DOWLADDA PUNTLAND
WASAARADDA
DEEGAANKA, DUURJOOGTA
& DALXIISKA

PUNTLAND GOVERNMENT
MINISTRY OF ENVIRONMENT,
WILDLIFE & TOURISM

Qorshaha iyo Hannaanka Maareynta & Badqabka Deegaanka (QQMMD)-REYDABLE

Wasaarada Degaanka, Duurjoogta iyo Dalxiiska iyadoo Taakulayn dhaqaale ka helaysa Baanka Aduunka waxa ay hirgelinaysaa mashruuc la yiraahdo"**Mashruuca Biyaha ee Hormarinta Habnololeedka Xoolodhaqatada iyo Beeralayda"** Ujeedada mashruuca ayaa ah in kor loo qaado helista adeega biyaha iyo heerka aqooneed ee maamulista ilaha biyaha, kor u qaadista awooda dawladda ee hirgelinta mashaariic yar-yar oo dhanka biyaha oo laga fulinayo Qaybo kamid ah dhulka oomanaha ah ee kuyaal Puntland. Mashruuca wuxuu ku salaysanyahay 3 dan qaybood ee soo socda:

Qaybta 1aad: Horumarinta farsamada casriga ah (Technology) ee aan laga faa'iidaysan ee Waraabka Xooladhaqatada iyo Beeralayda .

Biyaha toga (Wadi) ee laga heli karo meelaha mashruuca waxaa ay Muhiim u noqon doonaan Xoolo-Beeraleyda iyo Xoola dhaqatada siiba waqtiga abaarta oo ay dhamaadaan biyaha goobaha kaydka sida berkadaha, balliyada IWM.

Hirgelinta hanaankan lagu kaydiyo biyaha togaga Sida Biyo Xireenadda waxay kor u qaadayaan mugga biyaha Toggu kaydin karo taas oo lagu daboolo baahida biyaha Guryaha, Xoolaha iyo Beeraha xilliyada abaarta. Biyo xireenadu waxay kaydiyaan Biyaha kusoo dhacaya togga xilli roobaadka.

Xayndaabka darbiga biyaxireenka badanaa waxaa agtiisa laga qodaa ceelasha gaa-gaaban kuwaas oo noqda biyo-kaydiye looga faa'ideysan karo biyo gaarsiinta dadka iyo duunyada ba.

Qaybtan waxay maal galinisaa horumarinta Tignoolojiyadda Biyo Xidheenadda iyo

ENVIRONMENTAL SAFEGUARDS MONITORING PLAN- REYDABLE

Financed by the World Bank, the Ministry of Environment, Wildlife and Tourism is implementing a rural development project entitled the **Water for Agro Pastoralist Livelihoods Project** (WALP). The Project Development Objectivesare *to improve the pastoral and agro-pastoral communities' access to, and management of, small-scale water sources and to enhance the capacity of the government to implement small-scale water interventions in targeted arid lands of Puntland.*The project is articulated around 3 components:

Component 1: Developing under-utilized agro-pastoral water supply technologies. The sand rivers (wadis)in the project areas have potential to become key resource patches for agro-pastoralists and pastoralists, especially during the long dry season when surface water storage (in berkads and balli/hafir dams) is exhausted.

Development of wadis using rainwater harvesting technologies such as sub-surface or sand dam technology increases water stored in wadis during dry period sand can be used for domestic, livestock and agricultural purposes. Sub-surface or sand dams capture water flowing down sand rivers during and after rains. Behind the retaining wall of the sand or subsurface dam, shallow wells sunk with cassion rings serve as reservoirs from which water is distributed for domestic water supply and for livestock.This component is financing the development of sand and/or subsurface dams or weirs along with the infrastructure needed to provide multiple-use water services (standpipesor shallow wells with hand pumps andwater troughs or tanks).

kaabayaasha fududeeya isticmaalkooda sida kaagag laga cabo, ceel gacmeedyo, darka xoolaha iyo haamaha biyaha).

Shaqadan waxa loodoortay in laga qabto afar goobood oo ka mid ah Putnland, iyada oo la isticmaalayo hannaan tayaysan oo laysla qaatay lana adeegsanayo awoodda iyo khibrada shaqaalaha. Goobkasta waxa laga hirgaliniyaa Tababaro ku saabsan Qaab dhismeedyada biyo xidheenada iyo hababka looga heli karo Biyo tayo iyo tiro leh leh oo haqab tiri kara baahida dadka ah, beeraaha iyo Waraabka xoolaha.

Qaybta 2aad: Kobcinta Awoodda Dalwada iyo awood siinta Bulshada.

Qaybtan waxa ay maalgelinisaa tababarida iyo taageerida farsamo ee:
(i)kor u qaadista adeegyada Wasaaradduhu bixiyaan iyo maamul baahinta fidinta beeraha iyo deegaanka (Extension staff).
(ii) awood siinta bulshada si ay u maareeyaan kheyraadka biyaha ee heer Degno/tuulo, taas oo waafaqsan habka horumarinta reer miyiga iyo in la helo qaab muujinaya sida ay biyaha, daaqa, xoolaha iyo waxsoosaarka beeraha, caafimaadka bulshada iyo ka hortaga khilaafaadka ay isugu dhafan yihiin hab nololeedka ree miyiga.

