



UN-HABITAT

# GENDER-BASED ADAPTATION TO CLIMATE CHANGE IN AFGHANISTAN

A case study of a community-based approach in Kabul's informal settlements





## Key Messages

- **Women in Afghanistan's informal settlements face intersectional climate vulnerability:** climate hazards intersect with restrictive gender norms, limited mobility, economic exclusion, and protection risks.
- **The case study of Kabul's informal settlements shows that community-led, gender-focused settlement planning strengthens women's resilience:** UN-Habitat-led participatory mapping sessions are effective in identifying gendered vulnerabilities and prioritizing adaptation investments.
- **Targeted adaptation investments have impacts on women's experience of climate breakdown:** the construction of gender-safe public spaces with drainage and lighting directly reduce climate risk (flooding, disease) while also improving women's safety, mobility, and access to essential services during climate shock.
- **Scaling up gender-based climate adaptation is urgent:** as Afghanistan's informal settlements expand and climate hazards worsen, community-based approaches require increased funding to reach vulnerable women.



## 1. Introduction

Afghanistan is ranked as one of the most climate-vulnerable countries on earth, being exposed to floods, droughts, and associated diseases.<sup>i</sup> Residents of informal settlements, which number over 1,000 sites across the country, are acutely vulnerable.<sup>ii</sup> Many are located in hazard-prone urban or peri-urban areas and lack critical infrastructure and durable housing. Low-income residents are often migrants from drought-afflicted rural areas and lack the financial capacity to meet the costs of climate breakdown. As the country's cities expand by over 3% per year – the highest rate in South Asia – growing numbers of people are located in these peripheral sites where they are exposed to more frequent and severe climate hazards.<sup>iii</sup>

Afghanistan's climate breakdown is occurring in the midst of a gender-protection crisis, resulting in intersectional vulnerability for women. Globally, studies show that women's

role in childcare and domestic work (e.g. collecting water, preparing safe food/drink) increases during times of climate shocks. This 'feminisation' of the climate crisis both exacerbates gender inequalities and mediates women's experiences of climate breakdown.<sup>v</sup> In Afghanistan's informal settlements, the feminisation of climate crisis is amplified by protection risks, including Gender-Based Violence (GBV) and insecure land rights. The 2024 Law on the Promotion of Virtue and Prevention of Vice (PVPV) has further restricted women's access to employment, education, and public spaces, resulting in higher risk of negative coping mechanisms in times of shock.<sup>iv</sup>

This brief provides a case study of a UN-Habitat intervention that addressed gender-based climate vulnerability in a Kabul informal settlement. It presents a DG-ECHO-funded project: its design, implementation and outcomes in Kabul's Kart-e-Sakhi informal settlement. Following this introduction, the



A group of local women participating in PHVCA field practices to better understand hazard risks that are threatening their communities. ©UN-Habitat/Piroz Amin

brief provides the results of a participatory assessment of gender and climate vulnerability in Kart-e-Sakhi. It then presents UN-Habitat's response to these challenges with community-scale, gender-based climate adaptation planning and investments. Finally, the brief proposes a way forward to up-scale gender-based adaptation across Afghanistan's informal settlements.

## 2. Gender-Based Climate Vulnerability in Kart-e-Sakhi

Kart-e-Sakhi is an unplanned informal settlement located on a hillside in central Kabul. Home to 8,211 people across 1,173 households, the community faces floods, landslides, water scarcity, and disease, reflecting challenges common to informal settlements nationwide. Original settlers occupied vacant land in 2003, having been displaced from rural areas by conflict and recurrent droughts. Initially, residents resided in tents provided by UN aid agencies. Over time, ad hoc housing and

infrastructure construction commenced in the absence of formal planning resulting in an unplanned and underserviced settlement that exists today.

To assess gender-based climate vulnerability in Kart-e-Sakhi, UN-Habitat deployed a range of participatory tools as part of Participatory Hazard, Vulnerability and Capacity Assessment (PHVCA) [Box 1]. The PHVCA workshops were conducted in public, gender-safe, and disability-accessible community spaces. Workshops were conducted separately for women and men to ensure that women felt safe and were able to express their opinions freely. The PHVCA participants included a cross-section of population sub-groups, including youth, elderly and people with disabilities. This assessment revealed a range of intersectional vulnerabilities that defined women's experiences of climate breakdown.



