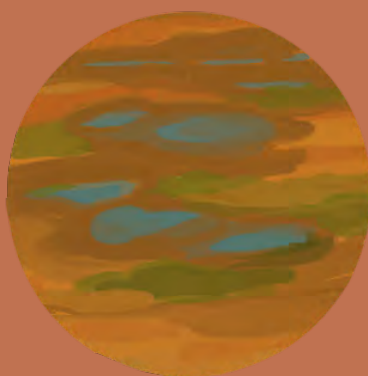


DHUSAMAREB RESILIENCE PLAN



Dhusamareb Resilience Plan
March 2021

UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME
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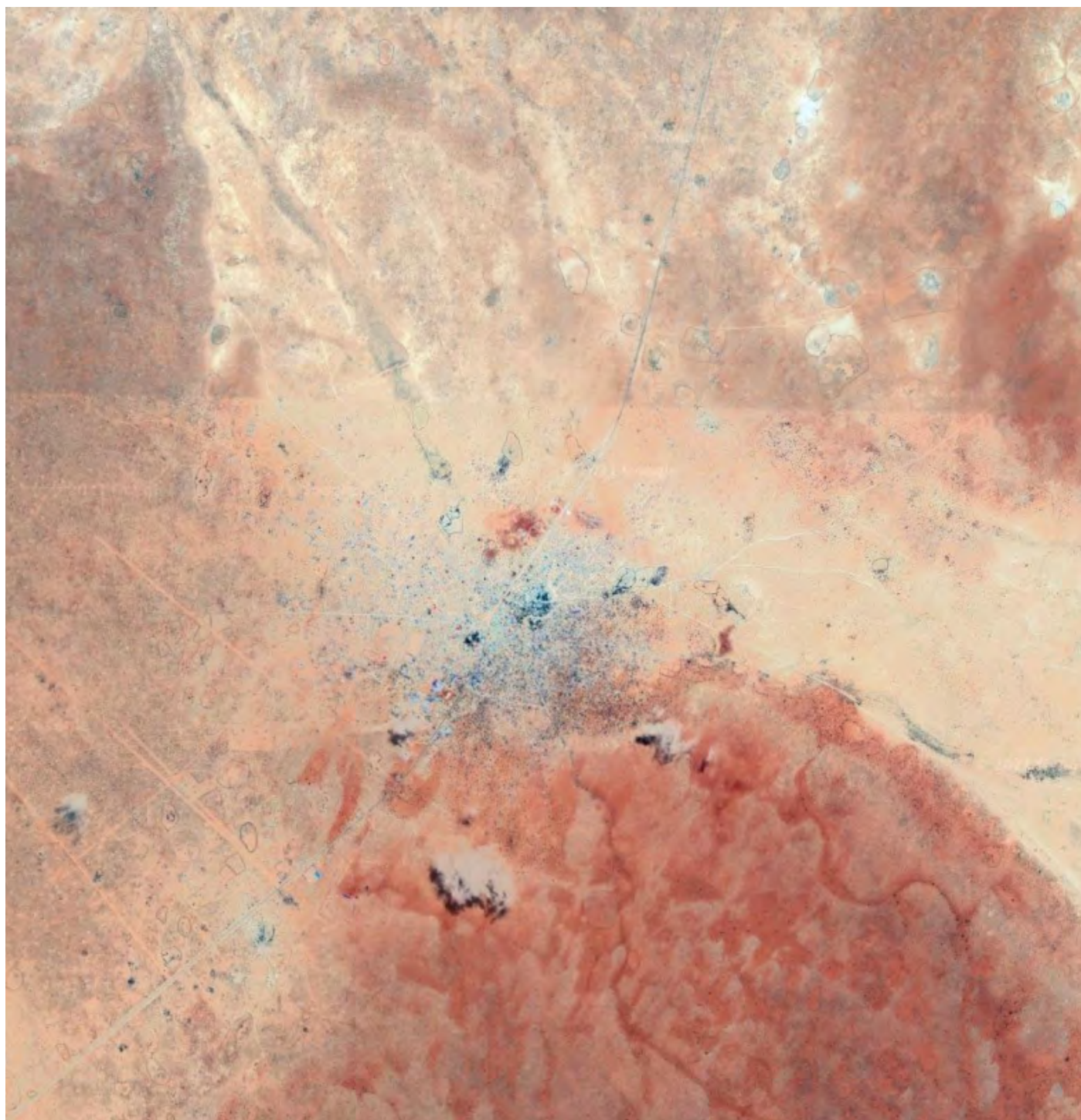


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1 INTRODUCTION

The Dhusamareb Resilience Plan provides an overview of the main features related to resilience in the town and its surrounding landscape. It briefly analyses the current development challenges with a special focus on climate-related and environmental-related risks affecting vulnerable population.

