



Linkages of Climate Change, Population Dynamics, RH/FP in River Basins, Forest, Protected and Pastoral Areas of Oromia Regional State



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FORWARD

Climate change is a serious challenge for Ethiopia. Hence, the federal government put in place a national Growth and Transformation Plan(GTP) and Climate Resilient Green Economy(CRGE) with the strategy that states the environmental sustainability must be maintained, climate change adaptation and mitigation should be promoted, and growth should be broad based and inclusive, with a particular focus on engaging vulnerable communities like women, youth and poor households. However, lack of equitable reproductive health and family planning services affect the lives of community particularly women and girls in river basin, forest, protected and pastoral areas. In addition, Climate change is linked with population issues.

Population Health and Environment Ethiopia Consortium (PHE-EC) is working to facilitate and harmonize national efforts in relation to population dynamics, nature and human being relationship inline to sustainable development. PHE-EC in collaboration with Oromia Regional Health Bureau, Jimma University and financially supported by David Lucile and Packard Foundation organized a two days workshop on linkages of climate change, population dynamics, reproductive health and family planning in river basins, forest, protected and pastoral areas of Oromia regional state.

During the workshop, academic researches and practical experiences of organizations working to mitigate effects of climate change across Oromia Regional State in Ethiopia illustrated a comprehensive assessment of the need to link climate change and population dynamics in river basins, forest, protected and pastoral areas of the region. The workshop presented the methods, findings and implications related to population dynamics and climate change adaptation mechanisms. Oromia Regional State is the biggest region of the country with about 35 million population size(CSA,2016/17)and abundant natural resources, biodiversity and divers ecological system that needs harmonization. The workshop urged researchers, development agencies, policy makers and implementers take an innovative and contextual approach in addressing the high degradation and deforestation in relation to population dynamics issues as well as in crafting and implementing climate change adaptation initiatives and population harmonization in the context of forest, protected and pastoralist areas of Oromia region and the country at large.

It is with dedication that we are presenting this proceeding to provide a valuable resource for advocacy and policy dialogue in Oromia and Ethiopia at large.

ACKNOWLEDGMENT

We thank all the researchers, speakers, moderators and discussants for their contributions in presenting existing realities of population dynamics and climate change in Oromia Region. We commend pastoralist livelihoods experts and policy makers who participated, and all development practitioners and participants who work to raise the plights of communities in river basins, forest, protected and pastoralist areas of the region.

We are very indebted to name some if not all that provide their unreserved time and energy for the successful deliberations of the workshop:

Dr. Shiferaw Teklemariam, Minister of Ministry of Environment Forest and Climate Change, for the **official opening** delivered by Ato Shiferaw Legesse.

For delivering Key note address: Prof. Taye Tollemariam Vice President of Jimma University, Dr. Hassen Yusuf, Oromia Forest and Environment Authority Head, Dr. Ephraim T. Lamongo, Director MCH, Federal Ministry of Health, Dr. Dereje Duguma Head Oromia Health Bureau delegated by Ato Alemayehu Hunduma.

Moderators: Prof. Taye Tollemariam, Jimma University, Wro Saba Gebrekidane IPAS Ethiopia, Dr. Hassen Yusuf, Oromia Forest and Environment Authority, Wro. Amsalu Hunde, ODA, Ato Afework Hailu, EWNRA, Ato Jemal Kassaw, Engender health Ethiopia.

Discussants: Dr. Getachew Bekele, in-person, Wro. Senait Tebebu, Packard Foundation, Dr. Mengistu Asnake, Pathfinder, Dr. Aryaya Asfaw, HOAREC, Dr. Wolde Mekuria, IWMI, Ato Negash Teklu PHEEC.

Paper Presenters: Dr. Mulumebet Abera, Ato Abuile Takel, Dr. Alemayehu Haddis, Ato shimelese Tadesse, Dr. Seid Teku, Ato Fekadu Abdissa, Ato Alemayehu Hunduma, Dr. Dereje Tolessa, Ato Tezera Getahun, Dr. Abiye Hiruy, Ato Borru Boba, Ato Asaye Asnake, Ato Semere sileshi, Ato Zelalem Adugna, Ato Tilahun Semu and Ato Zerihun Dejene.

The joint organizers of the workshop: Ato Alemayehu Hunduma, Oromia Health Bureau, Dr. Seid Tiku Jimma University and Ato Ahmed Mohammed, PHEEC.

We would like to thank Wro. Yemisrach Belayneh, Country Advisor Packard Foundation for delivering closing remark and summarizing the major outcomes and the way forward of the workshop.

Organizing of the workshop and printing cost of this proceeding would have been impossible without the financial assistance of David & Lucile Packard Foundation.

Negash Teklu
Executive Director
PHEEC

ABBREVIATIONS

BER	Bale Eco-Region
BoFED	Bureau of Finance and Economic Development
CRGE	Climate Resilient Green Economy
DFID	Department for International Development
DSW	Deutsche Stiftung Weltbevoelkerung
EPACC	Ethiopia 's Program of Adaptation to Climate Change
EWRNA	Ethio-Wetlands and Natural Resources Association
GGHDSS	Gilgel Gibe Health and Demographic Surveillance Survey
GTP	Growth and Transformation Plan
HDSS	Health and Demographic Surveillance System
HOREC & N	Horn Africa Regional Environment Centre, and Network
MEFCC	Ministry of Environment Forest and Climate Change
NAPA	National Adaptation Program of Action
ODA	Oromia Development Association
OFEO	Oromia Forest and Environment Office
OPADC	Oromia Pastoralist Area Development Commission
PFE	Pastoralist Forum Ethiopia
PHE	Population, Health and Environment
PHE-EC	Population, Health and Environment Ethiopia Consortium
RH/FP	Reproductive Health and Family Planning
RIF	Reproductive Health, Maternal, and Neonatal Health Innovative Fund
RMNCAH-N	Reproductive Health, Newborn, Child, Adolescences Health and Nutrition
RMNHI	Reproductive Health, Maternal, and Neonatal Health
SDGs	Sustainable Development Goals
SHARE	Support to Horn Africa Resilience
SNNPR	South Nation Nationalities and People's Region

Basic Facts as Background

Population, RH/FP and Climate change situations for communities living in and around upper catchment river basins, forest, protected and pastoralist areas of Oromia

By **Ahmed Mohammed (PHEEC)**

1. Introduction

Based on the latest census of 2007 and the inter-censal survey conducted in 2012 the population of Oromia in 2015 is estimated to be 33,691,991.¹ The majority (86%) lives in rural while 14% in urban areas. The population of Oromia through the current growth rate takes a maximum of 27 years to double itself.²

According to the 2014 Ethiopian Mini Demographic and Health Survey (EMDHS), Oromia registered a Total Fertility Rate (TFR) of 4 that declined by 1.6 children per women or 40 percent decline from the 2011(EDHS, 2011). This huge decline in TFR over a period of four years is attributed largely to 66 percent increase in the use of family planning in the same period, from 26.2 percent in 2011 to 43.6 percent in 2014. The total population of the protected areas (forests in upper river basins, National Parks, Sanctuaries, biospheres, protected hunting areas, community conservation areas and wild life reserves) in Oromia region is estimated to be 4.89 million of each 49.8 percent are women.³ The size of population in protected areas of Oromia accounts for above 15 percent of the region's total population. In addition, about 31 pastoralist woredas constitute about 3.23 million pastoralist population in Oromia.

Though the region has achieved remarkable development achievements within four years, there are still communities living in an inaccessible areas like forest and protected areas and pastoralist communities that are far behind in using health services. The lower use of health services and slower progress in the health outcomes in these communities are attributed to factors like mobile lifestyle of pastoralists, different understandings of health and illness, preferences for different sources of health care, illiteracy, cultural barriers and economic dependency of women. In general, most of reproductive health indicators in those areas are lesser than the region's average.⁴

Further, there are a number of factors that impinge on the lives of the people in these areas among which climate change stands out conspicuously. The main cause of the recent climate change is human activity, though its determinants do not largely originate in Africa. Nevertheless, Africa at large and Ethiopia in particular suffer the consequences of climate change such as drought, flooding, less frequent rainfall, soil erosion, deforestation and crop failure.⁵ Discussions have been made and agreements have been reached that many millions of people worldwide would be potentially displaced

1. CSA, *Population Projection of Ethiopia for All Regions At Wereda Level from 2014 – 2017, August, 2013 Addis Ababa*

2. CSA, *30 years population projection, 2013*

3. CSA, *Population Projection of Ethiopia for All Regions At Wereda Level from 2014 – 2017, August, 2013 Addis Ababa*

4. Central statistical agency, *2011 Ethiopian Demographic and health survey report*

5. Kidanu, Rovin and Hardee. *Population Action International (PAI) Linking Population, Fertility and Family Planning With Adaptation to Climate Change: Views From Ethiopia (Oct 2009) pp.4*

because of climate change. According to some estimates about 10 million African people have been displaced over the last two decades because of environmental degradation and desertification ⁶.

The Population Action International is one of the very few organizations which have in 2008, in conjunction with the Miz-Hasab Research Center and the Joint Global Change Research Institute, conducted a study on the link between population, fertility, family planning and adaptation to climate change in Ethiopia focusing on Oromia and SNNPR ⁷. The study describes how climate change has had an impact on people's lives and how they had to adapt. The high level of poverty, deforestation, food insecurity, flooding, rapid population growth, little rain, and drought make people even more vulnerable to climate change.

The Oromia Regional state is endowed with varieties of natural resources. The existence of abundant flora and fauna in the region were one among the many reasons for the existence of protected areas that includes biosphere reserves, sanctuaries, community managed forests and parks in Oromia. The following table summarizes the protected areas in Oromia:

Table 1: Protected Areas in Oromia ⁸

S.N	Protected areas	Year of Establishment	Area coverage(KM ²)	Conservation focus	Remark
1	National Parks				
1.1	Abijata Shalla Lakes*	1973	887	Aquatic birds	
1.2	Bale Mountains*	1970	2200	Mount nyala, wolf etc	
1.3	Awash*	1966	756	Beisa Oryx, Soemmering's gazelle etc	Share with Afar Region
1.4	Nechsar*	1974	502	Burchells zebra, Swayne's hartebeest etc	Share with SNNPR
1.5	Arsi Mountains**	2010	1200	Ethiopian wolf	
1.6	Borena**	2013	1000	Stresmann's Bush crow and white tailed swallow	
1.7	Dati Wolel**	2006	431	African Buffalo, African elephant etc.	
2	Sanctuaries				

6. *Ibid*

7. Kidanu, Rovin and Hardee. Population Action International (PAI) Linking Population, Fertility and Family Planning With Adaptation to Climate Change: Views From Ethiopia (Oct 2009)

8. PHEEC, Our voice, news letter issue no.8, 2013

2.1	Babile Elephant Sanctuary	1970	6987	African elephant, lesser Kudu, lion etc	Share with somali
2.2	Senkele Swaynes Hartebeest Sanctuary	1974	54	Swayne's Hartebeest, Oribi, Leopard	Share with SNNPR
3	Biosphere				
3.1	Yayu	2010	1670	Eastern Afro- mountain biodiversity hotspot	
4	Protected Hunting Areas		2437.2***	Controlled hunting areas	12 protected hunting areas
5	Community Conservation Areas				
5.1	Lephis	2010		Mountain nyala, Menlik's bushbuck, Leopard	
5.2	East Langano	2010		Mountain nyala, Menlik's bushbuck, hippopotamus	
5.3	Zeway	2010		Aquatic birds, warthog	
6	Wild life Reserves				
6.1	Bale Reserve	1973	1766	Mountain nyala, Menlik's bushbuck,	

* administered and managed by EWCA

** administered and managed by Oromia

*** total areas of 12 protected hunting areas

Table 2 : Size of Population in Protected Areas of Oromia

S.N.	Protected areas	Woredas	Population*	Remark
1	Bale Mountain National Park	Goba, Dinsho, Hrenabulk, Dellomena, Agarfa, Adaba	448,536	
2	Awash National Park	Fentale, Meiso, Anchar	381,435	
3	Abijata Shalla Park	Zeway dugda, Munessa, Arsi Negele, Shashmene, Shalla Adamitulu, Dugda,	1,574,547	

4	Nechsar park	Abay(Borena zone)	129,982	
5	Senkele sanctuaries	Shalla	188,721	
6	Yayo Biosphere	Hurumu, Yayu,Chora,Algeshachi,Bilonopha,Doroni	429,484	
7	Babile sanctuary	Babile, Fedis, Meyu Mulke, kurfachelle, Haromaya, Midiga, Grawa	1,145,310	
8	Dati Wolel Park	JimmaHarro, Digami, Gawokebe, Kondalle,Beji, Babogambel,	596,908	
9	Lephis community conservation area	Munisa	211,762	
10	Borena Park	Yebello	132,300	
	Total		4,895,985	

*CSA (2013), Population Projection of Ethiopia for All Regions at Wereda Level from 2014 – 2017 (for 2015).

River Basins

Ethiopia has 12 rivers basins, of which eight are actual River Basins, one Lake Basin and the remaining three Dry basins (with no or insignificant flow out of the drainage system). Oromia is the sources of major river basins in the country accounting for about 75 percent of the river basins in the country (six out of eight river basins in the country have their sources in Oromia).

