

Janaale - Qoryooley

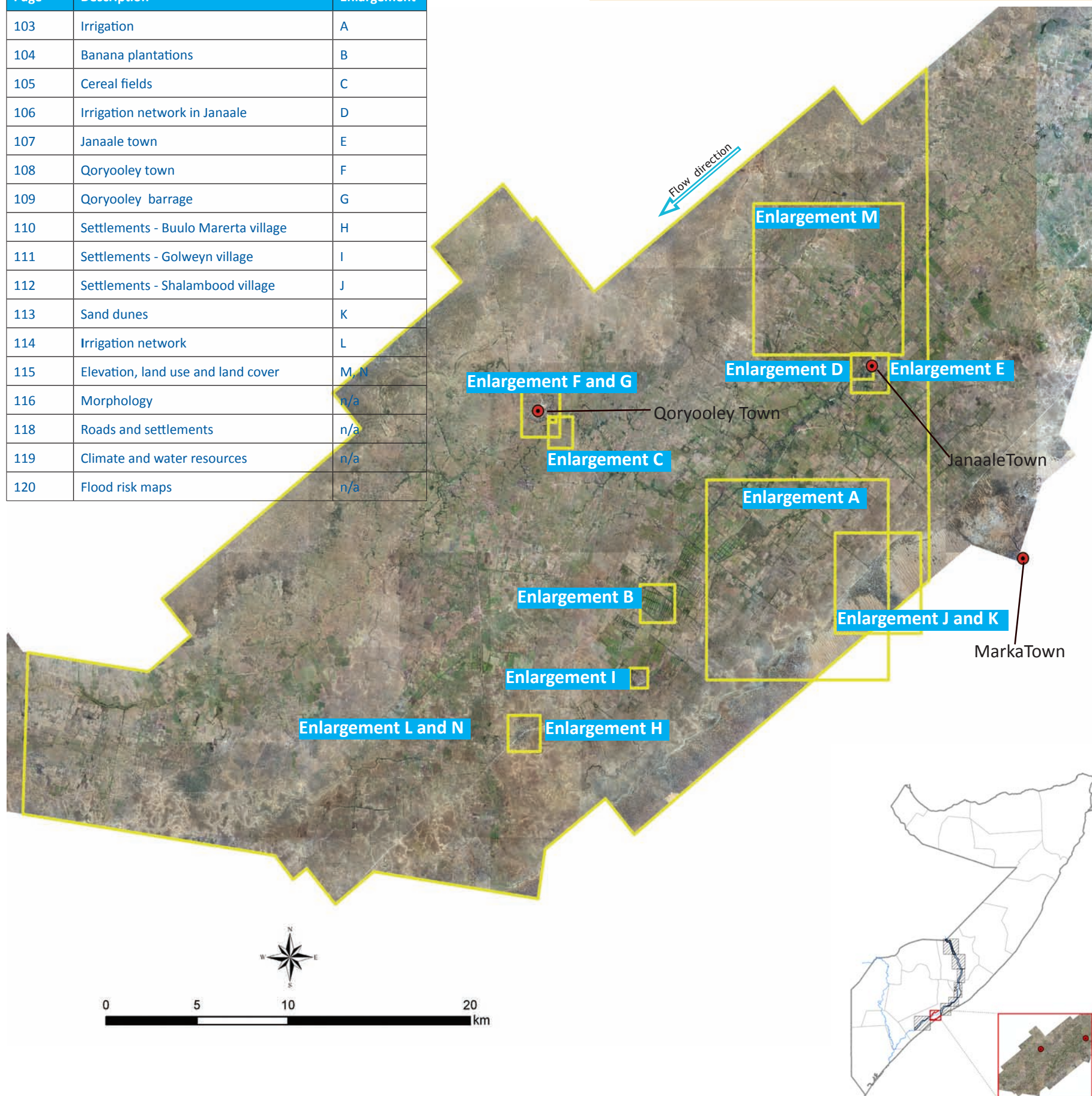
Janaale is a town on the eastern bank of the Shabelle River, downstream of Aw Deegle and about 18 km north of the regional capital Marka. One of the oldest barrages established in the 1920s on the Shabelle River is located in Janaale. This area is vulnerable to floods and experienced recurrent floods in the past.

Qoryooley is one of the important districts of the Lower Shabelle Region and is located on the bank of the Shabelle River downstream of Janaale.

Janaale waa magaalo yar oo ku taal dhanka bari ee Wabi Shabeelle, xagga biyoshubka hoose ee Aw Dheegle waxayna qiyaas 18km waqooyi ka jirtaa caasimadda Gobolka Marka. Waxaa ku yaal biyoxireenka ugu fac weyn oo laga sameeyey Wabiga Shabeelle 1920-aadkii. Degaankaan wuxuu u nugal yahay fatahaado waxaana saameeyey fatahaado soo noqnoqday waqtiyadii tagay.

Qoryooley waxaa xubin degmooyinka muhiimka ah ee Gobolka Shabeellaha Hoose waxayna ku taal daanta bari ee Wabi Shabeelle xagga biyoshubka ka hooseeya Jannaale.

Page	Description	Enlargement
103	Irrigation	A
104	Banana plantations	B
105	Cereal fields	C
106	Irrigation network in Janaale	D
107	Janaale town	E
108	Qoryooley town	F
109	Qoryooley barrage	G
110	Settlements - Buulo Marerta village	H
111	Settlements - Golweyn village	I
112	Settlements - Shalambood village	J
113	Sand dunes	K
114	Irrigation network	L
115	Elevation, land use and land cover	M, N
116	Morphology	n/a
118	Roads and settlements	n/a
119	Climate and water resources	n/a
120	Flood risk maps	n/a



Irrigation Waraabka

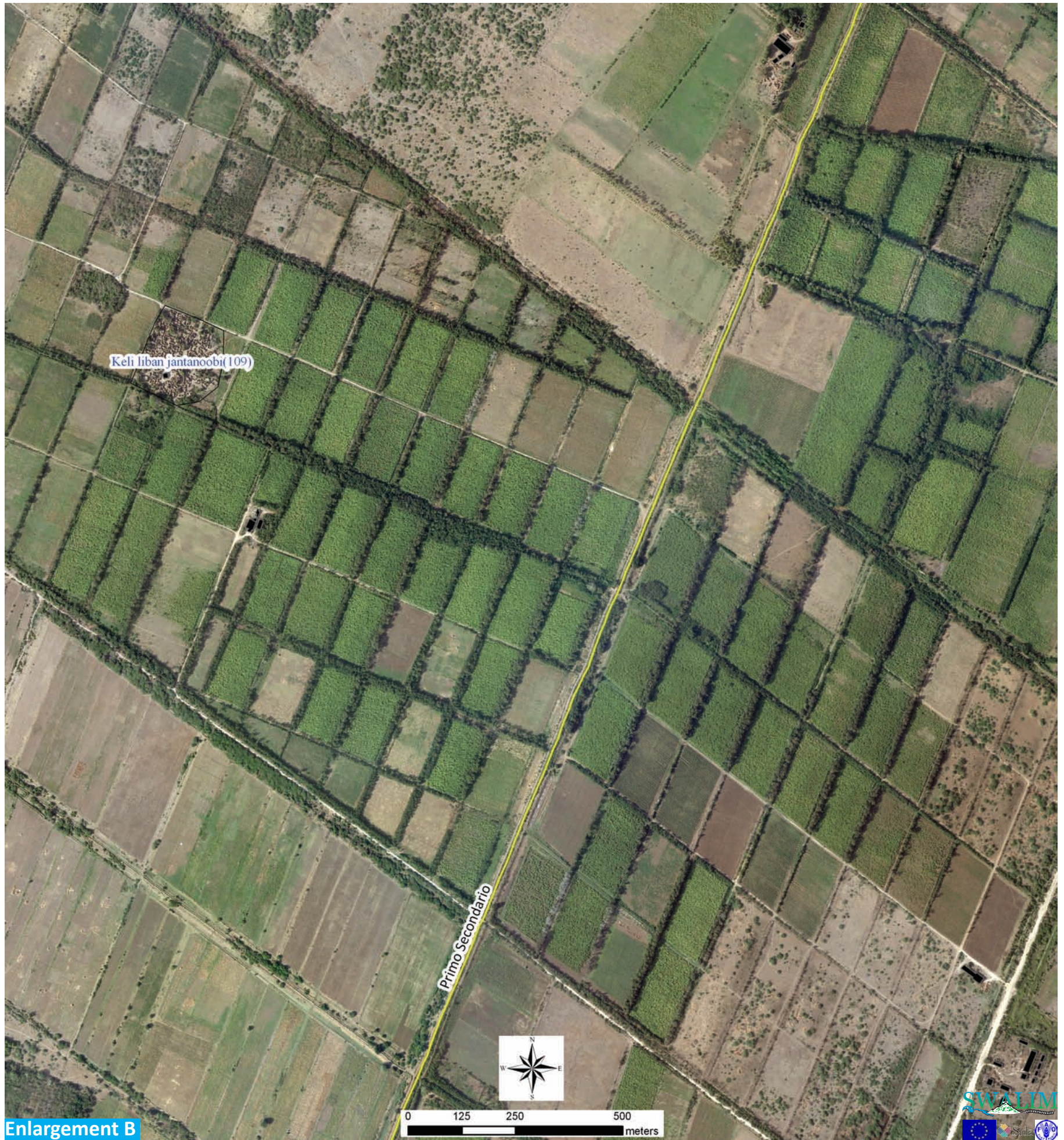


Enlargement A

The irrigation system in this area is no longer very active. Many farms (right side) have been abandoned over the years. However, irrigation activities closer to the river continue. The area (bottom right) has stabilised dunes with natural vegetation and a mobile middle section.

Habka waraabka degaankan ma aha mid weli aad u shaqeeya. Beero badan (dhinaca midig) waa laga tagay sando badanka hor. Hase ahaatee, hawla waraabku waxay ka socdaan inta u dhaw wabiga. Nawaaxigu (hoos midig) wuxuu leeyahay bacaadyo xasiloon oo leh dhir dabiici ah iyo waaxyo dhexe oo guurguuraya.

Banana plantation Beeraha dalagyada



This area is one of the highest banana producing areas in Somalia. The banana plantations are irrigated by one of the oldest canals, the Primo Secundario. The bananas are for domestic use and export, mainly to Djibouti and the Arabian Gulf countries.

Degaankaan wuxuu ka tirasan yahay meelaha ugu sarreeya waxsoosaarka mooska ee Soomaaliya. Beeraha mooska waxaa lagu waraabiya mid ka tirsan keliyada ugu faca weyn, Birimo Sekondaariyo. Mooska waxaa lagu isticmaalaa gudaha dalka waana la dhoofiya, badanaa Jabuuti iyo Dalalka Jasiiradda Carabta.

Cereal fields Beeraha badarka



This used to be a banana growing area with Qoryooley barrage as the main structure controlling water supply to irrigation canals. After the El Nino rains of 1997-98, the barrage broke down and farmers turned to growing cereal crops which require less water to grow. This barrage was rehabilitated by FAO-SWALIM in 2009.

