Federal Government of Somalia

Youth Employment Baseline Study (YEBS) for Somalia

Final Report

February 2017

Japan International Cooperation Agency

Consultant: Because Institute Co., Ltd.

Table of Contents

Acronyms

ACF	Action Contre la Faim
ADRA	Adventist Development and Relief Agency
BDS	Business Development Service
BMFA	Berbera Maritime and Fishery Academy
CIA	Central Intelligence Agency
COOPI	Cooperazione Internazionale
DRC	Danish Refugee Council
EBTVET	Enterprise Based Technical Vocational Education and Training
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization
FETA	Fisheries Education and Training Agency
FGS	Federal Government of Somalia
FSNAU	Food Security and Nutrition Analysis Unit- Somalia
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IBTVET	Institution Based Technical Vocational Education and Training
IDP	Internally Displaced Person
IGAD	Intergovernmental Authority on Development
ILO	International Labour Organization
IMO	International Maritime Organization
IOM	International Organization of Migration
ISIC	International Standard Industrial Classification
JICA	Japan International Cooperation Agency
KTTC	Kenya Technical Trainers College
MCS	monitoring, control and surveillance
NCA	Norwegian Church Aid
NGO	Non Governmental Organizations
NRC	Norwegian Refugee Council
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PSG	Peacebuilding and Statebuilding Goals
SCORE	Somali Core Economic Institutions and Opportunities Program
SEED	Sustainable Employment and Economic Development
SECIL	Sustainable Employment Creation and Improved Livelihoods for Vulnerable Urban Communities
SESSP	Somali Education Sector Programme
SomRep	Somalia Resilience Program
STVS	Sheikh Technical Veterinary School
TVET	Technical Vocational Education and Training
UDI	Norwegian Directorate of Immigration
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNODC	United Nations Office on Drugs and Crime
VQF	Vocational Qualification Framework
YEBS	Youth Employment Baseline Study

Chapter 1 Outline of the Study

1.1 Background

The long-lasted civil war and lack of government support system have caused heavy damage on human and economic resources in Somalia since 1991. Consequently, Somalia became one of the poorest economies in the world. With the establishment of the Federal Government of Somalia (FGS) in 2012, the international community has been collaborating in attaining the Peacebuilding and Statebuilding Goals (PSG) under the Somali Compact (2014-2016). It is recognized that statebuilding with stable government function in Somalia is foremost important for peace restoration in East Africa and Gulf of Aden.

Youth employment is highlighted under PSG 4 on Economic Foundations. Job creation for the youth is important in order to alleviate poverty and to prevent the youth from seeking alternative income from militias and criminal activities. PSG 4 addresses measures for promoting income generations, including short-term labor intensive employment, skills development, and capacity building of training institutions. At the time of the visits to Japan by the President of FGS in June 2013 and March 2014, the Government of Japan received a request to cooperate in the area of youth employment.

In response to the request, Japan International Cooperation Agency (JICA), the implementing agency of official development assistance under the Government of Japan, initiated the Youth Employment Baseline Study (YEBS) in order to identify specific areas of collaboration. The Study includes identifying the status and activities promoting industry and youth employment in Somalia. Based on the analysis in the Study, a series of pilot short-term trainings took place for selected specific sectors in the third countries.

1.2 Contents of the Study

YEBS consists of 4 parts; i.e. i) data collection; ii) consultation with the Government officials; iii) pilot trainings; and iv) reporting.

i) Data collection
   - Collect information on the status of industrial development and its supporting activities
   - Collect information on the status of skill trainings and its supporting activities
   - Exchange views on directions towards future assistance in the area of youth employment with other development partners

ii) Consultation with the government officials
   - Hold consultations with the government officials and experts from Somalia to confirm needs for cooperation in the area of youth employment and agree on a direction of the Study
   - Confirm subjects and delivery methods of the pilot trainings in the third countries

iii) Pilot trainings
   - Based on the consultation ii), conduct pilot trainings for selected specific sectors in the third

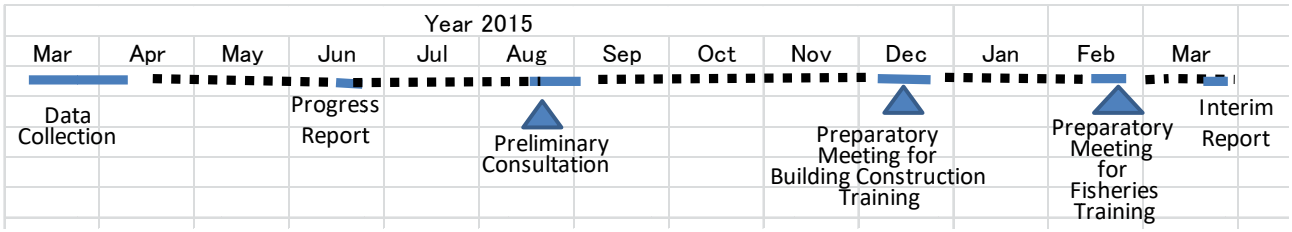
countries

iv) Reporting

- Hold a wrap-up meeting with FGS for reporting the results of the pilot trainings and discussing future cooperation in the area of youth employment
- Compile a report on YEBS

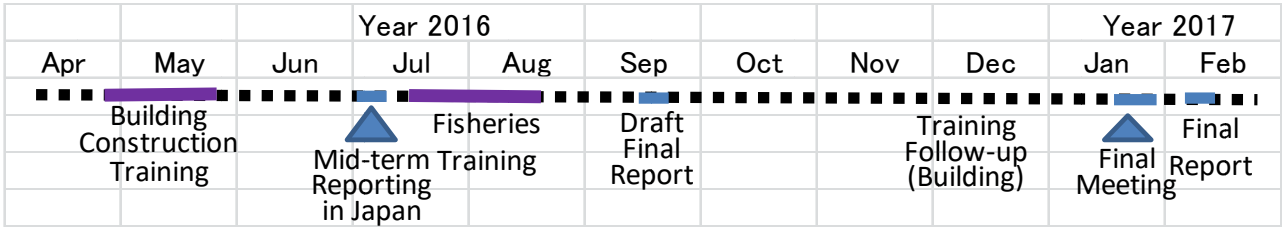
1.3 Schedule

(1) 1st Year



i) Interviews with the development partners in Nairobi, Kenya in March/April 2015
ii) Preliminary consultation with the Government officials in Nairobi, Kenya in August 2015
iii) Preparatory meeting for building construction training in Nairobi, Kenya in December 2015
iv) Preparatory meeting for fisheries training in Bagamoyo and Dar es Salaam, Tanzania in February 2016

(2) 2nd Year



i) Pilot training for building construction in Nairobi, Kenya in May/June 2016
ii) Mid-term reporting in Tokyo, Japan in July 2016
iii) Pilot training for fisheries sector in Bagamoyo, Tanzania in July/August 2016
iv) Follow-up survey for the building construction training via E-mail in December 2016/January 2017
v) Final consultation meeting in Nairobi, Kenya in January 2017

1.4 Location of the Study

Due to security concern, JICA's access to Somalia is currently restricted. Therefore, the whole work of this Study was conducted outside Somalia. Data collection and consultation meetings were carried out mainly in Nairobi while the pilot trainings were conducted in selected third countries.

Chapter 2 Environment surrounding the Youth

In order to identify the background for social and economic needs in assisting the youth, this chapter explains policy, social, and natural environments surrounding the youth through literature reviews.

2.1 Policy

2.1.1 Somali Compact

With the establishment of FGS in 2012, the international community has been collaborating in attaining PSG under the Somali Compact (2014-2016). Youth employment is stated as one of the key priorities under PSG4 Economic Foundation, which aims to revitalize and expand the Somali economy with a focus on livelihood enhancement, employment generation, and inclusive growth. The total amount of US$73 million was spent by the development partners in the area of private sector development and employment between 2014 and 2016[1]. As one of key components in supporting PSG4, various donors have been working on vocational trainings for youth employment (see Appendix 7).

2.1.2 National Development Plan

FGS launched the National Development Plan (2017-19) in June 2016. This is the first national development plan developed by the central government in 30 years. The plan specifies development objectives and strategic policy priorities. Creating employment opportunities, especially for the youth, is highlighted under the social strategic objectives. It aims to achieve creation of 820,000 additional jobs with a GDP growth rate of 5.5% per annum as well as improvement and through expansion of education and vocational trainings.

2.2 Population and poverty

According to UNFPA's Population Estimate Survey[2], Somali population was estimated to be approx. 12.3 million in 2013/14: 6.2 million men and 6.1 million women. The youth from the age of 15 to 29 occupy 29.4% of the population. (Figure 1)

[1] World Bank Group. 2016. *Aid Flows in Somalia: Analysis of aid flow data: February 2016*. p.10.
[2] UNFPA 2014. *Population Estimation Survey 2014.*

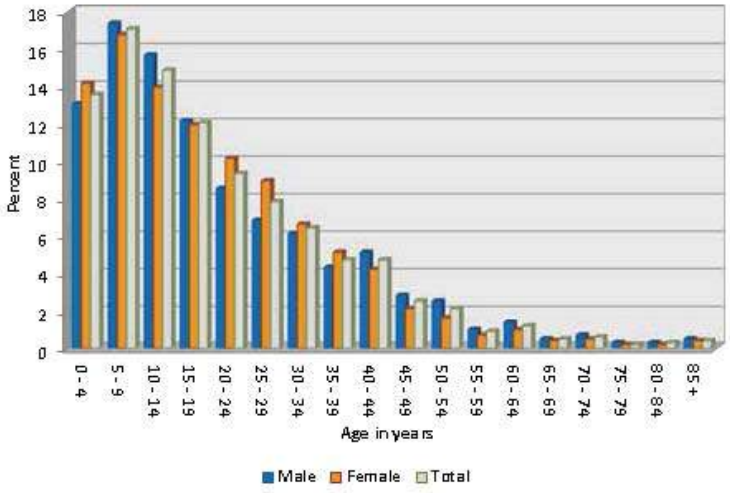


Figure 1 **Age Distribution by Sex (2014)**[3]

According to a household survey[4] in 18 districts where SomReP[5] operates, an average household income was 114.8 USD per month in 2012. The World Bank estimates[6] that GDP per capita at $435 in 2013 while per capita income is 20-40 percent higher with remittance from diasporas abroad. This GDP capita implies that it is the 5th poorest economy in the world[7]. 43% of the population is estimated to live on less than 1 dollar a day.

2.3 Refugees, IDPs, and International Migration

2.3.1 Refugees

UNHCR reports that there are approx. 1 million Somali refugees in Horn of Africa and 1.1 million Internally Displaced Persons (IDPs) in Somalia (See Appendix 1). Two peaks of the highest occurrence of refugees and IDPs are observed in Figure 2: around 1991 when the civil war started and after 2006 when the battles intensified in the process of establishing the federal government. Then the peak of refugees hit the highest in 2011 at the time of the severe draught.

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[3] UNFPA 2014. *Population Estimation Survey 2014*. Figure 2.9, p.44

[4] Axiom Monitoring and Evaluation 2013. *Baseline and Assessment on Vulnerability, Resilience, and Adaption*. SomReP. Based on interview survey of 2,453 households randomly selected from 100 villages in 18 districts where the SomReP member NGOs operate. 18districts are Afgoi, Beledweyne, Bhandan, Burao, Burtinle, Caabudwaq, Ceelafweyn, Ceelbare, Dangorayo, Dhusa Mareb, Dolow, Galkayo, Galdogob, Las Canood, Belet Hawo, Magaban, Oodwayne, and Taleex.

[5] Somalia Resilience Program (SomReP) is a joint programme by 7 NGOs; namely Action Contre la Faim (ACF), Adventist Development and Relief Agency (ADRA), CARE, Cooperazione Intenazionale (COOPI), Danish Refugee Council, OXFAM, and World Vision.

[6] World Bank 2015. *Somalia Economic Update*. October 2015. Edition No.1. p.8

[7] Poorest to 4th poorest are Malawi, Burundi, Central African Republic, and Niger.

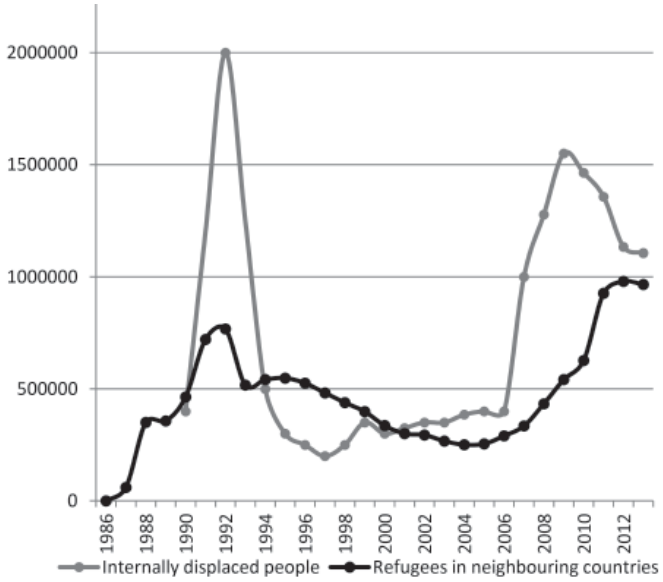

Figure 2 **Occurrence of Refugees and IDPs**[8]

Kenya hosts the highest portion of refugees at 41% while those in Yemen and Ethiopia are at 26% for each within East Africa and Yemen (See Appendix 1). 97% of registered refugees and asylum seekers in Kenya originally come from the top 5 Southern regions: namely Lower Juba, Middle Juba, Bnadir, Gedo, and Bay (See Appendix 2). Between December 2014 and January 2017, 40,198 individuals voluntarily repatriated from Kenya to Somalia[9]. 40,198 people represent 9.4% of the refugees in Kenya at the time of December 2014[10]. Kismayo, Mogadishu, Baidoa, and Diinsoor are the four largest districts where the returnees arrived (See Appendix 3).

Supporting returnees is a critical issue not only for the refugees but also for the host countries. However, those who fled early phase of the civil war lack in incentives to return. In 2014, UNHCR and IOM jointly conducted a survey on return intention in Dadaab camp where the largest population of Somali refugees resides[11]. According to the survey, only 2.6% households showed interests in returning. There are multiple reasons for not returning: concerns for security, jobs, housing, food, education, medical care, etc. This means that holistic development in the return area is necessary to solve the refugee issues, particularly in 9 districts where UNHCR has reintegration support stations (arrival home stations): Kismayo, Baidoa, Luuq, Beledweyne, Mogadishu, Balcad, Jowhar, Wanla Weyn, and Afgooye. (See Appendix 1) The Government of Kenya announced its intention to close Dadaab camp in May 2016. Accordingly, the international community is under pressure to accelerate the voluntary repatriation process.

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[8] Hammond, L. 2014. *History, Overview, Trends and Issue in Major Somali Refugee Displacements in the Near Region (Djibouti, Ethiopia, Kenya, Uganda and Yemen)*. Bidhaan. Vol.13. Figure 1, p.57. <http://digitalcommons.macalester.edu/cgi/viewcontent.cgi?article=1147&context=bildhaan>

[9] UNHCR. *Weekly Update. Voluntary Repatriation of Somali Refugees from Kenya*. January 2017. http://www.unhcr.org/ke/wp-content/uploads/sites/2/2017/01/Voluntary-Repatriation-Analysis-6-January-2017.pdf

[10] UNHCR. *Somalia Refugees in the Horn of Africa and Yemen*. December 2014. < http://reliefweb.int/sites/reliefweb.int/files/resources/December_2014_Somalia_Refugees_in_the_Horn_of_Africa.pdf>

[11] UNHCR & IOM 2014. *Joint Return Intention Survey Report*.

2.3.2 IDPs

Geographical distribution of IDPs is different from that of the return refugees as shown in Appendix 4: Banadir, Galgaduud, Shabelle Hoose are the top three regions where IDPs are located: 33%, 11%, and 9% respectively. IDPs are considered to represent the most vulnerable group. Two thirds of 1 million population who cannot afford the minimum required calorie of 2,100 Kcal/day are IDPs. It is estimated that one out of seven children under the age of five suffers from acute malnutrition[12]. It is also reported that IDPs who belong to minority clans have more difficulty in securing basic needs due to lack of support from their clans[13].

2.3.3 International Migration

It is estimated that there are more than 1 million Somali diasporas spread globally. Successful performance of the returned diasporas from the West seems to motivate domestic Somali to aspire for international migration. According to the IOM's survey[14], poor economic conditions and Somalia's instability have made 47% of the non-migrant youth[15] in Mogadishu, Kismayo, and Baidoa ever considered international migration while their most preferred destinations were in Europe; particularly Sweden, UK, Norway, and Denmark where the large Somali communities exist. In 2013, 14,715 people from Somalia arrived in EU to stay over a 12 month period, and this figure was the 11th largest population from non-EU countries[16]. In addition, IOM reports that there are many irregular migrants who left Somalia without clearing official documents. The popular route to reach EU from Somalia for such irregular migrants is through the Mediterranean between Libya and Italy by boat. However, such attempts are causing increased deaths of migrants in the Mediterranean Sea. Other popular destinations, as reported in the IOM's survey, were Gulf countries, neighboring countries, and Canada.

2.4 Weather conditions

Somali economy, which relies on livestock and agriculture, is easily affected not only by conflict but also by weather conditions. Majority of regions in Somalia belong to arid or semi-arid weather (See Appendix 5). South Central along Shebelle River and Jubba River enjoy the highest amount of rainfall. Surrounding areas along these rivers are suitable for cropping, but it is also vulnerable to occasional floods.

As depicted in Figure 3, Somalia has four seasons: Gu (April to June) and Deyr (October to December) for rainy seasons and Jilaal (January to March) and Hagaa (July to September) for dry seasons. 75% of

[12] OCHA 2014. *2015 Humanitarian Needs Overview Somalia.*
[13] Independent Advisory Group on Country Information of the Government of United Kingdom. 2015. *Country Information and Guidance. South and Central Somalia: Majority Clans and Minority Groups.*
[14] Altai Consulting 2016. *Youth, Employment and Migration in Mogadishu, Kismayo and Baidoa*. IOM.
[15] Non-migrant are respondents who have lived their majority of life in the same district where the interview took place. Youth in this survey is between the age of 14 and 30.
[16] Migration and Home Affairs, EU. *Immigration in the EU*. <http://ec.europa.eu/dgs/home-affairs/e-library/docs/infographics/immigration/migration-in-eu-infographic_en.pdf>

the rainfall is expected to be covered during Gu season.[17] The 2011 draught, which was the worst in 60 years period, was caused by rainfall shortage of Deyr in 2010 and Gu in 2011. Such a draught not only damages crops but also causes conflicts as pastoralists search for water and grasses for livestock.

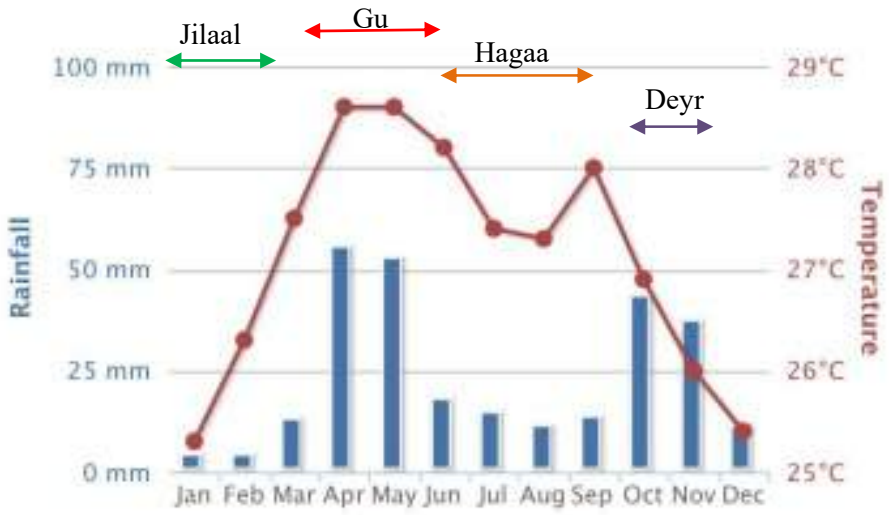


Figure 3 Temperature and Rainfall in Somalia (monthly average between 1990 and 2012)[18]

As of February 2017, the international community is once again alerted with drought situations in Somalia. The rainfall during Deyr season in 2016 was much below average and poorly distributed across the country. This has caused low harvest and increase in livestock deaths. Unless the forthcoming Gu season brings over average rainfall, over 2.9 million people may face acute food insecurity[19].

[17] SWALIM. *Somalia Rainfall Outlook for Gu 2015*. Issue: 9 March, 2015. 6.

[18] World Bank Group. Climate Change Knowledge Portal <http://sdwebx.worldbank.org/climateportal/index.cfm?page=country_historical_climate&ThisRegion=Africa&ThisCCode=SOM> : Original data is from Climatic Research Unit of the University of East Anglia. "Jilaal", "Gu", "Hagga", and "Deyl" and arrows are added by the author.

[19] FSNAU. *Technical Release*. 2 February 2017. <http://www.fsnau.org/in-focus/fsnau-fewsnet-technical-release-february-2017>

Chapter 3 Status of Industry

3.1 Overview

The major industry of Somalia is livestock. Sheep, goats, cows, and camels are raised all around Somalia, particularly in North and Central. Agriculture products such as maize, sorghum, beans, and fruits are cultivated mainly along Shebelle River and Jubba River. Fisheries industry is active in Mogadishu, Bosaso, and Berbera ports, and small scale fisheries have been revived in many villages alongside the Indian coastal line. (See: Appendix 6 for Map of *Somalia Livelihood Zones* by FSNAU)

High economic contribution of livestock can be explained by statistics. It is estimated that livestock generates 40% of GDP and 60% of the labor force[20]. As for export, live animals contributed to 83% of the total export, which was US$545 million in 2013. Second largest commodity is oil seeds such as sesame. Processed commodities from live stocks such as leather and hides account for only 2% of the total export. There is no other distinctive exported commodity in addition. Thus exported commodities from Somalia have limited variations. (See Figure 4)

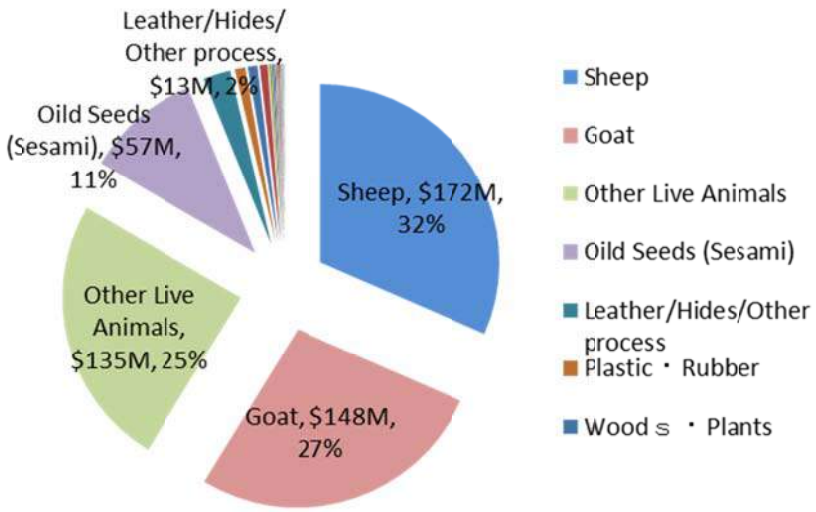


Figure 4 Exported Commodities from Somalia in 2013[21]

Note: Calculated based on reports from the importers

As for export destinations, Saudi Arabia, Oman, and Yemen account for 84%, followed by India and China/Hong Kong (See Figure 5). Nearly 100% of the live animals are exported to these 3 Arabic countries. The first and second destinations of the oil seeds (sesame) are India and China, accounting for 64% and 27% respectively. At the same time, the oil seeds occupy the largest share of exported commodities to India and China, accounting for 93% and 76% respectively.

[20] Data for GDP contribution is from CIA. *The World Factbook*. Data for labor contribution is from Federal Republic of Somalia. 2013. *Economic Recovery Plan 2014-2015.*

[21] UN Comtrade Database

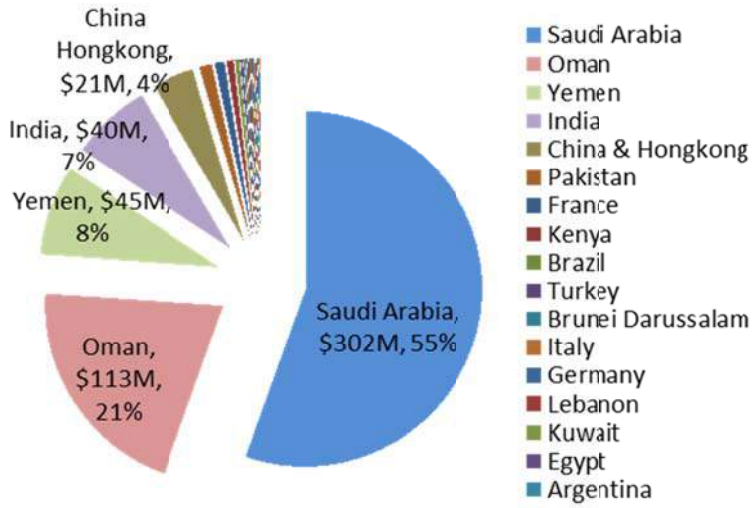


Figure 5 Export Destinations from Somalia in 2013[22]

Note: Calculated based on reports from the importers

The economy of Somalia is expected to grow with influence of diasporas who are returning to big cities in Banadir, Puntland, Somaliland, etc. to run business. International remittance is also used as investment to businesses. World Bank estimates that USD 1.3 billion was remitted from the diasporas abroad in 2014[23]. The largest earning sector is trading companies dealing with international and domestic trade. Particularly trading through Berbera port is an important link between Ethiopia/Djibouti and the Middle East. Returned diasporas' businesses are also observed in real estate, mobile telecommunication, energy sectors, and so on. In addition, private investors from China, Turkey, and the Gulf are also joining the markets[24].

3.2 Labor Market

Somalia suffers from severe lack of employment opportunities. According to the SomReP's survey in 2012, 80% of the households rely on income from single member of the family. International Labour Organization (ILO) estimates that 22.0% of the youth (from the age of 15 to 24) are unemployed[25] and that 19.5% people of employed persons (from the age of 15) are underemployed[26] in South Central[27]. IOM's survey[28] also indicates that 14.3% of the youth (from the age of 14 to 30) are unemployed and that 38% of the employed youth are underemployed in Mogadishu, Kismayo, and Baidoa. The average income of the employed people in the IOM's survey was 230 USD for men 135 USD for women, and 50% of them expressed that their income was not enough to support their family.

Job matching is a challenge not only due to lack of skills but also due to a cultural barrier as some

[22] UN Comtrade Database
[23] World Bank 2015 *Somalia Economic Update*. October 2015. Edition No.1
[24] Altai Consulting 2016. *Youth, Employment and Migration in Mogadishu, Kismayo and Baidoa*. IOM
[25] Unemployment here is referred as the status of not working for the reference period of 7 days.
[26] Underemployment here is referred as willingness to work longer hours for the reference period of 7 days.
[27] Based on ILO 2014. *Labour Force Survey.* The survey covers 21 districts in Lower Shabelle, Banadir, Middle Shabele, Bay, and Hiran.
[28] Altai Consulting 2016. *Youth, Employment and Migration in Mogadishu, Kismayo and Baidoa*. IOM

Somali people tend to avoid manual labors. The IOM's survey states that employees' attitudes, willingness to work and motivation to learn, are crucial for job matching in addition to the required skills. In the labor markets for the uneducated people, craftsmen, workers in the hospitality services (hotels and restaurants), and tailors are in high demand. For the educated people, engineers, medical doctors, system engineers, and agricultural experts are lacking. The gap in the labor market is currently filled by foreigners from neighboring countries as well as Asian and Gulf countries[29].

