REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat 1818 H Street NW
MSN N7-700
Washington, D.C., 20433 U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Regular
Country/ies:	Mongolia
Title of Project/Programme:	Ger Community Resilience Project (GCRP)
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	United Nations Human Settlements Programme
Executing Entity/ies:	World Vision Mongolia, the Asia Foundation (tbc)
Amount of Financing Requested:	US$**7,965,889** (in U.S Dollars Equivalent)

Project / Programme Background and Context:

The Problem

Mongolia is a landlocked, lower middle-income country in North-east Asia, bordering Russia to the North and China to the south and situated between 41°35'-52°06'N latitude and 87°47-119°57'E longitude. The country's geography is characterized by high mountains in its north, west and central areas, with numerous peaks over 4,000m above mean sea level, and a high steppe, giving the country an average altitude above mean sea level of around 1,500m.

Mongolia's capital, Ulaanbaatar, is also the country's primary population centre and its economic engine. Mongolia had a population of 3,409,939 in 2021[1], while Ulaanbaatar's population was 1,639,172. Its population growth projection is estimated at 3.67 per cent per year, meaning that another million people will be added to the city by 2035.[2]

Ulaanbaatar, accounts for two-thirds of Mongolia's urban population and 48% of the nation's population. Ulaanbaatar's population more than doubled from 773,000 in 2000, representing an annual average increase of 3.1%. This growth was due to large in-migration from rural areas, due to:

(i) a series of climate change related extreme events, including harsh winter storms (which are known as "dzuds"), which have occurred more frequently in recent years and have decimated entire herds of animals and forced livestock herders to move.
(ii) the transition to a market economy, which means economic opportunities are developing much more rapidly in the cities than in rural areas, and
(iii) the right of Mongolian citizens to decide where to live that was reinforced first in 1992 in the Mongolian Law, and then in the Land Law of 2002, securing land rights and social benefits. In Ulaanbaatar, these laws ensured each resident a plot of land of 700 m2 on average.

These factors have reshaped the geography of the capital city and generated vast, sprawling peri-

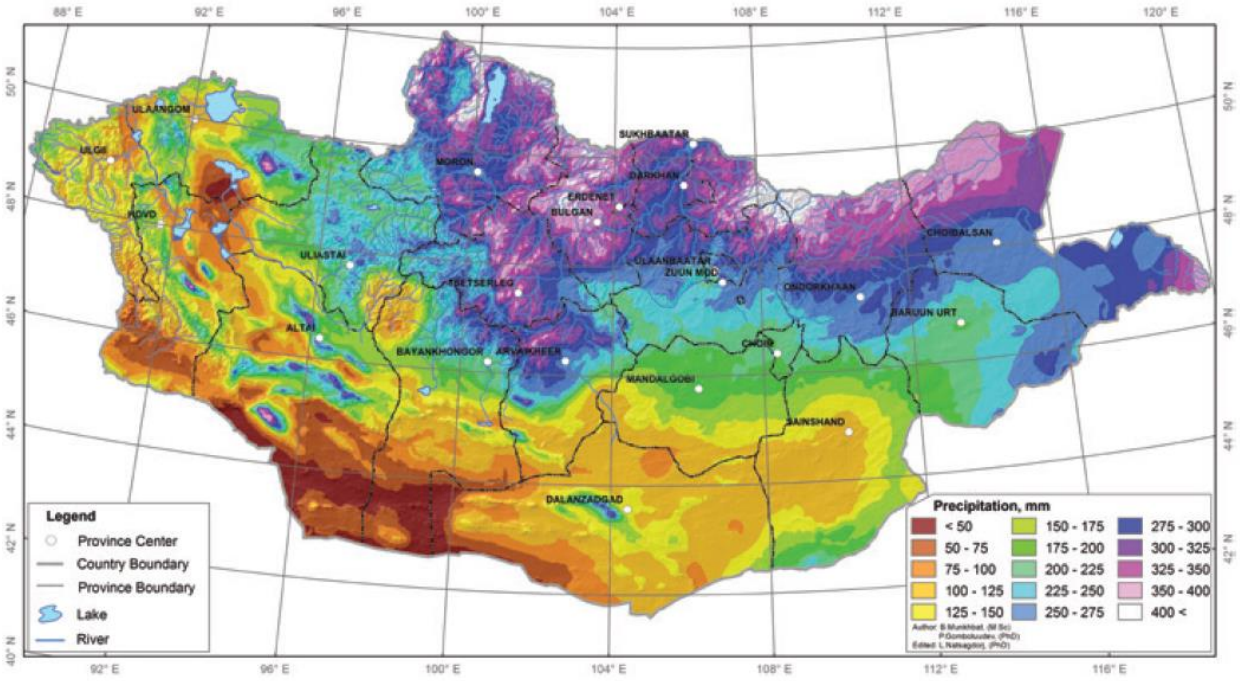
[1] National Statistical Office of Mongolia
[2] National Statistical Office of Mongolia (2017), Renewed 2015-2045 Population Projection, p.100

urban areas known as ‘Gers' covering an area of about 350 square kilometres where 60% of Ulaanbaatar’s population and 30% of the country’s population – around 774,000 people live.

Given Mongolia’s location at the centre of the Eurasian continent, its mountainous and high steppe topography and its northerly latitude, it has a cold and harsh climate. Ulaanbaatar and much of central and northern Mongolia are classified as having a monsoon influenced sub-arctic climate. This is characterized by a long winter with extremely cold temperatures. Daily minimum temperature in Ulaanbaatar in winter is typically between -25 and -30°C. The short summer, in July and August, can see daily maximum temperatures of around 20°C. The annual average temperature in Ulaanbaatar is -2.9°C.

Precipitation levels are generally low, with most areas of the country receiving between 150 and 350milimetres of precipitation per year.

Figure 1 - Spatial Distribution of Precipitation[3]



While almost 50 percent of Mongolia’s population lives in Ulaanbaatar, much of the remaining rural population are pastoralists and livestock herders. These people are severely affected by Dzuds. Dzuds are harsh winter storms followed by a severe freeze which prevents animals from being able to graze. A Dzud in 2008, for example, killed 200,000 livestock, as well as 52 people.[4]

Economic Context

The effects of the Covid-19 pandemic notwithstanding, Mongolia has seen rapid periods of economic growth; following an economic boom in the period 2010-2013, growth fell slightly, but the economy still grew by 5.6%, 7.7% and 5.6% in 2017, 2018 and 2019, respectively.[5] Like many countries, Mongolia suffered the effects of the COVID-19 pandemic. Officially, the country recorded 921,000 cases of Covid-19, meaning that at least one in four people caught the disease, while there were 2,179 officially recorded deaths.[6]

The economy contracted by 4.4 per cent in 2020 and showed modest economic growth of 1.4 per cent in 2021. Projections show a modest recovery continuing in 2022, with growth forecast at 2.5

[3] Ministry of Environment and Tourism (2018), Third National Communication of Mongolia, p.57
[4] https://web.archive.org/web/20121202050714/http://www.channelnewsasia.com/stories/ afp_asiapacific/view/351407/1/.html
[5] World Bank Data. Accessible here: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2020&locations=MN&start=1982&view=chart
[6] John’s Hopkins CSSE COVID-19 dataset

per cent.[7] The country faces other economic headwinds, including very high inflation (14.4 per cent in March 2022), and numerous external challenges, including continued border closures with China, the fallout from the Russia-Ukraine conflict and global high commodity and oil prices.[8] The impact of these challenges on urban poor settlements in Ulaanbaatar, the type that will be targeted by this project, are as yet unclear.

Irrespective of present macroeconomic challenges, Ulaanbaatar is the engine of Mongolia's growth, combined with few livelihood opportunities in the rural areas, the impact of droughts and Dzuds, rural-urban migration levels have been persistently high, and have been driving the population growth of Ulaanbaatar described above. Given that Mongolia's 2nd largest city, Erdenet, had a population of just 104,612 in 2021, the primacy of Ulaanbaatar means that other Mongolian cities are not attracting rural-urban migrants in the way that Ulaanbaatar is.

Ulaanbaatar was originally planned as a city for as few as 500,000 people, and has therefore reached a population level up to 3 times what it was designed for. The consequence of this is that recent migrants, the poor and vulnerable tend to live in Gers; informal or semi-formal areas at the edge of the city. Ger areas are characterized by higher levels of poverty, social issues, a lack of infrastructure, fewer economic opportunities, and, increasingly, vulnerability to climate change.

Ulaanbaatar is divided into local administration units known as districts and 'Khoroos', roughly equivalent to a ward. Re-districting exercises have been undertaken by the Municipality of Ulaanbaatar city time to time to improve people's access to the essential public services and amenities in response to the population growth. After a re-districting exercise in April 2022, there are 9 districts and 203 Khoroos in Ulaanbaatar. This project primarily works in six Khoroos of two districts, though its activities will directly impact several others (this is explained further in Part II, Section A of this concept note).

Social Context

Successive waves of rural-migration and the construction of Ger tented areas combined with (i) little upgrading or extension of basic urban services; and (ii) government policy, since 2003, to grant each citizen about 700 square meters of land have reshaped the city's geography.

The Ger areas mean that Ulaanbaatar is characterized by a large area of low-density urban sprawl and although people have been given plots, the areas are largely unplanned. These sprawling Ger areas are almost entirely low-income areas, lacking basic infrastructure such as roads and reliable water and electricity. Other social problems, including alcoholism, crime and violence are more prevalent in the Ger areas, and tend to correlate with higher levels of poverty and fewer social and economic opportunities.

The Urban Poverty Profile – generated as part of the Citywide Pro-poor "Ger Upgrading Strategy and Investment Plan" (GUSIP) programme by Cities Alliance and UN-Habitat in collaboration with the Government provides a snapshot of Urban Poverty in Ger Areas of Ulaanbaatar City in 2005, which remains relevant today (Figure 2); Figure 3 shows the poverty headcount in 2014, based on a study conducted by the World Bank – this shows little change in the distribution of poverty compared to the 2005 study, despite the increase in Ulaanbaatar's population and economic growth over this time period.

Female-headed households make up roughly 25% of homes in Mongolia. Data from Participatory Living Standards Assessment of the National Statistics Office (NSO) have identified that a disproportionate number of women-headed households are living in poverty and that the proportion is growing. Women are limited in their opportunity to engage in livelihood or employment opportunities because of the tasks at home. Those employed or engaged in small enterprises, need to work longer hours than men do to manage tasks both at home and at work.

[7] World Bank - https://www.worldbank.org/en/news/press-release/2022/04/19/mongolia-reforms-crucial-to-navigate-stronger-headwinds#:~:text=Following%20a%20contraction%20of%204.4,of%20the%20war%20in%20Ukraine.

[8] Ibid.

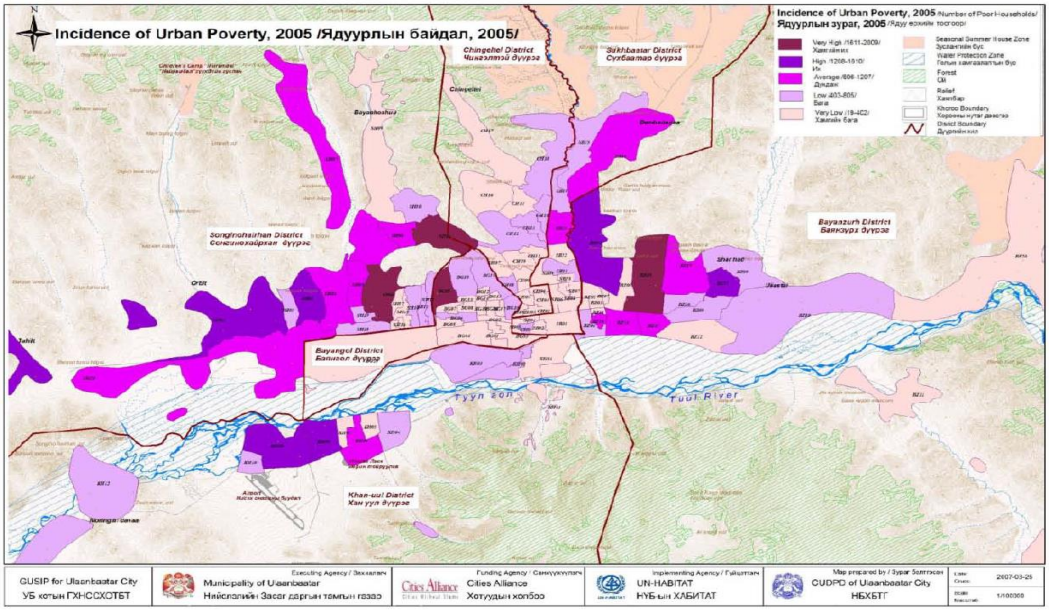


Figure 2 - 2005 Urban Poverty Profile of Ulaanbaatar

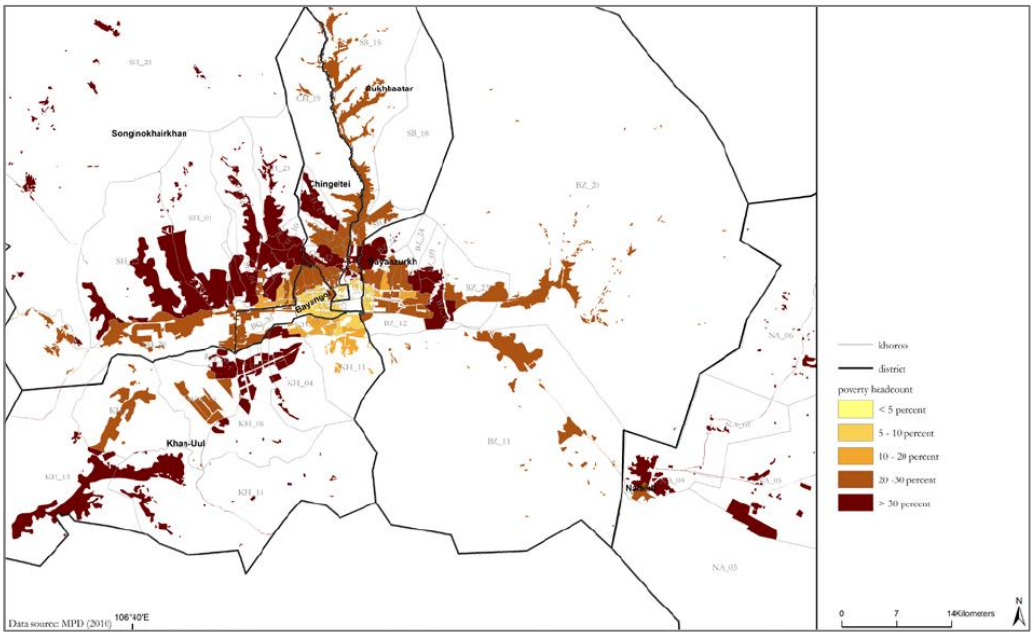


Figure 3 - Poverty Map, World Bank Study in 2014

The social and economic problems highlighted above have arisen – at least in part – from a lack of long-term planning, infrastructure investment and effective land use regulation and the resultant haphazard development. People living in Ger areas are therefore poorly connected to the city core, more vulnerable to shocks including the impacts of climate change. Moreover, the absence of the necessary planning and governance pre-conditions for inclusive, effective and sustainable urban development means that Ulaanbaatar's problems – and especially problems in the Ger areas are likely to worsen – even before the impacts of climate change are considered.

While various government and development partner initiatives have significantly improved living conditions in Ger areas, approaches have generally focused on specific sectors such as health or education, failing to design a sustainable vision and provide integrated solutions for the problems vulnerable people living in peri-urban areas.

Environmental Context and specific climate change-related issues in the target area

While Mongolia's topography is varied, there a rough north-south divide, with the north characterized by rugged mountains and a sub-arctic climate and much of the south characterized by the Gobi Desert. The most mountainous area is the north-west with peaks of over 4,000 meters. Ulaanbaatar sits in a bowl-shaped valley in the north central part of the country, just inside the area classified as

having a sub-arctic climate.