Degaankaan waagii hore wuxuu ahaa mid mooska lagu beero, biyoxireenka qoryooleyna wuxuu ahaa dhismaha ugu muhiimsan oo lagu xakameeyo biyaha keliyada waraabka la siinayo. Roobabkii El Nino ee 1997-8 ka dib, biyoxireenka waxyeelo ayaa soo gaartay, markaas ayaa beeraleydi waxay u wareegeen inay beertaan dalagyada badarka oo u baahan biyo ka yar kuwii mooska ku baxayey. Biyoxireenkaan waxaa dayartirey FAO-SWALIM sanadkii 2009

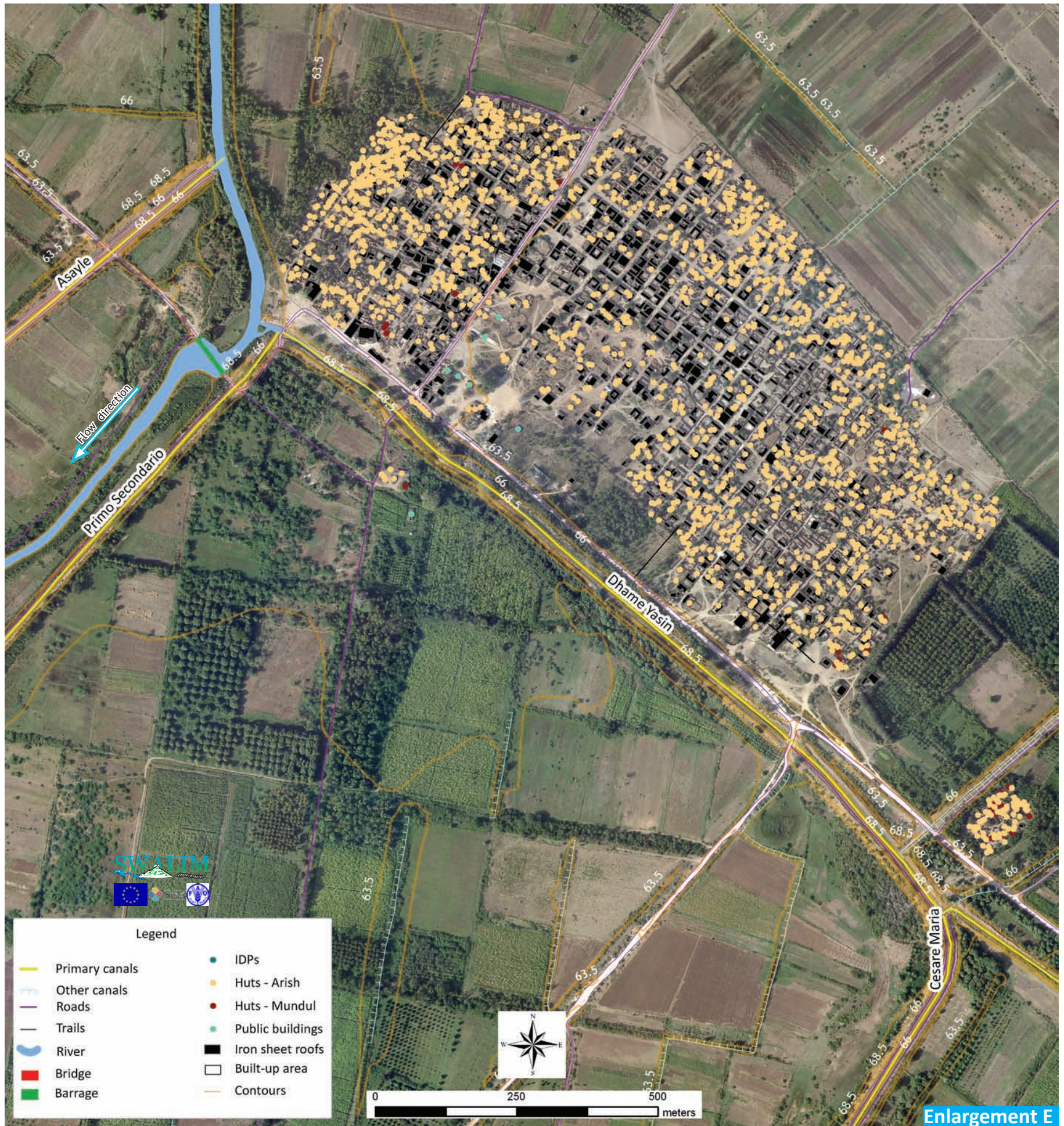
Irrigation network in Janaale Isku xirka waddooyinka Janaale



The Shabelle River feeds three major canals in this area: the Asayle canal, upstream of Janaale, the Primo Secundario and the Dhame Yasin that also feeds the Cesare Maria. All these canals are important irrigation infrastructure in the Lower Shabelle Region. Around the town and along the river mango and coconut palm trees are common.

Wabiga Shabeelle wuxuu biyo siiyaa saddex keli oo muhimad u leh degaankan: Keli Asayle oo ka baxa biyoshubka ka sarreeya Janaale, Birimo Sekondaariyo iyo Dhamme Yaasiin oo iyagu biyo siiya Je sare Maariya. Dhammaan keliyadaan waa kaabayaal waraab oo muhimad ku leh Gobolka Shabeellaha Hoose. Hareeraha magaalada iyo jiidda wabiga waxaa ku badan geedaha cambaha iyo qumbaha.

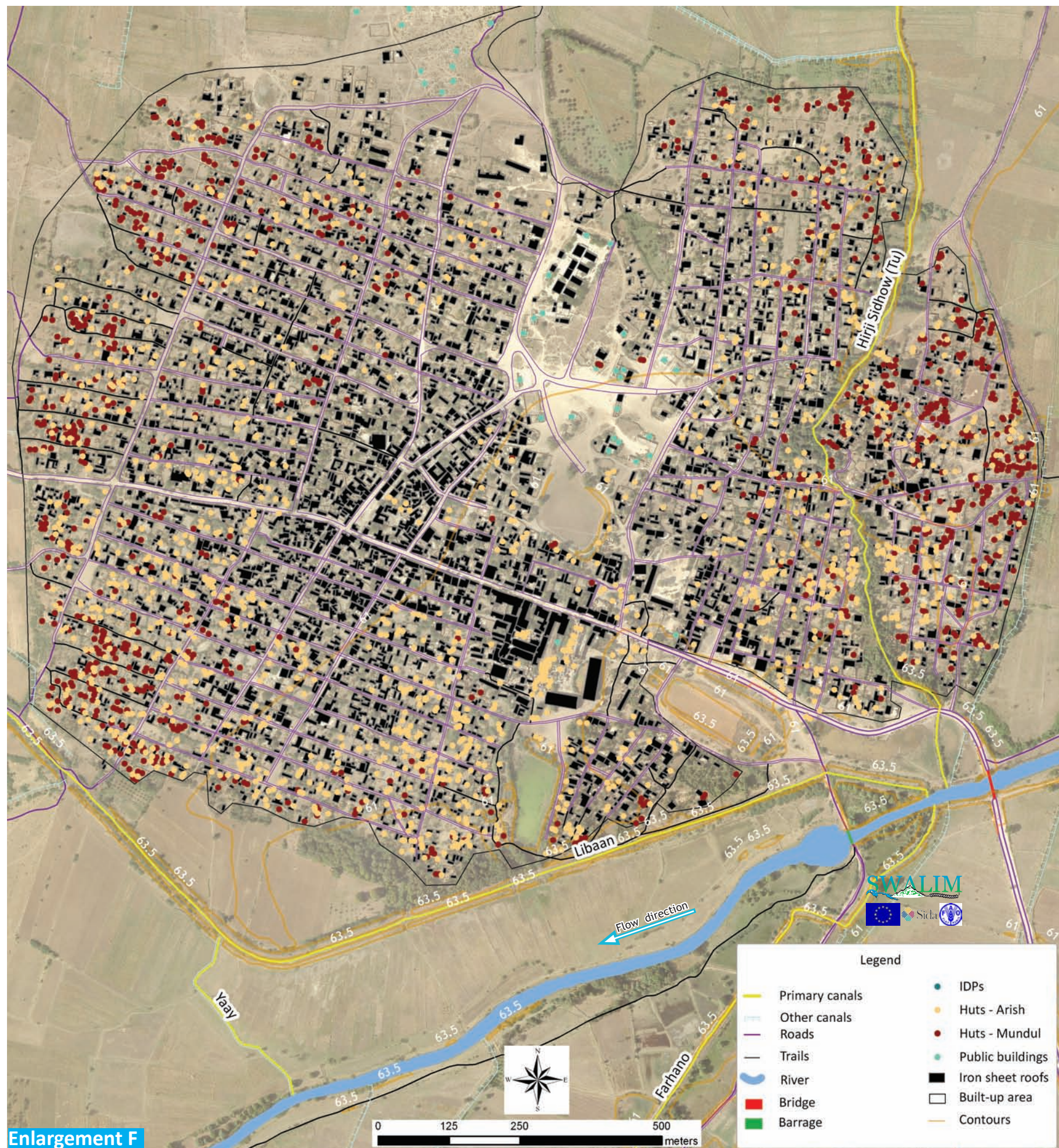
Janaale town Magaalada Janaale



Janaale has low elevation, which makes it susceptible to flooding. Other factors like siltation and blockage of the drainages contribute to recurrent flooding.

Magaalada Janaale waxay leedahay joog hoose oo ka dhigaya mid u nugul fatahaad. Waxaa kale oo ka qab qaata fatahaada soo noqnoqda arrimo la xiriira carro fariisata biyomareennada oo xannibaad u keenta biyaha socodkooda.

Qoryooley town Magaalada Qoryooley



Enlargement F

Qoryooley barrage, the second oldest in the region is located here. The barrage provides irrigation water to fertile farming areas that extend on both sides of the river. Like Janaale, this area has also been seriously affected by cyclical floods such as those that occurred in 1961, 1981 and 1997-1998.

Biyoxireenka Qoryooley, midka labaad ee gobolka ugu faca weyn oo ku yaal halkaan Qoryooley. Biyoxireenku wuxuu waraabiya dhulbeereedka bacrinta ah ee degaanka oo ku dherersan labada dhinac ee wabiga. Sida Janaale, degaankaan waxaa aad u waxyeelayey fatahaado soo noqnoqday oo dhacay sanadihii 1961, 1981 iyo 1997/98.

Qoryooley barrage Biyoxireenka Qoryoole



Qoryooley barrage before rehabilitation. All gates were corroded and sunk in the mud.

