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**Strategy Options to Build Resilience in the Eight
Geographical Clusters under the EU Resilience Building
Program in Ethiopia (RESET)**

Ethiopian Development Research Institute - EDRI

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Acronyms

BEmONC	Basic Emergency Obstetric and New-born Care
CBHI	Community Based Health Insurance
CBO	Community Based Organizations
CBN	Community Based Nutrition
CCI	Complementary Community Infrastructure
CMAM	Community Management of Acute Malnutrition
CPD	Continuing Professional Development
DRM	Disaster Risk Management
EDRI	Ethiopian Development Research Institute
EEPRI	Ethiopian Economic Policy research Institute
EIAR	Ethiopian Institute of Agricultural Research
EU RESET	European Union Resilience Building program
FANC	Focused Antenatal Care
FEFO	First Expire First Out
FFW	Food for Work
FIFO	First In First Out
GDP	Gross Domestic Production
GOs	Government Organization
HABP	Household Asset Building Program
HDA	Health Development Army
HEP	Health Extension Program
HIV	Human Immunodeficiency Virus
ICCM	Integrated Community Case Management
IFPRI	International Food Policy research Institute
ILRI	International Livestock Research Institute
IWMI	International Water Management Institute
IMNCI	Integrated Management of Now-born and Childhood Illnesses
IPLS	Integrated Pharmaceutical Logistic System
IUCD	Intrauterine Contraceptive Device
IYCF	Infant and Young Child Feeding
LARC	Long Acting Reversible Contraception
MAM	Moderate Acute Malnutrition
MI	Micro Insurance
NRM	Natural Resource Management

NGO	Non – Government Organization
ODF	Open Defecation Free
ORS	Oral Rehydration Salt
OTP	Oral Therapeutic Program
PMTCT	Prevention of Mother to Child Transmission
PSNP	Productive Safety Net Program
SAM	Severe Acute Malnutrition
SBA	Skilled Birth Attendant
SC	Stabilization Centre
SCM	Supply Chain Management
SLM:	Sustainable Land management
SNNPR:	Southern Nations, Nationalities and Peoples Region
TVET	Technical and Vocational Education and Training
WASH	Water, Sanitation and Hygiene

EXECUTIVE SUMMARY

The objective of the European Union Resilience (EU RESET) program is to build the resilience and expand the coping capacities of the most vulnerable populations in the EU RESET Clusters by improving the provision of basic services, support to livelihoods, safety nets, and disaster risk reduction. The program follows a geographically-focused approach whereby currently eight clusters of woredas are selected in highly food insecure and drought prone areas. The eight clusters cover 41 woredas and more than 3.5 million people spread across five regions, namely Somali, Oromia, Afar, Amhara and Southern Nations, Nationalities and Peoples Region (SNNPR). In order to build the resilience and expand the coping capacities of the most vulnerable populations in these cluster areas, a situation analyses of the livelihood, health, nutrition and Water, Sanitation and Hygiene (WASH) as well as the Natural Resource and Disaster Risk management in the eight cluster areas has been conducted.

Following the situation analyses, a detail analyses is made to identify strategic options to address the gaps and utilize the opportunities so that EU RESET program will strategically intervene to build the resilience of the vulnerable communities in the eight clusters areas. The options are identified based on the findings of the comprehensive situation analyses of the areas, review of policy, institutional and organizational arrangements related to resilience building at federal, regional and local levels. We also used primary information collected through field level activities as well as key informant interviews of key stakeholders including policy making, donors, government offices and non-government organizations that operate in the areas. Moreover, the analyses is supported by a review of literature on resilience building and vulnerability focusing on the transmission mechanism from interventions on livelihood, health, nutrition and WASH and Natural Resource Management (NRM) and Disaster Risk Management (DRM). This report contains strategic options to build the resilience of vulnerable communities in the eight clusters of the EU RESET geographical areas, and are summarized as follows.

Fundamental strategic direction should be on interventions with complementarity effect:

Since resilience has a multidimensional aspect, it is strongly recommended that the fundamental strategic direction of EU RESET is supporting interventions that have complementarity in building resilience in the vulnerable communities. In this regard, the key strategic directions that have such

complementarity effects include interventions that focus on improving access to basic social services and infrastructure, community based development to broaden interventions that work on responsible use of natural resources that are supporting people's livelihoods; promoting and supporting climate smart agriculture and nutrition sensitive agricultural production practices that also enhance productivity and farm income; school based interventions as well as capacity building that improve governance system in coordination, accountability, planning, implementing and monitoring of interventions at federal, regional and local levels as well as building national and regional capacity for early warning and build capacity for preparedness. Given this, the key strategic options focusing on specific thematic areas and with complementarity effects on resilience building can be summarized as follow.

Major strategic options to improve the livelihood system for resilience building: The existing situation of the cluster areas in terms of access to basic social services including education, health, water supply and infrastructure are key drivers for vulnerability to any kind of shock. It should also be clear that the degree of vulnerability varies from cluster to cluster as well as within a cluster due to variation in access to the services as well as individual specific factors. The situations in access to basic social services and infrastructure had important implications in the livelihood situation of the communities. The implication of the current situations in the study areas is that the proposed strategic options should not only consider addressing covariate factors but also individual specific factors such as the capability to utilize opportunities.

The livelihood assessment revealed that the principal livelihood systems include pastoralism (only raising livestock), agro-pastoralism (livestock raising with crop production), crop production with livestock raising as minor and variety of non-agricultural activities. Crop productivity is very low due to low rate of improved technology application, absence of institutional services as well as degraded land. The underlying causes for low crop productivity include rain fed cropping with erratic nature and shortage of rains, crop disease, low technology use such as improved seed, and chemicals; poor access to transportation; poor market access and infrastructure/structure. Similarly, though there are huge numbers of livestock holding in the cluster areas, the productivity is very low and has more of a social asset. Livestock disease, absence/limited and poor veterinary facilities and services, absence or shortage of improved technology such as improved livestock

breed; shortage of livestock feed, lack of access to market and infrastructure as well as limited institutional services and support are underlying causes for low livestock productivity. Non-farm activities are also used as means of livelihood though in a very limited circumstances, and are used as the main coping mechanisms to fill the food gaps. The two major livelihood assets in the EU RESET cluster areas are land and livestock. There are clear divisions between women and men in terms of tasks and access to these resources. Most clusters suffer from shortages of food and water both for themselves and for their livestock for about seven to nine months. Drought, conflict and flood are common and major disaster risk affecting the livelihood of the community which results in shortage of food, shortage of pasture and water and livestock disease.

On the other hand, there exists a huge potential/opportunities such as livestock, fishery, tourism, natural resources suitable for bee keeping and availability of arable land with water resource for crop production and irrigation that facilitates the improvement of livelihood situations of the communities thereby build the resilience of the vulnerable communities in the cluster areas. In addition to the policy framework, discussed later, the availability of active and productive labour resource who are youth that are eager to engage in income generating activities as well as with technical skills is a potential opportunity for resilience building.

Therefore, the proposed strategic option to build resilience through improving the livelihood system of the vulnerable communities should focus on identifying interventions that improve the capabilities of individuals and communities in the vulnerable areas; the underlying causes for low agricultural production and productivity as well as the limited livelihood strategy that exist in the cluster areas. Accordingly, the priority strategic directions to improve the livelihood of the vulnerable communities in the EU RESET cluster areas are: first, interventions that give priority to interventions that aim to improve the capability of individuals and communities such as access to quality school and health facilities; interventions that link all rural kebeles to all-weather road as well as interventions improve or enhance non-farm rural development that widens opportunities for alternative source of employment and income as well as business oriented economic opportunities that increase their productivity. Second, interventions that improve the supply and utilization of agricultural inputs and technologies; access to markets such as improving rural roads, market information (product and input price); improve institutional service in crop production

including the expansion and efficiency of agricultural extension system; that improve livestock health coverage, and improved livestock feed production and preservation systems; and integrated implementation of Livestock Value Chain Efficiency. Besides, it is also strongly advisable to support interventions that improve the effectiveness of public and private service delivery in livestock productivity, pasture/rangeland, livestock health, and for private producers to develop their business. Along these line of strategic direction, it is strongly advisable to promote climate smart agriculture activities that sustainably increases productivity, enhance resilience and adaptation of farming systems, and mitigation of GHG emissions particularly in livestock production system.

In pastoral and agro-pastoral areas, in addition to the above, priority should be given to interventions that improve access to potable water supply for human and livestock, expansion of small scale irrigation using surface and ground waters, strengthening the pastoral extension service system, integrating the implementation of social service institutions and infrastructures and institutional capacity building. Besides, priority should be given to interventions that improve the functioning of the local livestock market through expansion of communication networks and services can also have substantial contribution to build resilience in these areas. Interventions that integrate livestock raising with crop production and Local Conflicts can also enhance the resilience of vulnerable communities in some pastoral areas.

Major strategic options to improve the health, nutrition and WASH for resilience building:

With regard to health, nutrition and WASH, the major challenges in the EU RESET clusters include poor access to health facilities, poor services delivery; poor utilization of available health services; poor hygienic situation; malnutrition; and gender biasedness. The underlying causes for these challenges are identified in the study areas. In addition, a detail analyses of the gaps that have substantial contributions to the challenges and hinder to utilize the opportunities that exist to build the resilience of the vulnerable communities are made. Accordingly, the identification of strategic options is made based on a detail analyses of the underlying causes, gaps and opportunities that exist to build the resilience of the vulnerable communities. Therefore, it is strongly advisable for EU RESET to give priority for the following strategic options to improve the service delivery and utilization, those that enhance resilience-oriented nutrition, improving the gender dimension of the

health, nutrition and WASH in the cluster areas are proposed. Besides, it is advisable to give due emphasis to improve the health information management system.

Strategic directions to improve basic health services will focus on interventions that improve health service delivery and utilization, WASH, nutrition, health information management and local governance system for effective implementation of the health sector transformation plan. Strategic direction to improve health service delivery include interventions that improve access to primary healthcare facilities through improving primary healthcare facilities, infrastructure (water & electricity), human resource capacity and supply chain management for drugs and supplies. Strategic directions to improve health service utilization include interventions that focus on improving utilization of family planning services that focus on reversible long acting contraceptives and post-partum family planning methods; interventions that improve utilization of skilled delivery through strengthening basic emergency obstetric and newborn care (BEmONC) services, maternity waiting areas and engaging traditional birth attendants in the referral of women in labor to health facilities; and interventions that focus on improving routine immunization services by focusing on reaching communities that do not have access to primary health care facilities and strengthening surveillance and response system for vaccine preventable childhood illness.

Strategic directions to improve WASH include interventions that improve population access to safe water supply through rehabilitation of existing water supply systems to reduce non-functionality and construction of new water supply systems; capacity building interventions for sustainable management of WASH facilities at the community focusing on improving the technical capacity of WASH committees at all levels in managing WASH facilities, managing finance, resources and maintenance of WASH facilities. The sustainable management of WASH facilities needs further studies to investigate its impact in creating long term sustainability and ownership. The EU RESET program is also advised to focus on interventions that improve access to sanitation facilities and communication for behavioral change on hygiene and sanitation at the communities through health extension program and health development armies.

Strategic directions to improve the nutrition status of infants, children, pregnant and lactating mothers include strengthening routine nutritional assessment for young infants, children, pregnant and lactating mothers with appropriate nutrition counselling for optimal nutrition practices; improving food diversification through education, demonstration, agriculture sensitive nutrition interventions like household gardening, community gardening, school gardening, small scale irrigation, fishing etc.; and improving the capacity of early detection and management of acute malnutrition through strengthening integrated community case management (ICCM) at the community and integrated management of childhood illnesses at the health facilities (IMNCI).

Strategic directions to improve the gender dimension of health, nutrition and WASH should mainly focus on women empowerment through interventions that focus on income generating interventions like micro-finance, household gardening; and interventions that improve the health of children, women and families through strengthening implementation of the health extension program packages (HEP) through engagement of the health development armies (HDA's) in creating model households in health.

Major strategic options to improve the NRM and Disaster risk management system for resilience building: In addressing the challenges, filling gaps and utilizing the opportunities to improve the NRM and DRM and build resilience, the proposed major strategic direction focuses mainly on interventions that are related to sustainable NRM practices. These include, but not limited to, identifying tenure systems that help achieve conservation and development objectives in equitable and efficient way, supporting efforts to have appropriate land use plan to guide development efforts, natural resources conservation and sustainable utilization that is tailored to the agro-ecological and socio-cultural specificities of the respective clusters including community based watershed management and irrigation development on areas carefully selected for this purpose; supporting customary NRM practices and participatory land use plans; and integrated community managed water-shed development with effective link with practices and principles of sustainable NRM.

The major strategic interventions towards improving the NRM that are targeted to build resilience include those that improve natural resource conservation and utilization with emphasis on rural land administration that carefully marries the roles and responsibilities of GOs with traditional

institutions, watershed management and expansion of small scale irrigation, which are fundamental to build resilience in the EU RESET cluster areas. In relation to irrigation development, interventions that ensure sustainable agricultural development that does not undermine mobility of pastoralists and agro pastoralists; that enhances productivity through improved water utilization (e.g. multiple – use water system) and agro-ecologically sensitive irrigation schemes that do not lead to salinity; growing diverse crops that also contribute to livestock feed and human nutrition while also responding to market demands. All these efforts also need to contribute to women’s empowerment through increased asset ownership, and improved access to and control over natural resources including production and cash income.

Besides, in disaster risk management, major strategic directions proposed include interventions to building capacity of experts and institutions at different levels to creatively link resources from productive safety net program with NR and DRM; improving early warning system and making information up-to-date and accessible to users on the ground; addressing elements of risk related to food security such as livestock and crop diseases, supporting voluntary resettlement programs for those that cannot be mobile and plan to switch to settled farming, improving the credit and risk insurance system that would help household not to lose so much assets in times of disaster; exploring options to linking pastoral and agro pastoral systems to national and global efforts of building climate resilient green economy; strengthening community managed DRR practices and principles and creating incentive based effective links between eco-system management and climate change to DRR; and those related to climate change adaptation action plan (community contingency plan). In addition, strategic interventions that improve food security, disaster prevention and preparedness are strongly advised. In this respect, the key strategic interventions include, but not limited to, those that improve contingency food reserve and safety net programs especially to food insecure households. This can be linked with strengthening voluntary and well negotiated and planned resettlement programs and improving the credit system that enables to build household assets; and establishing risk insurance system. In relation to social protection, EU RESET can support interventions that provide timely resources for transitory food insecurity in response to shocks; and strengthening the delivery of demand-driven and market-oriented advice. All these need to be supported by research institutions to document local knowledge, review

existing development initiatives, identify effective practices that need to be scaled out, and to point out enabling conditions for scaling up (e.g. coordination, technical and logistical capacity, etc..)

In sum, given the challenges, opportunities and gaps in NR and DRM, appropriate interventions in NR and DRM to build resilience of socio-ecological systems include the following.

- Addressing issues of tenure through identification of areas and conditions where formalization of tenure and individualization of common property resources would work for the people and the resources base and areas and conditions where maintaining the status quo (keeping communal use and access) will be a better option.
- Piloting community based (participatory) rangeland management programs in the lowlands, a program equivalent of sustainable Land Management (SLM) in the highlands.
- Jointly (through participatory processes) identifying and addressing barriers to mobility - (mapping mobility routes and seasons; reducing and managing conflicts; and building capacity to move and use seasonally available feed and water resources in wider areas).
- Exploring options to ensure complementarity of roles of Government Organizations (GOs) and traditional institutions in ensuring regulated access to and responsible use of communal natural resources notably forests and woodlands, grazing lands and water points.
- Exploring option for working with elders, traditional institutions and Community Based Organizations (CBOs) to mobilise the communities to better manage and responsibly use these common property resources (e.g. in controlling bush encroachment, in reducing over grazing, excessive tree cutting, ..) and in identifying and protecting areas that could be used as fodder banks and dry season grazing areas.
- Integrating relief/immediate needs support with long term/NRM based activities. Working with CBOs, local authorities and Non – Government Organizations (NGOs) to use aid and relief support for NRM (based on the experiences of Productive Safety Net Programme (PSNP), Food For Work (FFW) and Cash for Work, and the experience of Save the Children in Cluster 3) and exploring options how NRM work can also be linked with Government schemes to creating employment opportunities for the youth are areas worth exploring. Capacity building interventions in NRM and DRM include developing a national land use plan that informs changes in land use systems; supporting coordination

and complementarity of interventions; building capacity of experts and institutions at different levels, notably at district level.

Strategic direction in improving the governance system for resilience: Since there are important policy related gaps that hinder or jeopardize the effective implementation of the strategic interventions proposed above, it is also strongly advisable for EU RESET II program to strategically promote and support governance related interventions to effectively implement the proposed strategies. The fundamental gaps related to governance include poor planning, lack of synergies among the various resilience related interventions, weak coordination among various sectors, low implementation capacity and lack of accountability at all level as well as lack of information and knowledge on the linkage among the various thematic areas related to resilience building. Thus, the important strategic issues proposed by the study include interventions that Aim to improve harmonization of the various sectoral strategies and programs; strengthen coordination capacity; enhance implementation capacity and accountability for building resilience as well as research that fill data and knowledge gaps.

Since issues of resilience cut across many sectors, resilience has a multi-sectoral dimensions. Currently various programs are being implemented in all cluster areas that directly or indirectly have influence on the resilience of the vulnerable communities. However, there is lack of harmony among the various programs. The strategies, programs and interventions in the various sectors should be harmonized. Towards this, EU RESET should promote and support interventions that aim to improve harmonization of the various sectoral strategies and programs. Joint planning and budgeting can help to improve harmonization across sectors.

There is huge capacity gap in formulating, implementing and monitoring and evaluation of programs related to resilience building at all levels, and the gap is worse particularly at regional, local and household level. Lack of capacity, poor integration, and lack of accountability are among the key reasons for poor implementation. It is, therefore, strongly advisable for EU RESET to promote and support interventions that improve the implementation of the strategies including accountability at all levels including at federal, regional and local levels. Some of the proposed strategic options that aim to enhance the implementation capacity and accountability include, but

not limited to, improving human resource development, information system, and supporting the private sector to engage in the value chain of resilience related interventions. Besides, in relation to improving the governance system in formulating, implementing and monitoring interventions that build resilience of vulnerable communities at local level, it is advisable to strategically support a decentralized and Community-Based System. In this respect, EU RESET should aim to strategically strengthening people's participation along all development processes starting from the planning of the interventions up to monitoring and evaluation. In addition, it is also advisable that capacity building interventions that build and enhance the capacity of woreda and kebele councils are given due emphasis.

The various programs that are related to resilience need to be effectively implemented. These can be possible if and only if the different sector offices at federal, regional and local level implement the programs in a well-coordinated system. Coordination should be strengthened at all levels of government, down to the woreda level, as well as among donors and NGOs, and such coordination should direct efforts toward common targets. Accordingly, it is strongly advisable for EU RESET to support interventions that strengthen coordination among the various actors including government, donors, NGOs at all levels. In addition, it is also advisable to support interventions that focus in strengthening inter-sectorial coordination and collaboration at the community, woreda, zonal and regional levels for effective implementation of the health sector transformation plan particularly those that focus on primary healthcare facilities & other.

