collaborators?
 - What are the expected outcomes?
 - What are the gaps or problems to get to the planned outcomes?
 - How can CC Research be enhanced?
- Prof. Brook presented the research results accordingly and put them into three categories, namely, climate change research initiation, current research and related actions, and identified gaps in climate research.
- **Initiation of Climate Change research**
 - Personal carriers in specific fields as (e.g. HEI)
 - Mandate given by the Ethiopian/regional Governments to study the environment (e.g. MoEF)
 - Proactive initiative of the Ethiopian Government in developing the CRGE and DRM Strategies (e.g. line ministries)
 - Joint efforts nationally in each country and internationally by bringing together the knowledge and other resources together (e.g. FAO-HU,
 - Problems observed in the community (e.g. EIAR, NGOs)
- **Current research and related actions**
 - In this survey a total of 191 projects were recorded.
 - These fall into 7 major categories or clusters

	Research clusters	Projects	Percent
	Adaptation and mitigation	66	34.6
	Knowledge creation	56	29.3
	Synergization	24	12.6
	Policy and implementation	16	8.4
	Conservation	14	7.3
	MRV	8	4.2
	Community services	7	3.7
	TOTAL	191	100

- **Adaptation and mitigation**



- **Policy issues**



- **Identified gaps in climate change research**

- A total of 212 CC research gaps have been identified
- The highest gaps are on collaboration and funding 37 gaps 17% ,training 32 gaps 15% and platform 28 gaps 13% of the total
- In terms of identifying gaps, EIAR, Oxfam and Dire Dawa University rank the highest respectively

- Major identified research gaps

- 212 Climate Change research gaps were clustered into 6 major categories.

Major research gaps	Number of gaps	Percent
Knowledge: training, etc.	99	46.7
Synergization: Platform, networking, etc.	70	33.0
Policy and administration	23	10.9
Lack of capacity: human and facilities	12	5.7
MRV	5	1.9
Community services	3	1.4
Total	212	100

- Indicated some major gaps in knowledge is observed in training and publishing/distribution and availability of literature amongst others
- There is also gap in synergy high on collaboration / funding and platforms
- The gap in policy and administration is observed mainly in policy and regulation and implementation
- Prof. Brook made a conclusion remark and suggested recommendations
- GENERAL conclusion
 - He indicated that Climate change is real and the world is planning on its mitigation
 - But he underscored actions are not as strong as the knowledge and the global rhetoric suggest.
 - This is because of global economic developments
 - Based on the exploitation of natural resources
- **Adaptations and mitigations**
 - He indicated that Most worked on them
 - Most reached communities
- Problems
 - Are they sustainable?
 - Are they owned by communities
- **Knowledge creation**
 - He observed that knowledge creation is in no way in short supply
 - He said that some are published in (English), most remain so.
- Problems
 - He underscored the need to Publish in local languages

- And the crucial role of Change into technologies
- **Networking and collaborative work**
 - He identified that Most work independently (e.g. emission reduction, sweet potato) and no coordination and hence
 - Best practices hidden somewhere
- Problems
 - He stated that there is No aligning of research and development efforts
 - There is duplication of efforts, indicating SYNERGY- a missed opportunity
- **Recommendations**

Prof. Brook outlined the following recommendations

- Beat the bureaucracy
- Too many actors, too little coordination
- forming administrative and technical bodies
- Platform
- Capacity building (short/long term)
- Policies and leadership lag: Should be dynamic
- Popularize one's achievements and problems
- The issue of gender equity lacks visibility.
- Change knowledge into usable form

After a coffee break, group discussion session were held and the groups were asked to discuss on how the content of the first report should look like , the action plan with a given time frame of four months, and delegate responsibilities to the selected lead authors and authors and reviewers of each group.

After thorough discussions, the groups convened to the plenary and a representative from each group presented the content, Action plan, and delegated responsibilities of their respective groups.

After the presentation by the five groups the floor was opened for discussions and some comments were suggested to enrich the documents.

Closing Remark

Ato Gebru thanked the participants for their active participation to the realization of the EPCC and outlined the way forward.

- To enrich the baseline survey and produce a more comprehensive report
- To proceed with ongoing discussions with NMA
- To communicate with the selected team members (Lead authors, authors reviewers etc.) and provide administrative support.
- He once again thanked participants and encouraged them to continue with their commitment.