S.N.	River basins	Total area(km ²)	Area covered in Oromia (km ²)	Share of the area (%)	Remark
1	Abay	199881	61670	31	
2	Awash	110261	26839	25	
3	Baro Akobo	75535	2553	33.8	
4	Genale Dawa	172259	128177	74.4	
5	Omo Gibe	78145	16235	21	
6	Wabishebele	202219	76630	37.9	
7	Rift valley Lakes	53893	23723	44	

Source: Basins Master Plan studies

Pastoralist areas in Oromia

As way of life pastoralist tend to move from one area to other in search of water and pasture for their animals. Pastoralist communities in Oromia are living distributed in six zones and 31 woredas with the total pastoralist population of 3.23million.

Table 4. Pastoralist Population by Zone in Oromia

S.N	Zone	Woreda	Population
1	Borena Zone	Arero, Dugda Dawa, Dhas, Melka Soda, Miyo, Moyale, Teltele, Yabello, Dire, Dillo	1,192,649
2	Guji Zone	Goro dola, Girajaa, Liben, Saba Boru, Wadra	621,282
3	Bale Zone	Dawa Sere, Dello Mena, Gura Dhamole, Lege Hidha, meda Walabu, Rayitu, Sawena	418,235
4	East Hararghe Zone	Cinaksen, Gola Oda, Meyuu, Midhaga, Qumbi	445,318
5	West Hararghe Zone	Burqa Dimtu, Hawi Gudina, Meiso	452,135
6	East Shoa Zone	Fentale	104,668
	Total		3,234,287

EXECUTIVE SUMMARY

Oromia Regional Health Bureau, Jimma University and PHE-Ethiopia Consortium jointly, organized a workshop in Addis Ababa on November 1-2, 2016 with the theme: linkages of climate change, population dynamics, reproductive health and family planning in river basins, forest, protected and pastoral areas of Oromia regional state. On his welcoming speech Negash Teklu of PHE-EC Executive Director cited the purpose of the workshop, which is to presenting research findings and best development practices that confirm the linkage between climate change and population dynamics. He also said that the workshop aimed at discussing the need of harmonization of social, economic and environmental concerns of communities living in hard to reach areas including around forest, protected and pastoralist areas of Oromia Region State and the country at large.

Dr. Shiferaw Teklemariam, Minister for Environment, Forest and Climate Change through his delegate Ato Shiferaw Legesse, opened the workshop by discussing Ethiopia's Climate-Resilient Green Economy strategy, which is designed to protect the country from the adverse effects of climate change and to build a green economy that will help realize its ambition of reaching middle-income status before 2025. Furthermore, he explained Ethiopia's role to represent vulnerable countries in Marrakesh Climate Change Conference this year the alignment of GTP, CRGE to SDG's, and goals of Agenda 2063 that aspires to address climate change and to preserve the environment through implementation of the Program on climate Change Action in Ethiopia and Africa across the continent.

Dr. Hassan Yusuf Head of Oromia Forest and Environment Authority, Prof. Taye Tollemariam Vice president of Jimma University, Ato Alemayehu Hunduma on behalf of Dr. Dereje Deguma of Oromia Health Bureau, and Dr. Ephraim T. Lamango from Federal Ministry of Health MCH Director delivered Keynote speeches highlighting population dynamics and climate change in the Oromia context. All speakers emphasized that climate change in Ethiopia, particularly in Oromia region needs active policy responses involving all stakeholders such as academics, development actors, government institutions and the private sector. Keynote speakers avowed that there have been regional and sectoral efforts to address climate change and population dynamics. However, there is a need to ensure national as well as regional alignment on priorities in order to mitigate the effects of climate change particularly among vulnerable groups including pastoral communities.

The workshop encompassed presentations of various researches conducted on diverse issues of climate change, population dynamics, environmental protection, gender and reproductive health and family planning services in river basin, forest, protected and pastoral areas as well as benefits of integrated approach to population, health and the environment for national development. Development actors working in Oromia region to avert the effects of climate change and rapid population growth, and to expand gender empowerment, reproductive health and family planning services among river basins, forest and protected areas and pastoralists presented their experiences and best practices that indicated inclusive and lasting change.

On the first day of the workshop, **Dr. Muluemebet Abera of Jimma University** presented a study conducted in Gilgel Gibe Field Research Center, with the objective of providing first-hand information on population dynamics, morbidity and mortality trends around Gilgel Gibe hydroelectric dam site. Her finding indicated that: Fertility is one of the three principal components of population dynamics that have impact on climate change, rapid population growth is influenced by high level of fertility; knowledge about family planning helps to reduce total fertility rate and high fertility rate can increase maternal

and child mortality.

Ato Abuli Takel from Medawelabo University conferred on modern contraceptive utilization and associated factors among married pastoralist women in Bale eco region, Bale zone. In his study, Abuli investigated perceptions and opinions of community leaders and service providers about modern contraceptive utilization in Bale Eco region. Hence, he found out that there is low modern contraceptive, particularly long-acting and permanent methods, use by pastoral women of the Bale eco region despite the availability of reproductive health and family planning services in the area.

Dr. Alemayehu Haddis from Jimma University presented action oriented case study on Gilgel Gibe hydroelectric dam sustainability and conservation of the upper catchment pond. The case study shows that an integrated watershed management is crucial for the rehabilitation of Awetu Kito river in Jimma town. Among other recommendations, the study highlighted that climate smart urban agriculture should be introduced as an adaptation strategy and to restore the watershed of the river and mitigate the threatening pollution.

Ato Shimeles Tadesse from Ministry of Environment, Forest and Climate Change explained about the watershed approach that enables planners to harmonize the use of soil, water and vegetation in a way that conserves the resources and maximize productivity within Gilgel Gibe-I watershed systems. According to data presented in this study the natural habitats in the research area are being lost and highly degraded, which in a way will lead to reduce productivity.

Ato Fekadu Abdissa from Oromia Bureau of Finance and Economic Development discussed sectoral policies and strategies that addresses the linkage between population, climate change and environment from Oromia perspective. His presentation clearly showed the need to harmonize national and regional development policies and strategies in order to achieve sustainable growth. Fekadu suggested that there is a gap on climate change policy where most of the regional policy focused to regulate specific sectors, as there is no continuous effort on integration approach toward population dynamics and climate change.

Ato Alemayehu Hunduma from Oromia Health Bureau presented on access and availability of reproductive health and family planning services in pastoralist communities of Oromia regional State. Alemayehu argued that the quality and accessibility of reproductive, maternal and neonatal health services in pastoral areas is very low. He presented an integrated reproductive health and family planning service utilization data from pastoralist weredas of Oromia zones to illustrate how the regional policies are challenged to address pastoral women family planning service needs contextually.

Dr. Abiy Hiruy of Federal Ministry of Health presented the experience of Reproductive Maternal and Neonatal Health Innovation Fund, RIF in pastoral communities of Oromia region. He claimed that through the support of RIF project, previously non-functional health facilities are now providing service as a result of solar lights and water reservoirs in far remote areas. Dr. Abiy highlighted that enhanced ownership of communities and cross sectoral partnership both in health service provision and funding modality play an important role to increase demand for and use of reproductive health services by poor and marginalized communities.

Borru Boba, an expert from Borena Zone Women and Children Affairs gave an explanation about perspectives of gender issues in Borena, Gebra and Guji communities. The Borena community is patriarchal by its structure whereby families are headed by men and that most decision-making responsibilities of the household fall on the family head. Consequently, women in Borena community are more vulnerable

to the impacts of climate change than their men counter parts. There should be gender sensitive approach that facilitates full participation of all community members in climate change sensitization and resource allocation in adaptation and management.

On the second day of the Workshop, issues related to the broad concept of pastoralist development in Ethiopia and the importance of integrated approach to mitigate the effects of climate change were discussed.

Dr. Dereje Tolessa from Oromia Pastoral Area Development Commission, OPADC presented climate change adaptation strategies in pastoral areas of the region. The effects of climate change in Oromia pastoralist areas can be categorized by its impact on grazing land, water resources and livestock health and productivity. He explained that pastoralist's land use in Oromia changed due to population growth and emerging livelihood activities. Pastoral areas in Oromia also had experienced climate change effects such as recurrent drought and land degradation. It is for this reason that tailored climate change adaptation strategies are crafted and implemented by the OPADC. Adaptability strategies include: integrated rangeland and natural resources development, livelihood diversification, watershed development and management, livestock development and crop production.

Ato Tezera Getahun of Pastoralist Forum Ethiopia, presented about pastoralism and pastoralist development in Ethiopia, which he said should be considered from the point of view of economic development. Pastoral communities in Ethiopia have been protecting and developing the environment and natural resources for centuries. Yet knowledge gap, marginalization, lack of inclusiveness has been major problems of pastoralists to take center stage in climate change adaptation program planning and implementation.

Ato Asaye Asnake from Farm Africa shared a case of SHARE Bale Eco-region project. The project has been implemented for the last two years using integrated and inclusive approach in biodiversity conservation livelihood improvement and Family planning and gender interventions in lowland, mid altitude and highland Bale Eco- region with unique biodiversity and rich in flora and fauna. Through multi sectoral and participatory planning, implementation and evaluation of activities, the SHARE Bale Eco-Region project managed to enhance the livelihoods of local communities in the area focusing on harmonized ownership of the community to the eco system of the ECO Region, however, such approach is observed to demand more resource and continued investment to see lasting impact of integrated interventions.

Ato Semere Seleshi of PHE-EC Health Officer presented his organization's experience in integrating reproductive health and family planning services in SHARE Bale Eco-Region. Bale eco-region is one of places in Oromia region with high fertility rate. Social and economic status of women is restricted by traditional practices whereby male dominance in reproductive health decision is contributing to low contraceptive utilization rate in the area which is impacting for the decline of natural resources and resilience. Thus, multi-sectoral integrated approach was used to create a well-informed reproductive health and family planning service demand and utilization. As a result of SHARE BER intervention, modern contraceptive acceptance and use has been improved among women and the youth which is also contributing positively for sustaining the eco system.

Ato Tilahun Semu from PHEEC Officer in Illubababora presented a study with the objective of identifying communities understanding about the importance of integrating family planning and reproductive health programs to natural resources conservation. In line with this objective, the study identified and recorded the use of family planning and reproductive health services of women in reproductive age.

Accordingly, the research derived to a conclusion that when family planning and reproductive health utilization increases, farm productivity increases. Hence, integrating family planning and reproductive health into non-health sectors is a way forward to achieve SDGs.

Lessons from Mettu and Hurumu on impacts of integrated population dynamics and climate change adaptability approach discussed by **Ato Zelalem Adugna from EWNRA** emphasized that there is a need to develop scientific tools that helps to verify, document and publish achievements of integrated approach in ensuring climate change adaptability.

Ato Zerihun Dejene of PHEEC Environment Coordinator in his part elaborated on the notion of integrated approach and its contribution to national development strategies. He added that the multi sectoral approach requires fundamental decision making and governance to be used in development planning and execution.

There were assigned discussants on specific population dynamics, climate change, and reproductive health and family planning topics during the two-day workshop. Discussants highlighted the following issues.

- The effect of population dynamics on climate change should be examined from the perspective of population changes and human interaction with technology and consumption behavior in order to interpret adaptive capability of human population to climate change impacts.
- Integrating family planning and reproductive health services into climate change resilience and development works should be carefully planned in order to respond for the unmet need of family planning services for pastoralist women, hence equitable approach in infrastructure development and service provision is central across pastoral areas.
- The complexities of population dynamics relationships to climate change has been understood well by policy makers and development actors, yet still today the need to align efforts in addressing climate change related issues is oversimplified. There is a need to encourage local participation in climate compatible development and address the issue of vulnerable populations in protected, forest, river basins, upper catchment and pastoral areas.
- Diversified, increased and reliable funding should be allocated by the government to implement climate change and population dynamics related programs.

The two-day workshop agenda was concluded with the following summaries delivered by **W/ro Yemisrach Belayneh Country Advisor for Packard Foundation**.

- Oromia Regional State is advised to devise a framework for multi sectoral collaboration and integration of efforts from kebele to regional level including the hard to reach areas to build climate resilient communities. In addition, contextualizing integrated approach to natural resources management is vital in forest, river basins, protected and pastoral areas of Oromia Region.
- Reporting mechanism: measurable change indicators should be designed to evaluate changes and progresses as a result of multi-sectoral approach to all developmental interventions including climate change adaptation and mitigation.
- A mechanism of information and knowledge sharing and transfer among the relevant development

actors such as Charities and Societies, Higher Learning institutions, Private and Government Offices operating in the region should be established.

- Communities should participate in climate change adaptability projects with the objective of providing lasting solution to problems and to creating sense of ownership among hard to reach areas including pastoral communities.
- Suitable service delivery modalities should be crafted in order to ensure access to family planning and reproductive health services in forest, river basins protected and pastoral areas.
- Multilevel advocacy work among local decision makers has to be conducted with the aim of creating sustainable climate change adaptability interventions.
- It is understood that the linkage of population dynamics and climate change is very complex and that multi-sectoral intervention approach is effective to address multifaceted developmental challenges and issues. Therefore, there is a need to design simple and practical multi sectoral integrated approaches to achieve more success that are sustainable and replicable.
- Multi sectoral integrated approach needs to focus in strengthening the existing system instead of establishing new ones, with the aim of inviting all relevant stakeholders including communities to fully participate in planning and execution of all developmental issues including climate change adaptation programs.
- Multi sectoral integration/PHE approach is a new phenomenon suggested in accelerating development, alleviating poverty and expanding social services including health care services efficiently and effectively in harmonized way. Thus, engaging in such kind of approach and mechanism for Ethiopia is timely and transformative to achieve its growth and development plan as well as SDGs.
- A case in point best practices in biosphere and eco-region conservation in Oromia region that were presented during this conference need to scaled up and be shared and exercised region wise and nationwide.
- Oromia's experience show climate change adaptability activities should be participatory and inclusive. People living in protected and pastoral areas should take part in natural resource management activities taking into consideration their cultural and social context. Therefore, the issue of equity in reproductive health and family planning services access and availability should not be ignored in building climate resilient in forest, protected, river basins and pastoralist communities.
- There have been more action researches conducted on development issues for the last past decades. However, research themes were not being synchronized as presented during this conference. Therefore, continuous development research that produces applicable findings in relation to the linkage of population dynamics and climate change in pastoral, forest and protected areas should be encouraged through collaboration and partnership with universities, research institutes, development partners and government.

