



ASSESSMENT REPORT

COMMUNITY DIALOGUE ON MARKET NEEDS, JOBS AND SKILLS IN PUNTLAND STATE OF SOMALIA

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Introduction

Somalia has one of the youngest populations on the African continent where about two-thirds of its population is under the age of 30 and the number of youths is growing rapidly¹. However, the youth find a lot of hindrances in their day-to-day livelihood, survival and personal growth. They are majorly frustrated by the limited employment opportunities to a large extent arising from the mismatch between the education curriculum and the labor market needs. Research reveals that Somalia has one of the highest unemployment rates in the world, where the overall unemployment is estimated at about 54%, youth unemployment about 67%,² and female unemployment about 74%³.

According to the World Bank report⁴, livestock and crops are the main sources of economic activity, employment, and exports for Somalia in totality. Agriculture accounts for approximately 75% of Gross Domestic Product (GDP) and represents 93% of total exports, due to the robust livestock exports in the recent years. Besides the agricultural sector, fishery and frankincense are two main economic contributors for Puntland State of Somalia in particular. In addition, the service sector is rapidly growing which requires particular skilled and trained work forces.

As the rest of Somalia, Puntland State is highly vulnerable to extreme unfavorable weather conditions caused by the climate change. These include droughts, floods, cyclones, and heat waves which are frequently experienced in different parts of Puntland State. Therefore, climate change poses a significant threat to economic, security, social and environmental development in Somalia in general and in Puntland particularly in the context of this project. Hence, the sustainability of ecosystems to support pastoralist and agricultural livelihoods is under threat and this necessitates a comprehensive adaptation and resilience strategy live with this new environmental reality.

Education is a key determinant of producing skilled work force demanded by the labor market. However, it is widely presumed that education system of Puntland is not comprehensively designed nor capable of addressing these skills gaps unless there is a

¹ https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjaskvX-PrvAhWRYcAKHYzyCecQFjAAegQIAhAD&url=https%3A%2F%2Fwww.ilo.org%2Fwcmssp5%2Fgroups%2Fpublic%2F---dgreports%2F-instant%2Fdocuments%2Fpublication%2Fwcms_734237.pdf&usg=AOvVaw3DhWbXnDiNc_rcPkSW638g

² UNDP Somalia, Human Development Report 2012.

³ Musse F, and Gardner J., A Gender Profile of Somalia (Updated from the 2007 version), EU Somalia mission, October 2013

⁴ <https://www.worldbank.org/en/news/press-release/2018/03/28/agriculture-remains-key-to-somalias-economic-growth-and-poverty-reduction>

comprehensive reform of the education system. In Puntland, there is a growing number of youths entering the labor force. However, there is a significant mismatch between the labor market requirements and the training provided by the local universities. The qualifications they come with from universities abroad and the skills that are essential for the creation of employment opportunities and increased economic productivity⁵.

Providing skill development programs will certainly improve individual capacity and provide opportunity to better livelihood which will ultimately contribute to the economic development of the society.

Puntland is blessed with many different natural resources including livestock, fishery, and frankincense and most importantly an eager young population as human capital. Therefore, developing this human capital is the foundation of achieving broader social and human development in Puntland State of Somalia.

The term, skills gap has number of different explanations, but according to the Brookings Institute⁶, skill gap describes a fundamental mismatch between the skills that employers rely upon in their employees, and the skills that job seekers possess. In Puntland context, skill gap can be described as the mismatch between jobs and services that are available in the local market, and the skills that job seekers possess.

Therefore, to understand the existing skill gaps in Puntland, the PDRC (Puntland Development and Research Center) conducted an in-depth study on the opportunities and skill gaps in rural and coastal communities that are off the tarmac roads, remote, and hardly receive developmental programs. The study was conducted in six communities from six different regions of Puntland State. These communities are selected based on their respective economic activities namely, Crop farming, livestock, fishery, and frankincense. The selected communities were: (1) Cuun, farming community in Nugal region, (2) Buraan, farming community in Sanaag region, (3) Bocame farming community in Sool region, (4) Goddod livestock community in Galkacyo region, (5) Bander Bayla, fishing community in Karkaar region, and (6) Ufeyn, frankincense community in Bari region.

The study was conducted using key informant interviews with different categories of community members including, youth, women, community leaders, major and local council members. The study provides a comprehensive assessment on the economic opportunities and skill gaps that co-exist in these experimental communities. The objective is not only to understand the perception and barriers on jobs and skills in the respective community, but also to engage them in developing participatory solutions to tackle unemployment in their communities. The issues of skills deficit and mismatch were discussed and analyzed in a bid to know the technical and management skills which can enable youths and women to address unemployment.

Through participatory research approach, we created a platform for local people in each project area to explore their problems and solutions with the PDRC research team. With the

5 <https://pdrcsomalia.org/Publications/puntland-youth-challenges-prospects-and-opportunities/>

6 <https://www.brookings.edu/research/understanding-the-skills-gap-and-what-employers-can-do-about-it/>

aid of the PDRC's Mobile Audio-Visual Unit (MAVU), we created community film-based discussions to unveil the business opportunities available in these villages and the surrounding markets to enhance mindset change on the possible use of the available resources them to generate income.

The study entailed an assessment on skills gap and mismatch between jobs and services that are available in the local market, and the skills that job seekers possess. The emphasis was not only on traditional jobs but also new skills and jobs that will create decent and attractive jobs for youth and women in these communities. The study included five film-based discussions on jobs and skills from these communities.



Methodology

A combination of different methodologies was used to collect relevant data for this study. A desk review of reports and studies about market needs, jobs and skills was done. To collect primary data, a structured questionnaire was developed based on secondary data found from these reports.