PHVCA sessions with separate female and male groups

**Box 1: A participatory, community-centred approach to understanding gender-based climate vulnerability**

The Participatory Hazard, Vulnerability and Capacity Assessment (PHVCA) is a best-practice approach used to understand climate risks and plan responsive actions. It incorporates several participatory tools, including community mapping, hazard matrixes and stakeholder Venn diagrams. UN-Habitat, in consultation with UN Women, modified the PHVCA to focus on gender-specific climate risks in the Afghan context. The gender-sensitive PHVCA was deployed to spatially document the climate risks that women face in Kart-e-Sakhi (Fig 1). Moreover, it enabled an understanding of how climate hazards intersect with other sources of gendered risks, including harassment, violence and socioeconomic exclusion. It also highlighted how gender risk profiles were linked to infrastructure and service deficits, including those related to WASH, streetlighting and other territorial aspects of the informal settlements.

The PHVCA results identified a range of climate hazards impacting Kart-e-Sakhi, which are associated with the settlement's location on the hazard-prone slopes of a hillside in central Kabul. Residents noted that the area suffers from frequent rain-induced flash-flooding during the winter and spring months, which causes damage to property and presents risks of injury and death for residents. Flash-floods also trigger earth movements, dislodging boulders and other materials, to increase risks of asset loss and injury while stagnant flood waters expose residents to disease. Worsening water scarcity also presents health risks for residents: Kabul is facing a water crisis as groundwater reserves diminish; Kart-e-Sakhi's elevated position presents additional challenges in accessing groundwater resources.

Women residents of Kart-e-Sakhi are particularly vulnerable to climate hazards due to a range of social, economic and cultural factors. The PHVCA found that a key source of gender vulnerability relates to gendered experiences of poverty. The majority of Kart-e-Sakhi residents are protracted IDPs – a vulnerable population subgroup with incomes 40% lower than the



Children playing under hot sun in an unhygienic area in Kabul PD #16, September 2025.  
© UN-Habitat/Piroz Amin