Qaybtani waxay ka koobantahay laba qaybood oo hoose:
2.1) Taageerida dawladda heer maamul dhexe iyo dawladdaha hoose:
Qaybtani Waxay maalgelinisaa tababaro loo qabanayo shaqaalaha dawladda ee heerarka kala duwan kuwaas oo si toosa ula xidhiidha marxaladaha adeeg gudbinta(*Wasaaraddaha la xiriira iyo meelaha qaar dowladdaha hoose ay dhisan yihiin*) si loo xoojiyo Wada shaqaynta iyo in adeega loo gudbiyo bushlada.Tababaradda iyo kormeerka waxay ka koobnaan doonaan sadex qaybood oo muhiim u ah horumarinta xirfaddaha:
- Farsamo (Technical)

This is being done at four (4) sites Puntland deploying standard designs and labor-intensive methods. Each site will involve a series of sand dams and river training structures and will include a means of extracting high quality water for domestic use as well as mechanisms to ensure sufficient quantity for livestock and agricultural uses.

Component 2: Government capacity building and community empowerment.

This component is financing training and technical support to (i) enhance provision of services by ministries and their decentralized extension staff, and.
(ii) empower communities to sustainably manage water supply systems and water resources at the local level, in line with rural development management principles, and, bringing a cross-sectorial “landscape” approach showing how water, pasture, livestock and agriculture production, public health and conflict prevention are fully integrated in rural livelihoods. This component has two sub-components:

Sub-component 2.1 - Support central and local government:
is financing training for staff at all levels of government directly involved in the service delivery chain(relevant central ministries and where it exists local government) to strengthen the ability to interact with and deliver services to communities. The training and mentoring will cover three key areas of skills development: -
- *technical,*
- *administrative, and*
- *community mobilization.*

- maamulka, iyo
- wacyigalinta bulshada.

Qaybta 2.2 Maareynta Bulshadu Gundhigga U tahay:
Qaybtan waxaa ay maalgelinaysaa hirgelinta iyo kobcinta hay'adaha/ururada bulshada (*Kooxaha Haweenka, iskaashatada biyaha iyo Hay'adaha Maareeya Deegaanka*), si ay u maareeyaan biyaha iyo khayraadka dabiiciga ah ee ku hareeraysan oo dhul-daaqsimeedku ka mid yahay.

Qaybta 3-aad: Maareynta mashruuca, dabagalka iyo qiimayntiisa.
Wasaarada Degaanka, Duurjoogta iyo Dalxiiska (MOEWT) waxa ay samaysey/hirgelisay kooxda Isku xirka mashruuca iyo gudi heer-wasaaradeed oo qaabilsan hagista mashruuca.

Qaybtani waxa ay gacan ka geysanaysaa:

i) Kordhinta kharashka adeega loo sameeyo shaqaalaha Wasaaradda si loo helo maarayn/maamul iyo xirfadaha iyo aqoonta ay tahay in ay geliyaan cida mashruuca khusayso sida wasaaraddaha, waaxaha iyo hay'adaha dawliga ah, (biyaha, beeraha, xanaanada xoolaha)
ii) Kharashka khabiiradda iibka iyo maamulka xisaabaadka.
iii) Gaarsiinta iyo wacyigelinta bulshada doorkooda mashruuca iyo doorka hogaamineed ay dawladu ku leedahay mashruuca. (tan ayaa qayb ka ah adkeynta nabadda iyo dhisida qorshaha dawladnimo).
iv) Daraasadaha muhiimka ah oo looga golleeyahay diyaarinta mashaariicda la fulinayo (Sahaminta Saameynta Saba-deegaanka ee goobkasta, sahaminta injineerada, daraasad suura-galnimada), iyo

v) Kormeerka iyo Qiimeynta mashruuca oo ay kujirto dabagalka

<u>Sub-component 2.2 - Community-based management</u>: This sub-component will finance the establishment and strengthening of community-based institutions (women's groups, water user associations, environment management institutions etc.) to manage water and surrounding natural resources, including rangelands.

<u>Component 3: Project Management, Monitoring & Evaluation.</u>

The ministry in charge of rural development in Puntland, The Ministry of Environment, Wildlife and Tourism (MOEWT) has established a Project Coordination Unit and Inter-ministerial Steering Committee.This component is supporting

i) The incremental operating costs for ministry staff managing the project and inputs from other technical Ministries, Departments, Agencies (MDAs - water, livestock and agriculture).

ii) The cost of procurement and financial management specialists.

iii) Outreach and communications on the governments' role and leadership on the project to the broader Somali community (as part of the peace and state building agenda).

iv) key feasibility studies aimed at preparing project interventions (site specific EIAs, engineers surveys, feasibility studies), and.

v) Project M&E including the monitoring of safeguards, conflict and gender.The M&E activities will provide the basis for central and local government to document progress against milestones and generate the lessons learned from the interventions.

badqabka, khilaafaadka iyo doorka jinsiga.Kormeerida iyo qiimeynta shaqada waxaa uu siinayaa dawlada heer maamul dhexe iyo tan hoose awoodda ay ku ururiyaan xog qoran oo lagu ogaado hirgelinta hor-usocod ka iyo hiigisga mashruuca isla markaana la ogaado casharada/khibrada laga helay shaqada la qabtay.