3.3 Sectoral overview

3.3.1 Trade

There is high demand for imported commodities from abroad, particularly from the Middle East in response to market expansion in Somalia as well as in Ethiopia and Djibouti. The large scale enterprises can be found in the trading sector.

Figure 6 shows major transportation routes for international trades based on interviews in the SomReP's survey in 2012. Mogadishu, Bosaso, and Berbera are the major ports for international shipping and Dolo and Ceel Waaq in Gedo Region are the major routes for land transportation heading to Ethiopia and Kenya. The main roads, bridging between the north and south, is often disconnected due to battles. Stabilizing the security is critical for promotion of trade with neighboring countries through land transportation.

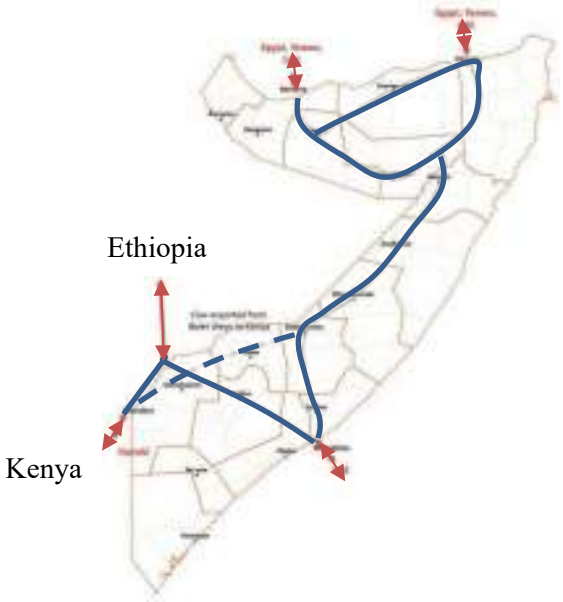


Figure 6 Transportation Route for International Trade[30]

[29] According to migration statistics by UNICEF, Ethiopians and Eritreans are the major migrants (UNICEF. *Migration Profiles.* <https://esa.un.org/miggmgprofiles/indicators/files/Somalia.pdf>). In addition, there are many foreigners who work in short-term without migration status such as Kenyans, Ugandans, South-Africans, Turkish, Chinese, etc.

[30] Based on interviews in SomReP Axiom Monitoring and Evaluation 2013. *Baseline and Assessment on Vulnerability, Resilience, and Adaption*. P.50

3.3.2 Livestock

Livestock is the largest industry in Somalia, particularly in North and Central. However, livestock processing is not yet very active. In reference to export data, only 3% of the livestock related commodities are processed while all others are exported alive. 4,580,000 heads of sheep and goats, 340,000 heads of cows, and 80,000 heads of camels were exported in 2014[31].

Livestock processing is expected to be developed. Yet, it is the area in which Somalia faces direct competition in international markets with neighboring countries: Ethiopia shows competitiveness in leather and hides, and Kenya is strong in processed meats and dairy products. It is considered more promising to develop food processing targeting at domestic markets such as camel milk.

3.3.3 Fisheries

Somalia has the longest coastal line in the African continent, extending over 3,300 km and her waters are blessed with rich fisheries resources, which still remains mostly untapped. Coastal villages have a high potential to create fisheries related business. However, there exist major constraints on fisheries development namely poor infrastructure to distribute fish and low domestic demand for fresh fish because of traditional preference for eating meat among the Somali communities. For the fisheries industry to be successful, one realistic option is to target the foreign markets and in doing so, proper landing facilities together with basic infrastructure for cold-chain need to be constructed so as to meet the quality standard of foreign markets.

During the civil war, fisheries industry was seriously destroyed due to the disrupted supply channel for fish, piracy at sea, and illegal fishing by foreign fleets. The fishers are currently operating without proper equipment including boats, fishing gears, fish preserving facilities, and storage. Only 2,000 fishing boats are estimated in operation in Somalia[32], many of which are 4– 8.5 meter in size[33]. Majority of boats lack sleeping facility onboard and hence their fishing trips are restricted to shorter ones; daily or overnight trips. Given this condition, fishing operations tend to be concentrated in coastal waters, which may pose a risk of negatively affecting fragile coastal eco systems and fisheries resources such as lobsters, shrimps, and sea breams. Fishing in deeper waters inevitably requires additional investments in terms of larger vessels and supporting shore facilities. Yet, many fishers venture into off-shore waters to catch high value pelagic fishes such as yellow fin tuna and skipjack with small boats. Out-boat engines (OBM) are commonly used with these boats; however proper maintenance of OBM is not always done. The maintenance of OBM is critically important not only for longer use but also for safety at sea since a breakdown of OBM would immediately lead to a fatal accident.

One of consequences of the decade-long civil strife and political upheaval is that traditional knowledge

[31] Reported by FSNAU Integrated Database <http://www.fsnau.org/ids/trade/index.php> based on exports from Berbera and Bossaso ports. UN-Comtrade data shows that in 2,050,000 heads of sheep and 1,840,000 of goats were exported in 2013.

[32] FAO 2014. *FAO Somalia Fisheries- Investing in a Sustainable Future*. (presentation paper at SOPEC, March 2014)

[33] Global Development Solutions, LLC 2011. *Value Chain Analysis for the Gums/Resins and the Fisheries Sectors in Somaliland*. World Bank.

on fisheries resources and techniques of fishing may have been lost, and younger generations failed to inherit such valuable expertise. Thus prospective fishers in Somalia suffer from limited knowledge and techniques in fishing, which make it difficult to utilize locally available fisheries resources. In addition, there are only a few exporters who can engage in fish processing at international standards.

Moreover, institutional support for the fisheries industry in terms of monitoring, control and surveillance (MCS) is particularly important in Somalia. It is because Somalia waters are open and easily accessible by foreign fleets and hence very much vulnerable to illegal fishing. Although potential is high for development of fisheries industry, many challenges and problems remain to be addressed.

3.3.4 Agriculture

Agriculture is developed along Shebelle River and Jubba River where precipitation is relatively high. Figure 7 shows the cultivated crops per season by households as reported in the SomReP's survey. Maize, sorghum, beans, and masago have higher frequencies. Each household is likely to produce specific crops without diversification.

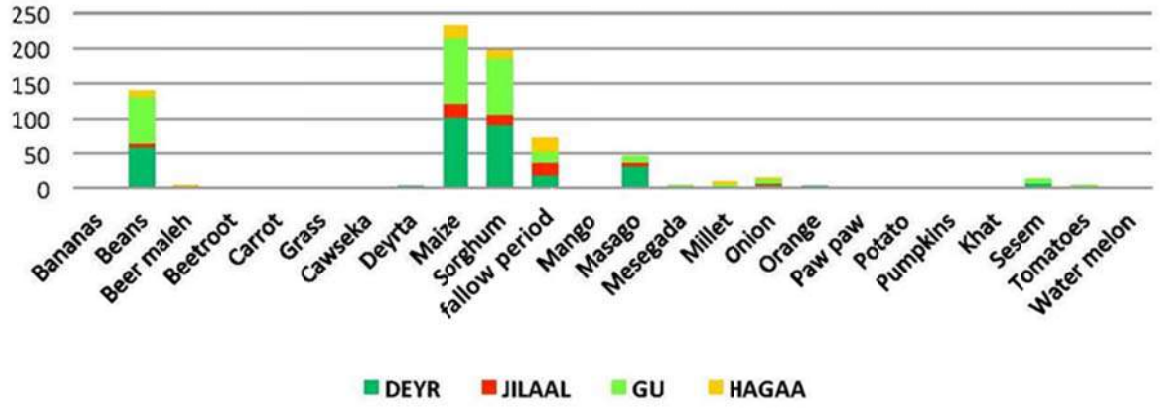


Figure 7 Cultivated Crops per Season in 2012[34]

Unit: Frequency of answers (multiple-answer question)

On the other hand, as written in 3.1, sesame seeds are one of the major exported commodities. Moreover, $150,000 of lemon and lime were exported in 2012 according to the trade database of Food and Agriculture Organization (FAO). Since these commodities do not distinctively appear in the SomReP's survey, exportable agricultural commodities may be produced by a few specific farmers.

3.3.5 Manufacturing

Manufacturing is one of the weakest sectors in Somalia, and mainly simple processing is carried out such as plastic die-cut. Among the various manufacturing work, those which meet the local consumption for the mass have more potential to develop; particularly food processing using the local material such as livestock and agro-commodities. On the other hand, targeting export markets will face competition from neighboring countries unless the commodities have some advantages or uniqueness

[34] Axiom Monitoring and Evaluation 2013. *Baseline and Assessment on Vulnerability, Resilience, and Adaption*. SomReP: p.11

such as fish processing.

3.3.6 Construction

Construction business is booming with the public and private investments. For diasporas, the rent from invested real estate is an alternative method for controlled foreign remittance. Yet, most of the engineers are foreigners (e.g. from India, Sri Lanka, Kenya, Ethiopia, etc.) since only a few engineers exist in Somalia. Inviting the rare engineers from different regions may create conflict as well. Severe shortages in engineering capacities, such as designing, wiring, plumbing, etc., cause creation of dangerous structures. Moreover, heavy machinery is in shortage. Human resource and machinery/equipment are necessary for the Somali economy to enjoy benefit from the investment expansion in construction.

3.3.7 Electricity

As there are no public electricity companies, middle and small scale firms provide electricity mainly generated from diesel generators. This business style causes high electricity cost due to expensive raw material and inefficient management without scale of economy. In general, maintenance knowledge is insufficient. Encouraged by the development partners, many businessmen are interested in going into renewable energy such as solar and wind.

3.3.8 Telecommunication

Telecommunication is one of the most active economic sectors in Somalia. Approximately 8 to 10 mobile phone companies regionally operate in Somalia, offering low price telecommunication services compared to the global standards. According to the World Bank's report in 2013,[35] the sector employed 25,000 Somalis, and subscription rate of the mobile phones reached 20%. Yet, the internet penetration remained one of the lowest in Africa. Since there are already many companies, it is more likely that the telecommunication sector goes into competition for survival while some may create joint ventures with foreign companies.

3.4 BDS, associations, and financial sector

Business Development Service (BDS) is emerging mainly by returned diasporas who work in donor-funded projects. Moreover, some regions such as Puntland and Somaliland have active chamber of commerce and industries, which often collaborate with the development partners. Recently, regional chambers of commences are established in the South as well; such as ones in Mogadishu, Kismayo, and Baidoa[36].

On the other hand, associations for specific sectors and small-scale companies are not yet developed. According to the SomReP's survey, less than 20% of households are said to have joined associations in

[35] World Bank 2013. *Interim Strategy Note (FY14-FY16) for the Federal Republic of Somalia.* Report No. 75212-SO.
[36] IOM 2016. *Youth Employment and Migration in Mogadishu, Kismayo and Baidoa*. p. 53

2012 (See Figure 8). Sector-based activities under associations or chamber of commerce are desirable for identifying issues and strategies for the sector's development. Without such bodies, representativeness of the sectorial consultation and joint-activities is currently unclear.

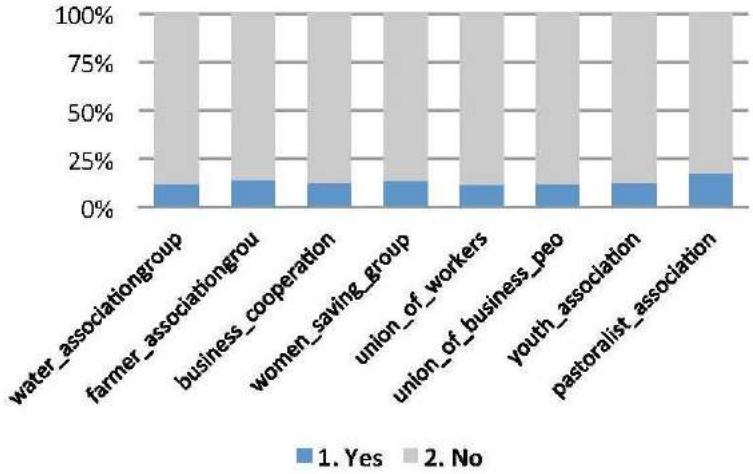


Figure 8 Affiliation to Associations[37]

As for the banking sector, there are the central bank and a few commercial banks including Dahabashil Bank and International Bank of Somalia. However, banking regulations are not yet enacted. Moreover, these commercial banks only target large-scale firms, and financial support to micro and small scale firms are weak.

[37] Axiom Monitoring and Evaluation 2013. *Baseline and Assessment on Vulnerability, Resilience, and Adaption*. SomReP. P.77.

Chapter 4 Status of Vocational Training

4.1 Education and Training Opportunities

Long lasting civil war is said to have destroyed 90% of the schools in Somalia. Accordingly, two generations of Somali children missed opportunities in receiving education. Adult literacy rate in Somalia is estimated at 38%. Enrollment rate of primary school (6 years from age 6) is 42% and that of secondary school (6 years from age 12) is less than 8%.[38]

Technical Vocational Education and Training (TVET) system in Somalia was not developed before the civil war, and there were only a few TVET institutions before 1990: namely, 3 technical institutions in Mogadishu, Burao, and Hargeisa, 1 clerical school in Hargeisa, and 1 accountant and instructors school in Mogadishu[39]. The technical school in Mogadishu was destroyed during the civil war. Afterwards, Puntland and Somaliland received assistance from communities and the development partners in building new TVETs, mostly private or NGO base while efforts delayed in South Central due to security reasons. ILO's survey in South[40] reports that only 2.6% above age of 15 have received vocational trainings, whose subjects are listed in Figure 9.

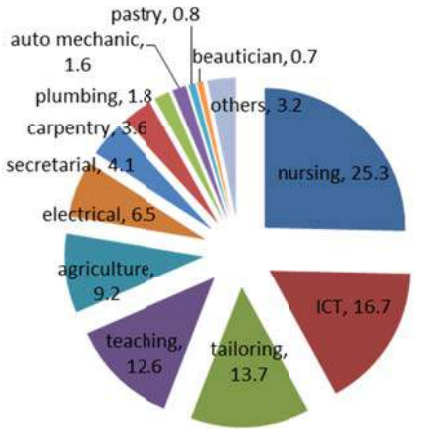


Figure 9 Subjects Studied in Vocational Trainings[41]

Note: Figures are in %.

4.2 Institutional Readiness

4.2.1 Policy and standards

FGS and newly established regional governments are busy in developing their governmental system and still not ready to embark on policy side of TVET system. Without defining the TVET system,

[38] World Bank 2015. *Somalia Economic Update*. October 2015. Edition No.1. p.5

[39] Lead Consultant. *Somali-Wide Education Synergies. Technical, Vocational Education & Training (TVET) Workshop Report.* at Kenya Comfort Hotel. 18th-19th November 2014. Nairobi, Kenya.

[40] ILO 2014. *Labour Force Survey.* Section 2.9. The survey covers 21 districts in 5 regions, Lower Shabelle, Banadir, Banadir, Middle Shebellle, Bay, and Hiran.

[41] based on interviews in Banadir, Jowhar, Balcad, Afgoye, Marca, Baidoa, and Beledweyne as reported in ILO. 2014. *Labour Force Survey*. Section 2.9.

majority of vocational trainings have been offered as part of non-formal education without accreditation. A few, which can provide diplomas in particular subjects, are considered as part of tertiary education at college level.

On the other hand, Puntland and Somaliland have more capacity to work on policies. EU has been collaborating with Puntland and Somaliland in developing TVET policy, accreditation, and curriculum development under overall education sector development programs.

In Puntland, TVET is formally divided into two categories: Institution Based Technical Vocational Education and Training (IBTVET) and Enterprise Based Technical Education and Training (EBTVET). Ministry of Education is the leading ministry for IBTVET whiles the Ministry of Labor, Youth, and Sports is responsible for EBTVET.

As for IBTVET, *Puntland Education Sector Strategic Plan 2012-2016* considers TVET as post school trainings and advocates necessity of developing occupational proficiency. Over 50% of students who complete non-formal basic education are targeted to enroll in either formal education or TVET by 2016.

As for EBTVET in Puntland, TVET is interpreted as apprenticeship under regulation of the Private Sector Employee Law (Labor Code No. 65). The beneficiary of the apprenticeship is the age bound of 15 and 18, and duration is within 3 years. EBTVET is mostly supported by community based organizations and NGOs.

In Somaliland, Ministry of Education and Higher Education is the leading ministry for TVET, whose policy is covered in Somaliland's *Education Sector Strategic Plan 2012-2016*. In this document, TVET is defined as "all forms of relevant skills acquisitions, including life skills (functional verbal, numeric literacy, problem solving skills)." The Strategic Plan calls for TVET, which delivers trainings in accordance with needs in the labor markets. TVET is designed as an alternative path to secondary school after primary school. The aim is to have 65% of students who complete non-formal basic education enroll in either formal education or TVET by 2016.

In both policy documents, emphasis are on improving accessibility of the TVET institutions and enhancing capacity of TVET schools. Supporting the above mentioned policy documents, milestones of EU assistance so far is development of accreditation authorities and drafting standards as these are considered important to improve training quality and also to provide trustworthy certificates, which graduates can utilize for employment. EU funded contractor, Save the Children, worked on these agenda. Firstly, in both Puntland and Somaliland, bills for establishment of Vocational Qualification Authorities were drafted and sent to the parliament for authorization. Until the Vocation Qualification Authorities are established, certificates are issued directly from the relevant line ministries. Moreover, items for level 1 to 3 standards for 12 disciplines[42] are drafted. Currently, curriculum for the level 1 and 2 are being drafted. Further in-depth assistance is necessary until the drafted standards are practically

[42] Beekeeping; apiculture; bakery; fishing; fish hygiene/handling/processing; carpentry; welding/metal fabrication; plumbing; electrical installation; marine motor and vessel repair maintenance; garment making; business office administration.

utilized. Recognizing increasing importance of TVET revitalization, EU is now planning with GIZ to initiate a 4-year project for a more comprehensive TVET reform nationwide.

4.2.2 Schools and budget

According to USAID's report[43], there were 9 TVET institutions (all NGOs) in South Central, 15 in Puntland, and 49 in Somaliland in 2014, but there are a few public TVET institutions operational. Moreover, due to lack of financial resources, operational cost of TVET institutions is largely dependent on the development partners' projects. In Puntland, educational budget on TVET was only 2.3%, or 400,000 USD, while that on primary and early childhood education was 73.4% in 2013/14[44]. In Somaliland, it was only 4%, or 1,516,000 USD, while on primary being 60% in 2014[45].

Both the Federal and regional governments are requesting financial support for establishing the new vocational training schools. Turkey is the most cooperative in responding to that request.[46] EU also cooperates in constructing/rehabilitating vocational schools[47] in the new education programme started from 2016.

Some functioning TVET institutions identified so far are listed below.

(1) Mogadishu

Majority of TVET programs in Mogadishu are run by NGOs, but some TVET institutions are newly established with assistance from the development partners:

- Marine and Fisheries Institute
  The Institute was funded in 2013 with a support from the City University and a Turkish-German association, Hasene IGMG. It started to offer both secondary level courses and degree courses in maritime and fisheries.
- In addition, the Turkish government is building training schools in Mogadishu for nursing, civil aviation, and agriculture.

(2) Puntland

- Garowe Vocational Training Center
  Established in 1995, Garowe Vocational Training Center is one of the very few public vocational training institutions which are constantly in operation. It runs 13 courses: i) electricity, ii) carpentry, iii) masonry, iv) plumbing, v) computer, vi) tailoring, vii) arts, viii) cooking, ix)

[43] USAID 2014. *Mid-Term Evaluation of the USAID Somali Youth Leaders Initiative (SYLI)*.
[44] Ministry of Planning and International Cooperation, Puntland State. 2013. *Puntland Second Five-Year Development Plan 2014-2018*.
[45] Global Partnership for Education. 2015. *Final Synthesis Report for the Joint Review of the Education Sector, Somaliland 2015*.
[46] TVET institutions which the Turkish Government is planning to construct include a nursing school, a civil aviation training center, marine and fisheries school, and an agricultural school in Mogadishu and a TVET center in Hargeisa.
[47] So far, 3 TVET institutions in Kismayo, Baidoa, and Mogadishu are in plan.

confectionary, x) beautician, xi) hotel management, xii) accounting, and xiii) office management. It trained 150 long-term students and 120 short-term students with 11 full-time and 5 part-time lecturers in 2015. It ties up with various development partners including EU, Save the Children, CARE, Mercy Corps, Norwegian Refugee Council (NRC), Norwegian Church Aid, ADRA, World Vision International, ILO, UNDP, and United Nations Office on Drugs and Crime. More details are written in Appendix 8.

- Galkayo Education Center for Peace and Development (GECPD)
  GECPD was founded in 1999 with an initiative by a former diaspora, Ms. Hawa Adem Mohamed, in an aim of providing education to women. It offers primary education, vocational training, and adult and literacy education to women and vulnerable groups.

- Prof. Adow Vocational Training Center (in Galkayo)
  It was established in 2014 with financial support from the Government of Norway. With the support from Norwegian NGO, YME Foundation, partnering with General Service Agency and NorSom, it runs 6 month training courses on 4 disciplines: i) Plastering and tiling, ii) plumbing, iii) brickmaking and bricklaying, and iv) electrical. It trained 64 students with 6 full-time lecturers in 2015.

(3) Jubaland

- Kismayo Technical Institute
  Kismayo Technical Institute is a private institution established in 2014. The courses include masonry, plastering, block making, concrete works, carpentry and woodwork, mechanics, welding, blacksmith, electrical, tailoring, computer applications, and mobile repairing. It trained 371 long-term students and 75 short-term students in 2015 with 13 full-time and 7 part-time lecturers in 2015. The Institute collaborated with UNIDO for 1 month training course in block building in Community Stabilization and Reconciliation for Youth Project funded by the Government of Japan; with ADRA in masonry training in Strengthening Equity, Access and Quality in Education Project; and Care in electrical training in Resilience in the Horn Project.

(4) Somaliland

- Sheikh Technical Veterinary School (STVS)
  Sheikh is a small town in Togdheer province, Somaliland. STVS is a regional institution recognized by Intergovernmental Authority on Development (IGAD)[49]. It was initially started as a project in 2002, funded by EU, Danish Government, and Italian Cooperation. Since 2009, STVS affiliated to Mekerere University of Uganda. It offers diploma courses in livestock, veterinary science, and livestock processing as well as bachelor's course in Dryland Economics and Agro-Ecosystem Management. The Government of Japan also funded a UNDP project on biogas, which was jointly implemented by STVS and Terra Nuova in 2012.

[49] IGAD region covers Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda.

- Berbera Maritime and Fisheries Academy (BMFA)
  BMFA was founded in 2012 with support from Government of Somaliland and Berbera, some companies, and International Maritime Organization (IMO). It had 145 students and runs two BSc courses in Engineering and Nautical Navigation and a diploma course in Fisheries in 2016. Recently, FAO and Yamaha Motor Co. Ltd. through International Organization of Migration (IOM) respectively provided short-term trainings: boat building by FAO and out-boat engine maintenance by FAO and Yamaha Motor Co., Ltd.
- HAVOYOCO
  HAVOYOCO, founded in 1992, is a local NGO with a high reputation in vocational trainings. Many development partners sublet projects to HAVOYOCO. It offers short-term training in masonry, carpentry, electricity, tailoring, cooking, metal work, and computer and management. In 2015, it trained 70 students. HAVOYOCO is equipped with basic training equipment such as mixer machine, block model machine, compactor soil machine, cutter tiles, cutter machine, and drilling machine. Its main office is located in Hargeisa, and its sub-offices are in Borama and Burao.
- African Youth Development Association (in Borama)
  It is a private institution established in 2003. It trained 40 short-term students with 10 part-time trainers in 2015. Courses include masonry, painting, carpentry, plumbing, and electricity. It collaborated with UN-Habitat for construction of shelters in 2015/16.
- Burao Technical Institute
  Burao Technical Institute was one of the few public TVET institutions, which used to provide secondary level vocational trainings. The Institute was closed from 1988 due to lack of funding, but it was reopened in November 2016.

Most TVET schools do not have adequate training equipment and teaching materials. They also suffer from lack of experienced trainers. Many of experienced lecturers were trained before the civil war and over 60 years old. Young trainers may know theories through their studies in bachelors or diplomas, but they are weak in practice.

While qualifications from TVET are not yet acknowledged, bachelor degrees at universities are a more popular educational choice for those wishing to learn technical skills. Yet, universities are also not well equipped in training material and facility, and they tend to be theory oriented. Majority of lectures reportedly have only bachelor's degrees. Most universities are private ownership, and a few are public. In Mogadishu, only Somali National University is public. There are some reputable universities such as Puntland National University, University of Hargeisa, Amoud University, etc. There is also Garowe Teachers Education College.

4.3 Support by Development Partners

4.3.1 IBTVET Approach

Appendix 7 shows the list of support by the development partners in vocational trainings. Most of their projects before 2015 targeted at income generation for the vulnerable including women, IDPs, and returnees. In many cases, they had to start with informal education such as simple reading and counting. Vocational trainings were mostly targeted at low-skill such as henna decoration, beautician, and tailors for women and carpentry, fisheries, and metalwork for men. Overlaps of such basic subjects sometimes caused excess supply of elementary workers in the same area. Since low-skill alone is not enough to initiate income generation activities, many projects combine the support in informal business grouping, facility provision, and microfinance to initiate businesses.

Before 2015, only a few projects took a holistic approach to develop a specific sector instead of merely providing short-term vocational trainings to the vulnerable groups. Some examples were observed in building sector by UN Habitat and fisheries sector by FAO.

- UN Habitat has training curriculums in building construction with its own standards and has translated teaching material into the Somali language. Training component also includes management training for building construction. In Sustainable Employment Creation and Improved Livelihoods for Vulnerable Urban Communities (SECIL) Project (2011-15), 184 construction workers and 193 supervisors received trainings in Mogadishu . It also supported capacity building of Banadir Regional Government. Moreover, UN Habitat assisted in establishment of Acqadotto Technical Centre where the building material is tested. Training activities are continued in the FGS-UN Joint Programme on Youth Employment. In Somaliland and Puntland, UN Habitat assisted building shelters.
- FAO provides trainings in building fishing boats (7.5 m / 10 m) in Puntland and Somaliland with its own international standard. FAO also dispatches foreign experts for marine trainings on fishing methods for 1 month. It also deployed 25 Fish Aggregating Devices (FADs) in Puntland and Mogadishu, and follow-up activities are being planned under EU-funded projects (2016-17). In addition, FAO joins with FGS and the regional governments in developing legal and institutional framework for the fisheries industry.

Reviewing the progress of contribution of vocational trainings to youth employment, many development partners acknowledged the needs for adopting a strategic approach as opposed to a relief-based approach since the latter tends to be supply driven without contributing to increase in demand from the labor markets. The major turn is symbolized under the UN Joint Programme on Youth Employment whose plan was finalized in June 2015. The 3 year project, with the target budget of USD 54 million, shall adopt a value-chain approach, particularly in sectors associated with fisheries, construction, construction, renewable energy, and agriculture (fruit and vegetables).Moreover, USAID's Growth Enterprise, Employment and Livelihoods (2015-2020) shall focus on agriculture, fisheries, livestock, and renewable energy. Similary, DfID's Promoting Inclusive Markets in Somalia

(PIMS) (2015-18) shall prioritize livestock, agriculture, fisheries, poultry, construction, and light manufacturing.

Before 2015, most of the focus on the projects assisted by the development partners was not on developing TVET institutions as service providers. Many development partners provided trainings through local NGOs or building their own training facilities; therefore, contribution to development of sustainable TVET institutions was weak.

Yet, following EU-funded projects provided direct support to building capacity of TVET institutions.

- Save the Children assisted Somaliland and Puntland in developing level 1 to 3 training standards for 12 disciplines and drafting bills for establishing National Vocational Qualification Authorities.
- World Vision used 9 existing TVET institutions (6 in Garowe and 3 in Dangorayo)[51] for 9-month vocational trainings in Puntland in 2014.