With respect to filling information and knowledge gaps, academic and research institutions as well as specialised government agencies (e.g. the national meteorological agency, disaster commission, etc) and local governance bodies need to be engaged to jointly identify and address knowledge and capacity related gaps. Accordingly the following strategic options are proposed to fill information and knowledge gaps. In relation to filling the information gap, it is advisable for EU RESET to engage research institutions in supporting them to collect and record data on the livelihood, health and nutrition aspects of resilience building since such information can help to generate knowledge to design feasible monitoring and evaluation systems that provide continuous feedback mechanisms to inform feasible interventions and their implementation mechanisms at all levels. In this respect it is also important to engage specialised government agencies (e.g. the national

meteorological agency, disaster commission, etc) and local governance bodies since such organizations, together with research institutions, play important role in generating and sharing data. For instance, priority should be The EU RESET program is also advised to improve Health Information Management System (HMIS) at RESET clusters through prioritizing interventions that improves availability of reliable health information at primary healthcare facilities.

In relation to filling the knowledge gap, EU – RESET needs to support research areas that help in solving problems, assist the efforts of key actors on the ground (GOS and NGOs) and building capacity at different levels. In this regard, it is strongly advisable for EU RESET to give priority for research that focus on the following:

- i. Assessment of the gaps in sustainable management of water supply schemes and small scale irrigation schemes.
- ii. The integration of livelihood interventions with NRM & DRM specifically for low land pastoral areas
- iii. The transitions – migration and rural – urban linkages specifically in low land and pastoral areas. This may include challenges of the rural youth and women including drivers of migration and skill development that increase their economic opportunities
- iv. Transforming the youth bulg to economic opportunity: One of the key features of the EU RESET cluster areas is that the demographic structure is dominated by youth age group, who lacks the knowledge, skill and access to resources such as land and livestock. Besides, women are more vulnerable than men as they lack the resources in addition to their low human capital. On the other hand, there is limited knowledge on the feasible strategic options that effectively address constraints that hinder their capacity to be resilient to any shocks. It is, therefore, essential that EU RESET will strategically promote and support scientific researches that generate evidence based information that help to design interventions that address youth challenges, create economic opportunities and participate in the decision making process.
- v. Livestock feed management system at community and/or individual household levels
- vi. The potential role of the private sector in resilience
- vii. In relation to interventions that support social protection with particular focus on micro insurance products, EU RESET should first support research that focus to generate feasible

insurance product options and institutional and organizational options that serve as channel to effectively deliver the product.

In addition to the above, it is also advisable for EU RESET to support research that focus on the following:

- i. Conceptual linkages between resilience & the four EU RESET thematic areas, fundamental or underlying drivers of vulnerability,
- ii. The institutional arrangements that create effective implementation mechanism given the multi-sectoral & multidisciplinary nature of resilience.
- i. Areas where specific research in NRM & DRM are needed include (i) assessing the strengths and weaknesses of current NRM practices (ii) searching tenure and other incentive systems that work for these areas so as to encourage lowland communities to invest in NRM; (iii) understanding how mobility (short and long term migration of youth from or to the cluster) are affecting production systems in terms of labour, gender, and asset build up; (iv) options to increase livestock feed and feed reserves at community and household levels; (v) options to mobilise communities in rangeland management and incentives and challenges to do so; (vi) options to link food security and relief efforts with long term NRM undertakings; (vii) options as to how irrigation based (smallholder or commercial) farming can be linked to supporting livestock production in terms of producing fodder as well (either as a product or as a by-product, etc); and (viii) scenario analysis under different environments considering climatic, policy and technological changes and their implications for resilience.

Finally, the lessons drawn from these clusters can be reviewed and scaled up nationally through a national platform/mechanism to better integrate planning, implementation, and M&E of projects and programs and to promote learning at institutional and expert levels regarding processes and outcomes of interventions.

1. BACKGROUND

Ethiopia has achieved significant economic development during the past ten years including a steady increase of production in the agriculture sector. During the past ten years, Gross Domestic Production (GDP) growth has registered a steady annual average of 10%, with poverty rate reduced from 40% to 29% and significant increase in access to basic services (health, potable water supply, education, etc). However, the vulnerability of Ethiopia's rural population to drought-induced crisis still prevails, affecting around 12 million small-holder farmers, agro-pastoralists and pastoralists. Key interventions have been made to overcome the vulnerability of Ethiopia's rural population since the past 10 years.

The implication is not only that dealing with the vulnerabilities and root causes of crises has become the priority rather than dealing only with their consequences but also that achieving long term food security in Ethiopia is still a huge and complex task. This task requires coordinated approaches to tackle the structural causes of vulnerability with effective packages of short- and long-term interventions. Supporting resilience building is a long-term undertaking that requires strategies and programs designed to jointly address a set of multi-sectoral causes in order to generate multiple benefits.

From EU side, as stated in its Communication on Resilience approach (October 2012) aims at enhancing the effectiveness of its external assistance to simultaneously tackle the whole range of key risks and stress factors that induce crises, and address the structural causes of vulnerability. The design of EU funded resilience building programs and interventions are guided by the following actions:

- Support and encourage partner countries to include resilience in their national policies and development strategies,
- Recognizes the leading role of the partner countries and align its support with the country partner's policies and priorities, in accordance with established Aid Effectiveness principles,
- To closely work with partners and regional/international organizations to create platforms that ensure timely exchange of information and coordination of short, medium and long term actions.

In 2012 the EU has launched its initiatives "Supporting Horn of Africa Resilience – SHARE" (Euro 275 million) to advance food security, sustainable agriculture and resilience in the Horn of Africa and address drought resilience through a combined humanitarian and development approach. The strategic objective of the EU SHARE program is to contribute towards averting the underlying causes of food insecurity through integrated actions and strengthening LRRD (Linking Relief to Rehabilitation and Development) to bring sustainable livelihood for the vulnerable rural population in lowland agro-pastoral areas.

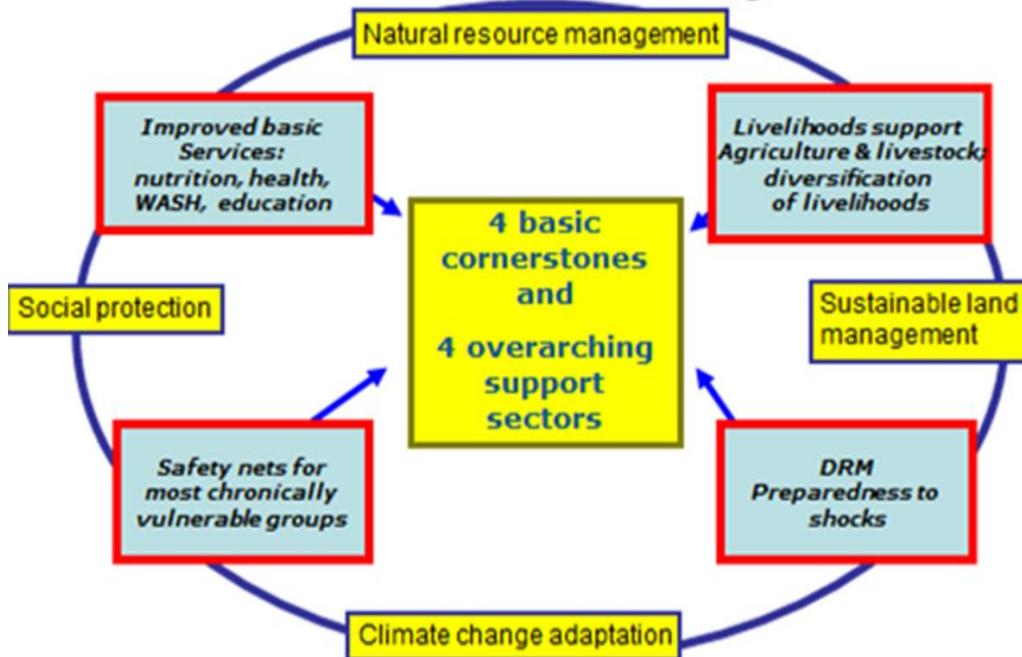
The EU Resilience Building Program in Ethiopia (RESET) is an innovative initiative that brings together at operational level the ECHO and the EU Delegation in Ethiopia in a tangible LRRD process. The EU RESET approach is based on the premise that chronic humanitarian and longer term needs and recurrent food insecurity, mainly - but not only - caused by drought can be more efficiently addressed via a longer term resilience approach, with better synergies and complementarities between the two EU financing instruments, the EU ECHO humanitarian rapid responses and the EU DEVCO recovery and long term resilience building interventions.

The objective of the EU RESET program is to build the resilience and expand the coping capacities of the most vulnerable populations in the country. The concept of RESET is based on four cornerstones for building resilience including improving the provision of basic services, support to livelihoods, safety nets, and disaster risk reduction. These pillars are complemented by other areas of support such as natural resource management, sustainable land management, climate change adaptation and social protection.

The EU RESET program is following a geographically-focused approach whereby currently eight clusters of woredas are selected in highly food insecure and drought prone areas. The eight clusters cover 41 woredas and more than 3.5 million people spread across five regions (Somali, Oromia, Afar, Amhara and SNNPR)¹. The clusters are composed of three to eight woredas.

¹ According to the EU RESET program, the clusters represent some 10 to 15 % of the overall population in the country who are vulnerable to disaster risk and in need of interventions that build their resilience.

Basic Resilience Building Model



Source: EU RESET Programme (EU - Resilience Building in Ethiopia) Draft 29 October 2014

With this basic features of the EU RESET program, the EU Delegation to Ethiopia commissioned EDRI to conduct a study and develop relevant and feasible strategy for the EU future resilience building actions in these cluster areas. The assignment includes an assessment of the baseline situations of the eight cluster areas. This has already been accomplished as phase one of the assignment and the report is submitted to the EU Delegation to Ethiopia (annexed). The situation analyses study identified key gaps, challenges and opportunities to build resilience of vulnerable communities in the eight EU – RESET II cluster geographical areas. Based on the findings of the first phase of the study, the 2nd phase assignment is to develop relevant and feasible strategy for future EU resilience building actions in the eight clusters. Accordingly, this report contains the key strategic options to address the challenges, fill gaps, and exploit opportunities to build resilience of vulnerable communities in the EU RESET cluster areas.

Including this background section, the report is organized in to four sections. The second section describes the approach used to identify the strategic options for interventions that aim to build the resilience of the vulnerable communities in the eight geographical cluster areas of EU RESET

followed by a brief description of the key findings of the existing situation, gaps and opportunities to build resilience, with the proposed strategic options for interventions. The strategic options are described under each of the thematic areas including Livelihood, Health, Nutrition and WASH, and Natural Resource Management and Disaster risk Management. Governance related strategic options are also identified and reflected in this section of the report. The last section presents a summary of the major strategic options, which have also a cross cutting effects on resilience building in the EU RESET II cluster areas.

2. APPROACH ADOPTED TO IDENTIFY STRATEGY OPTIONS TO BUILD RESILIENCE IN EU RESET CLUSTER AREAS

The situation analyses of the eight EU RESET cluster areas has been conducted based on the notion that there is conceptual linkage between resilience, on the one hand, and livelihood strategy, health and nutrition and natural resource and disaster risk management, on the other hand. Therefore, the analyses of the baseline situation and identifying the underlying drivers that cause the baseline situation to prevail are made with due emphases given not only to these key pillars of resilience per se but also the linkages among them. Accordingly, the study identified key gaps, challenges and opportunities to build the resilience of vulnerable communities in the eight EU – RESET geographical cluster areas. Following the same conceptual approach, systematic approach that enables to holistically and strategically visualize the potential development interventions not only in addressing thematic - specific gaps but also effects on the other components of resilience were used.

The adopted approach is also in line with the conceptual approach that the government of Ethiopia adopts in building the resilience of vulnerable communities in the country. The government adopts a pro-active multi-sectoral and multi-hazard Disaster Risk Management (DRM) approach rather than moving from a drought and relief focused approach. The approach necessitates a multi-hazard approach grounded in a deep understanding of specific disaster risk, and its link to development and vulnerability; emphasis on prevention, mitigation, preparedness and post-disaster modalities and capacities; de-centralization of resources and structures; a clear determination of DRM responsibilities, supported by the capacity for legal enforcement and a high degree of accountability. DRM system relies on organizational structures with appropriate and harmonized

roles and responsibilities at federal, regional and woreda levels. Based on the notion that horizontal and vertical coordination among decision-making bodies and effective DRM systems, processes and procedures needs to be ensured. Thus, the strategic options need to be identified so as to support and supplement interventions in other thematic areas sector policies and strategies such as the agricultural and rural development, the CRGE, GTP, social protection policy, etc. Accordingly, strategic interventions are identified based on the notion that they should be more targeted, have a multiplier effect so as to ensure the resilience of vulnerable communities and marginalized part of society such as women and children in the face of multiple threats in the medium to longer-term. Besides, in the identification of the strategic interventions, due emphasize is given to those that address the underlying causes for vulnerability rather than immediate causes so as to sustainably build the resilience of the vulnerable communities.

Following the above approach, various sources of information are used in the identification of the key strategic directions and interventions that potentially address the gaps and utilize the available opportunities in the EU RESET cluster areas and thereby build the resilience of the vulnerable communities. First, a review of the country's policy and strategy framework on resilience related interventions is made. This has two advantages. It will help us to identify strategic options that are in line with the government's resilience building development programs, if not just similar. It has also advantage to identify strategic options that fills the policy or governance gaps, if they exist at all. Second, the various resilience related interventions being implemented in the EU RESET cluster areas by government, non-government organizations, and local communities are considered and reviewed from primary sources collected at field level and secondary documents. Third, we used the information collected using key informant interviews and focus group discussions in the cluster areas conducted during the field visit. Fourth, we also consulted literature on resilience and vulnerability to identify the theoretical and empirical findings on resilience building and the transmission mechanism from a particular intervention to resilience building.

The following section presents the detail strategic options and priority areas of interventions proposed for EU RESET program, together with the corresponding findings of the situation analyses on the current status, gaps and opportunities, to build the resilience of the vulnerable communities in the eight clusters of the EU RESET geographic areas.

3. EXISTING SITUATION, GAPS AND OPPORTUNITIES AND STRATEGIC OPTIONS FOR RESILIENCE

As stated in the previous section, the situation analyses study identified the current situations of the vulnerable communities, the fundamental drivers for their vulnerability, the key gaps that hinder to become resilient to the various risk and the opportunities to be utilized to build resilience of the vulnerable communities in the eight clusters of EU – RESET geographical areas. In line with the findings, the proposed key strategic options to sustainably build the resilience of the vulnerable communities in the eight cluster areas of EU RESET are identified. This section presents brief descriptions of the status, gaps and opportunities in each of the thematic areas, followed by the presentation of the proposed strategic options and interventions.

3.1. Livelihood

3.1.1. Status, gaps and opportunities

More than 3.5 million people live in the eight clusters of the EU RESET geographic areas. The proportion of females in the population ranges from 45% in Afar to 51% in Wolayita. About 15% of the population is under age five, 19% are five to 14 years old, and 36% are 15 to 34 years old. Access to education is generally poor though it varies from cluster to cluster. Communities in almost all cluster areas have poor access to health service, measured in terms of population served per facility and distance traveled to reach the nearest services. In terms of access to potable water supply, communities in the EU RESET cluster areas use different sources of water, both protected and unprotected. In all cluster areas, distribution points/bono, open pond, unprotected spring and water from deep well are the most common water schemes though the number and types of schemes differ from cluster to cluster. Access to potable water is also generally poor when measured in terms of the population served per scheme and distance traveled to reach to the nearest protected water supply scheme. Similarly, the basic situation of all the clusters in terms of access to basic social services and infrastructures is very poor though it varies from cluster to cluster.

Overall, the existing situation of the cluster areas in terms of access to basic social services including education, health, water supply and infrastructure are key drivers for vulnerability to any kind of shock. It should also be clear that the degree of vulnerability varies from cluster to cluster as well as within a cluster due to variation in access to the services as well as individual specific

factors. For the detail on the basic context including demographic, access to basic social services & infrastructure for the eight clusters, see section 4 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report. The implication is that the strategic options should not only consider addressing covariate factors but also individual specific factors such as the capability to utilize opportunities.

The main form of livelihood in Afar, Siti, Liben, Borena, and South Omo is raising livestock. Majority of the households depend on this system and significant number integrate raising livestock with crop production as minor. Though there is large number of livestock in the above mentioned cluster areas, not only that they are of poor quality but also the size of livestock is also on diminishing trend. Crop production is the major livelihood system in Waghumra and Wolayita cluster areas with raising livestock as minor. Both crop production and livestock raising is equally important in Bale cluster area. Non-agricultural activities like wage employment, handicrafts (weaving, spinning, carpentry, house mudding, pottery, etc), petty trade (firewood selling, charcoal selling, local brewed alcohol), livestock trading, grain trading, gum and incense selling, fruits and vegetables trading are practiced in the clusters but with limited access. Most non-agricultural activities are main coping mechanisms to fill the food shortage/gaps.

The two major livelihood assets in the EU RESET cluster areas are land and livestock. In almost all cluster areas, one of the fundamental assets for livelihood, land, is not only an extremely expensive natural resource but also that it is less productive due to progressive degradation. The size of holding in most clusters is by far very low and not viable farm size by any standard given the traditional practice. Besides, the productivity of land is very low due to low rate of improved technology application, absence of institutional services as well as degraded land. It is in this context that households are struggling to produce crops and raise livestock. For the detail on the livelihood situation of the eight clusters, see section 5 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

In terms of food and water security, the situation analyses indicated that most clusters suffer from shortages of food and water both for human and livestock. The maximum months during which food is available for the household is five months. For some clusters like Borena, food is available only for three months. Availability of water also follows the same pattern. This means people and livestock have to suffer from shortages of food and water for about seven to nine months in EU RESET II cluster areas within one year.

Drought, conflict over resources like grazing, floods and water scarcity are common and major disaster risks affecting the livelihood of the community which results in shortage of food, shortage of pasture and water and livestock disease. Some of the major coping mechanisms adopted in the cluster areas include livelihood diversification; building water reservoirs such as water pond, *birka*, water well/*ella* and small dams to reserve water for consumption during the dry season; reducing daily food consumption; substituting for less expensive foods, eating wild food (less preferable in normal season), borrowing food or money and direct consumption of sheep and goat; sale of livestock, sale of fire wood, dung, charcoal (which is currently restricted by government); seeking relief food aid, participation in food-for-work/cash for work schemes, and migration in search of job or food.

The existing situation in the gender aspect of livelihood shows that there are clear divisions between women and men in terms of tasks; resource acquisition and management; decision making and management of household resources. There exists a huge potential/opportunities such as livestock, fishery, tourism, natural resources suitable for bee keeping and availability of arable land with water resource for crop production and irrigation that facilitates the improvement of livelihood situations of the communities thereby build the resilience of the vulnerable communities in the cluster areas. In addition to the policy framework, discussed later, the availability of active and productive labour resource who are youth that are eager to engage in income generating activities as well as with technical skills is a potential opportunity for resilience building.

However, there are huge gaps that hinder the utilization of these opportunities in the cluster areas. The gaps associated with lack of human capital (low education level, poor health, and limited skill), extremely poor initial conditions and poor access to soft and hard infrastructures poses

challenges to build resilience. Limited options for livelihood strategy, which are vulnerable to shocks and climate change risks; and subsistence/traditional animal husbandry are key gaps. The immediate causes for vulnerability include low crop and livestock productivity. The underlying causes for low crop productivity include rain fed cropping with erratic nature and shortage of rains, crop disease, low technology use such as improved seed, and chemicals; poor access to transportation; poor market access and infrastructure/structure. Livestock disease, absence/limited and poor veterinary facilities and services, absence or shortage of improved technology such as improved livestock breed; shortage of livestock feed, lack of access to market and infrastructure as well as limited institutional services and support are underlying causes for low livestock productivity.