The primary data was collated through focus group discussions (FGDs) and key informant interviews. In each community, there were two FGDs, one for youth of both genders, and the other for community leaders, including members of local council, mayors, elder men, women, and other prominent personalities of the community. We purposively interviewed 20 persons from each community as key informative individuals including businessmen and women, teachers, farmers, etc. Details of participants are provided in Table 1.

The community dialogue was sparked through a film-based discussion in the FGD discussions. Through our Mobile-Audio Visual Unit (MAVU), we have recorded and disseminated three short films as “success story” to showcase and stimulate the focus group discussions and transfer the best practices from one community to another.

Table 1. Description of general focus group discussion participants

Age	%	Occupation
25-35	10	Unemployed/self-employed
35-50	70	Comm. Leaders/ self-employed
50-70	20	Comm. Leaders/self-employed

All the FGD discussions and key informant interviews were conducted in Somali, then translated into English.

A total of 183 individuals participated in six focus groups, where 41 percent of the 185 participants were women and 32 percent youth of both sexes. The overall age class of the FGD participants were between 15-70.

Table 2. Description of youth focus group discussion participants

Age	%	Occupation
15-17	80	High school
17-19	15	High school/unemployed
19-20	3	High school/unemployed
20-25	2	farmers/unemployed



MAJOR ECONOMIC ACTIVITIES



Farming sector

Overview of the Farming Sector

Somalia's agricultural infrastructure and production was destroyed after the collapse of the central government in 1990, compounded with poor rains. Recurring droughts have also often contributed to poor harvests and significant crop shortfalls. Nevertheless, although crop farming is limited traditionally in Puntland because of low rainfall and water scarcity where it's not sufficient for an intensive cereal crop production, there has been a growing trend of horticulture due to favorable growth conditions and market demand of vegetable crops in major towns like Garowe, Bosaso, Galkacyo, Qardo, Badan and Lasanod. Since then, the farming sector has been growing gradually, and many small horticultural farming communities have been established in different regions of Puntland.

We collected success stories of such farms and produced short documentary films to share with other farmers as a means of sharing the best agricultural practices and transfer of knowledge to enhance benchmarking

One of the success stories for farming in Puntland is the farm 22nd which is located 22 km from Garowe city. The farm was established in 2013 to supply crop produce to local restaurants. After few years, the supply extended to the main market in Garowe. Due to the integration of farming into outside catering restaurant services because of its close proximity to Garowe city, the farm has become an icon and a success story in both farming and service sectors.

The manager of the farm is a young man aged 29 years, studying economics in one of the local universities. He is also a football player for Puntland Team representing the Somali National League. His story was used as a role model and a success story for youth. He stated that, *"youth must come up with new ideas. they have the energy and can do many activities. This is the only way to reduce the unemployment rate in Puntland"*.

Mr. Ali, as one of the farming pioneers in Puntland argued that "farming in Puntland is a very lucrative business. *"From the agribusiness industry, I was able to grow my business and also acquired many different assets including houses, cars and livestock"*, he stated.

Land disputes between crop farming and livestock holding communities is one big challenge. Although some sort of conflict resolution is made, land management for animal grazing and farming will require a more sustainable solution. In Puntland, the livestock is the dominant and traditional sector while crop farming is a new business concept that requires more support from the local authorities. The crop farming community believes the bottom-line of the land dispute problem is the separation of livestock sector from the farming sector. There is a need to develop agropastoral community, where both raising of livestock (e.g. camels, goats and cattle) and growing of crops are integrated. If the integration is not possible, a new business model can be developed where both communities can mutually co-exist. For example, crop farming community can supply animal feeds to livestock holders as a form of linkage

There is a challenge of rural-urban which equally affects the agricultural communities. The unemployment in the urban areas is very high and youth who migrate to urban centers find it hard to settle comfortably. These young men usually join the security sector like military and police.

In Puntland, there are some agronomists' expertise who are committed to providing trainings to farmers that have no background skills in farming. In 2005, they set up a demonstration and resource farming in *Jibi-gale* village in Garowe district. The aim of the farm is to train farmers and act as a crop farming demo. The farm also produces animal feeding experiments mainly for camels. These farms in Garowe are more advanced and well-coordinated. They have easy market access both logistic and information while those communities like Boocame have logistical challenges and less market information.

On the other hand, the supply of crops needs development and modernization regardless of the location whether nearby Garowe or in other remote communities like Bo'ame or Buran.

The knowledge gap and the mindset of the pastoralists about farming is the main challenge for agrobusiness development in Puntland. *"A lemon tree can produce fruits after five years, so a pastoral man thinks this period is longer than that of a camel which grows to produce milk after six years. He can wait for six years but not five years. This shows the mindset of pastoralists is still weak and rigid"* said Abdullahi an Agronomics expert.

Agribusiness in Puntland is mainly a private initiative. The government both at state and district levels, provides limited support to the agrobusiness management and development.

There is a mismatch between the jobs and skills needed in the labour market. *"Employers look for employees and job seekers look for employers"*, said Abdullahi. This mismatch is the main reason for high unemployment rate in Puntland.

The following diagram summarizes the SWOT analysis of the Puntland's farming sector.