INTRODUCTIONS

WELCOMING SPEECH

Ato Negash Teklu
PHE-EC Executive Director

I would like to thank you for coming to attend this important workshop, which is prepared for the first time to discuss the linkage of climate change and population dynamics in river basins, protected and pastoralist areas of Oromia Regional State.

PHE- EC organized this workshop in collaboration with Oromia Regional State Health Bureau and Jimma University with the support from The David and Lucile Packard Foundation with the hope that the outcomes of this gathering will enable us in generating multi-sectoral partnership modalities to build a resilient society to the changing climate.

The government of Ethiopia is accelerating progress towards expanding access to family planning for women and youth in pastoralist areas of the country. It has designed a climate resilient green economy that recognizes the linkage of climate change and population dynamics in its Growth and Transformation Plan. The federal government together with regional states is working to decrease the level of unmet need for family planning, increase contraceptive prevalence and with special focus on the use of long acting methods all over the country. Yet unmet need of family planning continues to be a problem among women and girls in pastoral and protected areas. Moreover, Oromia experiences consequences of climate change that severely threatened its natural resources and ecosystem. The region has been struck with recurrent drought and environmental degradation. In line with this, it is very crucial for the regional state to enhance access to vital infrastructure, resources and equitable reproductive health and family planning services in pastoral areas. Sectoral alignment is required to address unmet need of family planning, to ensure that development programs promote climate change resilience and increase adaptive capabilities.

During this two-day workshop, we will discuss the challenges and opportunities of integrated approach to development particularly in Oromia. We will share experiences of stakeholders in promoting integrated development approach that aimed at providing equitable service to pastoral and marginalized societies such as women, children and the youth. Studies conducted on the issue of climate change, population dynamics, biodiversity, environmental conservation and pastoralist development will be presented in order for us to identify and determine a policy intervention key points. PHE-EC works to contribute to sustainable development in Ethiopia by promoting and enhancing the integration of population, health and environment through multi-sectoral approaches. I hope this workshop is the first step to enhance leadership in the linkage between climate change, population dynamics in Oromia Regional State.



Ato Negash Teklu

KEYNOTE ADDRESS

Prof. Taye Tollemariam **Vice President, Jimma University**

It is a privilege to be here representing my University President Dr. Fekere Lemmessa, with an opportunity to exchange ideas on the most pressing challenges of our time. One challenge that will affect Oromia more than any other is the changing climate and its impact on the livelihoods of people particularly in protected and pastoral areas of the region. The effort to secure a sustainable and habitable area is challenging, as polluted rivers threaten the ecosystem, recurrent drought negatively changes ecosystem and population growth continue to pressure the environment. Although pastoral health care delivery got due attention, limited family planning and reproductive health access and services is still an issue to respond for.



Prof. Taye Tollemariam

The scale and complexity of climate change and its linkage with population dynamics, reproductive health and family planning require thorough research. Jimma University is conducting action researches and community engagement experiments to explore solutions to effects of climate change and to help create sustainable green development across Oromia region and nationally.

We work with organizations like PHEEC in facilitating knowledge transfer among researchers and development actors. Through this partnership, two workshops were held to highlight on the linkages of climate change and population dynamics as well as the importance of integrated approach to development in creating climate change resilience. Oromia has high water resource potential for development prospects. It is for this reason that Jimma University has been working to protect Omo Gibe basin, which is green energy source for the whole country.

Our community centered researches are meant to encourage development actors and the public at large to engage with green development and mitigate climate change effects such as recurrent drought and to ensure food security across the region. Our research programs focus on Oromia because we need to respond to the prevailing climatic conditions of agro-ecologies and come up with recommendations that help to improve the lives of pastoral community. I believe this workshop will be a forum to discuss principal problems of pastoralist communities with regard to climate change and be able to derive long-lasting solutions that consider the context of pastoral women and girls.

Ato Alemayehu Hunduma **Oromia Health Bureau**

On behalf of Oromia Health Bureau Head Dr. Dereje Duguma, Ato Alemayehu Hunduma gave a keynote speech emphasizing on the linkage of climate change and population dynamics and the role effective and equitable reproductive health and family planning service play in responding to the efforts of climate adaptability.

Ato Alemayhu said Oromia Regional State gave due attention to pastoralist health care delivery for the past years. Number of reproductive health and family planning activities including pastoralist health extension program have been undertaken to meet their needs. Primary health care coverage is 97 percent across the region. Institutional delivery coverage is 80 percent, family planning service reaching 79 percent. Yet, the region faces various problems to ensure basic health services to all its community. One of the problems is shortage of skilled personnel, particularly in pastoral areas. Distribution of health facilities in far remote communities is also low. Climate change continues to be of great concern both regionally and nationally. The impact of climate change in the form of droughts affect the entire communities, more so it affects the pastoral society.



Ato Alemayehu Hunduma

This workshop should come up with significant benefits for existing vulnerability of the pastoral community and suitable adaptation plan particularly on the issue of expanding family planning and reproductive health services to the marginalized. A better understanding of the linkage between family planning and climate change should be discussed, and the workshop should encourage a willingness to build alliance in the objective of evolving policy solutions to the advantage of women, girls and the youth.

Dr. Hassan Yusuf Head, Oromia Forest and Environment Authority

Oromia is the largest region with huge population and natural resources. More than 90 percent of Oromia people are engaged in agricultural and pastoral activities. The region is source of seven basins including Omo-Gibe basin. Oromia has abundant surface and ground water resources, forests and wildlife resources. Out of 58 national forest priority areas of the country, 49 are found in Oromia among which seven of them are national parks with the population of 4.9 million. All this possibly justifies why such a workshop is held in Oromia.



Dr. Hassan Yusuf

However, the consequences of climate change have severely threatened the region. climate change is a potential cause of natural hazards that significantly weaken the region's as well as the country's economic development. The Oromia Regional State is committed to addressing the issue of climate change and its linkage with population dynamics. In this regard, the region has achieved a lot in responding to reproductive health and family planning service demands of people living in protected and pastoral areas. Oromia pay attentions to conservation of natural resources and development, yet it has to identify the best practices and technologies to mitigate to climate change. This workshop should come up with indicative solutions on how to carry out extensive interventions aimed at minimizing deforestation and soil degradation through participatory forest development and conservation of soil and water resources from depletion should be devised.

Dr. Ephraim T. Lamongo
Director, Federal Ministry of Health

Federal Ministry of Health works to improve public health through expanding primary health care for all. Access to health services have significantly increased across the country. However, the use of reproductive, maternal and neonatal health services remains low. There are striking disparities in service utilization between urban and rural populations, and among adolescents and pastoral communities.

Attention should be given to addressing the range of geographic, financial, and socio-cultural barriers that limit service utilization. There is a need to improve the quality of available services to the level of being culturally appropriate to women and young people. In response to these challenges, the Federal Ministry of Health with financial support of DFID has established the Reproductive, Maternal, and Neonatal Health Innovation Fund (RIF) to support the ongoing efforts to increase access to health services for underserved communities.



Dr. Ephraim T. Lamongo

Ministry of Health believes working with other sectors and stakeholders will help to enhance the empowerment of women and girls to seek information and services related to RMNHI services. The ministry conducts operational research on cultural influences and barriers in order to devise effective interventions to increase use of services and testing of modalities of care to reach pastoralist community in Afar and Oromia regions.

On the other hand, the ministry ensures that The Sekota Declaration, which is signed by various governmental sectors to end hunger and malnutrition is implemented across its RIF programs. Ministry of health confirms that the declaration is used to align efforts of stakeholders to improve nutrition and mitigate stunting in drought stricken areas. The Sekota declaration is designed for various Ministries to join efforts and work through enhanced strategies for achieving the Growth and Transformation Plan and the SDGs.

It is clear that the linkage of climate change and population dynamics will be affected by unmet family planning and reproductive health service needs. This workshop should bring into focus the effects of these dynamics specifically on women, children and the youth in pastoral areas and suggest strategies to the climate change adaptability response.

OPENING REMARK

Ato Shiferaw Legesse **Ministry of Environment, Forest and Climate Change**

Ato Shiferaw Legesse on behalf of Minister Dr. Shiferaw Teklemariam opened the workshop. Ministry of Environment, Forest and Climate Change works to lead an environmental management system that could support the national development efforts by avoiding duplication of efforts among stakeholders. Ato Shiferaw asserts that it is for this reason his office expects the gathering to reflect on aligning various climate change adaptation efforts for better outcomes.

He said Ethiopia is rich in natural resources, but not efficiently utilizing the resource to attain climate resilient economic development. To this effect, the government of Ethiopia designed Climate-Resilient Green Economy strategy to protect the country from the adverse effects of climate change and to build a green economy that will help realize its ambition of reaching middle-income status before 2025. The Ministry of Environmental Protection is responsible to promote sustainable utilization of environmental resources and strengthen coordinated sectoral responses to mitigate climate change, hence the workshop will be a platform to discuss possible ways of integrated approach to climate change resilience.

Furthermore, he explained Ethiopia's role to represent Africa in Marrakesh Climate Change Conference this year, and goals of Agenda 2063 that aspires to address climate change and to preserve the environment through implementation of the Program on climate Change Action in Africa across the continent. Ato Shiferaw enquire workshop participants to provide inputs towards the development of viable approach to reach unserved pastoral population and to look for innovative ways to mainstream and align green economy initiatives across sectors.



Ato Shiferaw Legesse

PRESENTATIONS

RESEARCH PAPER PRESENTATIONS: PART ONE

These sessions were moderated by W/ro Saba Kidanemariam (IPAS- Ethiopia) and Prof. Taye Tolle-mariam (Vice president Jimma University) with presentations from Dr. Muluemebet Abera (Jimma University), Ato Abuli Takele (Meda Wellabo University), Dr. Alemayehu Haddis (Jimma University), Ato Shimelis Tadesse (MEFCC), on the results of studies conducted on the linkage between climate change and population dynamics and climate change vulnerability of pastoral community in Oromia. Case studies and policy discussions on climate change as well as climate change vulnerability in Jimma town were presented. The purpose of this session was to explain and discuss the methodologies, findings, and implications of various researches on climate change adaptation efforts being implemented in Oromia Regional State.

Vital event statistics in Gilgel Gibe HDSS Southwest Ethiopia 2005-2016

Dr. Muluemebet Abera

Jimma University

Dr. Muluemebet began her presentation by explaining about Gilgel Gibe Field Research Center (GGFRC) that was established in 2005 around the Gilgel Gibe I Hydroelectric Dam with the objective of providing reliable information on population dynamics, morbidity and mortality trends within four surrounding districts of Jimma Zone. The research center follows an open dynamic cohort that updates the population size every six months. The objectives of Health and Demographic Surveillance System (HDSS) sites is to describe key vital event statistics and to determine level and pattern of fertility in Gilgel Gibe HDSS. Analysis of the research was therefore done using the pregnancy outcome registration collected from women of childbearing ages who gave birth in the HDSS site. The surveillance model using in this research comprises monitoring of demographic and health changes as well as identifying causes of death using vital analysis.



Dr. Muluemebet Abera

The research discusses that unintended and unplanned pregnancies have burdened women and their households. Consequently, there is a need to implement programs that are meant to address the unmet need for family planning and their connections to climate change. Knowledge about fertility and family planning issues helped to reduce fertility rate in Gilgel Gibe hydroelectric dam area. Also,

sending girls to school and enabling them to continue their education contributes to the low fertility rate observed during the research period. The research recommends that strengthening the health system in terms of skilled human resource and infrastructure for better provision of reproductive health and family planning services should be a priority. Moreover, empowering community through social mobilization in order to create sense of community ownership helps to steadfast health and development practices.

Modern Contraceptive Utilization and Associate Factors Among Married Pastoralist Women in Bale Eco-region

Ato Abuli Tadesse

Madawalabu University

In his presentation, Abuli Tadesse mentioned that his research was designed to investigate perceptions and opinions of community leaders and service providers about modern contraceptive utilization in Bale pastoral community. The research was conducted in three pastoralist districts - Dello Mena, Harena Buluk and Madawalabu where modern contraceptive service is provided in all of health facilities available in the area. A community based cross-sectional quantitative study supplemented with qualitative study design was used as a research methodology. Results of the research shows that modern contraceptive utilization by the study population is 20.8 percent, which is half lower than of the national and regional averages of 42 % and 39.1 % respectively. The research has found out two main reasons of the study population for not using modern contraceptive methods. The first one is religious beliefs as fear of side effects stands out second. Partner disapproval and self-opposition, lack of knowledge about family planning, existing pregnancy and health related problems are mentioned as reasons for not using modern contraceptive methods.



Ato Abuli Tadesse

This study has found out high prevalence of knowledge about the importance of birth spacing for the well-being of mothers and newborns among men and religious leaders, but there is lower modern contraceptive utilization rate among pastoral women in Bale Eco-region despite availability of services in the area. Desire to have many children as children are considered to be an asset hindered modern contraceptive utilization. It is observed that most family planning programs in that area have mainly focused on women's attitudes and behaviors towards modern contraceptive methods. Consequently, in pastoral areas particularly in Bale zone, the role of men who highly influence the family's decision making process have been overlooked. Therefore, it is recommended that stakeholders to develop culturally sensitive strategies tailored to pastoralists where religion holds unique importance in people's lives. Moreover, national reproductive health and family planning strategies should focus to ensure that access to family planning is part of climate compatible development strategies.