Drought, flood and conflict over resources like grazing/water, are also common causes for poor livelihood situation that exposes communities for risks. Overall, the livelihood system in the eight cluster areas has encountered several challenges. There is a need to tackle these gaps to improve the livelihood situations and thereby build the resilience of the vulnerable communities to the various risks. Table 1 shows the detail risks in each of the eight cluster areas.

3.1.2. Strategic options to improve livelihood for resilience building

While there can be various strategic options aimed to improve the livelihood of the vulnerable communities, they can be categorized into those that improve the capability of vulnerable communities and their members; improve agricultural production, which can be crop or livestock; and those related to improving access to non-farm income sources. The detail proposed interventions in each of the eight cluster areas are shown in Table 1. These key strategic options are described as follow.

3.1.2.1. Strategic options to improve the capability of individuals and communities

One of the key strategic directions to improve the livelihood status of vulnerable communities with the aim of building resilience is to improve access to basic social and infrastructure services. Such option builds the capability of individuals and communities in creating and accessing opportunities for livelihood. Thus, it is advisable to give priority for interventions that improve access to quality school and health facilities. In relation to infrastructure development, EU RESET program can

support interventions that link all rural kebeles to all-weather road. In this respect, interventions that emphasize to build the capacity of woreda road desks in road administration, maintenance works and ensuring the participation of the communities need to be supported. This intervention requires close collaboration with regional rural road authority as they are engaged with the Universal Rural Road Access Program (URRAP) that tries to link woreda capital to each kebele center. In relation to power supply, it is also strongly advisable to promote and support decentralized off-grid solar energy supply and expansion of biomass energy which not only improve power supply but also it reduces deforestation and protects desertification by reducing fuel wood consumption in the cluster areas.

Besides, one of the key features of the EU RESET cluster areas is that the demographic structure is dominated by youth age group, who lacks the knowledge, skill and access to resources such as land and livestock. Besides, women are more vulnerable than men as they lack the resources in addition to their low human capital. On the other hand, there is limited knowledge on the feasible strategic options that effectively address constraints that hinder their capacity to be resilient to any shocks. It is, therefore, essential that EU RESET will strategically promote and support scientific researches that generate evidence based information that help to design interventions that address youth challenges, create economic opportunities and participate in the decision making process. In this respect, access to training that build skill for youth, with access to sources of finance to engage in income generating activities, can be an option. In this respect, the training should be supplemented with menus/profile of alternative income sources where the youth can engage in. More importantly, it is strongly advisable for EU RESET to strategically promote and support researches that generates feasible options to empower women economically as well as in the decision making.

3.1.2.2. Strategic interventions to improve agricultural production and productivity

The situation analyses revealed that despite being a major sources of livelihood, crop and livestock productivity is very low in the eight clusters of EU RESET geographical areas. It is, therefore, strongly advisable to strategically promote and support interventions that improve productivity in crop and livestock production systems. In this regard, one of the options is to support interventions that improve the supply and utilization of agricultural inputs and technologies. In this respect, it is

advisable for EU RESET program to give due emphases to support technical, institutional and organizational interventions that improve productivity. Moreover, interventions that address the challenges of access to markets such as improving rural roads, market information (product and input price) are advisable to improve productivity in crop and livestock production system. In this regard, the following strategic interventions can be outlined.

- Improve technologies in crop production include, but not limited to, supply of improved crop seed, fertilizer, chemicals, postharvest loss; supply of credit and insurance services for improved use of agricultural practices and provision of micro insurance for risky but profitable crop production practices. Priority should be given for interventions that provide sustainable and on time supply of improved inputs (seed, fertilizer, drought resistance varieties, etc.).
- Improve institutional service in crop production include those that improve the expansion and efficiency of agricultural extension system such as providing and advising technical support on improved agricultural practices; facilitate expansion of market opportunities.
- Improve crop production include enhancing diversified dry land farming practices; development of community managed sustainable small scale irrigation schemes and improving value chains.
- Improving livestock production and productivity includes those that improve livestock health coverage, and improved livestock feed production and preservation systems.
- It is also strongly advisable for EU to strategically intervene in areas that focus on integrated Implementation of Livestock Value Chain Efficiency.
- Improve the effectiveness of public and private service delivery in livestock productivity, pasture/rangeland, livestock health, and for private producers to develop their business are strongly advisable.
- It is strongly advisable to promote multi-functionality of agriculture not only from the angle of food production but also by taking into account the socio-cultural, environmental and economic dimensions of agriculture since all interventions need to be tailored based on agro-ecological and social group (female headed, youth, etc.).

- It is also advisable to promote climate smart agriculture activities that sustainably increases productivity, enhance resilience and adaptation of farming systems, and mitigation of GHG emissions particularly in livestock production system.
- Finally, it is advisable to support interventions that promote women and youth empowerment, ensure their participation in the development process and equity in the development outcomes.

3.1.2.3. Strategic intervention in pastoral and agro-pastoral areas

Substantial proportions of the communities in the EU RESET areas engage in pastoral and agro-pastoral livelihood system. Therefore, strategic interventions towards addressing the challenges and gaps in the system can have significant positive effect on utilizing the opportunities and thereby improve the resilience capacity of the communities to risks. Accordingly, it is strongly advisable to strategically intervene in the following areas to improve the lives of communities in pastoral areas:

- Interventions that improve access to potable water supply for human and livestock as well as in the expansion of small scale irrigation using surface and ground waters, strengthening the pastoral extension service system, integrating the implementation of social service institutions and infrastructures and institutional capacity building.
- Interventions that improve the functioning of the local livestock market through expansion of communication networks and services can also have substantial contribution to build resilience in these areas. This can be made possible through intervention that improve access to road infrastructure as well as mobile network. Introducing and expanding credit and insurance markets may also help herders cope with droughts. For example, interventions through financial and technical support for herders to acquire more drought-resistant and earlier-marketable animals in order to be better prepared for more frequent and intense droughts in the future is a preferred option.
- Interventions that integrate livestock raising with crop production and Local Conflicts can also enhance the resilience of vulnerable communities in some pastoral areas. These include, but not limited to, interventions that improve access to basic social services, and establishing productive safety nets through interventions that support education and skills training. Provision of basic services (health, education, security) can contribute to peace

building and longer-term resilience. Promoting and supporting interventions that create and enhance voluntary resettlement close to basic resources such as water and arable land can have substantial effect to build the resilience of the pastoral communities to the anticipated risks. Such interventions, if implemented in a well-coordinated manner, can facilitate the various efforts designed to build resilience. The pastoral community development program of the government and lessons from Liben cluster are worth considering for designing the intervention.

- It is advisable to support interventions that promote women and youth empowerment, ensure their participation in the development process and equity in the development outcomes. In this regard, some of the major interventions to improve the resilience of women and youth in pastoral and arid areas can be interventions that support the participation of women and youth in technology multiplication, distribution and non - farm rural service provision that are linked with interventions to improve livestock productivity.

3.1.2.4. Strategic intervention to improve or enhance non-farm rural development

One of the key gaps that cause communities to experience high level of vulnerability in all the cluster areas is the absence of alternative source of income. In this regard, improving access to alternative means of income can improve the resilience of vulnerable communities that have very limited livelihood options. It is, therefore, essential to design interventions that provide opportunities for alternative income source such as business oriented economic opportunities and that increase productivity. Such opportunities include those interventions that focus on integrated livelihood support through, for e.g., strengthening economic groups for asset poor women/youth as well as micro enterprise, (Ru-SACCO/cooperative). Alternatively, it is also advisable to design interventions on rural youth employment generation in skill development and Small and Micro Enterprises (SMEs) operators and support them to start business through credit provision, creating market linkages and training on business development and financial management. This is an important intervention particularly given the emerging youth bulk in the rural areas that led to desperate migration (physical mobility with no change in occupation) to urban areas with no skill and wealth. There is even lack of comprehensive study with regard to urban - rural linkage, migration, job creation in general and in EU-RESET areas in particular. In this regard EU can do

more on this by studying the future of the youth bulk in the rural areas, particularly from harnessing the potential demographic dividend.

In these regard, the EU RESET program can promote and support non-farm rural interventions that promote the participation of skilled/graduated youth men and women in the distribution of technologies and agricultural outputs; outreach health service delivery, construction, forest development, etc. While alternative income sources and diversification are crucial to building resilience in particularly vulnerable pastoralist and agro-pastoralist areas, it is also essential to support interventions that provide price information systems. This intervention should take into account the pastoral context, urban - rural linkage, and migration. This requires further study. There is no comprehensive studies on urban-rural linkage and migration in general and in pastoral areas in particular. This is one potential areas for EU to further study and design evidence based intervention.

3.1.2.5. Social protection program

Establishing productive safety nets involves providing predictable income sources to vulnerable households through cash transfers, food transfers, or paid labor within a public works program. In this regard, the key strategic directions will be attaining food security, access to micro insurance and safety net programs. Promoting and supporting Micro Insurance (MI) institutional arrangement as a means of building the resilience of vulnerable communities in the cluster areas is highly advisable. This instrument is designed for a low income or under-served population, to address their particular risks and insurance needs. The provision of insurance products specifically targets to individual and households at the grassroots level of society (Morelli et al 2010). Products may include health, life, asset/property, etc. As in the conventional insurance, it essentially to use risk pooling to provide compensation to low income individuals or groups that are adversely affected by a specified risk or event and service is provided by variety of authorized financial institutions and managed in accordance with generally accepted insurance practices.

However, MI products requires a fundamentally different approach (Churchill, 2013) since it must be designed to meet the specific characteristics of the working poor; involves households with irregular cash flows in the informal economy; and focus on access or coverage. Therefore, it requires not only identifying the right delivery channels but also designing the product and

organizational capabilities. With regard to the later, interventions may be those related to preventive such as health insurance, maternity benefit, etc; promotional interventions such as micro credit services; protection interventions which are determined based on a predictable risks so as to transfer or protect the predicted risks; or transformative interventions that aims to transforms the social settings that are closely related to negatively influence any efforts to build the resilience of a society or any part of society such as women, children, etc.

In this regard, the safety net programs in Ethiopia envisage to protecting people against risk and vulnerability, mitigate the impact of shocks. The food security program has four components in Ethiopia including the Productive Safety Net Program (PSNP); the Complementary Community Infrastructure (CCI); the resettlement program, and The Household Asset Building Program (HABP). The HABP in Ethiopia recognizes that food insecure HH vary in their capacity to undertake investments, assume risks, adopt innovative practices, and to take on and repay. The Productive Safety Net Programme (PSNP) is one of the largest social protection programs being implemented in Ethiopia since 2005. It covers about 7 million chronically food insecure people, with the objective of reducing vulnerability to recurrent drought induced food crises. The objective of the program is closely linked with the resilience building program of EU RESET. It is advisable that EU RESET considers to integrate its support with PSNP in that it can offer a complementary package to the PSNP with the aim of ensuring access to food for food insecure households, basic social services, health and nutrition and thereby increase their resilience to various individual and covariate risks.

Other examples of social protection programs which are implemented at small scale include the credit life insurance which introduced loan as protection insurance and weather – index insurance². The weather-index insurance is important to address production risks of small farmers and is practiced based on rainfall data instead of crop yield. It can be applicable to crop and livestock farming system. However, it requires weather data, willingness of the risk taker to agree with the contract arrangement as well as feasible institutional settings to effectively deliver the services. In

² Experiences revealed that such arrangement has certain advantages such as low chance of moral hazard since nobody can influence rainfall/weather; administrative expenses are dramatically reduced, claim verification is unnecessary and benefits can be paid out as soon as the size of the local rainfall deficiency is known.

this regard, there are certain experiences in Ethiopia³. With regard to channels of delivery, there are also practical experiences in Ethiopia that provide the services. These include MFIs, Oromiya Insurance Company, Nyala Insurance Company, cooperatives (Financial Cooperatives Saving and Credit Cooperatives-SACCOs) and the informal providers are the key micro-insurance providers in Ethiopia (Wolday, et al, 2013). For instance, the Oromiya insurance company issues multi-peril crop insurance to different farmers' cooperative/unions in collaboration with Busa-Gonfa MFI. It also piloted multi-peril livestock insurance schemes. REST in collaboration with Oxfam America, ILRI Nyala insurance company, DESI, and others are also providing such services.

Community Based Health Insurance (CBHI) scheme which provides health insurance to rural community and to urban informal sector with the objective of protecting households from out of pocket expenditure is also another emerging social protection program. More than 400 districts are now covered by the CBHI scheme in the four major regional states. Most of the EU intervention woredas in these regions are covered by CBHI scheme. In addition to this, there is what is called Seqota Declaration which has a multifaceted package nature to reduce poverty in Seqota area which is also EU-RESET intervention area. All these different programs of social protection are designed to reduce household poverty through different means. As the EU-RESET intervention is to build resilient community, creating synergy with these social protection programs run by government and other stakeholders is an opportunity for a more productive intervention.

3.1.3. Summary of strategic options for livelihood

The previous sections presented the gaps and opportunities for building resilience in the EU RESET cluster areas. Following these, strategic options are proposed to build the resilience of the vulnerable communities. This section summarizes the key findings and the priority strategic direction options that EU RESET should focus on to improve the livelihood of the vulnerable communities in the cluster areas and thereby build their resilience to risks.

³ The report by Oxfam America (2011) revealed that there is a strong interest in insurance across the country, nearly all participants in a group discussion unanimously confirmed. Vargas et al (2011) disclosed the willingness to purchase weather insurance: 42% of the respondents of the sample willing to purchase; 83% of the respondents willing to renew even there is no payout and 79% willing to continue with the policy even after 5 years of good rains.

There are huge gaps that hinder the utilization of these opportunities in the cluster areas. The gaps associated with lack of human capital (low education level, poor health, and limited skill), extremely poor initial conditions and poor access to soft and hard infrastructures poses challenges to build resilience. Limited options for livelihood strategy, which are vulnerable to shocks and climate change risks; and subsistence/traditional animal husbandry are key gaps. The underlying causes for low crop productivity include rain fed cropping with erratic nature and shortage of rains, crop disease, low technology use such as improved seed, and chemicals; poor access to transportation; poor market access and infrastructure/structure. Livestock disease, absence/limited and poor veterinary facilities and services, absence or shortage of improved technology such as improved livestock breed; shortage of livestock feed, lack of access to market and infrastructure as well as limited institutional services and support are underlying causes for low livestock productivity. There exists a huge potential/opportunities such as livestock, fishery, tourism, natural resources suitable for bee keeping and availability of arable land with water resource for crop production and irrigation that facilitates the improvement of livelihood situations of the communities thereby build the resilience of the vulnerable communities in the cluster areas. In addition to the policy framework, discussed later, the availability of active and productive labour resource who are youth that are eager to engage in income generating activities as well as with technical skills is a potential opportunity for resilience building.

Priority should be given to strategic options to improve the capability of individuals and communities. These include interventions that improve access to quality school and health facilities; interventions that link all rural kebeles to all-weather road. Priority should be given to interventions improve or enhance non-farm rural development. Such interventions should provide opportunities for non – farm rural activities as alternative source of employment and income as well as business oriented economic opportunities that increase their productivity. Particularly it is strongly advisable to give priority for interventions on rural youth employment generation in skill development and Small and Micro Enterprises (SMEs) operators and support them to start business through credit provision, creating market linkages and training on business development and financial management. However, since there is huge information & knowledge gaps in relation to these, priority should be given to support researches that generates feasible options to empower

women economically, address the challenges of and participation of youth and women in the decision making process.

To improve agricultural production and productivity, it is strongly advisable to priority for interventions that improve the supply and utilization of agricultural inputs and technologies; access to markets such as improving rural roads, market information (product and input price); improve institutional service in crop production including the expansion and efficiency of agricultural extension system; that improve livestock health coverage, and improved livestock feed production and preservation systems; and integrated implementation of Livestock Value Chain Efficiency. Besides, it is also strongly advisable to support interventions that improve the effectiveness of public and private service delivery in livestock productivity, pasture/rangeland, livestock health, and for private producers to develop their business. Along these line of strategic direction, it is strongly advisable to promote climate smart agriculture activities that sustainably increases productivity, enhance resilience and adaptation of farming systems, and mitigation of GHG emissions particularly in livestock production system.

In pastoral and agro-pastoral areas, in addition to the above, priority should be given to interventions that improve access to potable water supply for human and livestock, expansion of small scale irrigation using surface and ground waters, strengthening the pastoral extension service system, integrating the implementation of social service institutions and infrastructures and institutional capacity building. Besides, priority should be given to interventions that improve the functioning of the local livestock market through expansion of communication networks and services can also have substantial contribution to build resilience in these areas. Interventions that integrate livestock raising with crop production and Local Conflicts can also enhance the resilience of vulnerable communities in some pastoral areas.

EU RESET program should also give priority to strategically support interventions in social protection program. Some of these include interventions related to preventive such as weather – index insurance, health insurance, maternity benefit; promotional interventions such as micro

credit services; supporting the Productive Safety Net Programme (PSNP); Community Based Health Insurance (CBHI) scheme and interventions related to the Seqota Declaration. However, interventions related to micro insurance requires a fundamentally different approach since it must be designed to meet the specific characteristics of the working poor; involves households with irregular cash flows in the informal economy; and focus on access or coverage. Therefore, it requires not only identifying the right delivery channels but also designing the product and organizational capabilities. Therefore, priority should be given to support research that focus to generate feasible product options and institutional and organizational options to effectively deliver the product.

Table 1: Cluster specific proposed interventions to build resilience through improving livelihood

Major risks for food crops production and drivers of poor production	Major risk for livestock production and drivers of poor production	Major interventions	Name of cluster
Drought, crop disease and pests	Drought (shortage of water and animal fodder), livestock disease, lack of improved livestock production/varieties,	<ul style="list-style-type: none"> • Livestock production: in this cluster crop production has been practiced for centuries in a traditional system. Exhaustion of land fertility and fragmentation is the main characteristics of crop production livelihood. Focus on livestock raising is much better than crop production. For this to be effective and productive the following are essential: (1) supplying better breeds of livestock and well-functioning veterinary infrastructure; (2) plant fodder tree seedlings and bund stabilize grass splits on bunds, etc.; (3) construct cattle trough for livestock's in appropriate places. • Bee keeping: This is an emerging livelihood activity practiced by the community as an alternative means of generating income. This has to be supported by identifying localities that are suitable for honey production. • Fishery: Tekeze dam has created fishing opportunity for people living around that area. This is the other opportunity in the cluster to build the resilience of the community. • Incense production: This is another potential for diversifying livelihood but requires facilitating the supply chain, linking to market. 	Waghumra
Drought, flood (Liben and Afar), lack of improved seed, crop disease and pests (Siti and Afar)	Drought (shortage of water and animal fodder), livestock disease, flood for Liben and Afar), lack of improved livestock production/varieties, lack of marketing linkage and transport.	<ul style="list-style-type: none"> • Livestock production: this is the main source of livelihood and all clusters have huge stock of livestock but with poor quality and product. It is still a big potential to build resilient community. There is a need to change from a traditional system of livestock raising to modern system. For this to happen the following interventions are critical: 1) introducing technology input in terms of improved varieties, veterinary facilities and extension services for better quality of livestock and livestock products; 2) there has to be continuous efforts to change the attitude of pastoralists of attaching high value not to the quality as such but to the number of livestock as having large number of livestock is an indication of prestige, higher social status and wealth in the community. It is important to convince pastoralists that given frequent drought keeping a large stick of livestock is not possible; 3) plant fodder tree seedlings and bund stabilize grass splits on bunds, etc.; (4) 	Afar (only zone & 3), Siti, Liben

Major risks for food crops production and drivers of poor production	Major risk for livestock production and drivers of poor production	Major interventions	Name of cluster
		<ul style="list-style-type: none"> • Construct cattle trough for livestock's in appropriate places; (5) making water available. • Livestock trading (in particular for Liben cluster) is also another opportunity. If proper support is provided there is opportunity to export livestock to Yemen and other Arab countries. • Crop production using irrigation (Genale and Dawa rivers): this is another potential which is not yet untapped adequately particularly give arable land and irrigable rivers in all clusters. There is also an emerging trend for a promising livelihood diversification towards crop production. The government is introducing an effective pastoral community development program that facilitates voluntary based resettlement where pastoralists can practice crop production. Pastoralists in Filtu, Dollo Ado and Moyale districts are trying to integrate crop production with livestock raising. This has to be supported to a great extent as it is promising. To make this more productive the following intervention are critical: 1) construct irrigation schemes in Genale and Dawa river in Siti and Liben and and Awash, Borkena, Dewe, Wederage and Meila rivers in Afar; 2) improving the knowledge and skills of pastorals on how to integrate crop production with livestock raising; 3) making available different farming equipment, inputs and extension workers; 4) supply different vegetable seeds and introduce drought resistance crops like sesame, cotton and mung bean; 5) introduce crop disease and pests management activities; and 6) improving infrastructures for market accessibility and linkage. Construct a flood protecting barrier using gabion to protect the damage of Awash River flood. 	