Mongolia is rich in mineral resources such as gold, silver, coal, precious stones, and gravel. Its mining sector is among the driving economic forces in the country; however, these industrial activities are a major cause of parts of rivers becoming heavily polluted. Rivers, such as the Tuul River for example, are not only utilized for industrial purposes, but also for household and drinking water consumption. The Tuul River is among the most polluted fresh water sources in the country. It flows through the centre of Mongolia as well as Ulaanbaatar, including some of the peri-urban Ger areas targeted by this project.

Other environmental issues affecting Ulaanbaatar but not directly relating to climate change include air pollution, stress on water resources, urban sprawl that affects adjacent natural areas and rapidly worsening traffic problems. Heating homes during the winter is a constant challenge in Mongolia, considering the extremely cold temperatures. The government recently banned burning raw coal, which had been the primary source of heat. This action has had a significant impact on air quality. Nevertheless, the city still suffers from substantial air pollution.

People living in Ger areas, such as those to be targeted by this project often experience the worst of Ulaanbaatar's environmental issues. Ger areas are characterized by flooding, water scarcity, extreme cold, and, in recent years, bursting water springs. Floods often occur due to degradation of the land water retention capacity and urbanization in the hilly, steep sloped areas. These floods and other climate change related environmental problems should be seen as interactive with and exacerbators of the socio-economic problems highlighted above.

There is a network of 50-60 natural water springs running at a depth of 1.5-2.5 meters below Ulaanbaatar. These are fed by water sources in the hills to the north of the city and run roughly in a north-south direction. These springs are becoming increasingly susceptible to a phenomenon where differences between the surface and underground temperatures means the springs can burst unexpectedly and cause localized flooding. Because this phenomenon primarily happens in winter, the flood waters turn immediately to ice and then damage homes, property and infrastructure. This problem, referred to as bursting springs in this concept note, is a major focus of this proposed project.

Figure 4 - Spring that has emerged and re-frozen during winter, with flowing water to the surface

Climate Change Issues

According to Mongolia's Third National Communication (3NC), the near surface temperature increased by 2.24°C in the period 1940-2015. The warmest 10 years in the dataset all occurred since 2000.[9] Projections for the period 2016-2035 show a temperature increase of between 2°C and 2.3°C, depending which emissions scenarios are used, but could increase by as much as 6.3°C by 2100 under the high emissions RCP8.5 scenario[10]. Downscaled projections for Ulaanbaatar specifically show a temperature increase between 1.7°C and 3.2°C depending on the model used.

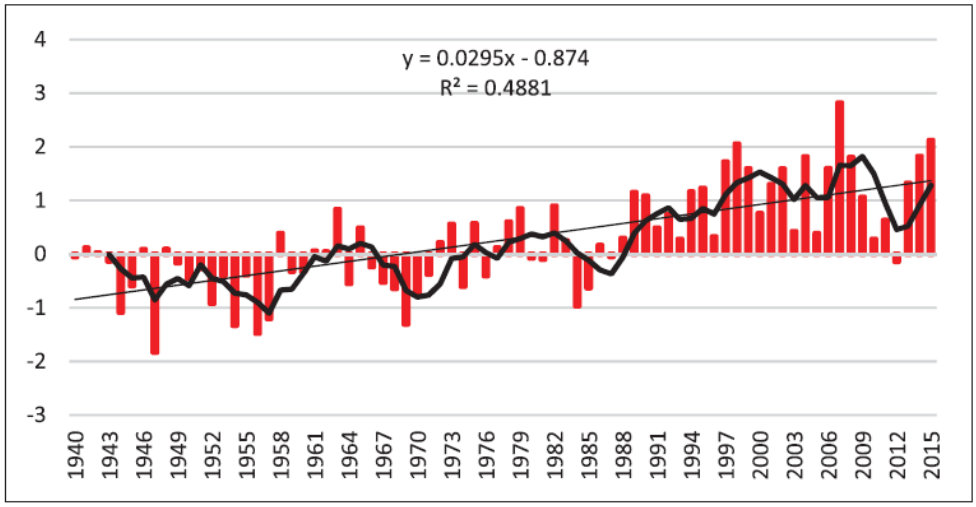


Figure 5 - Annual mean temperature deviation 1961-1990, relative to the baseline[11]

In line with these temperature increases, frost days have decreased by around 15 per year, while warm summer days have increased by about 19 per year (as show in Figure 5). Ulaanbaatar (along with the far western region) has seen some of the most significant increases in unusually warm days. Dzuds – extreme winter storms and freezes – are taking place more frequently, and the most serious events in recent years occurred in 1999-2000, 2001-2002, and 2009-2010. As described above, Dzuds cause devasting impacts to livestock and herding/pastoral communities and are directly linked to waves of rural-urban migration.

There has been little discernable change in precipitation nationwide. With a 7 per cent decrease in rainfall over the 1940-2015 period, nationwide, with no statistically significant change observed in Ulaanbaatar. However, there has been a substantial increase in winter snow – 22 per cent increase

[9] Third National Communication (2018), p.33
[10] Ibid.
[11] Third National Communication, (2018), p.122

between 1940 and 1960 and a further 40 per cent increase in the period 1961-2015. The 3NC points out that this increase is very likely to be climate change related.[12]

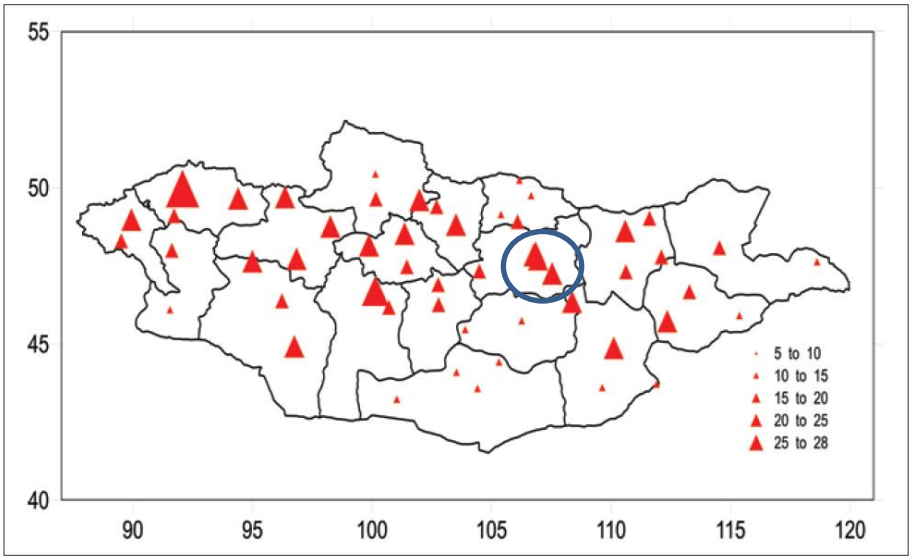


Figure 6 - Changes in warm days, Ulaanbaatar circled[13]

The vulnerability assessment undertaken for the 3NC showed a moderate climate change risk for water resources and a substantially increasing risk for melting permafrost (See Figure 7). This correlates with the observations of the communities that bursting springs are an increasingly common issue in the Ger areas on the periphery of Ulaanbaatar.

According to the climate change simulation that was conducted under the ongoing Adaptation Fund-funded Flood resilience in Ulaanbaatar Ger Areas project, the seasonal air temperature in Ulaanbaatar areas is projected to be increased by 1-1.5°C in 2016-2035 (2030), 1.3-3.1°C in 2046-2065 (2050), 1.2-5.6°C in 2081-2100 (2080) under different GHG scenarios with the respective precipitation increase by 2.8-12.1%, 6.2-30.7% and 5.1-52.4%.

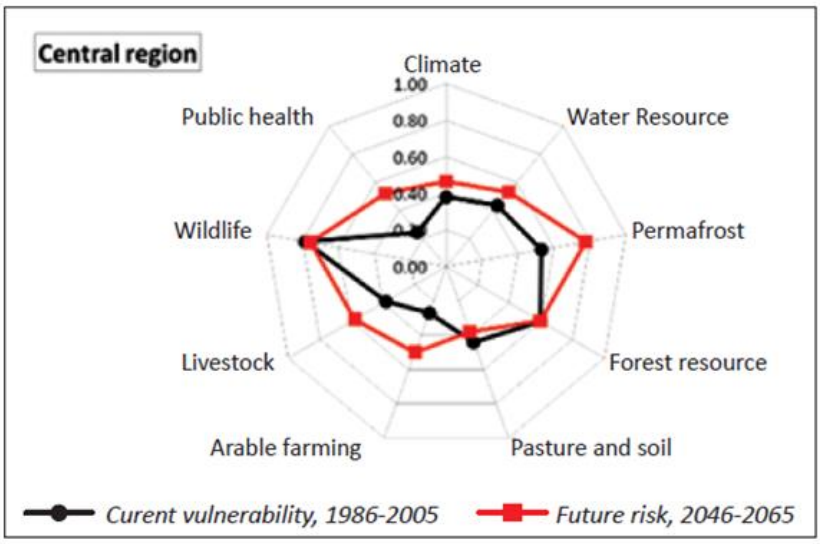


Figure 7 - Vulnerability in different sectors in the Central Region of Mongolia. Note that Water Resources and Permafrost are both drivers of flooding in broader vulnerability in Ulaanbaatar's peri-urban Ger areas.

Consequently, the daily maximum rainfall amount is expected to increase by 26% in 2030, 41% in 2050 and 53% in 2080. Based on the above results of the simulation model, the maximum flood discharge of the streams and rivers and spatial distribution of maximum flood runoff in Ulaanbaatar Ger areas and the target areas were calculated, and the mapping of current inundation and future

[12] ibid
[13] Third National Communication, p.126, circle added by proposal authors

flood risks was done. Please refer to Figure 11 for current inundation patterns and Figures 12-14 for projected future inundation in 2030, 2050 and 2080 respectively. Ulaanbaatar city experienced its most disastrous flooding in 1966, which is considered a 100-year flood event. Climate variables from that flooding were used as a peak scenario for the flood simulation under presented in Figures 12-14.

The simulation results show that approximately 24.9 км2 areas in the Northern Ger areas of Ulaanbaatar are currently at risk of inundation and the areas with flood risks will further increase by 12.5% in 2030, 20.8% by 2050 and 28.7% by 2080 due to further increases of temperature and daily maximum rainfall amounts. Overall, as per the simulation, depending on geomorphological condition of the floodplain and urbanization the areas with flood risk are expected to increase by 9.5-21.4% in 2030-2080.

Based on data from Buyant-Ukhaa meteorological station located 22 km south-west of downtown of Ulaanbaatar, which has longest available observation time series for Ulaanbaatar, the annual mean temperature in Ulaanbaatar increased by 2.6ºC over the last 75 years (0.4ºC greater than the average for Mongolia as a whole) and precipitation decreased by 5% over the same time period. In terms of seasonal change, winter temperatures increased by 3.7ºC, while the spring and autumn temperatures increased by 2.5ºC and 2.2ºC respectively. Precipitation increased by 38% in winter and 57% in spring, while it decreased by 13% in summer and 9% in autumn (Table 1). This indicates that the general warming trend intensity is greater in the cold season. The data indicates that precipitation is increasing in the cold season and decreasing in the warmer season.

Table 1. Present change of seasonal climate in Ulaanbaatar city, 1940-2015

Season	Temperature,ºC		Precipitation, mm	
	1961-1990 baseline average	Change	1961-1990 baseline average	Change
Winter	-22.5	3.7	5.2	2.0 (38%)
Spring	-0.2	2.5	24.0	13.6 (57%)
Summer	15.3	2.2	184.0	-24.1 (-13%)
Autumn	-2.4	2.2	35.6	-3.1 (-9%)
Annual	-2.5	2.6	248.7	-11.7 (-5%)

As result of the warming, the number of hot days with a daily maximum temperature exceeding 30ºC, has increased significantly since 1995 and increased by 12 days per year over the period of 1966-2018 (Figure 8). In terms of daily rainfall, the number of heavy rainfall days, with occurrences of over 30-35 and 40-45mm rainfall have also increased significantly (Figure 9).

Climate extreme indices and future projections were also developed under the same study for the period 2016-2100. Projections for temperature and precipitation are presented in Table 2, below.

Table 2. Future projection of climate extreme indices in Ulaanbaatar

Variable	Name indices (unit)	Multi-year average	Projection of change in 2016-2100
Air temperature	Below freezing day, (days)	240 days	-46.3*[14]
	Growing season length, (day)	151 days	40.4
	Annual maximum of maximum temperature, (ºC)	34°C	4.9*
	Annual minimum of minimum, (ºC)	-25°C	5.4*
	Duration of heat wave, (day)	33 days	71.7
	Cold wave duration, (day)	21.1 days	-3.9*
Precipitation	Simple daily precipitation (mm)	5.9mm	0.3*
	Maximum 5 days precipitation, (mm)	42.2mm	3.5*
	Maximum number of consecutive wet days, (day)	3.8 days	1.3

[14] * Means that data has a statistical significance

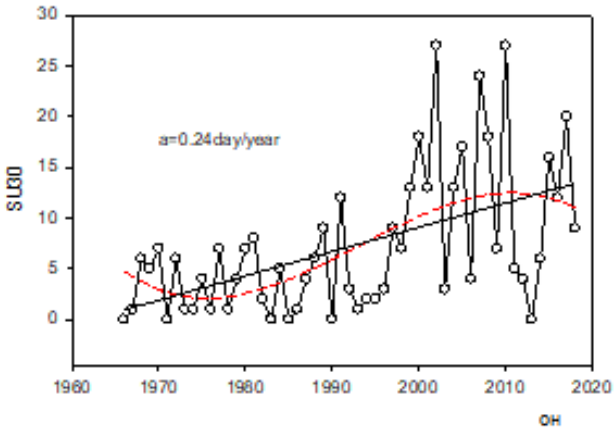


Figure 8 - Change in number of days, which has daily maximum temperature exceeding 30°C in Ulaanbaatar

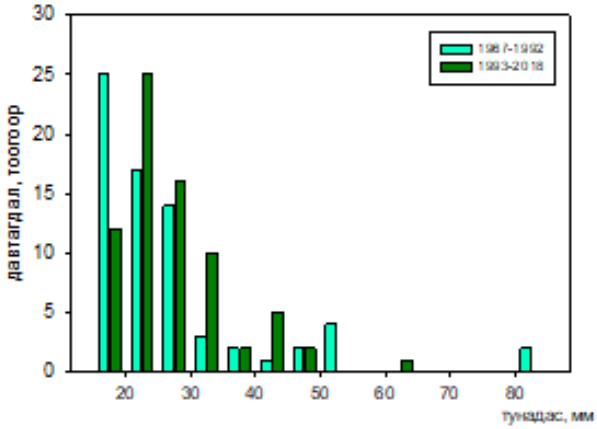


Figure 9 – Frequency of daily precipitation with different amount[15]

The spatial distribution of flood risk was calculated from the numerical value of the maximum runoff during the 1966 flooding, as shown in Figure 11. The estimated flood peak discharge was 50-100 m^3/sec in the upstream area of the Selbe River and 100-200 m^3/sec 200-250 m^3/sec in mid and lower sections of the Selbe River, respectively. Similarly in the case of the Uliastai River, the estimated flood peak discharge was 50-200 m^3/sec, 200-350 m^3/sec and 300-400 m^3/sec, in the upstream, mid and lower downstream sections of the river, respectively.