It is a complementary technical document to several other planning studies and reports to shape the future of Dhusamareb in a more sustainable way, providing basic urban services to all communities and leaving no one behind.

This Resilience Plan provides an identification of the main existing processes currently taking place in Dhusamareb from a vulnerability perspective. The vision and example interventions are focused in reverting, at least partially, those processes.

Given the lack of available information from all spheres – social, environmental, economic, etc– it wasn't possible to develop a full scope document.

However, this document does propose a clear methodology that can be later applied and customized. Firstly, a regional and urban scale analysis identifies hazards, vulnerable areas and current resilience elements. With this information, an interdependence assessment is conducted through the problem tree analysis. This analysis identifies the process(es) that are in the root of the main hazards perceived across different scales. Once the processes have been identified, a complete vision can be proposed, focused on modifying the main damaging process(es) and not spending energy on solving side symptoms. This method aims to reduce the hazards and vulnerabilities of the communities in Dhusamareb on the long run.

Responding to the environmental challenges is an endeavor that requires, in general, large-scale, long-term environmental strategic plans, which include continuous monitoring and evaluation from the local authorities. This document proposes examples of specific interventions

that local and regional administrations and individuals can undertake to increase urban and regional resilience. These actions are chosen according to their simplicity and based on their effectiveness (drawn from scientific literature descriptions). It would be advisable to present alongside the interventions a monitoring and evaluation plan, so as to ensure their being effective.

UN-Habitat's mandate on the implementation for the sustainability agenda is making cities and urban settlements resilient, inclusive and sustainable under Sustainable Development Goal (SDG) 11. UN-Habitat has developed more comprehensive, local tools for resilience planning, such as the City Resilience Action Planning Tool (CityRAP Tool), that would be advisable to develop on the field involving local participatory processes. It would also be advisable to conduct a Vulnerability and Risk Analysis (VRA) on the field for a more complete vision of the current processes.

It is hoped that this working paper contributes to the necessary public discussion on Dhusamareb's future development and facilitates decision-making by local, regional, state and federal authorities.

Reference is being made to other studies and data updates undertaken by UN agencies and other international stakeholders, such as: SWALIM (Somalia Water and Land Information Management), World Bank-FAO, IOM and CCCM Cluster.

This Resilience Plan was drafted with support from the Dhusamareb Core Facilitation Team (CFT) of Midnimo II (Unity) project: "Support for the Attainment of Durable Solutions in Areas Impacted by Displacement and Returns in Galmudug and Hirshabelle States."

Midnimo II is jointly implemented by The United Nations Development Programme (UNDP), International Organization for Migration (IOM) and the United Nations Human Settlements Programme (UN-Habitat) and funded by United Nations Peacebuilding Fund.

HAZARDS

The first part of this resilience plan identifies hazards, based mainly on those related to environmental issues, such as soil degradation. This identification is twofold, taking place on both regional and urban scale.



SIMPLIFIED INTERDEPENDENCE ASSESSMENT

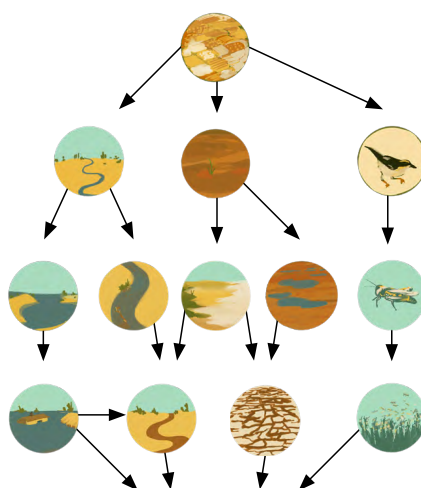
Using the problem tree analysis, hazards are presented (on a simplified format) with causal relations, providing a vision of the processes taking place currently in the city and its surrounding region. This method helps identify the root processes in the origin of the different hazards.

VULNERABILITY

The second part of this resilience plan identifies vulnerable areas, such as IDP camps and public facilities, that would be endangered by their current exposure to extreme weather events.