Qorshaha iyo Hannaanka Maareynta & Badqabka Deegaanka (QQMMD)

Ujeedada QHMBD waxaa weeye iney samayso qaab-dhismeed deegaan iyo bulsho si loo hago qorshaynta, naqshadaynta iyo fulinta mashruuca isla markaasna laysku dhafo xogtii ka soo baxday baaritanadii hore ee la sameeyay. Taasina waxay fududeynaysaa in laga hortago qaladaad dhaca iyo saamayntoodaba intaan mshruuca la gudagelin iyo yaraynta qaladaad dhici lahaa wakhtiga dadaalada fulinta mashruucu socoto.

Sida ku xusan siyaasadda shaqo ee Baanka Aduunka ee **OP4.01** ee kusalysan Maareynta Deegaanka iyo qiimeynta, Mashruuca Biyaha ee Hormarinta Habnololeedka Xoolodhaqatada iyo Beeralyda ayaa waxyeeladiisa Deegaan/Bulsho laga dhigay mid xadidan (Ilaalinta Deegaanka Qaybta "B"),

Wakhtiga la diyaarinayey mashruuca, lama garanayn goobaha dhabta ah ee mashruucu ka fuli doono, (kaliya waxaa la cayimay heerka biyo-dhaca). Nooca iyo baaxada saamaynta ee maalgelina la qorsheeyey ayaa ah mid aad u cad. Guud ahaana xogta asaasiga ah ee laga hayay ayaa ah mid ay ka simanyihiin meelaha laga fulinayo maalgalintan (Goobahan ayaa ah kuwo ka siman dabeecadaha ay ka midyihiin kala-saraynta dhulka, cimilada, biyaha, noloha ku nool iyo dhaqaalaha bulshada degaanka) Taasi waxay fududaysay in lala qabsado QHMBD oo lagu cayimay goobaha QHMBD .

Sida ku qeexan QHMBD waxaa uu tilmaamay dhowr khatarood oo la xiriira (Badqabka Deegaanka) iyo saamayntooda. Qorshaha

Environmental Safeguards Management Framework and Plan

An ESMF has the purpose to provide a basic environmental and social framework to guide project planning, design and implementation, and integrate and operationalize key findings from preceding studies. A major part of potential impacts will thus be avoided and minimized as early as during site identification and selection, and remaining impacts mitigated and managed to acceptable levels during project implementation (i.e. the construction and operation of the planned structures / investments).

Under the World Bank's operational policy OP4.01 on environmental management and assessment, the WALP project has been deemed to have limited impacts (category "B"), warranting a limited environmental and social assessment and the production of an management instrument.

As during project preparation the exact location of the project sites was not yet known (only watershed level identified) an ESMF (environmental and social management framework) as opposed to an ESMP (ESM Plan) was developed. The nature and range of impacts of the planned investments were well known, and the overall baseline conditions relatively uniform over the entire project area (meaning that all potential sites would experience similar conditions in terms of topography, climate, hydrography, biology and socio-economic conditions etc.). Thishas facilitated an easy adaptation of the ESMF into location-specific ESMPs as sites have been identified.

As described in the ESMF, the baseline conditions in the project areas are generally not of high sensitivity. Nevertheless the ESMF identified a number of risks and negative impacts, and the location specific ESMP presented below proposes corresponding preventive, mitigation and management measures designed to minimize and enhance the overall

Maareynta Bulashdda iyo Deegaanka(QHMBD) ee Goobtan la cayimay wuxuu muujiniyaa dhawr siyaabood oo looga hortagi karo ama gudbi karo caqabadaha imankara, iyadoo la qaadayo talaabooyin maamul/maarayn oo lagu kordhinayo habsami usocodka mashruuca.

environmental and social performance of the project.

Khataraha iyo saamaynta ayaa loo kala saaray wejiyada soo socda:

1. In la asteeyo goobaha laga fulinayo biyo xireenadda.
2. Samaynta marin loo marayo goobaha.
3. Gaarsiinta/Raridda iyo kaydinta alaabta.
4. Hawlaha dhismaha.
5. Hawlaha shaqo gaar ahaan saamaynta toga salkiisa, jenbigiisa, qulqulka biyaha iyo kala duwanaanshaha noolaha
6. Khatar bulsho iyo Saamayn gaar ahaan waqtiga dhismah iyo marka la isticmaaliyo Biyo Xireenka.