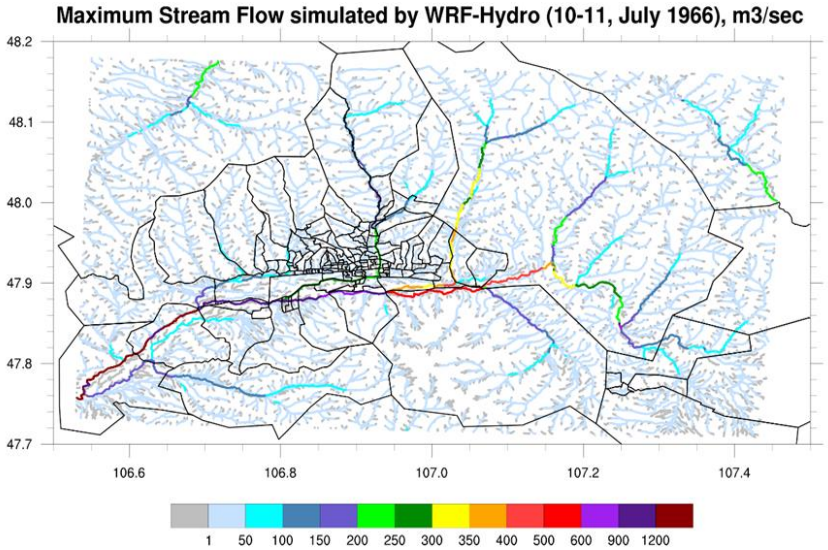


Figure 10. Simulated current maximum flood peak discharge

[15] Note that the horizontal axis shows the amount of precipitation in millimeters. The vertical axis shows the frequency of the precipitation

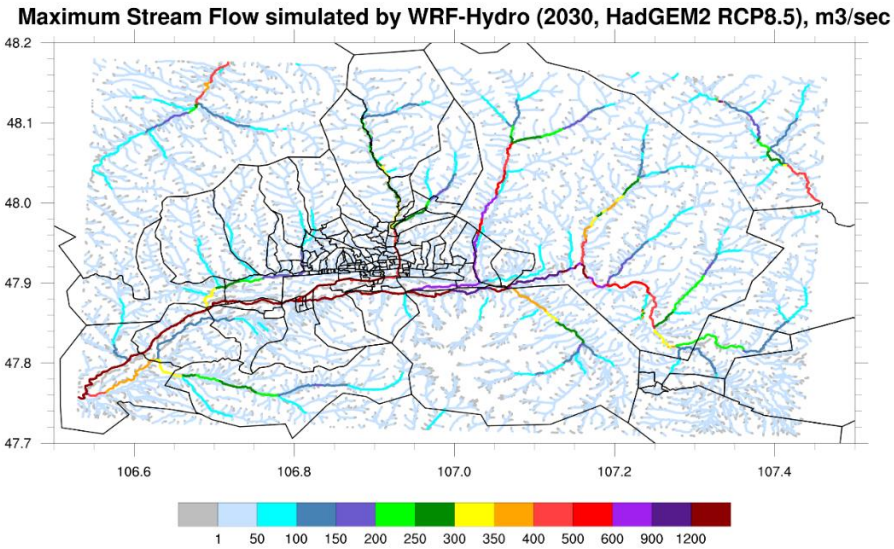


Figure 11. Simulated spatial distribution of maximum flood discharge around Ulaanbaatar, m3/sec for 2030

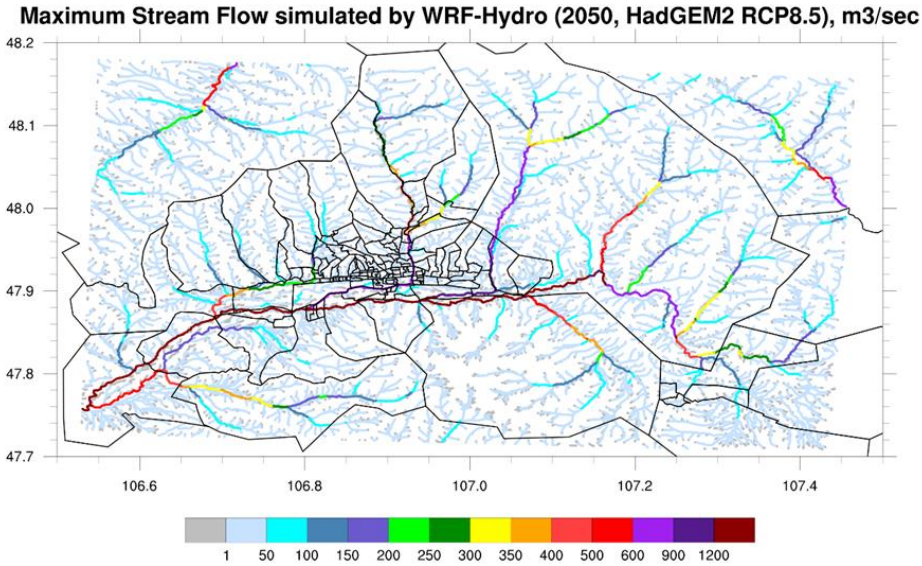


Figure 12. Simulated spatial distribution of maximum flood discharge around Ulaanbaatar, m3/sec for 2050

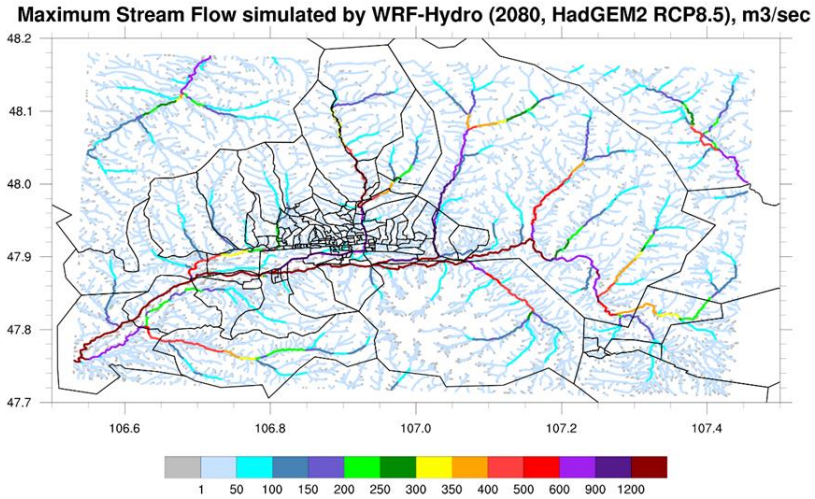


Figure 13. Simulated spatial distribution of maximum flood discharge around Ulaanbaatar, m3/sec for 2080

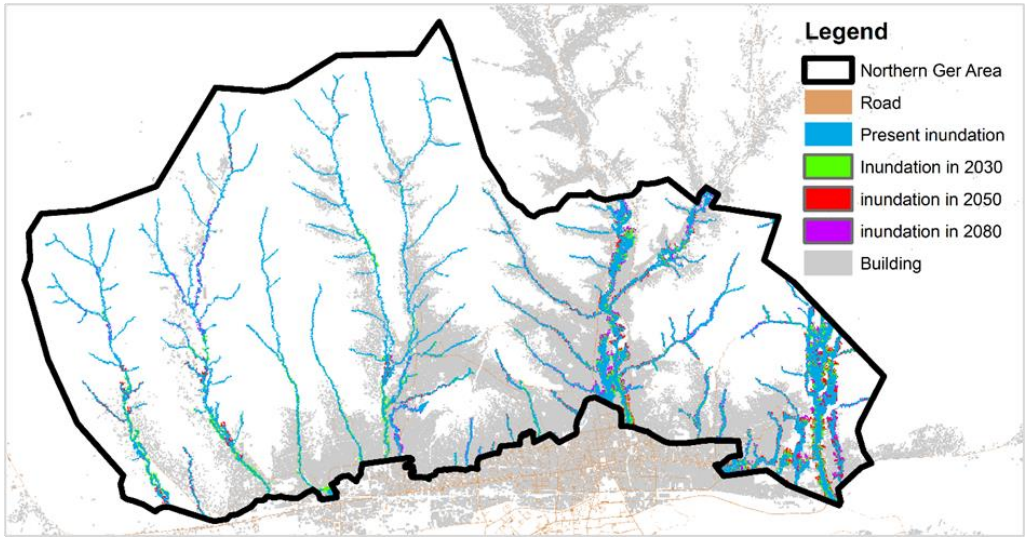
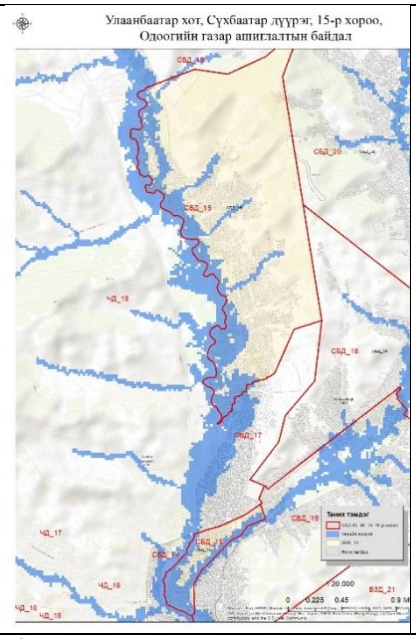
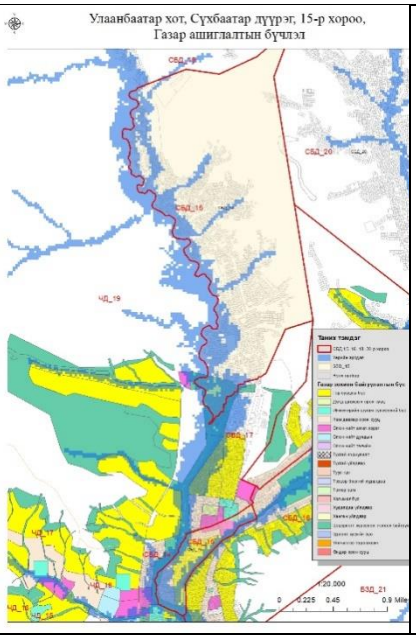
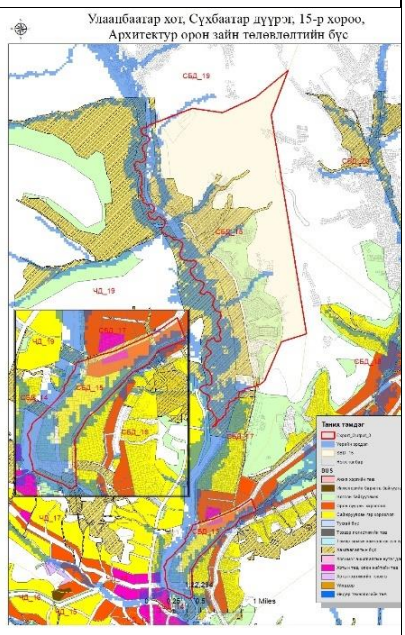
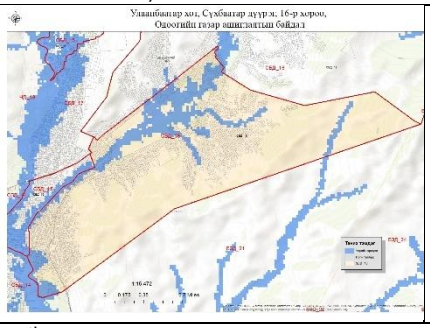
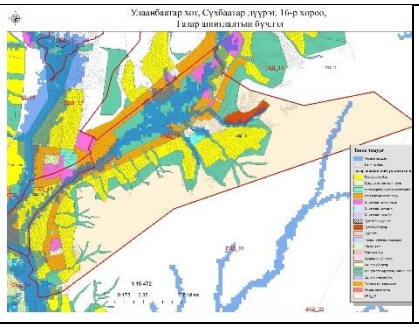
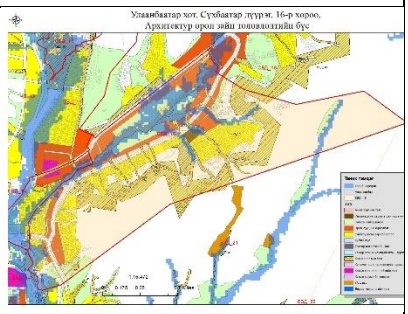
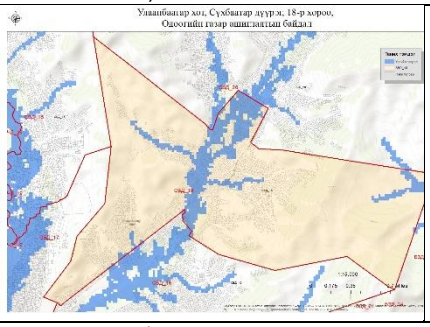
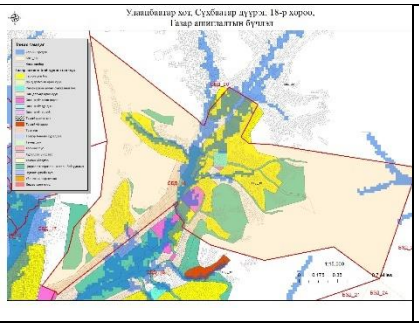
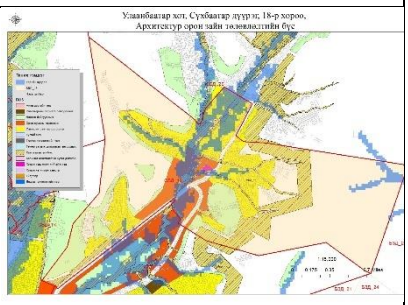


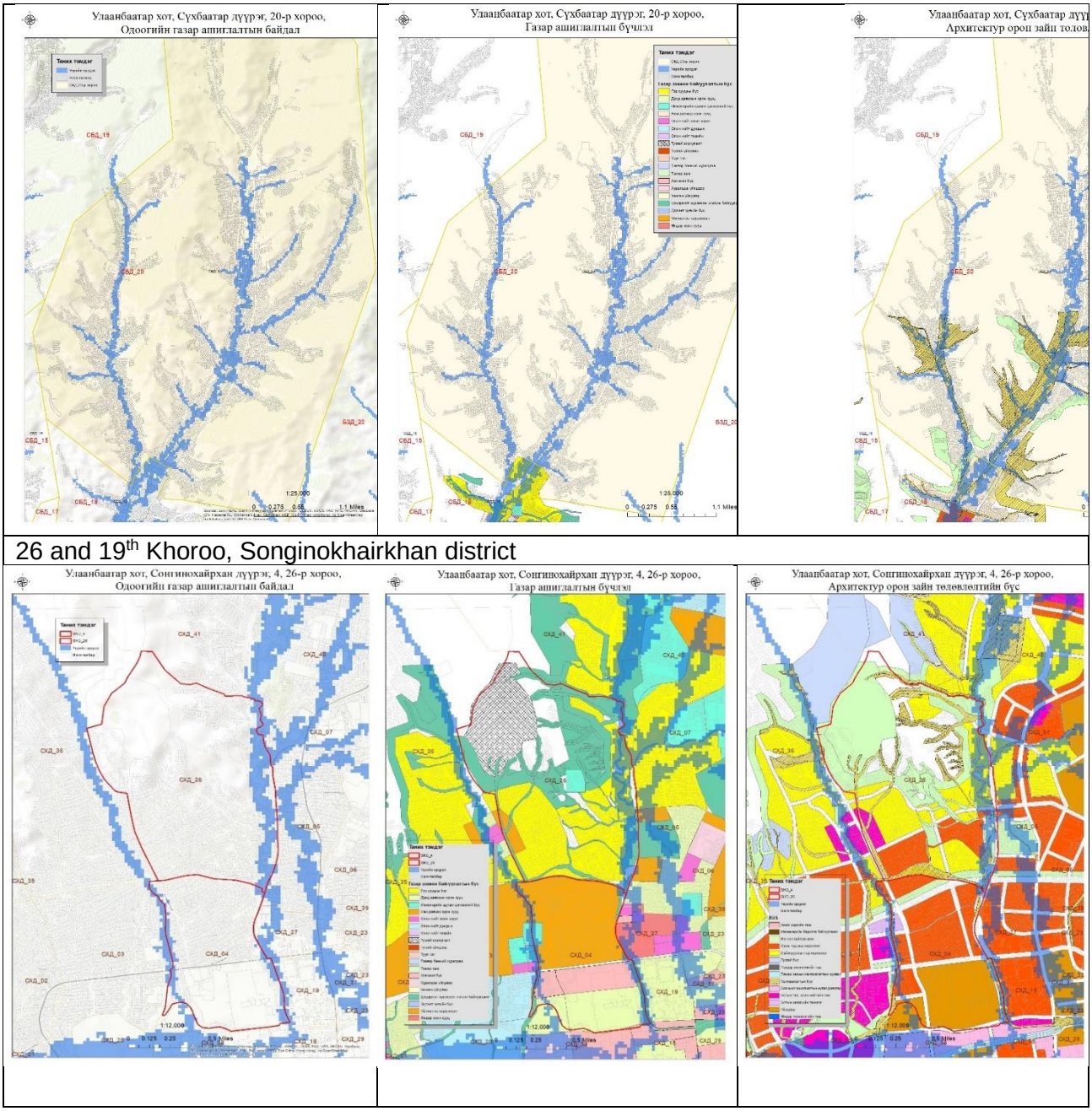
Figure 14 - Current and future flood risk map of northern ger areas of Ulaanbaatar City

During the study, the team also reviewed the current land use and future land use plans for the northern ger areas of Ulaanbaatar against the flood risk maps. Figure 14 shows the current and future flood risk areas in the northern ger areas of Ulaanbaatar city. Table 3 illustrates review results of the current and future land use against the flood risk map in the cases of 6 khoroos of Ulaanbaatar ger areas which the current project proposal focuses on.