SWOT Analysis for Puntland's Crop Farming Sector

Strengths	Weakness
<ul style="list-style-type: none"> → Growing farming community → Strong market demand → Farming development agenda → Abundant human capital → Growing passion of youth and women farmers → Existence of Female farmers' unions → Availability of farming land → Willingness to learn new skills 	<ul style="list-style-type: none"> → Limited farming skills → Limited access to market information → Inadequate initial capital → Limited technical know-how on farming → Scarcity of improved seed varieties → Limited farming machinery and use of rudimentary technology
Opportunities	Threats
<ul style="list-style-type: none"> → Favourable change in government planning towards the growth of the agricultural sector → Growth of nearby market centers in major towns → Population growth → Improvement in technology 	<ul style="list-style-type: none"> → Unfavourable climate change e.g prolonged droughts → Limited agro-based industries → Rampant rural-urban migration especially among youth → Water scarcity → Imported agricultural crops

Bocame Farming community

Demographics and intensity of farming in Bocame

Bocame is in the Eastern Sool region of Puntland with a total population of about 1700 inhabitants. It is 45km away from the Garowe City. The main sources of income are crop farming and livestock. The main crops produced from the village are; tomatoes, onion, red and green pepper, and spinach. that are sold to the nearby markets such as Garowe and Lascaanod. Women are actively involved in the farming sector. They consider farming as the most important source of income source for their families. They have established a female farmers union that mobilizes investment capital from female investors.

In the FGDs, the chairperson of Al-Aflax Women's Farming Union noted that *"Our union consists of 15 female farmers and decided to start a farming business without farming experience or skills. We set up an equity investment and bought a farmland. Unfortunately, we encountered water shortage right in the beginning. We drilled six water wells by trial*

and error (without water survey). We did not get water until the seventh water well. But now we are better off and gained remarkable experience."

These farms are completely informal. Thus, they have difficulties in getting access to available market information to enable them to sell their crop produce at competitive prices. *'We are farmers and at the same time mothers with more household dependents'*. Baxsan -a focus group participant noted.

There are high operational costs. The underground water is as deep as 500m. Thus, fuel i.e diesel consumption for pumping is expensive. *"We are deeply interested in open discussions with local banks to get access to credit facilities at negotiable charges", one of the participants lamented."*

The success stories captured in the films created awareness and brought new information on the market and investment opportunities from the local banks. "I got so emotional and excited after watching the film. We have no connection to the Banks. We didn't know that banks provide such services, and no one has even told us that before" exclaimed the chairperson of a women's organization in Sool Region.

Youth have shown commitment to learn new technical skills, farming technology and networking, etc. Therefore, to make the community economically more productive, they need more skill development training programs.

Crop planning is critical, for instance seasonal farming could boost the productivity and profitability of the sector. The Bocame farmers face a challenge of pests especially Tommo insect which affects crop yields and ultimately their profits.

Skills gaps

Here are some traditional and non-traditional business and skill training opportunities for Bocame community:

- Technical know-how on best agricultural practices
- Entrepreneurship skills (e.g., business planning, market research, investment planning, financial management and farm records etc.)
- Processing of goat milk products (e.g. cheese, yoghurt, etc.)
- Basic motor vehicle Mechanics
- Electrical/solar installation
- Mobile phone repair
- Tailoring
- Hair dressing and beauty care (e.g., henna)

Buraan Farming community

Demographics and Intensity of farming in Buraan

Buraan district is an old district founded in 1954, located in eastern Sanaag region. It is considered one of the oldest and most densely populated in the area. Currently, its population is estimated at about 4200 inhabitants. The community is agropastoral where crop farming and livestock are the main source of income. It is remote and barely reachable community, located about 100 km from the main tarmac road. Electricity and mobile communication network are accessible in the city.

The city has both primary and secondary schools. In the high school, there are 135 students. 27 students are in their last year of high school. Almost all of them may move to enroll local universities in larger cities like Bosaso and Garowe. For example, in 2020, 34 students sat from Buraan high school and all of them went to local universities in Bosaso, Garowe, Hargeisa and Amuud as reported by Osman Ali Musse, the principle of Buraan High School. In three years, they expect all the 135 students in the high school to migrate to larger cities for higher education or economic opportunities with few chances of going back to Buraan. This shows that migration poses a huge labor scarcity problem to these villages.

The effect of climate change is visible in Buraan. Over the past decade, the community has been dealing with climate change shocks, where droughts and floods have been frequently experienced in the city. Particularly in the last two years, wildfire and flooding have sequentially destroyed the agricultural crops. Wildfire destructed dates farms which have been a major source of income for the community. The following year was marked by flooding which destroyed other agricultural crops. The production volume is relatively small, and there is challenge of poor transport network and muddy roads which limit market accessibility.

Buran farmers experience a number of challenges which make the crop production economically infeasible and less viable. These limiting factors include inadequacy of land, water scarcity and high transportation costs due to poor roads. *"Due to the high transportation costs, we only sell our crops to the nearby villages and moreover at very low prices"*. One of the farmers that participated in the FGDs narrated.,

Therefore, cash-crop farming is not economically feasible for Buran village. Livestock sector could be a better option for this community. During one FGD, the Mayor of Buran District recommended a goat farming business for his community. *"I made a goat farm demo where I kept a few goats in few months. I supply goat milk to the local market, and I am capable of selling kids at Bosaso market in every two months"*, explained the Mayor of Buraan. He therefore recommended upscaling the goat farming demo throughout the Buran community. It would make a viable business opportunity for Buran community with the introduction of new value-added products to the goat business such as dairy products like cheese and yogurt and improvement of the entire goat production value chain.

Youth have identified some skill gaps which they are interested to learn during and after. “We have more time after school, and holidays. Therefore, short course skills training programs such as Henna and beauty care, mobile phone repairing and others will be very useful to us”, one of the female students narrated.