RESILIENCE ELEMENTS

The third part of this resilience plan identifies the current elements that provide resilience, both on regional and urban scale.



VISION

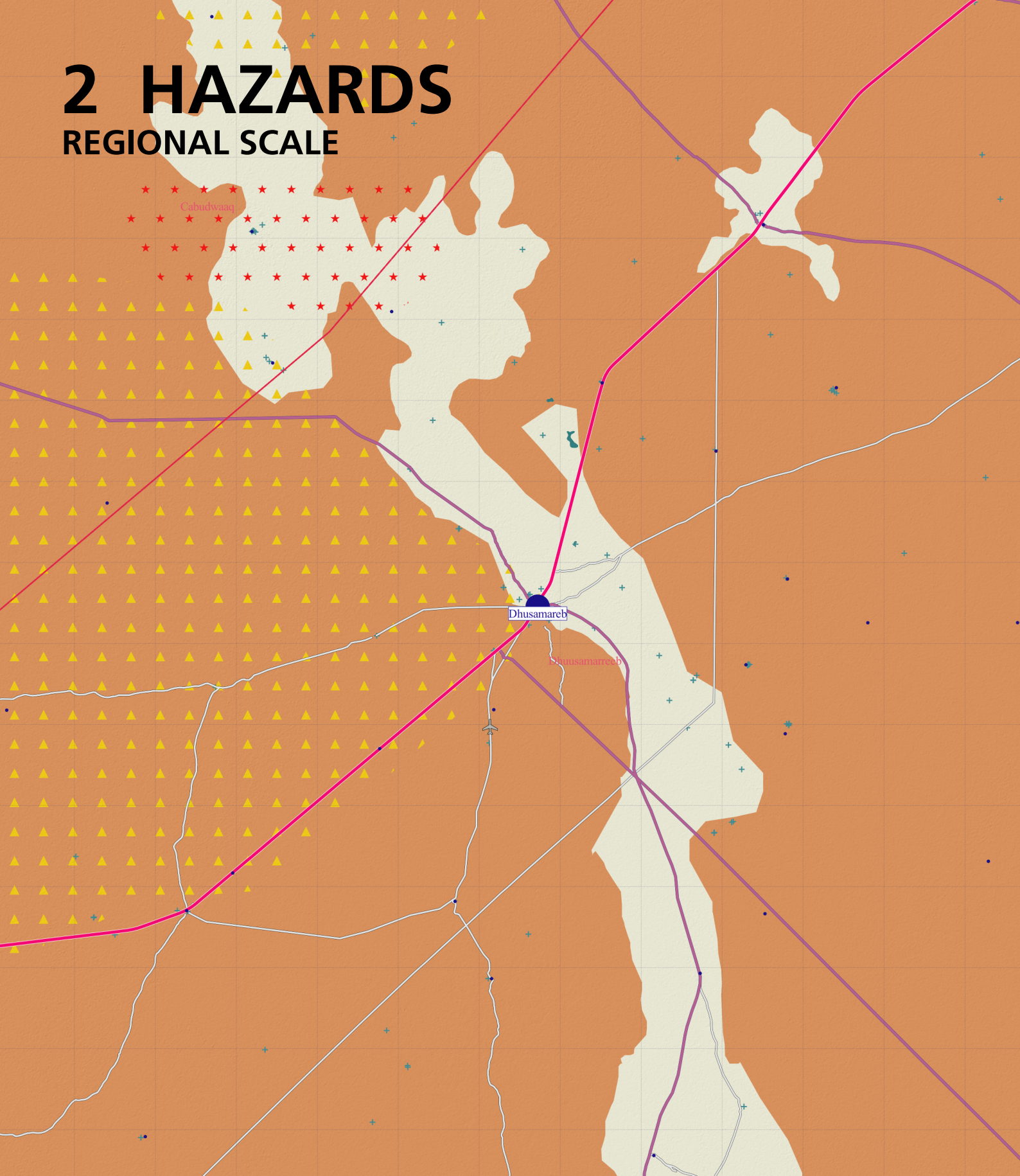
By reversing key elements previously identified on the problem tree, the causal relations between them are also reverted. This results on a vision for an improved future resilience that tackles the root elements of the damaging processes.