Table 3. Present and future flood risks in the selected vulnerable khoroos in Ulaanbaatar ger areas versus land use and development plans under the current Urban Development Master Plan[16]

Flood risk and the current land use	Flood risk and Land Use Plan under the current city Master plan	Flood risk and Spatial Development Plan under the current city Master plan
15th Khoroo of Sukhbaatar District		
		
16th Khoroo, Sukhbaatar District		
		
18th Khoroo, Sukhbaatar District		
		
20th Khoroo, Sukhbaatar District		

[16] Larger maps will be provided at the full proposal stage when annexes are allowed



The first column of the Table 3 shows that in the 6 khoroos highlighted, the numbers of population, areas and social infrastructure that are at risk of flooding. The 2nd and 3rd columns show that numbers of development activities that have been planned under the current Urban development master plan of the city without consideration of flood risk. The review's conclusion is that the existing flood risk will be increased in the future and more people and assets will be under flood risk if development continues under a business-as-usual scenario.

One of the observations during the ongoing AF project implementation by is that the flooding caused by heavy rain is not the only challenge for the underdeveloped ger areas in Ulaanbaatar city. Ger communities suffer from 3 types of flooding throughout a year. Apart from the flooding caused by heavy rain during the summer, there is the winter flooding from bursting springs and spring flooding from snow and permafrost melts. The number of burst springs in winter in the northern ger areas has been increased in recent years due to permafrost melting, creating a very challenging situation for households to cope with. When households are affected by flooding from burst springs, there are not much options for households other than leaving the home to live somewhere else (which they often have to rent – driving poverty) and returning when the situation improves. Figures 16, 17 and 18 show photos of different types of flooding in ger areas.

Figure 15. Winter flooding from burst of a spring









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Figure 16. Spring flooding from ice melt

Figure 17. Summer rain flooding

Project / Programme Objectives

Main objective

The main objective of the proposed project is to enhance the resilience of communities in six Khoroos of Ulaanbaatar to floods caused by snowmelt, bursting springs and melting permafrost. This objective will be achieved through four components that seek to achieve the following objectives:

1) Enhance the policy and regulatory environment at the national and city level to reduce risks and enhance adaptive capacity in the future in terms of changing climate in urban areas

2) Build capacity at the national, city and community level to adapt now and in the future
3) Reduce risks from flooding through physical infrastructure in the target areas
4) Improve and enhance the knowledge base to sustain and replicate the project's gains.

Over 75% of the project's investment (excluding Project Cycle Management Fee) will be in the physical infrastructure component. This reflects the preferences of the communities, khoroo and city administrations and national government. The effectiveness and sustainability of the infrastructure will be supported through the other Components, especially Components 2 and 4. Activities under the policy component (Component 1) will ensure that urban adaptation priorities in Ulaanbaatar and elsewhere – which meet the needs of two-thirds of Mongolia's population – are mainstreamed into future updates of the NDC and Mongolia's forthcoming National Adaptation Plan (NAP).

Project / Programme Components and Financing

Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
Component 1 – Enhance the policy and regulatory environment at the national and city level to reduce risks and enhance adaptive capacity in the future	1.1 Identify adaptation needs in the urban development sector: 1.2 Review of existing adaptation policy and regulations from the urban context and suggest required integration of urban adaptation measures 1.3 Detailed Khoroo and District level flood/hazard risk, exposure and vulnerability assessment reports prepared for the selected Ger areas 1.4 Integration workshops held to ensure that urban adaptation is prominently featured in Mongolia's NAP and 2025 NDC update, and climate change adaptation considerations are mainstreamed into future urban-related policies and plans 1.5 Urban adaptation mainstreamed into local government policy and planning in the target areas	Mongolia's climate change (NDC and NAP), urban and sub-national policies and plans reflect urban adaptation considerations and future financing needs	282,498
Component 2 – Build capacity at the national, city and community level to adapt now and in the future	2.1 Capacity building programme implemented at the sub-national level to plan for and manage urban adaptation actions 2.2 Capacity building programme implemented at the community level to manage and maintain small-scale adaptation infrastructure 2.3 Capacity built to meet future urban adaptation financing needs and community-based disaster risk reduction and assets protection trainings	Mongolia has the capacity in place to plan for, design, manage and finance its future urban adaptation needs	394,793
Component 3 – Reduce risks from flooding through physical infrastructure in the target areas	3.1 Technical studies – Engineering and hydrological - required for flood protection in the selected areas 3.2 1.54 km retention wall, 5.578 km urban drainage constructed, and 1.781 km drainage repaired Sukhbaatar District Khoroo 18, 20, 15, 16. 3.3 2.182 km of flood protection canals constructed in Songinokhairkhan	Physical assets developed in response to climate change impacts - specifically flood-adaptation measures	5,495,442

	District Khoroo 26 and 4. 3.4 Trees and bushes planted by the communities along the flood protection facilities to create additional resilience and broader environmental sustainability 3.5 400 flood resilient sanitation facilities constructed by the target communities		
Component 4 – Improve and enhance the knowledge base to sustain and replicate the project's gains.	4.1 Knowledge captured from project implementation and disseminated through media, web-stories and case studies 4.2 National and local government and research community have increased knowledge resources at its disposal 4.3 Bringing Global Knowledge on best practices to Implementing Partners and communities	National and local governments and communities have the knowledge necessary to manage their own adaptation planning and actions, now and in the future	471,630
6. Project/Programme Execution cost (9.5%)			697,470
7. Total Project/Programme Cost			**7,341,833**
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (8.5%)			624,056
Amount of Financing Requested			**7,965,889**

Projected Calendar

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	April 2023
Mid-term Review (if planned)	April 2025
Project/Programme Closing	March 2027
Terminal Evaluation	March 2027

Target Area (Khoroos or communities)

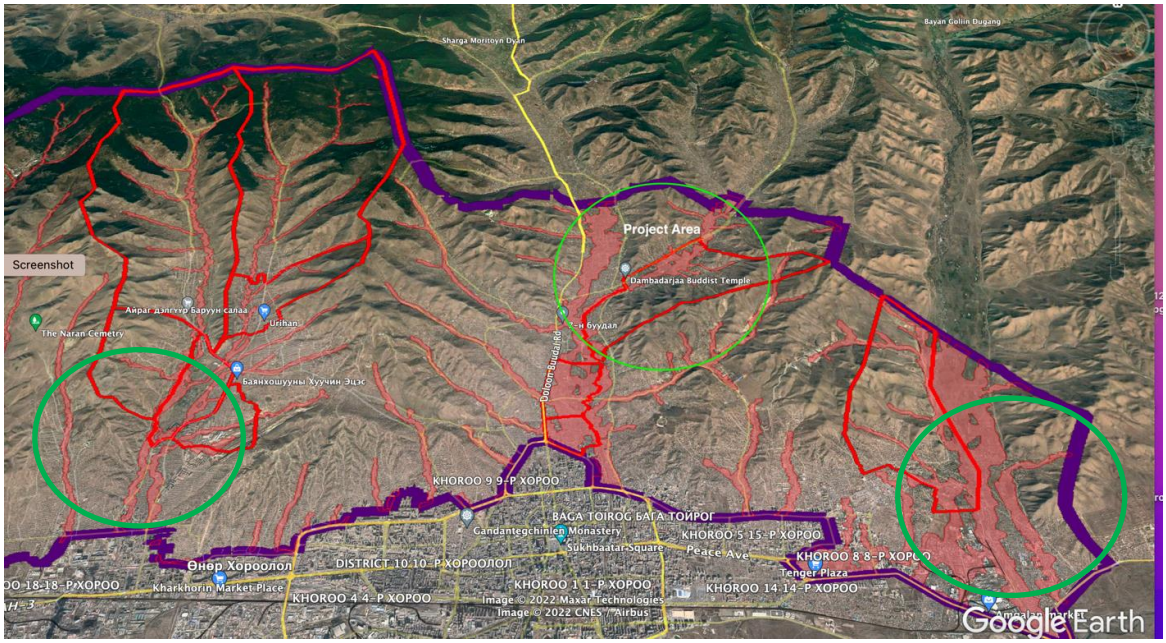
The Flood Risk Assessment and Management Strategy of Ulaanbaatar City supported by the World Bank, specified the most vulnerable target settlements for hazard and risk mapping and the production and improvement of adaptive infrastructure which were: (1) Tolgoit zuunsalaa, (2) Mon Laa (3) District III, IV flood control levee (4) Selbe river (5) Gorkhi and (6) Baatarkhairkhan Uliastai river.

The review of the information from the Municipality has identified several areas shaded in red in the map in Figure 19 that are affected by flooding. The areas circled in green were visited by the project team during the development of this concept note. The area to the left of the picture are the target Khoroos in Songinokhairkhan District and the area in the centre are the target Khoroos in Sukhbaatar District. These areas belong to two main areas of the above list and are located in the lower bed of Tolgoit zuunsalaa and an upper arm of Selbe river.

This assessment corroborates the work done by UN-Habitat, presented above, which shows that in these areas, there are two particular problems requiring attention. The increase in temperature is thawing the under-surface permafrost layer and springs are emerging at several locations typically during the winter. In spring and summer, melting snow and heavy rain leads to flash flooding, especially in river basins and areas adjacent to rivers – which is the case in much of the overall area targeted by the project.

Without effective, well-constructed embankments, drainage infrastructure and other protective measures, floods will continue to damage houses and other infrastructure. Of particular concern is the use of pit latrine type toilets, that can turn floods into a public health hazard by contaminating water and causing disease outbreaks during and after flood periods.

Figure 18. Vulnerable locations in northern Ger areas north of Ulaanbaatar and the project's three proposed target areas



The most severely affected communities are the new informal settlers who have moved into the riverbeds, gullies and areas adjacent to them. In the lower-lying Khoroos, stagnant water is an additional problem. This stagnant water, which is polluted due to overflow of the latrines, can stay for months and impedes the mobility of residents and access to critical services, with vehicles being unable to enter the Khoroo. After the summer, the stagnant and polluted water freezes, causing a further hazard, and then melts again in summer.

With this information the UN-Habitat community mobilization and technical team conducted a rapid assessment of the area the following three locations: 15th khoroo of Sukhbaatar District; 26th Khoroos of Songinokhairkhan District; and Bayanzurkh District. The international mission in March 2022 also visited the target field sites, to conduct an initial inspection.

After further consultation with the Governor's Office and the three district authorities of Songinokharkhan, Sukhbaatar and Bayanzurkh Districts, the field visit by the AF focal person from the Ministry of Environment and Tourism, the UN-Habitat team identified the below mentioned Khoroos as the most vulnerable in terms of being impacted by floods and/or areas from which run-off takes place on a frequent basis and require floods adaptation and protection work:

Area 1: Sukhbaatar District	Khoroo 15, 16, 18, 20
Area 2: Songinokharkhan District	Khoroo 26, 4
Area 3: Bayanzurkh District.	Visited by the team but not included in the proposal.

Area 1 contains a population of **32,495** persons living in 8,637 households on 6,468 plots. The prevalence of poverty in this area is approximately 20-30 per cent of the population. The area experiences frequent flooding particularly due to thawing of permafrost, bursting springs, and surface water flooding as there are no embankments around the springs and along the river to protect the houses. The residents then face serious health issues during flood periods as a consequence of floating garbage and overflowing of pit latrines.

Area 2 contains a population of **17,158** persons living in 4,869 households in 3,729 plots. The prevalence of poverty in this area is over 30 per cent. People in both Khoroos reported surface water flooding, exacerbated by a lack of drainage and overflowing pit latrines solid waste contamination during flooding periods.

The combined population of these two areas is 42,653 residents of which approximately 24,853

residents (50%) are female; of which 19,184 residents (38.6%) are under 18 years old; 5,566 are elderly (above 60 years), and 1,349 are disabled.

Figure 19. Selected area: Area 1: Sukhbaatar District - Khoroos 15, 16, 18, 20[17]

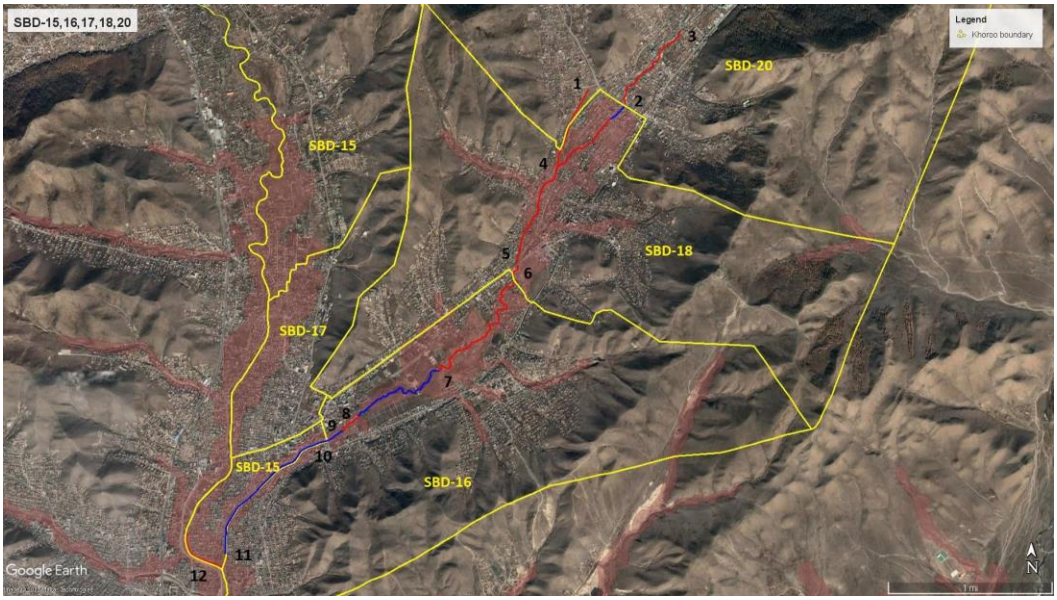
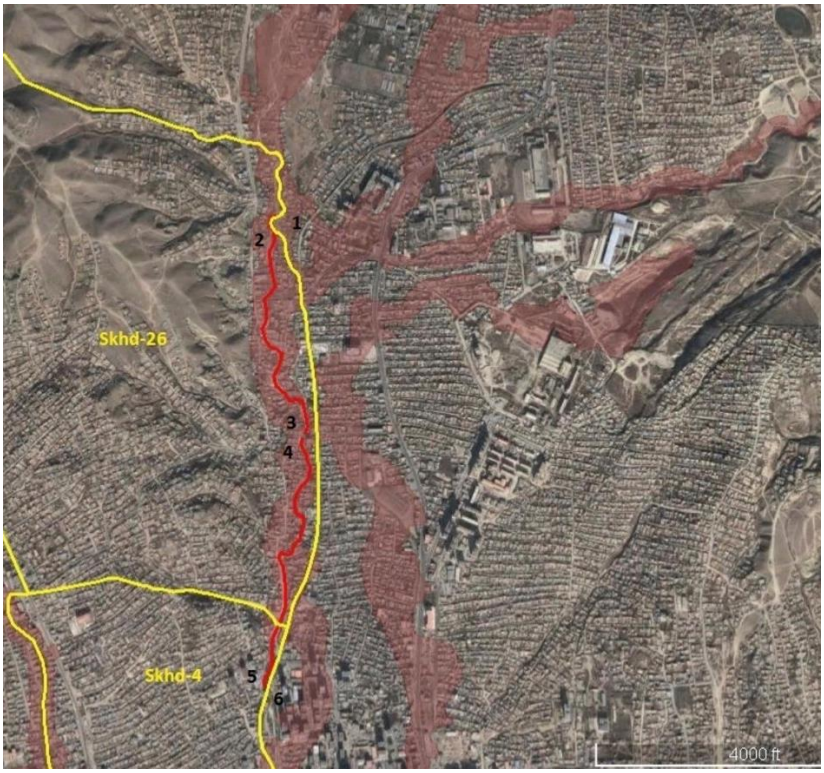


Figure 20. Selected area: Area 2: Songinokharkhan District - Khoroo 26, 4



During consultations with communities and local and national government, several adaptation options were considered. These included protection of the areas around the sites where springs frequently burst, construction of embankments, construction of improved sanitation systems, drainage and wastewater infrastructure, waste management systems and disposal, tree planting and other, softer adaptation measures. The activities proposed in the table above, and described further in Part II, Section A, are directly influenced by these consultations.