However, limited support was given for training of trainers. EU now plans to scale up assistance in TVET institutions with the GIZ under a 4-year project from 2017. As of February 2017, GIZ is undergoing its mission to determine the project scope.

4.3.2 EBTVET approach

In an effort to directly link trainings to employment, some projects adopted an EBTVET or apprenticeship approach. One example is USAID's Somali Youth Leaders Initiative (2011-16). The project targeted at enrolling 1,800 youth in EVTVET and 3000 in IBTVET. Enterprises to collaborate in EBTVET were identified in collaboration of a ministry of respective region[52]. Puntland identified 31 firms for EBTVET[53]. By the mid-term evaluation[54], 316 participants received 6-month trainings in 39 business enterprises in Mogadishu, Puntland, and Somaliland. In Somaliland, 38 were employed out of 83 trainees (45.8%) by 4 enterprises[55] after completion of EBTVET. Its report states that many enterprises were willing to collaborate and that EVTVET was relatively cheaper[56] than IBTVET especially since the former did not require facility and equipment provision. However, contents of the trainings varied depending on enterprises, and it was hard to standardize the training quality in EBTVET.

[51] 6 TVET institutions in Garowe are Swa, Horda, Al-Hikma, Siitba, Samafol, Garowe Vocational Training Center. 3 in Dangorayo are Hanad, Aceed, and Ravco. Total 480 students were trained in vocational skills: 196 in computing, 178 in tailoring, 28 in beauty salon, 25 in auto mechanics, 22 in electrical, 21 in hand craft, and 10 in fishing. 73.3% of the students were female.

[52] The counterpart ministries for EBTVET are the Ministry of Educations in Puntland and in Mogadishu and the Ministry of Labor and Social Affairs in Somaliland.

[53] Lead Consultant. *Somali-Wide Education Synergies. Technical, Vocational Education & Training (TVET) Workshop Report.* at Kenya Comfort Hotel. 18th-19th November 2014. Nairobi, Kenya.

[54] USAID 2014. *Evaluation Report: Mid-Term Performance Evaluation of the USAID Somali Youth Leaders Initiative (SYLI).* September 18, 2014.

[55] Furniture and aluminum fabrication, beauty salon, computing servicer, electronics service.

[56] In the USAID's project, $360 was paid per person for 6 month training.

4.3.3 Training of trainers

While the previous projects mainly focused on relief based direct assistance to the vulnerable including unemployed youth, women, IDPs, and return refugees, focus was not given to capacity building of TVET trainers. Only a short term training of trainers were implemented on teaching methodologies and some disciplines such as carpentry, tailoring, and electrical installation. On the other hand, World Bank's Somali Core Economic Institutions and Opportunities Program (SCORE), which is implemented between 2015 and 2019, targets at training 1,500 individuals, mainly trainers of TVET and BDS providers through a fund called SME Service Facility. EU's new project under Somali Education Sector Programme (SESSP) also plans to scale up components on the training of trainers.

Chapter 5 JICA's Cooperation in Youth Employment

5.1 Pilot Trainings

5.1.1 Consensus building for the pilot trainings

JICA's personnel are currently not allowed to visit Somalia due to insecurity. Accordingly, in a short term, JICA's assistance in the area of youth employment is offered mainly through trainings in the third countries. Based on the results of the study, contents of the pilot trainings were proposed, and consensus with the Federal Government has been built through consultation meetings in 5 occasions as shown in Table 1.

Table 1 Meetings with the Federal Government of Somalia for Pilot Trainings

1) Preliminary meeting	
Date	21st August 2015
Location	JICA Kenya Office, Nairobi, Kenya
Participants from Somalia	• Ministry of Planning and International Cooperation, FGS • Ministry of Commerce and Industries, Ditto • Ministry of Labor and Social Affairs, Ditto • Ministry of Education, Ditto • Ministry of Interior and Federalism, Ditto
Main Points Discussed	• Reported the progress of the Study • Proposed the trainings in target sectors
2) Meeting on pilot training for building construction	
Date	14th December 2015
Location	JICA Kenya Office and Kenya Technical Trainers College (KTTC), Nairobi, Kenya
Participants from Somalia	• Ministry of Public Works and Reconstruction, FGS • Experts - Somali International University - Engineering Association
Main Points Discussed	• Contents of the pilot training for the building construction • Methods of selecting participants
3) Mid-term reporting	
Date	11th and 15th July 2016
Location	JICA Headquarters, Tokyo, Japan
Participants from Somalia	• Ministry of Planning and International Cooperation, FGS • Ministry of Fisheries and Marine Resources, Ditto
Main Points Discussed	• Reported the progress of the Study • Reported the results of the pilot training for the building construction

4) Meeting on pilot training for fisheries	
Date	24th and 25th February 2016
Location	JICA Tanzania Office, Dar es Salaam, and Fisheries Education and Training Agency (FETA), Bagamoyo, Tanzania
Participants from Somalia	• Ministry of Fisheries and Marine Resources, FGS • Ministry of Planning and International Cooperation, ditto * This meeting was also participated by FAO-Somalia.
Main Points Discussed	• Contents of the pilot training for the fisheries sector • Methods of selecting participants • Direction towards future collaborative activities
5) Final Reporting	
Date	25th January 2017
Location	JICA Kenya Office, Nairobi, Kenya
Participants from Somalia	• Ministry of Planning and International Cooperation, FGS • Ministry of Education, Culture and Higher Education, Ditto • Ministry of Fisheries and Marin Resources, Ditto • Ministry of Public Works and Reconstruction and Housing, Ditto
Main Points Discussed	• Reported the results of the pilot trainings • Expectations on the future trainings based on the lessons from the pilot trainings

5.1.2 Selecting the target sectors for the trainings

In the preliminary meeting with FGS, held in August 2015, a proposal was made for the target sectors for trainings in the third countries. The following 5 criteria were used for the identification.

- Medium term prospect and impact on job creation in Somalia
- Contribution to industrial and economic development in Somalia
- Regional coverage and balance
- Possibility of collaboration with other development partners
- Collaboration prospect with the Japanese private sector in short and medium terms

Table 2 shows the result of comparison with relative rating assessed by a consultant.

Table 2 Comparison for the target sectors of the trainings in the third countries

Sector	Prospect and impact on job creation	Contri-bution to industrial economy development	Regional coverage and balance	Collabora-tion with other development partners	Collabora-tion with Japanese private sector	Total
Construction	5	5	5	5	3	23
Fisheries	3	5	3	5	5	21
Other manufac-turing	3	3	5	5	3 (Car repair)	19
Electricity	3	5	5	5 (Renewable energy)	1	19
Commerce	5	3	5	3	1	17
Other services	5	3	5	3	1	17
Tele-communi-cations	3	5	5	3	1	17
Livestock and processing	3	3	5	5	1	17
Agriculture and processing	3	3	3	5	1	15

Note： Comparative scale is expressed by relative rating of 1, 3, 5 without weights between the categories.

Above sector is categorized along the value chain rather than International Standard Industrial Classification (ISIC). Maintenance/repair of manufactured goods is included in manufacturing; livestock, agriculture, and fisheries is respectively combined with its processing. Other services include hotels, restaurants, health care, legal services, etc.

The following explains the reasons for the above rating.

1) Medium term prospect and impact on job creation in Somalia

From the view of medium term prospect for job creation, construction, commerce, and service sectors are rated higher than others. Construction has high demand for rebuilding infrastructure, which was destroyed or ruined during the civil war. Moreover, the diaspora utilizes rent income from real estate investment as an alternative method for international remittance to support family in the homeland. It is the sector which enjoys the highest amount of investment. Since business opportunities are rapidly growing, businessmen equipped with entrepreneurship mind and knowledge would start and expand construction business. As for commerce and service sectors, experiences in neighboring countries show

that they grow faster than other sectors.

On the other hand, job absorption by the fisheries sector is relatively lower in medium term prospect because it is limited to people in the coastal area. As for electricity and telecommunication, job absorption is not as high as commerce and service since the formers are equipment-based industry. New job creation in livestock will be expected in its processing and applies the same criteria as manufacturing, whose job absorption is lower than commerce and service since running manufacturing business requires higher inputs in capital and technology. Agriculture usually provides the highest absorption at this level of development; however, in the case of Somalia, many of the potential areas for cultivation are still under military conflict and cannot expect rapid development in a short term as compared to construction, commerce, and services.

2) Contribution to industrial and economic development in Somalia

As for expected contribution to industrial and economic development by the training, construction, fisheries, electricity, and telecommunications are rated higher than others. Firstly, investment into construction industry is rapidly growing. Yet, majority of the job opportunities are given to foreigners due to lack of engineering knowledge and/or unwillingness to take up manual labor. Consequently, majority of invested money flows out of Somalia. Provision of the training is expected to contribute to stimulating domestic circulation of the invested money.

Secondly, fisheries lack in experienced fishers who know about fishing methods in spite of abundant fisheries resources. Third country training is expected to produce higher outputs from enhanced knowledge compared to other sectors. In addition, fisheries business can contribute to earning foreign currency since export potential of fishes has much room for improvement.

Thirdly, since electricity and telecommunication are the basic infrastructure for economic/industrial development, stable service provision without interruption is necessary. However, maintenance techniques and logistics are currently weak. Moreover, increasing efficiency of service is expected to bring down electricity cost, which is presently blamed as a bottleneck for economic/industrial development.

In comparison, contribution of the training to outputs would be lower for the commerce, the service, livestock, and agriculture sectors compared to construction, fisheries, electricity, and telecommunication as the gap between domestic availability of technology and its demand is smaller. Outputs from the trainings on manufacturing would also be expected to be lower due to lower prospect for development in medium term.

3) Regional coverage and balance

Level of regional coverage and balance is linked to higher number of the direct and indirect beneficiaries from the trainings. In this criterion, fisheries and agriculture are rated lower. Beneficiaries of training in fisheries industry are limited to people close to the coast. Although coastline is the longest in Africa, many potential fishing villages in central and south area still suffer from access to markets

due to conflicts and insecurity. Beneficiaries will be limited in small parts of the country in medium term. Moreover, agricultural expansion is mostly limited to the southern area where precipitation is comparatively higher.

4) Possibility of collaboration with other development partners

Since JICA currently cannot provide on-site training due to security restrictions, collaboration with other development partners is necessary for the follow-up. Development partners' assistance with vocational trainings is extended to various sectors, but it mainly targets the vulnerable with technology standards at level 1 and 2. Yet, each development partner is aware of the necessity in raising the level and developing middle-skill engineers. As examples of exceptions, those which involve higher level education are construction by UN Habitat (currently mainly in Mogadishu), fisheries by FAO, and livestock processing at Sheikh Technical Veterinary School (STVS) by DANIDA.

It is assumed that other development partners would be favorable towards collaborating in JICA's training, which targets at level 3 and 4. Yet, commerce, service, telecommunications (mobile phones and internet service providers) are rated lower than others since training focus would assume to remain in basics to target at the mass. On the other hand, electricity is considered to receive higher support since many development partners are interested in renewable energy, which contributes to reduction in global warming and resource conservation.

5) Collaboration prospect with the Japanese private sector in short and medium terms

Sectors with stronger relationship with the Japanese private sector would lead to a more effective and sustainable support from Japan. Yet, the Japanese private sector would have a direct involvement in limited number of sectors due to physical inaccessibility to Somalia under the current security situation. However, fisheries, construction, and manufacturing (car maintenance) are rated higher than others in short and medium terms.

Firstly, the Japanese private sector would have a vast interest in development of fisheries industry in Somalia since Japan is a big market for fish. The Japanese firms can also contribute to development of fisheries boats and engines. As written in 4.3, Yamaha Motor Co., Ltd. supported short-term trainings in maintenance of out-boat engines for fishing boats through IOM. Since Japan has in-depth experience in developing the fisheries industry while managing marine eco-system, it is one of the sectors in which Japan can deliver unique know-how in the trainings.

As for the construction industry, Japan may engage in rebuilding infrastructure through official development assistance (ODA), which is contracted out to the Japanese firms, once Somalia restores peace. The Government of Japan has already supported trainings of road maintenance through ILO. JICA has also provided other types of road maintenance trainings in Tanzania in 2012 and 2013.

As for manufacturing related activities, Japanese private firms may find a link to car maintenance since there are many used Japanese cars on the roads of Somalia. Various initiatives by Japanese automobile firms are found in car maintenance trainings through TVET institutions and/or in their own

institutionsin third countries.

5.1.3 Pilot trainings implementation

Based on analysis as explained in 5.1.2, following two sectors were selected for the pilot trainings in this study:

- Fisheries
- Building construction

Each sector requires various technologies, but the course contents were determined based on availability of equipment in Somalia. Moreover, mere duplication with on-going assistance in Somalia was avoided, and selected subjects are designed to add values to existing initiatives.

(1) Fisheries Training

The training of trainers course on fisheries was held at Fisheries Education and Training Agency (FETA) in Bagamoyo for 5 weeks from 20th July 2016 to 23rd August 2016. FETA is a public institution under the Ministry of Agriculture, Livestock and Fisheries of Tanzania, and it is responsible for supplying technical manpower in the field of fisheries, aquaculture, and allied industries. FETA has a rich experience in delivering trainings for the participants from other countries including Somalia. The training was conducted in close consultation with FAO in order to implement necessary follow-up activities in Somalia by FAO. 15 participants from all over Somalia were nominated by FGS, Puntland State Government, Interim Galmudug Administration, Interim South West Administration, Interim Jubaland Administration, and FAO. Participants' affiliations are local governments (8), fisheries cooperatives (3), university and TVET institution (2), private sector (1), and FAO local expert (1).

20 modules comprised of the following 6 subjects were delivered.

- artisanal coastal fisheries production;
- fish handling, processing, and preservation;
- marketing fish and fisheries products;
- fishing boat maintenance;
- management of fisheries' organizations; and
- fisheries and marine resource management.

Alongside 18 modules delivered by FETA's lecturers, 2 modules were trained by the Japanese experts: FADs and out-boat engine maintenance. In the artisanal coastal fisheries production, a Japanese expert delivered training on a new type of FADs, which is deployable by fisheries communities. Training on the out-boat engine maintenance was delivered in collaboration with Yamaha Motor Co. Ltd., which has an experience of delivering the same training at Berbera Maritime and Fisheries Academy in February 2016 through IOM.

The course comprehensively covered technical areas required for fisheries trainers. While 60% of the training focused on the technical aspect on production, the training subjects are also extended to other

areas for developing sustainable fisheries industry in Somalia. Somali fishing communities firstly require technical knowledge on fishing methods, but fish processing is also considered as an important aspect to be covered in the training since the expiry period for fish consumption can be extended with processing, and this is much needed in Somalia where cold chain is not readily available. Moreover, fish processing business will create jobs that are often taken by women. Fisheries and marine resource management is also important, and this should be practiced from an early stage of development. The pilot training was well received by the participants who evaluated 93% satisfaction with 82% effectiveness level[57] on average.

Details on the pilot training for the fisheries sector are reported in Part 1 in the Annex.

(2) Building Construction Training

Considering lack of training equipment, the pilot training was designed to take soft and practical approaches. Consequently, 1 month training of trainers course on *foreman for building construction* was planned and implemented, incorporating necessary management skills at the construction site. 14 participants attended the course from 10th May 2016 to 8th June 2016 at Kenya Technical Trainers College (KTTC) in Nairobi. KTTC was selected as a service provider because it has an experience in delivering consultancy services for development of TVET in Somalia under an EU funded project, and it was considered that its knowledge in actual situations of TVET centers in Somalia would be useful for designing and delivering the training.

A call for applications was made, intending to invite mainly trainers at TVET institutions. However, only 5 out of 14 participants were from the TVET institutions. The other participants were affiliated with the government (3), private companies (4), and international NGOs (2). Apart from 1 participant who did not have actual working experience, other 13 participants work in building construction either as supervisors or trainers. 12 participants have a Bachelor's in Engineering while 2 others have a Bachelor's in Community Development and a Diploma in Administration respectively. High educational background of the participants made the training run smoothly since they were quick to grasp theories.

As JICA is currently not able to directly support projects inside Somalia due to security restrictions, collaboration with other development partners was considered important. For this consideration, participants were recommended from the development partners including UNIDO, ADRA World Vision, and DRC in parallel with recommendations from the Ministry of Public Works and Reconstruction of FGS and Interim Galmudug Administration as well as the Ministry of Education of Somaliland. In addition, a consultant from NRC was invited to deliver a lecture on actual building construction exercises in Somalia. Local staff of ADRA and DRC were among the participants.

The participants are expected to give trainings to other trainers and/or students/engineers after returning

[57] Satisfaction rate is calculated out of 5 level assessment from "unsatisfied" to "very satisfied". Effectiveness rate is calculated out of 3 level assessment from "not learned at all" to "learned very much" on respective module. The raw average score of satisfaction rate was 4.67, and that of effectiveness was 2.47.

to Somalia. Participants learned the know-how necessary for on-site supervision at building construction sites through a combination of in-class lectures, actual building exercises of a guard house, and on-site visits. Although the content was basic, participants learned new knowledge, particularly in safety measures, testing material, land levelling, etc. Although the participants work as supervisors or trainers, they did not have experience in engaging in actual building exercises, and they said that they have become more confident in supervising or training in building construction. Participants evaluated an 89% satisfaction with 81% effectiveness level on average[58].

Details on the pilot training for the building construction sector are reported in Part 2 in the Annex.

(3) Follow-up Activities

Several measures are taken to assist the participants in technology transfer activities to the youth in Somalia. Firstly, constant communications with the participants are intended to be kept through group E-mail, whose address is created for the building construction training and fisheries training respectively. Secondly, statuses of technology transfer activities are to be reviewed every half a year through a simple questionnaire survey[59]. Thirdly, requests are made to the development partners to utilize those who are found idle through the questionnaire survey. As for the participants in the fisheries training, partnership is sought with FAO to promote technology transfer activities in Somalia. As for the building construction training, 5 participants out of 14 were engaged in activities under development partners' projects[60] as supervisors of school/shelter constructions or trainers of vocational trainings within 6 months after the completion of the third country trainings. These are follow-up initiatives taken under YEBS.

In addition, a group follow-up is desirable. One key outcome of the trainings was networking and trust building among the participants who are from various regions across Somalia. Spending over 1 month in the same accommodation was one of the advantages of the third country trainings. A few days refresh workshop may provide a good opportunity to maintain such vital networking. The workshop shall also be a good opportunity for designing the future training programs as the technology gaps, which has to be further enhanced, are discussed and identified during the refresh workshop.

(4) Lessons learned

The pilot trainings on fisheries and building construction proved that these training programs match with training needs of the trainers in Somalia. Although the trainings focused on the basics, the participants acquired much new knowledge. Even for the participants who have bachelors in the sectors, the learning experience they gained was mostly theoretical. Therefore, the practical approach

[58] Satisfaction rate is calculated out of 5 level assessment from "unsatisfied" to "very satisfied". Effectiveness rate is calculated out of 3 level assessment from "not learned at all" to "learned very much" on respective module. The raw average score of satisfaction rate was 4.43, and that of effectiveness was 2.43.

[59] The first follow-up survey in the building construction showed that 10 participants out of 14 are successfully executing their skills in technology transfer activities in the past 6 months.

[60] The donor agencies for the projects include the Government of Norway, UNHCR, and EU. Implementing development partners include ADRA, DRC, and CISP.

taken in the pilot trainings was much appreciated. Moreover, the pilot trainings added some values to on-going initiatives since the designed programs in the pilot trainings are hardly offered in Somalia.

Fisheries Training at FETA
(FADs deployment practice)

Building Construction Training at KTTC
(Guard house construction practice)

The most critical point for improvement suggested by the participants was the duration. Since the traing contents were too rich to cover within the time period, the trainings went on some Sundays, and some subjects had to be cut in short. On the other hand, merely prolonging training period would cause loss of the concentration and also may disturb participants' workloads in Somalia.

The pilot trainings also found that selection of the "right" participants is one of the key elements to enhance effectiveness of the trainings. Since the pilot trainings were designed as the training of trainers, those who are in a position to execute technology transfer to others were the target participants. For these reasons, the increase in lecturers from the training institutions, including vocational schools, colleges and universities, are most desirable in the future trainings.

5.2 Proposal for the next step

Observing the success of the pilot trainings on fisheries and building construction, continuation of the trainings in the third countries on the same sectors is recommended. To ensure efficient and effective implementation of the trainings, a project is proposed to be formulated as an official cooperation between FGS and JICA.

(1) Project duration: 3 years

(2) Project objectives

Overall Goal: Participants of the third country trainings transfer their skills to the youth in Somalia.

Project Purpose: A pool of trainers is created in fisheries and in construction sectors all over Somalia.

Outputs:

1) Participants in the third country trainings enhance their skills as trainers in fisheries.

2) Participants in the third country trainings enhance their skills as trainers in construction.

3) Training contents are designed to meet the needs of the trainers for the fisheries and building construction sectors.

(3) Project activities

1) Train trainers on fisheries technology (15 participants x 2 x 3 years)

2) Train trainers on construction technology (15 participants x 2 x 3 years)

3) Monitoring, evaluations, and follow-up

(4) Course contents

For the next batch, repetitions of similar trainings as of the pilot trainings are recommended with small modifications which are found necessary, such as extension of the training duration (for fisheries training to be extended to 7 weeks and for building construction training to be extended to 5 weeks). Based on periodical reviews, training programs can be modified or renewed.

Although some participants in the pilot trainings request for more advanced courses, it is considered plausible to continue with basic training courses until a good number of candidates for advanced courses are identified through the trainings of the basic courses.

(5) Counterparts

Through the discussion with the Ministry of Planning and International Cooperation of FGS, the exact counterparts are to be decided. Yet, the Ministry of Education, Culture and Higher Education is requested to become a counterpart in addition to the Ministry of Fisheries and Marine Resources and the Ministry of Public Works and Reconstruction that were the counterparts in the pilot trainings.

(6) Target beneficiaries

The target beneficiaries are "trainers" in the respective sector. With the expected involvement of the Ministry of Education, it is desirable to invite more trainers from the training institutions including vocational schools, colleges, and universities. However, due to limitations in the available number of "trainers" in the training institutions, the technical supervisors who assist the youth can be included[61]. For each batch, maximum number of attendance is assumed to be 15 people. Similar to the pilot trainings, invitations are to be extended all over Somalia.

(7) Service providers

For the fisheries training, FETA is recommended to remain as the service provider. FETA is well equipped with the training capacity, and its location facing the Indian Ocean is fitted to exercise fishing and learn management with similar marine resources. There is no alternative training institution with the same conditions as FETA.

For the construction training, the service provider has to be selected through the competitive

[61] In case of the building construction training, those who supervise constructions of schools and shelters under development partners' projects were included.

procurement process while KTTC remains as one of the strong candidates.

(8) Inputs from Japan

- Training costs in third countries including accommodations and meal of the participants
- Domestic and international travelling cost to attend the trainings
- Japanese experts:
  - fisheries technology
  - construction technology
  - training material development / coordination
- Training materials and equipment

(9) Cooperation with other development partners

While JICA's activities inside Somalia are restricted due to security concern, cooperation with other development partners are sought out in order to strengthen follow-up mechanism after the trainings. The methodology of cooperation includes identification of candidates for the trainings together with FGS.

(10) Other points to consider

1) Participants' obligations

Participants need to be well acknowledged with their obligations in technology transfer in Somalia after the training and adherence to security guidelines during the training, both at the time of application and in the beginning of the training.

2) Collaboration with the education/training institutions in Somalia

In the pilot trainings, direct links with the education/training institutions were limited. However, it is plausible to pursue possibility of collaboration with the education/training institutions in the follow-up activities while the participants are selected for that purpose.

3) Selection Schedule

Two month application period is necessary due to difficulties in identifying the right participants from various parts of Somalia as well as securing passports before the application. In addition, one and a half months are necessary for visa processing and travel arrangements after the participants are nominated by FGS.

4) Training Schedule

It is more effective to undertake trainings during the off-academic seasons so that the service providers are not distracted with the regular courses. Since the trainings are designed to involve outside exercises, participants are recommended to rest on Fridays and Sundays.

(11) Justification of the Project through 5 evaluation criteria

This project proposal is evaluated based on 5 evaluation criteria developed by OECD Development Assistance Committee.

- relevance: whether the project accords with development needs of Somalia?
- effectiveness: how likely the project purpose is achievable through the intervention?
- efficiency: how efficiently the project inputs are used to produce the project outputs?
- impact: what are the likely effects of the project on economy and society in Somalia?
- sustainability: how likely the effects of the project continue?

1) Relevance

The proposed project supports the targets specified in the National Development Plan of Somalia (2017-2019). Firstly, youth employment and strengthening TVET system are considered one of the priorities in the social strategic objectives. As the project purpose aims to produce a number of trainers for the youth across Somalia, this project shall support capacity building of trainers at TVETs, which contribute to skill enhancement for the youth. Secondly, fisheries sector is selected as one of the priorities among the economic strategic objectives. Thirdly, construction engineers are required to be trained in supporting infrastructure development. Particularly, the proposed training on building construction would directly contribute to the National Housing Program, which aims to provide adequate, affordable, and sustainable housing for the returnees and IDPs.

2) Effectiveness

Results of the pilot trainings suggest that proposed training programs are appropriate to enhance skills of the trainers for fisheries and construction sectors all over Somalia.

3) Efficiency

Although cost per participant becomes higher in the third country trainings than the ones inside Somalia, this additional cost is considered necessary to ensure security during the trainings. In addition, the third country training creates opportunities to build networks among the participants from all over Somalia including those in the conflicted area. This arrangement is expected to contribute to balanced development throughout Somalia.

4) Impact

Since there is currently a very limited number of highly skilled trainers, the trained trainers are expected to become vital human resources for transferring skills to the youth in Somalia. Their contributions to development partners' projects across Somalia are also envisaged.

5) Sustainability

Sustainability of the trainings is sought out through cooperation with other development partners in following up activities.

5.3 Direction for Future Cooperation

Once security is stabilized in Somalia, options for various types of cooperation by JICA will be widened. Examples from assistance in youth employment in other countries include:

- Policy formulation
- Sectorial competitiveness creation through dispatching Japanese experts
- Managerial trainings for micro and small scale firms
- Community based income generation planning and support
- Vocational trainings (including school construction/rehabilitation and equipment provision)
- Dispatch of volunteers etc.

Actual planning shall be done by referring to the 5 evaluation criteria (relevance, effectiveness, efficiency, impact, sustainability) at the time of project formulation.

There are two approaches in assistance in youth employment:

- aiming for job creation through growth of enterprises and technology from the view of industrial development and
- direct and relief based approach.

Since the direct beneficiaries of the proposed third country trainings are only a small number of selected master trainers, proposed trainings in this study are designed through the former approach. However, if JICA takes the latter approach in the future, a project has to support a large number of people since the expected impact per individual is small. In such case, following two conditions are recommended to be considered in order to enhance overall impact and sustainability.

- Link trained technology directly to income generation:

  The trainings are designed in conjunction with methodologies for generating income from the knowledge gained in the trainings. Since job opportunities are limited in Somalia, assistance is desirably extended not only to technological inputs but also to actual income generation process.

- Promote cooperation among the youth group members for income generation rather than supporting individually:

  Youth members will learn and help each other in gaining experiences in their careers.

During the field work in Kenya in this Study, some projects which observe the above two conditions were found (See Column below).