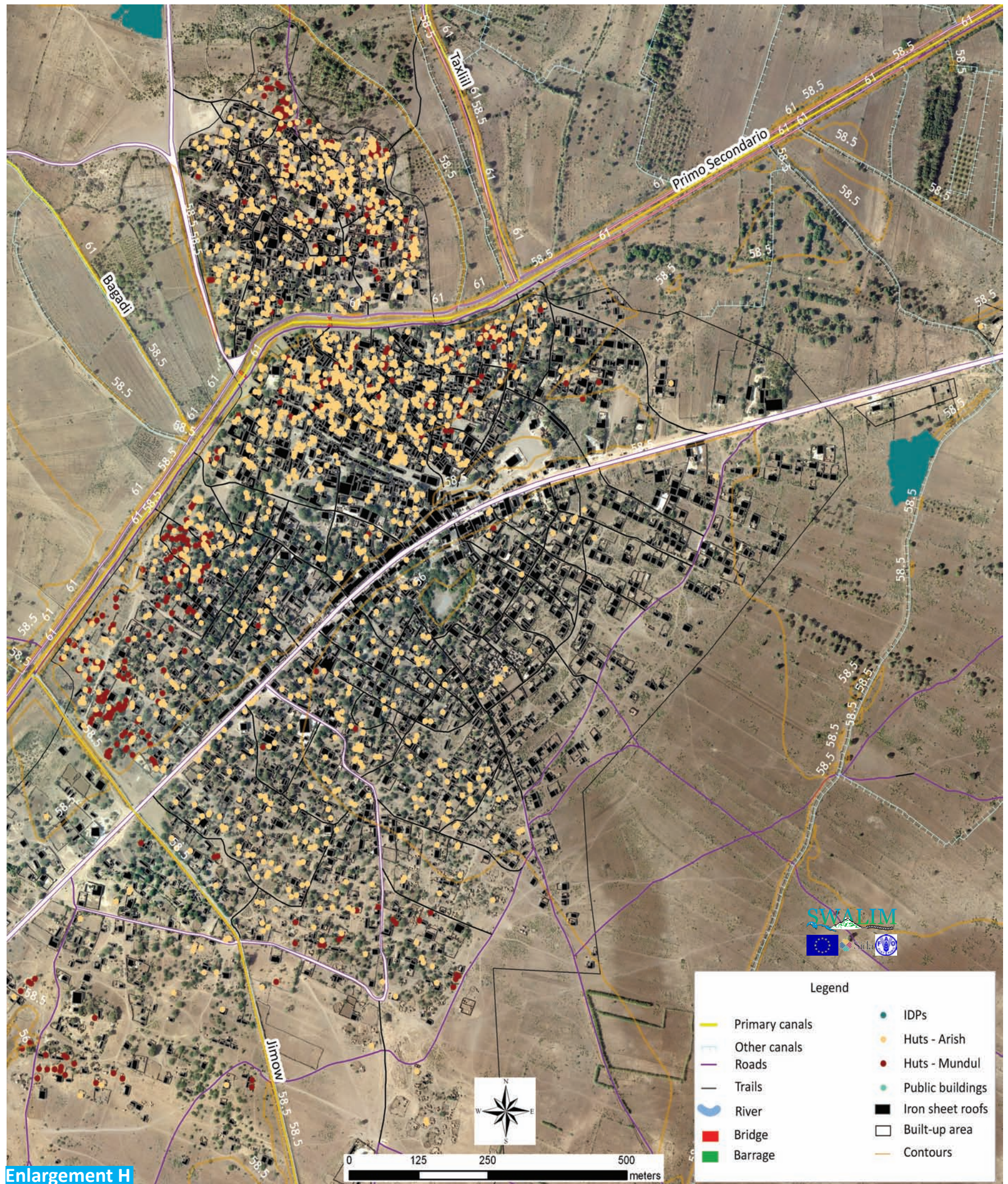
Biyoxireenka Qoryooley ka hor dayactirista. Dhammaan albaabada daxal ayeey la googo'naayeen waxayna tiimbisnaayeen dhoobo gudaheeda



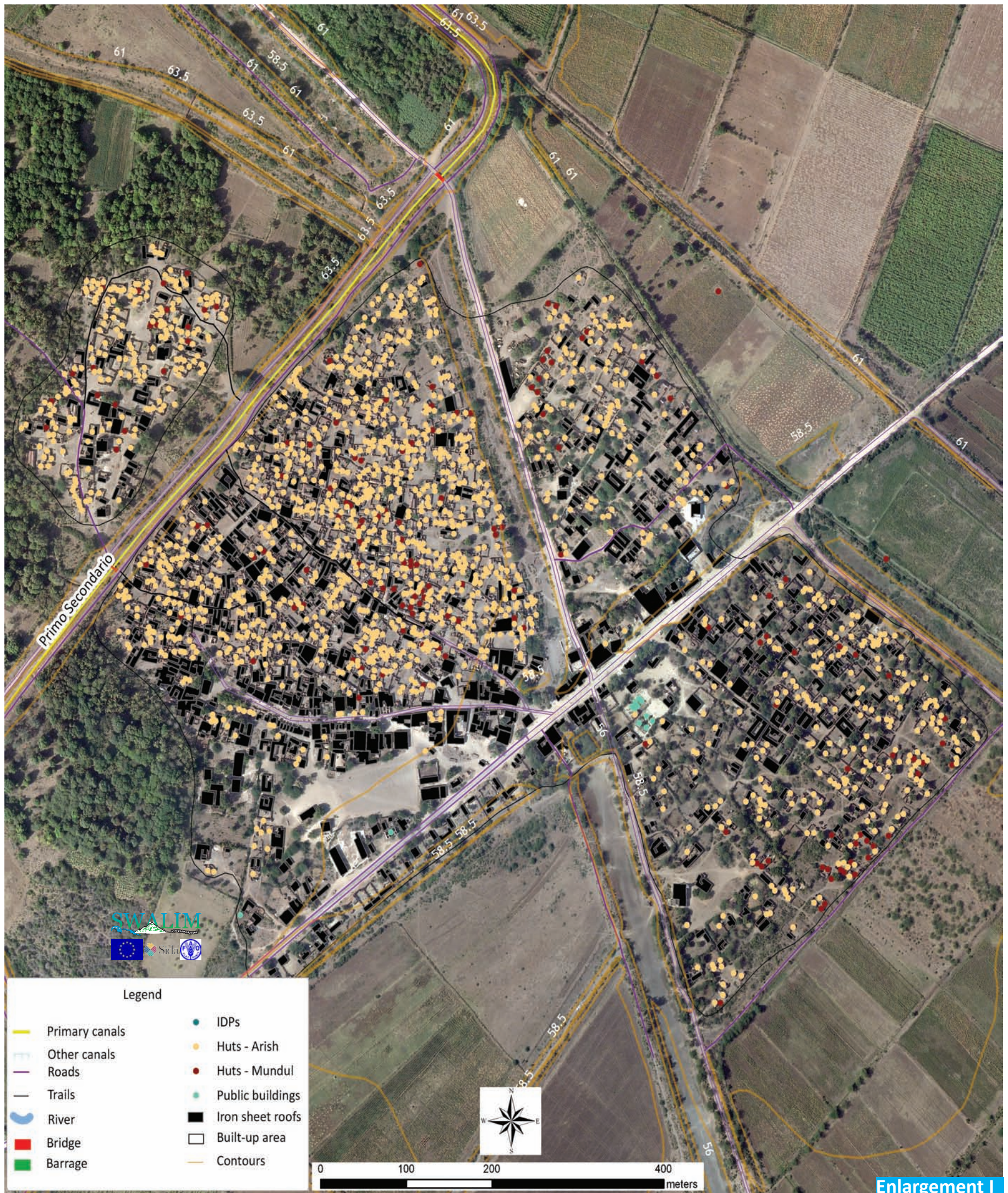
Qoryooley barrage after rehabilitation by SWALIM in 2009. All nine gates were replaced, old gears were serviced and three lifting gears were installed to the barrage.

Biyoxireenka Qoryooley ka dib markii ay dayactir ku samaysay SWALIM sanadkii 2009 .Dhammaan sideedda albaab waa la badalay, qalabka albaab daliciddana waa laga hagaajiyey hadana biyoxireenka waxaa lagu rakibay saddex qalab oo albaabada lagu dalaco.

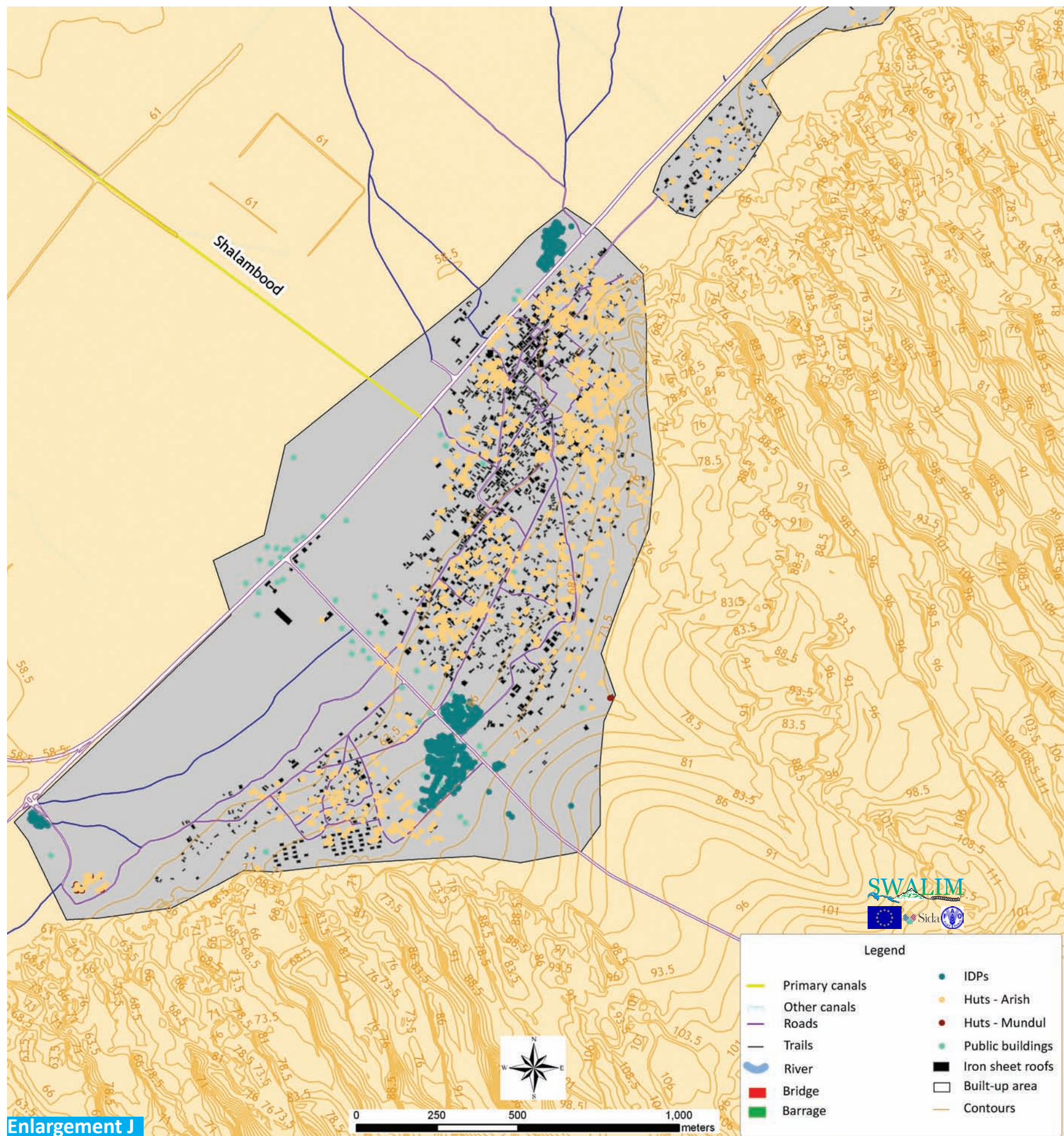
Settlements - Buulo Marerta village Degmooyinka - tuulada Buulo Marerta