[17] Note that in the maps SBD refers to Sukhbaatar District and SKHD to Songinokhairkhan Districts. The numbers are used for Khoroo ID.

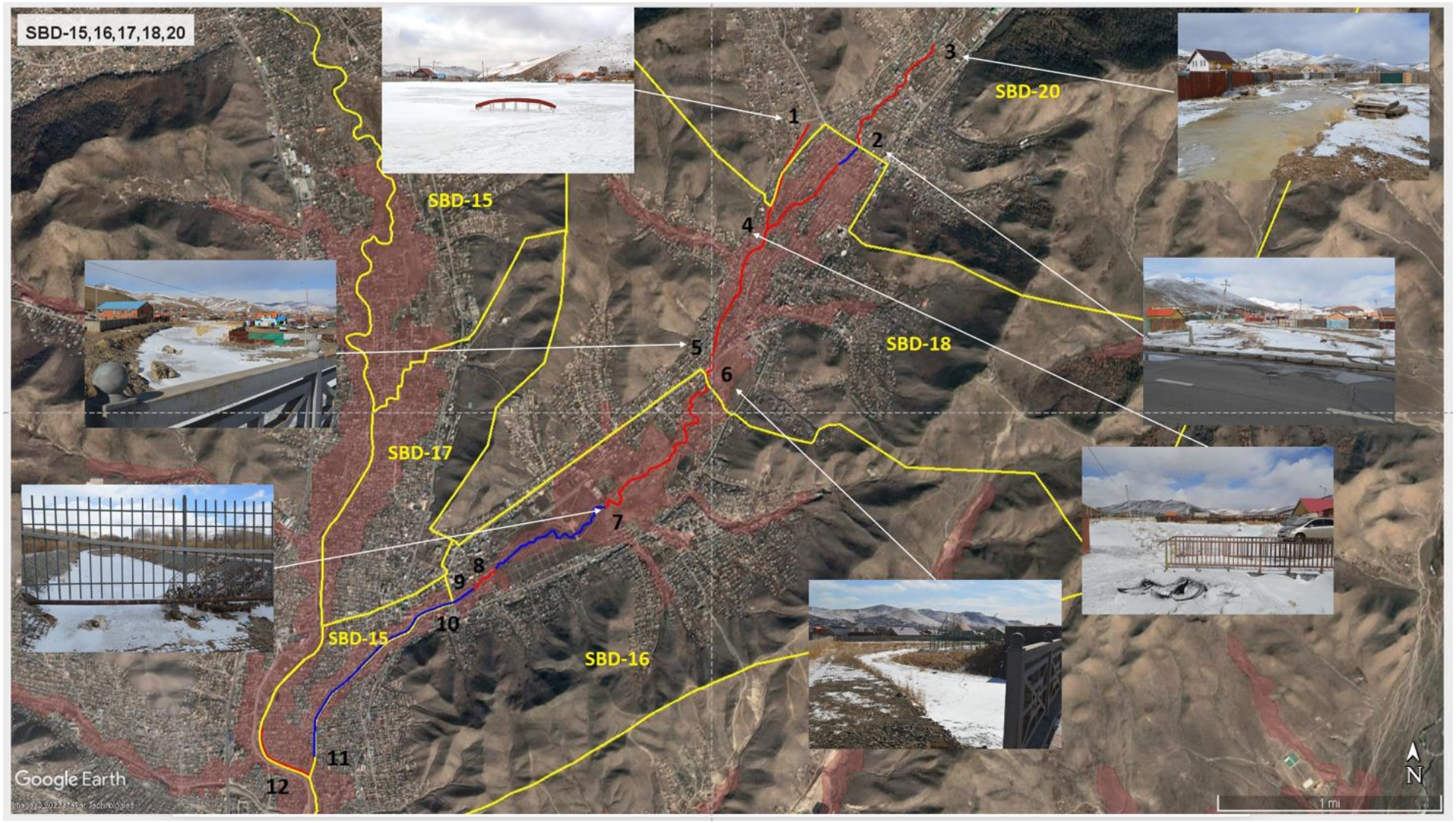


Figure 21 - Photographs of different proposed locations

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. **Describe *the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.***

As Section 1 of this Concept Note establishes, Ulaanbaatar is vulnerable to the impacts of climate change. Khoroos 15, 16, 18, 20 of Sukhbaatar District and Khoroos 26 and 4 of Songinokhairkhan District, targeted by this project, are especially vulnerable, considering not only their exposure to climate change hazards by also their underlying vulnerability, arising from the low-income nature of the areas, unplanned urban development, and partial informality. Adaptive capacity is also low, given that local government budgets are constrained and there is minimal capacity among the communities themselves to construct, manage or maintain small-scale adaptation infrastructure.

To achieve the project's overall objective, which is to enhance the resilience of communities of six Khoroos of Ulaanbaatar to floods caused by snowmelt and melting permafrost, the project will work in conjunction with communities, the local and national government and civil society to adapt to increasing snow melt and melting permafrost, which leads to bursting springs, flooding and damage to homes and infrastructure. However, to sustain and replicate the project's successes, it will also work closely with the local, municipal and national level governments.

The activities proposed under the project have been designed to address the risks and vulnerabilities faced by the poorest and most vulnerable in the target khoroos. To do this, the measures are a combination of soft and hard activities and are interdependent and mutually supportive. The soft measures include a stronger policy component than the previous UN-Habitat-implemented Adaptation Fund project in Mongolia, which is designed to ensure that urban adaptation and resilience considerations are mainstreamed into future iterations of the NDC and the NAP. The capacity building component will focus on city and local level capacities and will enhance the ability of local officials to manage adaptation infrastructure. The capacity building component also contains activities designed to improve the financial sustainability of the interventions, as well as build capacity toward mobilizing further finance in the future.

The components and outputs of the project are as follows:

Component 1 – Enhance the policy and regulatory environment at the national and city level to reduce risks and enhance adaptive capacity in the future

1.1 Identify adaptation needs in the urban development sector
1.2 Review existing adaptation policy and regulations from the urban context and suggest required integration of urban adaptation measures
1.3 Detailed Khoroo and District level flood/hazard risk, exposure and vulnerability assessment reports prepared for the selected Ger areas
1.4 Integration workshops held to ensure that urban adaptation is prominently featured in Mongolia's NAP and 2025 NDC update, and climate change adaptation considerations are mainstreamed into future urban-related policies and plans
1.5 Urban adaptation mainstreamed into local government policy and planning in the target areas

Component 2 – Build capacity at the national, city and community level to adapt now and in the future

2.1 Capacity building programme implemented at the sub-national level to plan for and manage urban adaptation actions
2.2 Capacity building programme implemented at the community level to manage and maintain small-scale adaptation infrastructure
2.3 Capacity built to meet future urban adaptation financing needs and community-based disaster

risk reduction and assets protection trainings

Component 3 – Reduce risks from flooding through physical infrastructure in the target areas

3.1 Technical studies – Engineering and hydrological - required for flood protection in the selected areas

3.2. 1.54 km retention wall, 5.578 km urban drainage constructed, and 1.781 km drainage repaired Sukhbaatar District Khoroo 18, 20, 15, 16.

3.3. 2.182 km of flood protection canals constructed in Songinokhairkhan District Khoroo 26 and 4.

3.4 Trees and bushes planted by the communities along the flood protection facilities to create additional resilience and broader environmental sustainability

3.5 400 flood resilient sanitation facilities constructed by the target communities

Component 4 – Improve and enhance the knowledge base to sustain and replicate the project's gains.

4.1 Knowledge captured from project implementation and disseminated through media, web-stories and case studies

4.2. National and local governments and climate change research communities have increased knowledge resources at its disposal

4.3 Bringing Global Knowledge on best practices to Implementing Partners and communities

Figure 23 shows the tentative alignment (location) of the urban drainage to be constructed under Output 3.2 in Sukhbaatar District's Khoroos 18, 20, 15, 16. The alignment has been tentatively divided into manageable sections for contracting purposes. This alignment and division will be revisited during the development of the full proposal.

- D1: There is currently a park where a burst spring has emerged and flooded not only the park but also the nearby houses. So, it is proposed to construct an embankment (670m) around the park as shown in cross-section 2-2. The work will consist of 1.2 to 1.6m of compressed earth embankment with concrete surface. The tree-planting work will also focus on this area. There will be a co-benefit to this activity of restoring the park to be a safe, inclusive and usable public space.
- C1, C2, C3 and C4: are located along an existing stream where the bank will be strengthened with compressed earth with concrete surface as shown in cross section 1-1. The length of each section is 546 metres, 1593m, 715m and 1049m respectively.

The Figure 24, below, shows the downstream section in Sukhbaatar District covering Khoroos 15 and 16.

- C5, C6: are continuations of the above work on strengthening the banks along the stream as shown in cross section 1-1. The length is 1456m and 219m.
- C7: There is already an existing canal which require repair and reinforcement. The total length is 1,781m.
- D2 and D3: These two locations of 533m and 337m require reinforcement of the bank as shown in cross-section 2-2.

Figure 25 shows the tentative alignment (location) of the urban drainage to be constructed under Output 3.3 in Songinokhairkhan District Khoroos 26 and 4.

- C1 and C2 in khoroo 24 will be 1076m and 806m in length and C3 in khoroo 4 will be 300m long. The drain is located along an existing stream where the bank will be strengthened with compressed earth with concrete surface as shown in cross section 1-1.

Figure 26 shows a schematic drawing of the improved and affordable pit latrines to be provided to vulnerable households. The septic tanks will be strengthened in consideration of the permafrost interaction, ensure that wastewater does not leak or penetrate into the soil and ground water table and provide convenient access for emptying. The design will take into consideration the needs of the elderly and the disabled.