Major risks for food crops production and drivers of poor production	Major risk for livestock production and drivers of poor production	Major interventions	Name of cluster
Drought, crop disease and pests, lack of improved seed, and flood (Wolayita)	Drought (shortage of water and animal fodder), livestock disease, lack of improved livestock production/varieties, lack of marketing linkage and transport, Flood (Wolayita)	<ul style="list-style-type: none"> • Livestock production: this is one of the main source of livelihood in the cluster. But due to the traditional system of production and drought, the community could not make enough income. If appropriate support is provided, this is a big potential to build resilient community. For this the following interventions are critical: 1) introducing technology input in terms of improved varieties, veterinary facilities and extension services for better quality of livestock and livestock products; 2) plant fodder tree seedlings and bund stabilizer grass splits on bunds, etc.; (3) construct cattle trough for livestock's in appropriate places; (5) making water available; and (6) plant fodder tree seedlings and bund stabilize grass splits on bunds, etc. for moisture preservation (control soil erosion) and feed animals. • Crop production: In Bale cluster crop production is also equally important source of livelihood in the cluster. It, however, suffers from crop disease and pests, lack of improved seed, shortage and untimely supply of fertilizer, lack of extension workers. The intervention should make all these available in the pastoral context. In addition to this, there should be intervention that introduces drought resistance crops (sesame, cotton and mung bean). In Wolayita cluster, there is significant size of arable land that can be irrigated by using Bilate and Chereke rivers. Interventions like constructing irrigation canal; provision of agricultural farm tools (hoe, shovel, sledge hammer, crowbars, and water pumps) and inputs are most important. In addition, construction of water harvesting structures and using traditional irrigation schemes could also be considered. • Improve agronomic practice (crop rotation to control pests & disease of crop, and to improve soil nutrients. Early maturing crop varieties (short cycle crops) could also be considered. • Incense production: In Bale cluster gum and incense trading is also practiced as alternative source of livelihood. This has to be supported for productive engagement and also marketing. • Bee keeping: In Wolayita cluster this is the third most important livelihood activity in the cluster. Interventions that boosts honey production is important • Construct rural road that links kebeles to woreda capital to facilitate access to market and develop market infrastructure. 	Bale and Wolayita

Major risks for food crops production and drivers of poor production	Major risk for livestock production and drivers of poor production	Major interventions	Name of cluster
Drought, flood, crop disease and pests, lack of improved seed	Drought (shortage of water and animal fodder), livestock disease, lack of improved livestock production/varieties (specifically for South Omo), flood, lack of marketing linkage and transport (specifically for Borena zone)	<ul style="list-style-type: none"> • Livestock production: this is one of the main source of livelihood in the clusters. But due to the traditional system and drought the community could not make enough income. If appropriate support is provided, this is a big potential to build resilient community. For this the following interventions are critical: 1) introducing technology input in terms of improved varieties, veterinary facilities and extension services for better quality of livestock and livestock products; 2) plant fodder tree seedlings and bund stabilize grass splits on bunds, etc.; (3) construct cattle trough for livestock's in appropriate places; (4) making water available; and (5) plant fodder tree seedlings and bund stabilize grass splits on bunds, etc. for moister preservation (control soil erosion) and feed animals. • Crop production: there is a practice of crop production but not yet developed. People use backward cultivation system, and crop production suffers from inadequate experience and lack of access to inputs and improved farm equipment. There is a very good potential in the cluster for crop production. The cluster has significant size of arable land that can be irrigated. Rivers like Omo, Keseke and Weyto in South Omo and Bilate and Chereke rivers in Borena are irrigable. In order to realize the potential the following intervention are critical: 1) construct irrigation canals around the above mentioned rivers; 2) improving the knowledge and skills of pastorals on how to integrate crop production with livestock raising; 3) making available different farming equipment, inputs and extension workers; 4) supply different vegetable seeds and introduce drought resistance crops like sesame, cotton and mung bean; 5) introduce crop disease and pests management activities; and 6) improving infrastructures (rural roads) for market accessibility and linkage. • Tourism: there are different tourist attraction in specific places such as different wildlife, beautiful landscape, and different cultures which are not yet exploited. In collaboration with regional and zonal cultural offices, identification of places and infrastructure development are the priority in terms of intervention. 	Borena and South Omo

Major risks for food crops production and drivers of poor production	Major risk for livestock production and drivers of poor production	Major interventions	Name of cluster
Drought, flood, crop disease and pests, lack of improved seed	Drought (shortage of water and animal fodder), livestock disease, lack of improved livestock production/varieties (specifically for South Omo), flood, lack of marketing linkage and transport (specifically for Borena zone)	<ul style="list-style-type: none"> • Incense production: This is also another opportunity specifically in Borena zone. Training on how to produce, linking with market and related intervention will make community make more income and resilient. • Bee keeping: honey production is also important source of livelihood in South Omo zone. Interventions that boosts honey production is important as this is promising source of income. • Fishery: There are also opportunities that can change the livelihood of the community to a better level if the necessary support provided to the community. Different areas in South Omo zone have fishing opportunity. The potential in Omo River and Rudolf Lake is immense. • Road infrastructure: The cluster has also road infrastructure problem. The community have no access to road. Because of this, farmers are getting very low price for livestock, crop, honey and fish. Constructing rural road in each rural kebeles is critical to make use of all opportunities. 	Borena and South Omo

3.2. Health, Nutrition and WASH

3.2.1. Status, gaps and opportunities

The health and nutrition situation of the members of household or community crucially determines the capability to lead a decent life as it affects productivity and creativity to utilize their environment to meet their livelihood objectives. Primary healthcare is composed of essential healthcare packages that should be accessible to all segments of the population. Improving access to primary healthcare would improve access to basic health, nutrition and WASH services that strengthen resilience of the communities and local government in managing impacts of shock.

The health, nutrition and WASH situation of the eight EU RESET clusters shows that not only access to health facilities is poor but also the existing health facilities do not provide adequate services. The reason for poor health service delivery at the eight EU RESET clusters can be attributed to inadequate access of primary healthcare facilities to basic infrastructure such as water and electricity; and inadequate skilled health professional staffs with critical shortage of pharmacy and laboratory professionals; and weak supply chain management systems for drugs, family planning commodities, vaccines and laboratory reagents. For the detail, see section 6.1 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report

The situation analysis at the eight EU RESET clusters revealed gaps in meeting national targets in utilizing basic health care services designed to promote the health of vulnerable segments of the population particularly women and children. The utilization rate of the available health services such as family planning; skilled delivery and immunization are generally poor though these vary from cluster to cluster. The situation analysis findings revealed low utilization of family planning services at Afar, Siti, Liben, Bale and South Omo clusters; moderate family planning service utilization at Borena cluster; and better family planning service utilization at Waghimra and Wolaita clusters. Religion, culture and gender play a key role in influencing women's access and utilization of family planning. The low family planning service utilization at most of the EU RESET clusters would result rapid population growth. The growing population at the geographical clusters coupled with recurrent drought situation would increase the vulnerability of the population to nutrition and food insecurity.

The maternal and new-born health status depends on access to skilled healthcare during pregnancy, delivery and postnatal period. Generally there is low utilization of skilled delivery services in Afar, Siti, Liben, Borena and South Omo clusters while there is better utilization of skilled delivery services in Waghimra, Bale and Wolaita clusters. The situation analysis further revealed shortage and high turnover of Basic Emergency Obstetric and Newborn Care (BEmONC) trained midwives, lack of maternity waiting rooms, and maintained role of traditional birth attendants in assisting home delivery at most of the geographic clusters as factors that contributed to low skilled delivery service utilization.

The situation analysis findings revealed the immunization coverage at the eight EU RESET clusters was generally high except at Siti and Liben clusters which indicated the majority of children at Siti and Liben clusters are not vaccinated at the age of one year. The low access and utilization of immunization services at Siti and Liben clusters would increase the vulnerability of children in the clusters to be exposed to vaccine preventable diseases and nutritional deficiencies that would affect child survival. For the detail, see section 6.2 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

Adequate and diversified nutrition is essential for the wellbeing of the population to lead a healthy and productive life. The population of the eight EU RESET clusters are particularly vulnerable to food insecurity as a result of recurrent drought and increasing population pressure. As a result, vulnerable segment of the population particularly children, adolescents and women are susceptible to nutritional deficiencies. The situation analysis findings indicated women in the geographical clusters universally continue breast-feeding up to the age of two or beyond unless another pregnancy occurs, however generally infant and young child feeding practices are non-optimal. Complementary diet is mostly limited to few varieties of cereals and milk across the clusters. Pregnant and lactating women and adolescent girls do not get special consideration to meet their nutritional needs associated to physiological changes.

The food diversification analysis indicated dairy products and cereals contributed to most consumption patterns of children across the clusters. Roots and tubers in addition to cereals and

dairy products contributed to higher proportions of food consumed by children in Wolayita and South Omo clusters. Consumption pattern of flesh food and vitamin A rich fruits and vegetables was low among children in all clusters. Cereals constituted the highest proportion of diet among women and men across the clusters. In addition there is a pattern of higher consumption of roots and tubers at Wolayita and South Omo clusters; and dairy products at Afar, Siti and Liben clusters. The consumption pattern of vitamin A rich fruits and vegetables among women and men across the clusters is generally low. For the detail, see section 6.2 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

The integrated approach to improve access to safe water, hygiene and sanitation is a key strategy to foster integrated behavior of the community members towards safe use of water, healthy hygienic practices and regular use of improved sanitation facilities. The situation analysis identified various water sources at the geographical clusters which include public tap, spring, and pond, deep - well, shallow well, river and water trucking. Some water sources at the geographic clusters diminish yielding during dry season. The WASH committees at all levels lack the capacity to effectively manage WASH facilities in the areas of financial and resource management, maintenance of WASH facilities and maintaining coordination among key stakeholders in managing WASH facilities to ensure sustainability. The findings further revealed the average time spent to fetch water varies from one to eight hours and women and girls are mainly responsible for the task. There are some practices of irregular water treatment to make it safe at household level while boiling is a rare practice. People in all clusters increasingly wash hands using water and soap or ash before and after eating. However, there is low prevalence of the practice of hand washing after toilet use. During water scarcity, which is common in the geographical clusters, water utilization is prioritized for drinking and food preparation instead of utilization for hygienic practices. There is generally low coverage and utilization of sanitation facilities at the geographical clusters. For the detail, see section 6.2 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

The health status at the eight EU RESET clusters was analyzed in terms of morbidity and mortality indicators related to diseases under routine surveillance system; trends of acute and chronic

malnutrition as well as trends of maternal, neonatal, infant and child mortality. The findings on the surveillance of the weekly reportable diseases at the geographical clusters showed malaria is the most common disease under surveillance followed by severe acute malnutrition and dysentery. The three common diseases reported under surveillance could be attributed to low access to basic health services, inadequate access to food and nutrition, low access to safe water supply as well as poor hygiene and sanitation conditions. The prevalence of acute malnutrition in under-five children was high at Afar, Siti and Liben clusters as compared to the national average while the prevalence of chronic malnutrition in under-five children in Waghimra, Afar, Wolayita and South Omo clusters was higher than the national average. The findings further showed that the prevalence of acute and chronic malnutrition at Bale and Borena clusters was lower than the national average. Child and infant mortality are also high though the trend shows a decline at country and regional level in Ethiopia. Although neonatal mortality has shown modest decline, it remains the major contributor for child mortality. For the detail, see section 6.2 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

Gender plays an important role towards improving the health of individuals, communities and families through creating equity to access and utilize basic health services by all segments of the population. The Ethiopian government's flagship health extension program is designed to improve the health access of women and children with a strong community ownership mechanism. At the centre of the community ownership principle, the government advocates empowering women at household level to ensure gender equality and the health of all family members is kept optimal. The health development army mainly women from households are organized to scale-up best practices gained from the implementation of the health extension program at household level.

The situation analysis on gender dimension of the health and nutrition and WASH aspects of the eight EU RESET clusters show a number of gaps in terms of basic health service delivery and utilization. There are gaps in EU Reset clusters in creating model households that fully implemented the health extension package that would provide optimal health benefits to the women children and families. In all clusters men control household resources and have dominant role in making health and nutrition decisions. The utilization of reproductive health services particularly family planning is highly influenced by a culture to have large family size across the

clusters and religion that prohibits use of modern family planning services at Afar, Siti, Liben and Bale clusters. Availing water for household consumption at the geographical clusters is the primary responsibility of women and girls that dedicate 1-8 hours a day to fetch water for the household consumption. Female genital cutting is still practiced at Afar, Siti and Liben clusters. At times of food shortage, husbands get priority access to food, followed by children and then women. There is no exceptional consideration given to nutritional needs of pregnant and lactating women and adolescent girls as they get similar type of meal with the remaining members of the family in all the geographic clusters. For the detail, see section 6.4 of the main report on the Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), which is annexed to this report.

Overall, poor access to primary healthcare facilities, inadequate access of health facilities to basic infrastructure, shortage of human resource for health, stock out of essential drugs and supplies, inadequate utilization of available health services, inadequate access to safe water supply, poor hygienic practices and low access to household sanitation facilities; poor access to adequate and diversified food; gender inequality and poor governance and weak health information management system are the main drivers for the poor health and nutrition situations of the population in the eight EU RESET clusters.

3.2.2. Strategic options to improve the health, nutrition and WASH for resilience building
Understanding the current status and the gaps and opportunities for building resilience through improving the health, nutrition and WASH is essential to identify strategic options that can be effectively implemented in the eight EU RESET clusters. In this regard, the above discussions focused not only on the current status of health and nutrition outcomes but also on the health service delivery and utilization, nutrition and WASH services as well as gender dimension. Accordingly, the strategic interventions focus on those interventions that have direct and indirect effect on improving health, nutrition and WASH service delivery and utilization. The strategic options also focuses on the service delivery and utilization that have bearing on improving the gender dimensions by addressing gender-specific reasons for poor health, nutrition and WASH conditions in the cluster areas.

3.2.2.1 Strategic options to improve health service delivery

The key strategic direction to improve health service delivery focuses on improving access to primary healthcare facilities, health facilities basic infrastructure, human resource for health capacity, and access to essential drugs as well as the local governance system in health service

delivery. In relation to health service delivery, one of the causes for poor health service delivery in the eight EU RESET clusters is inadequate access to primary healthcare facilities including health posts, health centres and primary hospitals. It is, therefore, essential to improve this situation so as to build the resilience of the communities who are vulnerable to various risks. In this regard, the following strategic interventions are proposed.

Expansion and equipping primary healthcare facilities: It is advisable for the EU RESET to give priority for interventions that support expansion and equipping of health posts, health centres and primary hospitals with community engagement approach. However, since access to these facilities varies by cluster areas, it is advisable that such intervention need to be cluster specific. Based on existing gaps health post expansion and equipping should be given priority in Afar, Siti and Liben clusters; and health centres expansion and equipping should be given priority in Siti, Liben, Wolaita and South Omo clusters. On the other hand, support for expansion and equipping of primary hospitals can be implemented across the eight EU RESET clusters.

Improving health facilities access to basic infrastructure such as potable water supply and electricity: This can be done through promoting and supporting integrated water supply scheme development to public facilities including health facilities and the community across the clusters. It can also be done through improving access to clean and safe water supply by supporting construction of water harvesting structures at health facilities with inadequate access to safe water supply. The access of health facilities to electric power supply can be improved by supporting to improve access to alternative power source to primary healthcare facilities through improving access to solar power source or generators.

Improving availability of human resource for health: The availability of human resource for health can be improved through promotion and supporting local recruitment and training of health professionals with critical shortage particularly pharmacy and laboratory technicians at regional health science colleges which are part of Technical and Vocational Education and Training (TVET in health). The local recruitment and training of laboratory and pharmacy technicians is recommend for Waghimra, Afar, Siti, Liben, Bale and Borena clusters where critical shortage was evident. The regional health science colleges that will be selected to host the trainings could be

supported to strengthen their curriculum and filling gaps on educational materials including books and skills lab materials. The other intervention that can be implemented to improve human resource for health is promotion and support of health professional's motivation and retention mechanisms such as short and long term trainings, continuous professional development (CPD), and performance based promotion etc.

Improving Supply Chain Management (SCM): The availability of essential drugs and supplies can be improved through interventions that support effective implementation of Integrated Pharmaceutical Logistics System (IPLS) at primary health care facilities across the clusters. The IPLS implementation would establish systems that will ensure availability of essential drugs and supplies through promotion and support systems for

- Regular quantification of pharmaceuticals (stock on hand, consumption and losses)
- Timely stock ordering for pharmaceuticals and supplies
- Storage of pharmaceuticals and supplies that ensures quality and security
- Effective inventory rotation mechanism that ensures – first in first out (FIFO) or first expire first out (FEFO) mechanisms
- Effective inventory control mechanism – use of bin card and stock card for controlling stock level
- Proper disposal of damaged and expired pharmaceuticals and supplies

Overall, it is strongly advisable that the EU RESET program focuses on interventions that improve basic health service delivery through improving access to primary healthcare facilities; programs that improve safe water supply and equip the health facilities with power that use alternative energy sources; improving human resource for health availability by focusing on supporting training of health professionals with critical shortage and capacity building programs; system improvement in pharmaceutical logistic supply as well as improve the governance system at local level to effectively implement health sector transformation plan through effective coordination and participation of key stakeholders such as local community, private sector, local governments and non-government actors.

3.2.2.2. Strategic direction to improve health service utilization

The situation analyses revealed that there are fundamental gaps that hinder the full utilization of the available health services in the eight EU RESET clusters particularly on health services related to maternal and child health. In this case, the key gaps are observed in family planning, skilled

birth attendant and immunization service utilization. To improve these gaps the following strategic directions are suggested.