EXAMPLE INTERVENTIONS

Lastly, this resilience plan proposes tactical solutions and examples of specific interventions –bottom-up– that local administrations and individuals can undertake to increase urban and regional resilience. These actions are chosen according to their simplicity and based on their effectiveness (drawn from scientific literature descriptions). It would be advisable to present alongside the interventions a monitoring and evaluation plan, so as to ensure their being effective.

2 HAZARDS

REGIONAL SCALE



Hazards | Regional scale

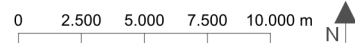
Reported hazards

- Conflict area
- Fires

Land and soil degradation

- Rangelands | Shrublands or grasslands
- Sabkhas | Gypsiferous crust deposits with fluviolacustrine clays

1:300.000



Projections under a low-mitigation **climate change** scenario for Somalia suggest temperatures may increase 3° to 4°C by 2080.¹ Global climate models for the region predict overall precipitation to increase in future decades.² Eight of the last ten years have seen chronic droughts in East Africa, including Somalia, and persistent droughts are likely to continue.³ This will further threaten livelihoods and food security. Climate change could lead to loss of biodiversity and soil fertility, and increase the prevalence of pests and disease, threatening agriculture and human health and increasing rates of urban migration, thus exacerbating conflict in Somalia.⁴ Climate change is a worsening factor in all hazards described below.

Soil degradation is the biggest hazard in the Dhusamareb region. Dhusamareb is situated on a great plain, part of which belongs to a lower, sabkha type of terrain. The other part constitutes a rangeland, with grass or shrubs. The characteristics and dynamics of these terrains must be taken into account in understanding soil degradation and possible derived desertification in the region, which includes loss of vegetation cover, loss of topsoil and soil erosion.⁵ Climate is arid in Dhusamareb, with elevated temporal and spatial variability, and this should be taken into account too.

Sabkhas are endorheic lake areas. They are described as saline flats or salt-crusted depressions based on silt and clay. In sabkhas, underground water is close to the surface, with very interconnected networks.⁶ Sabkha soil has a loose, sandy and gritty texture. The encrusted surface is composed usually of hygroscopic salts⁷ and it usually presents gypsophile (gypsum-resistant) and/or halophile (salt-resistant) vegetation. Shallow pools form easily in rainy seasons, and this water takes a long time to absorb, sometimes evaporating rather than filtering in. Sabkhas have soft, poorly cemented, impermeable floors, due to periodic flooding and evaporation. Currently, many roads and pathways go across the sabkhas and it is likely that pastoralism is also taking place there.⁵

Rangelands are extensive plain areas of land occupied by native herbaceous or shrubby vegetation, where domestic or wild herbivores graze. These spaces are inherently related to pastoralism. It is likely that they have been modified in the last years due to different processes –armed conflict, fence building, sedentary lifestyle, increase of intensive production, etc.⁸ These processes may have had negative effects upon rangeland productivity⁸ and have contributed to soil degradation. Some documents consider that the biggest threat to rangelands is overgrazing⁵, however, other theories suggest otherwise. Ian Scoones⁸ considers these kinds of rangelands as “non-equilibrium environments” where the biggest threat derives mainly from climate. Recent scientific literature suggests that soil degradation may be related to poor livestock management⁹.

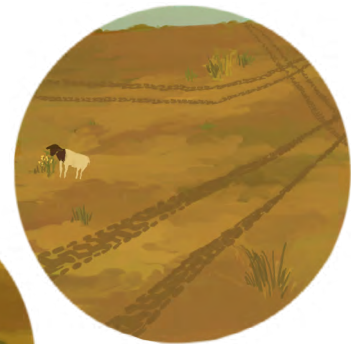
Drought is a major hazard on the region¹⁰, greatly amplified by climate change and worsened by soil degradation. It causes critical problems of water access, affecting health and sanitation.