The risks and impacts were differentiated into the following phases:

1. Identification of sites for sand dam construction
2. Creating access to sites,
3. transport and storage of materials
4. Construction activities
5. Operation, esp. impacts on river bed, banks, hydrology and local biodiversity
6. Social risks and impacts during construction and operation

Qorshaha iyo Hannaanka Maareynta & Badqabka Deegaanka (QHMBD) waxaa loo soo bandhigay daneeya-yaasha ay saameynt karto halista ka iman karta shaqada mashruuca la qabanayo. Waxaa bandhigaas lagu sameeyay magaalada Garowe taariikhdu markay ahayd 25 kii Maarso 2015 si jawaab/falcelis looga helo baaxada iyo waxa uu ku salaysanyahay qorshuhu.
Talasoojeedintii la helay ayaa lagu dharay oo lawaafajiyay nuqulkii u dambeeyey ee QMBD. QMBD Waxaa lagu baahiyey Shakada ka rasmiga ah ee Wasaaradda Deegaanka, Warbaahinaha Maxaliga ah iyo Shabakada ka Baanka Aduunka 14kii Abriil 2015 kii. Si looga u daalacdo Nuqulka QMBD oo dhamaystiran Fadlan Booqo Shabakada ee Wasaaaradda Deegaanka, www.moewtpl.com

The draft ESMP was disclosed in Garowe to the potentially affected stakeholders, and a public meeting was held on 25 March 2015 to receive feedback on the ESMF scope and contents. The comments received were incorporated into the final version of the ESMF. The ESMF was further disclosed via the MOEWT website and local media in Puntland, and World Bank Infoshop on 14 April 2015. To view the full ESMF please visit www.moewtpl.com

Mashruuca Biyaha ee Hormarinta Habnololeedka Xoolo dhaqato, Beeralayda waxa uu bilowday Janaayo 2016. Iyadoo ay

The WALP project mobilized in January 2016. Guided by the macro study on the development potential of Wadi's and the Wadi Evaluation Tool (WET) the MOEWT identified eight (8) potential sites for wadi development (wadi development potential studies and the WET are available on the MOEWT website). The eight sites were assessed and four (4) sites were chosen as feasible for wadi development. These sites are in the vicinitiesof:-LaasaDawaco, Meledeen(Dharoor), XamXamaa and Raydable. Geophysical surveying was undertaken and four pre-feasibility studies completed. The ESMF was used and applied during the site selection process and design phase, as it contains a number of both environmental and socio-economic criteria that are important to consider maximizing positive impacts and the investments' sustainability, and minimizing

hagayso daraasad guud oo lagu sameeyay ku haboonaanta togga iyo Habka qiimaynta togaga, Wasaarada Degaanka waxaa ay cayintay 8 meelood oo laga fulinkaro biyo xireeno (Daraasadihii iyo Agabkii la isticmaalay waxaa laga daalacan karaa Bogga rasmiga ah ee Wasaaradda Degaanka). waxaa la qiimeeyay 8 goobood halka 4 ka mid ahi loo doortay goobo laga hirgelinkaro togaga. Kuwan waxay ku yaalaan Laasa Dawaco, Dharoor, Xamxamaa iyo Raydable. Sahan ayaa lagu sameeyay Lakabyada dhulka, waxaa ladhamaystiray 4 daraasadood oo hor dhadhac ah. Waxaa la isticmaalay QMBD wakhtigii lagu guda jiray doorashada goobaha laga shaqaynayo iyo naqshadayntooda, maadaama QMBD ka koobanyahay shuruudo isugu jira ilaalinta degaanka iyo dhaqaalaha bulshada taas oo muhiim u ah kordhinta faa’iidada maalgashiga mashruucu keeni karo iyo yaraynta khataraha iyo saamayntiisa.

Fulinta iyo Kormeerka habsami usocdka arimaha la xiriira QMBD waxaa lagu soo soo koobay qorshahan soo socda ee goobta Reydable

Goobta shaqada ee Reydable Juquraafi ahaan waxay ku taalaa (Loolka, 7.520586° dhigaha saacada dhulka, 48.41450°, dhigaha, dhigaha cabirka dhulka) oo ku taal 110 km koonfur bari Caasimada Garowe. Waxaa goobtu ku dhowdahay meesha la dhaho Toga Dhuugley. Waxaa Xamxama ka mid tahay 4 meelood oo dawladda Puntland u dooratay in laga fuliyo/dhiso biyo xireeno lagu kaydiyo biyaha si ay uga faaíidaystaan xoolo dhaqatada iyo beeralayduba.

risks and negative impacts.

How the implementation of environmental and social measures will be monitored is summarized in the location specific monitoring plan below for Reydable site.

The Reydable site, (Latitude: 7.520586° - Longitude: 48.41450°, see Figure 1) located 110km southeast of the capital city of Garowe and 45km away from known cattle routes, is one of four sites the government of Puntland has chosen for the construction of a small underground dam for Wadi water harvesting for agro-pastoral use.

Figure 1: Reydable-Location map

The pre-feasibility study concluded that **anunderground dam** with a reservoir filled by sand **is feasible** for the proposed site **and would benefit the local community**.

Figure 1: Reydable- Location map

Daraasada Hordhac ah oo la dhamaystiray ayaa tilmaamaysa in ay Xamxamaa ku haboontahay samaynta Biyo Xireen kaas oo ayka faaíidaysankaran doonaan Bulshada ku nool.