Improving access and utilization of family planning: The key gaps for low family planning utilization observed in Afar, Siti, Liben, Bale, Borena and South Omo clusters are those related to cultural and religious influences, male dominance in making decisions on family planning, low access to primary healthcare facilities as well as stock out of family planning commodities. In this regard, it is strongly advisable for EU RESET program to give due emphases on interventions that promote and support

- Access to family planning methods choice at primary health care facilities including access to long acting reversible contraception (LARC) methods (Implants and IUCDs); and postpartum family planning services (postpartum IUCD for immediate postpartum period)
- Integration of family planning counselling at under five and immunization clinics
- Communication for change on family planning by engaging men, women, community and religious leaders
- Reliable supply chain of family planning commodities

Improving access to and utilization of skilled birth attendants (SBA): The key gaps for low utilization rate on skilled birth attendants in Afar, Siti, Liben, Borena and South Omo clusters include low population access to primary healthcare facilities, shortage of skilled midwives, lack or inadequate maternity waiting rooms at health centres; and continued traditional birth attendants role in assisting home deliveries. It is, therefore, advisable to give priority for interventions that promote and support:

- The capacity of primary health care facilities (health centres and health posts) to provide high quality maternal and new born care services
- Pregnant women access to focused antenatal care (FANC) services at health post and health centres
- Pregnant women access to HIV prevention of mother to child transmission (PMTCT) services at health centres
- Pregnant women access to functional basic emergency obstetric and new-born care (BEmONC) services at health centres

- Access to quality postnatal care during the first 6 weeks of postpartum period
- Respectful maternity care based on women needs and preferences
- Construction of maternity waiting rooms at health centres with community participation
- Engagement of traditional birth attendants to make referral of women in labor to health centers for skilled birth attendance

Improving access and utilization of immunization services: The key gaps for the low rate of immunization service utilization particularly at Siti and Liben clusters include low access to primary healthcare facilities (health centre and health post) ; and stock out of vaccine supplies. Therefore, it is advisable to design interventions that promote and support

- Strengthening of routine immunization services provided at health centers and health posts
- Expansion of primary health care facilities particularly health post and health centers
- Establishment and maintenance of temporary mobile immunization services for communities that do not have access to primary healthcare facilities
- Maintenance of reliable supply chain mechanism for vaccines
- Strengthening integrated surveillance and response system on vaccine preventable childhood illnesses.

Overall, it is strongly advisable that the EU RESET program focuses on interventions that improve utilization of available maternal and child health services through improving access to family planning methods choices focusing on long acting reversible contraceptive methods (LARC) and postpartum family planning services; improving access to skilled birth attendant through strengthening focused antenatal care, prevention of mother to child transmission of HIV, ensuring access to quality basic emergency obstetric and newborn care, supporting respectful maternity care, construction of maternity waiting areas and engaging traditional birth attendants to make referral of women in labor to health centers; and improving immunization service utilization through expansion of health post and health center, establishment of temporary mobile immunization services to the communities, maintenance of reliable supply chain management for vaccines and strengthening integrated surveillance and response system on vaccine preventable childhood illnesses.

The key gaps identified for the poor service delivery and utilization in WASH include low access to safe water source; women and girls spend long hours to fetch water; less practice of water treatment or boiling at household level; less practice of hand washing with soap/ash and water before/after eating and toilet use; and low access to latrine facilities at household level. The key

strategic directions to improve WASH for resilience building of most vulnerable communities in the eight EU RESET clusters include those that improve access to safe water supply through establishing community managed sustainable water supply schemes and improved hygiene and sanitation; integrate WASH development at the community, health facilities and schools towards creating open defecation free kebeles; and capacity building interventions for sustainable management of WASH development such as awareness creation and how to use and manage WASH facilities.

Improving access to safe water supply, hygiene and sanitation practices: this can be done through interventions that improve access to sustainable safe water source and improved hygienic and sanitation practices through supporting

- Rehabilitation and maintenance of existing water systems to reduce non-functionality
- Development of new safe water supply schemes to improve access
- Water management structures at the community level to ensure active participation of the local communities to create ownership
- The use of household water purification and treatment practises
- Safe and hygienic preparation and handling of food
- Positive behaviours towards hand washing with water and soap/ash before and after eating and after toilet use
- Construction and hygienic use of household and community latrines
- Active engagement of the community on communication for behavioural change on hygiene and sanitation practices

<p>Overall, it is advisable that the EU RESET program focuses on interventions that improve access to safe water supply through establishing community managed sustainable water supply schemes and improved hygiene and sanitation; integrate WASH development at the community, health facilities and schools towards creating open defecation free kebeles; and capacity building interventions for sustainable management of WASH development such as awareness creation and how to use and manage WASH facilities</p>
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3.2.2.3. Strategic direction to improve resilience oriented nutrition

Based on the findings of the situation analyses on the nutrition aspect of resilience building in the eight EU RESET clusters, the key gaps for low level of nutrition status include non-optimal feeding

practises for infants and young children; less dietary diversification among the majority of food consumed by children, women and men; inadequate intake of diversified food by pregnant and lactating women and adolescent girls; high rate of acute malnutrition particularly in Afar, Siti and Liben clusters; and high rate of chronic malnutrition particularly in Waghimra, Afar, Wolaiyta and South Omo clusters. Accordingly, the key strategic directions to improve the nutritional situation of vulnerable communities in the cluster areas include:

- Community Based Nutrition (CBN) program that improve the nutritional status of infants, children and women
- Promoting nutrition-sensitive agriculture for production and consumption of diversified nutrition
- Nutrition sensitive School based interventions and counselling
- Integrating food security interventions with nutrition security programs

More specifically, the following strategic directions are proposed to improve the nutritional aspect of resilience building in the eight EU RESET clusters. The strategic interventions proposed to improve the nutritional status of infants, children and women through community based nutrition program include:

Improve the nutrition status of infants and young children (children aged 0 to 23 months) through improving infant and young children feeding practices (IYCF): the recommended interventions are those that promote and support

- Optimal breastfeeding practices for infants 0-6 months of age at the community and facility level including promotion of breastfeeding initiation within one hour of birth and exclusive breastfeeding for the first six months of age. .
- Access to appropriate complementary feeding for children 6-23 months old, including promotion for timely initiation of semisolid/solid complementary foods at 6 months of age, promoting and demonstrating utilization of diversified foods (cereals, legumes, roots & tubes, flesh food, dairy products, egg, vitamin A rich fruits and vegetables), promote continued breastfeeding up to the age of 23 month and continued feeding during illness and recovery.
- Regular growth monitoring for children 0-23 months with appropriate age specific counselling on nutrition

Improve the nutrition status of pregnant, lactating women and adolescent girls: the recommended interventions are those that promote and support

- Comprehensive and routine nutritional assessment, counselling and support services for pregnant, lactating women and adolescent girls
- Pregnant, lactating mothers and adolescent girls access to micronutrient services
- Engagement of husband and family members in playing key roles in providing continuous care to pregnant and lactating mothers
- Change in behavioural or social norms from food taboos preventing adequate nutrition for pregnant and lactating mothers

Improve the nutrition status of vulnerable communities particularly children and women by addressing micronutrient deficiency: the recommended strategic interventions focus on

- Prevention and control of anaemia through iron folate supplementation to all pregnant women
- Providing access to vitamin A supplementation and deworming for children 6-59 months of age within six month intervals
- Provision of zinc with oral rehydration salt (ORS) for diarrhoea treatment for children
- Promotion of the use of iodized salt by all age group at household level.

Early detection and management of acute malnutrition and common childhood illnesses: The two priority areas of focus could be interventions that improve access to integrated community case management (ICCM) for acute malnutrition, diarrhoea, pneumonia and malaria at health posts as well as access to integrated management of new-born and childhood illnesses (IMNCI) at health centres. In order to improve early detection and management of acute malnutrition and common childhood illnesses the recommended interventions are those that promote and support

- Early detection and management of common childhood illnesses (acute malnutrition, diarrhoea, pneumonia and malaria) through integrated community case management (ICCM) at health post and integrated management of new-born and childhood illnesses (IMNCI) at health centres

- Community based management of acute malnutrition (CMAM) composed of management of moderate to severe acute malnutrition with outpatient therapeutic feeding program (OTP)
- Management of severe acute malnutrition (SAM) within health facilities stabilization centres (SC)
- Availability of therapeutic nutrients at health facilities.

Finally, it is also advisable to **design and implement nutrition sensitive interventions** such as nutrition sensitive agriculture, school and social protection programs.

Nutrition sensitive agriculture may include those interventions that promote and support

- Production and consumption of diversified food at household level (cereals, legumes, roots, flesh food, dairy products, egg, fruits, vegetables) using household gardening
- Production, demonstration and consumption of diversified food through school gardening, community gardening, small scale irrigation, fishery etc.

Nutrition sensitive school programs may include interventions that promote and support

- School gardening program for production and demonstration of diversified food
- Nutrition education at schools to improve food diversification and optimal nutrition practices
- School feeding programs to communities with chronic shortage of food to prevent malnutrition and school dropouts.

Nutrition sensitive social protection may include those interventions that promote and support

- Women economic empowerment through income generating initiatives to increase access to nutritious foods
- Appropriate integration of nutrition practices with productive safety net programs to improve the nutritional status of women and children.

Overall, it is advisable that the EU RESET program focuses on the key strategic direction to improve the nutritional situation with the aim of building resilience focusing on those interventions that have direct and indirect substantial positive effect on vulnerable segment of the population particularly children , adolescents, pregnant and lactating women. The focus areas for intervention include community based nutrition programs that have substantial implication for optimal infant and child feeding practices; improving nutritional status of pregnant, lactating and adolescent girls; micronutrient deficiency control; early detection and management of acute malnutrition and common childhood illness; and inter-sectorial collaboration to improve local production and consumption of adequate and diversified food through nutrition sensitive agriculture, school and social protection programs.

3.2.2.5. Strategic direction to improve resilience through addressing the gender dimension on health, nutrition and WASH

The situation analyses result revealed that the key gaps that are related to gender in the eight EU RESET cluster include male dominance in resource control to make health and nutrition decisions; religious influence on family planning utilization at Afar, Siti, Liben and Bale clusters; delayed seeking of skilled care during child birth; burden of long hours (1-8hours) fetching water on women and girls; widespread female genital cutting practices at Afar, Siti and Liben clusters; as well as low consideration to the nutritional needs of pregnant and lactating women as well as adolescent girls at household level. The key strategic directions to address the gaps so as to build the resilience of vulnerable women include, interventions that promote and support.

- Male engagement in the health and nutrition issues of the families;
- Gender sensitive interventions such as girls education, and women economic empowerment
- Engagement of the community in combating female genital cutting practices particularly at Afar, Siti and Liben clusters
- Improving access to potable water supply to the communities to reduce burden on women and girls
- Women and girls friendly reproductive health services: long-acting reversible family planning, respectful maternity care, adolescent reproductive health services
- Engagement of husband and family members in playing key roles in providing continuous care to pregnant and lactating mothers;

- Interventions that focus on cultural change such as taboos that hinder access to adequate food for pregnant and lactating mothers.
- Engaging health development army (HDA) through health extension program in creating model households to improve the health of mothers, children and families.

Overall, it is advisable that the EU RESET program focuses on the key strategic direction that give priority to income generating interventions for women to improve economic power (micro-finance, household garden etc.); develop safe water supply schemes at the communities to reduce burden on women and girls; engaging the community in combating female genital cutting practices; promoting women and adolescent friendly reproductive health services and creating model households by engaging health development armies through HEP to improve the health of mothers, children and families

3.2.3. Summary of strategic options for Health, WASH and Nutrition

This section presents the priority strategic options in health, nutrition and WASH relevant to build resilience in the eight EU RESET cluster areas. Based on the identified gaps, strategic options to address the gaps and thereby build resilience in the clusters are proposed for all clusters. Cluster specific strategic options are also proposed since there are some variations among the clusters. Among the options, the most relevant interventions that EU RESET program should give priority are summarized as follow.

The EU RESET program is advised to prioritize improving health service delivery through improving access to primary healthcare facilities by focusing on infrastructure (water & electricity), human resource capacity and supply chain management. The RESET program is also advised to prioritize to improve health service utilization through interventions that improve utilization of family planning services focusing on reversible long acting contraceptives and post-partum family planning methods; utilization of skilled delivery through strengthening basic emergency obstetric and newborn care (BEmONC) services, construction of maternity waiting areas and engaging traditional birth attendants in referral of women in labor to health facilities; and routine immunization services by focusing on reaching communities that do not have access to primary health care facilities and strengthening surveillance and response system for vaccine preventable childhood illnesses.

The EU RESET program is advised to prioritize WASH interventions that improve population access to safe water supply through rehabilitation of existing water supply systems and construction of new water supply systems; and capacity building interventions for sustainable management of WASH facilities at the community. The sustainable management of WASH facilities needs further studies to investigate its impact in creating long term sustainability and ownership. The EU RESET program is also advised to focus on interventions that improve access to sanitation facilities and communication for behavioral change on hygiene and sanitation.

The EU RESET program is advised to prioritize nutrition interventions that improves nutritional status of infants, children, pregnant and lactating mothers. The priority areas for interventions include strengthening routine nutritional assessment for young infants, children, pregnant and lactating mothers with appropriate nutrition counselling for optimal nutrition practices; improving food diversification through education, demonstration, agriculture sensitive nutrition interventions; and improving the capacity for early detection and management of acute malnutrition at the community and health facilities.

The EU RESET program is advised to address gender disparity in health, WASH and nutrition through women empowerment interventions that focus on income generating interventions and strengthening implementation of the health extension program packages (HEP) through engagement of the health development armies (HDA's) in creating model households in health.

The EU RESET program is advised to improve local governance system through improving the capacity of primary healthcare facilities governing boards in health care financing, performance management and accountability mechanisms; and strengthening inter-sectorial coordination and collaboration at the community, woreda, zonal and regional levels for effective implementation of the health sector transformation plan. The EU RESET program is also advised to improve Health Information Management System (HMIS) at RESET clusters focusing on capacity building interventions for improving data quality at all levels and improving the capacity for data analysis and interpretation for making evidence based decisions at primary health care facilities to improve health, nutrition and WASH services.

Table 2: Cluster specific proposed interventions to build resilience through improving health, nutrition and WASH

	Gaps	Proposed Strategic Interventions	Focus Clusters
Health, Nutrition and WASH			
1	Health		
1.1	Low Health Service Delivery		
	<ul style="list-style-type: none"> ➤ Low access to primary healthcare facilities <ul style="list-style-type: none"> - low access to health posts at Afar, Siti and Liben - low access to health centres at Siti, Liben., Wolaita and South Omo - low access to primary hospitals across the clusters 	<ul style="list-style-type: none"> ➤ Support expansion and equipping of health post to improve access at Afar, Siti and Liben clusters ➤ Support expansion and equipping of health centres to improve access at Siti, Liben, Wolaita and South Omo clusters ➤ Support expansion and equipping of primary hospitals to improve access across EU RESET clusters 	Afar, Siti, Liben, Wolaita South Omo
	<ul style="list-style-type: none"> ➤ Primary healthcare facilities inadequate access to basic infrastructure particularly safe water supply and electricity 	<ul style="list-style-type: none"> ➤ Support Integration of water supply to public facilities including health facilities to community water supply scheme development ➤ Support construction of water harvesting structures at health facilities ➤ Support access to alternative power source (solar and generator) to primary healthcare facilities 	All clusters
	<ul style="list-style-type: none"> ➤ Shortage of human resource for health with critical shortage of pharmacy and laboratory professionals at Waghimra, Afar, siti, Liben, Bale and Borena clusters 	<ul style="list-style-type: none"> ➤ Promote and support local recruitment and training of health professionals with critical shortage (pharmacy and laboratory technicians) at Regional Health Science Colleges which is part of Technical and Vocational Education and Training (TVET in Health) ➤ Support curriculum strengthening and filling gaps on educational materials such as books and skills lab materials for Regional Health Science Colleges ➤ Support of health professional’s motivation and retention mechanisms such as short and long term trainings, continuous professional development (CPD), and performance based promotion etc. 	Waghimra Afar, Siti, Liben, Bale Borena
	<ul style="list-style-type: none"> ➤ Stock out of essential drugs, laboratory supplies, family planning commodities and vaccines 	<ul style="list-style-type: none"> ➤ Support effective implementation of Integrated Pharmaceutical Supply Logistics System (IPLS) at primary health care facilities to improve stock quantification, ordering, proper storage, rotation and inventory control and disposal for pharmaceuticals and supplies 	All clusters

	Gaps	Proposed Strategic Interventions	Focus Clusters
1.2	Low Utilization of existing health services		
	<ul style="list-style-type: none"> ➤ Low family planning utilization (Afar, Siti, Liben, Bale, Borena and South Omo clusters) ➤ Religious influence on family planning utilization (Afar, Siti, Liben and Bale clusters) ➤ Male dominance in making decisions on family planning (across the clusters) ➤ Stock out of family planning commodities 	<ul style="list-style-type: none"> ➤ Promote and support access to family planning services and utilization at primary health care facilities through improving access to family planning method choices focusing on long acting reversible contraception methods (LARC) and postpartum family planning services (postpartum IUCD) ➤ Promote and support integration of family planning counselling services at under five and immunization clinics ➤ Promote and support communication for change on family planning by engaging men, women, cultural and religious leaders at the community level ➤ Support to maintain reliable supply chain of family planning commodities through strengthening of Integrated Pharmaceutical Supply Logistics System (IPLS) 	Afar, Siti, Liben, Bale, Borena, South Omo
	<ul style="list-style-type: none"> ➤ Low utilization of skilled birth attendant (Afar, Siti, Liben, Borena and South Omo clusters) ➤ Lack or inadequate maternity waiting rooms at health canter across the clusters ➤ Continued traditional birth attendants role in assisting home deliveries mainly at Afar, Siti, and Liben clusters 	<ul style="list-style-type: none"> ➤ Support the capacity of primary health care facilities (health centres and health posts) to provide high quality maternal and new-born care services through strengthening <ul style="list-style-type: none"> - Focused antenatal care (FANC) services - Prevention of mother to child transmission (PMTCT) of HIV - Functional basic emergency obstetric and new-born care (BEmONC) services at health centres - Postnatal care during the first six weeks of postpartum period ➤ Promote and support respectful maternity care based on women needs and preferences ➤ Support construction of maternity waiting rooms at health centres with community participation ➤ Support engagement of traditional birth attendants to establish referral mechanism for women in labour to health centres for skilled birth attendant 	Afar, Siti, Liben, Borena South Omo
	<ul style="list-style-type: none"> ➤ Low access and utilization of immunization service at Siti and Liben clusters ➤ Stock out of vaccine supplies 	<ul style="list-style-type: none"> ➤ Support strengthening routine immunization services provided at health posts and health centres ➤ Promote and support expansion of primary health care facilities at Siti and Liben clusters (health posts and health centres) ➤ Improve access to immunization services by establishing temporary mobile immunization team for communities that do not have access to primary health care facilities ➤ Support and maintain reliable supply chain mechanism for vaccines by strengthening integrated pharmaceutical logistics supply system (IPLS) ➤ Support to strengthen surveillance and response system on vaccine preventable childhood illnesses 	Siti Liben