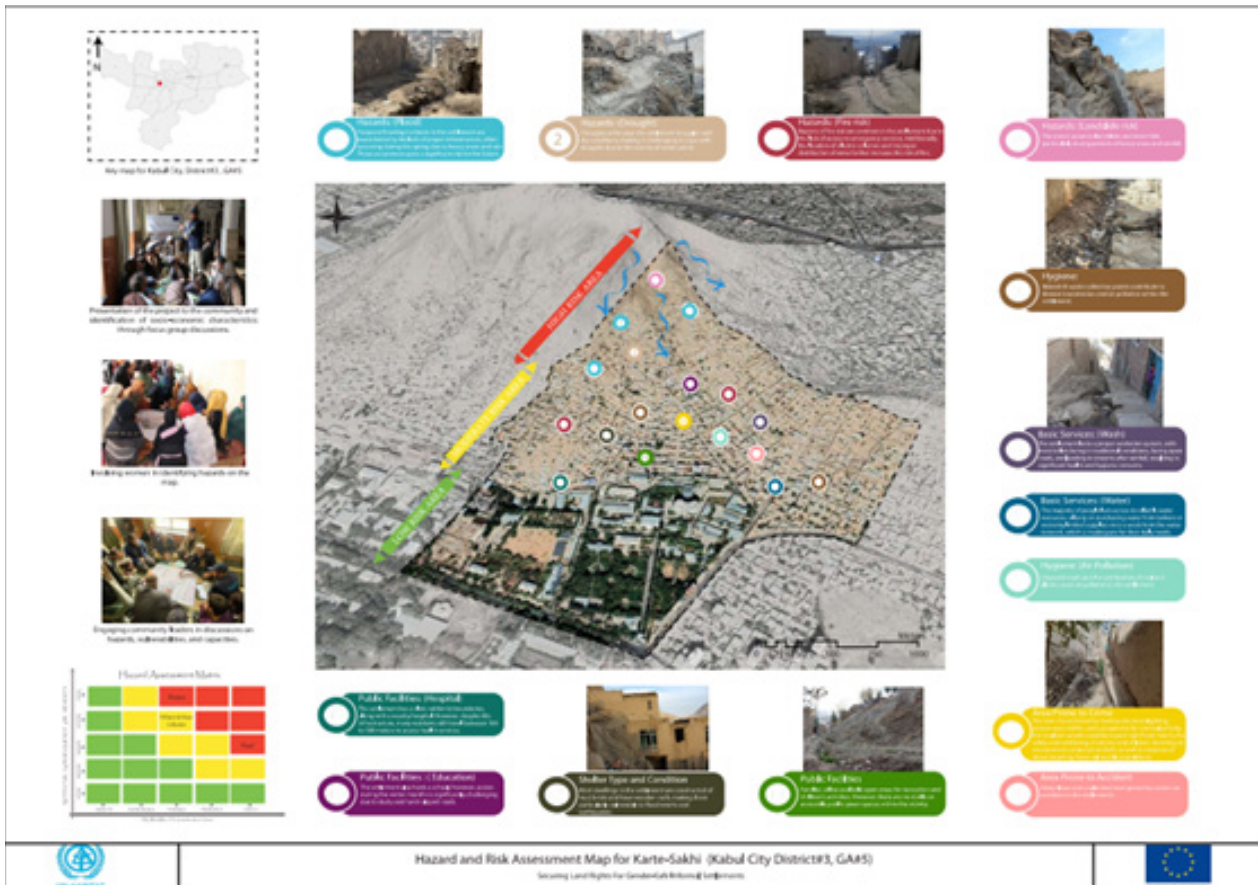


Fig 2: Hazard map of Kart-e-Sakhi

average urban resident.<sup>vi</sup> Men typically work in the informal sector, where their low wages do not cover basic needs (food, water, healthcare). Women’s livelihoods are limited by measures implemented by the de facto authorities (DFA): they are restricted to home-based industries, yet lack the equipment and training to make handicrafts or produce other goods. Hence, women residents typically rely on secondary income to meet climate related expenditures (i.e. income provided to women by male household members).

Gendered poverty dynamics intersect with women’s role in domestic management to catalyse the impacts of climate hazards. A particular pressure highlighted by women PHVCA participants is rising food prices during periods of drought, which places pressures on women due to their role in food preparation. Another issue is increased incidence of disease and associated costs that occur during floods and droughts, and as women are primary caregivers in the community they bear the socioeconomic brunt of disease outbreaks.

Insecure land tenure and inadequate housing have contributed to women’s experience of climate hazards in Kart-e-Sakhi. The de facto Kabul municipal authorities categorise the settlement as an ‘unplanned informal settlement’ and few residents have legal property documents. In this context, insecure tenure has synergised with low incomes to restrict climate resilient investments in housing and therefore residents are reluctant to invest scarce income in assets that are at high risk of appropriation. Consequently, non-durable structures are at risk of collapse during periods of strong rains, flash floods and in the event of an earthquake. Housing challenges are highly gendered, most notably for women-headed households who on average earn lower incomes, suffer from higher tenure insecurity, and have less household labour, which limits opportunities for climate resilient housing improvements. In addition, women are largely confined to domestic spaces and so are at greater risk of injury or death in the event of structural collapse (i.e. as a result of Afghanistan’s