Meeting adjourned

Annexes

Group discussion and Presentation on the content, work plan and share of responsibilities for each sub-working group of the 2nd EPCC preparatory meeting

AGRICULTURE AND FOOD SECURITY SUB-WORKING GROUP

Content

I Impacts and Vulnerability of Climate Change

1 Mixed Crop-Livestock System

- 1.1 Crops
- 1.2 Livestock
- 1.3 Natural Resource
- 1.4 Food security

2 Pastoral and Agro pastoral system

- 2.1 Livestock
- 2.2 Crops
- 2.3 Natural resource
- 2.4 Food security

II Adaptation and Mitigation of Climate Change

1 Mixed Crop-Livestock System

- 1.1 Crops
- 1.2 Livestock
- 1.3 Natural Resource

2 Pastoral and Agro pastoral system

- 2.1 Livestock
- 2.2 Crops
- 2.3 Natural resource

III Policy implications

Suggested potential lead authors and authors for this sub-working group during the 2nd EPCC preparatory meeting as follows on system based:-

➤ Mixed Crop-Livestock System

Dr. Kinde Tesfaye---lead author
Dr. Seme Debela----author
Dr. Girma Mamo---author
Dr. Belay Simene---author
Dr. Berhane Gebrekidane----author
Mr. Berhanu Debele-----author
Dr. Abate Mekuriaw-----author
Dr. Getnet Alemaw-----author
Dr. Teklu Erkossa-----author
Dr. Eyassu Elias-----author

➤ Pastoral and agro pastoral system

Dr. Kidane Gebregiorgis----lead author
Dr. Amaha Kassahun-----author
Dr. Dawit Abebe----author
Dr. Getachew Gebru----author
Dr. Solomon Desta-----author
Dr. Million Tadesse-----author

The work plan will be prepared soon as per the appointment for next meeting of lead authors and authors in the near future.

BIODIVERSITY AND ECOSYSTEM SUB-WORKING GROUP

Content

Ecosystem approach

- Afro-alpine
- Forest
- Wood land
- Aquatic
- Agro biodiversity

Detailed outline

1. Introduction
2. System
3. Drivers
4. Impact, Vulnerabilities and Risks
5. Adaptation and managing Risks
6. Information, data gaps and Research Needs
7. References

Work plan

Activities	Months						
	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Literatures collection							
Synthesis							
Draft							
Progress Report							
EPCC Workshop							
Final Report							
Review							
Editing							
Publishing							

Share of Responsibilities

Activities	Name of Scholars	Institution	Role and Responsibilities		Remarks
			Author	Review Editor	
Afro-alpine	Dr. Minassie & Tesfu	EBI		Dr. Abeje(FRC)	
Forest	Dr. Feyera & Tesfu	AAU & EBI		Motuma(EBI)	
Woodland	Birhane, Getachew & Tesfu	FRC & EBI		Dr. Abeje(FRC)	
Aquatic and wetlands	Prof. Brook & Tesfu	AAU & EBI		Motuma (EBI)	
Agro biodiversity	???	???			

HEALTH AND SETTLEMENT SUB-WORKING GROUP

Key issues

- Food and water borne diseases
- Water based diseases
- Vector borne
- Other infectious diseases
- Malnutrition
- Non communicable diseases
- Physical and Psychological Illnesses
- Displacement and Migration

Content

Health

- Executive Summary
- Present State of global, national and regional health situation
- How climate change affects
- Vulnerability to disease and injury to climate variability
- Direct impact of climate and weather on health
- Ecosystem-mediated impact of climate change on health
- Health impacts heavily mediated through human institutions
- Adaptation to protect health
- Adaptation Limits Under high level of Warming
- Co-benefit

Settlement

- Executive Summary
- Human Settlement and GHG Emission
- Spatial planning and Climate Change Mitigation
- Sustainable development co-benefits, tradeoffs and spillover effect

Responsibilities to be assigned eventually

INDUSTRY, TRANSPORT AND INFRASTRUCTURE SUB-WORKING GROUP

Climate change mitigation for transport

- Executive summary
- 1. Introduction
- 2. Transport emission trend and drivers
- 3. Impact of emission on climate change
- 4. Mitigation technology and policy options
- 5. Conclusion and recommendation