	Gaps	Proposed Strategic Interventions	Focus Clusters
2	Water, Hygiene and Sanitation		
	<ul style="list-style-type: none"> ➤ Low access to safe water supply ➤ Women and girls spend long hours (1-8 hours) to fetch water ➤ Less practice of water treatment or boiling at household level ➤ Inadequate practice of hand washing with soap/ash and water before/after eating and toilet use (across the clusters) ➤ Low access to latrine facilities at household level (across the clusters) 	<ul style="list-style-type: none"> ➤ Support to secure sustainable safe water source through <ul style="list-style-type: none"> - rehabilitation and maintenance of existing water supply systems to reduce non-functionality - construction of new water supply systems ➤ Support to improve water supply systems monitoring and management at the community ➤ Promote and support the use of household water purification and treatment practises ➤ Promote safe and hygienic preparation and handling of food ➤ Promote hand washing practices with water and soap/ash before/after eating and after toilet use ➤ Promote and support construction and utilization of household, community and school latrines ➤ Promote and support communication for behavioural change on hygiene and sanitation at the community (health development armies) and schools 	All clusters
3	Nutrition		
3.1	Nutrition specific Interventions		
	<ul style="list-style-type: none"> ➤ Non-optimal infants and young child feeding practises (IYCF) across the clusters ➤ Less dietary diversification among the majority of food consumed by children across the clusters 	<ul style="list-style-type: none"> ➤ Promote and support optimal breastfeeding practices for infants 0-6 months at community and facility level including initiation of breastfeeding within one hour of birth and exclusive breast feeding for 6 month ➤ Promote and support access to appropriate complementary feeding for children 6-23 months old with timely initiation of complementary feeding, utilizing diversified food, continuation of breast feeding up to 23 month age, and continued feeding during illness and recovery ➤ Promote regular growth monitoring with appropriate age specific counselling on nutrition ➤ Support to provide vitamin A supplementation and deworming services for children 6-59 months of age within 6 month intervals 	All clusters

	Gaps	Proposed Strategic Interventions	Focus Clusters
	<ul style="list-style-type: none"> ➤ Inadequate intake of diversified food by pregnant, lactating women and adolescent girls across the clusters 	<ul style="list-style-type: none"> ➤ Promote comprehensive and routine nutritional assessment, counselling and support services for pregnant, lactating women and adolescent girls ➤ Promote and support pregnant, lactating mothers and adolescent girls access to micronutrient services (access to iron folate, iodine) ➤ Promote engagement of husband and family members in playing key roles in providing continuous care to pregnant and lactating mothers ➤ Promote shifts of social norms from food taboos preventing adequate nutrition for pregnant and lactating mothers 	All clusters
	<ul style="list-style-type: none"> ➤ High rate of acute malnutrition in Afar, Siti and Liben clusters ➤ High rate of chronic malnutrition in Waghimra, Afar, Wolaiyta and South Omo clusters 	<ul style="list-style-type: none"> ➤ Promote demonstration and utilization of diversified foods (cereals, legumes, roots & tubers, flesh food, dairy products, egg, vitamin A rich fruits and vegetables, other fruits and vegetables) ➤ Support access to quality management of moderate to severe acute malnutrition through Community Based Management of Acute Malnutrition (CMAM) and Management of severe acute malnutrition within health facilities stabilization centres (SC) ➤ Ensure access to quality ICCM services at health posts and IJMNCI services at health centres ➤ Promote zinc with oral rehydration salt (ORS) for diarrhoea treatment for children 	Waghimra Afar Siti Liben Wolaiyta South Omo
3.2	Nutrition Sensitive Interventions		
	<ul style="list-style-type: none"> ➤ Less dietary diversification among the majority of food consumed by children, women and men across the clusters 	<p>Nutrition sensitive agriculture</p> <ul style="list-style-type: none"> ➤ Promote and support production and consumption of diversified food at household level (cereals, legumes, roots, flesh food, dairy products, egg, fruits, vegetables) ➤ Promote and support implementation of nutrition sensitive agriculture program including household gardening, school gardening, community gardening, small scale irrigation, fishery etc. 	All clusters
	<ul style="list-style-type: none"> ➤ Less dietary diversification among the majority of food consumed by children, women and men across the clusters 	<p>Nutrition sensitive schools program</p> <ul style="list-style-type: none"> ➤ Promote and support school gardening program for production and demonstration of diversified food ➤ Promote nutrition education at schools to improve food diversification and optimal nutrition practises ➤ Promote and support school feeding programs to communities with chronic shortage of food to prevent malnutrition and school dropouts 	All clusters

	Gaps	Proposed Strategic Interventions	Focus Clusters
	<ul style="list-style-type: none"> ➤ Less dietary diversification among the majority of food consumed by children, women and men across the clusters 	<p>Nutrition sensitive social protection</p> <ul style="list-style-type: none"> ➤ Promote and support women economic empowerment through income generating initiatives to increase access to nutritious foods ➤ Promote appropriate integration of nutrition practices with productive safety net programs to improve the nutritional status of women and children 	All clusters
4	Gender related interventions		
	<ul style="list-style-type: none"> ➤ Male dominance in resource control to make health and nutrition decisions (across clusters) ➤ Religious influence on family planning utilization at Afar, Siti, Liben and Bale clusters ➤ Delayed seeking of skilled care during child birth ➤ A burden of long hours (1-8hours) fetching water on women and girls ➤ Female genital cutting practise at Afar, Siti and Liben clusters ➤ Less consideration to the nutritional needs of pregnant and lactating women at household level ➤ Inadequate implementation of health extension program packages 	<ul style="list-style-type: none"> ➤ Promote and support male engagement on health and nutrition issues of the families ➤ Promote and support gender equality interventions: girls education, women economic empowerment ➤ Promote and support engagement of the community in combating female genital cutting practices at Afar, Siti and Liben clusters ➤ Promote and support access to potable water supply to the households which reduce burden on women and girls ➤ Promote and support women and girls friendly reproductive health services: long-acting reversible family planning, respectful maternity care, adolescent reproductive health services ➤ Promote engagement of husband and family members in playing key roles in providing continuous care to pregnant and lactating mothers ➤ Promote shifts of social norms from food taboos preventing adequate nutrition for pregnant and lactating mothers ➤ Promote information, demonstration and access to dietary diversification to women, children and families ➤ Strengthening implementation of the health extension program packages (HEP) through engagement of the health development armies (HDA's) in creating model households in health 	All clusters
5	Governance and Health Management Information System (HMIS)		
	<ul style="list-style-type: none"> ➤ Inadequate capacity of primary healthcare facilities governing boards to provide strategic leadership ➤ Inadequate Sector collaboration and coordination ➤ Incomplete health information ➤ Poor data quality 	<ul style="list-style-type: none"> ➤ Capacity building for governing boards on health care financing, performance management and accountability mechanisms ➤ Promote inter-sectorial collaboration and coordination at all levels ➤ Capacity building interventions focusing on improving data quality and local analysis and interpretation of health information for evidence based decision making 	

Table 3: Indicators to monitor progress and evaluate the outcome of interventions related to Health, Nutrition & WASH

Indicator	Definition	Source
1. Health service delivery and utilization		
Population access to primary healthcare facilities	The ratio of functional primary healthcare facilities to total catchment population	Woreda health office reports/GIS mapping
Health professionals attrition rate	The proportion of health professional staff leaving a health institution in a given period of time	Woreda health office reports
Essential drugs availability	The number of months in which tracer drug was available averaged over all tracer drugs during the specified time period	HMIS reports
Contraceptive acceptance rate	The proportion of women in reproductive age (15-49 years) who are not pregnant and are accepting a modern contraceptive method (new and repeat acceptors).	HMIS report/ household survey
Long acting family planning coverage	The proportion of women who use long acting family planning methods (IUCDs or Implants) among all family planning users	HMIS reports/ household survey
Skilled birth attendant coverage	The proportion of births attended by skilled health personnel	HMIS reports/ household survey
Full immunization coverage (<1 year)	Proportion of surviving infants who receive all doses of vaccines before their first birthday.	HMIS reports/ household survey
2. Water, Hygiene and Sanitation		
Safe water supply coverage	Proportion of households' that have access to safe water source	Household survey
Household access to latrine facilities	Proportion of households' that have access to any type of latrine facility	HMIS reports/ household survey
Kebele declared "Open Defecation Free"	Proportion of kebeles declared open defecation free within a health facility catchment	HMIS reports/ household survey
3. Nutrition		
Moderate acute malnutrition among under five children (MAM)	The proportion of under five children with moderate wasting identified by weight for height between -3 and -2 z-scores below the median of WHO child growth standards	Household survey
Severe acute malnutrition among under five children (SAM)	The proportion of under five children with severe wasting identified by weight for height less than -3 z score below median of WHO child growth standards or the presence of bilateral pitting oedema	Household survey
Stunted children aged < 5 years	Proportion of under five children identified with height-for-age less than -2 z scores below the median WHO child growth standards	Household survey
Individual Dietary Diversity (Age and sex specific)	The number of different food groups consumed over a given reference period by individuals within a household	Household survey

3.3. Natural Resource and Disaster Risk Management

3.3.1. Status, gaps and opportunities

The climatic regime of the eight EU RESET clusters is characterized by semi-arid and dry climate marked by high average daily temperature and short and erratic annual rainfall. Climatic models also predict that western and southern lowlands where most of the EU clusters are found, are areas that going to be affected most by the impacts of climate variability and change. Patches of woodlands, but vast expanses of shrubs, bushes and grasslands dominate the vegetation types in most of these clusters. Satellite images between 2003 and 2013 indicate major land use and land cover changes in a decade marked by sharp decline in forest cover, woodlands, shrubs and bush lands and rise in open grasslands, bare lands and agricultural lands. Vegetation cover is declining whereas agricultural land area is expanding in almost all clusters. Overall the existing situation of the NRM of the clusters can be explained in terms of the fact that the number of people that depend on NRs is increasing rapidly due to increasing frequency of droughts and the rapid population growth (expanding at a much higher rate than the national growth rate). Besides, NR degradation (notably the expansion of bare lands and invasive species and shrinkage of grasslands, woodlands and forests) characterises all clusters. Over a decade, we observed sharp decline in grasslands in cluster 3, 5 and 8 (Siti, Bale and South Omo), a rapid decline in woodlands, shrubs and bush lands in clusters 1, 2, 6, 7 and 8, and sharp increases in the area of bare lands and agricultural lands in Clusters 1, 2, 4, 6, 7 and 8. For more information, see section 7.1 and Figures 7.2 – 7.16 in the main report on the Situation Analysis of the eight geographical clusters under the EU RESET program. Unless corrective measures are taken, such a general trend undermines the resilience of the ecosystem as feed shortage will get worse. This definitely constitutes the major threat for livestock based livelihoods in all clusters.

The drastic changes in land use indicate the need for working towards well thought-out and effective land use plan in these areas. Areas that will be used for irrigation need to be defined and their uses planned in light of their role in the overall pastoral and agro-pastoral livelihood systems. Increased drought frequency forced many to more and more engage in fuel wood collection and charcoal making for income, which in turn aggravates the levels of natural resources degradation. In the clusters where pastoral and agro-pastoral systems dominate, land allocation for farming or grazing is commonly done through existing traditional institutions or elders that play role in

enforcing grazing controls, and determine timing and location of movements of livestock. These roles minimize conflicts and over grazing of rangelands. Communal lands and forests are administered by the state in the highlands but mainly by traditional institutions in the lowlands. Livestock production in all of the eight clusters is based on grazing and browsing on communal rangelands.

Almost all clusters are characterized by degraded land. The immediate causes of NR degradation are erratic rainfall and subsequent droughts, overgrazing and excessive extraction of wood/tree for energy (in all clusters), expansion of invasive bushes, weeds and toxic plants on rangelands (in Afar, Siti, Bale and Borena), and expansion of farming to marginal lands and hillsides (in Waghimira and Wolaita). Though not yet identified as a major source of risk by government DR assessment reports, forest fire could also be an important element of risk in Hammer. The underlying drivers of natural resources degradation in all the clusters are:

- population pressure (increase in number of poor people that depend on NRs),
- dependence on individual use of communally owned grazing lands and water points where the responsibility to responsibly and equitably managing them has not been well established, i.e. use right without concomitant responsibility to care for communal resources has resulted in largely unmanaged NRs,
- lack of alternative income generating activities for the youth
- lack of land use policy, national land use master plan and local level land use plan to govern development options and land use changes, and
- institutional failures (e.g. lack of clear and effective tenure system for communal resources; absence or limited presence as well as weak capacity of experts and institutions - GOs and NGOs in NR and DRM in the pastoral and agro pastoral areas are generally weak to discharge their responsibilities in NR and DRM, as they generally fail to enforce existing DRM strategies and NRM rules and regulations.

For more information, see sections 7.2 & 7.3 in the main report on the Situation Analysis of the eight geographical clusters under the EU RESET program.

The DRM assessment conducted by the Government prior to this study revealed that the major disaster risks and the vulnerability factors are broadly similar across the six clusters where livestock production dominates and between Waghimra and Wolaita where crop production is the major component of the livelihood system. Government reports have established that drought, livestock disease and conflict are the three major disaster risks in all clusters. Drought, livestock diseases and crop diseases remain the three major disaster risks in most clusters. As a result, in all of the 8 clusters, vulnerability remains high though variable, and aid types include food aid, food for work, cash for work, facilitating availability of agricultural inputs, etc. Government DR assessment reports indicate that the proportion of food-aid recipient households in a given year ranges from 54% in (Dawe Kechen, Cluster 5) to 83% (in Miesso Cluster 3).

Based on assessment of these risks, DR profile and DR Reduction Planning documents have been prepared by the Federal Government agency for most woredas in the six clusters but for none of the woredas in Clusters 4 and 7. . Most woredas in other clusters have DR profile and DR planning prepared by the Federal DRM Agency. These documents however have not been used in the planning and implementation of NR and DRM undertakings of the sample woredas covered in the study. Besides, most interventions in the clusters focus on relief and on improving access to basic services such as water and health facilities with little or no emphasis on NR and DRM. Unless NR and DRM are mainstreamed and made integral parts of development interventions, building resilience of communities and their productions systems (the socio-ecological system at large) to climate variability and change would simply prove very difficult. For the detail information, see sections 7.5 in the main report on the Situation Analysis of the eight geographical clusters under the EU RESET program.

The situation analyses of the eight cluster areas revealed that the key challenges in NR and DRM are:

- Remoteness/isolated locations coupled with high temperatures and huge climate variability that result in more frequent and severe droughts and severe water and feed shortage
- Increased incidence and regionalization of conflicts that limits mobility
- Reduced mobility and access to resources due to poverty and increased individualization of productive lands, besides conflicts

- The dependence of people on individual use of communally owned and largely unmanaged NRs that are degrading rapidly. Grazing lands in particular suffer from the effects of more frequent and severe droughts and the occurrence and expansion of invasive species.
- Lack of national land use plan to govern development options and land use changes
- Institutional failures (e.g. lack of clear and effective tenure system for communal resources; absence or limited presence of mandated GOs in NR and DRM in the pastoral areas; failure to enforce existing rules and regulations, etc.) to better govern access to and use of communal resources in the lowland areas.
- Short-term, relief focussed, and top down planning practices of GOs and NGOs that failed to actively engage communities and local authorities in the design and implementation of interventions in NR and DRM. Most interventions failed to pay attention to and include components in DR and NRM
- Poor coordination of actors (GOs and NGOs, Federal-regional, CBOs) and their activities
- Knowledge gaps (e.g. on tenure regime that works best for pastoral and agro pastoral settings, on options to better manage the NR-livestock link and the conservation-development trade-offs at landscape level, etc.) and lack of reliable data and synthesis of experiences to inform planning and selection of interventions
- Increased dependence of HHs on relief (aid dependency), weak capacity of communities to cope and adapt to shocks and risks and under developed capacity of institutions and experts, especially at the lower levels of government structure.

On the other hand, there exists fundamental opportunities that can be strategically utilized by actors that attempt to strengthen NR and DRM plans and programs in the clusters and thereby meaningfully build the resilience of the vulnerable communities in the cluster areas. These include:

- Presence of research and development institutes that could assist in filling knowledge gaps and also facilitating co-learning and policy dialogue with key decision makers (e.g., EDRI, CG Centers, national think-tanks that could be mobilised to assist. International research centres (CIFOR, ICRAF, ILRI, IWMI, IFPRI, etc.) and national institutes (EEFRI, EIAR, EDRI, EEA, & Universities) could support the efforts of GOs and non-state actors in collating, building and sharing knowledge in NR and DRM to better design interventions in drought prone areas.

- Government policies and development strategy – CRGE, GTP, DRM strategy, etc.
- Rivers and underground water potentials as well as labour to exploit opportunities for irrigation based farming by targeting mainly drop outs from pastoral and agro pastoral systems
- The presence of traditional institutions that govern access to and use of natural resources, notably water and land, that are used communally. These institutions can assist efforts in:
 - Mapping mobility patterns of pastoral and agro pastoral communities to better inform the selection of lands for irrigation based agriculture and to minimize conflicts between pastoralists and farmers
 - Mobilizing the communities to better manage their rangeland resources (e.g. in controlling bush encroachment, over grazing, excessive tree cutting, etc.)
 - In identifying areas for fodder banks and negotiating their regulated uses to minimize over exploitation and to reduce conflicts
 - Creating mechanism to identify interventions that better meet the needs of communities while also ensuring community engagement and participation in their selection and implementation to reduce dependency on aid.
- Increased presence of NGOs and government offices in charge of NR and DRM at Regional, Zonal and district levels and in some cases committees at kebele levels.
- Growing knowledge base on the advantages and limitations of traditional institutions in conflict and NRM
- Increased technical capacity in GIS and remote sensing to track changes in LULC and progress in science to better predict weather patterns and forecast occurrence of drought and floods
- Presence in the country of UN agencies, bilateral and multilateral development partners.

In light of the challenges and opportunities discussed above, identifying and addressing major gaps is necessary. The desk review and field level assessment pointed at the following major gaps as important elements that need to be factored in planning NR and DRM programs and their components. Unless the following gaps are addressed through well thought measures, they will continue to undermine efforts to build resilience of the socio-ecological system in general and in improving NR and DRM in all clusters in particular. The major gaps are highlighted below.

- The clusters are located in areas that are predicted to be affected most by climate variability and change. Yet the information that key actors have on the extent of changes in land use and land cover and the implication of this on desertification is extremely low. NR degradation (especially expansion of bare lands and invasive species, shrinkage of grasslands, forests and woodlands) compounds and further aggravates climatic impacts. By significantly reducing availability of livestock feed, NR degradation becomes a major threat for livestock based livelihoods in all clusters. The level of awareness of communities and experts as well as donor agencies regarding the extent of LULCC and its implications in sustaining lowland livelihoods needs to be upgraded urgently.
- Inadequate experience in and little emphasis on measures to improve the feed resource base in particular and to conserve and build the natural resource base in general.
- Limited capacity of experts at zonal, district and lower levels (i) to make use of available knowledge and information in planning and implementation of interventions in NR and DRM, (ii) to improve productivity and build resilience in the pastoral and agro pastoral systems, and (iii) to design and implement long term development interventions
- Lack of clarity on the use of the concept of carrying capacity in drought prone areas. Using the conventional concept of carrying capacity (the number of people, animals or crops a region or an area can support) in most of the clusters will prove difficult as primary/feed production shows huge intra- and inter-annual variability to allow meaningful carrying capacity estimation. Instead the use of opportunistic carrying capacity is suggested which allows stocking densities to vary overtime and space to make maximum use of seasonally available vegetation and water while also accepting need to periodically destock or suffer losses.
- Inadequate efforts to promote collective action of lowland communities in NRM. Despite years of experiences in mobilising tens of millions of people for soil and water conservation works and for tree planting initiative in the highlands, experiences are lacking on opportunities and challenges to do so in the lowlands
- Lack of clarity on the use and management rights/tenure of communities in the lowlands on communal resources such as forests and grazing lands. It appears that the official narrative of state ownership of these communal resources and the *de facto* authority of traditional institutions in governing access to and use of these resources co-exist. As a result, we continue

to see institutional gaps or overlaps (e.g. government and traditional institutions) in governing access to and use of NRs in lowland areas where grazing on communal lands.