DISCUSSANT 1

Responding To Persisting Population Dynamics Issues With New Approach **Dr. Getachew Bekele**

The presentation on vital event statistics in GGDSS shows that Vital Events System can be used to obtain reliable information on population dynamics. Such types of statistics come with new information that can possibly inform policy on population dynamics and its linkage with climate change. The presentation on vital events, however, did not comprise all the seven components and three phases of that had to be considered as proper vital event as to United Nations standard on vital events registration. To elaborate more on this, marriage is considered to be dual vital event as it is not an issue of a single person. Also, vertical family events that are beyond two people such as adoption are not discussed well in the presentation as factors that affect family structure and the broader population dynamics. The presentation on vital events deliberated only on selected vital events – birth and death, thus the title should be reframed considering factors that it addresses and takes in to account.



Dr. Getachew Bekele

Coming to the second presentation, the issue of modern contraceptive utilization among married pastoralist women in BER shows that development actors should exert much effort to address the unmet need for access and availability of family planning services in pastoral areas. What is worrisome is that challenges that are said to be affecting the effort to expand family planning services among pastoralist communities 25 years ago are still being mentioned as challenges to respond for unmet family planning service needs of pastoralist women. Even with strong political will from the government, which deployed more than 39 thousand health extension workers to help improve reproductive health and family planning services, modern contraceptive prevalence among married women remains to be 29 percent. Contraceptive access and availability expansion is not just the duty of government although it commits itself, it is also the responsibility of all actors including nongovernmental and private sectors. This is the right time for us to debate why we are not bringing about the possible change. Development actors should stop using same solutions to persisting problems, and take time to revisit ways to respond for population dynamics challenges. This is why research is key in understanding the linkage between population dynamics and climate change. Also, researches we conduct should be problem solving, comprehensive and synthesizing the efforts to make the deliberation of this conference input for policy formation. Research findings should clearly show the way forward to respond for old challenges with new approach once and for all, and help to reshape government's development agenda by providing viable advocacy tools as well as action oriented interventions for sustainable change.

DISCUSSION ON RESEARCH PAPER PRESENTATIONS



Following the two presentations and discussant remark, moderators Wr/o Saba and Prof. Taye opened the floor for discussion, questions and comments as Wr/o Saba summarized that the presentations reflect that incorporating population dynamics into climate adaptation efforts can help in understanding who is the most vulnerable and how to target policies to decrease the vulnerability of pastoralist community in Oromia Regional State. Following that, participants asked questions about the title of the research paper and the objective of the conference that they said are dissimilar, study method used to assess modern contraceptive utilization among pastoral married women may necessarily lead to research findings presented, and that they inquired, if the research findings can be representative of the entire Oromia region.

Dr. Muluemebet responded that the workshop deals not only with pastoralist areas of Oromia but also with river basins and protected areas of the region where Gilgel Gibe is one of water basins to be discussed during the workshop. The content and findings that are related to fertility and contraceptive perception among the study group are very important when discussing the issue of population dynamics, reproductive health and family planning. The key to population adaptation is understanding population dynamics and linking climate change vulnerability to changing population size, composition and characteristics. She added that population dynamics is all about change in total population, dispersion based on age, density, household composition, and variables, which are discussed in this research including fertility, morbidity, mortality, migration and family formation. The research site fulfills all geodynamics needed to examine level and pattern of fertility in Gilgel Gibe hydroelectric dam surveillance site. However, it cannot be taken as representative data to derive a conclusion about the whole region. The major purpose of this surveillance system is to monitor basic vital events indicators and generate relevant health, demographic and socioeconomic information for policies and programs. We already know that the world is changing and we need to deal with it through adaptation. We need to design a broad intervention to build resilience at the intersection of population dynamics and development. Understanding fertility patterns are directly relevant for the implementation of the 2030 Agenda for sustainable development and so such surveillance systems are important to deliver policy recommendations on how to strengthen the health system for better provision of family planning and maternal-child health services.

Ato Abuli also addressed questions raised with regard to his presentation on modern contraceptive

utilization among married pastoral women in Bale ecoregion. He explained that research sites are selected with the justification that the three weredas involved would give full insight about why modern contraceptive methods are not utilized in Bale Ecoregion, thus the research findings only represent Bale Ecoregion area, not the entire Oromia region.

The study tries to show the discrepancy between fertility preferences and modern contraceptive utilization among married pastoral women in the study area. It is true that 29 percent of married women in Ethiopia use modern contraceptive methods. But we still observe unequal coverage of the service across the country. Even where there is available service for modern contraceptives, pastoral women are not demanding for it due to socio-cultural factors associated with contraceptive methods and limited men participation. The focus of this study is on factors affecting married pastoral women's utilization of modern contraceptive methods in Bale Ecoregion. There are three determinants of contraceptive use identified in the study. Married pastoral women tend to use modern contraceptives following discussion with their husband, health extension workers, and discussion with customary leaders. Nevertheless, traditional beliefs that favor large number of children, religious myths and misconception about modern contraceptive methods are among major factors identified as barriers hindering modern contraceptive utilization. The research found out that women who went to school question religious myths about contraception and childbearing and that they are more likely to use modern contraceptive methods.

As recommendation, the regional as well as national family planning services expansion strategy should consider addressing the socio economic bottle necks including myths and misconceptions about modern contraceptive methods. Information and communication interventions should also be designed to get more men participation in family planning education and service provision.

RESEARCH PAPER PRESENTATIONS: PART TWO

Rehabilitation of The Upper Gilgel Gibe Catchment- An Integrated Watershed Management for The Remediation of Awetu River in Jimma Town

Dr. Alemayehu Haddis

Jimma University

Dr. Alemayehu presented an action oriented case study on Gilgel Gibe I hydroelectric dam sustainability emphasizing on what has been done to conserving the upper catchment to the pond. Jimma town, where Awetu river located, has 17 administrative districts with the total population of 2.73 million. Abundant rainfall for about 6-7 months a year makes it one of the best watered region of the country, which conducive for agricultural production. The dwellers of Jimma has a problem of supply of clean water, and they use Awetu river for various purposes including drinking.

Awetu River is being contaminated by materials and wastes disposal. A cross-sectional study was conducted along the Awetu- Kito drainage system in Jimma town to assess the level of pollution from urban dwellers and related activities. The study found out that the river is affected by small scale industries, Jimma University and residents along the river bank that challenged its aquatic ecosystems. Awetu has experienced significant loss of water and habitat and rise in its water temperature.

An integrated watershed management research project with the objective of rehabilitating Awetu-Kito river in Jimma town is being implemented by Jimma University. The objectives of this project are to improving the flow regime through re-establishing a natural, dynamic flow, and to increasing structural diversity by widening the river bedload as well as creating and reconnecting side channels of the river. Pollution should become a major issue of concern for the Municipality of Jimma town, and it follows adaptation strategies such as development of vegetation, natural reserves and parks along the riverbank as well as introducing climate-smart urban agriculture practices as way forward. Public awareness and sensitization to stop open sewers and dumps is vital to prevent further pollution and to enhance self-purification.



Dr. Alemayehu Haddis

Evaluating Watershed Dynamics Using Land Cover Change Approach within Gilgel Gibe I

Ato Shimeles Tadesse

Ministry of Environment, Forest and Climate Change

Ato Shimeles started his presentation by explaining about watershed and watershed dynamics with the aim of providing region-specific information on changes in Land Use Land Cover in the watersheds of Gilgel Gibe I dam. He discussed the issue of land use change observed over the last 20 years and findings obtained from the community based focus group discussions conducted in the study area. There was major change of land cover from one form to another during the years of 1986 to 2005. Most of the study area's wetlands and watersheds supplies reduced their level of ecosystem goods and services. The study area is mainly affected by human-induced impacts on the ecosystem that exacerbates climate change influences in the region.



Ato Shimeles Tadesse

In conclusion, the current trend would highly be intensified and that the downstream hydropower stations of Gilgel Gibe II and Gilgel Gibe III will be under threat of sedimentation. Unless the land use trend is changed, deterioration of freshwater, intensified erosion, and sedimentation will increase in alarming rate that could affect the storage capacity of the dam. Therefore, the community around the Gilgel Gibe I catchment area should be consulted and involved in the implementation of environment management initiatives. Programs that are designed to conserve the watershed have to consider the existing cultural and social interests of the people through implementing integrated participatory watershed management.

DISCUSSION ON RESEARCH PAPER PRESENTATIONS



Moderators: W/ro Saba Kidanemariam and Prof. Taye Tolemariam

Question and Comments

Q.1

1. I know Awetu river ever since my childhood. The problem it faces is not only pollution but also deforestation as the town expands. The riverbank used to be a habitat for Hippos and impalas. As stated in the presentation, there is a need to rehabilitate the area, but what is going to be the role of the municipality in this?

Q.2

1. Awetu river is not affected only by contamination as Jimma town grows. The source of the river and its basin should also be examined to see environmental threats of the river and to come up with long-lasting solution to the problem. We know impressive intervention of Haramaya University to revive the dried Haramaya lake. Then what is Jimma University practically doing to save Awetu-Kito river from completely vanishing?

Q.3

1. The presentation on watershed management did not discuss adequate variables to show the magnitude of water pollution in Gilgel Gibe I watershed system.

2. The research on watershed systems in Gilgel Gibe I explained the problem, but it does not suggest a solution to the existing problem. Is the research recommending watershed management as a solution?

Answers

Dr. Alemayehu Haddis (Jimma University)

Responding to the questions and suggestions on his study, Dr. Alemayehu said Jimma University drafted a proposal to launch an action-oriented intervention to save Awetu-Kito rivers from vanishing. The university designed a 16-million-birr budget proposal to introduce an integrated and comprehensive rehabilitation and management plan for the Awetu-Kito river drainage basin. The plan includes introducing urban agriculture and eco-tourism, setting up recreational centers and tree plantation sites along with continuous research and quality monitoring by the university. However, it has been difficult for the university to pull the fund either from the Jimma town municipality or other stakeholders working on environmental conservation and climate change adaptation. Jimma University still needs financial support for this initiative, but universities are not allowed by regulations to raise fund and to be engaged in such activities. Their responsibility is to support institutions working in community development. This program has its own economic output and social advantage for people living along with the basin of Awetu river, as it is designed to be sustainable and participatory. Future researches should investigate the impact of lack of good governance in aligning efforts to mitigate climate change and environmental hazards.

Ato Shimeles Tadesse (Ministry of Environment, Forest and Climate Change)

Ato Shimeles emphasized that his presentation focused on biophysical and socio economic environment to evaluate watershed dynamics in Gilgel Gibe watershed system. Shimeles agreed that the study methodology procedure was not discussed in detail due to limited time given for presentation. He said remote sensing and filed surveying and ground truthing were conducted to organize a complete geo-database. Physical and socio-economic profile of the study area was also done to integrate data collected through ground truthing, discussion with concerned groups and previous research findings. Research outlined a recommendation with a special focus on public engagement in environment management initiatives. The participation of all interested groups is necessary for environmental governance.

In conclusion, moderators emphasized that holistic survival in the changing environment can be ensured through integrated approach in implementing climate adaptation programs, and responsible and equitable use of natural resources across Oromia region. Prof. Taye concluded the session he co-moderated with W/ro Saba by uttering that development interventions should involve policy makers with the objective of joining hands in the effort to conserve nature and pull funds for sustainable development works rather than of finger pointing one another.

PRESENTATIONS ON EXPERIENCES, BEST PRACTICES AND LESSONS LEARNED: PART ONE

The following presentations were facilitated by W/ro Amsalu Hunde (ODA) and Dr. Hasan Yusuf (OFEPA) with W/ro Senait Tibebe as discussant on understanding population dynamics and the changing climate. Paper presentations on policies and strategies addressing population, environment and climate change from Oromia's perspective as well as reproductive health and family planning in pastoral communities of Oromia region were delivered by Ato Fekadu Abdissa (BoFED) and Ato Alemayhu Hunduma (Oromia Health Bureau) respectively.

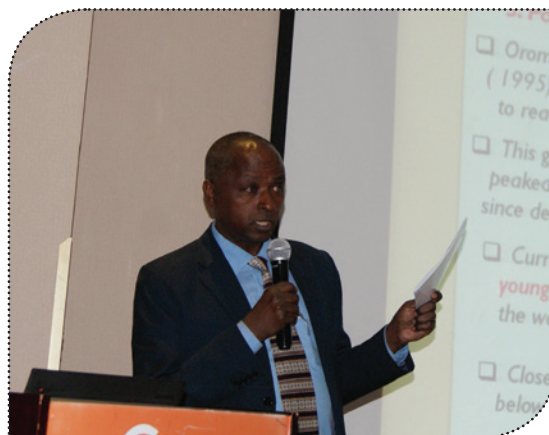
Sectoral Policies and Strategies Addressing the Linkage Between Population, Climate Change and Environment: From Oromia's Perspective

Ato Fekadu Abdissa

Bureau of Finance and Economic Development of Oromia

In his presentation, Ato Fekadu Abdissa said that analysis of sectoral policies and strategies of the country as well as Oromia regional state is described in his presentation with the objective to promote understanding of the essential linkages between population, climate change and environment. Contextualizing national policies and strategies into regional practices help to strengthen partnership and sense of common responsibility among stakeholders working to mitigate the adverse effects of climate change.