Column: lessons from Kenya for youth employment

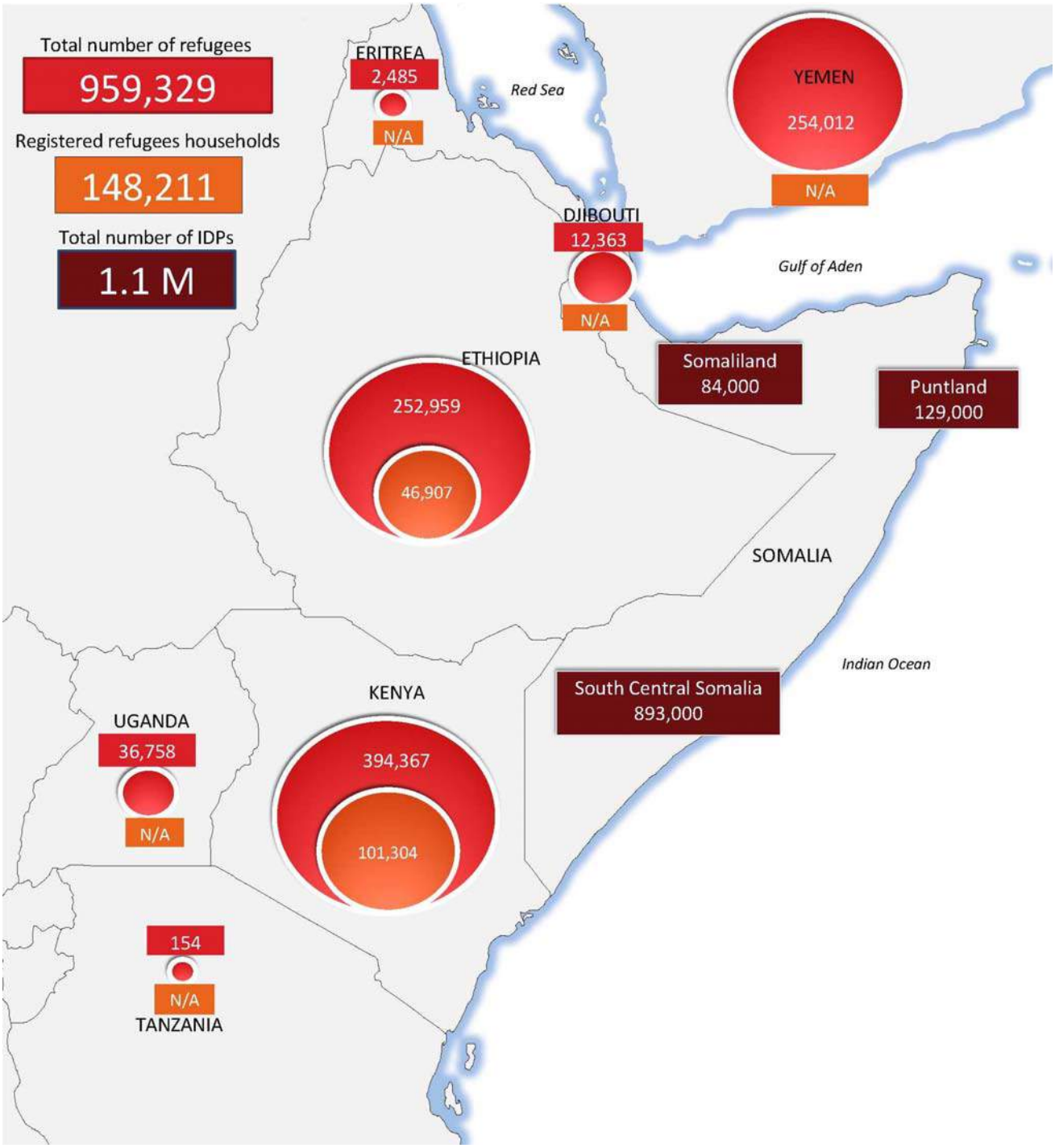
Following two projects in Kenya exemplify linking trained technology directly to income generation and promoting cooperation among the youth group members for income generation activities.

- One Stop Youth Information Centre, which is jointly run by Nairobi City Government and youth groups and supported by UN-Habitat
- Japanese funded ILO training on manual road maintenance

Government of Kenya has started to impose each public institution to procure 30% of commodities/work from youth, women, and persons with disabilities since 2013 based on *Access to Government Procurement Opportunities*. Above two projects utilize this scheme and support the youth not only in training but also grouping of the trainees to become a business unit and teaching tender methods. Trainings under the above projects are directly linked to the income generation, which became possible because of the change in the Government policy on procurement. This may be of reference to the case of Somalia as well. Both UN Habitat and ILO carry out similar trainings in Somalia: UN Habitat opened a new One Stop Youth Information Centre in Mogadishu in January 2016, and ILO provided trainings on manual road maintenance supported by the Government of Japan.

One pitfall is that some youth groups may be formed just for obtaining money/fund from the Government without the spirits of respect, cooperation, and care for the community. In order to empower youth, above One Stop Youth Information Centre also provides social services and sports in order to nurture friendships among the members.

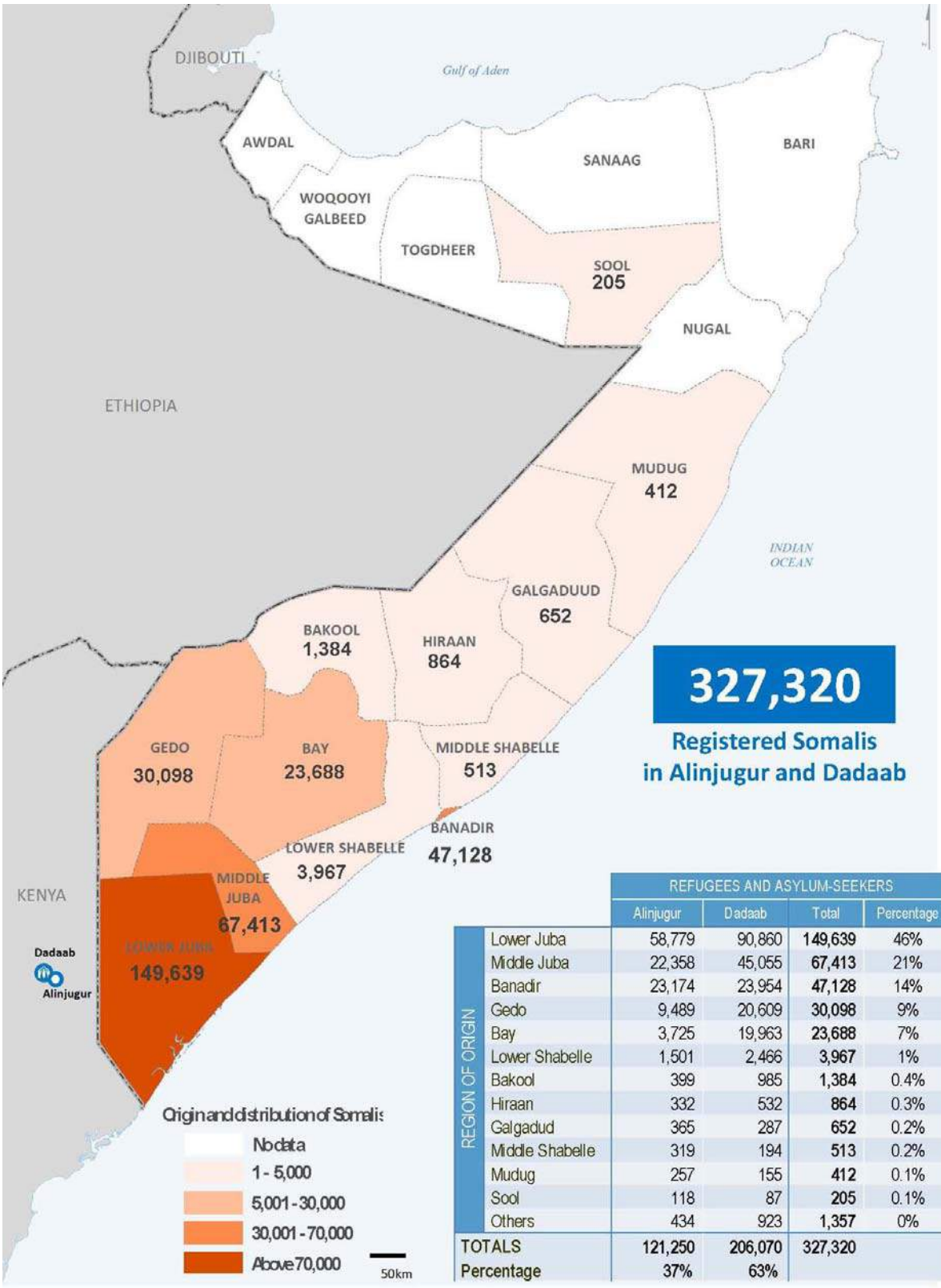
Appendix 1　Somali Refugees and IDPs



As of July2016

Source：UNHCR. 2016. *Somalia Refugees in Horn of Africa* <http://data.unhcr.org/horn-of-africa/documents.php?page=1&view=grid&Type%5B%5D=1&Country%5B%5D=197>

Appendix 2 Origins of Registered Somali Refugees and Asylum-Seekers in Kenya

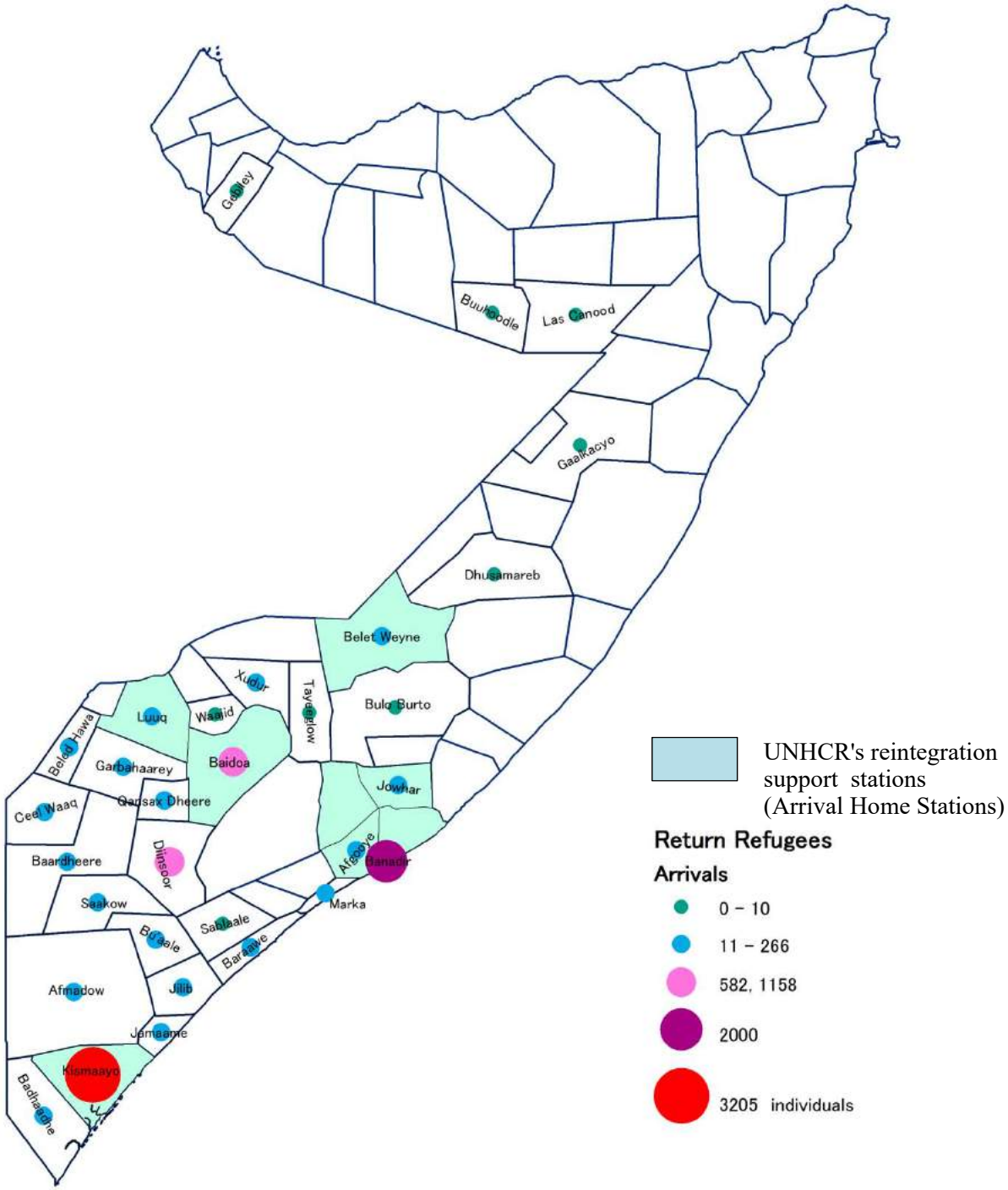


REGION OF ORIGIN	REFUGEES AND ASYLUM-SEEKERS			
	Alinjugur	Dadaab	Total	Percentage
Lower Juba	58,779	90,860	**149,639**	46%
Middle Juba	22,358	45,055	**67,413**	21%
Banadir	23,174	23,954	**47,128**	14%
Gedo	9,489	20,609	**30,098**	9%
Bay	3,725	19,963	**23,688**	7%
Lower Shabelle	1,501	2,466	**3,967**	1%
Bakool	399	985	**1,384**	0.4%
Hiraan	332	532	**864**	0.3%
Galgadud	365	287	**652**	0.2%
Middle Shabelle	319	194	**513**	0.2%
Mudug	257	155	**412**	0.1%
Sool	118	87	**205**	0.1%
Others	434	923	**1,357**	0%
TOTALS	121,250	206,070	327,320	
Percentage	37%	63%		

As of April2016

Source: UNHCR. 2016. Somalia: Area of Origin of Registered Somali Refugees and Asylum-Seekers in Dadaab and Alinjugur Refugee Camps in Kenya: As of 30 April 2016 < http://reliefweb.int/sites/reliefweb.int/files/resources/SOM_AreasofOrigin_DDB_160430.pdf ><http://data.unhcr.org/horn-of-africa/ country.php?id=197#_ga=1.192628397.680799280.1432522781>

Appendix 3　Repatriation of Somali Refugees from Kenya

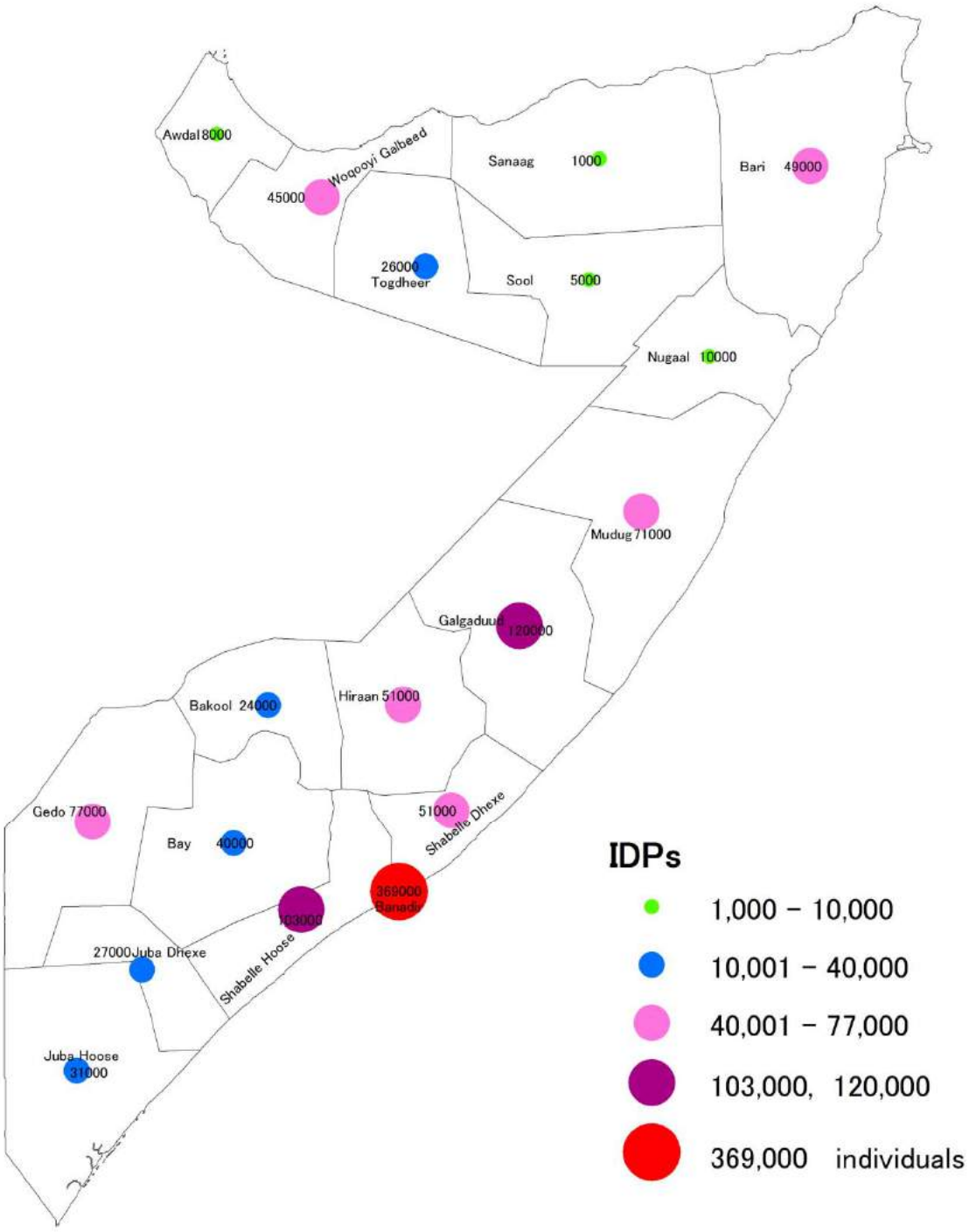


Arrivals from Kenya between December 2014 and February 2016

UNHCR's reintegration support stations (arrival home stations) have commuity based-projects and distribute reintegration support package, which includes shelter package, kitchen and sanitary set, livelihood start up grant, reinstallation grant, and education grant.

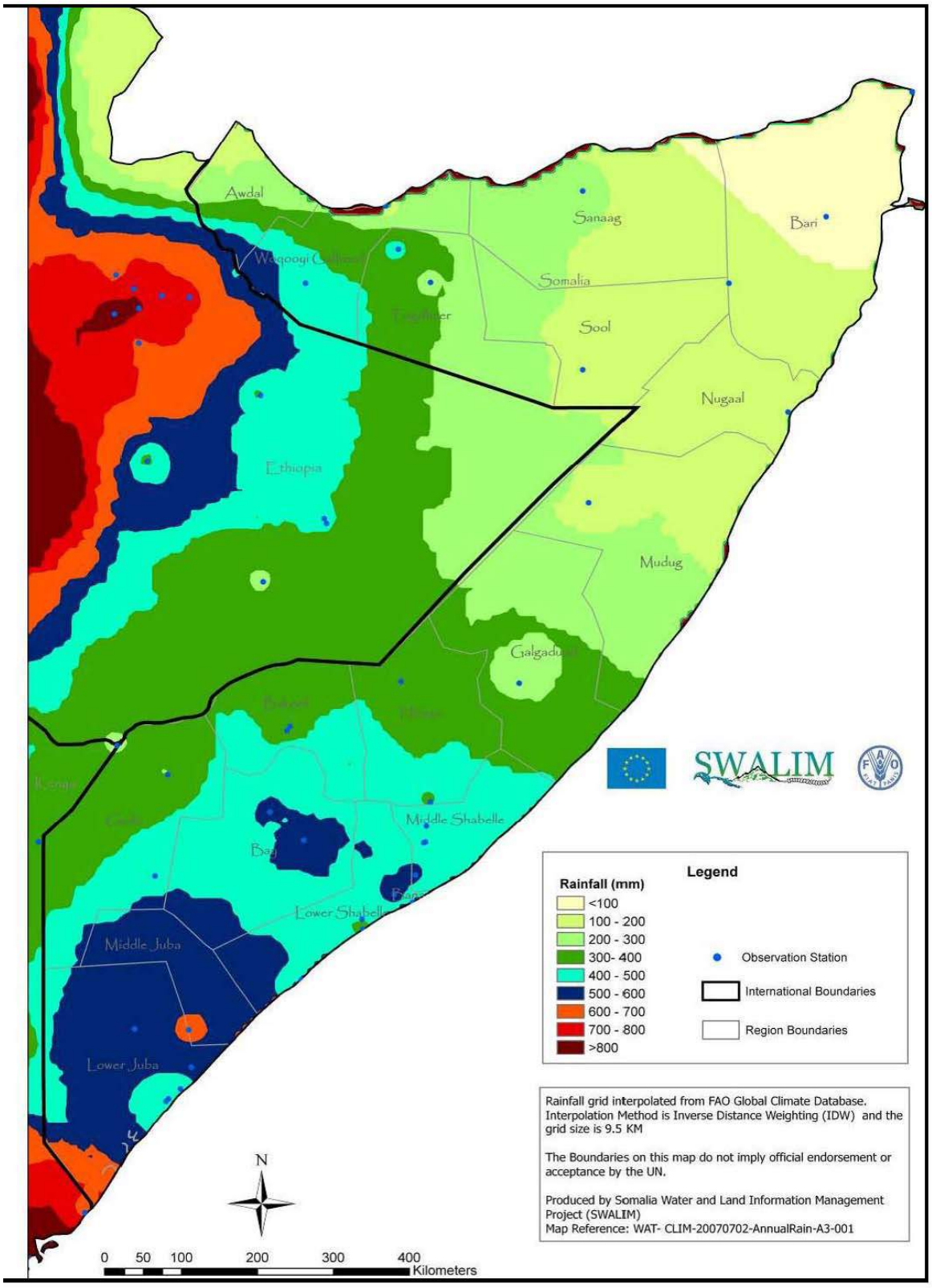
Source: Map developed by the Author based on UNHCR. 2016. *Weekly Update: Support to Voluntary Repatriation of Somali Refugees from Kenya.* <http://data.unhcr.org/horn-of-africa/documents.php?page=1&view=grid&Type%5B%5D=1>
UNCCR. Return & Reintegration of Somali Refugees from Kenya < http://data.unhcr.org/horn-of-africa/documents.php?page=1&view=grid&Type%5B%5D=1&Country%5B%5D=197>

Appendix 4　Regional Distribution of IDPs



As of February 2016
Source: Map developed by the Author based on UNHCR. 2016. *Somalia: Total Internally Displaced Persons.* <http://data.unhcr.org/horn-of-africa/documents.php?page=1&view=grid&Type%5B%5D=1>

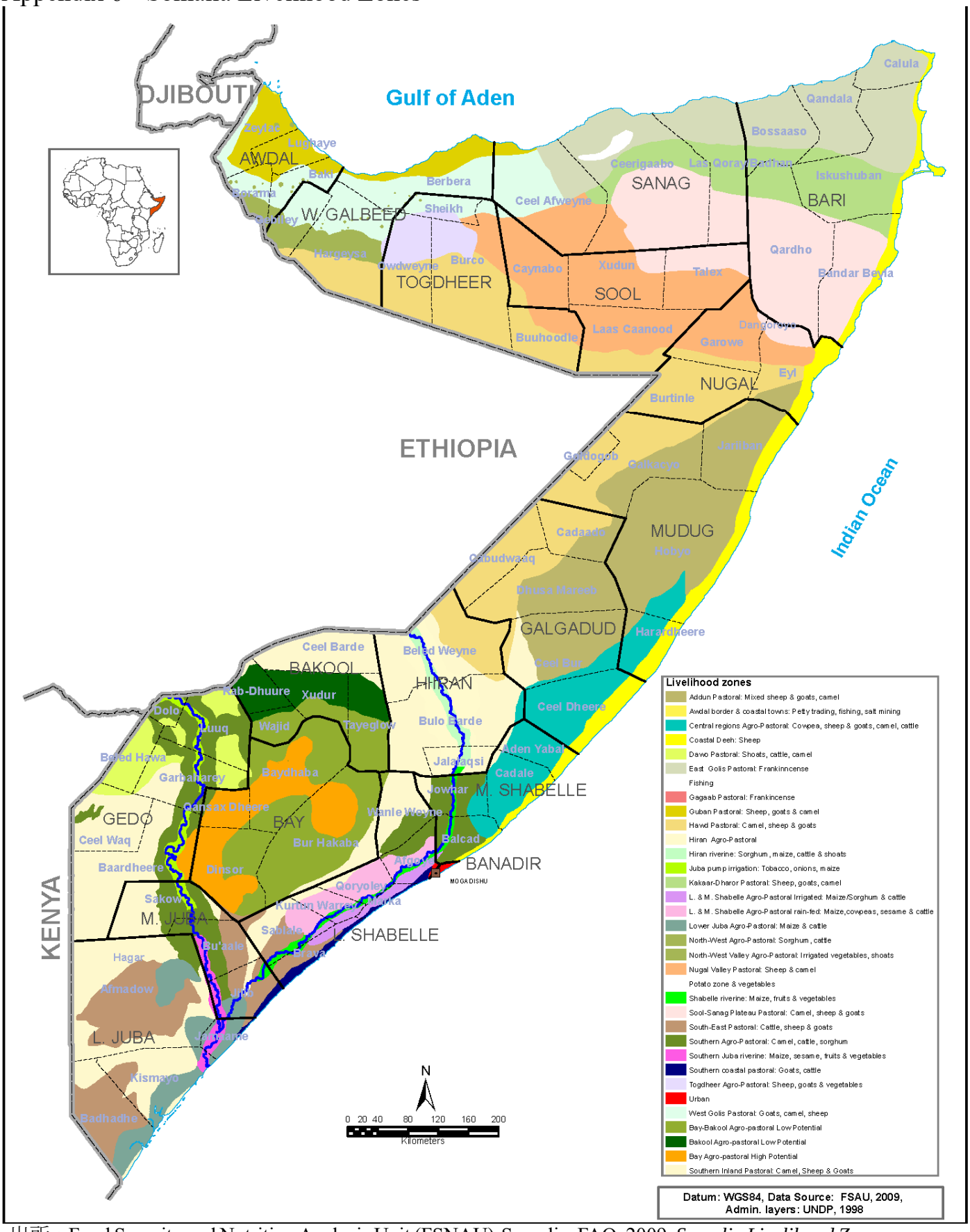
Appendix 5　Average Annual Rainfall



Based on average annual rainfall between 1963 and 1990

Source：Somalia Water and Land Information Management. 2007. *Climate of Somalia*. Technical Report No W-01: Figure 4. Page 12.
< http://www.faoswalim.org/ftp/Water_Reports/Cleared/W-01-Climate%20of%20Somalia.pdf>

Appendix 6　Somalia Livelihood Zones



出所：Food Security and Nutrition Analysis Unit (FSNAU)-Somalia, FAO. 2009. *Somalia Livelihood Zones.*
＜http://www.fsnau.org/products/maps/livelihood-maps＞