Wind is an important shaper in the morphology of the region. Once soil is degraded, wind causes aeolian erosion. **Strong winds** can grow into sand and dust storms, creating a threat to health and production. At a regional scale, blowouts can be observed on aerial view: Geomorphological processes caused by the removal of sediments by the wind.¹¹

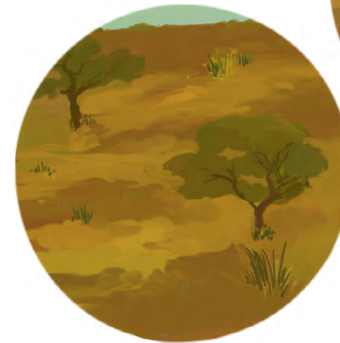
Wildfires pose a hazard to lives and to the landscape, according to local authorities.¹⁰ Fires may be caused by natural dynamics, by extreme weather events or by human conflicts.



climate change



sabkha degradation



rangeland degradation



drought



strong winds



wildfires



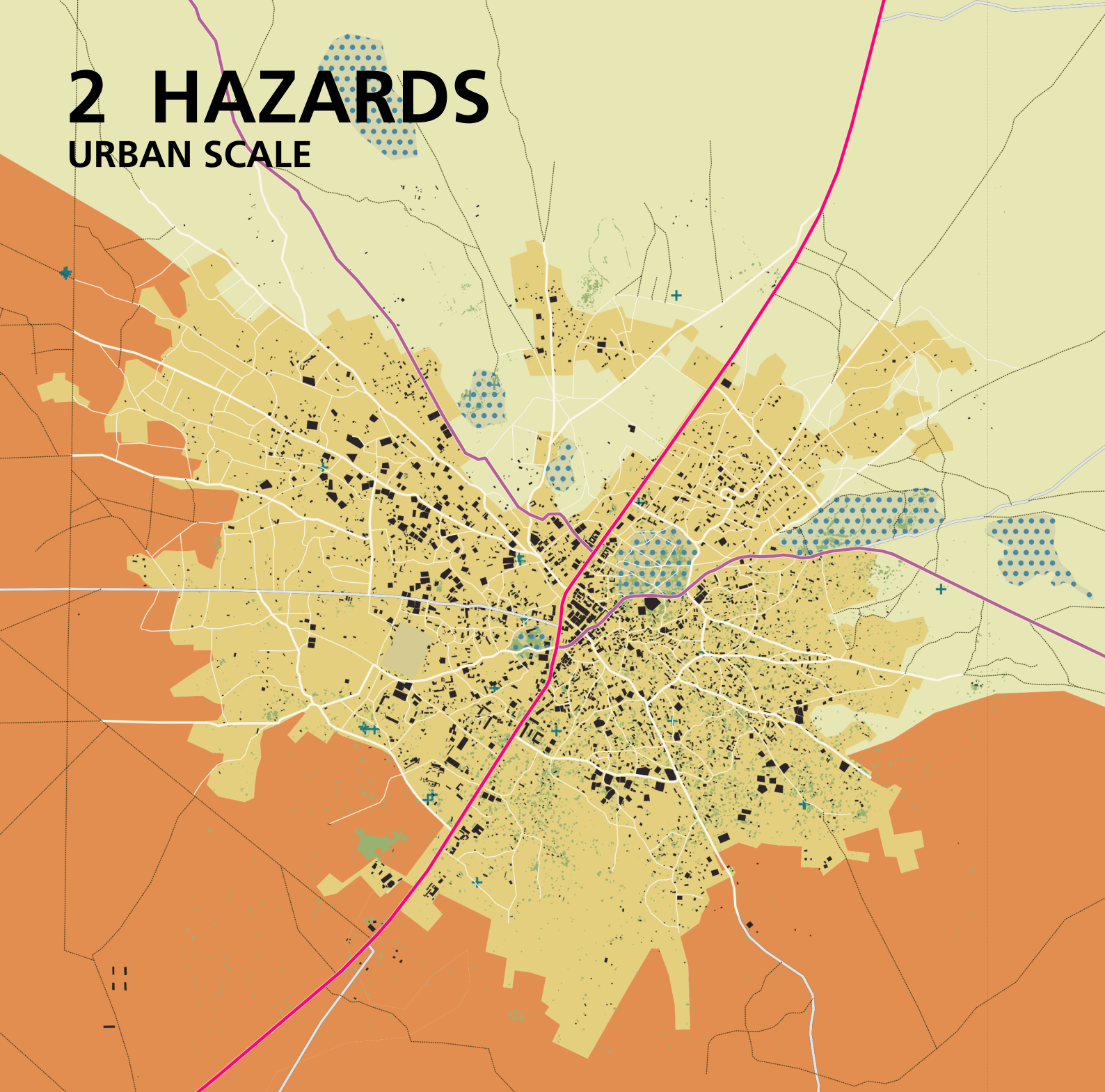
Aerial view suggests blowout identification in the Dhusamareb region

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2 HAZARDS

URBAN SCALE



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_17382