Waxyaabaha kasoo baxay daraasadan waxaa ka mida:

- Goobta la doortay waxay buuxisay sharuudaha u dagsan dawladda Puntland ee ku saabsan xulushada dhismaha Biyo Xireenada. Goobtu waxaa ay ku dhawdahay meelo degsiimooyin ah, in kastoo dhisida biyo xireenkan uu xoogaa kharshkiisu badanyahay sababtoo ah waxuu ka durugsanyahay magaalo madaxda gobolka, hase ahaatee wuxuu muhiim u yahay abaaraha jira iyo degaanka ay ku noolyihiin xoolodhaqato aad u fara badan iyo dad reer guuraa ah aadna baahi ugu qaba helitaanka ilo biyood.

- Goobtu waxaa ay ku taal meel ku sifaysan biyo badnaan, biyaha/daadka soo maraana sanadkoo dhan waxaa lagu qiyaasa tiro 6 ilaa 10 jeer marka lagu guda jiro xili roobaadka. Biyaha togga ku soo rogmada ayaa ah kuwa aan la helin xiliga abaarta maadaama goobto aysan lahayn ilo biyoodyo

The key findings of this study are as follows:

- The proposed site satisfies a few of the broader criteria set forth by the Government of Puntland for supporting the construction of either a subsurface or sand dam. The site is located near a settlement, and known existing wells,and although building the dam would be costly considering that the proposed site is located far from city capital and existing markets, and an evaluation performed with the aid of the Wadi Evaluation Tool (WET) evidenced potential low suitability for the proposed site,it was however decided that due to the severe drought conditions the ministry will proceed with the construction as a water source in southern Puntland is of critical importance to pastoralists;

- The site is positioned on a Wadi characterized by an abundant presence of water during the rainy season with – on average – six to ten floods filling the Wadi's banks during the rainy seasons. During the rest of the year, water disappears as there is no active aquifer;

- The site is located 7.5km away from the village of Reydable and approximately 5km away from an extended irrigated area. A dam built at the proposed site would provide the ability to store 1,421m^3 of water;

  - From a more technical standpoint a solution with a subsurface dam has been proposed because across the whole area there is no shallow impervious bedrock and the Wadis' banks are mostly composed by sand (and thus are very permeable and are not able to hold water) and sometimes floods are so severe that the flows flood the riverbanks;

  - The proposed dam should be built between the months of January and March in order to avoid the rainy season: severe floods occur frequently and building a dam during the rainy season would be dangerous and noneconomic.

shaqaynaya ama kaydiya biyaha.

- Goobtu waxaa ay ku taal meel tuulada Reydable u jirta 7.5 km, waxaa sidoo kale qiyaas ahaan 5 km u jira beero waraabyo. Biyo xireen laga sameeyo Goobta la doortay ayaa qiyaas ahaan laga heli karaa cadad biyo ah oo dhan 1,421$^{m3.}$
- Marka laga eego Farsamo ahaan Waxaa lasoo jeediyey in xalku yahay Samaynta biyo-xidheen, iyadoo laga cabsi qabo in daadku jabsado darbiyadda toga.
- Biyo xireenka waxa la dhisadonaa inta u dhaxaysa bilaha Janaayo iyo Maarso si looga hortago waqti roobaadka.Daadad badan oo isku xig xiga aya dhaca waqtiga roobka in biyo xidheen la sameeyaana waxay keeni kartaa khatar mashruuca ah iyo mid dhaqaale bur bur.
- Kahor intaan la bilaabin mashruuca, dawlada Puntland waxay si taxadar ku jirto u daraasaynisaa kala-saraynta dhulka ee Goobta, iyo in la ogaado cabirka uu qota ahaan noqonayo (depth) iyo balaca cagta biyo xireenka.

- Marka loo eego cadadka biyo ee biyo xireenku laga helaayo, waxaa , kharashka galay tusaale, lacagta ku baxaysa dhisida biyo xireenka loo qaybiyay inta Cubic meter ee ku dhacaysa biyo xireenka) , halkii cubic meter waxa qiimahiisu noqonayaa lacag yar oo ah ($21.18). qiimaha halkii cubic meter biyaha (*tusaale ahaan qiimaha ay ugu fadhido halkii cubic meter qofka goobta jooga)waa qiime jaban ama yar* oo gaaraysa (0.66 USD). Inkastoo biyoxireenka kharshkiisu sareeyo laakiin waxaa xusid mudan inuu faa'iido badan u leeyahay muwaadiniinta Puntlan.

- Prior to the start of construction, the Government of Puntland should carefully measure the topography of the site as well as understand the precise depth and lateral extent of the bedrock lying underneath the dam.

- Considering the very small volume of water that the new dam will be able to generate, the raw cost of one cubic meter of water is very high (US$21.18). Nevertheless, the cost of water per cubic meter (i.e. the cost that is attributed to each person in the village to use that cubic meter of water) is low (0.66US$/m^3). Even though the investment cost is high the benefit of water source in Reydable is invaluable to the citizens of Puntland.