Appendix 7 Support in Vocational Trainings by Development Partners

Institution	Area	Activities
FAO	Bossaso, Berbera, Eyl, Mogadishu, etc.	Ship building training (6 months) Fishing methods/fishing equipment training (1 month) Fish processing (fish drying) training for IDPs EU-funded trainings on fishing using FADs (2016-2017)
	Somaliland, Puntland, South Central	SEED: DfID-funded project (2010-14) training in soap, dried meat, and bone craft manufacturing
IOM	Bossaso, Berbera	Maintenance of out-boat training with Yamaha Motor Co., Ltd.(1 week)
	Baidoa	Trained 406 youth and IDPs
	Garbaharray	6 month busing management training for 30 youth
UNDP	Whole Area	To plan based on result of Diagnostic Trade Integration Study under Joint Programme on Youth Employment: poultry, fisheries, and sesame are selected as priority sectors.
UNHCR	Kismayo, Baidoa, Luuq, Beledweyne, Mogadishu, Balcad, Jowhar, Wanla Weyn, and Afgooye	Joint support with other development partners for training returnees and IDPs
ILO	Baidoa	Trainings for supporting income generation of returnees and IDPs under the funding of Government of Japan "Donou" training for road maintenance under the funding of Government of Japan
	Garowe	Training at Garowe Vocational Center in "Youth for Change" project under the funding of Government of Japan
	Whole Area	New projects are being planned to support poultry, fisheries, and sesame production under the UN Joint Programme on Youth Employment
UNIDO	Hargeisa	Trainings for the vulnerable groups in Welding/metalwork, Masonry, Electrical, Carpentry, Food Preparation, Sewing Mechanics, Tie Dying, Painting, Construction, Skins and Hides with HAVOYOKO under the funding of Government of Japan (-2012; completed)
	Kismayo	Steelwork, masonry, carpentry, painting at mobile workshops under the funding of Government of Japan
UN-Habitat	Mogadishu +α	Trainings the Youth Groups at One Stop Youth Centre
	Mogadishu	SECIL Project (2011-15) funded by EU: building construction trainings (184 trainees for construction workers and 193 trainees for supervisors)
World Bank	Somaliland, Puntland, and South	Somali Core Economic Institutions and Opportunities Program (SCORE) 2015-19: train 1500 individuals through SME Service Facility; mainly target trainers of TVET & BDS providers
EU		Somali Education Sector Support Programme (ESSP)
	Somaliland, Puntland	Supported developing National Qualification System through Save the Children - Completed
	All area	Provision of training and rehabilitation of schools: Save the Children in Somaliland; ADRA in Puntland; and CARE in Central and South
	Kismayo, Baidoa, Mogadishu	Rehabilitation of 3 public TVET institutions
	All area	Building institutional system for TVET (to start a 4 year project with GIZ)
	Somaliland, Puntland	Support ship building project by FAO - stopped
USAID	Hargeisa, Bossaso, Lasaanood, Garowe, Galkayo, Mogadishu, etc.	Somalia Youth Livelihoods Program (2008- 12): Training for 10,000 youth (15-24 years old) of which 41% are women. Collaborated with 58 local partners
	Somaliland, Puntland, Galmudug, Mogadishu	Somali Youth Leadership Initiative (2011-16) in collaboration with Mercy Corps, Save the Children, and CARE: business skills trainings, start up grants

	All area	Growth, Enterprise, Employment and Livelihoods (GEEL) Project (Sep 2015 - 2020): $75 million project. Priority sectors are agriculture, fisheries, livestock, and renewable energy: support includes policy formulation, financial accessibility, production techniques, BDS services, investment promotion.
DfID	Somaliland, Puntland, South Central All area	SEED Program (jointly with FAO, ILO, Save the Children) (2010-14): (1) Sector based Support: Livestock in Somaliland, Fisheries in Puntland, Crops in South Central (2) Challenge Fund (2010-): firm based training for 460 young employees (livestock, agriculture, fisheries, light industry, construction, etc.) Promoting Inclusive Markets in Somalia (PIMS) (2015-18): priority sectors are livestock, agriculture, fisheries, poultry, construction and light manufacturing. Support includes regulations, market infrastructure, and investment facilitation.
DANIDA	Shaikh	Support at Sheikh Technical Veterinary School (ISO quality inspection for export promotion etc.)
GIZ	Kismayo All area	Support to Returnees and IDPs Building institutional system for TVET (to start a 4 year project with EU)
Save the Children	Somaliland, Puntland	EU's Education Program: to support development of Vocational Qualification Framework in 12 fields from Level 1 to 3 (beekeeping, apiculture, bakery, fishing, fish hygiene/handling/processing, carpentry, welding/metal fabrication, plumbing, electrical installation, marine motor and vessel repair maintenance, garment making, business office administration); training of trainers - Completed
Oxfam	Somaliland, Puntland	Fishing methods under EU fund 33 month project under EU fund (2011-2014) Partnership with HAVOYOCO in Somaliland and KAALO in Puntland Trained 1243 youths through 12 local organizations. 6 fields: tailoring, beauty therapy, electricity, journalism, office management and administration, business and accounting.
World Vision	Puntland Somaliland, Puntland, South Central	Somalia Vocational and Entrepreneur Livelihood Support Project(2012-3): Financially supported studies of 680 people of the vulnerable groups at 9 public TVET institutions Somalia Resilience Program (SomReP) : training in livestock and agriculture
ADRA	Somaliland, Puntland Mogadishu, Kismayo, Dollow, Baidoa, Beledweyne, South Galkayo, Garowe, Hargeisa Kismayo, Baidoa, Mogadishu	renewable energy Each town has a regional office. Trainings are given to youth and women based on needs assessment of each town. eg. agriculture, bricks/tiling, dying, electronics, car maintenance, ICT, etc. construct new TVET centers under EU funded project (2016-)
NRC	Mogadishu, Galkayo, Garowe, Gedo, Baidoa, Dolo, Kismayo, Hargeisa	Provide basic vocational trainings in various skills under Youth Education Pack (YEP)
DRC	Mogadishu	Assisted Voluntary Return and Reintegration Program funded by Norway (2014-15): trained 179 IPDs and returnees on entrepreneurship, management, and IT skills for 10 days. 67 graduates who chose to start a business (tailoring, beauty salon, mobile repairing) and 45 graduates formed business groups (tie, dye, beauty salon) were provided with startup grands. 67 graduates received apprenticeship support for 3 months (electrical installation, auto-mechanics, mobile repair)
Care International	Northern Puntland, Eastern Somaliland, South Central	Worked under EU's Education Program by EU and USAID's Somalia Youth Livelihoods Program

Source: Based on interviews with the development partners and literature review of supporting documents

Appendix 8　Status of Garowe Vocational Training Center

Established in 1995, Garowe Vocational Training Center is the most notable, functioning public TVET institution in Puntland. Between 2000 and 2010, the Center was irregularly open due to lack of sponsors. Then it became more stabilized after 2011, carrying out trainings sponsored by many development partners including EU, World Vision, Save the Children, CARE, Mercy Corps, NRC, Norwegian Church Aid (NCA), ADRA, ILO, UNDP, and United Nations Office on Drugs and Crime (UNODC).

However, its operation and finance still fully depend on projects from the development partners, and there are no fixed annual regular courses. Consequently, its facility is generally underutilized. Even the new training equipment provided by the development partners such as 29 computers is unused when projects are not running. Furthermore, there is no fixed tuition, and training fees are paid to the Center based on a negotiated contract in each project.

The Center is currently using an old curriculum developed by UNESCO in 2002, but the Ministry of Education and Higher Education has a plan to pilot a new 9-month curriculum for Standard Level 1in the Center from 2016.

EU and GIZ plan to collaborate with the Center to improve above situations and develop the Center as a model TVET institution in the coming project from 2017.

1)　Total number of students:

a. Regular courses	in 2015 (150)	in 2014 (187)
b. Short-term courses	in 2015 (120)	in 2014 (130)

2)　Total number of lecturers:

a. Full time	in 2015 (11)	in 2014 (11)
b. Part time	in 2015 (5)	in 2014 (7)

3)　Total number of students for construction related courses:

a. Regular courses	in 2015 (20)	in 2014 (15)
b. Short-term courses	in 2015 (10)	in 2014 (12)

4)　Total number of trainers for construction related courses

1) Full time trainers	in 2015 (1)	in 2014 (1)
2) Part time trainers	in 2015 (1)	in 2014 (1)

5)　Training courses:

- Electricity training
- Carpentry training
- Masonry training
- Computer training
- Tailoring training
- Arts training
- Cooking training

- Confectionary and sweet projects training
- Beauty salon training
- Hotel management training
- Basic accounting training
- Office management training
- Plumbing training

6) Major equipment:

- 29 computers
- high speed drill, 7 carpentry machine, a grinder machine
- 1 gas burner for cooking training
- 15 sewing machines
- 1 air compressor for auto-mechanic training

Appendix 9 List of Interviewees

Institutions	Officers
Federal Government of Somalia	
Ministry of Planning and International Cooperation	Abdullahi Sheikh Ali Ibrahim, Khadra Ahmed Dualeh, Dahir S. Hassan, Naimo Hussein Osman, Mohamed Dahir Farah, Shukri Yusuf Salad, Zakaria Abdullahi Hassan
Ministry of Commerce and Industry	Mohamed Moalim Ahmed
Ministry of Labor and Social Affairs	Salad Hussein Abdule
Ministry of Education, Culture and Higher Education	Ahmed Hassan Yusuf, Daud Mohamed Makaran
Ministry of Interior and Federalism	Ramadan Haji Elmi
Ministry of Public Works and Reconstruction	Salah Abdi Ahmed, Abdirazak Dirie Warsame, Nasra Agil, Abaubakery Khalid Ahmed
Ministry of Fisheries and Marine Resources	Hayle Omar Abdulle, Abdirazak Dirie Warsame, Salah Abdi Ahmed, Ali Abdullahi Mohamed, Abdrahim Ibrahim Sheikh Heile
Ministry of Marine Transport and Ports	Mohamaoud Boss Ahmed
Embassy of Somalia in Kenya	Siyad Mohamud Shire
State Government of Puntland	
Ministry of Education	Abudullahi Ali Said
Ministry of Fisheries and Marine Resources	Mohamed Said Balak
Banadir Regional Administration	
Human Resource Department	Abdifatah Mohamed Ali
Interim Jubbaland Administration	
Ministry of Agriculuture, Livestock, and Fisheries	Mohamed Ahmed Waladi, Ahmed Aden Hassan
Interim Galmudug Admnistration	
Ministry of Fisheries and Marine Resources	Ayan Mohamed Ahmed, Ibraahim Adan Jimale
Ministry of Public Works and Reconstruction	Abdishakur Isse Mohamed, Aweis Araie Yousuf
Interim South West Admnistration	
Ministry of Fisheries and Marine Resources	Liban Abukar Osman, Abdi Isse Wahliye
Government of Somaliland	
Ministry of Education	Ahmed Awed Yasin
Universities and TVET institutions in Somalia	
Somali International University	Faud Abi Ismail
Darul Hikmah University	Abdiaziz Hussein Hassan
Prof Adow Vocational Training Center	Abubakar Abdulwahab Adam
Kismayo Technical Institute	Abdirashid Ali Omar
Africa Youth Development Association (Borama)	Mohamed Abdi Abdillahi
Berbera Maritie and Fisheries Academy	Mukhtar Mohamed Ibrahim
Other private institutions in Somalia	
Engineering Association	Abdullkadir Dirie, Liban Ali
Fisheries Cooperatives	Mohamed Said Ismail, Yusif Ali Said, Mumin Sadiq Salim
Somalia Chamber of Commerce and Industries	Dini Mohamed
Puntland Chamber of Commerce and Industries	Abdirahman Warsame Jama
Somaliland Chamber of Commerce and Industries	Ibrahim Ismail Elmi
International Organization	
ILO Somalia	Roble Mohamed, Paul Crook, Ilias Dirie
ILO Kenya	Minoeu Ogasawara
IOM	Julia Heartlieb, Chiaki Ito, Misue Yamamoto, Abdirahman Ahmed Mohamed, Heidrun Salzer, Nyawira Kimondo
UNDP	Ahmad Al Hammal, Michael Freudenburg
UNHCR Somalia	Takeshi Moriyama, Felicitas Nebril, Cleophas Mubangizi, Yukari Nishino
UNHCR Kenya	John W. Burton, Technical Coordinator Jenny Beth Bistoyong, Livelihoods Office Marco Lembo, External Relations Officer
UNIDO	Jonathan Eischen
UN-Habitat	Britta Peters, Douglas Ragan, Jon-Andreas Solberg, Clare Sadd

UNOPS	Mitshhashi Kazuyo, Moyiz Ebrahimjee
World Bank	John Bryant Collier, Charlotte de Fontaubert, Thilasoni Benjamin Musuku, Abdulqafar Abdullahi
IFC	Kalton Hassan
FAO	Rudi van Aaken, Johanna Erhardt, Simon Diffey, Andrew Read, John Purvis, Ricardo Torrescol, Yusuf Ali Yusuf
Official Development Agencies	
EU	Wurdak Alix, Marion Mitschke, Mohamed Sabul, Martino Vinci
USAID	Hodan Hassan
DfID	Adhan Haji
Denmark	Mohamed Barre
Norway	Anita Vardoy
GIZ	Sonja Blum, Klaus Bader-Labarre, Judith Hopp, Stefan Hummelsheim
NGO	
World Vision	Anne Holscher, So Wan-Suen, Jeremiah Kibanya, Rachel Wolff
Save the Children	Tina Breum Mariegaar, James Wamwangi
Oxfam	Dorien Boxhoorn, Imaje Zacharia Elug'at, Josephine Wambui
ADRA	Minyu Mugambi, Waeni Kithyoma, Sharmarke Mohamed Said
NRC	Charlotte Torp, Barnabas Asora, Timothy Mutunga
Nordic International Support Foundation	Kasim Gabowduale
Danish Refugee Council	Mohamed Abdullahi Abdi
Care International-Somalia	Ibrahim Hussein, Abdullahi Iman
Care International-Dadaab	Rod Volway
Shuraako	Lee C. Sorensen, Abdikarim J. Gole
Mikono International	Akira Hijikata, Takeshi Kuno
Kenya Scouts Association	Josephat Gitanga, Program Executive
Private Sector	
Hanvard Africa	Hassan Noor
Yamaha Motor Co., Ltd.	Jun Hirata, Kato Toru, Hiroshi Inoue
Training Institute (Kenya)	
Kenya Technical Trainers College (KTTC)	Peter Mwallo Ng'ong'a, James Kabau, Robert Okindo, Juma Waithaka, Clement Gakure
Kenya Institute of Highway and Building Technology	Martin Ontomwa
Institute of Energy Studies and Research	Jeremiah Kiplagat
Toyota Kenya Academy	Florence Suji, Kazuo Ishikawa
One Stop Youth Information Resource Centre	Hassan Abdikadir
Jomo Kenyatta Univesity of Agriculture and Technology (JKUAT)	Romanus Odhiambo Otieno
Training Institute (Tanzania)	
Fisheries Education and Training Agency (FETA)	Yahya Mgawe, Abubakery Mbadjo, Grayson Kissai

Youth Employment Baseline Study (YEBS) for Somalia

Annex
Pilot Training Reports

Part 1: Fisheries Training Report
Reported by Fisheries Education Training Agency (FETA)

Part 2: Building Construction Training Report
Reported by Because Institute Co. Ltd.

Intensive Training of Trainers for Somali Fisheries Sector

Fisheries Education and Training Agency (FETA)

2016

Table of Contents

1.0 Introduction

The 5-week competency-based third country training was organized and sponsored by Japan International Cooperation Agency (JICA) and conducted by Fisheries Education and Training Agency (FETA) from July 20th to August 23rd 2016. This training is an output from the Youth Employment Baseline Study for Somalia (YEBS), which was conducted in response to the request from the Federal Government of Somalia to the Government of Japan to collaborate in the area of youth employment. JICA partners with Food and Agriculture Organization (FAO), which dispatched its local staff to assist other participants in learning and transferring their knowledge to the youth in various part of Somalia after the training. FETA was selected as the service provider of this training due to similarity in marine resource conditions between Tanzania and Somalia and its rich experience in trainings for people in Sub-Saharan Africa.

The training had three principle learning outcomes: Firstly, to equip participants with necessary knowledge, practical skills, and technical know-how with regard to small-scale coastal fisheries production, Fish handling, processing, and preservation, Marketing fish and fishery products, and Management of fishers' organizations. The second learning outcome was to impart technical skills regarding fisheries extension and training. And finally; to enable participant to apply knowledge and skills acquired to plan and conduct training for youth in Somalia. The training was planned and executed based on conventional training cycle principles as outlined hereunder.

2.0 Situation analysis:

The Federal Somali Republic is endowed with huge marine fishery resources mainly due to upwelling oceanographic phenomenon, which enables high primary productivity of marine food chain. In this case, the country has a comparative advantage when it comes to potential for increasing food fish productivity from its waters, especially now that global demand for fish to feed the growing human population is increasing exponentially. On the other hand, however, the bountiful fishery resource of Somali has not been exploited to its fullest potential due to multiple reasons including civil unrest.

With the establishment of Federal Government of Somalia in 2012, things are normalizing to allow increased investment in fishing in order to secure greater socio-economic benefits from the resources and reduce vulnerabilities in communities. At the moment, the employment opportunity in Somalia is quite limited and to certain extent unemployment is one of the major reasons why young people participate in illegal activities. Youth employment and job creation are therefore one of the priority areas of the Somali Government. It has been envisaged that the rational starting point in this context, is to build institutional capacity to meet the human resources development challenge. It is important to have a batch of adequately trained fisheries trainers who can train others to engage gainfully in the fisheries sector.

3.0 Fisheries characteristics:

The marine fishery sector in Federal Somalia Republic comprises the artisanal sector and industrial sector. The artisanal sector, which was the focus of the training, operates in inshore areas, and accounts for most of the landings (60%). On the other hand, the industrial sector accounts for about 40% of fish production. The artisanal fishing fleet is composed of canoes commonly 5 m LoA. The canoes are mostly propelled by either paddles or small outboard engines ranging between 5-30 hp. However, some canoes are relatively larger, being made by Glass Reinforced Plastic (GRP) fitted with outboard or inboard engines ranging between 20–30 hp.

The fishing gear employed by the artisanal fishery consists of hand lines, gill nets and long lines. The canoe-based fishermen, since their boats are too small for other types of fishing gear, use hand-lining. However, mechanized boats also carry hand-lines to be used during idle periods, especially after setting gill nets or drift nets. Long-lines are also used for shark, tuna and other big fish species like king mackerel, which are the most popular and most favoured species in the country. Gill nets are used as drifts or bottom-set nets, with mesh sizes in the 150–200 mm range and mainly used for shark species.

In general, the marine water of Somalia is rich in fisheries resources mainly due to the upwelling phenomenon. The pelagic fish stocks in the Somali EEZ are estimated to be capable of providing sustainable annual catches of the order of 200 000 tons, based on several fish surveys conducted in the 1970s and 1980s. Because of the known pelagic fish resources, which are large, and tuna and mackerel species, which have high unit values, the long-term development of these resources could be of vast importance to the economy.

4.0 Demand of Client:

A meeting was held among FETA, Representatives from the Federal Government of Somalia, JICA and FAO in February 2016 to discuss about the training design. The Client expected to have a kind of training which would finally provide Somalia youth with viable means of livelihoods in the fishery sector. This has to be realized through strengthening of technical capability of Somali trainers who are directly involved in training of Somali youth in Somalia. They must be capable of doing more work and provide better services to fishers' communities in Somalia for coastal fisheries development.

4.1 Expected Goals;

To strengthen technical capability of Somali trainers in the fisheries sector who are directly involved in training of youth in Somalia.

4.2 Outputs;

a) Formative and summative evaluation suggests that participants acquired necessary knowledge, practical skills and technical know-how on:-

- Artisanal coastal fisheries production
- Fish handling, processing and preservation
- Marketing fish and fishery product
- Management of fishers' organizations.

b) They acquired necessary skills and technical know-how on fisheries extension and training

c) They acquired knowledge and skills to plan and conduct training for youth in Somalia

5. 0 Training Needs:

The training needs included knowledge and skills with regard to fishing gear and methods embedding construction and operation of gill-net, hand-line, trolling, and fish trap. Also, near-shore Fish Aggregating Device (FADs), basic rope work techniques, net braiding and mending, navigation skills for fishing, location of fishing ground, safety at sea and basics of marine engineering as well as routine maintenance of outboard motor (OBM). Similarly, training which captures maintenance and minor repair of FRP boat, basics of fisheries resource management including biology and ecology of fisheries resources. Other areas included; fish handling, processing, storage and preservation without precluding fish marketing and value addition. In addition, the needs extended to including fisheries organizations, cooperatives and business skills.

As a matter of fact, given the multiplicity of training needs constrained by time, the course had to be an intensive one. Also, unavailability of training boat similar to the ones being used in Somalia was another constraint which impaired technical efficiency of relevant physical demonstration.

6. 0 Entering Behavior:

Selection of trainees largely based on the following pre-determined requirements:-

- Nomination by their respective institutions
- Engagement in fisheries-related profession in Somalia as a member of public or private fisheries institutions
- Practical experience of not less than two (2) years in fisheries
- Ability to serve as fisheries trainers in Somalia for three years at least
- Aged between thirty (30) to fifty (50) years
- Ability to attend the entire period of training
- Good health, both physically and mentally, in order to complete the course
- Competency in basic English communication in writing, reading, and speaking
- Not to have any criminal record in the past

- Minimum education of certificate of secondary school, vocational training or equivalent

The important details of the participants including age, affiliation and designation are summarized in table 1 below:

Table 1. Participant's important informations

No.	Place	Affiliation	Designation
1	Mogadishu	Benadir Regional Administration	Director, Human Resource
2	Kismayo	Ministry of Agriculture, Livestock and Fisheries - Jubbaland	Director, Fisheries Department
3	Kismayo	Ministry of Agriculture, Livestock and Fisheries - Jubbaland	Fishery Officer, Fisheries Department
4	Bosasso	Ministry of Fisheries & Marine Resource - Puntland	Fisheries Inspector, Fisheries Department
5	Baidao	Ministry of Fisheries & Marine Resource – South West	Part time officer, Department of Manpower and Training
6	Baidao	KAAH Relief & Development Organization (Ministry of Fisheries & Marine Resource – South West)	Program Coordinator
7	Adado	Ministry of Fisheries & Marine Resource, Glmudug State	Fishery Officer, Department of Fisheries Management
8	Adado	Ministry of Fisheries & Marine Resource, Glmudug State	Fishery Officer, Department of Fisheries Management
9	Bosasso	Waladi Fisherman Cooperative	Member
10	Ely	Babay Fisheries Cooperative	Member
11	Adale	Adale Fisheries Cooperative	Member
12	Jowhar	Kaamil Fishing Campany	Deputy Director, Sales Department
13	Mogadishu	Darul Hikmah University	Student Chairman
14	Berbera	Berbera Maritime and Fisheries Academy	Officer, Department of Administration and Finance
15	Bosasso	FAO	Fisheries Field Officer

7. 0 Curriculum:

To reach the training objectives, as stated by Clients, it was agreed upon to have the following interwoven modules (See annex 2):

The contents covered were tailored to reach the main objective for the training which was to strengthen technical capability of Somali trainers in the fisheries sector who are directly involved in training of youth in Somalia. Indeed, it was anticipated that the trainers will become change agents responsible for transferring knowledge and skills acquired during the training to the local community so as to improve the chain of social economical activities undertaken in the fisheries sector and its allied industry. Consequently, numerous employment opportunities will be generated to accommodate thousands of youth in Somalia and bring a positive perception toward the fishing industry as one of the business venture that could produce better returns to Somalians.

Therefore, a trainer must not only focus on imparting the art of fishing but also business knowledge and extension skills. Hence, the package included knowledge, skills and required values of fishing. It included identification of different types of fishing gears and boats, how to construct, mount and use gill nets as well as hand lines. Also, selection of fishing grounds, variety of factors that may lead to changing fishing grounds including change in fishing time, weather conditions during the fishing operation, composition and size of catch, distance from port when the fishing is completed, condition of catch landing, etc. The essence is; a good fisherman should be a good business man. He will become a good businessman if he gets into the habit of visualizing the implications on costs of every decision he makes.

In addition, it was found important to internalize trainees with basic frames of reference regarding vessel and engine maintenance. As an essential part of the routine of maintenance and repair, a vessel and outboard engines frequently used by small-scale fishers must be put under repair and maintenance at times. The package under this category included scraping off barnacles and other sea growths from the underwater section of a boat, how to carry out a detailed inspection of the hull, determine the kind of paint to be used on it and the method of applying the paint.

Proper handling and maintenance of OBM was found to be real important together with troubleshooting of malfunctions.

The configuration of marine fishing ground of Somalia was also scrutinized and deemed important to include training on how to construct, deploy and manage Fish Aggregating Devices (FADs). This would help in attracting fish to nearer fishing grounds for easy capture by fishers and thus reduce operational cost and optimize returns. The simplified operation and consequent returns would act as eye opener for increased number of youth to see and experience existing economic potential in fishing activities.

Furthermore, increase of fish shelf life as well as maintaining the quality aspect of harvested catch was another area of priority. It was found important to incorporate the training with both onboard and offshore handling aspect of fish so as to ensure fish quality criterion are met to fulfill the requirement of domestic, regional and most rewarding market across the world. Again, the handling aspect of fish explore on the reason behind spoilage, application of an ice in preservation of fish and overall quality assurance principles, practice and procedure for handling fresh fish.

Regarding processing and preservation of fish and fish products for domestic market in Somalia it was found important to put more emphasize on the application of traditional fish processing techniques including dry salting and smoking which are widely used by small scale fishers across the region. The dry salting techniques explore more on the basic principles and procedure behind dry and wet salting while smoking focus on the application of cold and hot smoking techniques to ensure variety of fish products are produced to suit a wider range of customer requirements. To complement traditional processing, production of value added product was taken onboard to ensure low value fish which likely to be lost in food supply chain are converted into semi–processed or fully processed ready-to-eat fish product. Consequently, increase supply of fish food for human consumptions.

Expansion of market patterns for fish and fisheries product within Somalia and across the region was one of the potential target area of the training. Based on that, it was found important to equip trainees with relevant basic knowledge, skills and terms of reference in gathering and applying of marketing information in competitive market,

market segmentation and application of marketing mix and its underpinning element in promoting strategic marketing which intend to raise the sales volume of the product.

8.0 Preparation of Training:

The process began by analyzing the best way of presenting the training, content structure and development of learning materials. The objectives and contents were organized into logical units before determining mode of delivery, training techniques and media for each module. Resource persons prepared lesson plans and instructor guide as well as hand-outs. On the other hand, JICA-Tanzania Office took the responsibility of informing trainees the date, location and other important information well in advance of the training. Consideration was made to ensure that Fridays are spared from training engagement in order to enable trainees attend prayers.

Regarding training facilities, most part of training took place in net loft, workshop and lecture room. Effort was made to make sure that the facilities provide for adequate space, appropriate number and size of tables and chairs. The rooms were equipped with properly working projectors, white boards and flip charts. Similarly, careful preparation for lunch and coffee/ beverages was ensured.

Major inputs of JICA to the training were teaching material and equipment for FAD construction and two Japanese experts for FADs and OBM. The FADs material were procured and shipped right from Japan.