Skills gaps

Here are some traditional and non-traditional business and skills training opportunities for Buran community

- Technical know-how on best agricultural practices
- Goat farming
- Processing of goat milk products (e.g. cheese, yogurt, etc.)
- Crafting of hand-made bone jewelers
- Entrepreneurship skills (e.g., business planning, market research, investment plan, financial management, farm records etc.)
- Basic Mechanical Skills
- Electrical/solar installation
- Mobile phone repairing
- Tailoring
- Hair dressing and beauty care (e.g., henna)

Cuun Farming Community

Demographics and intensity of farming in Cuun

Cuun is a small farming village which is part of the Garowe district, the capital city of Puntland State. Its population size is estimated to be about 1300 people where farming is the main economic activity. There is one primary school in the village with about 103 pupils. After completing primary school, they move to Garowe to continue with their secondary education, which affects future demographics in the area.

The major crops grown in Cuun are tomatoes, onions, paprika, spinach, papaya, and lemons. There is also the *Mayra tree* which is used for handmade decoration materials. The tree is endogenous tree and receives special protection from the local community. The hand-made traditional materials are an old tradition that could be revived as a business and income generating activity for local women.

The village has the advantage of proximity to Garowe market which is only approximately 70km away. Access to market information and connection with local Banks is another advantage. These opportunities have resulted in few success stories from the community to form a desirable model for Puntland’s farming community.

Some of the farmers in the village are well established and well connected to Garowe market and produces bulky crop volumes. They have received investment loans from the

local banks such as Salaam Bank and Dahabshiil Bank. They have PVC solar panels for irrigation system that significantly reduce the fuel costs and increase the profitability.

Youth groups are actively involved in farming business without any kind of farming skills training. There are a number of youth farming groups that invest and work together in teams and informal cooperatives. *"We are three young men who earn daily income from farming. One of us owns the farmland and the other two participate as labor. We share the profits from proceeds. Investment credit and training on farming skills are the main barriers to become more successful farmers"*, a young man lamented during a focus group discussion. Another FGD participant noted that youth unemployment is one of the problems experienced in the area.

"We are struggling hard, but job opportunities are limited. Thus, we need skill development trainings which can enable us to start our own businesses for survival. We believe that youth could be more productive through entrepreneurship if they receive the training", he explained.

Crop production planning, pests and disease prevention are critical farming skills needed by Puntland farmers including those in Cuun. Pests and disease control is one major problem and a limiting factor of our capacity to increase cash-crop supply to the local markets."

A female farmer in the focus group discussions noted.

Other non-traditional skills were also discussed in the focus group discussions. Female entrepreneurs may require other skills training rather than farming such as fashion and design, tailoring and other skills which have a large demand both locally and another nearby markets. For example, school uniforms could be designed and tailored in the village instead of buying them from Garowe.

Skills gaps

Here are some of the farming skill gaps for Cuun community:

- Lack of technical knowledge of farming and best agricultural practices
- Limited availability of improved seeds varieties suitable to the local agro-climatic conditions
- Poor farming equipment and rudimentary technology

In addition to these traditional skills, youth in the community have noted in both the FGDs and key informant interviews that the following skills are more attractive to them:

- Basic Mechanics
- Electrical/solar installation
- Mobile phone repairing
- Fruit processing technology
- Tailoring and cloth designing

Key Recommendations for Farming Sector

The following are some key recommendations for Puntland farming sector

Recommendation	Objectives
1. Connect students in agricultural science in the local universities with experienced farmers who are already in the field.	<ul style="list-style-type: none"> (i) To match theory with practical (ii) New start-ups in digital farming
2. Establish youth and women led farming professional groups	<ul style="list-style-type: none"> (i) Promote farmers' interest (ii) Organize skill training programs (iii) Disseminate market information (iv) Connect local banks with farmers
3. Establish agricultural cooperative society	<ul style="list-style-type: none"> (i) Mobilize capital for members (ii) Create investment funds to lent to members (iii) Promote market accessibility (iv) Increase productivity and improve the agrobusiness ecosystem (v) Create and support new start-up companies
4. Creates added value for agricultural products through processing plants	<ul style="list-style-type: none"> (ii) To enhance the small-scale farmers to pool their production for better market and encourage growers (iii) Create proper storage facility for agricultural products



Frankincense Sector



Frankincense Sector

Overview of the Frankincense Sector

Frankincense has been a valued commodity for trade since ancient times by Egyptians, Assyrians, Persians, and many other civilized communities. Indeed, the frankincense resins were believed to be the oldest in the global supply chain. The Nabataeans- an Arabian tribe, monopolized the trade nearly two thousand years ago and maintained their lucrative competitive advantage for more than five centuries⁷.

In Modern times, frankincense has been used in western medicine for its anti-inflammatory and anti-carcinogenic properties⁸. Additional research at the University of Oklahoma concluded: "frankincense oil appears to distinguish cancerous from normal bladder cells and suppress cancer cell viability. Microarray and bioinformatics analysis proposed multiple pathways that can be activated by Frankincense oil to induce bladder cancer cell death. Frankincense oil might represent an alternative intravesical agent for bladder cancer treatment." ⁹. In Somali culture, the frankincense resins are used as burned as incense or used as essential oil or to treat injuries.

The meaning of the name '*Puntland*' is believed to historically date back to the century of pharaoh to be the land of Punt which refers to the land of frankincense. The people of Puntland used to export the frankincense to different parts of the world including ancient Egypt.

To this day, the frankincense sector remains one of the major exports and a key economic activity of Puntland State. It exports to the Middle East countries mainly the United Arab Emirates and Yemen, which export to the rest of the world particularly Europe and the USA. The global market volume of the frankincense is estimated at about 400 million USD per annum.

The frankincense tree (*Boswellia*) is harvested on the high mountains and hills in the Eastern part of Puntland State. The people who harvest this tree risk their lives to meet the global demand for frankincense especially the cosmetic and pharmaceutical industries who are the main consumer of frankincense.