Qorshaha iyo Hannaanka Maareynta & Badqabka Deegaanka (QQMMD)

Waji	**Waa maxay** halbeegyada la kormeerayo?	**Xagee** loo adeegsanayahalbeegyada la kormeerayo	**Waa side** halbeegyada la kormeeri?/*Nooca Qalabka loo adeegsanayo kormeerka?*	**Goormay tahay** in halbeegyadan la kormeero? *(Soo noqnoqoshada cabirka ama joogtayntisa)*	*Talaaboyinka Yareenaya*	Maxaa halbeegyadan loo kormeeraya? *(optional)*	Kharash		Mas'uuliyada Hay'adeed	
							Xirid/Rakibid	Shaqo	Xirid/Rakibid	Shaqada leh
Naqshadda	Shuruuda lagu xulanaayo goobta	Dhamaan goobaha laga hirgalin karo biyo xireen ciid ah	Iyado lagu dabaqayo aqoon Degaan & injineernimo	Inta lagu gudo jiro wajiga naqshada ama cayimadida goobta	In tixgalin lasiiyo qalan injineered ee ku haboon	In la kordhiyo gudashada E&S eegoobahii la doortay	nil	nil	Injineerka naqshada/Isticmaalaha	Injineer Kormeer
Dhismaha **Wadada iyo diyaarinta Goobta**	Doorid jidka goobta tagaya, In la yareeeyo jarida dhirta iyo geedaha, In la xadido Socodka dadka, xolaha iyo ugaadha	Jidad ku haboon in lamaro	Iyado lagu dabaqayo aqoon Degaan & injineernimo	Inta lagu gudo jiro wajiga naqshada ama cayimadida goobta iyo diyaargarowga	In la yareeyo jarida dhirta, dorashada jidka iyado la tixgalinayo meelaha xasaasiga ah (Tuuloyinka, guryaha, berkadaha iyo wadooyinka socotada)	In la kordhiyo gudashada E&S eegoobahii la doortay	nil	Ugu yaraan	Injineerka naqshada/ Injineer Kormeer , Qandaraasle	Injineer Kormeer /Qandaraasle
Keenida Alaabta *Dhagax qodid/jabin*	QQMDD iyo tixgalinta bulshada	Goobta dhagaxa laga qodayo	Baarida dukumintiga,	Shaqada intayna	Nil	In loo ilaaliyo shuruucda caafimaadka	Inta ugu yar	NA	Injineer Kormeer /Qandaraasle	Injineer Kormeer /Qandaraasle

	oo la helo		faaqidaad	bilaaban ka hore		iyo ilaalada shaqaalaha				
Waji	**Waa maxay** halbeegyada la kormeerayo?	**Xagee** loo adeegsanayahalbeegyada la kormeerayo	**Waa side** halbeegyada la kormeeri?/*Nooca Qalabka loo adeegsanayo kormeerka?*	**Goormay tahay** in halbeegyadan la kormeero? *(Soo noqnoqoshada cabirka ama joogtayntisa)*	*Talaaboyinka Yareenaya*	Maxaa halbeegyadan loo kormeeraya	Kharash		Mas'uuliyada Hay'adeed	
							Xirid/Rakibid	Shaqo	Xirid/Rakibid	Shaqada leh
Gododka ciida iyo jayga lagu buuxinayo	QQMDD iyo tixgalinta bulshada oo la helo	Gododka ciida iyo jayga lagu guraayo	In la baaro dukumintiga, faaqidaad	Shaqada intayna bilaaban ka hor	Nil	In loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalaha	Inta ugu yar	NA	Injineer Kormeer /Qandaraasle	Injineer Kormeer /Qandaraasle
Qaadida alaabta							xz			
Sibir	Gaariga xamuulko shiraacan	Goobta shaqada	kormeer arag ah.	Baaritaano kadis ah inta shaqado lagu jiro.	Gaariga xamuulko shiraacan Gaariga xamuulko shiraacan	In loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalaha iyo shuruucda wado marida	NxxzxxA	nil	Qandaraasle	Injineer Kormeer
Dhagax	Lowr	Jidka gaadidka, goobta shaqada	Kontorol	Baaritaano kadibs ah shaqado lagu jiro.	Gaariga xamuulko shiraacan		NA	Inta ugu Yar	Qandaraasle	Injineer Kormeer

Ciid iyo Jeey	Lowr	Jidka gaadidka, goobta shaqada	Kontorol	Baaritaano kadibs ah shaqado lagu jiro.			NA	Inta Ugu yar	Qandaraasle	Injineer Kormeer
j) **Shaqada dhismaha**										
Guuxa mashiinada inuusan ahayn mid dhibaaya dadka iyo xoolaha ku nool aaga iyo shaqaalaah	Guux/sharaqanta intuu le'egyahay; Inu yahay qalab aan aad ugu guux-dheerayn	Goobta Shaqada; Meesha ugu dhow ee reer guura ku meel gaara iyo xoolahodu udeganyihiin	, Baarid	Mashiin walaba in mar la isticmaalo markay shaqadu bilaabato, hadayna cabasho imaan	In lagu xadeeyo shaqada maalin, saacadaah shaqada oo kaliya	In loo Hogaamsano shuruucda caafimaadka iyo ilaalada shaqaalaha;	NA	Inta Ugu yar	Qandaraasle	Injineer Kormeer