Oromia's population growth is projected to reach 49.7 million by 2033 as a result of high fertility rate, and close to half of its population (47%) is below 15 years of age. The region is experiencing the effects of climate change. There were significant changes in rainfall as well as recurrent drought and food insecurity. Pastoral communities in the region are the most hit by climate change effects. It is observed that areas with high population growth are susceptible to climate change impacts that affect every aspect of social, economic, political and cultural lives of the area. Therefore, location-based local adaptation planning is very important because Oromia has risk from climate change. It is also important due to the differences in geography, culture, livelihoods and the context between regions. Ethiopia has several policies addressing population, climate change and environment issues, it has also designed a Climate Change National Adaptation Program of Action (NAPA) to accelerate efforts of climate change resilience. However, contextualization and decentralization of policies and strategies provide a challenge and an opportunity for regional governments to respond to climate change. Oromia Regional State Program of Plan on Adaptation to climate Change was drafted in 2011 with the objective of identifying the major vulnerable sectors, their adaptive capacity and response measures, the best practices and technologies to climate change resilience and to suggest future adaptation measures to be taken by different sectors. This shows that climate change has become a major issue of concern for the Oromia Regional State.



Ato Fekadu Abdissa

Reproductive health and Family Planning in Pastoralist Community: Regional Perspective

Ato Alemayehu Hunduma

Oromia Health Bureau

Major objective of Ethiopia's health policy and Health Sector Transformation Plan is to improve accessibility of quality health service by all. However, health service access, particularly access to Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (RMNCAH-N) among pastoralist communities of Ethiopia remains very low. About 3 million population reside in 7 pastoral zones of Oromia where women have low involvement in family decision making and poor information about RMNH that affects the improvement of the service in pastoral areas. Data disaggregated in this study shows that modern family planning use among pastoral women was 34% in 2008 Ethiopian Fiscal Year. Utilization of long acting family planning methods in pastoral weredas was on average 6%. Major challenges of Oromia region to expand RMNCAH-N service are:



Ato Alemayehu Hunduma

- ▶ Limited health and road infrastructure
- ▶ High turnover of health professionals
- ▶ Low community awareness about reproductive health and family planning services
- ▶ Few partner organizations working in pastoralist areas

As way forward, various organizations working to improve the health of pastoral women and children should align efforts with the objective of delivering better and quality health service to the community that needs it most. Health sector transformation agenda will be a success, if pastoralists are getting equitable health information and service that considers their culture and the existing context. More partner organizations should be involved to deliver quality health information on issues of reproductive health and family planning in order to empower women in negotiating with their partners and religious leaders with regard to the use of RMNCAH-N services available.

DISCUSSANT **2**

POPULATION DYNAMICS AND CLIMATE CHANGE

W/ro Senait Tibebe

W/ro Senait Tibebe raised a thought provoking example on the issue of population dynamics and climate change. She asserted that the seminar should not bound itself only in addressing climate change and how it affects the human population, rather it should examine the contribution of population changes and interaction with other important factors such as technology and consumption behavior in order to understand adaptive capability of human population to climate change impacts. Senait emphasized that Urbanization can improve people's access to education, health and other services. But it also creates environmental health hazards as well as unfulfilled increase in consumption level that can affect the ecosystem. For instance, Ethiopia announced a strategy to become a middle-income country with a climate resilient green economy by 2025. Therefore, there will be economic structural transformation from agriculture to industry. If the country is not caring for its livestock population, the anticipated meat processing industry in the green economy plan will be at risk. This is the reason why development plans and climate change adaptability programs should consider the surrounding facts of population dynamics. The changing structure of the human population should also be seen as a direct driver of consumption levels in goods and services. Currently road vehicle ratio in Ethiopia is 4/1,000. If the number of cars increases as years goes by, it will impact overall road use in the country, also not forgetting the carbon emission and pollution. Thus, policy makers and implementers should also address the linkage of population dynamics and climate change from perspectives of the changing structure of population.



W/ro Senait Tibebe

PRESENTATIONS ON EXPERIENCES, BEST PRACTICES AND LESSONS LEARNED: PART TWO

The Experience of RIF Project in Pastoralist Community of Oromia

Dr. Abiy Hiruye

Federal Ministry of Health/ Pathfinder

In his presentation, Dr. Abiy explained the experience of Reproductive Maternal and Neonatal Health Innovation Fund (RIF) in pastoral communities of Oromia region. The RIF is designed to respond for four major challenges:

1. High fertility and neonatal mortality
2. Uneven access to health services
3. Low use of RMNH services
4. Demand-side barriers to service uptake

The objective of the RIF is designed to complement on-going efforts to increase access to services for poor and marginalized communities. It also aims to improve RMNH outcomes of pastoralist women and young people through innovative demand-side approaches that increase reproductive health and family planning service uptake. Accordingly, the program gives more focus on most vulnerable and hardest to reach communities. The RIF is being implemented by various institutions i.e. regional health bureaus development agencies, civic society organizations, faith based institutions as well as universities.



Dr. Abiy Hiruye

The RIF achieved its targeted support to the health system infrastructure improvement and create demand for RMNH services by poor and marginalized communities through innovative projects. Through the support of RIF project, previously non-functional health facilities are now providing service as a result of solar lights and water reservoirs in far remote areas. Dr. Abiy highlighted that enhanced ownership of communities and cross sectoral partnership both in health service provision and funding modality play an important role to strengthen regional coordination platform and generate best practices and operational researches. Moreover, the RIF helped to bridging social development and health sectors through its innovative approach to facilitate collaborative working and cross sector partnership both in service and funding modality.

Gender, RH/FP and Climate Change in the Context of Pastoralist Community of Oromia: The Case of Borena Zone

Borru Boba

Borena Zone Women and Children Affairs

The objective of this presentation was to explain about perspectives of gender issues in Borena, Gebra and Guji communities of Borena zone. In Borena, most resources are controlled by men. Women and young people rarely participate in family decision making over resources, which makes

them more vulnerable to the effects of climate change. The Borena culture has laid most activities on women. they do the household activities and feed the cattle. Women's contribution in livestock production and household income generation is hardly recognized by society as men are considered to be providers of the family and that they should decide on socio-economic factors within their family and the community at large. At times of drought it is women and children who suffer much more due to scarcity of food, water and health care services as they are often less mobile compared to men.



Ato Borru Boba

Social services such as school enrolment and health care service provision and information significantly favors males. Young girls will be forced to stop their education due to lack of water since it is their responsibility to help their mothers fetching water from far. Women in Borena zone face cultural pressure to bear more children. Unseemly understanding of religious beliefs about family planning and misperception of contraceptive methods are among challenges of pastoralist women to demand for reproductive health and family planning services. In addition to unfavorable socio-cultural perception of women and young people among pastoralist communities of Borena zone, factors with regard to access to health care services such as limited infrastructure are hindering women to demand for reproductive health and family planning services. As a result, most pastoral women do not practice family planning and they are affected by childbirth related problems. All these leads households seriously stressed by climate change impacts, mainly food and water shortages.

DISCUSSANT 3

EQUITABLE REPRODUCTIVE HEALTH AND FAMILY PLANNING SERVICES FOR PASTORALIST COMMUNITIES

Dr. Mengistu Asnake
Pathfinder



Dr. Mengistu Asnake

Presented papers and studies during this session shows that when family planning services are available to all average family size falls and pregnancies occur at more ideal times in women's lives. This will help to accelerate the development process of the country and creates more resilient society to the changing climate. Consequently, both policy makers and service providers should devise a matching equitable reproductive health and family planning information and service provision for the most vulnerable groups- in this case pastoralist women and the youth.

Inferring to studies presented in this workshop, we could say that the overall demand for family planning in pastoral areas of Oromia region has improved. And yet, we have not been able to address the unmet

need for family planning in areas where we respectively work. But in urban and agrarian areas of the country at large, the decline in unmet need has been remarkably sharp according to the national Demographic and Health Survey. This is the time to come up with a mechanism to address the plight of pastoral women through devising an equitable expansion of family planning and reproductive health services in protected and pastoral areas of Oromia in particular, and Ethiopia in general.

DISCUSSION ON EXPERIENCES, BEST PRACTICES AND LESSONS LEARNED



Moderators: W/ro Amsalu Hunde (ODA) and Dr. Hasan Yusuf (OFEPA)

During this session, issues with regard to population dynamics, equitable access to reproductive health and family planning services in pastoralist communities as well as impacts of gender inequalities in pastoral communities of Oromia region were raised by presenters and discussants. W/ro Amsalu emphasized that women's unequal participation in decision-making process usually prevents them from fully contributing to climate related planning and implementation. Development actors should advocate for gender responsive climate policies and work to ensure that no one is left behind in reproductive health and family planning service access. Highlighting on what was discussed, moderators opened the session for comments and questions. A participant asked, if the private sector in Ethiopia has been involved in the RIF project to expand family planning service among pastoralist communities in Oromia. Dr. Abiy Hiruy from Federal Ministry of Health replied that the RIF follows a multi-sectoral approach by involving civic society organizations and universities in its activities. Participants argued that the country in general Oromia in particular should take steps to actively involve the private sector as a strategy to achieving more equitable distribution of family planning resources and services among marginalized societies in order to address the unmet need for RH/FP.

The first day's session was concluded with Negash Teklu's remark. He said rapid population growth is affecting the river basins of Oromia region, specifically Gibe basin where soil degradation, deforestation and drought are becoming typical descriptions of the area. Yet, efforts to save the ecosystem and mitigate effects of population pressure on the environment are not as successful as they should be. Negash urged development policy makers and implementers to stop the "business as usual approach" in climate change adaptation programs. Hence, development actors need to align efforts to integrate development approaches and to achieving family planning and fertility outcomes in Oromia by fully involving the communities in climate resilience intervention works.

PRESENTATIONS ON PROGRAM AND PROJECT LEVEL EXPERIENCES: PART THREE

This session was conducted by Ato Negash Teklu (PHE-EC) and Ato Afework Hailu. The presentations of Dr. Dereje Tolessa (OPADC) and Ato Tezera Getahun (PFE) explained policy responses to the needs of pastoralist communities of Oromia Regional State with regards to climate change and related factors. Also, Negash raised up discussion points why the pastoralist community is not resilient to climate change effects against efforts made by various actors to mitigate environmental hazards.

Climate Change Adaptation Strategies in Pastoralist Areas of Oromia Regional State

Dr. Dereje Tolessa

Oromia Pastoralist Area Development Commission

Dr. Dereje started his presentation by providing overview of Oromia pastoralists area where the livelihoods of the community mainly depend on livestock and livestock products followed by opportunistic dry land farming. This suggests that livestock is the most important economic source as it provides food, cash and asset for most households in pastoral areas. Oromia pastoral areas are affected by climate change as increased frequency of hydro-meteorological hazards such as flood, drought and livestock disease epidemics are often observed in the area. Such hazards interrupt development policies, programs and projects resulting in loss of livelihoods of the pastoral community. In general impacts of climate change in Oromia pastoralist area can be categorized into impact on ecosystem, impact on water resources and impact on livestock resources.



Dr. Dereje Tolessa

The regional government has crafted contextual adaptation strategies that promotes integrated rangeland and natural resource development, livelihoods diversification, watershed management as well as livestock development. Accordingly, construction of schools, vet clinics and human health centers, expansion of livestock market and roads have contributed to improve the lives of pastoral communities in Oromia region. Even at times of drought, death of livestock reduced as result of sources of livestock feed bank established in the area. It is evident that degraded range land is rehabilitated, vegetation cover improved in a way loss of soil and water reduced in pastoral communities. However, the pastoral community of Oromia is still hardly hit by recurrent drought, since there is little interest and investment in pastoralist areas. They are factually sidelined in the development process of the region, as policies and programs have overlooked their way of life and living conditions until recently. What is desired to address all these factors is mainstreaming climate adaptation into plans and strategies at national and regional level and at sectoral levels for effective water resource management, agriculture and livestock development.

Epic note on Pastoralism and Pastoralist Development in Ethiopia

Ato Tezera Getahun

Pastoralist Forum Ethiopia

Ato Tezera Getahun started his presentation by emphasizing that the issue of pastoralist development should be seen from the point of view of national development. 12 million people nationwide engaged in pastoral livelihoods, which is comprising of about 12 percent of the general population. Total economic contribution of the pastoralist community in Ethiopia is estimated to reach 16 percent as the society encompasses about 60 percent of nation's total landmass as well as 42 percent of total livestock resource. Pastoralists have their own cultural and traditional mechanism of conserving the environment and in a way contributing to the acceleration of country's vision toward green development. Yet, they are still struggling to cope with the changing climate. Therefore, discussing on the importance, experiences and lessons learned on pastoralism and pastoral development in the country at large and in Oromia in particular is central in order to fully understand the interdependence of pastoral and agrarian communities' development.



Ato Tezera Getahun

Ato Tezera argued the thought mobility paradigm is a limitation to pastoral development should be changed in order to provide adequate answer to the problems of pastoral communities. The origin of pastoralist livelihoods development challenges are the knowledge gap, marginalization and lack of inclusiveness. Power imbalance among societies as well as pastoral unfriendly policies, strategies and practices are also hindering the development of pastoralists. However, there have been impressive moves by the federal and regional governments to address pastoralist concerns. As a result, institutional and policy environment changes are observed across the country. The livelihoods choice of pastoralists in Ethiopia is protected by law. Also, the pastoral community is benefiting from social and economic infrastructures developed. Tremendous market and financial institutions expansion is realized through various institutions and committees' continuous effort to ensure pastoralist issues are not neglected by policy makers and implementers. Subsequently, best experiences in raising the profile of pastoralists, change in government police and making pastoral development a national agenda are recorded. The launch of Ethiopian Pastoralist Day since 2008 is among best practices in converging the collective voice of pastoralists; neighboring countries such as Kenya, Uganda and Tanzania have already adopted this practice to influence development policies.