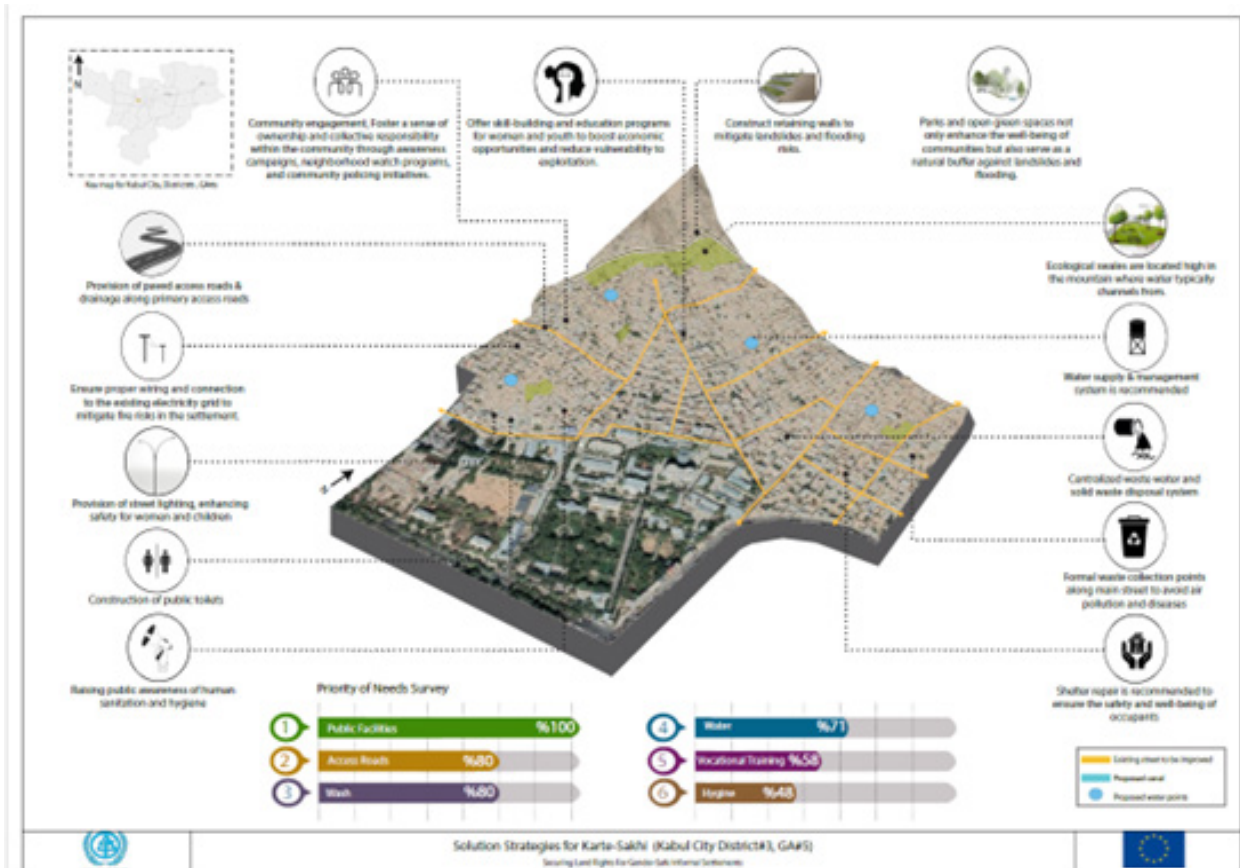


Fig 3: Settlement plan of Kart-e-Sakhi

frequent earthquakes)Kart-e-Sakhi's designation as an informal settlement has also restricted climate resilient investments in drainage, WASH and other community infrastructure. Residents do not have access to safe (piped) water and are reliant on private companies bringing water in tankers. Only 5 to 10% of the households have improved sanitation and washrooms, and most toilets are basic open latrines that flood during rains. In addition, there is no garbage collection service and waste is often dumped in communal walkways.

WASH deficits exacerbate the gendered impacts of climate hazards. During rains, solid waste and untreated sewage from latrines contaminate flood waters, spreading pollution and disease in a context where limited safe water is available. Women's role in childcare and domestic labour renders them particularly vulnerable to disease, while unsafe hygiene practices carry gender-specific health risks. Lastly, a key issue that illustrates the intersecting nature of climate stress and GBV

is that women must traverse insecure public spaces to purchase and carry barrels of water back to their homes, consistently exposing them to heightened personal safety risks.

UN-Habitat's PHVCA approach includes tools to capture the spatial dimensions of climate vulnerability through participatory hazard mapping sessions. In Kart-e Sakhi, women's experiences of climate vulnerability were mapped through an integrated approach, highlighting how climate hazards intersected with other components of vulnerability (e.g. WASH, housing, and infrastructure deficits) in different areas of the settlement. For example, hazard mapping identified public spaces where women were at risk of harassment as they accessed key resources (e.g. clean water) during periods of flood and/or water scarcity. Participatory hazard mapping of Kart-e-Sakhi shows the distribution of gender-based and associated risks across the settlement (Fig 2).



**BEFORE**



**AFTER**

Photo Card: Project area before (above) and after (below) the UN-Habitat intervention

### 3. Settlement Planning and Upgrading to Address Gender-Based Climate Vulnerability

To address the gender-based climate vulnerability in Kart-e-Sakhi, UN-Habitat actioned a multi-staged approach.