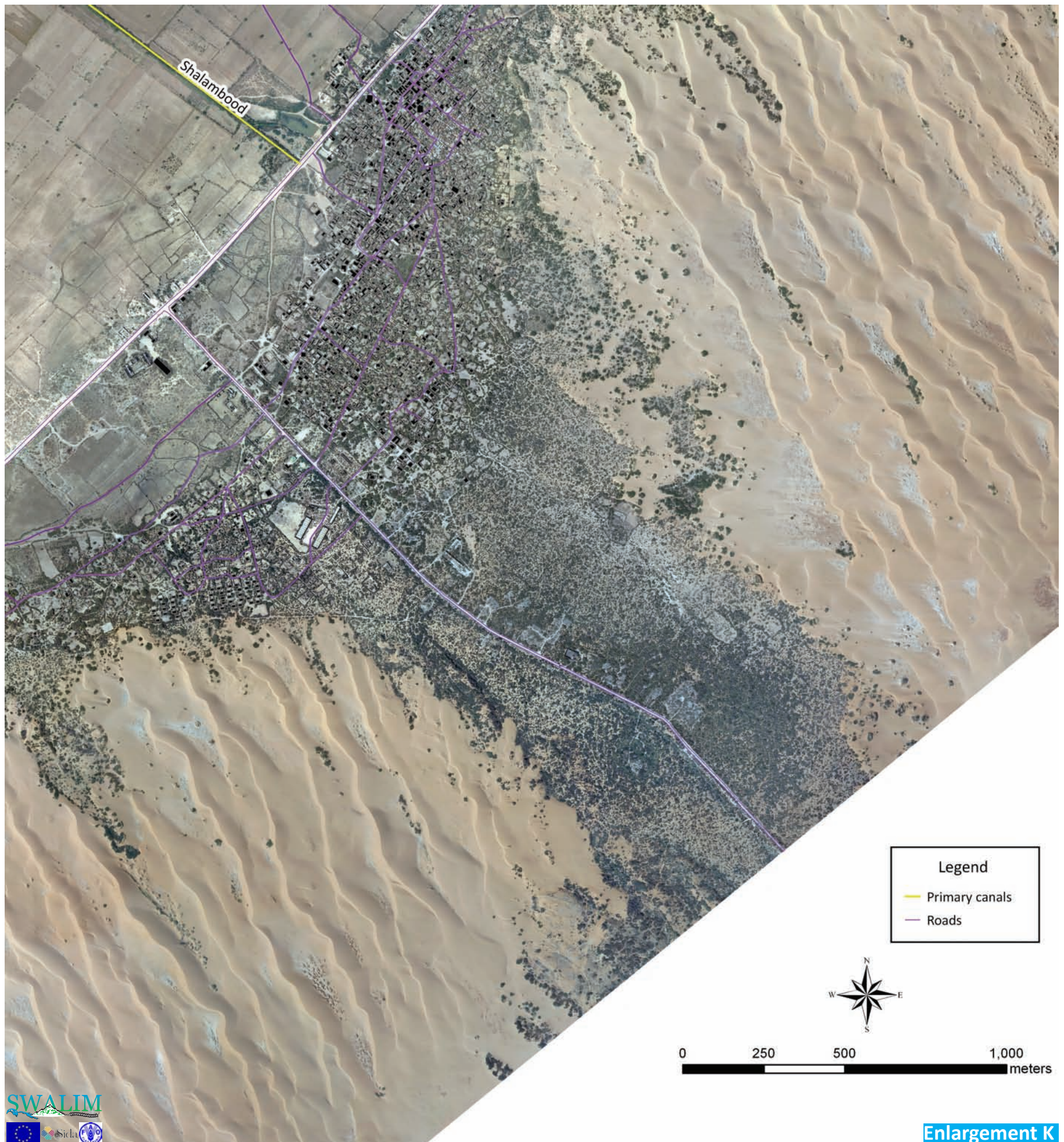
Settlements - Golweyn village Degmooyinka - tuulada Golweyn



Settlements - Shalambood village Degmooyinka - tuulada Shalambood



Sand dunes Bacaad Guura

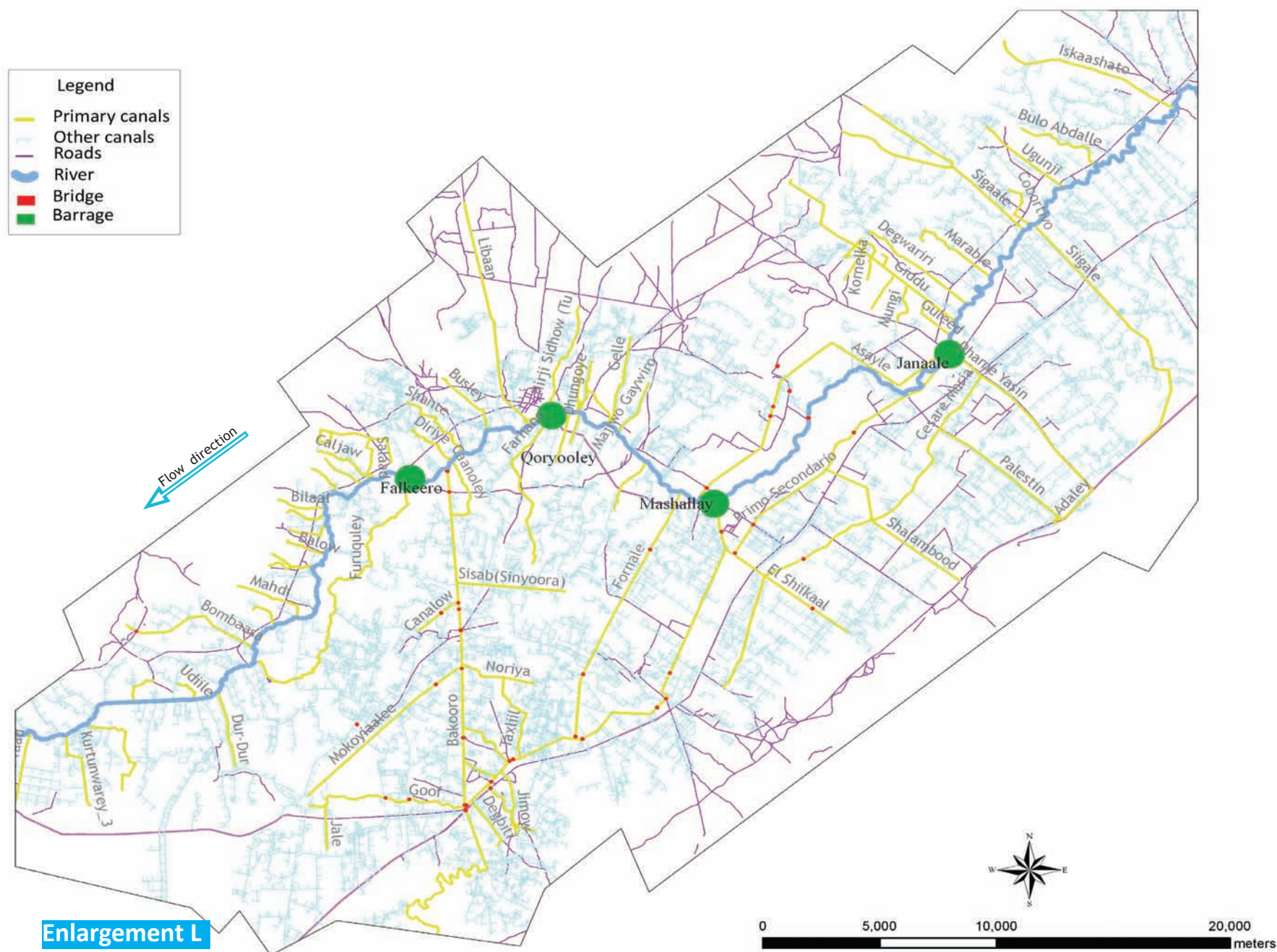


Enlargement K

The village of Shalambood lies between the agricultural area and the sand dunes. This enlargement shows the mobile section of the sand dunes. Towards the village some afforestation has taken place.

Tuulada Shalambood waxay u dhaxaysaa dhulbeereedka iyo bacaadka. Ballaarintaan waxay tusinaysaa waaxdan bacaadka guurguuraya. Xagga tuulada, qaar ayaa dhireyn lagu sameeyey.

Irrigation network Isku xirnaata waraabka



Enlargement L

This is the area south of Lower Shabelle Region where irrigation practice started in the early 1920s. It remains the most important agricultural area using gravity irrigation. This map shows the dense network of irrigation canals that were developed over many years. Some of the key barrages in this area include Janaale, Mashallay (no longer functioning), Qoryooley and Falkeerow.

Halkani waa degaanka koonfurta Gobolka Shabeellaha Hoose oo ah halkii isticmaalka waraabku ka bilowday horraantii 1920-neeeyihii. Weli waa degaanka ugu waxbeerashada badan oo loo isticmaalo waraabka butaacinta. Khariidaddaan waxay tusinaysaa sida ay cumur u tahay isku xirnaata keliyada waraabka kuwaasoo sanado badan lagu sameeyey. Qaar ka mid biyoxireennada degaankan waxay yihiin: Janaale, Mashallay (ma shaqeyyo), Qoryooley, iyo Falkeerow.



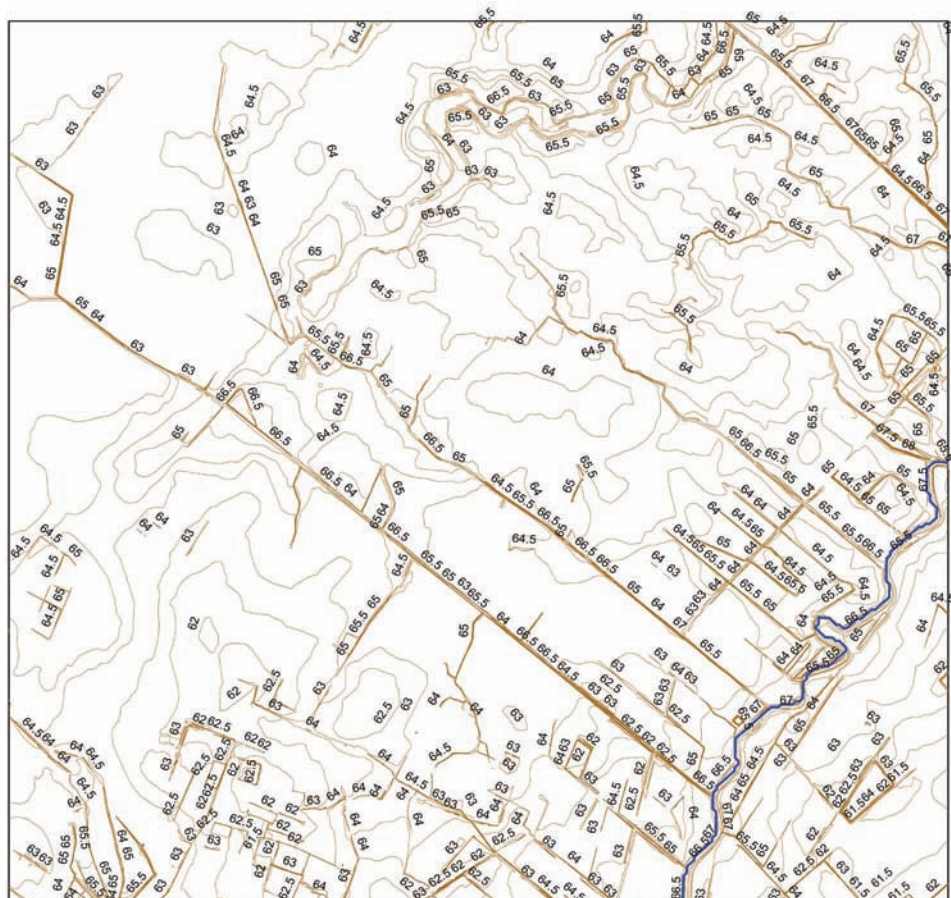
Falkeerow barrage after rehabilitation by SWALIM in 2009. New lifting gears were installed for operation of the gates. Some of the gates were rehabilitated and all barrage structures painted.