Regarding an OBM, the training and experts were provided in collaboration with expert from YAMAHA Motor Corporation, which provided practical training on trouble-shooting, handling and repair of outboard machines

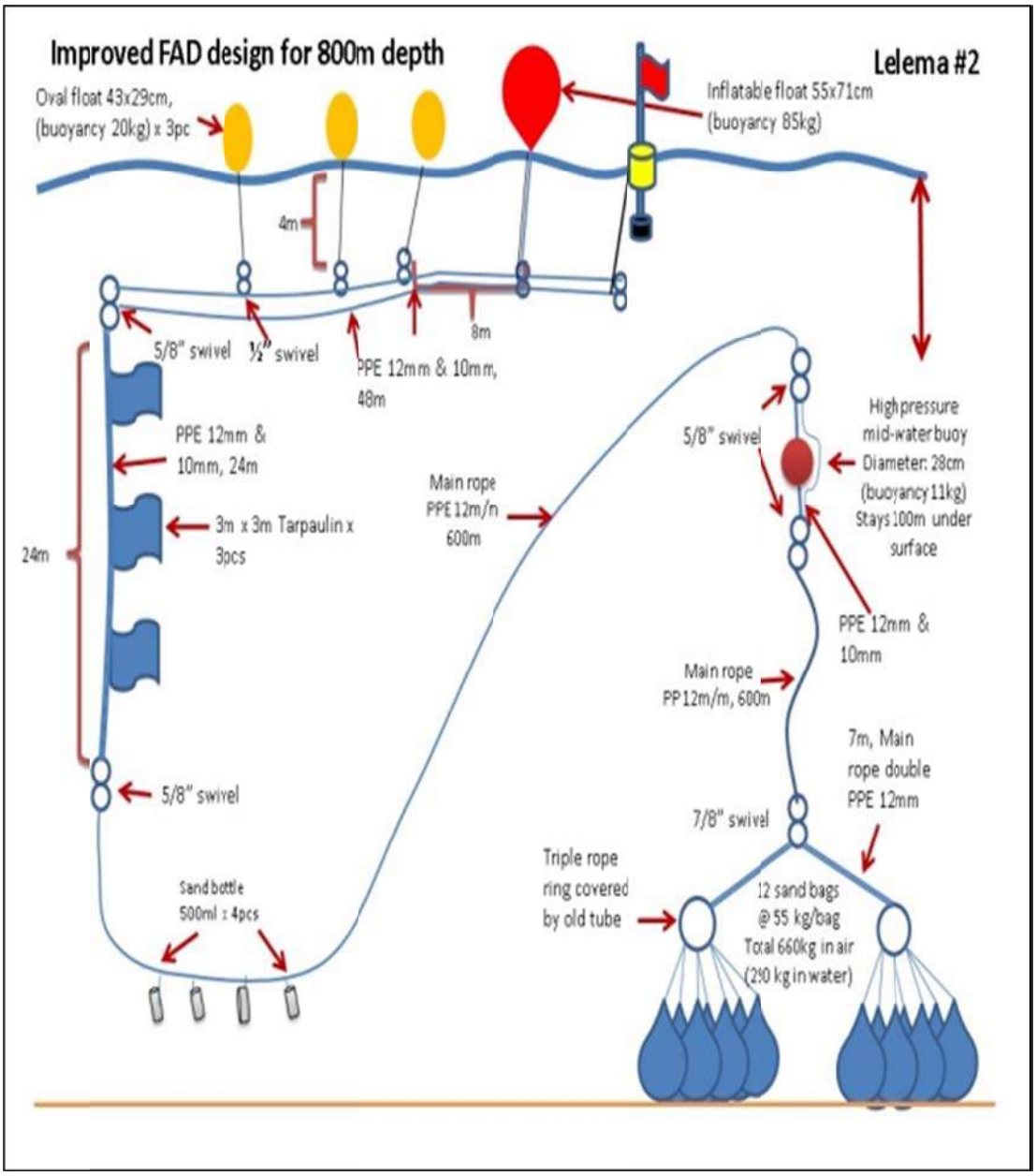


Figure. 1 One of the teaching materials provided by a JICA expert

Provision was made to cater for application of diverse teaching methods including lecture, group discussion, and workshop practical. Potential areas for field visits were explored and effective communication was established with responsible contact persons. Furthermore, a one day preparatory seminar for facilitators was convened to remind each other basic assumption of experiential training that, learning is not merely the result of listening or reading, there would be a need for trainees to be involved in the learning process. Cognitive understanding (comprehension and retention of

information) should greatly be enhanced and reinforced by experience and thus the need for a focus on hands on practical training.

9.0 Delivery of Training:

Delivery of the training was done using multiple or combination of methods including; group lessons, discussion, take home assignments, practical at sea, in workshops and physical demonstration.

The 5-week intensive training was guided by the following time- table:

Week 1:

Period	Monday 18th July	Tuesday 19th July	Wednesday 20th July	Thursday 21st July	Friday 22nd July	Saturday 23rd July	Sunday 24th July
8.00 – 9.00			Prior Learning Assessment	Hand-line practical	Fisheries Resource Mgt	Long-line fishing	Half-day Field Visit in Bagamoyo
9.00- 10.00			Opening Ceremony	Hand-line practical	Fisheries Resource Mgt	Long-line fishing	
Break Time 30 Minutes							
10.30-11.30			Fisheries Resource Mgt	Fishing Boat Maintenance		Long-line fishing Practical	
11.30-12.30			Fisheries Resource Mgt	Fishing Boat Maintenance		Long-line fishing Practical	
Lunch Break 1 Hour							
13.30-14.30			SSFs Gear and Methods	Navigation & Safety		Long-line fishing Practical	
14.30-15.30			SSFs Gear and Methods	Navigation & Safety		Long-line fishing Practical	
Coffee Break 30 Minutes							
16.00-17.00			Hand-line fishing	Navigation & Safety Practical		Long-line fishing Practical	
17.00- 18.00		Welcoming & Registration	Hand-line fishing	Navigation & Safety Practical		Long-line fishing Practical	

Week 2:

Period	Monday 25th July	Tuesday 26th July	Wednesday 27th July	Thursday 28st July	Friday 29th July	Saturday 30th July	Sunday 31st July
8.00 – 9.00	Gill net fishing	Fishing Boat Maintenance	OBM	OBM	Gill-net fishing Practical	FAD Theory and Construction	Half-Day Field Visit to a fishing village
9.00- 10.00	Gill net fishing	Fishing Boat Maintenance	OBM	OBM	Gill-net fishing Practical	FAD Theory and Construction	
Break Time 30 Minutes							
10.30-11.30	Gill net fishing Practical	Fishing Boat Maintenance	OBM Practical	OBM Practical		FAD Theory and Construction	
11.30-12.30	Gill net fishing	Fishing Boat Maintenance	OBM Practical	OBM Practical		FAD Theory and Construction	

	Practical						
Lunch Break 1 Hour							
13.30-14.30	Gill net fishing Practical	Navigation & Safety Practical	OBM Practical	Navigation & Safety Practical		FAD Theory and Construction	
14.30-15.30	Gill net fishing Practical	Navigation & Safety Practical	OBM Practical	Navigation & Safety Practical		FAD Theory and Construction	
Coffee Break 30 Minutes							
16.00-17.00	Gill net fishing Practical	Navigation & Safety Practical	Navigation & Safety Practical	Navigation & Safety Practical		FAD Theory and Construction	
17.00- 18.00	Gill net fishing Practical	Navigation & Safety Practical	Navigation & Safety Practical	Navigation & Safety Practical		FAD Theory and Construction	

Week 3:

Period	**Monday 1st Aug**	**Tuesday 2nd Aug**	**Wednesday 3 rd. Aug**	**Thursday 4th Aug**	**Friday 5th Aug**	**Saturday 06th Aug**	**Sunday 7thAug**
8.00 – 9.00	FAD Practical	FAD Practical	FAD Practical	FAD Practical	Fisheries Resource Mgt	Fish traps	Field Day to Dar Es Salaam Fish Market
9.00- 10.00	FAD Practical	FAD Practical	FAD Practical	FAD Practical	Fisheries Resource Mgt	Fish traps	
Break Time 30 Minutes							
10.30-11.30	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	
11.30-12.30	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	
Lunch Break 1 Hour							
13.30-14.30	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	
14.30-15.30	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	
Coffee Break 30 Minutes							
16.00-17.00	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	
17.00- 18.00	FAD Practical	FAD Practical	FAD Practical	FAD Practical		Fish traps (Practical)	

Week 4:

Period	**Monday 8th August**	**Tuesday 9th August**	**Wednesday 10th August**	**Thursday 11th August**	**Friday 12th August**	**Saturday 13th August**	**Sunday 14thAugust**
8.00 – 9.00	Fishers group organization	Fish handling	Dry fish salting Practical	Fish Handling Practical	Teaching methodology	Fish Gear Gill net Practical	Field – Day Dar Es Salaam fish factory
9.00- 10.00	Fishers group organization	Fish handling	Dry fish salting Practical	Fish Handling Practical	Teaching methodology	Fish Gear Gill net Practical	
Break Time 30 Minutes							
10.30-11.30	Marketing of Sea food	Teaching methodology	Fish Handling Practical	Marketing of Sea food		Fish Gear Gill net Practical	
11.30-12.30	Marketing of Sea food	Teaching methodology	Fish Handling Practical	Teaching methodology		Fish Gear Gill net Practical	
Lunch Break 1 Hour							
13.30-14.30	Marketing of Sea food	Fish Processing for SSFs	Marketing of Sea food	Teaching methodology		Fish Gear Gill net Practical	
14.30-15.30	Marketing of Sea food	Fish Processing for SSFs	Marketing of Sea food	Teaching methodology		Fish Gear Gill net Practical	
Coffee Break 30 Minutes							
16.00-17.00	Navigation & Safety Practical	Dry fish salting	Navigation & Safety Practical	Business Skills		Fish Gear Gill net Practical	

Week 5:Period	**Monday 15th Aug**	**Tuesday 16th Aug**	**Wednesday 17th Aug**	**Thursday 18th Aug**	**Friday 19th Aug**	**Saturday 20th Aug**	**Sunday 21stAug**
8.00 – 9.00	Fish Handling Practical	Fish smoking	Fish smoking	Fish Handling Practical	Fishers group organization	Extension techniques	Free
9.00- 10.00	Fish Handling Practical	Fish smoking	Fish smoking	Fish Handling Practical	Fishers group organization	Extension techniques	
Break Time 30 Minutes							
10.30-11.30	Dry Salting (Value Addition)	Fish smoking	Fish Handling Practical	Extension techniques		Extension techniques	
11.30-12.30	Dry Salting (Value Addition)	Fish smoking	Fish Handling Practical	Extension techniques		Extension techniques	
Lunch Break 1 Hour							
13.30-14.30	Dry Salting (Value Addition)	Fish smoking	Dry Salting (Value Addition)	Business Skills		Business Skills	
14.30-15.30	Dry Salting (Value Addition)	Fish smoking	Dry Salting (Value Addition)	Business Skills		Business Skills	
Coffee Break 30 Minutes							
16.00-17.00	Navigation & Safety Practical	Fish smoking	Navigation & Safety Practical	Fishers group organization		Business Skills	

Week 6:

Period	**Monday 22nd Aug**	**Tuesday 23rd Aug**	**Wednesday 24th Aug**	**Thursday 25h Aug**	**Friday 26th Aug**	**Saturday 27th Aug**	**Sunday 28stAug**
8.00 – 9.00	Extension techniques	Course Evaluation					
9.00- 10.00	Extension techniques	Course Evaluation					
Break Time 30 Minutes							
10.30-11.30	Fishers group organization	Closing Ceremony					
11.30-12.30	Fishers group organization	Closing Ceremony					
Lunch Break 1 Hour							
13.30-14.30	Navigation & Safety Practical						
14.30-15.30	Navigation & Safety Practical						
Coffee Break 30 Minutes							
16.00-17.00	Back to office action planning						

10.0 Evaluation:

Evaluation was a major part of the training whereby effort was made in conducting evaluation of the learners to determine entry level and exit skills, formative evaluation during teaching-learning process as well as summative evaluation at the end of each module. At the end of the course all trainees were requested to evaluate the training in writing by filling in a questionnaire (see annex 1). The anonymous responses allowed individuals to make pointed criticism without identification which resulted into getting the most useful feedback for future improvement of such training program.

Initially, trainees were required to do a pre-learning test in order to assess their entry level knowledge and skills on subject matters. The objective of the test was strictly to assess initial level of knowledge and skills on subject matters and to compare it after completion of the course. It was emphasized that the test was not an examination but part of evaluation endeavor.

The test itself consisted of the following questions:

I. Mention five different types of fishing gears used in Somalia
II. Briefly describe any type of fishing gear you know.
III. What is the meaning of a mesh size?
IV. What is the difference between pelagic and demersal fish species?
V. Mention any three different types of knots used in fishing activities.
VI. Outline suitable material for construction of fish traps
VII. What is FAD; as applied in fisheries?
VIII. What are the advantages and disadvantages of FADs?
IX. Mention any three types of materials used in construction of fishing boats
X. What are the basic requirements for starting an outboard engine?
XI. How would you determine your position while at sea fishing?
XII. What are the factors behind fish spoilage?
XIII. What is the difference between dry and wet salting?
XIV. What is the difference between hot and cold fish smoking?
XV. What is the meaning of marketing mix?

XVI. What are the basic fisheries resource management functions?

XVII. What is the difference between variable and fixed cost in fishing operation?

XVIII. Mention two basic requirements for successful group formation and dynamics

XIX. Mention two barriers to effective communication in fisheries extension services

XX. What is the major difference between facilitation and teaching in adult learning?

The results from pre-test and post-test score as indicated in figure 2, suggest that, the average performance of the participant increased from 22.1% to 57.97% prior and after completion of the training. This implies that, the existed knowledge gaps were covered by 35.87%. Nevertheless, the overall performance of participants at individual level found to be improved. About 64.28% of the participant managed to score over 50% while 35.7% had a score below 50% of the post-test.

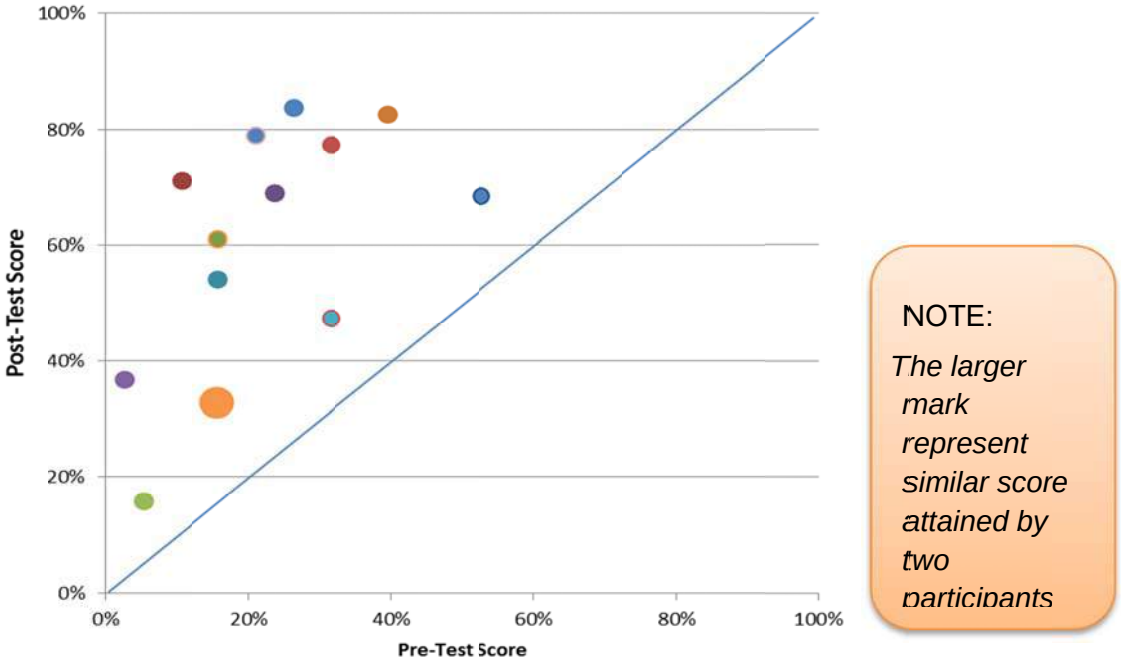


Figure 2. The pre-test and post-test scores analysis for fourteen participants as per JICA consultant

According to the evaluation analysis done by the neutral observer from JICA on the mode of training delivery as indicated in figure 3, suggest that, about 67% of the participant were very satisfied while 33% were relatively satisfied. Moreover, majority of the participant acknowledge and appreciate on the skills, knowledge and technology gain during the entire training was very useful and relevant to their daily activities in the fisheries industry. In a scale of 1 to 3 (1=I did not learn at all: 2=I learned something:

3=I learned very much) which was rated on each module, the total average score was 2.47.

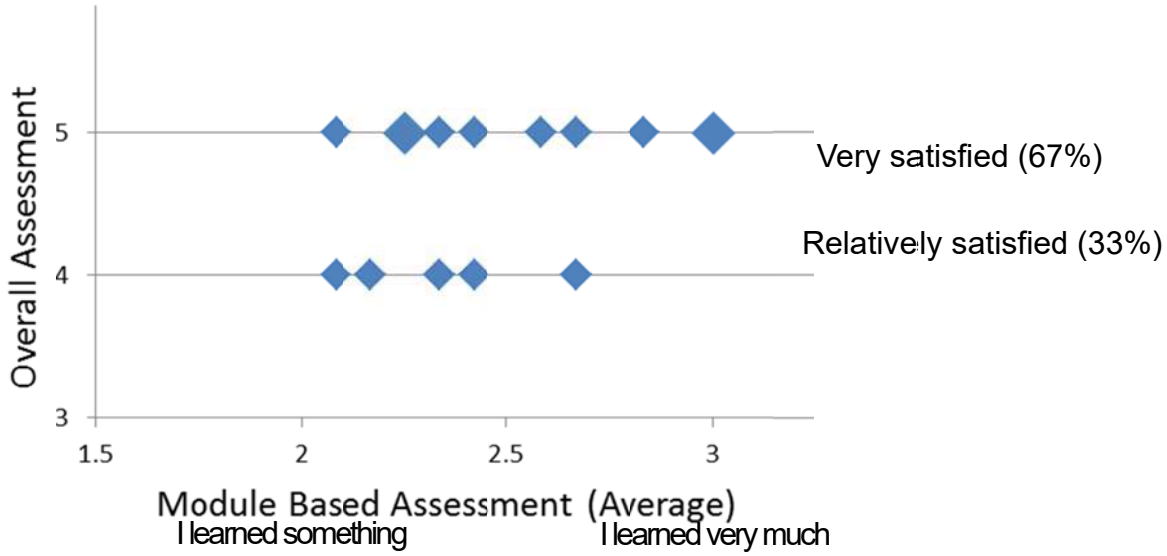


Figure 3. The level of participant satisfaction on the mode of training delivery as per JICA consultant

Again the internal evaluation conducted on daily basis by FETA at the end of each training session provided a room for participant to provide a quick feedback ad comments on the performance of the facilitator and the way that training was delivered in a respective module by rating different criterion indicate in evaluation form at a scale of 1 to 5 whereby (1= Poor, 2=Fair 3=Good, 4=Very Good and 5=Excellent). The summary of the internal evaluation result are displayed in annex 3.

The analysis of the result above suggest that, the average performance for all modules taught and their respective facilitator found to be 75.56% and 80.62% respectively. This implies that, participants were quite okay with the way that training was delivered and the main agenda of the training was achieved to the extent of enabling the participants to acquire useful skills, knowledge and technology which would have a tangible contribution in development of the fisheries sector and its allied industry at large in Somalia.

11.0 Recommendation and conclusion:

There is a strong belief that the training was well executed primarily because the coordination and selection of trainees was excellent as well as the client was specific and thorough with training needs. Nevertheless, the feedback from independent evaluator (JICA consultant) on the mode of the training delivery and the participant's perception towards the entire training provide a confidence to FETA on its fundamental role of imparting skills, knowledge and technology to stakeholders in fisheries sector across Sub-Saharan Africa. It ought to be added that, technical reinforcement which was made by providing renowned FAD expert as well as OBM experts, added-value to the training.

In contrary to that, time constraint and unavailability of a training boat which is similar to the ones being used in Somalia was among of the major setback. For example, practical component related to deployment and fishing around FADs was just done as a demonstration on the shallow water instead of deep water and participants had limited time to practice fishing and management of the deployed FAD.

Furthermore, the demand and expectation of the participants on the practical component for some module including navigation of the fishing boat and OBM maintenance was beyond their technical expertise. According to the Surface and Marine Transport Regulatory Authority (SUMATRA), only qualified and registered skippers are allowed to navigate 7 – 10m fishing boat in Tanzania. Unfortunately, majority of the participants were not professional skippers hence limited their chance of navigating the fishing vessel. Again, participants were eager to learn advance maintenance, trouble-shouting, handling and repair of OBM machine with capacity of 30 – 45Hp which was beyond the contents prepared by Japanese experts from YAMAHA Motor Corporation.

Finally, other area of the training which participants requested for further improvement includes, application of the case study related to marketing at fishing ground, adequate training materials including textbook, video and other relevant materials related to fisheries resource management which in future training we expect to have an improvement.

Appendices

Annex 1: MODULE EVALUATION FORM:

Module……Date……

We would like to receive direct feedback and constructive recommendations from you in order to improve this program.

In your opinion how would you rate this module on the following factors? (Please circle the appropriate number)

		Poor	**Fair**	**Good**	**Very good**	**Excellent**
1	My overall impression	1	2	3	4	5
2	Pace at which material was covered	1	2	3	4	5
3	Printed material	1	2	3	4	5
4	Audio-visual	1	2	3	4	5
5	Content appropriate for my needs	1	2	3	4	5
6	Facilities and refreshment breaks	1	2	3	4	5
7	Met stated objectives	1	2	3	4	5
	FACILITATOR	1	2	3	4	5
8	Knowledgeable about subject matter	1	2	3	4	5
9	Well prepared and organized	1	2	3	4	5
10	Used practical examples	1	2	3	4	5
11	Interested and enthusiastic	1	2	3	4	5
12	Sensitive to participant's needs	1	2	3	4	5
13	Encouraged class participation	1	2	3	4	5
14	Provided useful comments/feedback	1	2	3	4	5
15	Met my expectations	1	2	3	4	5

Related comments:

_____
_____
_____
_____
_____

Thank you!

End of Training Evaluation

At the end of the course all trainees will be requested to evaluate the training in writing by filling in a questionnaire. It is expected that, the anonymous responses would allow individuals to make pointed criticism without identification and thus result into getting the most useful feedback for future improvement of such training programme.

a) Kindly circle one of the items (1-5) to rate the Training

	ITEM	1	2	3	4	5
1.	Venue	Poor	Rather poor	Average	Good	Excellent
2.	Quality of presentations	Poor	Rather poor	Average	Good	Excellent
3.	Quality of practical work	Poor	Rather poor	Average	Good	Excellent
4.	Time allocated for presentation	Too short	Rather short	Just enough	Rather long	Too long
5.	Time allocated for discussion	Too short	Rather short	Just enough	Rather long	Too long
6.	Facilitation of the Training	Poor	Rather poor	Average	Good	Excellent
7.	General organization	Poor	Rather poor	Average	Good	Excellent
8.	Value of this training in relation to my job	Poor	Rather poor	Average	Good	Excellent

a) Please answer the following questions

9.	What module (s) of the training did you like most?	
10.	What module (s) of the training did you like most?	
11.	To what extent did the training meet expected outputs? (give a score of 1-100%)	
12.	To what extent did the training meet your expectations? (give a score of 1-100%)	
13.	What are your recommendations for organizing future training?	

Annex 2: CURRICULUM

No	MODULE	AIM: Trainees will be skilled in:	SPECIFIC OBJECTIVE: The trainees will be able to	METHODOLOGY	CONTACT TIME
Production					
1	**P-1** Small-scale fishing gear and methods	General knowledge of traditional fishing gear and methods for small scale fisheries in coastal water	• State the technical features of major fishing gears and methods • State advantages and disadvantage of different fishing gears and method	• Short lectures supported with audio –visual aid in class	2hrs
2	**P-2** Hand-line fishing	Operation of hand-line	• The use of appropriate size, design and material of hooks and line Selection of basis. • Preparation of effective bait • Selection of hooks and bait appropriate to a given species. • Assembling of hook weight and swivel • The use of hand –line in fishing k	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training in workshop and at sea	7hrs
3	**P-3** Long-line fishing	Operation Long- line fishing	• Distinguish between pelagic and demersal long-line • Construction of long-line to specification • Shoot a longline to specification	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training in workshop and at sea	7hrs
4	**P-4** Gill-net fishing	Construction and operation of hand-braided woven gillnet	• State various types of gill-net (e.g. surface and bottom gill-net) • State various materials used in making different types of gill-net • Make different knot	• Short lectures supported with audio –visual aid in class • Physical	

			• Interpret net specification • Hand braid net to different specifications • Select suitable rigging material for a given net • Rig and mount float and weigh • Interpret and implement hanging ratios • Set and haul a gill-net at sea • Mend and repair gill-net	demonstration • Practical training in workshop and at sea	20hrs
5	**P-5** Fish traps	Operation of fish traps	• Describe different kind of fish traps • State the catching principles of traps • Outline suitable material for construction of traps • Construct traps • Set traps at sea	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training in workshop and at sea	7hrs
6	**P-6** Fish Aggregation Devices (FADs)	Rigging, assembling and deploying FADs	• State the advantages and disadvantage of using FADs • Define terms and specification used in FAD • Construct a prototype FAD • Determine adequate location for deploying FADs • Manage FADs in fishing activities around FADs	• Physical demonstration • Practical training in workshop and at sea	10hrs
7	**P-7** FAD fishing	Operation of FAD in fishing	• State various method of fishing around FADs • Construct trolling gear • Use trolling and/or hand-line around FADs	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical	18hrs

				training in workshop and at sea	
8	**P-8** Fishing boat maintenance	Basic maintenance of fishing boat	• State application of various fixing devices • Select paints appropriate for a given task • State storage procedures and shelf-life for various material used in boat maintenance • Carryout basic boat maintenance	• Short lectures supported with audio –visual aid in class • Physical demonstration	7hrs
9	**P-9** Outboard Motor (OBM) maintenance	Basic operation and maintance of OBM	• State basic requirements for starting an engine • Measure and add oil • Store properly an OBM after use • Diagnose and repair basic faults	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training in workshop and at sea	9hrs
10	**P-10** Navigation and safety at sea	Navigating a fishing craft and practicing safety procedures and safety at sea	• Basic rope-work for fishing boat crew • Handle and navigate a 7 – 10 meter boat • Use a hand-held compass and a portable GPS in finding position • Apply safety measures while at sea fishing • Practice first aid techniques • Practice personal survival techniques	• Short lectures supported with audio –visual aid in class • Field practice • Guest speakers	33hrs
Handling and Preservation					
11	**HP-1** Fish handling	Handling fish hygienically	• State reasons behind fish spoilage • State and practice procedures for handling fresh fish (gutting, gilling, washing, cooling) • State proper icing of fish (Including use of different types of ice and insulated boxes)	• Short lectures supported with audio –visual aid in class • Physical demonstration	13hrs

			• Handle and preserve batch of fish hygienically • Outline basic quality assurance principles • State factors influencing fish quality • Describe possible causes of physical and bacteriological degradation of fish	• Practical training onboard and during landing	
12	**HP-2** Fish processing for small-scale holders	General knowledge of small scale fish processing	• State different methods of fish processing suitable for small-scale holders • State the advantages and disadvantages of different fish processing methods	• Short lectures supported with audio –visual aid in class	2hrs
13	**HP-3** Dry salting	Processing fish by using dry and wet salting methods	• Describe the principle behind drying of fish • State the procedures of applying dry and wet salting • Dry a batch of fish using dry and wet salting method	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training	16hrs
14	**HP-4** Fish Smoking	Processing fish by using hot smoking methods	• Describe principle behind smoking of fish • State the procedures for applying fish smoking methods • Construct a fish smoking oven • Smoke a batch of fish • Add value to fish product (Cold smoking)	• Short lectures supported with audio –visual aid in class • Physical demonstration • Practical training	12hrs
Marketing					
15	**MF-1** Marketing of fish and fishery products	Targeting rewarding buyers and markets	• State the importance of gathering marketing information • State procedures for conducting basic analysis of marketing environment • State principles of marketing segmentation and targeting	• Short lectures supported with audio –visual aid in class • Field visit • Guest speakers	7hrs

			• Describe element of marketing mix • Demonstrate proficiency in applying strategic marketing of fish		
Management					
16	**MG-1** Fisheries resource management	General knowledge of fisheries resource management in coastal waters	• Describe features of marine environment and ecosystem of Somalia • Define basic biological terms • Draw a diagrammatic representation of the food chain • Define basic fisheries management terms • State major issues in fisheries resource management • Describe basic fisheries resources management functions • Describe management measures by which fishing effort can be adjusted (input, output and technical controls)	• Short lectures supported with audio –visual aid in class • Guest speakers	7hrs
17	**MG-2** Business skills	Introductory knowledge of business and book-keeping	• Describe how business idea can be generated • Evaluate business idea • Prepare a simple business plan • Describe method of raising capital • Describe loans and repayment schemes • Describe method of recording revenue and stock movement • State types of cost and their importance in calculating the profit • Define depreciation as it related to business • Distinguish between gross and net profit • From hypothetical figure, summarize the gross profit and net profit against trading results	• Short lectures supported with audio –visual aid in class • Guest speakers • Field visit • Group discussion • Case studies.	8hrs
18	**MG-3** Fishers'	Group formation and dynamics	• Fundamentals of group formation and dynamics	• Short lectures supported with	

	group/organization		• State different forms of fishers' group and their pros and cons • State basic requirement for successful introduction of fishers' cooperatives	audio –visual aid in class • Guest speakers • Field visit • Group discussion	8hrs
19	**MG-4** Extension Techniques	Introducing a new ideas and innovations in fishing communities	• Apply basic principles of effective communication in fishing communities • State procedure for effective introduction of an innovation into fishing community	• Short lectures supported with audio –visual aid in class • Guest speakers • Case study	7hrs
20	**MG-5** Teaching methodology	Apply principle of adults learning and traning design	• Distinguish between facilitation and teach • State the hypothetical needs of adult learner • Outline basic steps in delivery of training programmes • General teaching methods • Evaluation of training	• Short lectures supported with audio –visual aid in class • Role playing • Edutainment technique • Discussion	6hrs