DISCUSSANT 4

ENABLING ADAPTIVE CAPABILITY OF THE PASTORALIST COMMUNITIES IN OROMIA

Ato Negash Teklu

PHE-EC

Quoting from the previous presentations Ato Negash reaffirm that pastoralists employ various coping strategies to deal with climate change adversity. Nevertheless, they are losing their livestock assets and livelihoods as a result of natural disasters such as recurrent drought. He said the question this conference should address is that why is it the efforts of development actors to enabling adaptive capability of the pastoral communities in Oromia and the country at large are not yet effective? The government of Ethiopia has crafted conducive policies and strategies to respond for the needs of pastoralists, and is working to increase the resilience against varying climate conditions. Pastoral Commissions are established across the nation to strengthen the inherent adaptive capacity of pastoralists. If we take the case of Oromia region, many of big nongovernmental organizations are working in the region to help pastoralists adapt to the changing climate. Hitherto, we still discuss the same natural catastrophes observed years back.



Ato Negash Teklu

This is time to joining hands and consider a broad stakeholder engagement with the objective of facilitating coordinated pastoral development intervention. Climate change adaptation requires more effective approaches to implicitly involve vulnerable communities in climate change resilience programs. Climate change adaptation needs engagement of educational institutions and universities in research, technology and in deriving more contextual approach to the existing problems. Pastoral development practitioners should strengthen good practices and efforts to work for the betterment of pastoral livelihoods. There is a need for public-private sector collaboration to encourage investment in disaster risk management and to ensure sustainable development. Currently, sedentary livelihood looks like winning, but pastoralism is not a livelihood that will vanish easily. For this reason, intervention approaches in pastoral areas should support the livelihood choices of the community. Also, policies and strategies designed and implemented has to promote equitability in order to create viable opportunity for the pastoralist communities to take part in the national development agenda.

DISCUSSION ON PROGRAM AND PROJECT LEVEL PRESENTATIONS



On presentations by Dr. Dereje Tolessa and Ato Tezera Getahun

Moderator: Ato Afework Hailu

Question and Comments

Q.1

1. Jimma University is working with Bulle Horra University on the issues surrounding Borena's water problem. Water scarcity in Borena particularly during drought is devastating. Borena communities depend on open water sources that actually experience high evaporation rates, often drying up early in dry season. My question is therefore, is it a viable solution to rehabilitate wells and ponds where the evaporation rate is very high? Also, should we consider rainwater harvesting as a solution whereas we know it is very expensive and the characteristics of the area is not favorable? If so, Oromia Pastoral Commission should standardize water harvesting works done in the area so that such interventions will be effective, unvarying and sustainable.

2. We always hear the lives of pastoralists have improved comparing with previous times. Which time are we referring to? Taking into consideration that this is 21st century where technology and science play a great role in day to day life, we still need to work hard to help pastoralists adapt not only to the changing climate but also to the changing environment.

Q. 2

1. When we talk about climate change and population dynamics, how do we really explain the role family planning play in improving the lives of pastoralist women and girls?

Q. 3

1. Considering pastoralism as a lifestyle that demands huge resources and land tenure, is it practical to

advocate for preserving such livelihoods where the nation might be unable to provide basic services due to the nature of people's mobility? Although people have the right to choose their own livelihoods and that should be respected, why is it not possible to devise a strategy to change this expensive lifestyle or consider sedentarisation?

Q. 4

1. Dr. Dereje mentioned animal destocking and restocking as a coping option during drought. My question is, do Borena people prefer this as an option given the fact that Borena's perception towards their cattle?

2. It is true joining hand with private and nongovernmental organizations to improving the lives of pastoralists is important, but how are you coordinating with them? Is it easy to handle the funding politics?

Q. 5

1. Borena zone is home to a huge livestock resources. What is being done by the Oromia Pastoralist Commission in order to effectively manage water supplies for both human and livestock consumption as well as to linking pastoral communities to sustainable markets? Is there a strategy to link up live animals and livestock products with market?

Answers

Dr. Dereje Tolessa (Oromia Pastoralist Area Development Commission)

Water harvesting is considered a realistic water supply option in areas like Borena. The combination of the construction of wells to harvest rain and surface run-off water will ensure availability of drinking water for humans and livestock. This reality is attracting more than 40 nongovernmental organizations to work in Borena zone, but still there is water problem in the area. Thus, standardization of water rehabilitation interventions is critical. We do appreciate what the civil societies are doing in Oromia region regardless of the fact that there is lack of standard procedure for sustainable water rehabilitation works. Both government and nongovernmental organizations efforts as well as resources should be coordinated and devoted to respond for pastoral communities needs for reliable and regular flow of water. Accordingly, we need to standardize water rehabilitation works and devise consistent implementation monitoring system.

It is true that population and family planning have rarely been linked with efforts to mitigate climate change adversities among pastoralist communities. However, Oromia Pastoralist Area Development Commission is promoting sectoral coordination to address gender issues in pastoral areas. The commission ensures pastoral women and girls achieve their own reproductive health and family planning decisions through information they get from public health care providers and development partner organizations. More should be done by all sectors equitable health service and improved health infrastructure in pastoral areas is realized to respond for the unmet family planning need of pastoral women. Most interventions in Oromia generally focus on the needs of specific sectors, and have not yet examined population dynamics in relation to pastoral development. Our challenge is therefore overcoming the local need contextually and for this we need align efforts and create over lasting cooperation in terms of planning and implementation of climate change adaptability programs.

Livestock drought marketing is very unpopular among pastoralist communities, Borena treat its cattle as their children. Generally, livestock marketing requires improvement as a whole, not limiting support to emergency interventions. cattle like their children. Also, there is a prerequisite to take traditional and customary needs of pastoralists during livestock drought marketing. On the other hand, destocking has become common emergency interventions in pastoralist areas. These days, agencies have purchased animals in order to inject cash into the local economy, and so enable pastoralists to pay for their basic needs. It is true destocking further reduces the pastoralist asset base, but it is necessary when it begins early in the alert stage of emergency and continue throughout the crisis.

Ato Tezera Getahun (Pastoralist Forum Ethiopia)

Pastoralism is not a way of life that we can easily get rid of, in fact it is difficult for governance. Pastoralism is mostly considered as environmentally destructive and even economically illogical. Yet, we have seen in Ethiopia's case almost all claims against pastoralism are baseless. The calamity of pastoralism today emanates from misunderstanding of the livelihoods of pastoralists who are mostly trying to adapt to the changing political, economic and natural environment. Development actors' role in this should be enable them to be resilient to the actual change and facilitate their coexistence with other livelihood practices. The best way of pastoral development strategy in this context is to respect people's choice for their own livelihoods and to support them to practice their knowledge of their environment.

While we are talking about collaboration among development partners, there are unpleasant moves of some organizations that are creating an empire in some areas. It looks as though these organizations are the only change agents to respond for pastoralist concerns, yet they are hindering aligned efforts to mobilize resources and establish long-lasting cooperation. Oromia Pastoralist Development Commission should take the lead in creating conducive environment for all development actors to come together and work for one defined goal.

In conclusion, session moderator Negash Teklu asserted that choosing and engaging in a certain way of life is a human right. There is a need to accept pastoralism being practiced as way of life among communities, and support pastoralist livelihoods to cope with climate change adversities. At the same time, there have to be sincerity to exert same effort to support people's choice for sedentarization as climate adaptation mechanism. Negash added that reproductive health and family planning interventions cannot be successful unless women in pastoral areas are empowered to exercise their right to demand for services. He emphasized that gender inequality cannot be solved just by discussing its magnitude in traditional societies, therefore development actors should take step to establish a system where women and girls fully participate and take ownership in development interventions.

With regard to some nongovernmental organizations that are not willing to align efforts with other partners, Negash said it is evident in Borena that organizations are not aware on who is doing what thus duplication of effort is observed in climate change adaptation works. He calls upon Oromia Pastoralist Development Commission to intercede and coordinate interventions and resources for lasting change.

The following presentations were facilitated by Ato Jemal Kassaw (Engender Health Ethiopia) with Dr. Araya Asfaw (HOAREC&N) as discussant on the role of integrated approach in biodiversity conservation. The role of integrated approach in biodiversity conservation and livelihood improvement was presented by Ato Asaye Asnake (Farm Africa) referring the case of SHARE Bale eco-region project. Ato Semere Seleshi (PHE-EC) deliberated about experiences in integrating reproductive health and family planning services within the SHARE Bale eco-region.

PRESENTATIONS ON PROGRAM AND PROJECT LEVEL EXPERIENCES: PART FOUR

The Role of Integrated Approach in Biodiversity Conservation and Livelihood Improvement: A Case of SHARE Bale Eco-Region Project

Ato Asaye Asnake

Farm Africa

Ato Asaye started his presentation by providing background information about Bale Eco-region, which is located in Bale and west Arsi zones of Oromia region linking the highlands with lowland system within Ethiopia and outside. The eco-region covers an area of 22,000 sq. km with the population of above three million. He explained that the Bale eco-region is the second largest moist tropical forest remaining in Ethiopia, and has unique biodiversity potential being one of the 34 world biodiversity hotspots. However, Bale Eco-region (BER) is facing major problems associated with high rate of deforestation and land degradation driven by population growth, poverty and lack of integrated action to respond for environmental challenges. As a result, the region is experiencing chronic food insecurity and loss of resilience to climate change adversities.



Ato Asaye Asnake

Prior to the SHARE Bale Eco-region project, different actors implement different agriculture, forest management and tourism activities. Such sector specific interventions mainly fail to recognize highland and lowland linkages through ecosystem services and flow. Thus, the SHARE Bale Eco-region project was designed with the objective of conserving biodiversity in BER and increase resilience and well-being of highland-lowland communities. The project follows eco-regional approach in order to involve multi-sectoral interventions and participatory planning, implementation and evaluation. Accordingly, conservation of protected areas enhanced and livelihoods of BER communities improved. However, one must understand that multi-sectoral approach demands resources, longer time and continued investment to see its impact.

Integrating Reproductive Health and Family Planning in Eco-Region Conservation: SHARE BER

Ato Semere Seleshi

PHE-EC

Ato Semere said that population pressure is one of major contributors to environmental degradation in Bale Eco-Region. Despite decline in national fertility rate, Bale Eco-region is one of the places with high total fertility rate where modern contraceptive utilization is low. Although use of family planning is important to improving reproductive health, the ability of women to decide on the number and timing of childbirth is limited due to traditional factors as well as limited access to family

planning services in far remote protected areas of Bale Eco-Region. Therefore, multi-sectoral integrated approach has been implemented to promote well-informed demand and access to reproductive health and family planning services. Interventions in BER exemplifies that ensuring access to family planning and reproductive health services have positive impact on the environment, as it helps to reduce pressure on the ecosystem. The BER integrated approach to climate change mitigation involves young people with the objective of fulfilling their reproductive health needs. Consequently, school clubs on reproductive health and environment protection are formed to create awareness about linkages of family planning, reproductive health and climate change. Also, community platforms are established for volunteers and peer to peer groups for young people who are not enrolled in schools to sensitize them about issues of RH/FP, natural resource management. As a result, these interventions, contraceptive acceptance rate has been improved, many are participating in conservation activities of the BER.



Ato Semere Seleshi

DISCUSSANT 5

The Role of Integrated Approach in Biodiversity Conservation

Dr. Araya Asfaw
HOAREC&N



Dr. Araya Asfaw

The workshop reflects the issue of pastoral communities of Oromia in a very comprehensive manner. The two presentations on the role of integrated approach in biodiversity specifically have addressed concerns of the Bale Eco-Region clearly. The experiences of organizations working to enable communities adapt to the changing climate in Bale SHARE BER shows that the integrated approach to conserve biodiversity is effective when it involves the local communities. Participatory interventions should be scaled up in a way to align scattered efforts and resources towards achieving the national GTP and the SDGs.

Based on presentations made, rapid population growth in BER seem alarming, so this gathering should come up with viable recommendations to expand access and services for reproductive health and family planning for pastoral women and the youth. Also, successful interventions like the SHARE BER project, should be sustained and replicated in other areas to reverse the effects of climate change in other pastoral areas. The government should support such programs in funding, as funding from government is reliable, it also leverages support from other sources. BER is not only for Oromia, it is Ethiopia's natural treasure and that of Africa in general, hence we need to work together to conserve this ecoregion.

PRESENTATIONS ON PROGRAM AND PROJECT LEVEL EXPERIENCES: PART FIVE

Integrating FP/RH for Better Biosphere Reserve Conservation: The Case of Yayu Biosphere

Ato Tilahun Semu

PHE-EC



Ato Tilahun Semu

This presentation was about a study conducted to identify communities understanding of integrating RH/FP programs in natural resources conservation. The study was directed among women who are living within the Yayu Biosphere through questionnaires and focus group discussions about the integration of population, health and environment (PHE).

Results show that the more women are aware of family planning, reproductive health and related issues, modern contraceptive utilization is high, and they contribute to the integration efforts to protect Biosphere reserve resources. Also, high awareness about natural resources management sanitation and hygiene is observed in places integrated approach is implemented. Although, integrated approach in the Yayu Biosphere contributed to less school dropout of girls as well as high awareness of RH/FP among women and the youth, there is unmet need for contraceptive methods in the area. Moreover, the study reaffirmed that families who are aware of reproductive health matters and who use family planning methods are more farm productive.