There are two types of *Boswellia* that grow in Ufeyn; (i) *Boswellia sacra* (syn *B. carterii*) which yields a resin, and (ii) *Boswellia frereana* which yields resin. It is an endemic species found only in the Somali Frankincense region.

⁷ Hull, Bradley (2008). Frankincense, Myrrh and Spices, The Oldest Supply Chain. *Journal of Macromarketing*. Volume 28 Number 3 pp275-288. 41(4): 723–746 (2010).

⁸ Efferth, Thomas, and Henry Johannes Greten. "Anti-Inflammatory and Anti-Cancer Activity of Boswellic Acids from Frankincense (*Boswellia Serrata* Roxb. Et Colebr, *B. Carterii* Birdw.)." *Forum on Immunopathological Diseases and Therapeutics* 2, no. 4 (2011): 303–313.

⁹ Frank, Mark et al. "Frankincense oil derived from *Boswellia Carteri* induces tumor cell specific cytotoxicity." *BMC Complementary and Alternative Medicine*, 9:6. www.biomedcentral.com

To understand more the supply chain of the frankincense production, challenges and risks involved starting from the tree to the packaging assembly workshop, the PDRC team visited Ufeyn city which is one of communities that economically depend on frankincense sector. Ufeyn is remote located 75km from the main road. It is a remote and barely reachable community. Particularly, the frankincense trees are found deep at Golis mountains which is completely nonresidential, remote and isolated from the rest of the community.

"The harvest of Frankincense is done by making a number of precise incisions into the bark and letting the resin ooze out and solidify over a few weeks. Then the harvesters return to each tree to collect the resin. The procedure is repeated multiple times over the harvesting season." Hersia frankincense collector, explained the harvesting process,

Saeed Jama is one of frankincense collectors in Ufeyn who like his father and grandfather, climbs up the cliffs the whole year. "Injury and death by slipping off from the cliffs are common" Jama said. He added that many people either break legs, hands, or even die during cliff climbing. Fortunately, in these isolated sites mobile communication network is available which makes eases the life of frankincense collectors.

"The injuries and losses of loved ones are greater than the financial benefits we get from the frankincense business. A few years back, I lost my elder son in the frankincense collection business. No ambulance can access the area. So, when an accident happens in the harvesting site, one has to rent a car to pick up the injured or the dead young men from the mountains." An elderly man in the focus group discussions stated.

Puntland's frankincense sector is largely underdeveloped. Therefore, means of sustainability is critical for this sector.

Since the 1800's, the Somali resin was sold to a middleman at low prices who in turn sells to the Middle East, where it will be processed, packaged and sold to the international market at higher prices¹⁰.

Before the civil war in Somalia, the frankincense sector was highly regulated with the products being sold to government buyers only. The harvesters would sell their product at a fair price of averagely \$50 per kilo.

"I have been engaged in harvesting and collecting the frankincense and myrrh on this high cliff for 12 months. Throughout this year, my family is dependent on a loan for school fees and other daily expenses. When I collect the commodity (frankincense), I sell it to the creditors who give us loans. Sometimes, you may end up in deficit because the loans we take out exceed the value of the frankincense we collect. Jama, a frankincense collector said,

"My creditor decides the price of the frankincense. I have no other option as I owe him". He added, "We usually work in pairs to collect about 400kg of frankincense in a period of 12 months. Each of us will get a share of 200kg when we sell it to our creditor for 6USD per kg.

¹⁰ DeCarlo, Anjanette, and Saleem H. Ali. "Sustainable Sourcing of Phytochemicals as a Development Tool: The Case of Somaliland's Frankincense Industry", Institute for Environmental Diplomacy and Security, March 2012

This makes 1200 USD for each, it happens that my family took 1500-2000USD from the creditor which makes a loss of 300USD – 800 USD, Thus, the creditor will record it as a liability to next year's account. We the collectors do not make profit, but the creditor makes some profit.", a focus group participant narrated,

The women who work in the Frankincense sector of Ufeyn, sort and clean the resins after the harvesting period. They work for the businessmen that buy the products from the harvesters.

"My husband is a frankincense collector. He is always away for 12 months with no family income. While he is away, I take a loan for the family's daily expenses including school fees. To earn extra income, I also work in the frankincense separation process together with other women. The separation process is very difficult and unhealthy job. Most women involved in this field die of kidney disease. They sit on the concrete floor from morning to noon, about 7 hours to earn 2 USD or 3 USD which is nothing". One female FGD participant lamented.

The women stressed their necessity to get skills training for alternative sources of income or even grants or investments for setting up small businesses for themselves. "I would like to be trained in tailoring and design, hair, and beauty care skills." A lady asked.

Youth can play a strategic role to modernize the frankincense business and should be given an opportunity to contribute to it.

Indeed, a youth participant expressed that some group of youth in Ufeyn district are willing to set-up their own company that will export and invest in frankincense sector.

"frankincense is a valuable product with many different uses such as cosmetics. The problem is parents have no direct connection to the global market. They deal with a lot of middlemen or agents. The young generation has to step-in and help them. Youth argued that they can use online marketing to connect their parents directly to the global frankincense market".

"Frankincense collectors are illiterate and unskilled workers; therefore, some people benefit from their weaknesses of being poor and illiterate. The young generation has to help them.",

one young man added.