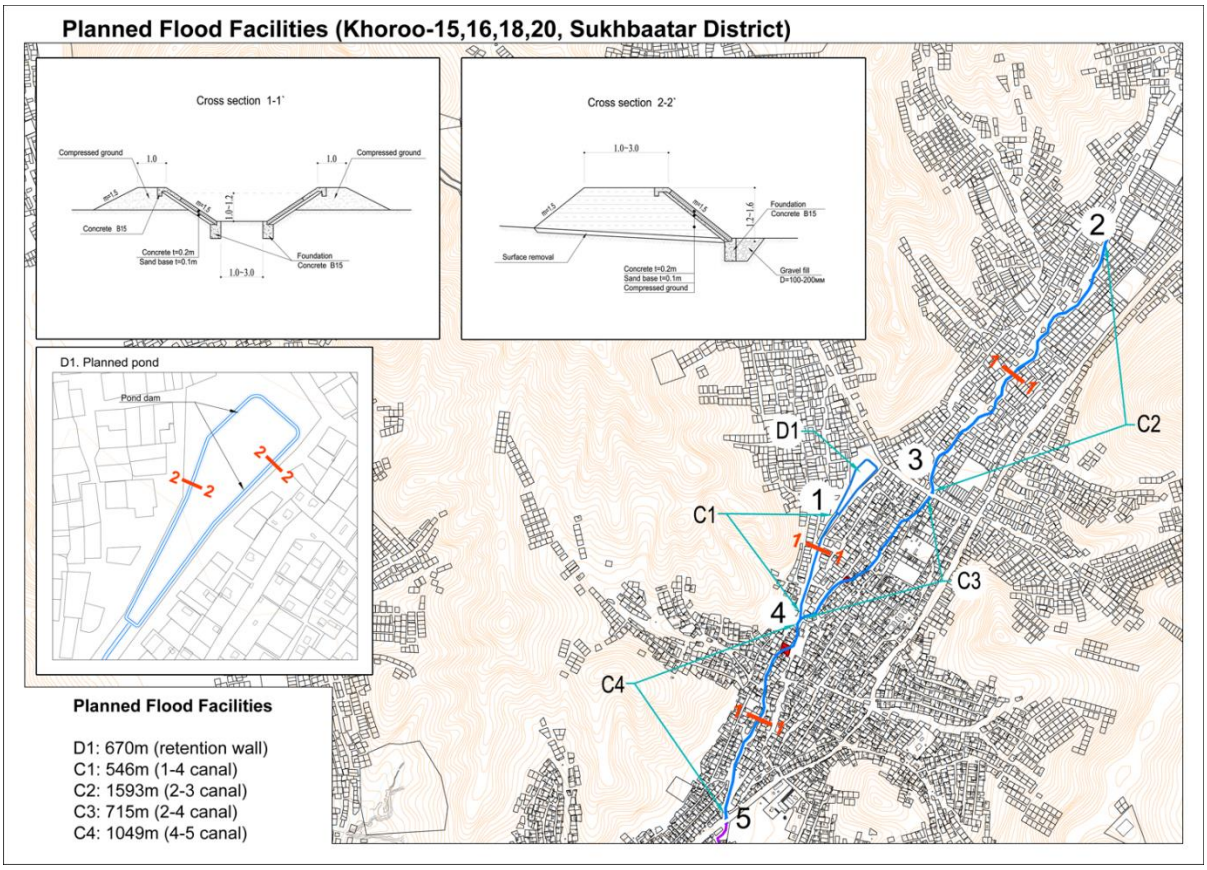


Figure 22 - Selected area 1 Sukhbaatar District - Khoroo 15, 16, 18, 20

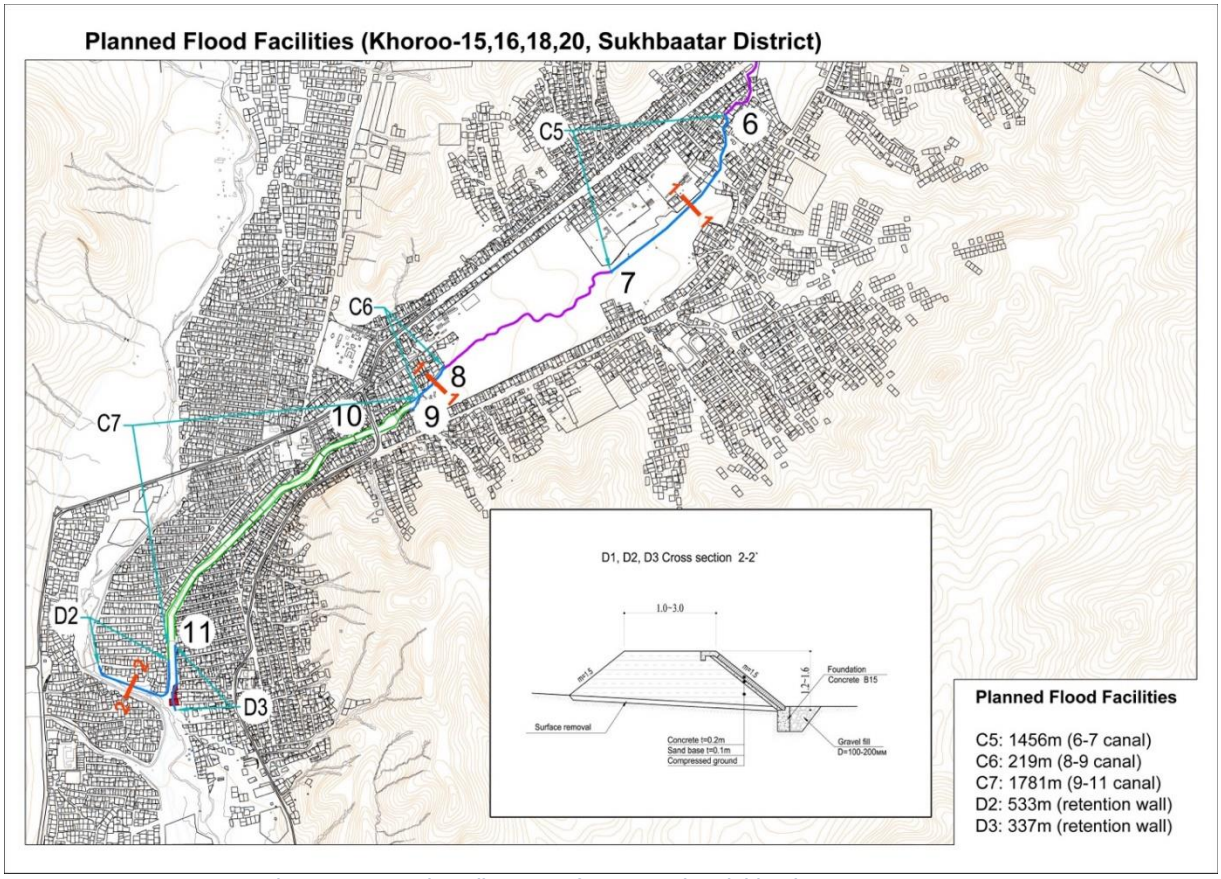


Figure 23 - Further diagram of proposed activities in Target Area 1

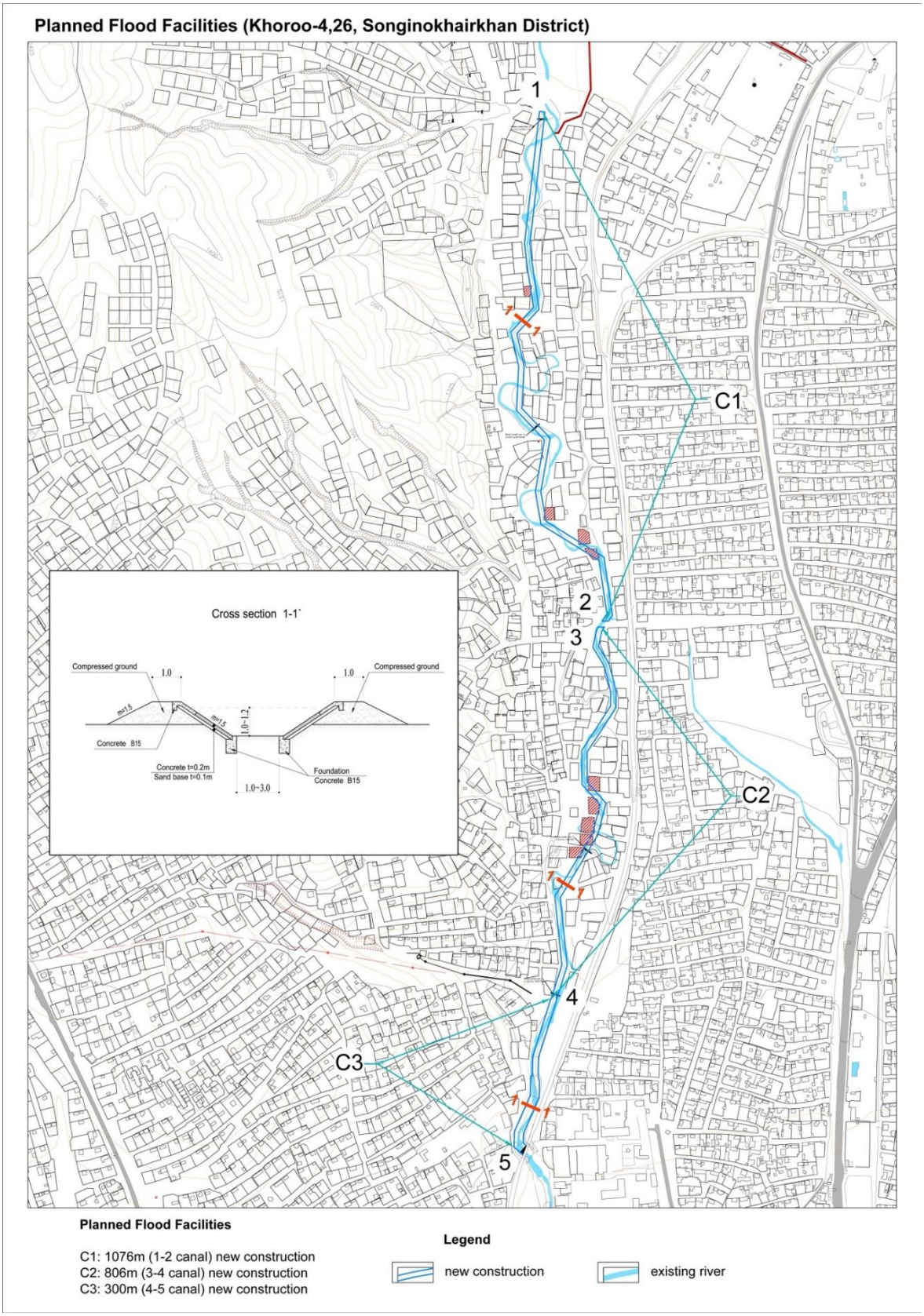


Figure 24 - Project Area 2: Songinokharkhan District - Khoroo 26, 4

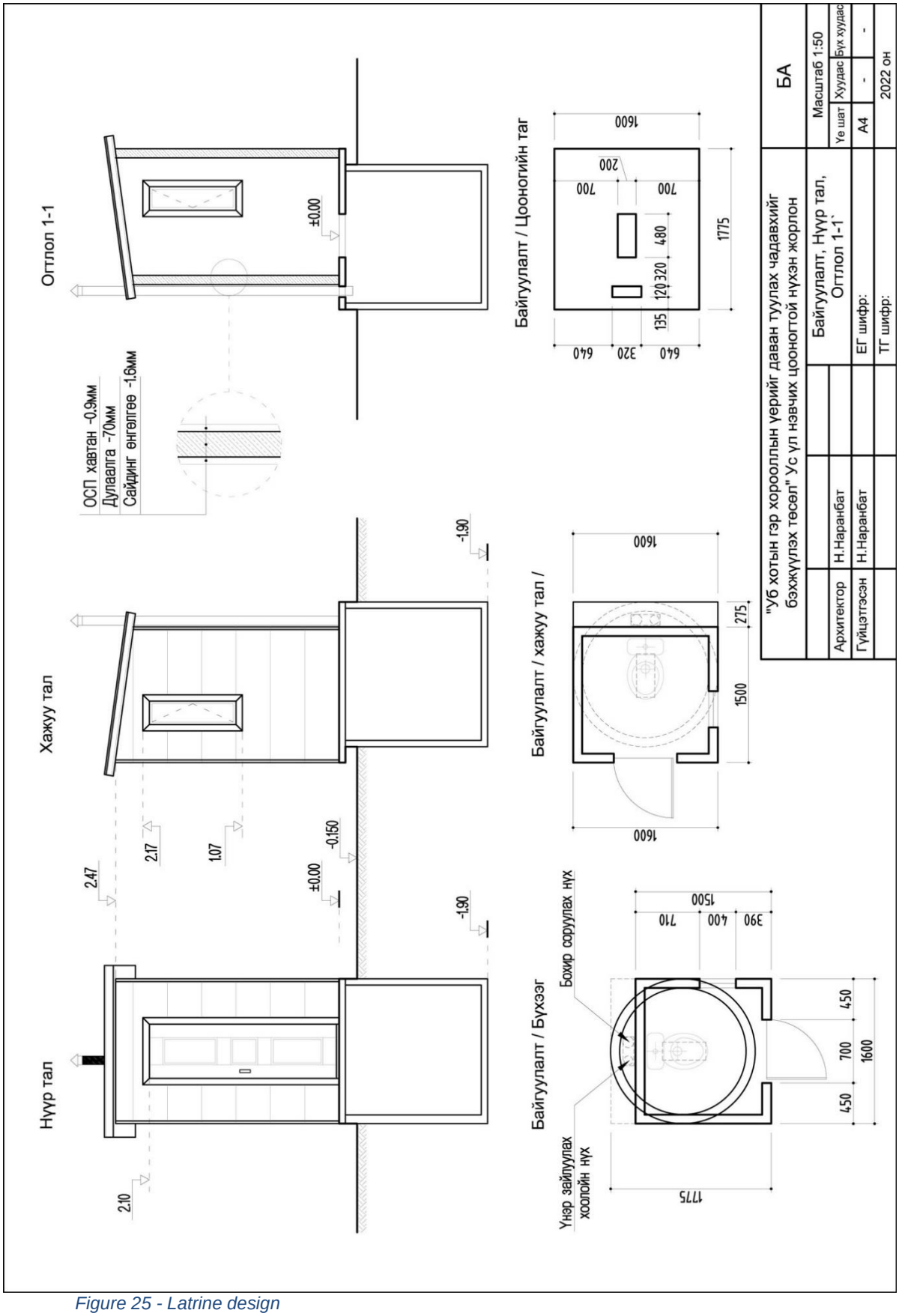


Figure 25 - Latrine design

Table 4. Concrete interventions and supporting activities (corresponding to prioritized resilience building interventions in the above)

Concrete interventions / activities		Target Khoroos	Estimated number of beneficiaries	Estimated cost (US$) and cost-effectiveness of direct beneficiaries (area within the Khoroo)	Design details		
Area	**Detailed activities (for more details see environmental and social risks screening sheets in annex 5)**				**Location (see maps)**	**Dimensions**	**Description (incl. relevant info for risks screening)**
Area 1 (Sukhbaatar District Khoroo 15,16,18, 20)	**Embankment protection around spring** Construct a flood retention wall / embankment	18	Direct: 300 Indirect: 9,495	154,770	See figures 20&21 D1: From #375, Belkh-48 to #300, Belkh-48	Pkg 1 Length: 670m 1 – 3 m wide, 1.2 – 1.6m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Pond, Cross section 2-2 Land status: public Land use: park Material: concrete, compressed ground
	Flood protection and drainage infrastructure Drainage channels	18	Direct: 1628 Indirect: 9,495	252,853	See figures 20&21 C1: From #300, Belkh-48 to #208, Belkh-48	Pkg 1 Length: 546 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
		18		331,117	See figures 20&21C3: From #365, Belkh-48 to #208, Belkh-48	Pkg 3 Length: 715 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
		18		485,792	See figures 20&21C4: From #208, Belkh-48 to #26, Belkh-39	Pkg 4 Length: 1049 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground Preliminary alignment show that 2 plots encroached upon the riverbed will be affected. Affected plot 4 309# Belh-48, 50#Belh-47, 50a#Belh-47, 50b#Belh-47
		20	Direct: 1,253 Indirect: 4,450	737,718	See figures 20&21C1: From #1, Tsolmon-11 to #422, Tsolmon-2	Pkg 2 Length: 1,593 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground

		16	Direct: 688 Indirect: 11,766	674,274	See figures 20&21C5: From #102, Oichid-1 to #14060, Dambadarjaa	Pkg 5 Length: 1,456 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
		16		101,419	See figures 20&21C6: From #25, Belkhi-34 to #1-1, Belkhi-32	Pkg 6 Length: 219 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
	Renovation of existing structure	16		536,108	See figures 20&21C7: From #1-1, Belkhi-32 to #177, Belkh-8	Pkg 6 Length: 1,781 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
	Flood protection and drainage infrastructure Construct a flood retention wall / embankment	15	Direct: 320 Indirect: 6,648	123,123	See figures 20&21D2: From #81, Dambadarjaa-20, to #7, Dambadarjaa-1	Pkg 7 Length: 533 m 1m wide, 1 – 1.2m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
		15	Direct: 688 Indirect: 11,766	77,847	See figures 20&21D3: From #177, Belkh-8, to #282, Belkh-11	Pkg 7 Length: 337 m 1m wide, 1 – 1.2m high compressed ground embankment with 1.5m concrete slope surface on concrete foundation	Cross section 2-2 Land status: public Land use: river Material: concrete, compressed ground Preliminary alignment show that 4 plots encroached upon the riverbed will be affected: 235#Belkh11, 282#Belkh11, 282a#Belkh11, 282b#Belkh11
Area 2 (Songinokhairkhan District Khoroo 26 and 4)	**Flood protection and drainage infrastructure** Drainage channels	26	Direct: 1,280 Indirect: 10,400	498,296	See figure 22 C1: From #33, Bayanbulag-5 to #1, Bayanbulag-2	Pkg 8 Length: 1076 m 1 – 3 m wide, 1.2 – 1.6m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground Preliminary alignment show that 4 plots encroached upon the riverbed will be affected: 7# Bayanbulag-5, 26#Bayanbulag-2, 21#Bayanbulag-2, 37#Bayanbulag-2
				373,259	See figure 22 C2: From #101, Bayanbulag-1 to #1, Bayanbulag-2	Pkg 9 Pkg C2: 806m 1 – 3 m wide, 1.2 – 1.6m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground Preliminary alignment show that 5 plots encroached upon the riverbed will be affected: 27#Bayanbulag-1, 30#Bayanbulag-1, 31#Bayanbulag-1, 52#Bayanbulag-1, 98#Bayanbulag-1

		4	Direct: 21 Indirect: 6,819	138,930	See figure 22 C3: From #49, Ikh naran-13 to #54, Ikh naran-8	Pkg 10 C3: 300m 1 – 3 m wide, 1.2 – 1.6m high compressed ground embankment with 1,5m concrete slope surface on concrete foundation	Cross section 1-1 Land status: public Land use: river Material: concrete, compressed ground
Total				**5,400,738.61**			

Area 1 (Sukhbaatar District Khoroo 15,16,18, 20)	**Flood resilient latrines** Construct suitable latrines (for rocky or muddy underground)	20	Direct: 526 (>268 women) Indirect: 8,969 (Rest of Khoroo 20)	65,787 = 125 pp	See figure 23	66 units of latrines	Design: see figure 23 Land status: mixed Land use: residential Designs will ultimately be agreed upon with residents. Design support comes from the university and other partners. Latrines will be placed within residential plots. The selection of beneficiaries / locations within the khoroos will be done by the khoroo members themselves besides some basic criteria: Income / poverty Flood vulnerability Willingness to cost share The final selection of residents / locations could not be done in advance because it's an agreement process of the khoroo which would raise too much expectation without having secured the funding.
		18	Direct: 874 (>446women) Indirect: 3,676 (Rest Khoroo 18)	109,199 = 125 pp	See figure 23	109 units of latrines	
		16	Direct: 936 (>477 women) Indirect: 10,830 (Rest Khoroo 16)	116,981 = 125 pp	See figure 23	117 units of latrines	
		15	Direct: 143 (>73 women) Indirect: 6,541 (Rest Khoroo 15)	17,922 = 125 pp	See figure 23	18 units of latrines	
Area 2 (Songinokhair khan District Khoroo 26 and 4)		26	Direct: 622 (>317 women) Indirect:9,806 (Rest Khoroo 26)	77,722 = 125 pp	See figure 23	78 units of latrines	
		4	Direct: 99 (>51 women) Indirect: 10329 (Rest Khoroo 4)	12389 = 125 pp	See figure 23	12 units of latrines	
Total				400,000		400	

B. *Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation* Fund.

The proposed project will build on the successful approach taken during the AF-funded FRUGA project. That project adopted a form of the People's Process, UN-Habitat's successful community-driven approach to implementing projects for recovery and long-term resilience that has been implemented throughout the Asia-Pacific region over many years. The People's Process is predicated on the idea that stronger social ties amongst the urban poor and vulnerable reduces risk across social, economic and environmental dimensions and provides essential support in times of current or future stress – such as severe floods whose impacts are worsening as a result of climate change. Without an approach that builds a more resilient community, people in Ulaanbaatar face ever-greater risks arising from climate change, as well as the possibility of mal-adaptation. The creation of a sense of social harmony between the urban policy makers, the residents and other groups in society allows for improved communication and the sharing of experiences which would ultimately lead to greater social resilience.