Biyoxireenka Falkeerow ka dib markii ay dayactir ku samaysay SWALIM sanadkii 2009. Waxaa lagu rakibay qalab lagu dallaco albaabada. Albaabada qaarkood waa la dayactirey hadana dhammaan dhismaha biyoxireenka ayaa la rinjiyey.

Elevation, land use and land cover

Joogga, isticmaalka dhulka iyo hu'ga dhulka

Elevation - Joogga



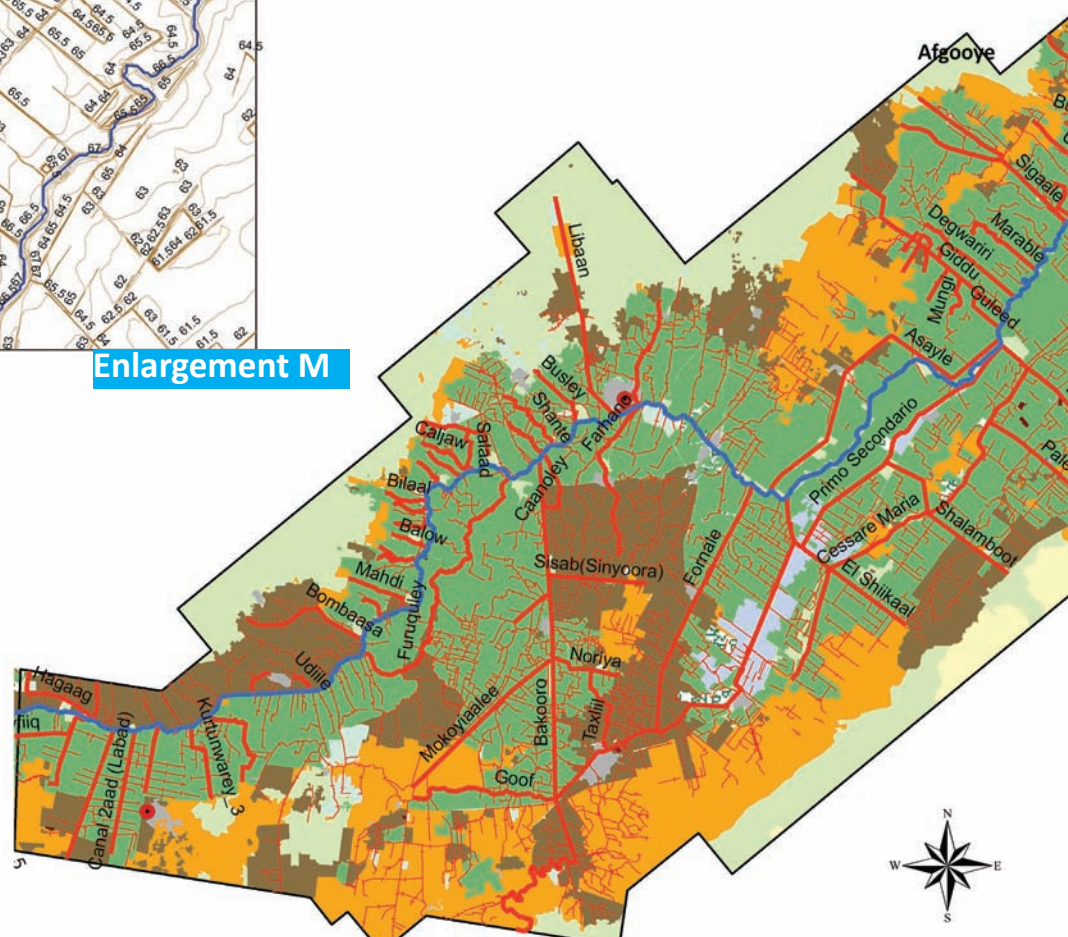
Enlargement M

Land use and land cover

This map covers the major agricultural area of Lower Shabelle Region. Cereals are the predominant crop, mainly maize and sorghum. There are many abandoned crop fields in areas far away from the irrigation canals. Sesame fields are also present.

Isticmaalka dhulka iyo hu'ga dhulka

Khariidadaan waxay daboolaysaa dhulbeereedka ugu muhiimsan Gobolka Shabeellaha Hoose. Dalagyada badarka ayaa ah kuwa ugu badan, qaabilan galey iyo masago. Waxaa jira beero badan oo beeristooda la tagay oo ku yaal meelaha aadka uga fog keliyada waraabka.



Enlargement N

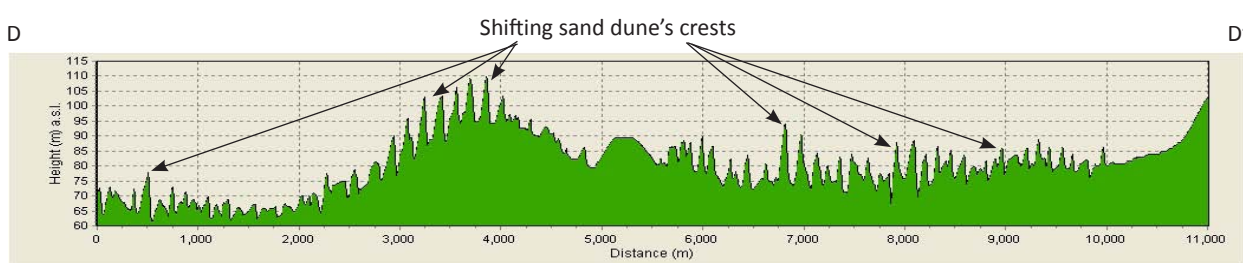
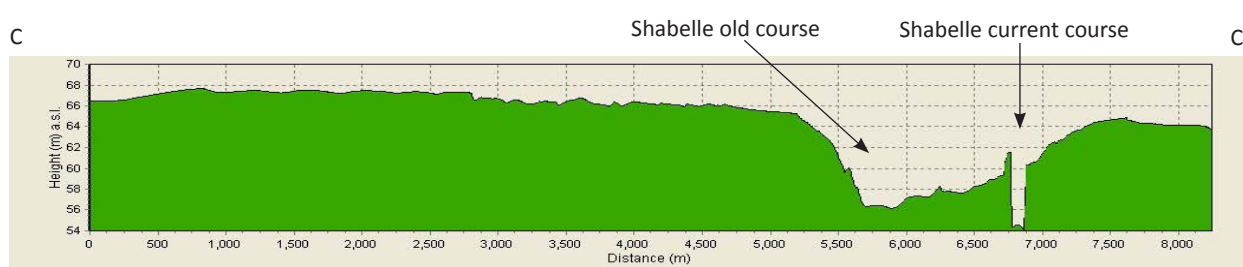
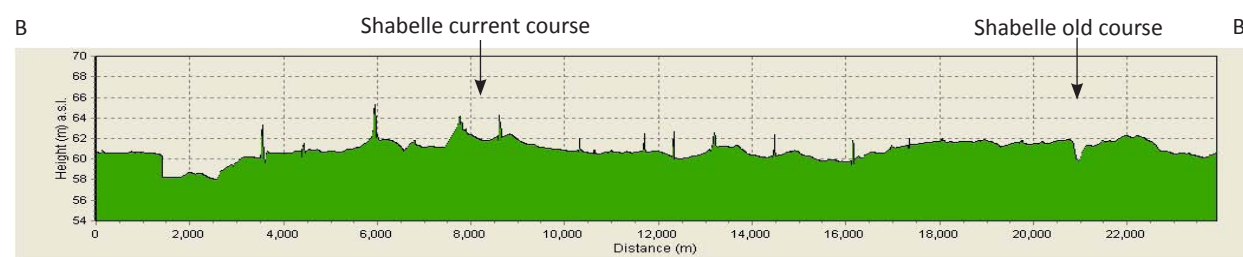
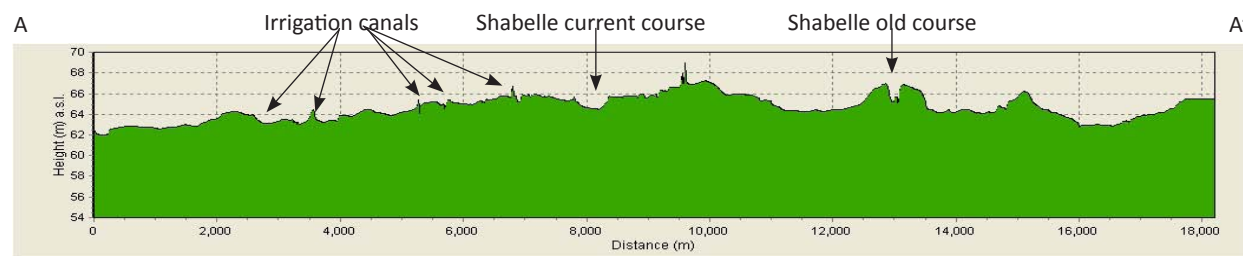


Mangos and bananas are grown in this region. It is not unusual to see ox carts being used to ferry farm produce from the fields.

Masawirku wuxuu muujinayaa dalagyo cambe iyo moos oo lagu beeray gobolkaan. Ma aha waxaan caadi ahayn in arko gaari dibi loo isticmaalayo in waxsoosaarka looga soo daabulo beeraha

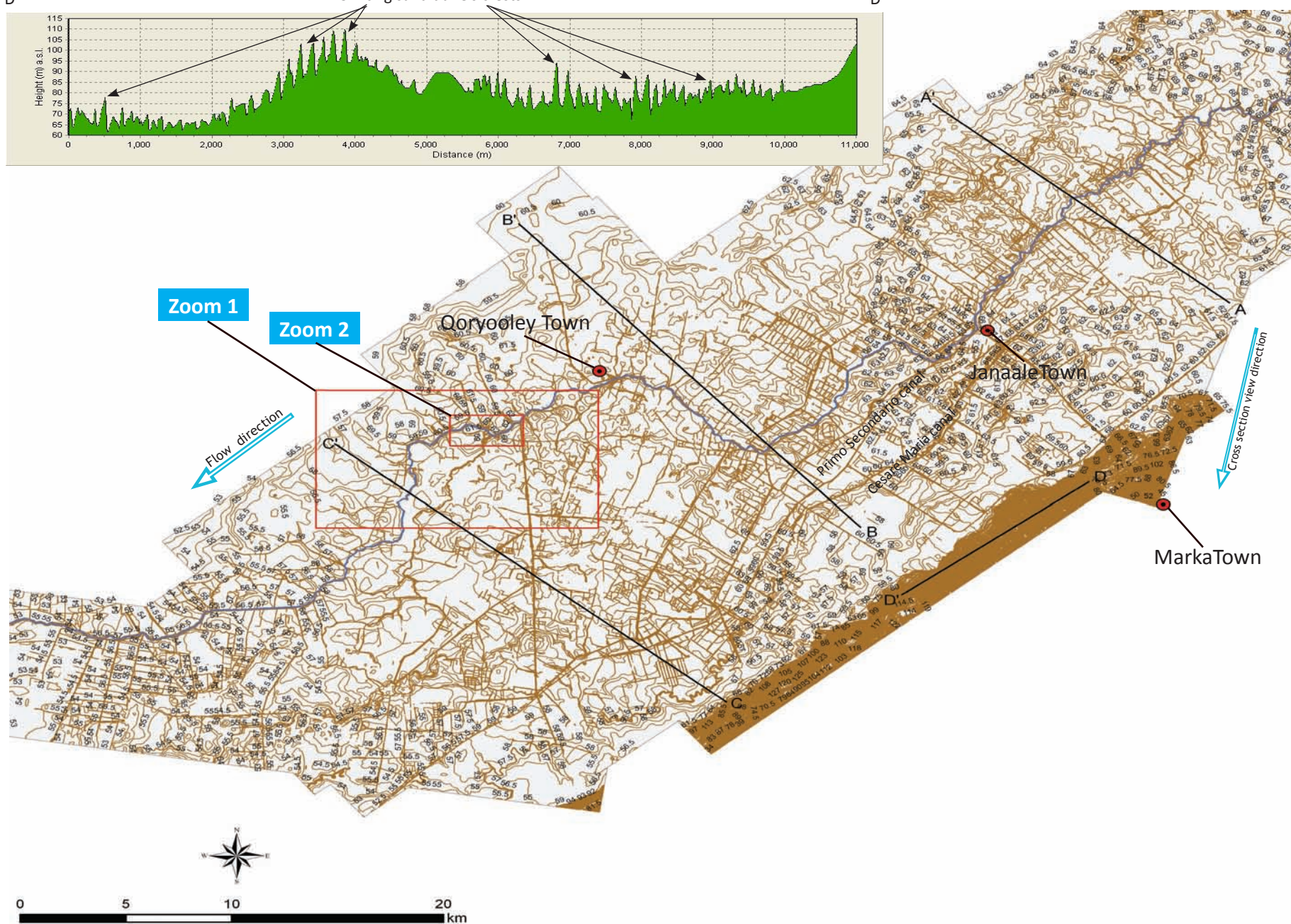
Crops					
	Cereals		Mango		Settlement
	Mixed crops		Banana		Bare soil
	Sesame		Mixed tree crops		River
	Rice		Abandoned fields		Main canals
	Coconut		Natural vegetation		Minor canals