Annex 3: EVALUATION RESULTS

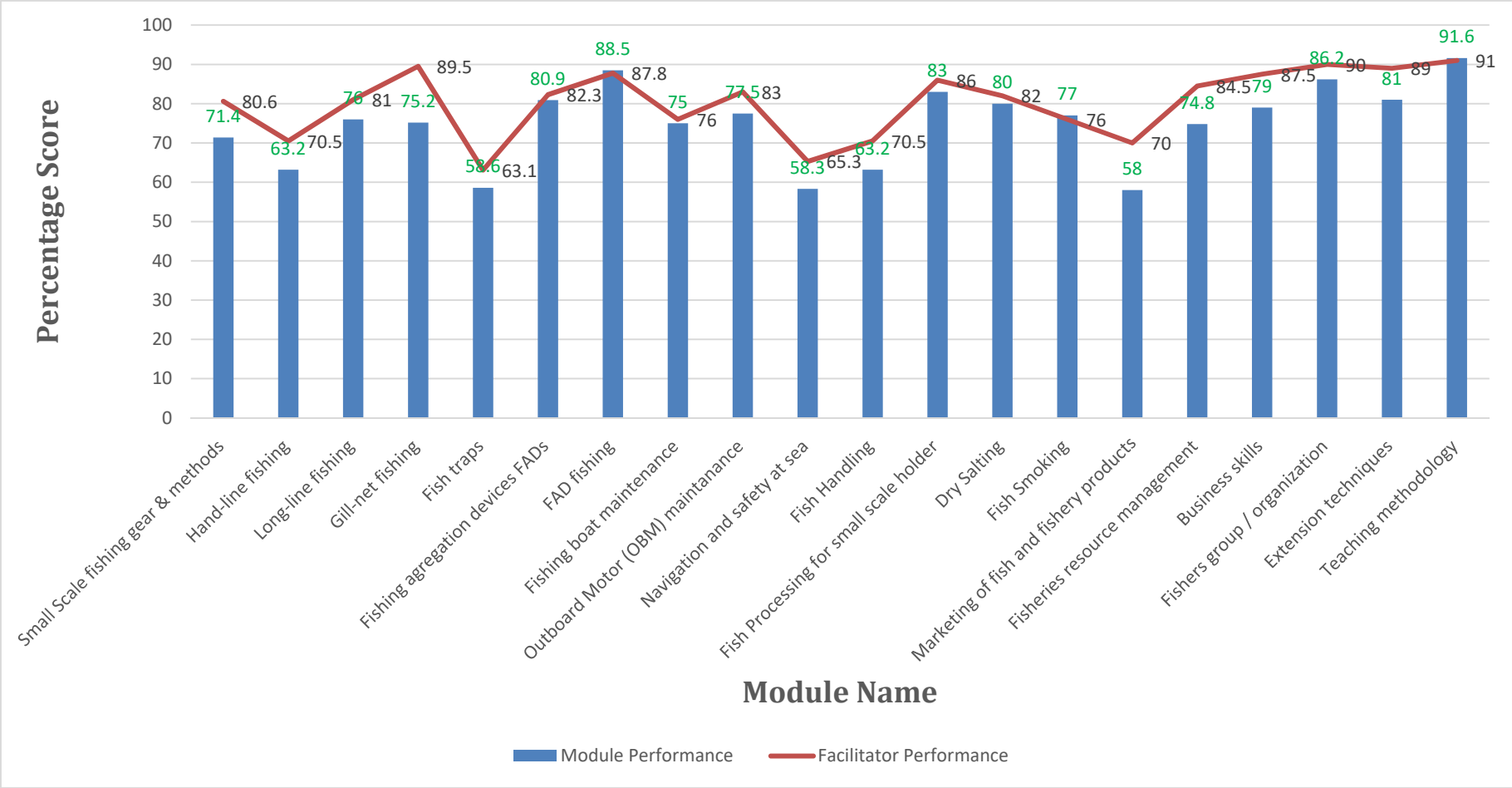


Figure 4. Overall module score and facilitator performance of all

Annex Part 2

Report on Pilot Training on Building Construction

August 2016

Japan International Cooperation Agency

Consultant: Because Institute Co., Ltd.

Table of Contents

Acronyms

ADRA	Adventist Development of Relief Agency
DRC	Danish Refugee Council
FGS	Federal Government of Somalia
ILO	International Labour Organization
JICA	Japan International Cooperation Agency
KTTC	Kenya Technical Trainers College
NGO	Non Governmental Organizations
NRC	Norwegian Refugee Council
PSG	Peacebuilding and Statebuilding Goals
TEVTA	Technical Vocational Education and Training Authority (of Kenya)
TVET	Technical Vocational Education and Training
UNHCR	United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization

Chapter 1 Background

1.1 Planning for the Building Construction

With the establishment of Federal Government of Somalia (FGS) in 2012, the international community has been collaborating in attaining Peacebuilding and Statebuilding Goals (PSG) under the Somali Compact (2014-2016). It is recognized that statebuilding with stable government function in Somalia is foremost important for peace restoration in East Africa and Gulf of Aden.

At the time of visits to Japan by His Excellency President of Federal Government of Somalia in June 2013 and March 2014, the Government of Japan has received a request to cooperate in the area of youth employment, which is highlighted under PSG 4 on Economic Foundations. Job creation for the youth is recognized as one of the highest priority issues in order to prevent the youth from seeking alternative income from militant and criminal activities.

In response to the request, Japan International Cooperation Agency (JICA), the implementing agency of official development assistance under the Government of Japan, has initiated Youth Employment Baseline Study (YEBS) for Somalia in order to identify specific area of collaboration since March 2014.

YEBS consists of 4 parts; i.e. i) data collection; ii) consultation with the Government; iii) pilot trainings; and iv) reporting.

i) Data collection
   - Collect information on the status of industrial development and its supporting activities
   - Collect information on the status of skill trainings and supporting activities
   - Exchange views on directions towards future assistance in the area of youth employment with other development partners

ii) Consultation with the Government
   - Hold consultations with the officials and experts from the Government of Somalia to confirm needs for cooperation in the area of youth employment and agree on direction of the remaining study
   - Confirm subjects and delivery methods of the pilot trainings

iii) Pilot trainings
   - Based on the consultation ii), conduct pilot trainings on selected specific subjects in third countries

iv) Reporting

- Hold a wrap-up meeting with the concerned government officials from Somalia in order to report the results of the pilot trainings and discuss future cooperation in the area of youth employment based on the YEBS
- Prepare a final report based on the results of the study

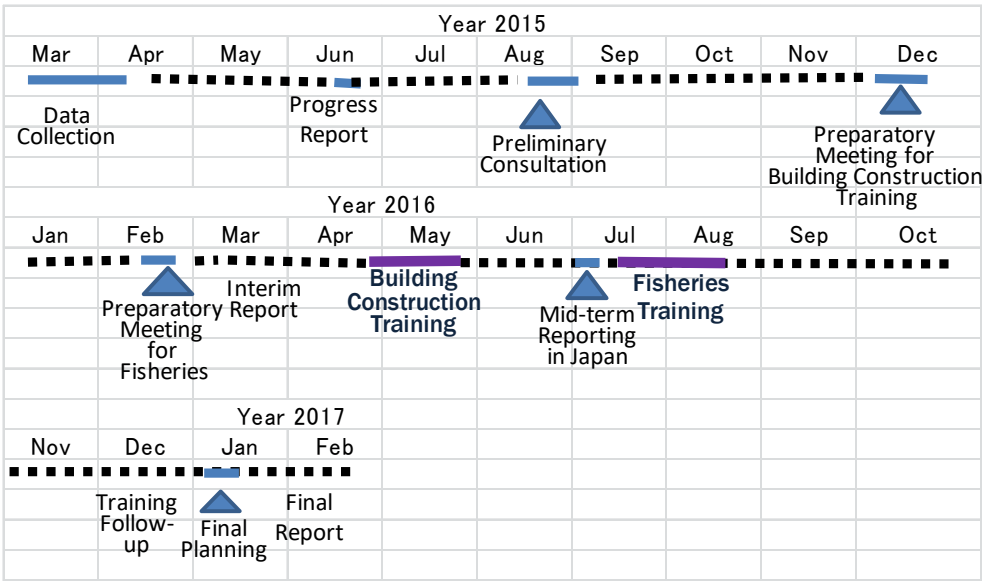


Figure 1 Schedule of YEBS

In the preliminary consultation session with the representatives of the Federal Government of Somalia (See 0) on 21 August 2015, FGS and JICA broadly reached a consensus to select building construction and fisheries as priority sectors for pilot third-country trainings. These two sectors are selected based on analysis using following five criteria:

- Medium term prospect for impact on job creation in Somalia
- Contribution to industrial and economic development in Somalia
- Regional coverage/ balance
- Possibility of collaboration with other development partners
- Collaboration prospect with the Japanese private sector in short and medium terms

Based on the agreement in the preliminary consultation session, a detailed planning meeting on the building construction training was held with the delegation headed by the Ministry of Public Works and Reconstruction (See 0) on 14th December 2015. As a result of discussion, Kenya Technical Trainers College (KTTC) in Nairobi, Kenya was confirmed as the training service provider. Among KTTC, the Somali delegation, and

JICA, the outline of the training course was determined.

Preliminary Consultation in August 2015

Preparatory Meeting for Building Construction Training in December 2015

1.2 Building Construction in Somalia

The pilot training aims to contribute to generating employment opportunities for the youth through the growth of building construction industry. Construction business is analyzed as one of the high potential economic sector for rapid growth in Somalia due to booming investment both from the public and the private sectors. For the public sector, infrastructure development and reconstruction are the key priority to establish foundations for promoting business and social activities. For the private sector, real estate business is one of the best investment opportunities for income generations, and diasporas popularly utilize the rent from invested real estate as an alternative method for controlled foreign remittance. Due to the demand for the large labor force on sites, the building construction is considered as one of the few sectors which can potentially absorb much worker force across Somalia.

However, availability of construction engineers is very limited in Somalia. Most of active engineers are foreigners from India, Sri Lanka, Kenya, Ethiopia, etc. Calling the rare engineers from a different region within Somalia may also be problematic due to security threats. Severe shortages in engineering capacities, such as designing, wiring, plumbing, etc., cause creation of dangerous structures. Moreover, heavy machinery is in shortage. Heavy reliance on foreign contractors and experts for building construction make investment to the construction sector flowing out from the country.

1.3 Kenya Technical Trainers College (KTTC)

The Kenya Technical Trainers College (KTTC), the service provider of the pilot training,

is registered under the Ministry of Education in Kenya and the Technical Vocational Education and Training Authority (TVETA). KTTC initiated its operation in 1978. It is the only institution that is designed for teachers training under the Technical Vocation Education and Training (TVET) in Kenya. Through legal notice No. 115 of 2014, KTTC's mandate was widened. It now offers training in diploma courses, technical teacher education courses, and short-term courses, research, consultancy, and, community services within and outside Kenya. Most of the lecturers in TVET institutions in Kenya have received trainings at KTTC. Moreover, KTTC has offered trainings to participants from Rwanda, Zambia, Namibia, Botswana, South Sudan, Zimbabwe, and Somalia.

The reasons for selecting KTTC as the service provider are the followings:

- KTTC's experience and capacity as a trainers' college
- KTTC's experience in providing consultancy services to Somalia (in Mogadishu, Puntland, and Somaliland) through Save the Children under the EU funded projects since 2013

It was considered that above elements are important since this training is designed for trainers, and KTTC is well acquainted with capacity and readiness of the training institutions in Somalia.

Chapter 2 Training Outline

2.1 Course Title

Training of Trainers Introductory Course on Foreman for Building Construction for Somalia

2.2 Purpose

The purpose of the training is to enhance skills for training foremen on planning, managing, and supervising at building construction sites in Somalia. The training aims to equip the participants with following 8 elements of skills:

i. procedures and points of consideration as a foreman at building construction sites
ii. reading and making drawings in order to supervise at building construction sites
iii. preparing and testing materials as a foreman
iv. preparing quotations for biddings
v. managing materials, tools, and personnel at construction sites
vi. controlling quality and process of building construction
vii. occupational health and safety at construction sites
viii. learning from visits to the actual construction sites

Considering lack of training equipment, the training was designed to focus on soft and practical components. Moreover, in order to serve for generating employment throughout Somalia, the training anticipates to meet knowledge required to build social buildings such as shelters, schools, hospitals, community halls, which the public sector and the development partners are planning to build in various cities.

2.3 Service provider and training sites

The training was provided by KTTC and took place inside KTTC Campus, Gigiri, Nairobi with 3 field visits to Gigiri, Mlolongo, and Thika.

2.4 Duration

from 10th May 2016 to 8th June 2016 (24 working days)

2.5 Mode of delivery

Guard house construction

The training was designed to equip the participants with skills through a competency based approach. For the participants to go through practical lessons on foreman tasks, they constructed a guard house at the corner of playing yard next to the Building and Civil Engineering Workshop at KTTC. Through the construction, entire aspects of knowledge necessary for a foreman to construct basic building was infused: they learnt about basic technical drawing, interpreted drawings for the guard house, dug the foundation trench, constructed the foundation, walls, the floor, the lintel, and roofing, fixed windows and doors, installed electrical wiring, and fit plums. During the exercise, each participant took a role-play as a foreman. A designated foreman and an assistant foreman planned, managed activities on the construction site, documented, reported, and shared lessons learned on daily basis. Another emphasis is use of appropriate technology. In order to be adjustable to local situation in Somalia where many types of machinery are scarce, participants learned how to produce building construction material with an alternative method in parallel with producing with modern machineries.

Bending a steel frame
with (right) and without (left) a machine

Cutting a stone block
with (right) and without (left) a machine

visits to 3 building construction sites were also incorporated into the training methodology, wherein participants acquired requisite knowledge and skills from practitioners. They observed difference in performance in management at the sites.

2.6 Cooperation with development partners

In an aim to utilize the human resource trained, collaboration with development partners were sought. 5 participants out of 14 were introduced by development partners; namely, UNIDO, World Vision, and ADRA while indirect introduction was made by UNHCR. During the training, UNIDO, World Vision, ADRA, and ILO made the visit to meet the participants. In addition, a consultant from NRC delivered a lecture on building construction practices in Somalia as a guest speaker.

Visit by World Vision

Visit by ILO

Chapter 3 Participants

3.1 Application procedures

Invitation to application was made based on the following criteria:

Somali-trainers who engage in building construction in Somalia and

- affiliation to training institutions (including institutions only dispatching trainers without delivering training by themselves) in Somalia and nomination by the institutions;
- minimum of two (2) years of experience in job and/or training related to building construction;
- academic background above higher secondary school graduates;
- age limit of maximum forty five (45) years old;
- pledge to conduct training in Somalia after the course by the applicant;
- possession of a valid passport of any nationality;
- actively participate in all classes during the entire duration of the training;
- in good health, both physically and mentally, in order to complete the course, and
- follow security instruction supervised by KTTC during the training.

As JICA is currently not able to directly support projects inside Somalia due to security restrictions, collaboration with other development partners was considered important. For this consideration, recommendation from the development partners including UNIDO, ADRA, and World Vision was sought in parallel with recommendations from the Ministry of Public Works and Reconstruction of FGS and Interim Galmudug Administration as well as the Ministry of Education of Somaliland.

3.2 Participants' profile

14 participants were successfully selected for the pilot training. One of the success factors in this training is participation of talented engineers from various regions of Somalia (See 0). In terms of affiliation, 5 are government officers (2 of them also work at TVET institution), 3 are TVET lecturers, 4 work at private building construction companies, and 2 work in international NGOs (See Table 1 and Appendix 2). Apart from 1 participant who does not have stable employment, all other engage in building construction related

work either as trainers or supervisors.

Table 1 List of Participants' Affiliation

Government	Ministry of Public Works and Reconstruction, FGS Ministry of Public Works and Reconstruction, Interim Galmudug Administration (2 participants) Ministry of Education, Government of Puntland (also lecturer at Garowe Vocational Training Center)[1] Ministry of Education, Government of Somaliland (also Manager of SEDA Vocational Training Center, Burao)
TVET	Prof. Adow Vocational Training Center, Galkayo[2] Kismayo Technical Institute[3] African Youth Development Association, Borama
Private Companies in Mogadishu	Somtech Engineering and Construction (2 participants) DESCON Architecture and Engineering Somali Society of Civil Engineers
International NGOs	ADRA Danish Refugee Council[4]

Average age and work experience of the participants is 28.5 and 4 years respectively. Apart from one oldest participant who is 42, age range is between 23 and 34 years old.

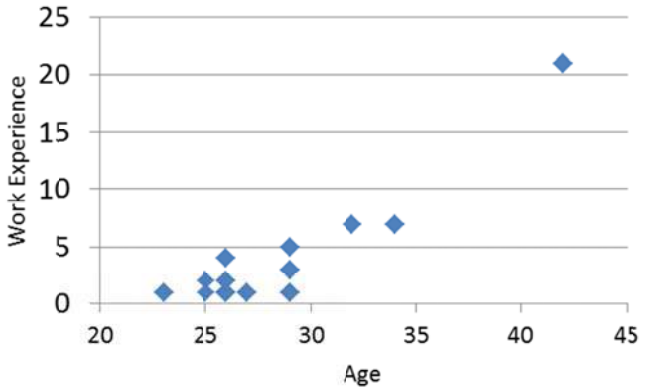


Figure 2 Age and Work Experience of Participants

Bachelor in Engineering while 2 others have Bachelor in Community Development and Diploma in Administration respectively. High educational background of the participants

[1] Introduced by World Vision
[2] Run by GSA, which heard about this training from ADRA
[3] Introduced by UNIDO
[4] Danish Refugee Council heard about this training from UNHCR

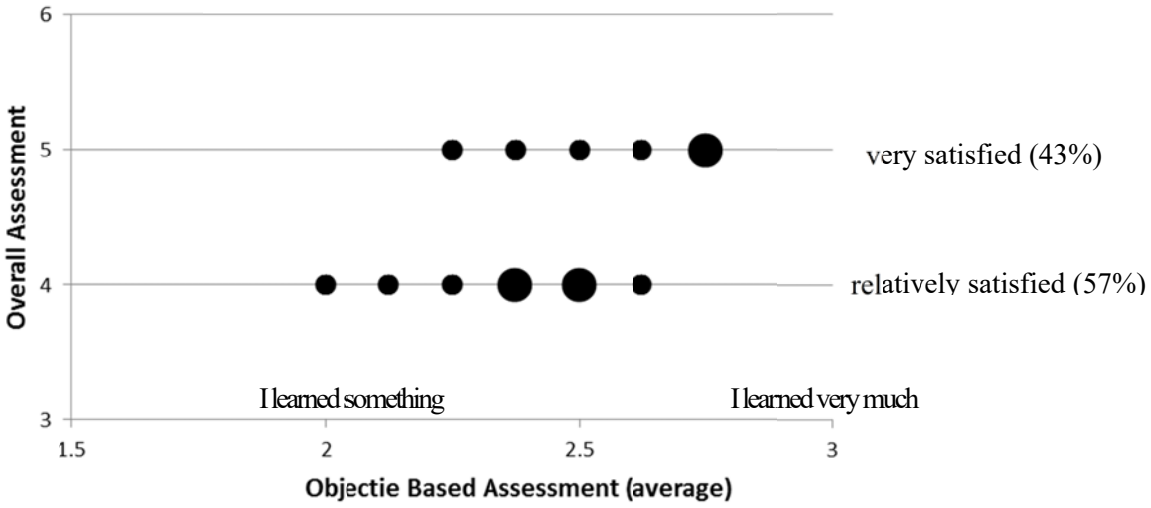
made the training run smoothly since they were quick to grasp theories. Although 3 students have a little difficulty in listening and speaking in English, they were better in writing and reading. Since the training was mostly through practices, English barrier did not seem to affect much.

Chapter 4 Monitoring and Evaluation

4.1 Participants' Evaluation

Participants joined evaluation of the trainings through interviews, questionnaires, and the final review meeting.

Figure 3 shows distribution of overall assessment and average assessment of 8 learning elements indicated in the questionnaire. In the overall assessment, 43% of the participants replied that they were very satisfied with the training course while others said relatively satisfied. As for the objective-based assessment, each objective was assessed in 3 levels: 1- I did not learn anything; 2-I leaned something, 3-I learned very much. The average of the objective-based assessment was 2.43. These mean that the satisfaction level of the participants was 89% while the training effectiveness was 81%: calculation of the former from overall assessment and the latter from the objective-based assessment (2.43 out of 3 level assessment).



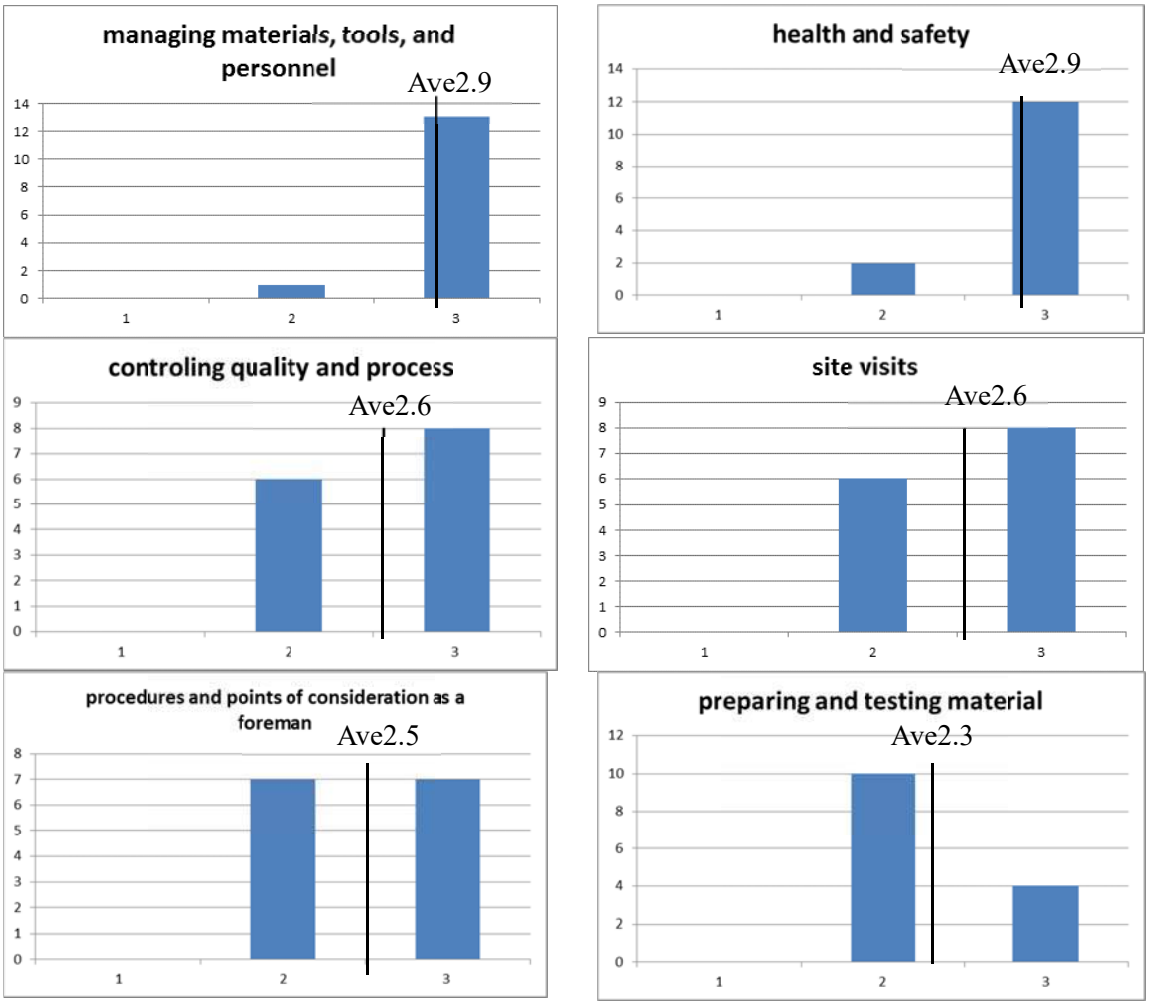
Note: the larger circles indicate marks by 2 participants.

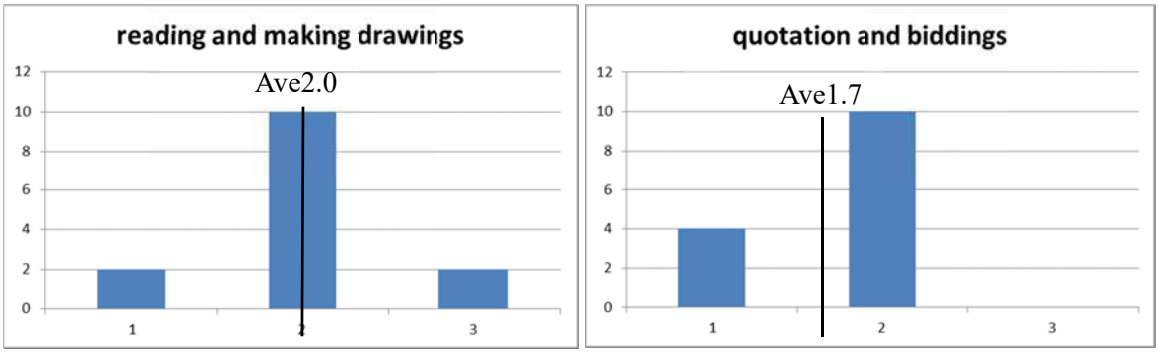
Figure 3 Overall Assessment & Objective Based Assessment (Average)

Most of the components in the trainings were highly appreciated since these were new to them and are not properly practiced in Somalia. Participants also liked practical approach taken in the training. Although they work as lecturers or supervisors in building construction related work, they did not have experience in constructing by themselves since their learning experience was mostly theoretical. They said that they can now work more confidently back in Somalia as they can identify more specific ways of operations

and solutions.

Figure 4 shows distribution of assessment on each learning element. Apart from reading and making drawings and quotation and buidding, each average score exceeded 2, and no one indicated that "I did not learn anything". As for reading and making drawings, two participants are specialized in drawings, and the training was too basic for them. However, this course is desgigned for trainings on foremen who do not have to draw by themselves, the level of the content is appropriate for the purpose. Therefore, it was advised that those who are advanced can work as lecturers rather than being treated as participants in the drawing classes. As for the quotation and bidding session, the training delivery method taken in the training made the evaluation low as it was theoretical without practices.





Note: 1- I did not learn at all; 2- I learned something; 3- I learned very much

Figure 4 Evaluation on Each 8 Objective

Some other comments made during the review meeting were:

- Handouts should be given prior to the lectures (handouts were given in soft copies at the end of the training).
- The training should flow in supporting the construction of the guard house (e.g. soil testing came at the end of the training).
- Site visits should show different stages of building construction.

Lecture on sand test

Lecture by a consultant from NRC

4.2 Other points raised in the review

In addition to suggestion and analysis in the participants' evaluation, following observations are made.