SWOT analysis of the frankincense sector

Strengths	Weakness
<ul style="list-style-type: none"> → An ancient tree that has been preserved for millenniums → The available land favours frankincense growth → Production and export of the frankincense commodity is continuing for centuries → Unique and expensive commodity → Youth involvement in the sector 	<ul style="list-style-type: none"> → Poor technology the production system → Limited initial investment capital → Underbidding or underpricing of the products
Opportunities	Threats
<ul style="list-style-type: none"> → Abundant global market → Availability labor force → Access to credit facilities from money lenders 	<ul style="list-style-type: none"> → Loss of human lives → Health risks for women sorters

Skills gaps

Here are some traditional and non-traditional business and skills training opportunities for Ufeyn community:

- Entrepreneurship skills (e.g. business planning, market research, investment planning, financial management etc.)
- Basic Mechanics
- Electrical / solar installation
- Mobile phone repairing
- Tailoring
- Hair dressing and beauty care (e.g., henna)
- Modern frankincense harvesting skills

Key Recommendations for the Frankincense sector

The following are some key recommendations for frankincense sector

Recommendation	Objectives
1. Regulation of the Frankincense Sector	<ul style="list-style-type: none"> (i) Oversight from government allows stabilization of price (ii) Creation of PPP (Public Private Partnership) to strengthen the sector (iii) Have the sector Fairtrade Certified (iv) Protection of the Growing Areas from exploitation by money lenders
2. Establish Frankincense Cooperative society	<ul style="list-style-type: none"> (i) Mobilize capital for members (ii) Create investment funds to be lent to members (iii) Enhanced collectivized marketing to fetch better prices (iv) Increase productivity and improve the frankincense business ecosystem (v) Create new start-up companies
3. Establish Puntland Frankincense Association led by youth	<ul style="list-style-type: none"> (i) Promote members' interest (ii) Organize skills training programs (iii) Disseminate market information (iv) Ensure the Well-being and safety of the workers (v) Create new value-chain (vi) Protection of labour rights



Livestock Sector

Livestock sector

Overview of the livestock sector

The livestock sector is the largest contributor to the Somalia's economy and particularly in the Puntland State. Camels, sheep, and goat herding are the main types of livestock and it is reported to be the largest export commodity from Puntland. Thus, export of livestock to the Middle East countries becomes the only business opportunity that generates income for all livestock benefactions. Adding value to the livestock and livestock products will therefore boost the local economy, create more jobs and provide new skills for youth and women.

The abundance of camel stocks and human experience in traditional animal herding skills in Somalia makes the evolving modernization and commercialization initiative more than promising and sustainably profitable. Engaged, and prospective practitioners in this business sector are confronted by serious human capital and financial resource challenges. There is need for access to skills and financial support to grow and develop with professional and production capacity, acquire investments from financial institutions and have access to better market opportunities.

Camel milk is highly consumed by Somalis and its rate of consumption and demand has increased due to the growing urbanization. This has brought about challenges in the competence with which existing capacities could respond to and supply enough amount of camel milk to urban markets. This has resulted in the introduction of *Barqo-maal*/business model, which is a new business model and a trending business idea in Puntland since 2013, creating affection with business entrepreneurs from both pastoral and urban communities. It has also improved the quality and availability of camel milk in urban centers. Its service quality, availability and customer satisfaction benefits, commercialization of camel milk comes with enormous socioeconomic benefits to improve the livelihood conditions and wellbeing of the society through the creation of potential job opportunities, transformation of traditional lifestyles in livestock herding and trading of livestock products. This also lifts the burden from ill-utilized environment and the ecosystem and besides all, adaptation of better and better hygiene and sanitation standards in milking, transportation and storage processes, preventing consumers from transmission of hazardous and communicable diseases to and from each other and makes the *Barqo-maal* milk both nutritious and safer for human consumption.

Therefore, to understand the structure of the domestic camel milk market, the nexus skills and job opportunities for youth, we conducted a field work in Goddod village. The village is located 45 km from Galkayo. It has about 1500 inhabitants and other 500 in the surrounding settlements, it has a primary school and small health center facility.

Goddod is a center and brand for newly developed camel milk business known as *Barqo-maal* by some businessmen in Galkacyo. The concept of *Barqo-maal* was adapted as a business model in 2013. The camel milk is supplied to the market twice a day. The first fresh camel milk goes to the market at 9 am, and the second batch at 6pm. Traditionally, camel

milking has never been presumed to be a source of income. It could only be used by the owner for daily household consumption. But with changes in the economic affairs of Somalia, camel milk has become a commercial product in the communities including in Puntland State. The concept of Barqo-maal is growing rapidly in all major cities in Puntland, and has created new job opportunities for men, women, and youth. Table 2 illustrates the role of each group in the supply chain of the camel milk business. The price from the camel center is between \$0.8-1, and \$1.2\$ to the end user.

Table 3. Key players involved in the camel milk market

Gender	Age	Role
Men	> 30	Camel owners and milk supply
Women	>20	street vendors
Youth (men)	>15	camel herders, milkers, and logistics

The supply of camel milk to long distances is quite challenging. It requires special storage equipment. Traditionally, Somali women use to produce hand-made products for milk storage. Because this tradition is gradually despairing, these hand-made products are not readily available on the market. Today, plastic containers are used during milking and transporting the camel milk to the market. The plastic containers are not ideally a recommended suitable storage for camel milk, which is temperature dependent. "The revival of the hand-made traditional equipment will create new jobs and skills for women and will allow us to deliver the camel milk to distant markets," One FGD participant noted

The fresh camel milk if stored at proper temperature (~35C) can be used as a so-called *Dhay* (fresh milk) for over three to five days without getting spoilt. Thus, it makes it possible to transport fresh camel milk to distant markets.

"The left-over of fresh milk is lost if it goes beyond 24 hours . Due to poor storage facilities, the price of milk on the market drops in about 24hours if stays unsold. Small processing and storage facilities will enable us to store the camel milk over a long time just like other soft drinks."

Yaasin, one of the community leaders noted.

Traditionally, the livestock community does not have any value addition to their livestock. Due to the *Barqo-mal* business model, a significant income is generated from only the camel milk.