Morphology Qaab-dhismaha

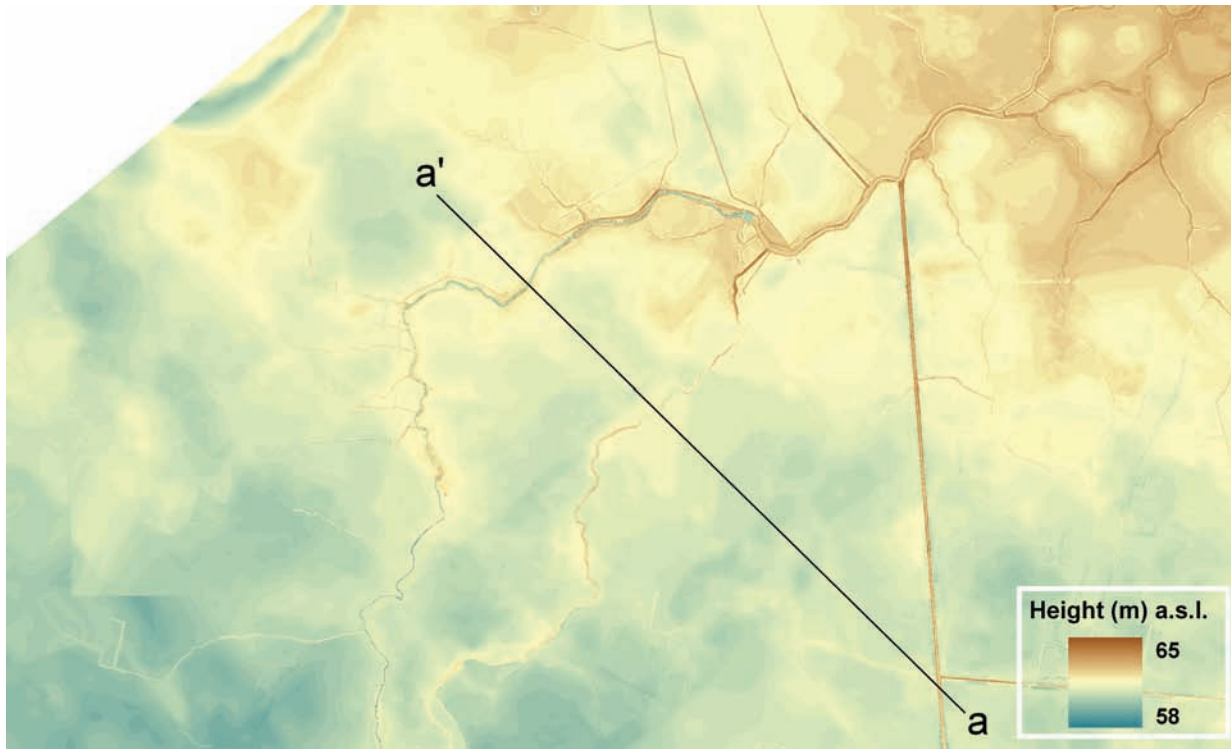


This area has a wide flood plain suitable for extensive agricultural production. On this page and the next, the contour map and cross sections show a typical characteristic of Lower Shabelle, where the river channel is raised above the adjacent flood plain.

Degaankan wuxuu leeyahay dooxo ballaaran oo ku habboon waxbeerashada waxsoosaar beerood oo ballaaran. Boggaan iyo midka xiga, khariidadda joogga isle'eg ee dhulka iyo jeexyada gudban waxay tusinayaan sifaalaha khaaska u ah Shabeellaha Hoose, halkasoo dooxa wabigu uu kor uga kacsan yahay dooxada uu dhinaca ku hayo.



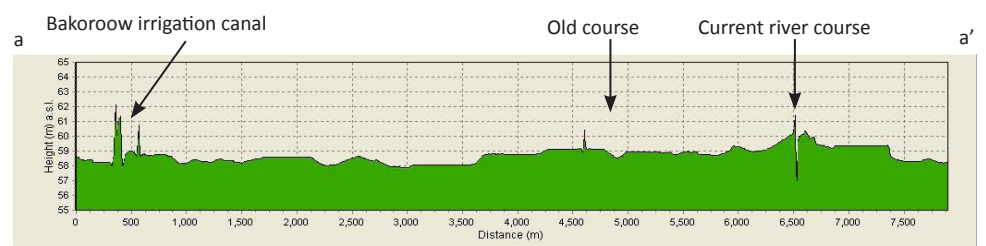
Morphology Qaab-dhismaha



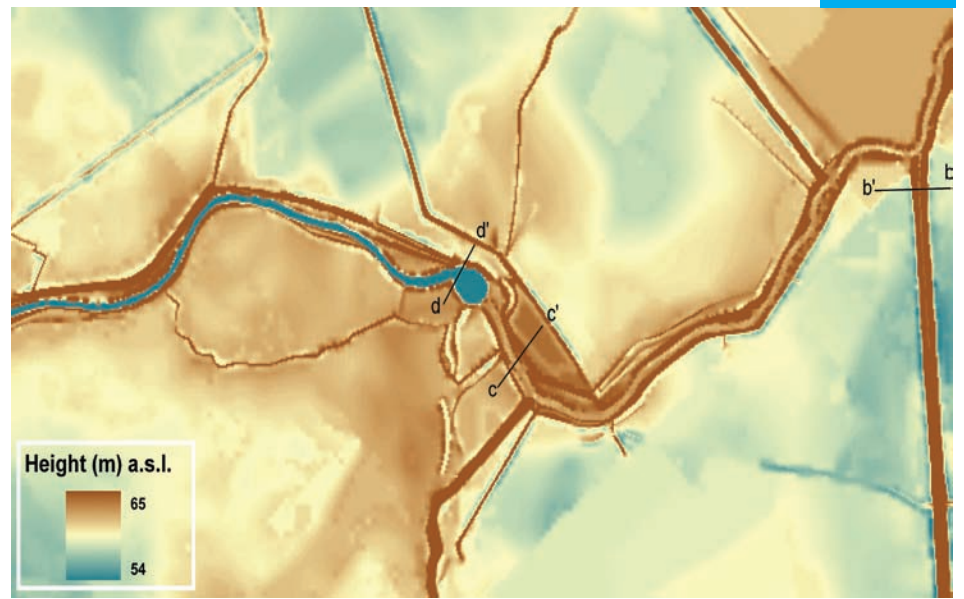
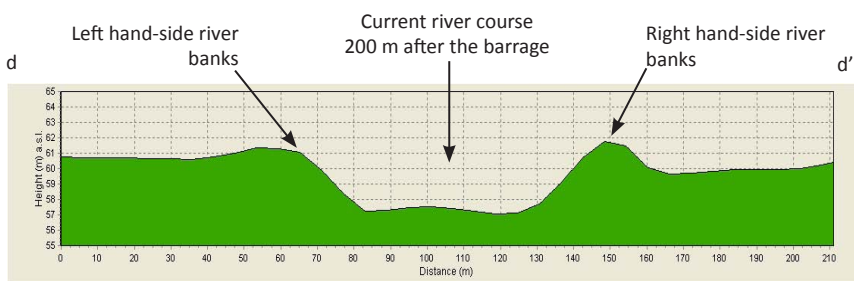
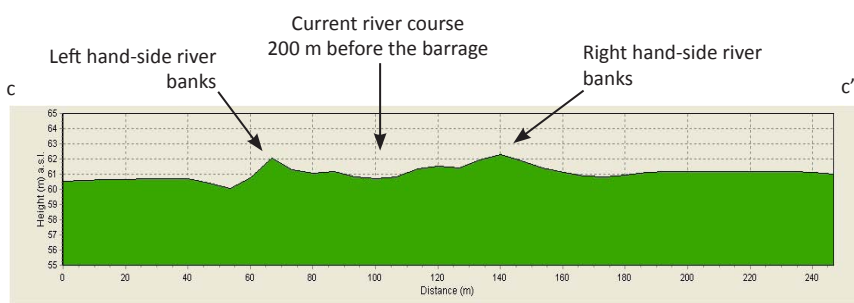
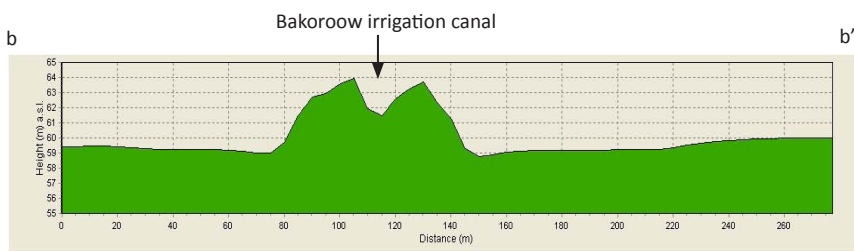
The cross sections of this area show that the terrain elevation favours the use of gravity irrigation system.

Jeexyada gudban ee degaankan waxay tusinayaan in dhulka jooggiisa uu suurogelinayo isticmaalka habka waraabka butaacada.