Waji	**Waa maxay** halbeegyada la kormeerayo?	**Xagee** loo adeegsanayahalbeegyada la kormeerayo	**Waa side** halbeegyada la kormeeri?/*Nooca Qalabka loo adeegsanayo kormeerka?*	**Goormay tahay** in halbeegyadan la kormeero? *(Soo noqnoqoshada cabirka ama joogtayntisa)*	*Talaaboyinka Yareenaya*	Maxaa halbeegyadan loo kormeeraya	Kharashka		Masuuliyada hay'adeed	
							Xirid/Rakibid	Shaqo	Rakibid/xirid	Shaqada leh
Wasakhaynta hawada	Qaybaha adkaha ah ee dhaska/boorka	Meel u dhow Goobta shaqada	kormeer arag ah.	Xiliga/wakhtiga la geynayo qalabka iyo wakhtiga dhismaha socdo	Goobta Dhisme biyo iyo kaydka qalabka, in la dayactiro mashiinada, laga digtoonaado in aan qalab laga fa'iidaysan,aan la gubin washin,	In loo Hogaamsano shuruucda caafimaadka iyo ilaalada shaqaalaha	Xog lagama hayo	Qiimaha u yar	Qandaraasle	Engineer ka kormeeraya shaqada
Gariirka ka imanaya machiinada iyo qalabka lagu shaqaynayo	Iyadoo ay xadidantahay Wakhtiga Shaqada lagu qabankaro	Goobta shaqada	Kormeerid	U kuurgal la sameeyo xiliga Shaqada iyo marka cabasho timaado	In saacadaha shaqo ku koobnaadaan maalinimada	In loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalaha	Xog lagama hayo	Qiimaha u yar	Xog lagama hayo	Engineer ka kormeeraya shaqada
Wadada tagta/gasha Goobta shaqada	Tabeelaha muujinaya jihada loo leexanayo	Jidka wayn ina laga leexdo	Kormeer arag ah.	Xiliga shaqadu bilaabanto iyo bille daba socota ah		In loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalahaaha	Xog lagama hayo	Qiimaha u yar	Qandaraasle	Engineer ka kormeeraya shaqada

Wasakhaynta biyaha iyo ciida ay sababaan meelaha kaydka,maa-mulidooda iyoisticmaal koodaba	Tayada biyaha iyo ciida	Meelaha ku xiga Goobta shaqada, weelka biyaha lagu kaydiyo, iyo **meelaha biyahu ka degaan ee qalabka yaal,**		Wakhtiga la geynayo qalabka iyo marka dhismahu socdo, weliga la tixgeinayo xiliga roobab ku da'o.	In la isku dubarido saboolis meelaha qalabka lagu kaydiyo, in la go'doomiyo meelaha ad adag, in sidoo kale la go'doomiyo/ xiro meelaha biyaha kasoo rogmadaan oo	Ka hortegida wasakhaynta degaanka; Bulshada iyoIn loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalaha	Xog lagama hayo	Qiimaha u yar	Qandaraasle	Engineer ka kormeeraya shaqada
Wasakhaynta biyaha iyo ciida oo ay sababto u aasida si aan haboonayn.	Tayada biyaha iyo ciida iyadoo laga qabanayo, shayada, saliida, caagaga/bacaha, iyo khashinka kale	Gooobta lagu ururiyo oo lagu kaydiyo qashinka.	U kuurgelid indhayn ah; Cufka dhulka	Hadayba dhacdo in ay taal qashin kumeel si ku meel gaar ah loo dhigay goobta shaqadu ka socoto, isla markaana cabasho darted	In lagu asturo qashinka meelaha ay ku haboonyahiin	In loo ilaaliyo shuruucda caafimaadka iyo ilaalada shaqaalaha	NA	Qiimaha u yar	Qandaraasle	Engineer ka kormeeraya shaqada
Weji	**Waa** maxay cabirka shaqo ee la kormeeri?	**Halkee** ayaa cabirka shaqo lagu kormeeri?	Sida lagu helincabirka xiliga kormeerka	Markee ayaa cabirka shaqo la kormeeri (inta jeer ee la kormeeri iyo in a tahay mid socoto ah)	Maxaa cabirka shaqo loogu kormeeri	*Talaabooyinkalagu Lagu yaraynayo caqabadaha iyo halista shaqo*	Kharashka		Masuuliyada hay'adeed	
							Rakibid/xirid	shaqada	Rakibid/xirid	shaqada