The case study recommends that multi-sectoral approach is a must to sustain the Biosphere and changes that have been observed through the existing interventions. Integrating RH/FP in non-health sectors contributes to the efforts that have been made to achieve the SDGs, as it directly minimizes population pressure on the natural resources.

Impacts of Integrated PHE Approach on RH/FP and Livelihoods: Lessons from Metu and Hurumu

Ato Zelalem Adugna

EWRNA

Ato Zelalem shared the experience of a project designed to strengthen and scale up RH/FP intervention through multi-sectoral population, health and environment integrated approach. The project target areas are Mettu and Hurumu weredas in Oromia Regional State benefiting about 6 thousand households. Multi-disciplinary task force has been established to execute RH/FP packages, natural resource management, integrated PHE approaches within schools as well as livelihoods and food security activities. As a result of these activities, there have been registered impacts on the utilization of family planning services. Since the community as well as development actors have come

to understand the linkage of population dynamics and the environment, dependency on natural resources have visibly reduced.

Lessons learned from this project shows that integrated PHE approach is a holistic method to fostering sustainable developments as it creates sense of ownership among stakeholders. However, budget limitation and knowledge gap among community members have been challenging factors despite the fact that there has been strong commitment to multi-sectoral integration among government offices. Therefore, adequate resources should be allocated to the implementation of integrated PHE approach along with scientific mechanisms to help verify and document achievements of integrated projects.



Ato Zelalem Adugna

Integrate PHE Approach Contribution to National Development Strategies

Ato Zerihun Dejene

PHE-EC

Integrated approach is an innovative way of addressing both population dynamics and climate change issues in a holistic way through a PHE approach. Agenda 21 highlighted the importance of integrated planning within sectoral approaches with the objective of reshaping decision-making and bringing about institutional structures necessary within government. Since traditional sector-based approaches are not responding for the purpose of addressing complex development initiatives, applying this method at policy and strategy level help to development planning and implementation including the SDGs. Ethiopia has shown progress towards integrated approach at policy and strategy levels. For instance, Ethiopia's Program of Adaptation to Climate Change (EPACC) has been crafted to support the country's initiative to build climate resilient economy. More so, Ethiopia's Growth and Transformation Plan (GTP II) is designed with important strategic decisions to accelerate and sustain development activities through addressing population dynamics and its linkage with climate change as the country strives to attain a long lasting green economy. Apart from the above mentioned major strategic plans, Ethiopia has also developed key policy documents such as the Climate Resilience Green Economy (CRGE), National Framework of Climate Resilience Health Sector and National Health Adaptation Plan to Climate Change.



Ato Zerihun Dejene

Although the country is working well in terms of devising policy and strategy documents with regard to integrated approach, there are challenges associated to program implementation processes. Thus, there is a need to create mutual understanding on how integrated approach should be used both conceptually and operationally in the field.

DISCUSSANT **6**

Human Activities That Affect The Environment

Dr. Wolde Mekuria

IWMI

Dr. Welde said science justifies that there is reconnection between nature and human environment, hence most habitat loss is caused by human activities. Understanding the difference between climate variability and climate change is necessary for development actors to act accordingly. He uttered that the presentations have explained how human actions negatively influenced the environment, but lack thorough analysis as to how the affected environment could possibly impact community livelihoods. Given the fact that one of the objectives of this conference is to highlight on the linkages of climate change and population dynamics, discussing the current impact of human activities on the environment could help to design effective program interventions to build climate resilience. It is true that addressing interactions between people, health and environment makes conservation programs very effective, but the question is how do we plan and implement PHE approach where the understanding of the issue among decision- makers is minimal. This gathering should indicate a way forward to this particular concern.



Dr. Wolde Mekuria

DISCUSSION ON PROGRAM AND PROJECT LEVEL PRESENTATIONS



Moderator: Ato Jemal Kassaw (Engender Health)

Questions and Comments

Referring to the presentations on the linkage between population dynamics and climate change as well as the need to integrate RH/FP services with the aim of addressing the unmet need of pastoral communities, Dr. Nigist Tesfaye of UNAIDS asked, if there are activities conducted to address HIV/AIDS in climate change mitigation projects. It has been repeatedly mentioned during presentations that out-reach activities have been conducted to involve the community through volunteerism, she asked: "does that mean the government Health Extension Workers intervention in expanding RH/FP services is being put aside by development actors whereas aligning all efforts is what the conference is advocating for?" Supporting Dr. Nigist's query, other participants asked whether intervention activities performed through taskforces and volunteerism could be sustainable whereby the concepts of population dynamics and climate change are not being addressed at policy level.

It was also raised by Ato Abreham Yitbarek of the Oromia Youth and Sport Office that engaging the youth in development activities is the objective of the government as stated in its national growth and transformation plan. He said that best experiences fostered in BER, Yayu, Mettu and Hurumu did not portray practicable indicators for the positive changes achieved as a result of the involvement of the youth and pastoral communities at large in natural resources conservation and RH/FP services expansion. This concern was shared by a representative from Oromia Women and Children Affairs Office. Women in Bale zone are excluded from natural resource management projects due to traditional beliefs that promotes men as guardians of the environment, however best practices shared in this conference claim there have been successes to involving women in climate change adaptability projects. This practice should be well documented and shared across other initiatives as it helps to empower pastoral women to take center stage in natural resources conservation.

Comments and questions from Oromia Wildlife Conservation Authority representatives conferred about the need to have clear policies in order to implement integrated approach in pastoral and

protected areas of Oromia Regional State. It was mentioned that the national forest conservation and biosphere protection policies are not going along each other. Government authorities are not encouraged to come to terms with multi-sectoral approach while sectoral priorities are differing from the overall climate change adaptation program. Thus, sectoral policies and strategies should be reviewed for decision-makers to consider PHE approach for development works.

Again, it was stated by participants that BER and the forest in its surrounding are directly affected by the population dynamics. Although there have been efforts to conserve and preserve the protected forest area, deforestation is taking place as people illegally immigrate into the area to obtain farm land and other resources. Therefore, the priority should be given to reducing the population pressure and creating alternative income generating activities in order to build climate change resilience among people living in protected and pastoral areas of Oromia.

The last question was about lack of awareness about the linkages of population dynamics and climate change and the need for integrated approach in order to mitigate the adverse effects of climate change. It was said that the workshop should come up with actionable points in order to support development actors, policy makers as well as the community to join hands and work to improve the lives of pastoral communities through improving health infrastructure as well as to creating sustainable market linkage.

Answers

Ato Assaye started addressing questions and comments forwarded from the gathering with regard to integrated approach in biodiversity conservation and livelihood improvement in Bale Eco-Region. He uttered that due to major problems associated with population pressure in the BER, the SHARE project is working to control illegal immigration and further expansion of dwellers within the park area. Assaye added that people immigrating to the protected area in search of farm and grazing land have contributed to the already alarming problems of overgrazing, soil erosion, poor water flow, food insecurity, land degradation and drought. The SHARE project is not dealing with resettlement of people; however, we work with law enforcement agencies to reduce illegal activities by encouraging shared management practices and increasing community's sense of ownership. SHARE BER project has research component and technology supported interventions on watershed management, weather forecast as well as soil conservation. Currently, a research work in collaboration with Addis Ababa University with the purpose of creating alternative livelihood options to young people in protected areas is underway. Findings of the research will be available to development actors as technical and policy briefs soonest doable.

SHARE-BER project has its own change indicators to measure the success of its integrated interventions. Among evidences that indicate the impact of our interventions:

- Community and government sectors are strengthened through human and institutional capacity activities conducted, which directly contributes for sustainable conservation and management of BER,
- As a result of collaborative work with law enforcement agencies, there is increased patrolling intensity and coverage in the protected area,
- Income generating activities implemented helped to improve the livelihoods of women and the youth in BER.

The designing of integrated approach within the sub-regions of our intervention area is participatory where identified practices are implemented and the best applications to conserve the eco-region are sustained. Beneficiary selection criteria of women, youth and disabled are performed taking into consideration their specific needs and concerns, hence the SHARE-BER project have established women specific enterprises to improve their livelihoods as well as to create a forum for women to take center stage in natural resources management activities. Indeed, there is still a need to promote gender equality in intervention areas, as it will encourage both women and men to reach mutual decision in using family planning services in order to plan the size of their family. There should also be gender sensitive approach that facilitates full participation of all community members in climate change sensitization and resource allocation as well as in adaptation and management.

Ato Zelalm on his behalf addressed questions in relation to impacts of integrated PHE approach of RH/FP and livelihoods. He said lessons from Mettu and Hurumu demonstrated that engaging young people in alternative income generating activities can be sustainable, if problems associated to market are solved. Thus, the project is working to strengthening the market link for those who are involved in plant nursery. the project help people who are farming in the area to organize themselves in creating feasible livelihood alternatives since the wetland should be preserved to ensure sustainable ecosystem. Zelalem reasserted that establishing climate resilience promoting taskforces by itself could not solve climate change related problems. But, if sense of ownership to protect the environment is created among local authorities, taskforces will own the project and make sure best practices are sustained through teams formed during project life span.

One of the presenters Tilahun added on the issue of forming taskforces and volunteer groups as means of coordinating efforts and ensuring project outcome sustainability in intervention areas. According to Tilahun, the most precarious problem in Yayu biosphere is population pressure on the environment. What is perplexing in this is that most women in the area claims they have the awareness about RH/FP methods, but the service is not adequately available and accessible by women and young people due to misperception about services, cultural barriers as well as lack of infrastructure in pastoral areas. Therefore, addressing the unmet RH/FP needs of communities requires PHE integrated approach including HIV/AIDS, which is likely to raise the vulnerability of people living with HIV/AIDS with effects of climate change. As a lesson learned from Mettu biosphere, creating market linkage for small groups engaged in alternative income generating activities can help communities to increase productivity and asset accumulation.

Responding for the question posed by Dr. Nigist, Ato Semere said the role of health extension workers in mobilizing the community to demand for RH/FP services is remarkable. The SHARE-BER project is designed to implement participatory integrated RH/FP in climate change mitigation intervention in a way to fully involve the community with diversified technique of organizing themselves as volunteer groups to facilitate public dialogue on issue of RH/FP. The intervention is therefore to support the efforts of government deployed health extension workers through additional community based forces, not to establish a separate community health intervention system within already-existing scheme. According to Semere, 60 percent of project beneficiaries in SHARE-BER PHE integrated intervention are women, since they play an important role in natural resources management and in building resilience to climate change effects.

Moderator Ato Jemal Kassaw jot down concluding points of the session.

► Promising changes are observed as a result of integrated approach in biodiversity conservation and livelihoods improvement in Bale Eco-Region, Mettu, Hurumu and Yayu project areas.

- Expanding and scaling-up integrated approach is desirable for further achievements in larger development endeavor.
- Integrated PHE approach should be acknowledged and institutionalized in political decision making process, program design and implementation.
- Sense of ownership about climate change mitigation efforts among government authorities should be created and encouraged in order to align resources toward resilience intervention.
- Integrated and multi-sectoral approach helps to facilitate to the implementation of national as well as global policies and strategies in building climate change resilience.

GROUP DISCUSSIONS AND PRESENTATIONS



On the second day of the workshop, there were group discussions with four sub-groups to examine the existing problems associated with Population Dynamics and Climate Change and debate on progresses made to build climate change resilience in Oromia Regional State. The first group discussed about progresses made with regard to linking population and RH/FP in Oromia adaptation programs for climate change while the second group addressed achievements in linking research findings with development interventions. Group three discussed on the unmet need for family planning among pastoral women, as the last group examined efforts made to achieving integrated approach to development and ways to establish collaborative effort among various stakeholders.

Group One

Progress of Linking Population and RH/FP in Oromia Adaptation Programs for Climate Change

The linkage between population and RH/FP in climate change resilience programs entails a variety of responses including policy and strategy design in order to improve management of climate related risks. This can be done through building resilience capacity of communities by responding for their unmet RH/FP needs. The population pressure on biospheres and Eco-regions of Oromia has been linked to lack of integrated PHE approach to respond for communities' demand for participatory resilience interventions.

It is evident that the Ministry of Health was slow to incorporate activities that helps to mitigate climate change in its RH/FP programs until substantial natural resource loss was observed as a result of unprecedented population pressure on the ecosystem. Undeniably, the Ministry of Health is now aggressively working to slowing population growth through effective investment in RH/FP as part of Ethiopia's green economy aspiration. Nonetheless, both government and nongovernmental bodies should work hard to mainstream gender in family planning programs as cross cutting issue. Unless development actors recognize the role of women in natural resources management and climate change adaptation process, it will be difficult to address population, reproductive health and family planning as part of national as well as regional adaptation agenda.

Although the Sekota declaration of government institutions to end hunger and under-nutrition

by 2030 requires organizations to implement integrated approach, there is still poor coordination of efforts to make sure integrated approach to climate change mitigation is aligned with similar government policies and strategies. Apart from coordinating efforts among stakeholders, there is a need to involve customary leaders to take part in encouraging RH/FP services already available in pastoral and protected areas, as they are, in some cases, more accepted by pastoral women and the youth than health practitioners.

Therefore, there should be a responsible body to coordinate efforts that are being exerted to address unmet RH/ FP needs with the aim of creating a climate resilient society across the region. Considering that integration of PHE is a policy issue, which is important to aligning climate change adaptation projects, there should also be a perpetual monitoring and evaluation mechanism to follow up on performance and integration of RH/FP across the board.