Zoom 1



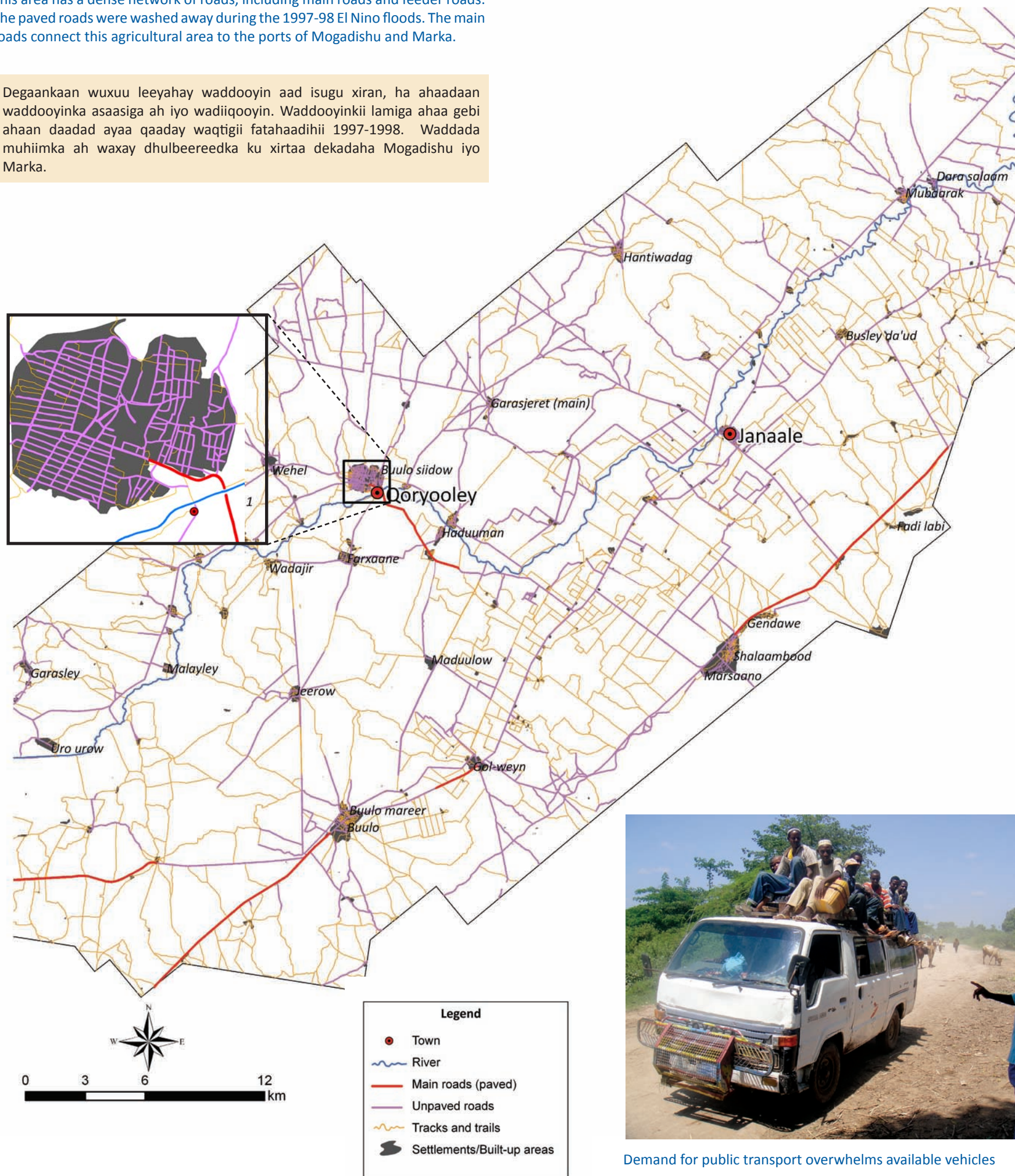
Zoom 2



Roads and settlements Waddooyinka iyo degmooyinka

This area has a dense network of roads, including main roads and feeder roads. The paved roads were washed away during the 1997-98 El Nino floods. The main roads connect this agricultural area to the ports of Mogadishu and Marka.

Degaankaan wuxuu leeyahay waddooyin aad isugu xiran, ha ahaadaan waddooyinka asaasiga ah iyo wadiiqooyin. Waddooyinkii lamiga ahaa gebi ahaan daadad ayaa qaaday waqtigii fatahaadihii 1997-1998. Waddada muhiimka ah waxay dhulbeereedka ku xirtaa dekadaha Mogadishu iyo Marka.



Demand for public transport overwhelms available vehicles

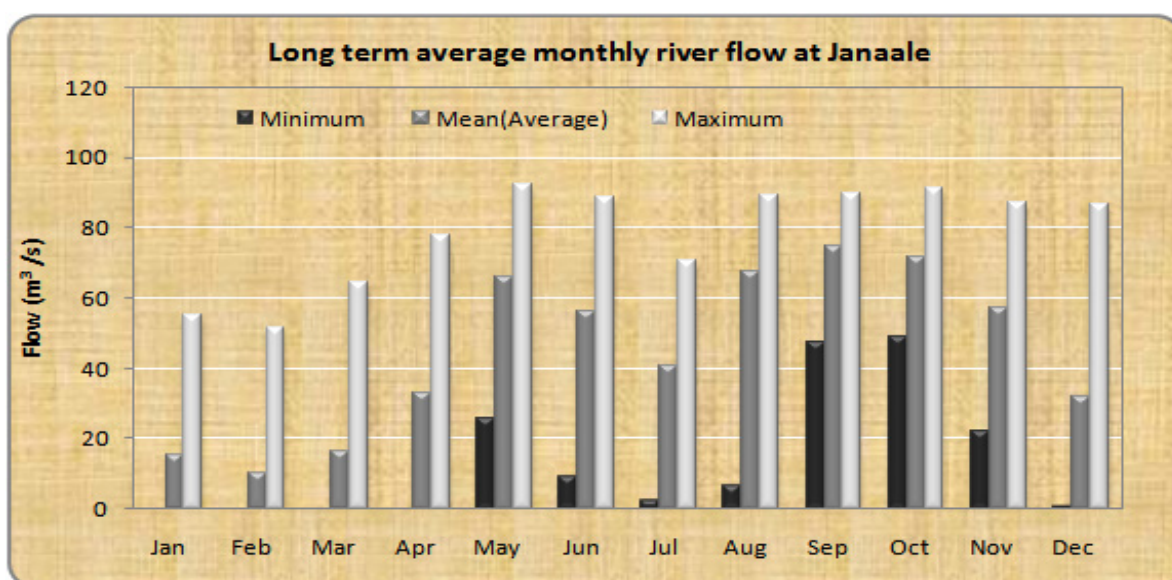
Baahida loo qabo gaadiidka dadweynaha si kastaba ahaate waa mid ka badan helitaanka baabuurta.

Climate and water resources Cimilad iyo khayraadka biyaha

The Janaale - Qoryooley areas receive mean annual rainfall of about 487 mm. The area has water deficits most times of the year due to the high rates of evapotranspiration experienced in the area. Daily maximum temperatures are in excess of 32 °C.

Degaannada Janaale-Qoryooley waxay helaan sanadkii celcelis ahaan roobab lagu qiyaaso 487 mm. Degaanku wuxuu leeyahay qoyaana yaraansho inta badan sanadkii taas oo ay ugu wacan tahay uumi baxaad u sareeya. Kulbeeggu ugu sareeya ee maalinle waxa uu ka badan yahay 32 °C.

Long term average monthly climatic values at Janaale												
Climatic variable	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	2.0	0.0	3.0	87.0	87.0	72.0	69.0	52.0	16.0	24.0	60.0	15.0
Mean temperature (°C)	26.5	27.1	28.1	28.2	27.3	25.6	24.8	25.0	25.7	26.5	26.5	26.5
Minimum temperature (°C)	21.0	21.5	22.8	23.5	23.2	21.7	21.3	21.1	22.0	22.6	22.1	21.5
Maximum temperature (°C)	32.2	32.6	33.5	33.0	31.5	29.5	28.5	28.8	29.5	30.5	31.0	31.5
Potential evapotranspiration (mm)	151	148	155	141	133	114	114	130	141	136	120	133
Wind speed (km/hr)	6.5	7.6	5.0	3.2	5.0	6.1	6.5	7.6	7.2	5.0	2.5	5.0



River gauge station details

Grid reference: 1:59:10 N, 44:50:00 E

Altitude: 70.0 m a.s.l

Catchment area: 280 000 km²

Daily mean flow: 48.0 m³/s

Current status: Not operational

The Shabelle River at Janaale remains full for long periods of time since it is very shallow at this point. Floods are quite common around this area.

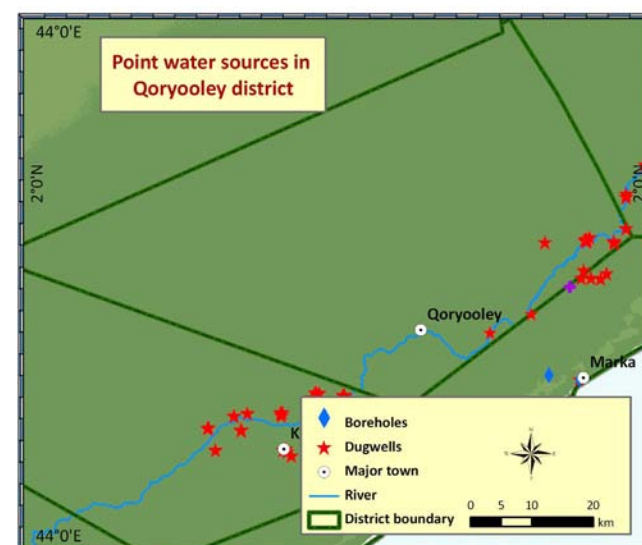
Janaale wabiga muddo dheer ayuu buuxaa taas oo ay keentay in uu wabigu gaaban yahay. Fataha joogta ah ayey ku tahay degaankaan.

Several shallow wells exist in Qoryooley, located mainly along the riverine areas of the Shabelle River. The wells benefit from the shallow water table near the river, at the same time providing some natural means of purifying the water.

Waxa jira ceelal gaagaaban oo ku yaal Qoryooley siiba jiidda jiimada wabiga Shabeelle. Ceelashu biyaha waxay ka helaan meelaha wabiga u dhow, isla markaas waxay helaan wax dabiici ah oo sifeynaya biyaha.