- Little recognition to the need for rethinking and diversifying development pathways in pastoral and agro pastoral areas by GOs and development partners as the focus seems to have been concentrated mainly on promoting settlements and irrigation based farming by the government and mainly on improving access to basic services such as food and water by development partners.

For the detail information on gaps & opportunities in NRM & DRM, see sections 9.3 in the main report on the Situation Analysis of the eight geographical clusters under the EU RESET program.

3.3.2. Strategic options to improve NRM and DRM for resilience building

The natural resources-population links in the clusters and the likely impacts of climate variability and change in these areas are poorly understood. Better understanding of the population-environment link, and identifying and addressing knowledge gaps and institutional and human resources capacity related challenges in building resilience of communities and their ecosystem is critical to identify and implement effective and efficient NR and DRM interventions in the eight clusters. Unless relevant NR and DRM measures have been identified, and mainstreamed to make them integral parts of development plans and interventions, building resilience of communities and their productions systems (the socio-ecological system at large) to climate variability and change would simply prove very difficult. This calls for **bridging the research-development-policy gap by also bringing in academia and research institutions into the equation**. This is critical to assist efforts to identify diverse development options tailored to different contexts of districts in the eight clusters and meet the needs of the different segments of the local community.

Also re-thinking the resilience framework and intervention options in the EU RESET needs to be considered to better build the natural resource capital (the production/ ecosystem) on which livelihoods of millions of pastoral and agro pastoral communities depend. The focus thus far has been mainly on improving access to basic needs of communities, mainly to water, health and education. EU RESET also needs to identify and pilot NRM-based, targeted and integrated development projects to effectively build resilience of socio-ecological systems. **The focus on**

people and access to services need to be broadened to also work on responsible use of natural resources and on building the natural capital supporting people's livelihoods in the eight clusters. In this regard, Sustainable Natural Resources Conservation and Utilization programs such as community based watershed development that fit to the situations in lowland areas of the country needs to be designed in a participatory way, pilot tested and scale up; potable water and irrigation schemes need to be developed being preceded with careful land use planning; ensuring complementarity of customary and official NRM schemes and participatory land use and NR and DRM practices all linked with good practices and principles of sustainable NRM are strongly suggested.

Besides, in disaster risk management, major strategic direction should include how best to use the experience and resources of the productive safety net program to building the NR capital. Also need to strengthen capacity for improving the early warning system (making information accessible and up-to-date) and explore options for enhancing food and nutritional security, and exploring options for improving access to and relevance of rural credit schemes that enable households to protect and build assets. Longer term perspectives should also work on establishing risk insurance system that contributes to better managing the natural resource base and building climate resilient green economy. It is therefore essential to strengthen community managed DRR practices and principles and build effective links between incentives and efforts to better manage ecosystems in these drought prone areas, and link these initiatives to national climate change adaptation action plans on one hand and with community contingency DRM plan on the other. Accordingly, the following key strategic directions are suggested to support efforts of the EU RESET to building the resilience of socio-ecological systems in the clusters, i.e. to go beyond emergency relief and work towards building resilience of socio-ecological systems.

- Helping national and regional efforts to develop land use policy and land use plans. The absence of national and regional land use policy and land use plan is a major limitation to inform in long term development planning in most of the clusters.
- Initiating national and regional NR inventory and LULC change monitoring systems. The level of changes in the natural resource base, notably forests, woodlands and grasslands over the past two decades is alarmingly high. National initiatives to document and monitor changes in vegetation cover and land use changes and identify and address the main drivers are needed.

- Supporting coordination and complementarity of interventions – Various initiatives are going on with little or no vertical and horizontal coordination and cross-learning to ensure synergy and complementarity. Sectoral programs (in water, agriculture, livestock, forestry, etc.) are initiated and implemented. Efforts are needed to make sure that these sectoral initiatives are complementary to each other and would not undermine the long term adaptive capacities of communities and their ecosystems.
- Building capacity at different levels, notably at district (woreda) level – the attempts to build DRM and NRM capacity especially at district (woreda) and kebele levels by the government remain inadequate and fragmented. The capacity of GOs and committees in charge of NRM and DRM for early warning (droughts, floods), conflict and NRM and DRM at different levels are extremely low and should be built systematically. At district level capacity to ensure community participation in project planning, implementation, monitoring and evaluation needs to be emphasised.
- Addressing issues of land tenure. Unlike the case of the highland areas where farming dominates and ensuring tenure security is believed to be critical to encourage investment in land and other natural resources management, the situation in pastoral and agro pastoral areas where livelihood is largely dependent on mobility and accessing resources in wider areas, careful assessment is required to identify areas and conditions where formalization and individualization of tenure (i.e. allocating common property resources to individual users) would work. Further studies are needed where and under what conditions we need maintain the status quo (keeping communal use and access).
- Piloting community based rangeland management programs (e.g. developing a sustainable natural resources management in the lowlands, a program that is informed by the experience of SLM in the highlands but adapted to be relevant to prevailing situations in the lowlands), designing special programs to combat desertification and bush encroachment that prevail in certain clusters, and learning from landscape level NRM projects such as the Bale-Ecoregion project are suggested.
- Supporting livestock farming to prosper. This can be done through:
 - Improving fodder resources availability – production, conservation and use
 - Improving veterinary services to reduce incidence and impacts of diseases

- Working to improve livestock marketing systems including export markets and market infrastructure
 - Reducing barriers to mobility - (mapping mobility routes and seasons; reducing and managing conflicts; and
 - Building capacity to move and wisely use seasonally available resources in wider areas with due consideration of the environment. In most clusters mobility is critically needed.
 - But government emphasis has been on promoting settlement and crop based farming. This needs to be planned carefully so that it will not significantly and negatively affect the patterns of mobility as doing so will in turn reduce possibilities to use seasonally available water and fodder from wider areas.
- Assisting food and fodder crop farming initiatives and irrigated agriculture to succeed only in areas where they should be. This may focus for example on improving water use efficiency, reducing risks of salinity, controlling pests, and promoting fruits and vegetables production for consumption and for markets while also producing by-products for livestock feed.
 - Exploring options to ensure complementarity of roles of GOs and traditional institutions in (i) planning and implementing conservation works on communal natural resources, and (ii) ensuring equitable access to and responsible use of communal natural resources, notably communal grazing lands and water sources
 - Working with elders, traditional institutions and CBOs to mobilise the communities to better manage and responsibly use their forests and woodlands and particularly the rangeland resources (e.g. in investing for controlling bush encroachment, over grazing, excessive tree cutting, ..) and in identifying areas to be used as fodder banks
 - Integrating relief/immediate needs support with long term/NRM based activities. Working with CBOs, local authorities and NGOs to use aid and relief support for NRM (based on the experiences of PSNP, FFW and Cash for Work, and the experience of Save the Children in Cluster 3) and exploring options how NRM work can also be linked with Government schemes to creating employment opportunities for the youth are areas worth exploring
 - Diversifying livelihood options – training for non-farm activities (to reduce dependence on livestock and on charcoal making) is helpful to reduce people’s dependence on agriculture and exploitation of NRs for livelihoods

- Building capacity of local GOs and CBOs as well as NGOs to design more effective adaptive strategies in general and cross sectoral plans and programs/projects in particular. Programs/Projects need to be designed to quickly collate and repackage existing knowledge (in agriculture and in NRM in drought prone areas) and available capacity (e.g. in GIS and remote sensing) to inform and engage communities, mandated GOs and interested NGOs as well as local authorities and private sector actors to make informed decisions by policy makers and planners in the clusters. The lessons drawn from these clusters can be reviewed and scaled up nationally through a national platform/mechanism to better integrate planning, implementation, and M&E of projects and programs and to promote learning at institutional and expert levels regarding processes and outcomes of interventions.

Indicators: in designing interventions to strengthen NRM and DRM work in the clusters, the use of some general indicators is helpful. Definitely, such indicators need to be based on a baseline data so that changes can be measured with reasonable confidence. The following indicators are suggested to be used to monitor progress and to assess impacts of interventions in building resilience of socio-ecological systems in the eight clusters:

- Number of woredas using DRR planning report to plan interventions
- Percentage of land, forest area, water points, etc. put under improved management
- Area of vegetation cover (in line with the prevailing land use system) while also considering the need for managing invasive species
- Proportion of HHs that are food secure
- Proportion of food insecure HHs that have built asset and coping capacity
- Capacity built to better forecast and manage disaster, and to specifically plan, implement, monitor and evaluate programs in NR and DRs at different levels.

Piloting of these proposed measures and strategies to get them implemented can be initiated/led or facilitated and overseen by a coalition of national and international research centres with expertise in NRM, livestock, crop, water, and policy dialogue.

3.3.3. Summary of strategic options for NRM & DRM

The sections below provide summary of most relevant interventions that EU RESET program should give priority in NRM and DRM and the role that research and academic institutions could play if they join efforts to identify options that help build resilience and coping capacities of communities and their landscapes in the EU cluster areas.

Major strategic options to improve the NRM

Taking into account the opportunities and challenges as well as the prevailing gaps in NRM, the priority areas to improve NRM and build livelihoods and the resilience of the socio-ecological system are:

- documenting land use and land cover changes over time to have accurate information on the drivers and extents of changes and their likely impacts on communities and their ecosystems to identify hotspot areas where interventions are urgently needed;
- reviewing existing experiences, identifying effective ones and filling in the knowledge gap in NRM in the dryland areas of Ethiopia;
- generating and piloting natural resources conservation and sustainable utilization models that are tailored to the agro-ecological and socio-cultural specificities of the clusters
- identifying NRs (e.g. rural land, forests, water) governance scheme that carefully marry the roles and responsibilities of GOs with those of traditional institutions;
- identifying tenure systems that are suitable to the contexts of the cluster areas and could help achieve conservation and development objectives in equitable and efficient way;
- supporting initiatives to have land use plan that would guide development efforts;
- identifying areas where farming could be promoted in a way and in locations that does not undermine mobility of pastoralists and agro pastoralists, and hopefully produce fodder either as a product or a by-product;
- identifying and addressing barriers to mobility of pastoral and agro pastoral communities to reduce conflicts and the occurrence and severity of NR degradation due to extended stay of large number of livestock in a given area;
- exploring options for integrating relief/immediate needs support with long term/NRM based activities; and

- ensuring that development interventions also contribute to women’s empowerment through improved access to and control over natural resources.

Major strategic options to improve DRM for resilience building

- building capacity of institutions and experts in order (i) to improve early warning system and making information up-to-date and accessible to users on the ground, so that experts will use existing knowledge and information in designing DRM action plans, and (ii) to creatively link resources from productive safety net program with NR and DRM;
- reducing conflicts and other factors that hinder mobility;
- reducing risks to agriculture – these should focus on (i) taking appropriate measures to reducing major livestock production risks – e.g. disease outbreaks, price shocks, etc. (ii) making agriculture climate smart - using species and varieties that cope with environmental stress, reducing crop production risks (e.g., managing diseases and pests, use of proper irrigation system and less water to reduce salinity of land, diversifying crops to reduce risk, to contribute to livestock feed, to human nutrition and to market demands); and (iii) supporting voluntary settlement programs targeting mainly those that cannot be mobile and are willing to switch to settled farming based livelihoods; and
- piloting context specific credit and risk insurance system that would help household not to lose much assets in times of disaster.

All these need to be supported by research institutions to document local knowledge, review on-going and past development initiatives, identify effective practices that need to be scaled out, and to point out enabling conditions for scaling up (e.g. coordination, technical and logistical capacity, etc..). Thus it is advisable to engage academic and research institutions in identifying options that work for people and the ecosystem. They should contribute in efforts to jointly identify and pilot improvement options as the NRM and DRM are complex and cross-sectoral in nature. Areas where specific research areas are needed include:

- (i) assessing the strengths and weaknesses of current NRM practices;
- (ii) searching tenure and other incentive systems that work for these areas so as encourage lowland communities to invest in NRM;

- (iii) understanding how mobility (short and long term migration of youth from or to the cluster) and links with markets and urban areas are affecting production systems in terms of labour, gender, cash flows and asset build up;
- (iv) options to increase livestock feed and feed reserves at community and household levels;
- (v) options to mobilise communities in rangeland management and incentives and challenges to do so;
- (vi) options to link food security and relief efforts with long term NRM undertakings;
- (vii) options as to how irrigation based (smallholder or commercial) farming and other private sector activities can be linked to supporting livestock production in terms of producing fodder as well (either as a product or as a by-product, ..) and marketing of products from cluster; and
- (viii) scenario analysis under different environments considering climatic, policy and technological changes and their implications for resilience.

Table 3: Cluster specific proposed interventions to build resilience through improving NRM and DRM

	Gaps	Proposed Strategic Interventions	Focus Clusters
1	Growing trend of individualization of communal resources (e.g. grazing lands and woodlands)	<ul style="list-style-type: none"> ➤ Addressing issues of tenure. We need to identify areas and conditions where formalization and individualization of tenure would work for the people and the resources base and areas and conditions where maintaining the status quo (keeping communal use and access) will be a better option. ➤ Working with elders, traditional institutions and CBOs to mobilize the communities to better manage and responsibly use their rangeland resources (e.g. in investing for controlling bush encroachment, over grazing, excessive tree cutting, ..) and in identifying areas to be used as fodder banks. The presence of traditional institutions that govern access to and use of natural resources that are used communally is an opportunity; 	All Clusters except 1 and 7
2	Little efforts to improve livestock feed resources, the vegetation cover on the landscapes, and the natural resource base at large notably rangelands that support livestock production	<ul style="list-style-type: none"> ➤ Piloting community based rangeland management programs (equivalent of SLM in the highlands), and designing programs to combat desertification and bush encroachment ➤ Assisting food and fodder crop farming initiatives and irrigated agriculture to succeed only in areas where they should be (to reduce conflicts with pastoralists). Farming in the dryland areas should focus on improving water use efficiency, reducing risks of salinity, controlling pests, and promoting fruits and vegetables production as well, both for local consumption and for markets ➤ Improving fodder resources availability – production, conservation and use ➤ Improving veterinary services to reduce incidence and impacts of diseases ➤ Working to improve livestock marketing systems including export markets 	All clusters
3	Little information on effectiveness of traditional institutions in allocating resources and supporting rehabilitation efforts.	<ul style="list-style-type: none"> ➤ Working with elders, traditional institutions and CBOs to mobilise communities to better manage and responsibly use rangeland resources (e.g. investing in reducing bush encroachment, over grazing, excessive tree cutting,..) and in identifying areas to be used for farming, for seasonal grazing, as fodder banks, etc. The presence of traditional institutions that govern access to and use of communal resources is an opportunity; ➤ Addressing issues of tenure. We need to identify areas and conditions under which the role of traditional institutions is effective and areas and conditions where support to making changes is needed. 	Clusters 2, 3, 5, 6 and 8

	Gaps	Proposed Strategic Interventions	Focus Clusters
4	Fragmented and inadequate attempts to build DRM capacity at zonal, district and Kebele levels	<ul style="list-style-type: none"> ➤ Building capacity of GOs in some cases at Regional but mostly at Zonal, district and Kebele levels is necessary so that GOs, CBOs as well as NGOs could jointly design, implement and evaluate projects. Projects need to collate and repackage existing knowledge (in agriculture and in NRM) and available capacity (e.g. GIS and remote sensing) to also inform and engage communities, local GOs and NGOs to make informed decisions at different levels. The lessons drawn from these clusters can be reviewed and scaled up nationally through a national platform/mechanism to better integrate planning, implementation, and M&E of processes of projects in NR and DRM. ➤ Exploring options to ensure complementarity of roles of GOs and traditional institutions (i) in planning and implementing conservation and enhancement works on communal natural resources, and (ii) in ensuring equitable access to and responsible use of communal natural resources, notably forests, woodlands and grazing lands ➤ Strengthening coordination and capacity. The DRM strategy of the government provides platform for encouraging coordination among actors. It lays the foundation for building capacity for early warning systems at lower levels of the government structure. Thus efforts are needed to improve coordination of actors engaged in building resilience and coping capacities of communities. In this regard, Woreda level DSRM plans and structures could lead initiatives to making such links and pilot such explicit links. They also facilitate to respond to the growing call for multi-faceted approach targeted to the different segments of pastoral and agro pastoral communities. ➤ Diversifying livelihood options – training for non-farm activities (to reduce dependence on livestock and on charcoal making ➤ Increased capacity to predict weather patterns and forecast drought and floods as well as improved communication networks (e.g. mobile network coverage and use) could be used to convey information to users quickly and cheaply. ➤ Rivers and underground water potentials as well as labor to exploit opportunities for irrigation based farming for drop outs form pastoral and agro pastoral systems ➤ Availability of health, extension and credit service providing institutions closer to communities would particularly support agriculture and livelihood diversification efforts, and hence potentially reduce dependence on livestock production alone and on exploitation of NRs ➤ Increased presence of GOs and offices in charge of NR and DRM at Regional, Zonal and district levels and in some cases committees at Kebele levels is an opportunity to making the links and support coordination at the grassroots level. 	All clusters

	Gaps	Proposed Strategic Interventions	Focus Clusters
5	Little attention to ensuring mobility reduces possibilities to use seasonally available water and fodder on wider areas	<ul style="list-style-type: none"> ➤ Reducing barriers to mobility - (mapping mobility routes and seasons; reducing and managing conflicts; and building capacity to move and use seasonally available resources in wider areas is critically needed. In most clusters mobility is being curtailed for various reasons. But government emphasis has been on promoting settlement and crop based farming. This is reportedly affecting patterns of mobility which in turn reduces possibilities to use seasonally available water and fodder from wider areas. 	Clusters 2,3,4,5,6 and 8
6	Limited effort to make explicit links between food security (PSNP, HABP) and natural resources management	<ul style="list-style-type: none"> ➤ Integrating relief/immediate needs support with long term NRM activities. ➤ Working with CBOs, local authorities and NGOs to use aid and relief support for NRM (based on the experiences of PSNP, FFW and Cash for Work) and exploring options how NRM work (e.g. the experience of Save the Children in Cluster 3) can also be linked with Government schemes to creating employment opportunities for the youth 	All clusters
7	Planning is not informed by knowledge on the status and changes of the natural resources base	<ul style="list-style-type: none"> ➤ Existing national and international capacities can help generate spatial and temporal maps on the resource base and on options to improving management and sustainable use of NRs in the cluster areas 	All clusters
8	<p>Lack of adequate knowledge on the following:</p> <ul style="list-style-type: none"> ➤ status of NRs base, the extent of land use changes and their implications to livelihoods ➤ Options for managing NR and DR; ➤ to better manage the NR-livestock link; how to provide complementary roles for GOs and traditional institutions in managing access to and use of NRs. 	<ul style="list-style-type: none"> ➤ Initiating national and regional resource inventory and change monitoring systems. The level of changes in the natural resource base, notably forests, woodlands and grasslands over the past two decades is alarmingly high. National initiatives to monitor changes and identify and address drivers is critical. ➤ Helping national and regional efforts to develop land use plans. The absence of national and regional land use plan is a major limitation to inform the long term development planning in most of the clusters. The presence in the country of international research centers (CIFOR, ICRAF, ILRI, IWMI, IFPRI..) and national institutes (EEFRI, EIAR, EDRI, Universities, ..) that could support the efforts of GOs and non-state actors in collating, building and sharing knowledge in NR and DRM is an opportunity; ➤ Increased capacity to predict weather patterns and forecast drought and floods as well improved communication networks (e.g. mobile network coverage and use) that could be used to convey information to users quickly and cheaply. 	All clusters

	Gaps	Proposed Strategic Interventions	Focus Clusters
9	Conflicts fueled by resource limitations and in some cases taking regional dimensions	<ul style="list-style-type: none"> ➤ Growing knowledge base on the advantages and limitations of traditional institutions in conflict management though this needs to be further strengthened. ➤ In some clusters there have been efforts to establish peace committee and in others to actively engage elders and traditional institutions in conflict management. The merits and challenges of these need to objectively studies and options to scaling out the experiences carefully assessed. ➤ Improving availability of water and feed resources helps reduce conflicts ➤ Options to seek complementary roles of traditional and formal institutions in preventing and quickly and effectively resolving conflicts need to be explored further 	Clusters 2, 3, 5, 6
10	Women in most clusters have little control over assets with major values, including privately managed lands.	<ul style="list-style-type: none"> ➤ GTP II targets to develop women through empowerment and participation. This could ensure their benefits through improving equality of education, ensuring land use right of all female headed households, etc. 	All clusters except 1 and 7.