Group Two

Progresses achieved in terms of linking research findings with development interventions

There was a discussion of views and experiences of research institutions and universities in order to evaluate progresses achieved with respect to linking research findings with development activities in Oromia region and the country at large. The group listed down progresses, challenges and recommendations as follows.

Progresses:

1. Researches are being conducted in an organized and problem solving manner
2. Universities are working with development actors in examining problems and implementing research findings
3. Problem identifications and community need assessments are conducted before and during development research activities
4. Universities are allocating budget for community based researches
5. Database of researches and findings are being strengthened
6. In some universities knowledge transfer, research communication and community service directorates are established with the aim of translating research findings into action.

Challenges:

1. Limited budget for research works.
2. Disintegration of disciplines and research themes.
3. Limited implementation of research findings.
4. Limited innovation and knowledge transfer practices.
5. Researches are divided in thematic areas-that prohibits to design a research on integrated development issues.
6. Development researches are not done in-depth, they are shallow, and come up with oversimplified conclusions.

Recommendations: Community involvement in research design should be encouraged.

Group Three

Addressing the Unmet Need for Family Planning Among Pastoral Women

Various stakeholders have been working to create demand for family planning services by using different approaches to involve customary leaders and men in the process. On the other hand, conferences and need assessments have been held to see, if demand for reproductive health and family planning services have increased through the years. Also, there have been policies and strategies crafted to expand family planning services across the nation, giving more emphasis for marginalized groups of the population such as pastoral women, the disabled and the youth. Yet, RH/FP services availability and accessibility among pastoral women and girls have been challenged by myths about family planning services, gender inequality and poor health infrastructure and that service providers are still worried about unmet need for RH/FP services in pastoral areas of Oromia region.

Group members have developed recommendations that may help to address unmet need for family planning among people living in protected and pastoral areas.

- ▶ Reproductive health and family planning policies and strategies should be contextual to the realities of people in pastoral areas.
- ▶ Conducive service delivery model should be designed and implemented particularly for pastoralists, who are mobile to maximize the use of the scattered biomass in different seasons of the year across the rangeland.
- ▶ Women empowerment and involvement in family decision-making is important to address the unmet need for RH/FP
- ▶ Men involvement in RH/FP should be intensified among pastoralists
- ▶ Access and availability of RH/FP services should be expanded in pastoral areas
- ▶ Involving customary leaders in intensifying the family planning service is vital to create RH/FP service demand among pastoral women and girls
- ▶ Result-based financing system should be introduced across climate change mitigation programs

Group Four

Efforts made to achieving integrated approach to development and ways to establish collaborative effort

The group evaluated efforts made so far to implementing integrated approach in development activities and outlined the way forward for development actors to establish collaborative efforts. Oromia regional government should acknowledge that integrated approach promotes environmentally sustainable future for the region. Also, there is a need to mainstream reproductive health and family planning issues at all levels, and to recognize the linkage of population dynamics and climate change in order to make development interventions effective.

The regional government should be committed to make efforts in mobilizing and evaluating development actors, and to aligning resources for inclusive economic growth as well as environmental protection. The responsibility of Oromia region in conformity with national policies to ensure green and sustainable economy is therefore to lead efforts of development actors. Hence, the regional government has to make sure that reasonable and consistent budget is allocated for identified project activities along with tangible project exist strategy.

Generally, a guideline to define and strengthen cooperation among stakeholders should be designed with the aim of promoting integrated project implementation plan and program evaluation. Evaluating the existing trend of integrated approach to development, it would be viable to establish an independent body that is responsible for promoting multi-sectoral approach in development works at regional level.

CLOSING REMARK

The notion of PHE integrated approach in Ethiopia was introduced in 2007. It will be wise to assess achievements and challenges we face to understand how far we have come, how far we have to go. I think we have come from far as a movement. We used to talk about environment and population back then, now we added health to be our concern. Yet, most issues that we are discussing during this conference are the same as the problems and challenges we were worried about years back. However, I would say development actors are now more informed about the issue of climate change and its linkage with population dynamics. Universities are conducting researches, development partners are considering integrated PHE approach in project implementation. The government drafted policies and guidelines for the application of integrated approach in development activities, and that is a great achievement of the PHE integration movement in Ethiopia. But then again, there is limited practice of integrated approach particularly in climate change mitigation programs, which is slowing down efforts to build climate resilient society and conserve the environment. It is observed that there is pressure among parallel programs as they are mostly designed having different objectives and inconsistent implementation plan. Thus, making such programs and implementing partners aligned will be challenging, particularly when some sectors are dominant being influenced by achieving only their organizational objectives. The best way to involve all development actors in aligning efforts to build community resilience against the changing climate and its effects is through experimenting, identifying, documenting and communicating short and long term impacts of integrated approach interventions to all stakeholders as well as government authorities.



W/ro Yemisrach Belayneh

WAY FORWARD AND RECOMMENDATIONS

The two-day workshop agenda was concluded with the following recommendations and way forward delivered as closing remarks by W/ro Yemisrach Belayneh country Advisor of Packard Foundation.

Recommendations directed to Oromia Regional State

- Oromia Regional State is advised to devise a framework for multi sectoral collaboration and integration of efforts from kebele to regional level including the hard to reach areas to build climate resilient communities. In addition, contextualizing integrated approach to natural resources management is vital in forest, river basins, protected and pastoral areas of Oromia Region.
- Reporting mechanism: measurable change indicators should be designed to evaluate changes and progresses as a result of multi-sectoral approach to all developmental interventions including climate change adaptation and mitigation.
- A mechanism of information and knowledge sharing and transfer among the relevant development

actors such as Charities and Societies, Higher Learning institutions, Private and Government Offices operating in the region should be established

- Communities should participate in climate change adaptability projects with the objective of providing lasting solution to problems and to creating sense of ownership among hard to reach areas including pastoral communities.
- Suitable service delivery modalities should be crafted in order to ensure access to family planning and reproductive health services in forest, river basins protected and pastoral areas.
- Multilevel advocacy work among local decision makers has to be conducted with the aim of creating sustainable climate change adaptability interventions.

CONCLUSION

- It is understood that the linkage of population dynamics and climate change is very complex and that multi-sectoral intervention approach is effective to address multifaceted developmental challenges and issues.
- There is a need to design simple and practical multi sectoral integrated approaches to achieve more success that are sustainable and replicable.
- Multi sectoral integrated approach needs to focus in strengthening the existing system instead of establishing new one, with the aim of inviting all relevant stakeholders including communities to fully participate in planning and execution of all developmental issues including climate change adaptation programs.
- Multi sectoral integration/PHE approach is a new phenomenon suggested in accelerating development, alleviating poverty and expanding social services including health care services efficiently and effectively in harmonized way. Thus, engaging in such kind of approach and mechanism for Ethiopia is timely and transformative to achieve its growth and development plan as well as SDGs.
- A case in point best practices in biosphere and eco-region conservation in Oromia region that were presented during this conference need to scaled up and be shared and exercised region wise and nationwide.
- Oromia's experience show climate change adaptability activities should be participatory and inclusive. People living in protected and pastoral areas should take part in natural resource management activities taking into consideration their cultural and social context. Therefore, the issue of equity in reproductive health and family planning services access and availability should not be ignored in building climate resilient in forest, protected, river basins and pastoralist communities.
- There have been more action researches conducted on development issues for the last past decade. However, research themes were not being synchronized as presented during this conference. Therefore, continuous development research that produces applicable findings in relation to the linkage of population dynamics and climate change in pastoral, forest and protected areas should be encouraged through collaboration and partnership with universities, research institutes, development partners and government.

Population, Health and Environment Ethiopia Consortium (PHE EC)

LIST OF PARTICIPANTS

A workshop on Linkage of Climate Change, Population Dynamic & RH/FP in River Basins, Forest Protected & Pastoralist Areas of Oromia

Dates: Nov 1-2, 2016

Place of Workshop: Addis Ababa Capital Hotel

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SCHEDULE OF THE MEETING



the David & Lucile Packard
FOUNDATION



***A Workshop on linkages of climate change, population dynamics and RH/FP in river basins, forest, protected and pastoralist areas of Oromia Regional State
Capital Hotel, Addis Ababa
November 1-2, 2016***

No	Time	Activities	Responsible/presenter	Discussant	Moderator/Facilitator
Objectives:					
<ul style="list-style-type: none"> To explore the linkages among climate change, population dynamics, RH/FP, and development issues and recommend multi sectoral partnership To Share best practices in RH/FP use in adapting and resilience building to climate change challenges from the various regions taking into account Oromia region Discuss on possible ways to address the unmet need of RH/FP in hard to reach and inaccessible areas of upper river catchments, protected areas, forest and pastoralist areas of Oromia region 					
Expected outcome:					
<ul style="list-style-type: none"> Discussion platforms Initiated and Understanding Created on Establishing Regional Level Multi sectoral Taskforces Identify integrated recommendations that could be integrated and implemented at regional policy level Promote for integration of RH/FP into non health sectors and to narrow information and service disparities across the region 					
November 1, 2016					
I	Introductory Session				
	8:30-9:00	Registration	Organizers		Organizers
	9:00-9:05	Program introduction	Organizers		Organizers
	9:05-9:15	Welcoming speech	Ato Negash- PHE EC Executive Director		Organizers
	9:15-9:55	Key note address	- Professor Fikre Lemessa Jimma University -Dr. Dereje Oromia Health Bureau -Dr.Hassen Yusuf Oromia Forest and Environment protection Authority -Dr. Eperem T. Lamongo, FMoH		
	9:55-10:10	Opening speech	Dr Shiferaw T/Mariam, MEFCC		Ato Negash Teklu
	2. Research Presentation				
	10:10-10:30	Vital events in the Gilgel Gibe catchment areas(2005-2014)	Dr Mulumebet Abera JU	Dr. Getachew Bekele	Professor Taye Tollemariam JU v/president w/ro Saba Kidanemariam IPAS International
	10:30-10:50	Modern Contraceptive Utilization And Associated Factors Among Married Pastoralist Women In Bale Eco Region, Bale Zone, South East Ethiopia	Ato Abuil Tadesse		
Health Break- 10:50-11:10					
2	Session 2 Research presentations(cont'd)				
	11:10-11:30	Rehabilitation at the Upper Gilgel Gibe catchment: Intervention strategies in watershed management on Awetu and Kito rivers in Jimma Town.	Dr. Alemayehu Haddis, JU	Dr. Araya Asfaw HOAREC&N	Professor Taye Tollemariam JU v/president W/ro Saba Kidanemariam IPAS International
	11:30-11:50	Watershed dynamics in Gilgel Gibe 1 Wet land around Jimma Zone	Ato Shimelese Tadesse MEFCC		
	11:50-12:10	Effects of habitat disturbances on the diversity of different groups of wetland birds. Implications for biodiversity management and conservation	Dr Seid Tiku JU	Dr Mulugeta Lemeneh	
	12:10-01:00	Discussion on research presentation			

Lunch Break - 01:00-2:00						
3	Sessions 3: Experiences, best practices, Challenges and lesson learned					
	2:00-2:20	Policies and strategies addressing population, environment and climate change: Regional perspectives	Ato Fekadu Abdissa BoFED	W/ro Senait Tibebe	Ato Jemal Kassaw	
	2:20-2:40	RH/FP and Pastoralist areas of Oromia	Ato Alemayehu Hunduma (BoH)			
	2:40-3:00	Climate variable and household adaptation strategy in Oromia pastoralist areas	Dr. Dereje Tolessa from pastoralist commission of Oromia	Dr. Yitebitu Moges	Engender Health Ato Ararsa OFWE	
	3:00-3:20	Pastoralist Development in Ethiopia	Ato Tezera Getanhun pastoralist Forum Ethiopia	Dr Mengistu Asnake		
	3:20-3:40	The Experience of RIF project in pastoralist community	Dr Abiy Hiruye MOH			
	3:40-4:00	Gender, RH/FP and climate change in the context of pastoralist community of Oromia: the case of Borena zone	Ato Borru Boba Borena Zone Women and children affair			
Health Break -4:00-4:20						
	4:20-5:30	Discussion				
Session 3 program/project level experiences						
November 2, 2016						
	9:20-9:40	Integrating RH/FP in Eco Region conservation SHARE BER	Ato Semere Seleshi PHEEC	Dr. Woldie Mekuria IWMI	W/ro Yemisrach Belayneh	
	9:40-10:00	Impacts of integrated PHE approach on RH/FP and livelihood: Lessons from Metu and Hurumu	Ato Zelalem Adugna EWNRA			
	10:00-10:20	Integrating Family Planning/Reproductive Health For Better Biosphere Reserve Conservation: the case of Yayu biosphere	Ato Tilahun Semu PHEEC			
Health Break -10:20-10:50						
	10:50-11:10	Integrated approach contribution to national development strategies	Ato Zerihun Dejene PHEEC		>>	
	11:10-12:30	Discussion				
Lunch Break -12:30-1:30						
	1:30-2:30	Group discussion <ul style="list-style-type: none"> What are the progresses in the aspects of linking climate change, population dynamics and RH/FP in development activities so far and recommendation for future? What are the progresses in the aspects of linking researches in this regard with development and recommendation for future? What efforts were made so far to address unmet need of RH/FP and future recommendations? What mechanisms can we put in place to a better collaboration among the multiple development actors towards achieving the development goals? 			<ul style="list-style-type: none"> Dr Dereje Duguma(BoH) Dr. Hassen Yusuf Oromia Forest Environment protection Authority Ato Negash Teklu 	
	2:30-3:30	Plenary session			>>	
Health Break -3:30-3:50						
	3:50-5:00	Take away messages and way forward			>>	
	5:00-5:10	Closing Remark			W/ro Yemisrach Belayneh	



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