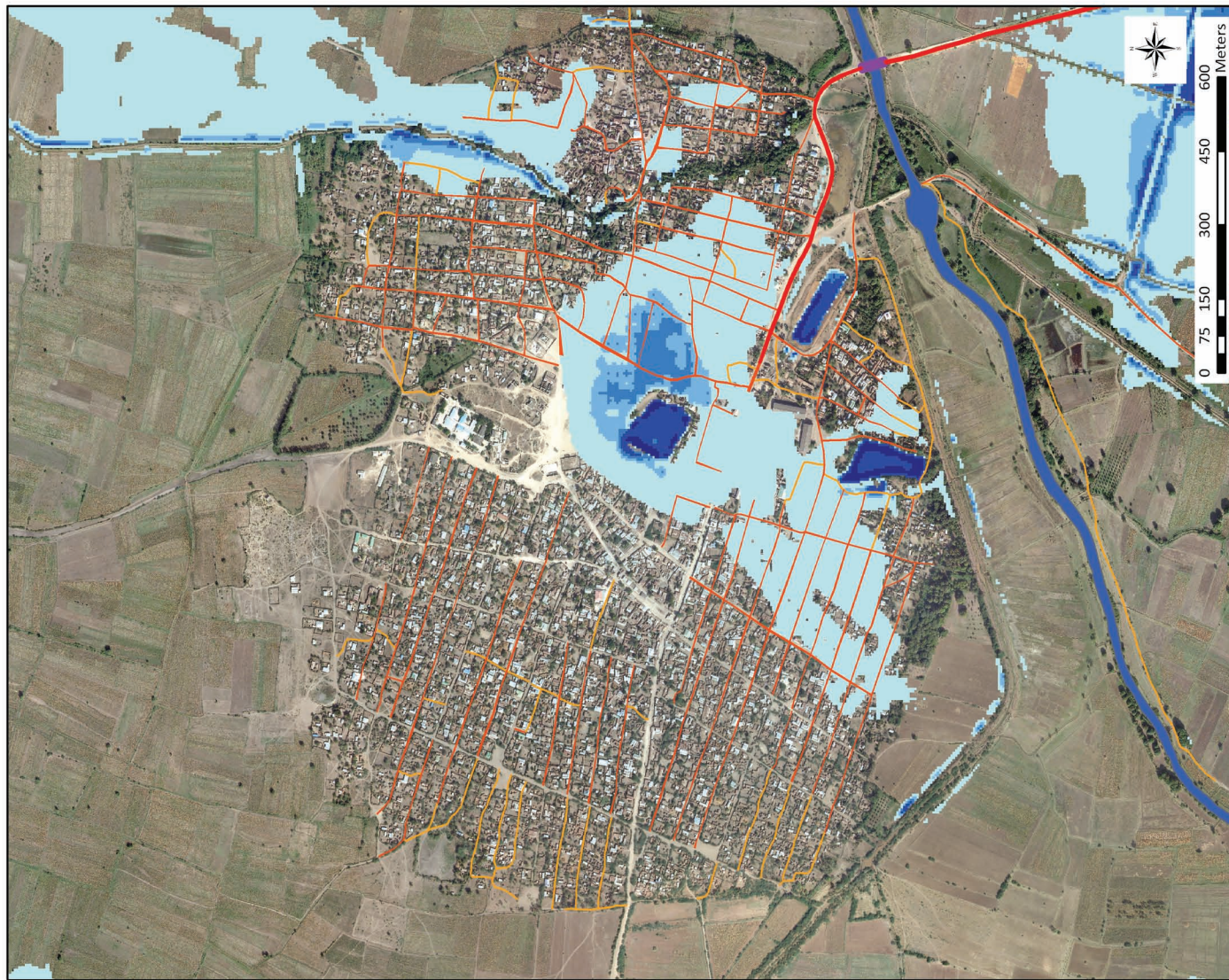
Water catchment used for watering animals in Qoryooley district

Biyo qabatin war ah oo loo isticmaalo waraabinta xoolaha degmooyinka Qoryooley



Flood risk map for Qoryooley - 5 year return period

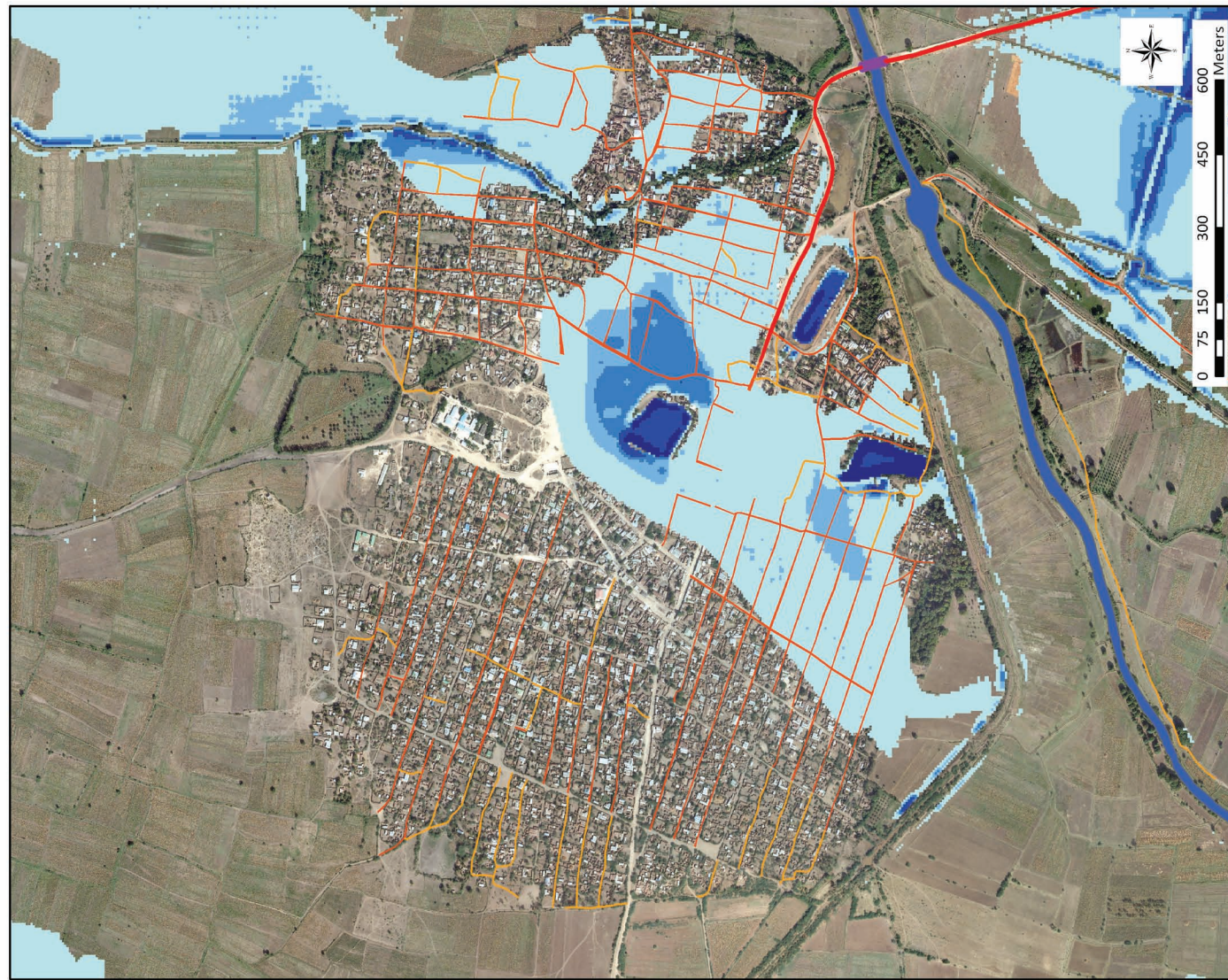
**Kharidadda halista fatahaadda ee Qoryooley
 5 sanaba soo noqota mar**



The flood risk scenarios (extent and depth) were generated using HEC-RAS hydrodynamic model. Inputs included observed flow data, river cross sections, DTM. For more information contact SWALIM (enquiries@faoswalim.org)

Flood risk map for Qoryooley - 20 year return period

**Kharidadda halista fatahaadda ee Qoryooley
 20 sanaba soo noqota mar**



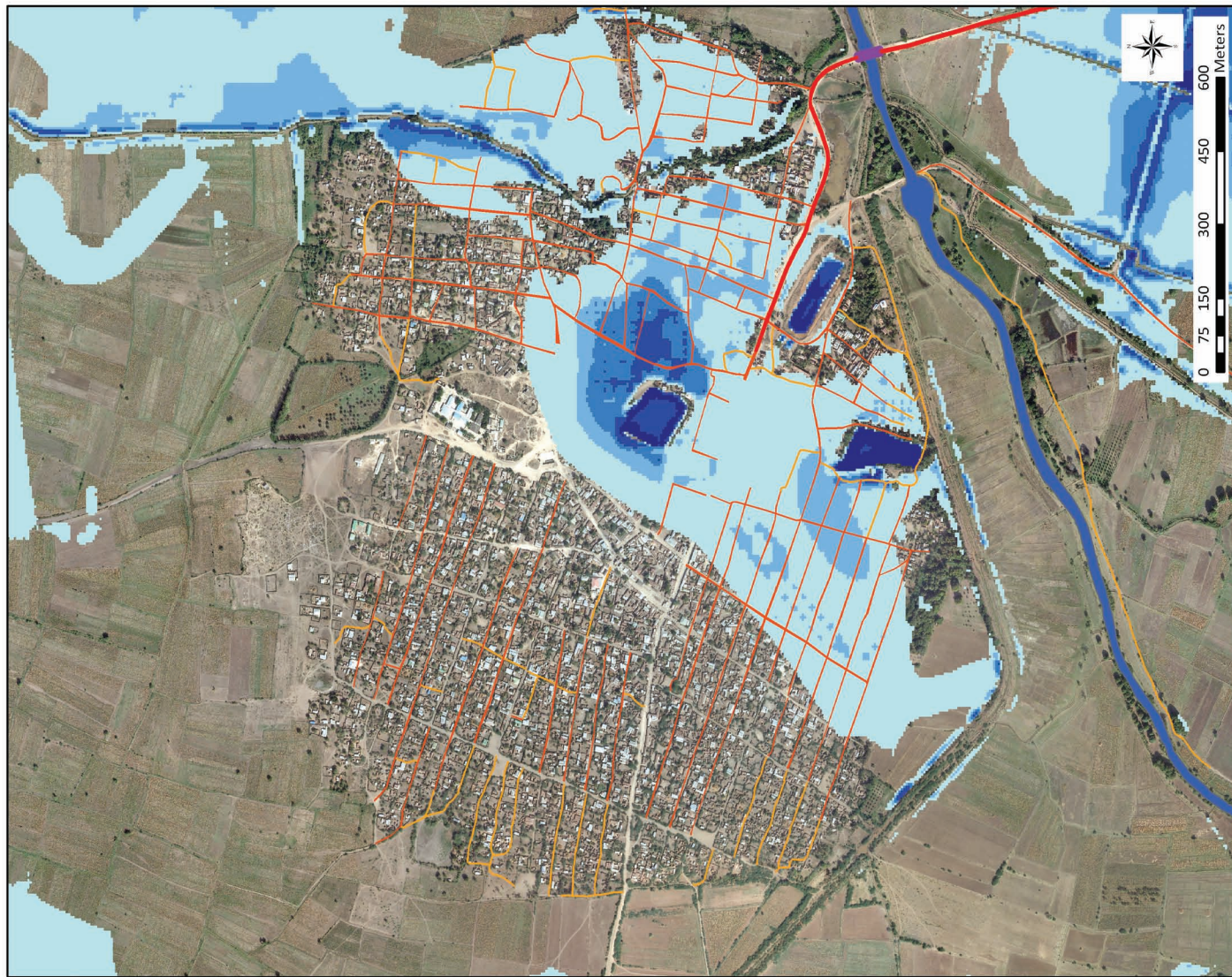
Flood water depth (m)

- 0.01 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- >2.00

- Paved road
- Unpaved road
- Trails
- Bridge
- River

Flood risk map for Qoryooley - 50 year return period

**Kharidadda halista fatahaadda ee Qoryooley
 50 sanaba soo noqota mar**



Dacdooyinka fatahaadeed oo halis ah (baaxad iyo mool) waxaa la soo saaray ayadoo la adeegsanayo HEC-RAS qaabka biyosocodka lagu cabiro. Waxa ku jira meesha waa xogta socodka wabiga oo laga cabiray jeexyada gudban, DTM. Haddii aad macluumaad dheeraad ah aad u baahato SWALIM kala soo xiriir (enquiries@faoswalim.org)

Flood risk map for Qoryooley - 100 year return period

**Kharidadda halista fatahaadda ee Qoryooley
 100 sanaba soo noqota mar**