Macquuliyad ah in ay dhaco sumaynta ciida iyo biyaha oo sababto dayactirka iyo shidaalka	Tayada biyaha iyo ciida(in ay reebmato/haraan waxyaalaha wasakhayn kara biyaha)	Goobta Shaqada, dayactirida meelaha lagu shaqeeyo	U kuurgal indhayn; Cufka dhilka	Hadii qalabka shidaal goobta Shaqada iyo marka ay timaado cabasho	U hogaansanka E&S iyo H&S; ka hortegida wasakhda; ay leeyahiin bulshada iyo	In Gacan ku haynta iyo maamulka shidaalka, saliidaa iyo dareeryaasha kale ku koobnaato goobaha loogu talo galay ee shaqo isla markaana ay jirto dhul ku filan isticmaalka shaqaalaha iyo maamulka dareerayasha si ay suurto gasho caafimaadka shaqaalaha	Xog lagama hayo	Xog lagama hayo	Qandaraasle	Engineer ka kormeeraya shaqada
Baabi'in iyo nabad guur ku yimaada miraha, dhirta iwm	Listicmaal dhul / halis ay ku hayn karto hawlaha shaqoy	Goobta shaqada	U kuur gelis indhayn, iyowada tashi	Xiliga geynta qalabka iyo dhismaha	Yaraynta bulshad Saamaynta shaqada ee degaanka		Xog lagama hayo	Qiimaha u yar	Xog lagama hayo	Engineer ka kormeeraya shaqada
Nabad-qabka shaqaalaha	Qalab halista Shaqada layskaga difaaco(okiyaale, mask, koofiyada birta ah, kabo buudh ah etc)	Goobta shaqada	Kormeer indha indhayn ah	Indha indhayn aan hore loo sii iclaamin xiliga shaqadu socoto, taas oo dhacda wiigii hal mar.	In loo hogaansamo EHS shuruudaha nabcaafimaad (Degaanka, caafimaadka, iyo nabadgelyada shaqaalaha)	In ey shaqaalahu helaan caafimaad iyo qalab ay kaga gaashaantaan halisaha	Xog lagama hayo	Qiimaha u yar	Engineer naqshadayte ah (Waxaa ku jira, noocyada naqshada, waajibaadka shaqo, iyo siduu u yaal heshiiska qandaraas qaataha io bixiyaha.	Engineer ka kormeeraya shaqada
Shaqada										

Nabad guur ku yimaada assaska dhisme ee biyo xireenka oo ka imanaya dhaawac ama dumis	Sifada/saan saanka nabad guurka, sida dhulka oo dildilaaca, dhirta isu dhow ama dhagxaan waawayn oo noqota caqabad daadka, a	Biyo xireen, abutements, suulka, iyo jenbiga bito xireenka si looga hortago in biyo ka baxaan	Koormeer indhayn oo injineer dhisme sameeyo	Labo jeer sanadkii oo noqonaysa labada sano ee ugu horeeya	In la galo hagid iyo nidaam lagu hagayo dayac tirka iyo dibu habaynta qalabka si shaqadu si habsami u socoto	In la helo awood injineeriyad iyo nadaafad degaan	Xog lagama hayo	Kormeerid idha indhayn ahi waxaa ay keentaa kharashka ugu yar, in la sameeyo miisaaniyad loogu talo galay dyac tir iyo ribeer gareen	Xog lagama hayo	Shaqaale

Weji	**Waa** maxay cabirka shaqo ee la kormeeri?	**Halkee** ayaa cabirka shaqo lagu kormeeri?	Sida lagu helincabirka xiliga kormeerka	Markee ayaa cabirka shaqo la kormeeri (inta jeer ee la kormeeri iyo in a tahay mid socoto ah)	Maxaa cabirka shaqo loogu kormeeri	*Talaabooyinkalagu Lagu yaraynayo caqabadaha iyo halista shaqo*	Kharashka		Masuuliyada hay'adeed	
							Rakibid/xirid	shaqada	Rakibid/xirid	shaqada
Hadii la helo Aather Taarikhi ah	Helista walxo muhiimad u leh muhiimad haraadigii taariikhiga ahaa.	Goobta shaqada	Kormeer indha indhayn ah	Ilaa iyo inta uu socdo dadaalka dhismaha	Ilaalinta iyo xafidida walxaha muhiimad u leh dhaqankii hore	Shaqada jooji oo ogaysii cida ay khusayso ama wax ka qaban kara	Xog lagama hayo	Qiimaha ugu yar	Qandaraasle	Injineer Kormeer

Wada tashi bulsho Awooda helida biyo **Khilaaf ka biyaha**	Caqabadaha imankara in loo yeesho awoo helida biyaha kor iyo hoos u dhacaya	Goobta Shaqada iyo dadka degaanka ee aaga, weliba kuwa ah halista dhibaatada	Wada tashi bulsho	Bilowyada dhismayaasha, xiliga Shaqada socodkeedu noqdo mid isku duba dhaca iyo labo jeer sanadkii marka mashruuca dhismahu hirgalo	In la fahansiiyo bulshada in biyo togo afkiisa kore ineey biyo qarin karaan, biyaha toga hoosena ku yaala ay yaraan karaaan. yaraan karaan.	Qoraal laga sameeyo wada tashi bulsho iyo biyaha raaca oo lagu sameeyo kormeeris	Xog lagama hayo	Qiimaha ugu yar	Injineer ka dabagalka iyo kormeerka/Qandaraasle	Injineer Kormeer