Table 5. Economic, Social and Environmental benefits

Type of benefit	Baseline	With/after project
Economic	As highlighted in Section 1 of this concept note, climate change is already leading to damage to housing and infrastructure (with severe economic implications), direct costs of clean-up and recovery and loss of livelihood.	There will be less damage to housing and public infrastructure, resulting in less public budget and private income/savings being invested in clean-up, recovery after flood events. There will be potential for greater public and private investment in the newly flood-protected areas, in this rapidly growing area on Ulaanbaatar. Community members will benefit from the option to provide cash-labour to the construction elements of the proposed project
Social	Climate change impacts in rural areas are a driver of rural-urban migration, such as the type currently being witnessed in Ulaanbaatar. Flood impacts that are increasingly likely as a result of climate change will contribute to social dislocation between communities, as well as negative health impacts – especially for the elderly and more vulnerable segment of the population.	There will be a reduction in health-related impacts due to lower flood risks While rural-urban migration is driven by factors outside the scope of the project, rural-urban migrants who move to the project's target area will be less vulnerable (at present, recent rural-urban migrants – who often lack community and social safety nets, live in the area and are more vulnerable)
Environmental	As highlighted in Section 1, climate change is already causing negative environmental impacts to the target area, including snow melt, melting permafrost and higher temperatures and earlier thaws that drive flooding. The flood prone nature of the land in the target area means it cannot presently be used for any productive or environmental conservation purpose.	As a result of the project, there will be reduced flood risk. Part of the currently flood prone area in Khoroo 18 was formerly used as a park/public space. The project will return the area to become safe and inclusive public space. This public space will include a number of trees that will make an incremental improvement air quality, as a co-benefit. Land downstream of the project's target site will be protected and consequently there will be a reduced risk of erosion

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

The proposed project will maximize investment in physical infrastructure to ensure the greatest return in terms of adaptation benefits per dollar spent. The project will also make several strategic investments in policy alignment and capacity development to ensure that urban adaptation considerations are mainstreamed into national policy, especially the under-development National Adaptation Plan (NAP) and future iterations of Mongolia's Nationally Determined Contribution (NDC).

The cost-effectiveness rationale of Component 1 is that, by ensuring that urban adaptation needs – especially in Ulaanbaatar – are integrated into the NAP, NDC, urban-related policies and plans, and local government planning, there is a greater chance that future climate change and urban development investment will be targeted to the most vulnerable people, and that investments won't be directed towards maladaptive activities, or investment that causes negative environmental and social impacts. Activities under Output 1.5 have been included in the project to ensure that decision makers at the city and national levels will have the most relevant and up-to date information available to them. In this regard, activities under Component 1 should be seen as strategic investments.

Component 2 is the capacity building component of the proposed project. These activities focus at the sub-national and community level and are designed so that ownership and management of the infrastructure assets can be transferred to and sustainably managed by the community and sub-national government. Activities under Output 2.3 have been included to ensure that financing needs can be met in the future. This project cannot meet all current and future adaptation needs of the people of Ulaanbaatar, so it is essential that capacity is built to support the future mobilization of domestic, international and public and private finance to meet current and future adaptation needs.

Component 3 are the physical adaptation infrastructure investments. 69 per cent of the project's execution budget will be invested in the physical infrastructures. In Khoroo 20 of Sukhbaatar District where a spring has burst, a flood defense embankment will be created that will also retain and enhance the features of the current park. The cost-benefit of the investment here will be increased by designing the infrastructure, so it forms part of a multi-functional green public space. This will bring co-benefits in terms of an urban ecosystem, the public good of a safe, inclusive public space and a contribution to improved air quality.

The embankment of the current river will be strengthened on both banks and provide a drainage channel so that the water does not overflow and flood the houses and ger plots. The character of the river will be maintained throughout the alignment. Based on initial consultations for the preparation of this concept note, it was agreed by the local engineering team that this drainage would be cheaper and less risky against the AF Environmental and Social Safeguard policy. The alternative would be to construct an underground system to gradually release melting permafrost. However, this would be more expensive, untested from an engineering perspective and carry greater risk of disruption to houses/private land.

Activities under Component 3 will also invest in flood protection measures in Khoroos 26 and 4 of Songinokharkhan District that will address overflows that emanate from the river. The engineering team has assessed that there is no feasible alternative to than to invest in these measures.

Finally, the project's 4th component is around improved knowledge. This component has been included in compliance with the Adaptation Fund's strategic programme and also to ensure that the knowledge and learning potential contained in the project can be captured, stored and shared with stakeholders across government, civil society and communities. Without this component, there would be a risk that knowledge is either not captured at all, or that it is captured but not institutionalized and there would be no contribution to institutional memory arising from the project.

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or

sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

Mongolia ratified the United Nations Framework Convention of Climate Change (UNFCCC) in 1993, the Kyoto Protocol in 1999 and the Paris Agreement on Climate Change in 2016. In doing this, it submitted a National Determined Contribution (NDC) to the Paris Agreement in 2015 and an updated NDC in 2021, ahead of the 26th Conference of the Parties (CoP) to the UNFCCC.

Mongolia also has a National Programme on Climate Change, and while there is no specific climate change law, there are numerous laws relevant to climate change, including the Law on Air, Law on Energy, and Law on Forest. There is also a national Green Development Policy and the Sustainable Development Vision 2030.

All the interventions identified in Output 3 are aligned with the Ulaanbaatar Master Plan 2020, specifically under Priority 1: Ulaanbaatar will be a safe, healthy and green city that is resilient to climate change and Priority 2: Ulaanbaatar will provide a livable environment for its residents through appropriate land use planning, infrastructure and housing.

The proposed activities are consistent with the key strategic directions, recommendations and target areas within the **Flood Risk Management Strategy of Ulaanbaatar City,** including reduce flood risk through resilient urban development, land use and waste management, protection of social infrastructure and strengthened utility services.

The design and construction of the interventions will following the various norms and standards mentioned in Basic Procedure for Hydro-technical Construction Design BND-33-01-03; River Hydrotechnical Construction BND-33-01-05; Hydrotechnical Construction Foundation BND-33-04-09; Capacity and Performance of Hydrotechnical Construction BND-33-05-09; Concrete and Ferroconcrete Structure for Hydro- technical Construction BND-33-06-09; and Norms and Regulations for Estimation of Hydrological Characteristics BND-201- 14-86.

In addition, the construction of sanitation works will assure adherence to the standards mentioned in MNS 5924: 2015 Pit latrine and Sewage Pit, Technical requirements; MNS3342:82 Nature and Environmental protection. General requirements for protecting ground water and hydrosphere from pollution; MNS 6055:2009 General environmental and space requirements for the disabled in the civil construction planning, and MNS 6279:2011 Water sup- ply and sanitation facilities. Terms, definitions glossary.

This compliance is elaborated further in Table 6, below.

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund

The table below describes how the physical infrastructure constructed by the project complies with various national laws, standards and procedures. Components 1,2 and 4 are not included as they are 'soft' components, however, they are described below.

Table 6. Compliance with laws and national technical standards

Expected concrete output or intervention	Relevant laws, regulations, standards and procedures	Compliance, procedure and authorizing office	Potential risks and impacts identified during concept preparation
3.1 Technical studies – engineering and hydrological, required to implement the physical interventions	Related laws: • Law on Land • Law on Water • Urban Development Law • Disaster Management Law	1. ToRs to be issued by the executing entity and discussed with relevant government stakeholders prior to issue/advertisement 2. A competitive process will be undertaken to select a firm with the relevant knowledge,	Risk that the technical studies do not actively consider AF Environmental and

	• Building Code	expertise and experience to undertake the studies with full legal compliance 3. The selected contractor will enter into a contract that stipulates the laws and a contractual requirement to maintain full legal compliance 4. The contract implementation will be closely monitored by the Project Management Unit, who will reserve the right to flag any legal compliance risks or issues	Social Policy principles. Mitigation – Consideration of AF Environmental and Social principles will be a contractual obligation for the contractor.
3.2. 1.540 km retention wall, 5.578 km urban drainage constructed, and 1.781 km drainage repaired Sukhbaatar District Khoroo 18, 20, 15, 16. 3.3. 2.182 km of flood protection canals constructed in Songinokhairkhan District Khoroo 26 and 4.	Related laws: • Law on Land • Law on Water • Urban Development Law • Disaster Management Law • Building Code Norms & Standards: • Basic Procedure for Hydrotechnical Construction Design BND-33-01-03 • River Hydrotechnical Construction BND-33-01-05 • Hydrotechnical Construction Foundation BND-33-04-09 • Capacity and Performance of Hydrotechnical Construction BND-33-05-09 • Concrete and Ferroconcrete Structure for Hydrotechnical Construction BND-33-06-09 • Norms and Regulations for Estimation of Hydrological Characteristics BND-201-14-86	Engineering design stage: 1. ToRs to be issued by the executing entity and discussed with relevant government stakeholders prior to issue/advertisement 2. A competitive process will be undertaken to select a firm with the relevant knowledge, expertise and experience to undertake the studies with full legal compliance 3. The selected contractor will enter into a contract that stipulates the laws and a contractual requirement to maintain full legal compliance 4. The contract implementation will be closely monitored by the Project Management Unit, who will reserve the right to flag any legal compliance risks or issues Construction phase 1. Selection of the construction company, separate from the design company 2. Contractual process with the construction company that follows the same principles as in selection of the design company (i.e., ensures legal compliance through contractual provisions) 3. Contract for supervision, which details out legal compliance requirements, giving the supervisor a mandate to check and ensure continued legal compliance 4. Further monitoring of the construction by the Project Management Unit	Activities under these outputs trigger the following risks under the AF's Environmental and Social Policy:

F. Describe if there is duplication of project / programme with other funding sources, if any.

UN-Habitat is a well-established implementation partner working with poor and vulnerable communities in Ulaanbaatar and has a long track record of supporting the local and national government in the areas of climate resilience, water and sanitation, infrastructure, urban planning, and affordable housing.

Beginning in 2018, UN-Habitat was the implementing entity on a project entitled 'Flood Resilience in the Ger Areas' (FRUGA), funded by the Adaptation Fund, and executed by World Vision. Prior to this, the agency had been supporting Mongolia on climate resilience through the Cities and Climate Change Initiative (CCCI), which was implemented in 12 countries in the Asia-pacific region.

UN-Habitat is currently the lead implementing partner for the ongoing Ulaanbaatar Urban Services and Ger Areas Development Investment Programme of ADB, through the establishment of Community Development Councils (CDC's) a key component of the agency's flagship People's Process. The agency also has prior experience implementing major WASH infrastructure projects in the other proposed locations of Songinokhairkhan District (SKhD).

Based on UN-Habitat's long-standing presence in Mongolia, its ability to work effectively with government at the national and sub-national level and other development partners. These working relationships will enable to project begin and be implemented smoothly and without delays.

There are several other relevant projects currently under implementation in Mongolia, which are listed in the table below. In all cases, UN-Habitat will endeavour to maintain continued coordination with the implementing agency/partner, to avoid duplication. Note, there are a number of GCF Readiness projects ongoing in Mongolia that focus on building capacity at the Ministry of Environment and Tourism. These projects have not been included for reasons of space but further consultations to be undertaken in the preparation of the full proposal will ensure that the activities of these projects are not duplicated in the present proposed project.

Table 7. Selected other relevant projects and programmes under implementation or recently completed in Mongolia

Implementing entity/donor	Project title	Approximate total budget	Project duration	Coordination
UNEP/GCF	Adaptation Planning support	US$2.9m	3 years	This project will support Mongolia in the development of its first NAP. Coordination is vital to the success of output 1.1 of this proposed project
EBRD/GCF	Green Cities Facility	EUR744 m[18]	5 years	Primarily a mitigation project. However, there are adaptation elements in the project in terms of housing and water supply. Further consultations will take place at full proposal stage
FAO/GEF (CBIT)	Strengthening Capacity in the Agricultural and Land-use Sectors for Enhanced Transparency in Implementation and Monitoring of Mongolia's Nationally Determined Contribution	US$1.25 m (inc co-finance)	2018-2022	While primarily rural-focused, this project supports transparency efforts around the NDC and therefore coordination will be required in the implementation of activities under Component 1 of this proposed project.
ADB/GCF	Ulaanbaatar Green Affordable Housing and Resilient Urban Renewal Project (AHURP)	US$544m (inc co-finance)	2018-2026	The project is focused on housing and does not work in the same target locations of Ulaanbaatar as this proposed project; however, further consultations will be necessary to avoid duplication
ADB/EBRD	Ger Area Urban Development Investment Program (GADIP)		9 years	The multi tranche financing facility (MFF) program aim to support the Ulaanbaatar city master plan in upgrading priority service and economic hubs (sub-centers) in ger areas. The program is geographically targeted with multi sector interventions. It proposes an integrated solution to respond to the urgent demand for basic urban services and establish a network of well-developed urban sub-centers providing economic opportunities, housing, and urban services as catalysts for growth in the ger areas.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

[18] Across all 9 countries targeted by the project

The project has included a dedicated knowledge component: Component 4 – Improve and enhance the knowledge base to sustain and replicate the project's gains. This component includes three outputs, so that knowledge-building and sustaining activities can be focused at the local/community, city and national and global levels.

At the local level, informed by UN-Habitat's People's Process approach, and its two decades of project implementation experience in Mongolia, the project will involve beneficiaries and community organizations, as well as government at the Khoroo level in the design, construction, management and maintenance of the infrastructure to be constructed under Component 3. Knowledge activities will focus on enhancing knowledge, capturing and documenting local knowledge that has not otherwise been captured, and ensuring that knowledge is passed on to future generations.

At the level of Ulaanbaatar Municipality and the national government, all lessons learned from the project will be captured and made publicly available in Mongolian language. UN-Habitat will work with UNDP and UNEP to ensure that all knowledge materials are made available on the under-development knowledge and information portal in the country. This approach will reduce duplication (i.e., the project will avoid building separate knowledge portals).

The project will also have a global knowledge element, both using UN-Habitat's global network to inform the project of best practices from elsewhere, while also publishing stories and best practices to support Mongolia to be a global knowledge leader in urban resilience.

Other outputs/components of the project will produce knowledge. Output 1.4 will develop detailed Khoroo level flood/hazard risk, exposure and vulnerability assessment reports for the project's target areas. These reports will be public once complete and approved by the government counterpart and made available through the aforementioned knowledge/information platform.

The capacity building activities under Component 2 will use updated versions of training materials used in earlier projects, including FRUGA. These materials will also be made available for government use and wider replication, again, utilizing the under-development knowledge and information platform.

H. *Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.*

The first international mission to Mongolia took place between 20 and 27 March, 2022, upon the reopening Mongolia's borders. During this mission, the consultants visited the target field sites, to conduct an initial inspection. The mission also met with the Adaptation Fund Focal point, Mr. Batjargal Zamba to discuss the formative idea. During this meeting, Mr. Zamba encouraged UN-Habitat to proceed with the development of the concept note, in consultation with the Ministry of Environment and Tourism, Ulaanbaatar Municipality and representatives of the communities.

This design of the project has been informed by in-depth khoroo community level consultations and district level consultations with presiding Governors, conducted as part of a rapid needs assessment on climate vulnerability in the two target areas. Meetings were conducted with the designated khoroo representatives and consultations were made with the khoroos communities including the most vulnerable groups; disabled, elderly, informal people, indigenous people, and recent migrants.

Focus group discussions and individual meetings were conducted among the khoroo officials and with representatives of community in 15, 16, 17, 18, 20th khoroos of Sukhbaatar district and 26 and 4th khoroo of Songinokhairkhan District. During the discussion the location of springs bursts were identified, and flood risk map was developed. Also discussed with their main concern and needs on flood facility. Demographic information was collected using a questionnaire prepared by UN-Habitat team. The

information collected included: demographic data, existing social and physical infrastructure, existing projects in khoroo level, maintenance of the flood facilities and taken measures on flood risk from khoroo and district.