First, based on the PHVCA, the community was supported to develop a gender-sensitive climate resilient settlement plan. Gender-based settlement planning defined critical investments to address the climate vulnerabilities identified during the PHVCA (Fig 3). Although the focus was on gendered investments, the plan also highlights lifesaving Shelter and WASH to facilitate supporting activities from other humanitarian agencies as part of a coordinated response to the needs of informal settlements. Community groups were supported to secure authorities' endorsement of these maps. In this way, the gender-based climate adaptation plan of the settlement obtained official recognition, mainstreaming gender-safe planning in the community's future development.

Second, the project identified and actioned a priority gender-based adaptation investment identified in the settlement plan. To this end, a Community Action Plan (CAP) workshop was convened by UN-Habitat, and a gender-based adaptation investment was selected through a democratic process by community members. The project selected by community members was the transformation of an area of wasteland associated with flood and disease risk, drug use and the harassment of women. The investment provided the community with an integrated gender-safe public space and drainage system (Fig 4).

### 4. Gender-based Adaptation Outcomes of the Project

The UN-Habitat investment resulted in several positive gender-based climate adaptation outcomes in Kart-e-Sakhi:

**Adapt to increasing risks of floods and landslides:**



Children collect water from an unsafe source, loading containers onto donkeys in Kunduz, Afghanistan, August 2024. © UN-Habitat/Sadatullah Hamkar

The improved public space included a drainage system to manage floodwaters. This reduced the risk of damage to property, injury and death due to flash-flooding and earth movements. The drainage system has reduced exposure to stagnant, contaminated wastewater inundating the settlement, spreading diseases that affect women, children and elderly most severely.

**Enable women’s safe access to services during climate shocks:**

The location of the drainage and public space investment was identified through participatory spatial planning to be of particular benefit to women. A key risk women identified during the hazard mapping related to women’s mobility challenges associated with an unsafe physical environment, which restricted their access to key services (e.g. health, water), particularly during periods of climate shocks. The location of the drainage and public space investment was highlighted as a particularly dangerous area, associated with harassment and the threat of violence. In response, UN-Habitat undertook a participatory design process to

improve safety, which included the installation of street lighting and paved walkways. This transformed the formerly unsafe pathway to a safe connection for women living in the settlement when accessing the urban social and economic opportunities, healthcare, and other critical climate resilient resources in the other areas of the city.

**Strengthening women’s social resilience:**

The investment provided a safe public space for women in the settlement, which was highlighted as a key component of psychological wellbeing, contributing to women’s social resilience. The space included women-only areas where community members could meet and form social networks in the context of DFA restrictions on mixed-gender spaces. Providing fora for community interaction is widely regarded as critical in community-resilience to climate breakdown (e.g. through information sharing, sharing resources, developing adaptation capacities).

**Strengthened land rights for increased**



UN-Habitat community mobilisers explaining hazard risks and vulnerabilities within Kabul’s PD #16 neighborhood to local community, September 2025. © UN-Habitat/Wrishmina Munib

**investment:**

The project activities strengthened residents' land rights, thereby reducing the threat of women (and men) being evicted from the settlement, and improving the environment for investments in climate resilient and gender safe housing and infrastructure investments. The 'soft' components of the project involved gaining authorities' endorsement of the site's land use map and settlement plan, providing official recognition of land use regimes and future development plan. The investment in community infrastructure consolidated the settlement, further strengthening resident's land rights.

the sources of vulnerability and implementing responses that directly address the needs of women. The project has also developed toolkits to enable the upscaling of the approach across Afghanistan, to address the urgent needs of women living in informal settlements in Kabul and other areas of the country. It is critical that funding is extended to address the increasing risks, as urban populations continue to expand, and the climate crisis continues to worsen. Failure to act will compound the vulnerabilities of women residents of informal settlements, and restrict some of the most climate-vulnerable people on earth to adapt to the worsening crisis.

## 5. Moving Forward:

### Upscaling Gender-Based Adaptation in Afghanistan's Informal Settlements

Women residing in Afghanistan's informal settlements are among the most climate-vulnerable on earth. They are located in a country highly exposed to climate hazards, which lacks the infrastructure, financial resources and technical capacity to adapt. Afghan women face the additional challenge that they are subject to extreme restrictions on social and economic activity, which increases vulnerability to climate hazards.

The DG-ECHO funded project in Kart-e-Sakhi has revealed that women residing in Afghanistan's informal settlements are particularly vulnerable to climate change. It has also shown that participatory and community-based approaches are useful in highlighting

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