Climate change mitigation for industry

- Executive summary
- 1. Introduction
- 2. Type of emission and their sources
- 3. Impact of emission on climate change
- 4. Mitigation measures
 - 4.1 Technology
 - 4.2 Policy options
- 5. Conclusion and recommendation

Climate change adaption on infrastructure

- Executive summary
- 1. Introduction
- 2. Impact identification
- 3. Impact of climate on existing infrastructure
- 4. Adaption measures
- 5. Cost of adaption
- 6. Conclusion and recommendation

Work plan for Industry

No	Activities	June	July	August	September
1.	Document collection, control and record	✓			
2.	Review of documents		✓	✓	
3.	Synthesis of document				✓
4.	Report writing				✓

WATER AND ENERGY SUB WORKING GROUP

Contents

Executive Summary

3.1. Introduction

3.2. Observed Hydrological Changes due to Climate Change

3.2.1. Detection and Attribution

3.2.2. Precipitation, Evapo-transpiration, Soil Moisture, Permafrost, and Glaciers

3.2.3. Stream flow

3.2.4. Groundwater

3.2.5. Water Quality

3.2.6. Soil Erosion and Sediment Load

3.2.7. Extreme Hydrological Events and Their Impacts

3.2.8. Lake and terrestrial

3.3. Drivers of Change for Freshwater Resources

3.3.1. Climatic Drivers

3.3.2. Non-Climatic Drivers

3.4. Projected Hydrological Changes

3.4.1. Methodological Developments in Hydrological Impact Assessment

3.4.2. Evapotranspiration, Soil Moisture and Permafrost

3.4.3. Glaciers

3.4.4. Runoff and Stream flow

3.4.5. Groundwater

3.4.6. Water Quality

3.4.7. Soil Erosion and Sediment Load

3.4.8. Extreme Hydrological Events (Floods and Droughts)

3.5. Projected Impacts, Vulnerabilities, and Risks

3.5.1. Availability of Water Resources

3.5.2. Water Uses

3.5.2.1. Agriculture

3.5.2.2. Energy Production

3.5.2.3. Community Services

3.5.2.4. Freshwater Ecosystems

3.5.2.5. Other Uses

3.6. Adaptation and Managing Risks

3.6.1. Options

3.6.2. Dealing with Uncertainty in Future Climate Change

3.6.3. Costs of Adaptation to Climate Change

3.6.4. Adaptation in Practice in the Water Sector

3.7. Linkages with Other Sectors and Services

3.7.1. Impacts of Adaptation in Other Sectors on Freshwater Systems

3.7.2. Climate Change Mitigation and Freshwater Systems

3.7.2.1. Impact of Climate Change Mitigation on Freshwater Systems

3.7.2.2. Impact of Water Management on Climate Change Mitigation

3.8. Research and Data Gaps

Climate Change mitigation on Energy sector

Contents:-

1. Introduction
2. Energy Resources of Ethiopia
3. Current Energy mix of Ethiopia
4. Vulnerability of Energy Resources for CC
5. Mitigation opportunities in the Energy sector
6. Knowledge gaps and research needs in the Energy sector.

Photo Gallery

Opening remarks



Presentations



Group Discussions



Group Presentations



AGENDA

Working, sub-working group and gender task force technical team members 2nd Preparatory Meeting of EPCC

(May 14, 2014)

TIME FRAME	ACTIVITY	RESPONSIBILITY	FACILITATOR	RAPPORTUER
0845-0900 hrs	Arrival of Guests	EAS		
0900-0905 hrs	Welcome speech	Prof. Masresha Fetene, ED of EAS	Dr. Belay Simane	EPCC-EAS
0905-0925 hrs	Updates on the assignment given during the 1 st preparatory meeting	Assigned committee members		
0930-0950	Presentation on the draft baseline assessment report.	Prof. Brook Lemma	Dr. Aklilu Amsalu	
1000-1030 hrs	Coffee/ Tea Break	Hosted by EAS		
1030-1230hrs	Group work on thematic areas such as content, work plan and share of responsibilities of the authors, reviewers and review editors of each working group	Participants	Dr. Woldeamlak Bewket	
1230-1330 hrs	Lunch	Hosted by EAS		
1330-1510 hrs	Group Presentations/report backs and the way forward	Participants		
1510-1520 hrs	Closing session	Prof. Masresha Fetene, ED of EAS		