Table 8. Participants of FGD among the khoroo officials

Khoroo	15	16	17	18	20	26	4
Participant	5	6	3	4	3	9	6
Male	0	1	0	1	0	2	1
Female	5	5	3	3	3	7	5
Khoroo Governor	1	1	1	1	0	1	1
Khoroo Coordinator	1	1	1	0	1	1	
Kheseg leader	3	4	1	3	2	2	1

Table 9. Overview of Focus Group Discussions and individual meetings

Date and venue	Topics discussed	Brief outcomes
22 March 2022, in 15th khoroo meeting room	- Existing project - Existing flood facility	- Household's risk assessment was done under World Vision project "Disaster resilient community". - Dambadarjaa street 20-24 has flood protection dam, breaks in some places - Dambadarjaa 81-82 street without dam - Khoroo has community group responsible for maintenance of flood facilities - Khoroo residents requests from khoroo and district to build the flood facilities
29 March 2022, in 16th khoroo meeting room	- Existing project - Existing flood facility - Current situation of flood and springs	- This khoroo is covered under FRUGA project - Technical study for "Selbe riverbank protection wall" was done under FRUGA - Belkh-11 and Oichid-1 streets has flood water. In those streets inundated during rain and when the snow and ice melt in the spring - Bridge and drainage were planned in Oichid-1 street by the district office - Many small springs around the famous spring "Dondogdulam". - There is a tree nursery in 16th khoroo.
25 March 2022, in 17th khoroo meeting room	- Existing project - Existing flood facility	- Khoroo office is cracked due to melting of permafrost - This khoroo is core khoroo of GADIP - Household's risk assessment was done under World Vision project "Disaster resilient community" - Damba temple, emergency unit, ambulance of SBD are in this khoroo. - Dambadarjaa no. 60-63 streets are inundate - Spring bursting occurred in 2018 - Some flood drainage was done using local development fund
22 March 2022, in 18th khoroo meeting room	- Existing project - Current situation of flood and springs	- "Service centre" of MCUD project is under implementation in this khoroo, covering 200 households. - Parliament member funded the toilet improvement for 300 households - There is big problem of "Gunjiin bulag" spring burst. Many (200-300) households inundate in every winter and spring. Toilets overflow during inundating.
23 March 2022, in 20th khoroo meeting room	- Existing project - Current situation of flood and springs	- Flood come from the mountain side with stone and gravel. - Each winter household's buildings are cracked due to permafrost melt
21 March 2022, in 26 khoroo meeting	-Existing project -Existing flood facility	- World Vision Mongolia is implementing a “Disaster Risk” project. - Households on 1-3 Bayanbulag Street live in flood-prone conditions in winter and summer

		- Songinokhairkhan district provided toilets to 100 households in each khoroo and provided 10 tree seedlings to these households. - When there is a lot of floods, we can't load garbage - We are supporting the Billion Tree project initiated by the President of Mongolia
23 March 2022, in 4 khoroo meeting	-Existing project -Existing flood facility -Current situation of flood and springs	- "Elderly Friendly Program" and "Women's Employment Support Sub-Program" are being implemented by Songinokhairkhan District - Flood drainage pipes were built on Ikh Narang 2nd Street. - MIK flood dam - There is a small bridge over the water source located on 13 Ikh Narang Street, 4th section, 4th khoroo, Songinokhairkhan district.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

Table 10. Justification for the project

Outputs	Baseline without AF	Additionality (With AF)	Comment and alternative adaptation scenarios
1.1 Identify adaptation needs in the urban development sector 1.2 Review of existing adaptation policy and regulations from the urban context and suggest required integration of urban adaptation measures	There is a tendency to see climate change from only an environmental perspective. While not necessarily wrong, this approach is not holistic and can hinder decision makers' ability to identify adaptation needs in urban areas.	Urban resilience issues – especially the vulnerabilities and types of adaptation actions will be identified and featured more prominently in the next NDC update and the forthcoming NAP as well as in relevant sector policies and development plans	Adaptation actions would be siloed and stand-alone, or project based and outside the framework of urban planning or municipal development plans and other sector policies.
1.3 Detailed Khoroo level flood/hazard risk, exposure and vulnerability assessment reports prepared for the remaining Ger areas	No detailed risk, hazard or vulnerability information exists at the khoroo level in the target khoroos, meaning that future development planning and investment decisions will not be based on the latest vulnerability information.	Detailed risk, hazard and vulnerability information means that future development planning and investment decisions will consider present and likely future climate change risks	Vulnerability assessments would have to be built into future development projects and investments. However, there is no guarantees that other donors in the future or private sponsors would give consideration to climate change adaptation priorities.
1.4 Integration workshops held to ensure that urban adaptation is prominently featured in Mongolia's NAP and 2025 NDC update, and climate change adaptation considerations are mainstreamed into future urban-related policies and plans	NAP is under development, NDC to be revised and updated around 2024. Future iterations may not consider urban vulnerability or adaptation needs. This would be problematic as almost half of Mongolia's population lives in Ulaanbaatar alone	Urban resilience issues – especially the vulnerabilities and types of adaptation actions proposed by this project, will feature more prominently in the next NDC update and the forthcoming NAP	The alternative would be to try to programme either a separate project to integrate with the NDC/NAP, or to try to programme urban adaptation outside of the framework of these plans and contributions
1.5 Urban adaptation mainstreamed into local government policy and planning in the target areas	Urban plans/municipal development strategies are periodically updated. They may not adequately consider climate change risks or adaptation needs. Note that activities under Outputs 1.2 and 1.3 are justified through the same baseline without them and will achieve the same additionality.	Adaptation considerations are mainstreamed into plans/development strategies at the sub-national level.	Adaptation actions would be stand-alone, or project based and outside the framework of urban planning or municipal development plans
2.1 Capacity building programme implemented at the sub-national level to plan for an manage urban adaptation actions	Existing capacities to plan for adaptation and development in a manner that fully considers climate change related risks, hazards and vulnerabilities is limited	Enhanced capacity building at the sub-national level will lead to future decision making that is better informed by present and future climate change risks	Other funding or capacity building support would be sought, introducing the risk that it might not be focused on key challenges around adaptation in urban infrastructure for the poorest and most vulnerable

			communities.
2.2 Capacity building programme implemented at the community level to manage and maintain small-scale adaptation infrastructure	Community capacity to manage and maintain is thought to be low	Communities in the target Khoroos will have the capacity to manage and perform basic maintenance on the infrastructure, and will be aware of how to request more major maintenance, when required	Contractors would provide maintenance, with a greater risk of community disempowerment or poor-quality maintenance work
2.3 Capacity built to meet future urban adaptation financing needs and community-based disaster risk reduction and assets protection trainings	Current capacity at the sub-national level to mobilize climate finance is very limited. Capacity at the national level exists, but most climate finance at present goes through the banking system, not sub-national government	There will be capacity to advocate for and partner in the mobilization of climate finance at the sub-national level, leading to greater resourcing for future adaptation actions	Future adaptation finance would be reliant on outside donors and more likely to be top down, and not reflective of the vulnerabilities of the poorest and most vulnerable.
3.1 Technical studies – Engineering and hydrological - required to implement the physical interventions prepared	People in the target Khoroos are experiencing floods on a regular basis, largely relating to snow melt and melting permafrost. Without improved infrastructure, people in the target areas will continue to suffer to effects of these hazards, which become worse because of continually rising temperatures	People in the target Khoroos will be resilient to floods as a result of improved infrastructure.	Other, more costly options exist (as discussed in Section ??), however, the costs of these are likely prohibitive and the technology less proven. Upstream eco-system type options (such as reforestation) are not viable considering Mongolia's harsh climate.
3.2. 1.540 km retention wall, 5.578 km urban drainage constructed, and 1.781 km drainage repaired Sukhbaatar District Khoroo 18, 20, 15, 16.			
3.3. 2.182 km of flood protection canals constructed in Songinokhairkhan District Khoroo 26 and 4.			
3.4 Trees and bushes planted by the communities along the flood protection facilities to create additional resilience and broader environmental sustainability			
3.5. 400 flood resilient sanitation facilities constructed by the target communities			
4.1 Knowledge captured from project implementation and disseminated through media, web-stories and case studies	Without activities under this output, knowledge would not be captured or sustained. This would mean it less likely that the project's benefits would be sustained	Knowledge will be captured and stored, and institutional memory will be increased	Other domestic or international sources of knowledge would have to be found. No viable alternative is likely to lead to sustained generation and retention of knowledge
4.2. National and local government has increased knowledge resources at its disposal			
4.3 Bringing Global Knowledge on best practices to Implementing Partners and communities	There is no mechanism to bring best practices to Mongolia at present	Best practices from other relevant contexts will be introduced and learnings adapted.	

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.

Institutional

The proposed project is in full alignment with Mongolia's urban development and climate change policy goals. To support institutional sustainability goals, the project's components include activities around ensuring that the project's area of focus is mainstreamed into the forthcoming NAP and future iterations of the NDC, and activities to build capacity at the community and municipal level.

Social

Community consultations were used extensively in the design of this concept note and will also be extremely important to the design of the full proposal and eventual implementation of the project. UN-Habitat's People's Process approach will be drawn upon to directly engage communities in the planning, design, construction, management and maintenance of the infrastructure built under the project. Moreover, because the project targets an area of Ulaanbaatar that is home to rural urban migrants (some of whom have already been the victims of Dzuds – a climate change driven phenomenon – the project will have a secondary social benefit of increasing the resilience of these migrants. Finally, because the project will incorporate public space among the adaptation measures, it will contribute towards social cohesion and enhanced community wellbeing.

Economic

Adaptation measures are essential to reduce economic losses and opportunity costs that arise from flooding. Avoiding damage from floods will have substantial economic benefits

Financial

The project will support financial sustainability through activities under Output 2.3

Environmental

The public space constructed in Khoroo 18 as part of the adaptation measures under Component 3 will bring secondary environmental sustainability benefits. While the remaining construction is not green infrastructure, building with nature principles will be essential. The project will take a 'do-good' approach to environmental sustainability and minimising risk to Ulaanbaatar's sensitive environment.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

During the preliminary consultations that have taken place in the preparation of this concept note, and through the diligent application of precautionary principles, potential risks for further screening have been identified against 13 of the 15 AF environmental and social principles.

Communities consulted in the initial phase highlighted some risks. These include the risk of maladaptation, in effect, in effective infrastructure design/construction that fails to protect them against flood waters, and prolonged inconvenience arising from delayed or slower than anticipated construction. These risks are captured under the climate change and involuntary resettlement principles, respectively.

Table 11. Checklist of compliance with AF Environmental and Social Principles

Checklist of environmental and social principles	No further assessment anticipated required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		X
Access and Equity		X
Marginalized and Vulnerable Groups		X

Human Rights		X
Gender Equity and Women's Empowerment		X
Core Labour Rights		X
Indigenous Peoples	X	
Involuntary Resettlement		X
Protection of Natural Habitats		X
Conservation of Biological Diversity		X
Climate Change		X
Pollution Prevention and Resource Efficiency		X
Public Health		X
Physical and Cultural Heritage	X	
Lands and Soil Conservation		X

A full risk and impact assessment, and Environmental and Social Management plan will be prepared at full proposal stage, if the concept note is successful. Table 12, below, shows the preliminary risks identified so far and indicative risk mitigation measures. Unless stated, it is assumed that only the physical construction related activities under Component 3 will trigger risks. This table will be revisited and substantially elaborated at the full proposal stage.

Table 12. Brief description of risks and possible mitigation measures

Adaptation Fund environmental and social principles	Possible Risks	Possible Risk Mitigation Measures
Compliance with the Law	Failure to comply with the laws and regulations identified in Part II, Section E of this concept note	Compliance with the law is written into all contractual agreements with third party contractors. Regular monitoring/inspection
Access and Equity *Marginalized and Vulnerable Groups*	If improperly sited or designed, the infrastructure may not benefit the poorest, most vulnerable or recent migrants	Continued consultation that gives strong weighting to the poorest, most vulnerable and recent migrants. Grievance mechanism. Please note that, for now, these two principles have been merged
Human Rights	Risks to human rights emerge from the risk of involuntary resettlement. See below	See involuntary resettlement, below.
Gender Equity and Women's Empowerment	There is a risk that any negative impact of the project may disproportionately affect women. There is also a risk that the project's soft activities under components 1, 2, and 4 may exclude women.	Quotas for the inclusion of women in activities under Components 1, 2, and 4. Engagement with women's community groups or representatives at design and construction phase to reduce the risks of differentiated impacts
Core Labour Rights	Violations of labour rights of contractors working under or employed by the project	Ensuring that workers are paid a fair, living wage and that contractors comply with national laws and ILO core conventions
Indigenous Peoples	No risks identified. There are no indigenous people identified as living in the target area. Rural-urban migrants are captured under the access and equity and marginalized and vulnerable groups safeguarding area.	
Involuntary Resettlement	There is a risk that, if improperly planned, he infrastructures under Component 3 could infringe on private land/property, access to private land or property, or land	Further research and consultation at the detailed design phase to ensure that infrastructure is only constructed on public land. Full

	that people use for business/livelihoods	prior and informed consent process prior to starting construction
Protection of Natural Habitats	The proposed project is in a densely populated urban area. There are not thought to be any significant natural habitats or areas of important biodiversity in or near the project site. However, this will be explored in more detail at the full proposal stage	No mitigation measures identified Note that protection of natural habitats and conservation of biodiversity have been combined at this stage.
Conservation of Biological Diversity		
Climate Change	There are wo potential risks under this principle, unnecessary emissions arising from the construction or operation of the infrastructure, or maladaptation arising from poor design or improper functioning of it	Contractors will be required to source local materials where possible (reducing emissions from transportation). Avoiding maladaptation risks will be a factor in selecting design companies at the implementation stage
Pollution Prevention and Resource Efficiency	With improper site management, construction waste may be disposed of improperly	Requiring construction contractors to dispose of waste in compliance with procedures and guidelines of the government of Mongolia
Public Health	Risks to public health (and safety) could arise from the following: 1) Poor site management, 2) contamination of drainage water (either directly or indirectly from project activities), 3) Maladaptation (where infrastructure is ineffective or directs flood waters elsewhere)	Following safe construction site management best practices, principles and protocols, monitoring to ensure that waste and other harmful materials don't contaminate water. See Climate Change principle for maladaptation.
Physical and Cultural Heritage	No risks identified	
Lands and Soil Conservation	This risk has been triggered as construction will be taking place in a flood prone area	Further study will be undertaken during the preparation of the full proposal

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2]

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Dr. Batjargal Zamba, National Focal Point for the Adaptation Fund, Ministry of Environment and Tourism of Mongolia Address: Margad Center, 8th khoroo, Sukhbaatar District, Ulaanbaatar – 14191 Mongolia Tel: 976-7000 0743; 976-7000 0744 Fax: 976-11-310743 e-mail: zbatjargal@mne.gov.mn; z_batjargal@yahoo.com	Date*: 8 August 2022*

MINISTRY OF ENVIRONMENT AND TOURISM
OF MONGOLIA
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Date 2022, August 8
Ref. 56

To: The Adaptation Fund Board

Re: Endorsement of the Ger Community Resilience Project Concept Note

Dear Madam, Sir,

In my capacity as the National Designated Authority for the Adaptation Fund in Mongolia, I confirm that the aforementioned concept note is in accordance with the Government of Mongolia's national priorities in implementing climate change adaptation actions to reduce the impacts caused by the adverse effects of climate change. Numerous discussions have taken place between UN-Habitat as Multilateral Implementing Entity, various stakeholders and the Ministry of Environment and Tourism, throughout which all stakeholders agreed to give support to the project.

Accordingly, I am delighted to endorse the aforementioned concept note and request the Adaptation Fund to give it due consideration. If approved, I understand UN-Habitat will lead the development of a full project proposal in discussion with the Ministry of Environment and Tourism, which will establish in detail the project's budget, management arrangements and measures to avoid undue environmental and social impacts.

Yours Faithfully,

BATJARGAL ZAMBA
NATIONAL FOCAL POINT FOR THE ADAPTATION FUND

B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines by the Adaptation Fund, and prevailing National Development and Adaptation Plans in Mongolia, including the updated NDCs of 2021, the National Programme on Climate Change, Green Development Policy and the Sustainable Development Vision 2030, and subjected to the approval by the Adaptation Fund Board, commit to implementing the programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this programme.
Rafael Tuts Director, Global Solutions Division | Officer-in-Charge, Office of the Deputy Executive Director | United Nations Human Settlements Programme Tel +254 20 7623726 | Cell +254 713 601 278 | Email raf.tuts@un.org Signature:    Implementing Entity Coordinator
Date: 5 August 2022
Project Contact Person: **Laxman Perera**, Human Settlements Officer, Regional Office for Asia and the Pacific, United Nations Human Settlements Programme (UN-Habitat); Email: Laxman.Perera@un.org