(1) Training contents and delivery methods

While 8 skill elements outlined in the training were appropriate, teaching methodology element should be added in the future training. KTT's practical training approach with incorporation of appropriate technology is highly appreciated. But reasons for using

appropriate technology have to be emphasized in advance; otherwise, participants do not appreciate meanings of the labor intensive exercise.

(2) Duration

It was acknowledged that the training duration was too short for the content. It was initially designed that the training was off on Fridays and Sundays. Then, the idea of constructing the guard house appeared later, and the training schedule became tight. In order to fit into the original duration, the training was conducting on 2 Sundays as well. This arrangement was tough not only for the participants but also for lecturers who have to work on Fridays as well. Moreover, it was found that construction exercise during the Ramadan, particularly on 7th June was tough for the participants. It was also proposed that the duration of the training per day is reduced to 7 hours from 8 hours.

Excluding 2 Sundays (12 hours) and reducing 1 hour on weekdays and Saturdays except Ramadan time (19 hours) necessitate additional duration of 4.5 days with the current content. If the teaching methodology module will be included as mentioned in (1), additional 5.5 days will be needed in total. Although this addition may not be enough to construct whole guard house, it is considered not necessary to construct the entire guard house: since the training purpose is not to construct the guard house itself.

(3) Security instructions

Breach of security instructions occurred several times during the training. Although the detailed guidance was given right after occurrence of the 1st incidence, a few participants still ignored the instructions. In future trainings, observance of security instructions has to be acknowledged and confirmed with signing on security declarations before and upon arrival.

4.3 Follow-up strategy

JICA personnel and participants shall keep communication by E-mail. A follow up questionnaire survey is scheduled to be conducted in December 2016, six month after the training. Any necessary measures, particularly for those participants found to be idle from the survey, shall be extended to connect to development partners and the government so that their resource and capacity will be fully utilized.

Chapter 5 Recommendations

This pilot training was designed for equipping skills required for training foremen for basic, social buildings such as shelters, schools, and community halls. Participants' evaluation showed that the training contents match with training needs for Somalia. Accommodating the participants of the similar education background made the learning process easy except observed differences in drawing skills. It is anticipated that demand for this type of training is very high in Somalia, and it is worthwhile repeating for other participants. Since methodologies adopted in this training are simple, this training is also possible to be replicated inside Somalia.

In summarizing findings, the outline of the design for the next training is recommended below:

(1) Course Purpose & Contents

The course purpose is maintained as to enhance skills for training foremen on planning, managing, and supervising at building construction sites in Somalia. Course content shall have following 9 elements.

i. teaching methodology
ii. procedures and points of consideration as a foreman at building construction sites
iii. reading and making drawings in order to supervise at building construction sites
iv. preparing and testing materials as a foreman
v. preparing quotations for biddings
vi. managing materials, tools, and personnel at construction sites
vii. controlling quality and process of building construction
viii. occupational health and safety at construction sites
ix. learning from visits to the actual construction sites

Training shall cover knowledge necessary for foremen who oversee basic buildings such as shelters, schools, hospitals, and community halls.

(2) Duration and Timing

5 Weeks (7 hours per day, 5 training days per week)
It is preferable to conduct the training when the regular courses of the service provider are

not carried out.

(3) Training methodology

- Emphasis on practical training as oppose to theoretical
- The delivery method has to take in consideration of "replicability" of training inside Somalia: therefore, excessive reliance on advanced machineries and equipment has to be avoided, and appropriate technology is introduced at the same time.
- Those who are specialized in some topics (e.g. drawing) should be requested to assist other participants in that particular class.
- Handouts should be distributed before or in the class as opposed to after the training. (This condition is to be clarified in the contract between JICA and the service provider.)
- Use of power point presentation is to be promoted in class lectures for clearer understanding.
- The class schedule should flow in accordance with steps in building construction: i.e. drawing-cost calculation- material testing & preparation-foundation, etc.
- Site visits are selected to show different stages of building construction.
- Simple test (about 20 questions) should be given at the beginning and at the end of the training to monitor learning effects of the participants

(4) Participants

Maximum 15 participants shall be selected from various regions of Somalia.
Eligibilities for application remain the same:

- affiliation to training institutions (including institutions only dispatching trainers without delivering training by themselves) in Somalia and nomination by the institutions;
- minimum of two (2) years of experience in job and/or training related to building construction;
- academic background above higher secondary school graduates;
- age limit of maximum forty five (45) years old;
- pledge to conduct training in Somalia after the course by the applicant;
- possession of a valid passport of any nationality;
- actively participate in all classes during the entire duration of the training;
- in good health, both physically and mentally, in order to complete the course, and
- follow security instruction supervised by JICA and the service provider during the stay.

(5) Application procedures

Invitation should be sent out minimum 3.5 months prior to the commencement of the training: 2 months for open call, 0.5 month for selection, and 1 month for travel and visa arrangement.

(6) Collaboration with the development partners

Similar to this pilot training, collaboration with the development partners is recommended throughout the participants' applications, training delivery, and follow-up.

- Some seats are to be allocated for the participants recommended by development partners as per prior agreement with the Federal Government of Somalia
- Development partners are to be invited to observe the training and meet the participants.
- A few consultants are to be invited to speak about their experience in building construction in Somalia as guest lecturers.
- Participants are to be introduced to the development partners to exposure them to more training and construction projects in Somalia

(7) Other modifications in applications

- The security instruction and its compliance by participants are to be clarified at the time of application as well as in the beginning of the training.
- Affiliated recommending institutions are requested to check physical conditions of the participants to assess whether they are fitted to go through trainings.
- A section on domestic itinerary and estimated cost between participants' homes and international airports is to be added in the application form.
- Validity of Somaliland passport for a visa application has to be clarified in the application.

While some voices are heard requesting for more advanced trainings, repetition of this basic training is necessary in a short term in order to identify a group of participants who require more advanced courses for specific fields. Since building construction practices in Somalia is still poor where the basic knowledge is much needed, priority should be given to training more trainers rather than moving to advanced ones in a short term.

Appendix 1 Delegation from FGS for Consultation on the Pilot Training

(1) Preliminary meeting

Date	21st August 2015
Location	JICA Kenya Office, Nairobi, Kenya
Participants from Somalia	• Ministry of Planning and International Cooperation, Federal Government • Mr. Mohamed Dahir Farah, Focal Point of Japan • Ms. Shukri Yusuf Salad, Head of Economics Statistics Mr. Zakaria Abdullahi Hassan, Adviser/NAO-EU Cooperation Coordinator • Ministry of Commerce and Industries, Ditto Mr. Mohamed Moalim Ahmed, Director of Planning, Training and International Cooperation • Ministry of Labor and Social Affairs, Ditto • Mr. Salad Hussein Abdule, Director of Public Relations and Planning • Ministry of Education, Ditto Mr. Daud Mohamed Makaran, Head of Non-formal Education Section • Ministry of Interior and Federalism, Ditto Mr. Ramadan Haji Elmi, Senior Program Adviser
Main Points Discussed	• Reported the progress of the Study • Proposed the trainings in target sectors

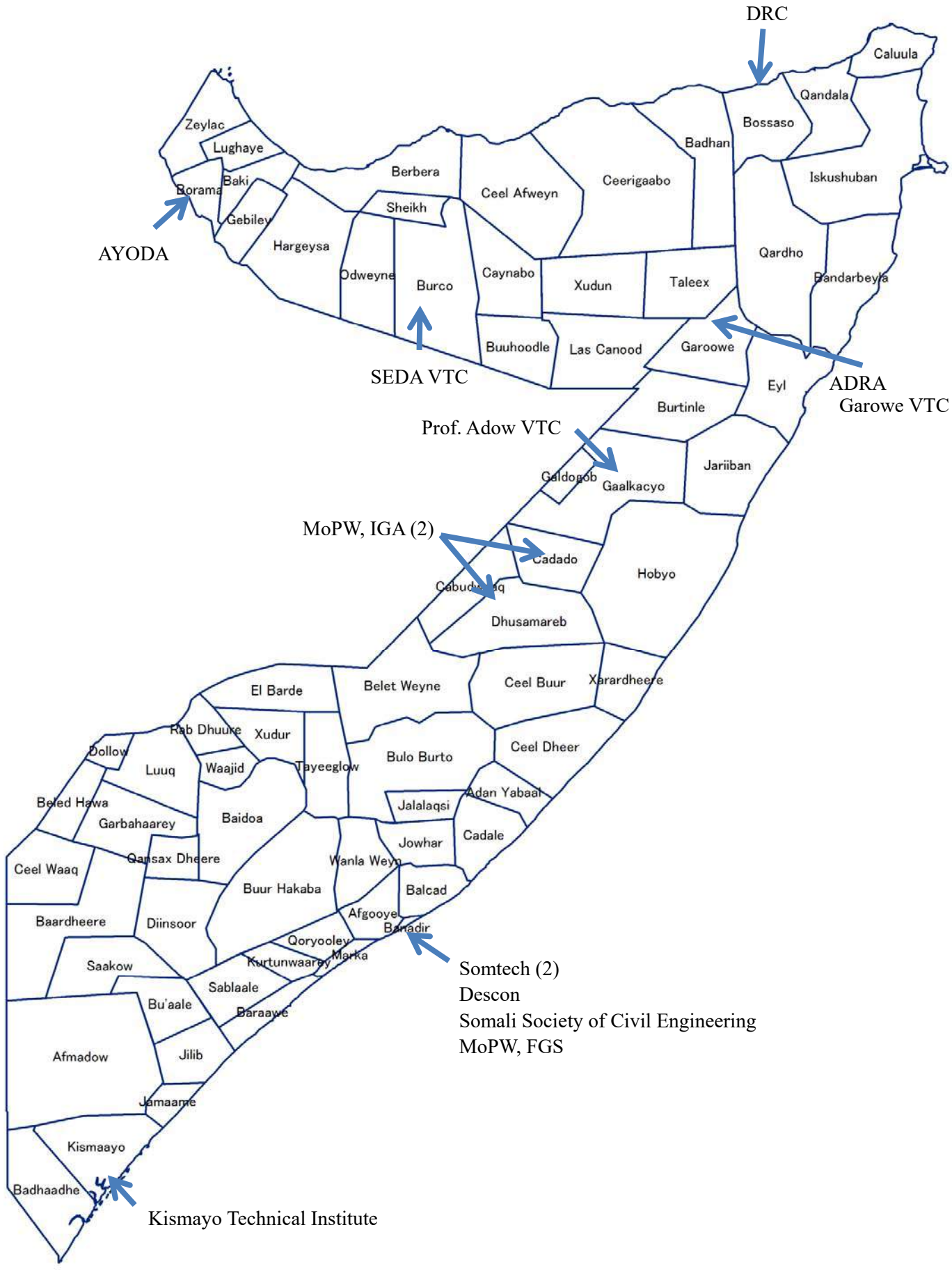
(2) Meeting on building construction training

Date	14th December 2015
Location	JICA Kenya Office and Kenya Technical Trainers College (KTTC), Nairobi, Kenya
Participants from Somalia	• Ministry of Public Works and Reconstruction, Federal Government Mr. Abdirazak Dirie Warsame, Director general Ms. Nasra Agil, Senior Technical Advisor • Experts - Somali International University - Engineering Association (Tayo Construction and General Engineering Company) Mr. Liban Ali Abdullkadir Dirie
Main Points Discussed	• Contents of the training for building construction • Methods of selecting participants

Appendix 2 Participants' List

No	Area	Affiliation	Designation
(1) participants introduced by development partners			
1	Galkacyo	Prof Adow Vocational Training Center	Assistant Coordinator
2	Garowe	ADRA Garowe Office	Consultant Engineer
3	Bosaso	Danish Refugee Council	Wash and Infrastructure Coordinator
4	Garowe	Garowe Vocational Trainig Center / Ministry of Education- Government of Puntland	Education Construction Engineer / Trainer
5	Kismayo	Kismayo Technical Institute	Instructor
(2) participants recommended by Ministry of Public Works and Reconstruction			
6	Mogadishu	SOMTECH Engineer	Trainee Engineer
7	Mogadishu	Somali Soceity of Civil Engineers	Trainee Engineer
8	Mogadishu	DESCON Architecture and Engineering	Engineering Superviser
9	Mogadishu	SOMTECH Engineer	on application for emplloyement
10	Mogadishu	Ministry of Public Works, Federal Government of S	Inspector (OHS)
(3) participants recommended by Interim Galumudug Administration			
11	Galmudug	Ministry of Public Works Interim Galmudug Admin	EngineerBuilding Construction
12	Galmudug	Ministry of Public Works Interim Galmudug Admin	EngineerHighway Department
(4) participants from Somaliland			
13	Burao	SEDA Vocational Training Center / Ministry of Education - Somaliland	Manager and Master Trainer of Masonry
14	Borama	Africa Youth Development Association (AYODA)	Assistant Technical Officer of ToT Programs

Appendix 3 Participants' Affiliation and Location



Appendix 4 Course Content

Contents		Hours
Objective 1. Understand overview of procedures and points of consideration as foreman at building construction sites in Somalia		
General Building Construction	Understand the role of the building team - Architect - Engineer - Quantity Surveyor - Foreman - Contractor - Client - Skilled laborer - Unskilled laborer - Store keeper - Operator	2
Practices in building construction in Somalia	Guest lecture from donor-assisted project - licensing and clearance procedures - choice of material - cultural appropriateness - mainstreaming disables - personnel - Local tools and equipment - Local materials	4
Objective 2. Understand how to read and make drawings in order to supervise building construction on sites		
Preliminary working drawings	- Use and care of drawing equipment - Layout a drawing paper - Use of construction lines and symbols - Write letters and numbers - Prepare a standard title block - Select drawing pens and pencils	4
Working drawings I	-Prepare and interpret a site layout plan - Main construction - Supply and waste water systems - Access roads - Site huts - Security	8
Working drawing II	Prepare and interpret a house plan Plan Elevations Section Use the provided specifications	4
Working drawings III	Prepare and interpret a house plan - Plan - Elevations - Section - Conventions and symbols - Tracing a drawing	4
Working drawing IV	Septic Tank Cesspool - Quantity - Sectional Plan - Sectional Elevations - Manhole	4

Working drawings V	Practically Setting out domestic houses Foundations and walls	6
Working drawings VI	- House fittings - Doors and window frames - Doors and Windows - Roofs structure	8
House plan design	Orthographic projection - 1st angle Projection - 3rd Angle projection	4
Objective 3. Understand how to prepare and test materials as foreman		
Prepare and test concrete cubes	- Batch concrete materials - Mix materials to the required proportions - Perform workability test on concrete - Prepare a cube	4
Development of a truncated cone	Draw a cone develop - Complete Cone - Truncated cone	4
Prepare a slump test cone	- Materials preparation - Development of a cone - Tracing - cutting - Folding - Welding/soldering - finishing	8
Soil testing	shear strength -Tri-axial -C B R	4
Compressive strength testing	Compressive test (after 7 days 0f curing)	4
Slump test cone preparation	Prepare a Cone - Welding - Riveting - Prepare handles - Compressive strength test (after 14 days of curing)	4
Objective 4. Understand how to prepare quotations for biddings		
Costing and estimating I	Prepare the elements of costing and estimating - Bill of Quantities (materials and labor)	2
Costing and estimating II	- House fittings - Doors and window frames - Doors and Windows - Roofs structure - painting	4
Building of quantities/Material estimates	- Concrete - Timber - Stones/concrete blocks - Roof work/covering - paints - General fittings - Plumbing and other finishes	4

Billing	Billing quantities - Item number - Item description - Item quantity - Item measuring unit - Item current rate - Total rate - Provisional sum - Taxes	2
Objective 5. Understand how to manage materials, tools, and personnel at construction sites		
Project scheduling	Work plan and sequencing Techniques of scheduling -Gantt chart -manpower requirements -costing	4
Setting Out	Understand the elements of setting out - Building line - Builders line - Methods of setting out - Profiles - Tools and equipment	8
Personnel management I	- Understand the general output of site personnel - Acquire basic personnel management skills and ethics	4
Personnel management II	- Personal ethics and behavior	2
Management, care and maintenance of tools and equipment	- Prepare and use a given inventory system - Adopt a given tool check system	4
Material management and control	- Quantify the required materials - Order materials - Prepare a material inventory system	4
Objective 6. Understand how to control quality and process of building construction		
Process checklist	-	4
Fitting and Checking plumbing and	- List of materials	8
Fitting and checking electronic wiring works	-	8
Practical house finishes	- Tiling (floor & wall) - painting	8
Objective 7. Understand overview of occupational health and safety at construction sites		
Occupation health and safety I	Building site rules and regulations - Personnel - Tools and equipment - Materials	6
Occupation health	- Personnel	2

and safety II	- Tools and equipment - Materials	
Occupation health and safety III	Legal requirements (based on universally acceptable law)	4
Objective 8: Observe actual practices		
Site Visit I	Building construction -observe site layout, compliance with regulations, personnel and material safety. Material control systems, work schedules, labor management, supervisory structures, testing laboratories, improvised tools/innovations	6
Site visit II	Roads construction Observe compliance with regulations, machinery maintenance schedules, labor management, safety, material control and use, personal ethics and behavior	8
Field tour	1. County council approval offices and city planning departments 2. Cement production factory - Safety - Production process - Factory maintenance	8

Appendix 5 Training Schedule

Day	Time	Activity
9/05/16 Mon	8.00 – 10.00	Arrival and registration of course participants
	10.00 – 10.30	Tea Break
	10.30 – 12.30	Issuance of training materials
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Tour of the Building & Civil Engineering Department
	4.00 – 4.30	Tea Break
10/05/16 Tue	8.00 – 10.00	Opening Ceremony
	10.00 – 10.30	Health Break
	10.30 – 12.30	Geographical Orientation of the college
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	General Building Construction
	4.00 – 4.20	Health Break
	4.20 – 6.00	General Building Construction
11/05/16 Wed	8.00 – 10.00	Introduction to Technical Drawing
	10.00 – 10.30	Health Break
	10.30 – 12.30	Introduction to Technical Drawing
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Preparation of Concrete Cubes
	4.00 – 4.20	Health Break
	4.20 – 6.00	Preparation of Concrete Cubes
12/05/16 Thu	8.00 – 10.00	Setting Out of a Building
	10.00 – 10.30	Health Break
	10.30 – 12.30	Setting Out of a Building
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Setting Out of a Guard House/ Profiling
	4.00 – 4.20	Health Break
	4.20 – 6.00	Setting Out of a Guard House
14/05/16 Sat	8.00 – 10.00	Estimating Labour Cost for Building Construction
	10.00 – 10.30	Health Break
	10.30 – 12.30	Estimating Labour Cost for Building Construction
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Costing and Estimating
	4.00 – 4.20	Health Break
	4.20 – 6.00	Excavation of Top Soil and Trenches
16/05/16 Mon	8.00 – 10.00	Pegging & Leveling of Foundation
	10.00 – 10.30	Health Break
	10.30 – 12.30	Slump test and making of concrete cubes
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Laying of Foundation concrete
	4.00 – 4.20	Health Break
	4.20 – 6.00	Laying of Foundation concrete
17/05/16 Tue	8.00 – 10.00	Laying of Foundation concrete
	10.00 – 10.30	Health Break
	10.30 – 12.30	Setting Out Foundation Wall
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Setting Out Foundation Wall
	4.00 – 4.20	Health Break

	4.20 – 6.00	Construction of a Foundation Wall
18/05/16 Wed	8.00 – 10.00	Construction of a Foundation Wall
	10.00 – 10.30	Health Break
	10.30 – 12.30	Construction of a Foundation Wall
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Construction of a Foundation Wall
	4.00 – 4.20	Health Break
	4.20 – 6.00	Compressive tests
19/05/16 Thu	8.00 – 10.00	Hardcore filling
	10.00 – 10.30	Health Break
	10.30 – 12.30	Hardcore filling
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Blinding
	4.00 – 4.20	Health Break
	4.20 – 6.00	Construction of formwork and plumbing
21/05/16 Sat	8.00 – 10.00	Costing and Estimating
	10.00 – 10.30	Health Break
	10.30 – 12.30	Batching materials for concrete works
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Laying of concrete slab
	4.00 – 4.20	Health Break
	4.20 – 6.00	Laying of concrete slab
22/05/16 Sun	8.00 – 10.00	Foreman Skills
	10.00 – 10.30	Health Break
	10.30 – 12.30	Foreman Skills
23/05/16 Mon	8.00 – 10.00	Setting out the super structure
	10.00 – 10.30	Health Break
	10.30 – 12.30	Practical Skills - Construction of Walls
	12.30 – 2.00	Lunch Break
	2.00 – 6.00	Construction of walls
24/05/16 Tue	8.00 – 10.00	Practical Skills - Construction of Walls
	10.00 – 10.30	Health Break
	10.30 – 12.30	Practical Skills - Construction of Walls/ Bending of Bars
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Formwork to openings / Bending of Bars
	4.00 – 4.20	Health Break
	4.20 – 6.00	Formwork & reinforcements
25/05/16 Wed	8.00 – 10.00	Wall construction, steel preparation and form work
	10.00 – 10.30	Health Break
	10.30 – 12.30	Wall construction, steel preparation and form work
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Site Visit to Green Hills Hotel in Gigiri (Village Market)
	4.00 – 4.20	Health Break
	4.20 – 6.00	Site Visit to Green Hills Hotel in Gigiri (Village Market)
26/05/16 Thu	8.00 – 10.00	• Formworks and scaffolding
	10.00 – 10.30	Health Break
	10.30 – 12.30	• Formworks and scaffolding • Reinforcement placement
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	• Batching and mixing concrete materials

	4.00 – 4.20	Health Break
	4.20 – 6.00	• Casting of ring beam
28/05/16 Sat	8.00 – 10.00	Curing of ring beam concrete
	10.00 – 10.30	Health Break
	10.30 – 12.30	Striking of ring beam formwork
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Construction of roofing trusses
	4.00 – 4.20	Health Break
	4.20 – 6.00	Construction of masonry wall above ring beam
	10.00 – 10.30	Health Break
	10.30 – 12.30	Instructional Methods
30/05/16 Mon	8.00 – 10.00	Curing of walling work for entire structure
	10.00 – 10.30	Health Break
	10.30 – 12.30	Preparation, fixing and fastening of wall plate
	12.30 – 2.00	Lunch Break
	2.00 – 3.00	Productivity and Process Control on the Construction Site
	3.00 – 4.00	Mounting and fixing of roof trusses
	4.00 – 4.20	Health Break
	4.20 – 6.00	Mounting and fixing of roof trusses
31/05/16 Tue	8.00 – 10.00	Approaches to Electrical Installation
	10.00 – 10.30	Health Break
	10.30 – 12.30	Wall chasing for electrical works
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Fixing of electrical conduits, junction boxes, consumer unit boxes
	4.00 – 4.20	Health Break
	4.20 – 6.00	Construction of roof purlins and ceiling blundering
1/06/16 Wed	8.00 – 10.00	Preparation and priming fascia boards Construction of ceiling blundering Chasing walls for plumbing works Excavation of manhole Positioning of water storage pipe
	10.00 – 10.30	Health Break
	10.30 – 12.30	Excavation of manhole Construction of ceiling blundering Chasing walls for plumbing works
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Construction of ceiling blundering Installation of toilet bowl Installation of water inlet pipe
	4.00 – 4.20	Health Break
	4.20 – 6.00	Fixing of fascia board
2/06/16 Thu	9.00 – 11.00	Site visit to NHC EPS Factory - Mlololngo
	11.00 – 2.00	Lunch Break
	2.00 – 5.00	Site visit to construction site (Clavers Hotel in Thika)
4/06/16 Sat	8.00 – 10.00	First fixings Plastering interior and exterior walls
	10.00 – 10.30	Health Break
	10.30 – 12.30	Plastering interior and exterior walls
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Plastering interior and exterior walls
	4.00 – 4.20	Health Break

	4.20 – 6.00	Setting of roof covering Laying of roof covering
5/06/16 Sun	8.00 – 10.00	Building site rules and regulations in Somalia
	10.00 – 10.30	Health Break
	10.30 – 12.30	Building Practices in Somalia
	12.30 – 2.00	Lunch Break
	2.00 – 4.00	Legal requirements (Based on universally acceptable law)
	4.00 – 4.20	Health Break
	4.20 – 6.00	Review meeting
6/06/16 Mon	8.00 – 10.00	Batching and mixing of plaster materials
	10.00 – 10.30	Health Break
	10.30 – 11.30	Plastering
	11.30 – 11.45	Health Break
	11.45 – 2.00	Plastering
7/06/16 Tue	8.00 – 10.00	Tiling
	10.00 – 10.30	Health Break
	10.30 – 11.30	Tiling
	11.30 – 11.45	Health Break
	11.45 – 2.00	Painting of Surfaces
8/06/16 Wed	8.00 – 9.00	Review meeting
	9.00 – 10.30	Graduation Ceremony

Appendix 6 Closing Remark by the Chief Representative of JICA Kenya Office at the Graduation Ceremony

It is my great pleasure to congratulate the participants on their successful completion of Training of Trainers Introductory Course on Foreman for Building Construction in Somalia, which was jointly implemented by Kenya Technical Trainers College (KTTC) and JICA Kenya Office.

This training course is organized in response to official requests from the Federal Government of Somalia to Japan/JICA since 2014 for cooperation in Human Resource Development, especially for promotion of youth employment.

JICA started its cooperation in Youth Employment Baseline Study in Somalia in 2015. As you are aware, JICA cannot dispatch a survey team to Somalia due to security reasons, therefore this study work has been mainly conducted through data collection and interviews in Kenya. Since JICA hoped to bring a quick and direct impact of our cooperation to Somali people responding to their expectations although this is a "Study", we decided to incorporate some actual activities for capacity development in the study. This is the background story for this Training of Trainers Introductory Course.

Under the unstable socioeconomic situation in Somalia, it seems difficult for the Somali youth to tackle the challenges of unemployment. JICA study team conducted several consultations with stakeholders including representatives of the Federal Government, private sectors, development partners, and so on. Through the consultations, two target sectors were identified which can be expected to have high potentiality in creating job opportunities for the youth across Somalia: One is building construction and another is fisheries.

Regarding building construction, we found that the skillful construction foremen are urgently needed in Somalia. Although the demand for building construction is very high, there are a few skilled construction workers. Most of the development partners are facing problems in involving supervisors and foremen with enough skills in their construction projects of shelters, schools, hospitals, and rehabilitation of ruined buildings. This shows a real need for human resource development, however, it also means it seemed difficult for JICA to recruit the right participants for the training course. Therefore, JICA started the selection process of participants in January this year in collaboration with many kinds of the stakeholders; the Federal Government, Interim Galmudug Administration, Government of Somaliland, development partners such as ADRA, World Vision, UNIDO, and UNHCR. On behalf of JICA, I would like to extend my sincere gratitude to all those organizations in sending excellent participants to this training.

I learned that both training participants and KTTC lecturers worked hard during the past one month in order to provide the participants with teaching skills for foreman of building

construction. I'm aware that training approach is very practical by applying appropriate and applicable technologies in Somalia and then is highly appreciated by the participants who have successfully learned new skills. I'm confident that 14 participants here are now having enough skills in building construction to transfer to the youth after their return to home region. JICA promises to keep communicating with the participants to follow-up and support them to make use of the training results as trainers in Somalia.

I also would like to extend my sincere appreciation to KTTC and the Government of Kenya for hosting this Third Country Training Program. Especially to KTTC lecturers, coordinators and staff, their dedicated work from the preparation stage to implementation is highly appreciated: many sincere appreciation for accommodating schedule changes and taking care of the participants not only during the training but also their off-campus activities. My heartfelt gratitude also goes to KEMI for providing accommodation. Thanks to these great efforts and supports from Kenyan institutions and people, all 14 participants could safely complete the training.

To conclude my remarks, let me wish every one of you the very best of luck, health, and success in the future as well as KTTC's prosperity by enhancing its role as a regional training center for the technical trainers. I wish participants safe journeys back home in Somalia.