The Barqo-mal production is operated in groups, where they share the manpower, water, transportation services and other facilities. The milk produces sell at \$0.8/L, the transportation costs \$0.2/L and \$1.3/L in the retail market. There is always a shortage of demand of camel milk. Thus, the sector could create more jobs and skills for youth if developed. The following table compresses three commodities that are highly consumed

in the local market. As shown in the Table 4, there is no single registered company that supplies the camel milk in the market. On the other hand, more than 10 companies are involved in the production of bottled drinking water and more than 20 companies operate fuel stations. The price of a litter of camel milk is twice the cost of fuel.

Table 4. Comparison of three main commodities

Commodity	Number of registered companies	\$/L
Drink bottled water	>10	0.3
Fuel	> 20	0.6
Camel milk	0	1.3

“I have been in the business of Barqo-maal for the last four years, I have permanent retail women groups that I supply the camel milk. Before this business, I used to have a small shop in Galkayo city. Due to some gun violence which erupted in the city, I lost one of my legs and decided to join to the Barqo-mal business. have so far recruited four staff to herd the camel and supply camel milk to the local market. I usually supply about 300L per day to the market. Thus, I believe this business has more liquidity than many other businesses in the city. ”

One of the FGD participants narrated.

Focus group discussions and key informant interviews revealed that the livestock business value chains should be improved. Therefore, the following recommendations could improve the sector and create jobs and skills for youth.

SWOT analyze of the livestock sector

Strengths	Weakness
<ul style="list-style-type: none"> → Strengths → Abundancy of livestock in all parts of Puntland → Strong pastoral community → Strong export market → Availability of a large local market 	<ul style="list-style-type: none"> → Poor livestock management and control skills → Poor technology for value-addition → Poor storage facilities → Limited animal feeds and water → Lack of decent work opportunities → Unfavorable climate shocks
Opportunities	Threats
<ul style="list-style-type: none"> → Potential financial source → Abundant laborlore → Limited competition in the market → Strong value -added products (e.g. dairy products, yogurt, meet, leather, etc.) 	<ul style="list-style-type: none"> → Climate change → Migration from rural to urban areas → Water scarcity → Market uncertainty

Skills gaps

Here are some of the traditional and non-traditional business and skills training opportunities for Buran community

- Entrepreneurship skills (e.g., business planning, market research, investment planning, financial management, livestock records etc.)
- Dairy products storage (e.g. cheese, yogurt, etc.)
- Basic Mechanics
- Electrical/solar installation
- Mobile phone repairing
- Tailoring
- Welding to produce metallic storage containers

Key Recommendations for the Livestock Sector

The following are some key recommendations for Puntland livestock sector

Recommendation	Objectives
1. Connect students in livestock science in the local universities with the livestock community.	(i) To bridge theory with practice (ii) Establish research based -livestock development projects
2. Establish Puntland Dairy Product Association led by youth.	(i) Develop new dairy products (ii) Organize skill training programs (iii) Disseminate market information (iv) Create new value-chain
3. Establish Puntland Meat Association led by youth.	(i) Create a modern comprehensive abattoir (ii) Create retail butchers (iii) Provide training and skill development in meet sector (iv) Disseminate market information
4. Establish Leather Development Association.	(i) Provide training and skill development in leather processing (ii) Establish leather processing facilities (iii) Create an export industry for leather
5. Establish Livestock Cooperative society.	(i) Promote livestock business ecosystem (ii) Mobilize capital from members



Fishery Sector



Fishery sector

Overview of the Fishery Sector

Puntland State has the longest coastline of Somalia. Its coastline stretches for about 1634 kms and is located between the Gulf of Eden and the Northwestern Indian ocean. This strategic geographical location and the existence of one of the major upwelling¹¹ areas of the world right on the Horn of Africa has made it rich in marine resources. Between 1975-1980, the Food and Agricultural Organization (FAO) through its hired Research Vessel, M/V Friedhoff Nansen¹² surveyed the entire Somali waters and concluded that there was an abundant marine resource of mainly small pelagic or Sardines, which generally attract large pelagic life for feeding, such as Tunas, Mackerels, larger mammals, and Dolphins. The survey also indicated large demersal stocks consisting of a variety of finfish, Crustaceans, and cephalopods.¹³

Generally, the Somali fishery consists of two categories namely, the industrial and the artisanal or, simply the offshore and inshore fishing. The development of Somali offshore fisheries took place in the years between 1975 to 1990, but it vanished with the collapse of the state in early 1991. This national offshore fishing was replaced by poaching foreign fishing vessels illegally operating in the Exclusive Economic Zone (EEZ) of the Somali waters.

Similarly, the much-developed artisanal fisheries has been also replaced by loose and unregulated local and rudimentary fishing enterprises and companies that fish spiny lobster and other marine products. Ironically, the interaction between the poaching foreign vessels and the small-scale local fishermen also became a devastating challenge which is, generally, considered to have triggered the shocking "Sea Piracy" of 2007 to 2014. That operation badly affected the number of youths who were involved in the local fisheries because their fishing nets were often swept away by the huge fishing vessels trawling in the near shores.

Fishing in Somalia/Puntland is considered to be the third major economic sector after the livestock (because of the nomadic lifestyle of the majority of the Somali population), and crop agriculture (because of the Jubba and Shabelle inter-riverine settlement communities). Despite Somalia/Puntland having a resourceful and lengthy coast, the Somalis are considered very low marine products consumers. Notwithstanding the predominance of the nomadic lifestyle of the Somalis in general, the fishery sector has had a great boost in the past four decades. From a negligible contribution to the national GDP, the fishery sector of Puntland now occupies a significant position both in the overall economy and in the job creation for youth.