3.4. Governance

3.4.1. Gaps and opportunities

The starting framework for any interventions to build resilience is the policy framework and the governance system in the country, in general, and in the eight RESET cluster areas, in particular. In this regard, the review of the policy, institutional as well as the organizational arrangements related to resilience in the country in general and the eight EU RESET cluster areas in particular revealed that there are important gaps that hinder the effective implementation of interventions. The existing policies and institutional arrangement are the fundamental framework that guide the identification and implementation of interventions to build the resilience of the vulnerable communities. In this respect, the overall policy framework that derives the development agenda of the government and informs plans to build a middle income country by 2025 and significantly reduce poverty and attain food security is an opportunity. The different sectoral medium term plans are also key strategic issues that guide the interventions to build resilience in the cluster areas.

At local level, the presence of traditional institutions that govern access to and use of natural resources that are used communally could inform and support efforts in mapping mobility patterns of pastoral and agro pastoral communities to better inform the selection of lands for irrigation based agriculture and to minimize conflicts between pastoralists and farmers. Such institutions can also help in mobilizing the communities to better manage their rangeland resources (e.g. controlling bush encroachment, over grazing, excessive tree cutting, etc.); in identifying areas for fodder banks and in negotiating their use patterns to help reduce conflicts; in identifying interventions to meet the needs of communities while also conserving the NR base by ensuring community engagement. In the long run, all these would help improve the NR base, the local economy, and thus reduce dependency on aid.

For the detail review on policy and institutional arrangement related to resilience building, see section 8 of the main report on the situation analyses of the eight geographical clusters under the EU resilient building program.

On the other hand, there are key institutional and governance gaps that hinder the effective implementation of programs and intervention. In this regard, the policy and institutional gaps that link across the different thematic areas include the following:

- Lack of scientific knowledge in policy priority to link livelihood/agriculture and nutrition and health for resilience building based on country/region specific context.
- Lack of strategy to link food security programs such as PSNP, HABP with NRM.
- More sector specific programs that have specific targets of achieving development outcomes; and complementarities among different sectoral programs remain limited.
- Lack of plans/programs designed based on agro ecological and socio-economic settings of the eight clusters.
- Absence of targeted program coverage for integrating of agricultural production, for nutrition security especially for women and children that simultaneously improve the resilience of vulnerable communities.
- Perceived dependency of communities on food aid and relief oriented interventions of NGOs and top down planning of government structures.
- Weak coordination or weak linkage among the different sectoral offices, which led to very loose linkage among livelihood strategies, nutrition and health programs.
- Weak leadership capacity particularly in **the primary healthcare facilities governing boards in all cluster areas**. The Ethiopian health policy promotes democratization and decentralization of governance system in health. In line with the health policy the primary healthcare facilities are governed by governing boards that are organized from various stakeholders and the communities that provides strategic leadership to the primary healthcare facilities. **The primary healthcare facilities governing boards** at EU RESET clusters have gaps in providing strategic leadership to primary healthcare facilities that will impact them in utilization of internal resources for improving availability of drugs and supplies as well as providing quality health service.
- Poor health information management system: The **health information management system** (HMIS) is a key area in improving the health of the society in providing evidence for health system governance structures at all levels to make evidence based decision making. In the EU RESET clusters gaps on health information management system was identified particularly on availability of complete health information and data quality during situation analysis data collection. This was further demonstrated with big discrepancies observed in program data reported through health information management

system (HMIS) and demographic and health survey (DHS) findings that are conducted every five years by central statistics agency.

- Low capacity to harmonize and utilize existing opportunities in planning and implementing programs that have cross sectoral impact at local levels.
- Weak implementation capacity of programs at federal, regional and woreda levels in terms of skilled manpower and adequate financial and material resources.
- Limited participation of local communities in problem identification, planning, and implementation and monitoring of relief and development interventions.
- Lack of national research capacity on the link between resilience, on the one hand, and livelihood, health and nutrition, on the other hand. Limitation in national research capacity also relates to understanding and managing the links between livelihood strategies, and health and nutrition on one hand and between livestock/agriculture and natural resources management and use particularly in the pastoral and agro-pastoral areas on the other hand.
- Insufficient awareness on or understanding of the concept of resilience

For the detail review on gaps in policy and institutional arrangement related to resilience building, see section 9.4 of the main report on the situation analyses of the eight geographical clusters under the EU resilient building program. The following section presents the strategic options to improve governance system for the effective implementations of the interventions proposed to build resilience in the eight geographical areas of EU RESET program.

3.4.2. Strategic options to improve governance system for resilience building

Resilience-enhancing food-security, health and nutrition policies and programs are highly context specific. Lack of good governance often limits the range of feasible policy options. For instance, improving the participation of local communities in decision making, improving accountability and transparency are very crucial. Besides, programs/interventions related to resilience building by their nature require multi - disciplinary and multi - sectoral agencies. Therefore, not only that appropriate resilience oriented policies are required but also that building functioning and effective institutions and organizations is essential to formulate appropriate and target – oriented interventions, and effectively implement them. In this regard, the following major strategic

directions are proposed to effectively implement the proposed strategic options and thereby build the resilience of the vulnerable communities in the EU RESET cluster areas.

3.4.2.1. Promote and support harmonization of the various sectoral strategies and programs

Since issues of resilience cut across many sectors, resilience has a multi sectoral dimensions. Currently the various sector ministers include programs that directly or indirectly have influence on the resilience of the vulnerable communities. The strategies, programs and interventions in the various sectors should be harmonized. Towards this, EU RESET should promote and support interventions that establish harmonization in the programs. Joint planning and budgeting can help to improve harmonization across sectors. For instance, this study revealed that most woredas in the six clusters have DR profile and DRR Planning documents but these documents have not been used in the planning and implementation of NR and DRM undertakings. It is, therefore, important that NR and DRM activities are mainstreamed and made integral parts of development interventions if we aim at building resilience of communities and their productions systems (the socio-ecological system at large) to climate variability and change in the clusters. This requires re-thinking the resilience framework and intervention options in EU RESET needs to be considered to better build the natural resource capital (the production/ ecosystem) on which livelihoods of millions of pastoral and agro pastoral communities depend. The focus on people and access to services need to be broadened to also work on responsible use of natural resources that are supporting people's livelihoods. The entry point can be the Ethiopian National Planning commission and the Disaster Risk Management Agency at federal level and the corresponding offices at regional and local levels.

3.4.2.2. Strengthen coordination capacity

The various programs that are related to resilience need to be effectively implemented. These can be possible if and only if the different sector offices at federal, regional and local level implement the programs in a well-coordinated system. Coordination should be strengthened at all levels of government, down to the woreda level, as well as among donors and NGOs, and such coordination should direct efforts toward common targets.

There is huge capacity gap in formulating, implementing and monitoring and evaluation of programs related to resilience building at all levels, and the gap is worse particularly at regional,

local and household level. The gaps are all along the chains of resilience building including knowledge, financial, institutional and organizational capacity. Implementing policies, strategies and programs will require not only financial support from international partners but also strong institutional and organizational capacity to manage and coordinate the program/interventions. In this regard, it is essential to support the governance system at different levels towards addressing resilience building. This is particularly true for improving coordination and better management of the different stakeholders at local (woreda) level. It is, therefore, strongly advisable for EU RESET program to strongly support interventions that build the capacity of the key stakeholders at all levels. One of the key strategic direction to effectively implement policies, programs and interventions to build resilience in all cluster areas should be to promote and support interventions that strengthen inter-sectoral and also intra-sectoral coordination at federal, regional and local level. Besides, improving the capacity of the governing body such as the board in healthcare financing, performance management and accountability mechanisms need to be given priority. In this case, it is advisable to support interventions that strengthening inter-sectoral coordination and collaboration at the community, woreda, zonal and regional levels for effective implementation of the health sector transformation plan.

3.4.2.3. Promote and support interventions that enhance implementation and accountability for building resilience

Issues of resilience cut across many sectors. The country already formulated key programs that aim to build resilience in the country including the EU RESET cluster areas. However, their implementation is very low. There are various reasons for the poor implementations including, among others, lack of capacity, poor integration, poor coordination and lack of accountability. One of the reasons for poor performance is lack of accountability. It is, therefore, strongly advisable for EU RESET to promote and support interventions that improve the implementation of the strategies including accountability at all levels including at federal, regional and local levels. In terms of improving the governance system in formulating, implementing and monitoring interventions that build resilience of vulnerable communities at local level, it is advisable to strategically support a decentralized and community-based DRM System. In this respect, EU RESET should aim to strategically strengthening people's participation along all development processes starting from the planning of the interventions up to monitoring and evaluation. In this respect, it is also advisable that capacity building interventions that build and enhance the capacity

of woreda and kebele councils are given due emphasis. Experiences in Ethiopia with mainstreaming issues of gender and HIV across sectors can provide examples for doing so with resilience.

3.4.2.4. Fill data and knowledge gaps

The situation analyses result revealed that several important knowledge and research gaps remain in the context of resilience. For instance, there are data gaps in some of the basic indicators of resilience such as gender-disaggregated and intra-household data, on the health and nutrition as well as access to basic resources such as land and livestock by gender, etc. The gap must be filled in order to generate evidence to inform appropriate policies and programs for resilience. For instance, the capacity for improving the early warning system by making information accessible and up-to-date must also be strengthened. It is, therefore, important to strategically work towards collecting data on gender-disaggregated resilience information, nutrition as well as resource access so that it is possible to track changes and assess the impacts of different interventions for building resilience. This will help not only to make informed decision but also to make adjustments before huge costs are incurred on activities that have little effect on resilience building.

Collecting and recording data on the livelihood, health and nutrition aspects of resilience building will also help to design feasible monitoring and evaluation systems that provide continuous feedback mechanisms to inform programs at all levels. This requires feasible institutional and organizational arrangements that create better systems to share data, knowledge, and lessons learned among all stakeholders including donors like EU, government organizations, and research institutions. Therefore, it is strongly advisable for the EU RESET program to promote and support interventions that collect, analyze information, evaluate the impact of interventions and disseminate the findings. Besides, interventions that focus on building the capacity of institutions to collect & analyze data including the health information management system, early warning related data, etc need to be given priority.

Moreover, the vulnerability to disasters can be substantially reduced if the population is well informed and motivated towards a culture of preparedness for mitigating impacts of disaster and resilience building. This task requires, among other things, the collection, compilation and

dissemination of relevant knowledge and information on hazards and vulnerabilities as well as stronger capacities. The situation analyses also revealed that there is critical knowledge gap in the linkage between resilience building, on one hand, and the livelihood, health and nutrition as well as the natural resource and disaster risk management, on the other hand. This knowledge gap exist since there are no any systematic scientific studies on the linkage. In this respect, research is required to fill the gap particularly on how to address malnutrition not only through access to food but also change in the behavior of households towards creating demand for nutritious food. Besides, better understanding of the population-environment link, and identifying and addressing knowledge gaps and institutional and human resources capacity related challenges in building resilience of communities and their ecosystem is critical to identify and implement effective and efficient NR and DRM interventions in the eight clusters. To this end, the research-development-policy gap must be bridged by bringing in academia and research institutions to work with planners and policy makers as well as with development agencies. Moreover, there are knowledge gaps in empowering women given the prevailing cultural and religious settings. In this regard, it is strongly advisable for the EU RESET program to support applied research works that generates evidence based strategic options that effectively builds resilience in the cluster areas. Such interventions may include, but not limited to, researches that focus on conceptual linkages between resilience & the four EU RESET thematic areas, fundamental or underlying drivers of vulnerability, challenges of the rural youth and women including drivers of migration and skill development that increase their economic opportunities as well as the institutional arrangements that create effective implementation mechanism given the multi-sectoral & multidisciplinary nature of resilience.

Finally, in terms of knowledge management, the lessons drawn from these clusters can be reviewed and scaled up nationally through a national platform/mechanism to better integrate planning, implementation, and M&E of projects and programs and to promote learning at institutional and expert levels regarding processes and outcomes of interventions.

3.4.4. Summary of strategic options in governance

This section summarizes the gaps and strategic options with respect to the governance issues including the policy, institutional & organizations aspects of resilience. The fundamental gaps related to governance include poor planning, lack of synergies among the various resilience related

interventions, weak coordination among various sectors, low implementation capacity and lack of accountability at all level as well as lack of information and knowledge on the linkage among the various thematic areas related to resilience building. Thus, the important strategic issues proposed by the study focuses on interventions that aim to improve harmonization of the various sectoral strategies and programs; strengthen coordination capacity; enhance implementation capacity and accountability for building resilience as well as research that fill data and knowledge gaps.

With respect to harmonization, since issues of resilience cut across many sectors, resilience has a multi-sectoral dimensions. Currently various programs are being implemented in all cluster areas that directly or indirectly have influence on the resilience of the vulnerable communities. However, there is lack of harmony among the various programs. The strategies, programs and interventions in the various sectors should be harmonized. Towards this, EU RESET should promote and support interventions that aim to improve harmonization of the various sectoral strategies and programs. Joint planning and budgeting can help to improve harmonization across sectors.

There is huge capacity gap in formulating, implementing and monitoring and evaluation of programs related to resilience building at all levels, and the gap is worse particularly at regional, local and household level. Lack of capacity, poor integration, and lack of accountability are among the key reasons for poor implementation. It is, therefore, strongly advisable for EU RESET to promote and support interventions that improve the implementation of the strategies including accountability at all levels including at federal, regional and local levels. Some of the proposed strategic options that aim to enhance the implementation capacity and accountability include, but not limited to, improving human resource development, information system, and supporting the private sector to engage in the value chain of resilience related interventions. Besides, in relation to improving the governance system in formulating, implementing and monitoring interventions that build resilience of vulnerable communities at local level, it is advisable to strategically support a decentralized and Community-Based System. In this respect, EU RESET should aim to strategically strengthening people's participation along all development processes starting from the planning of the interventions up to monitoring and evaluation. In addition, it is also advisable that capacity building interventions that build and enhance the capacity of woreda and kebele councils are given due emphasis.

The various programs that are related to resilience need to be effectively implemented. These can be possible if and only if the different sector offices at federal, regional and local level implement the programs in a well-coordinated system. Coordination should be strengthened at all levels of government, down to the woreda level, as well as among donors and NGOs, and such coordination should direct efforts toward common targets. Accordingly, it is strongly advisable for EU RESET to support interventions that strengthen coordination among the various actors including government, donors, NGOs at all levels. In addition, it is also advisable to support interventions that focus in strengthening inter-sectorial coordination and collaboration at the community, woreda, zonal and regional levels for effective implementation of the health sector transformation plan particularly those that focus on primary healthcare facilities & other.

With respect to filling information and knowledge gaps, academic and research institutions as well as specialised government agencies (e.g. the national meteorological agency, disaster commission, etc) and local governance bodies need to be engaged to jointly identify and address knowledge and capacity related gaps. Accordingly the following strategic options are proposed to fill information and knowledge gaps. In relation to filling the information gap, it is advisable for EU RESET to engage research institutions in supporting them to collect and record data on the livelihood, health and nutrition aspects of resilience building since such information can help to generate knowledge to design feasible monitoring and evaluation systems that provide continuous feedback mechanisms to inform feasible interventions and their implementation mechanisms at all levels. In this respect it is also important to engage specialised government agencies (e.g. the national meteorological agency, disaster commission, etc) and local governance bodies since such organizations, together with research institutions, play important role in generating and sharing data. For instance, priority should be The EU RESET program is also advised to improve Health Information Management System (HMIS) at RESET clusters through prioritizing interventions that improves availability of reliable health information at primary healthcare facilities.

In relation to filling the knowledge gap, EU – RESET needs to support research areas that help in solving problems, assist the efforts of key actors on the ground (GOS and NGOs) and building

capacity at different levels. In this regard, it is strongly advisable for EU RESET to give priority for research that focus on the following:

- (i) Assessment of the gaps in sustainable management of water supply schemes and small scale irrigation schemes.
- (ii) The integration of livelihood interventions with NRM & DRM specifically for low land pastoral areas
- (iii) The transitions – migration and rural – urban linkages specifically in low land and pastoral areas. This may include challenges of the rural youth and women including drivers of migration and skill development that increase their economic opportunities
- (iv) Transforming the youth bulge to economic opportunity: One of the key features of the EU RESET cluster areas is that the demographic structure is dominated by youth age group, who lacks the knowledge, skill and access to resources such as land and livestock. Besides, women are more vulnerable than men as they lack the resources in addition to their low human capital. On the other hand, there is limited knowledge on the feasible strategic options that effectively address constraints that hinder their capacity to be resilient to any shocks. It is, therefore, essential that EU RESET will strategically promote and support scientific researches that generate evidence based information that help to design interventions that address youth challenges, create economic opportunities and participate in the decision making process.
- (v) Livestock feed management system at community and/or individual household levels
- (vi) In relation to interventions that support social protection with particular focus on micro insurance products, EU RESET should first support research that focus to generate feasible insurance product options and institutional and organizational options that serve as channel to effectively deliver the product.
- (vii) The potential role of the private sector in resilience

In addition to the above, it is also advisable for EU RESET to support research that focus on the following:

- iii. Conceptual linkages between resilience & the four EU RESET thematic areas, fundamental or underlying drivers of vulnerability,

iv. The institutional arrangements that create effective implementation mechanism given the multi-sectoral & multidisciplinary nature of resilience.

- i. Areas where specific research in NRM & DRM are needed include (i) assessing the strengths and weaknesses of current NRM practices (ii) searching tenure and other incentive systems that work for these areas so as to encourage lowland communities to invest in NRM; (iii) understanding how mobility (short and long term migration of youth from or to the cluster) are affecting production systems in terms of labour, gender, and asset build up; (iv) options to increase livestock feed and feed reserves at community and household levels; (v) options to mobilise communities in rangeland management and incentives and challenges to do so; (vi) options to link food security and relief efforts with long term NRM undertakings; (vii) options as to how irrigation based (smallholder or commercial) farming can be linked to supporting livestock production in terms of producing fodder as well (either as a product or as a by-product, etc); and (viii) scenario analysis under different environments considering climatic, policy and technological changes and their implications for resilience.

Finally, in terms of knowledge management, the lessons drawn from these clusters can be reviewed and scaled up nationally through a national platform/mechanism to better integrate planning, implementation, and M&E of projects and programs and to promote learning at institutional and expert levels regarding processes and outcomes of interventions.

Annex: Situation Analysis of the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET), Main Report (Volume II)