2nd Preparatory Meeting
May 14, 2014, Ethiopian Academy of Sciences, Addis Ababa, Ethiopia

No	Name	Organization	e-mail	Mobile
1.	Abate Getenet	MEF	gbex_get@yahoo.com	0933625098
2.	Abate Mekuriaw	AAU	amekuriaw@yahoo.com	0911614581
3.	Abeje Eshete	FRC/SIAR	Abejeeshete@Yahoo.com	0911663765
4.	Addisu G/Michial	MOWCYA	Emaw-16@yahoo.com	0913531418
5.	Adugna Megiste	MOI	adu-maed@yahoo.com	0911810175
6.	Aklilu Amaslu	AAU	amsalu.aklilu@gmail.com	0911604302
7.	Alemayehu Bekele	EPHA	alemayehubekele2002@yahoo.com	0911179205
8.	Amaha Kassahun	EIWR/AAU		0921884699
9.	Anteneh Muheye	MOT	anteneh2008@gmail.com	0912015178
10.	Belay Simane	AAU	simane@yahoojouio.com	0911223044
11.	Belaynesh Birru	MUIE	Yurbel_2006@yahoo.com	0912159392
12.	Berhanu Debele	RCO	yadudedebabw@gmail.com	0911222707
13.	Berhanu G/kidan	EAS	bgebrekidan@gmail.com	0911408620
14.	Berhanu Kidane	EIAR/FRS	berhanekidia@gmail.com	0911641376
15.	Brook Lemma	AAU	brklmm2002@gmail.com	0910880822
16.	Dawit Abeba	Tufk. University	dawit.abebe@tufts.edu	0911684653
17.	Feleke Zewge	MOWIF/AAU	tbeshos@yahoo.com	0911236985
18.	Feyera Senbeta	AAU	feyeras@yahoo.com	0911837277
19.	Kidine Girogis	ATA	kidanegeorgias@yahoo.com	0911896428
20.	Kinde Tesfaye	CIMMYT	k.tesfayefantaye@giar.org	0913379453
21.	Menassie Gashaw	EBI	menassiemolla@gmail.com	0912093330
22.	Mikiyas Wolde	MOWIE	mikiyaswolde@yahoo.com	0920629018
23.	Motuma Didita	EBI	motididita@gmail.com	0921728143
24.	Robel Meseret	Ministry of Transport	robelmt@yahoo.com	0913431977
25.	Roxanne O'Conell	H.A REC	roxanneno@boarec.org	093209083

No	Name	Organization	e-mail	Mobile
26.	Seme Debela	EUT	semedebela@yahoo.com	0912369917
27.	Tamrat Fitie	MOE	tamratfitie@gmail.com	0910554725
28.	Tassisa Kaba	AAIT/SCBE	tassisakaba@yahoo.com	0911663765
29.	Tefera Arega	MOWIE	Teferaarega@yahoo.com	0911771991
30.	Teklu Erkossa	WMI	t.erkossa@giar.org	09111310239
31.	Tesfay Alemseged	EIWR/AAU	tesfaye@gmail.com	0921884699
32.	Tesfaye Awas	EBI	tesfayeawasa@gmail.com	0911678069
33.	Tigest G/Medhin	AAU	wsewlat@yahoo.com	0911608122
34.	Woldamlak Bewketu	AAU	wbewkate@yahoo.com	0911790703
35.	Workneh Degefu	ETMS	ethiopianmetsoc@gmail.com	0911790703
36.	Worku Tefera	AAU/SPH	tesfayeawas@gmail.com	0911678069
37.	Getenet Alemaw	EIAR	galemaul@uol.com	0911342186
38.	Mekonen Ayana	AMU	mekeamu@yahoo.com	0916831054
39.	Guchie Gulie	AMU	Guchie4@gmail.com	0911250668
40.	Shiferaw Feyissa	ASTI	yoonanet@gmail.com	0922392809
41.	Girma Mamo	EIAR	monbgirma@yahoo.com	0911809500