The sector employs three categories of people namely, the artisanal fishermen or the producers, the fish processors consisting of men and women and the fish traders who include both men and women. Following the collapse of the Somali State in 1991 and the subsequent breakout of the civil wars that displaced many Somalis to seek refuge in t

¹¹ "(see Spalding et al., 2007- It is typically an upwelling area, influenced by the Socotra Eddy, Great Whirl, Southern Gyre and the East Africa Coastal Current.

¹² (<http://www.fao.org/3/i7652e/i7652e.pdf>)

¹³ <https://www.shuraako.org/publications/fishing-sector-somalia-somaliland>

Puntland, there was a growth of the fisheries of the area as an occupation and source of food during that difficult period. Among the Internally displaced and native returnees included many skilled fishermen that substantially boosted the fisheries as an occupation man, women, elder and young.

Therefore, to understand skill gaps and the challenges that fishing communities have endured, the nexus skills and job opportunities for youth, PDRC conducted a field work in Bandar Beyla city. It is located at the Indian Ocean Coast of Puntland State. It has around 10,000 inhabitants, and fishery is the main employment sector while a large number of Bandar Beyla fishing community members are working as middlemen for local fishing companies that export to regional markets.

As shown in table below, both youth and women have a limited role in the fishery sector.

Table 4. Players in the Fishery sector

Gender	Age	Role
Men	>30	Own fishing companies/boats
Women	>20	Mend fishing nets/sell fish in the local market
Youth (men)	>15	Employees

A female participant in the FGD stated that female workers are willing to be part of the fishery sector if they get the training and capital support., "We can contribute in different sections of the fishing value-chain, for example processing, packaging, etc.", She added.

Apart from fishing skills, beauty care, IT skills are also appealing to youth as a means of part-time income generating activities. According to Hawa Ahmed a young female student, *the challenge is to find the skill development programs and the trainers who can support them.* Hawa is still in secondary school, had been trained as a midwife by her grandmother and she works in the local MCH. (Mother and Child Health Care) She stresses the importance of vocational skilling for youth in general to prevent migrations from their community to urban centres in search for jobs.

There is no developed fishing infrastructure in the community.

"Lack of transport and processing facilities are two serious challenges in the community that limit the production capacity". Lamented

Isse Omar, the Deputy Chairman of the Bandar Beyla Fishing Union,

3.4.2 SWOT analysis of the fishery sector.

Strengths	Weakness
<ul style="list-style-type: none"> → Abundant marine resources moderated by the Fishery Development Program (Introduction of FADs¹⁴, Fiberglass fishing boat building facilities, Training of Youth) → Potential economic sector → Abundant export opportunities → Increased local consumption 	<ul style="list-style-type: none"> → Poor sectoral development planning → Limited initial investment capital → Lack of storage facilities → Limited fishing gear/nets → Uncoordinated fishermen and fish mongers
Opportunities	Threats
<ul style="list-style-type: none"> → Growing fishing community → Potential local investors → Possibility to get loans from local banks 	<ul style="list-style-type: none"> → Climate change → Illegal fishing by poaching foreign companies → - Price fluctuations in the market caused by unstable foreign exchange rates

Skills gaps

Here are some of the traditional and non-traditional business and skills training opportunities for Bandar Bayla community

- Entrepreneurship skills (e.g., business planning, market research, investment planning, fish preservation skills etc.)
- Technical know-how on best fishery practices
- Basic Mechanics
- Electrical installation
- Mobile phone repairing
- Tailoring
- Modern fishing skills

¹⁴ Fish Aggregating Devices (FAD) – Floating buoys used to disperse attract fish -only for inshore fishing.

Key Recommendations for the Fishery Sector

The following are some key recommendations for Puntland's fishery sector

Recommendation	Objectives
1. Establish Puntland Fishery Association led by youth	<ul style="list-style-type: none"> (i) Promote interest of its members (ii) Organize training programs (iii) Disseminate market information (iv) Create new value-chain in the sector
2. Establish Fishery Cooperative society	<ul style="list-style-type: none"> (i) Promote fishery business ecosystem (ii) Mobilize capital from members (iii) Create investment or revolving funds to be lent to members (iv) Promote collectivized marketing (v) Build storage facility (vi) Create new start-up
3. Vocational Training for school leaving youth	<ul style="list-style-type: none"> (i) skills development for youth (ii) advanced jobs creation scheme (iii) to attract both boys and girls into the sector.



Conclusions

The assessment was conducted in six rural districts of Puntland, i.e., Buraan, Bocame, Cuun, Ufeyn, Beyla and Goddod. Through focus group discussions and key informant interviews combined with film-based discussions of the PDRC Mobile-Audio Visual Unit (MAVU), the assessment focused on four major economic activities, i.e., agriculture (crop farming), livestock, fishery, and frankincense. The whole assessment focused on market needs, jobs and skills development in rural areas off the main tarmac roads where access to development services, market information and entrepreneurial skills growth is limited.

Most of the areas are hard to reach and there has been limited penetration of development partners. It was revealed that there are various economic activities whose growth is majorly hindered by insufficient production skills, poor technology, rampant rural -urban migration, poor storage facilities, poor road infrastructure network, insufficient electricity in most of the areas, harsh climatic conditions, limited initial capital without linkages to local financial institutions worsened by poor access to market information.

The participatory assessment findings revealed a need to adopt a sustainable massive human capital development strategy to bridge the skills gaps. In addition, the local infant producers and traders would be mobilized and sensitized to form cooperative unions or societies and professional groups to formalize their businesses and ease access to credit facilities, market information, prevent exploitation from unscrupulous buyers and promote sustainable production, trade and business upscaling.



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