SAVING
LIVES
CHANGING
LIVES

GEOSPATIAL
INFORMATION
SUPPORT

WFP EMERGENCIES

GIS
CATALOGUE
2019 >>

WFP

**World Food
Programme**

source: Esri

DISCLAIMER

Geospatial Information Support

WFP Emergencies

Product Catalogue 2019

This product catalogue is produced by the Geospatial Information Support Unit under the Emergencies division of the United Nations World Food Programme (WFP).

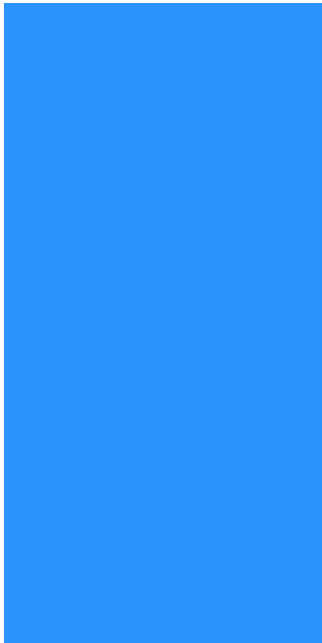Front Cover
Watercolor Painting of Water Colors in Arabian sea

Acquired by NASA MODIS on 23 Nov 2018

Background
Scars of Somme, Northern France

Acquired by NASA Landsat 8 on 21 Oct 2018

‾‾‾WELCOME

In the increasingly challenging contexts, which the World Food Programme (WFP) operates in, the need for accurate and real-time information has never been so crucial. Geographic Information System (GIS) is critical in understanding the complexity of WFP operations and optimising our responses. GIS provides in-depth analysis and visualises situations on the ground to provide WFP staff with up to date and accurate intelligence.

GIS is used in all stages of the disaster cycle – from preparedness to response and at times, recovery. Even in the most remote locations or where infrastructure has been destroyed, we are constantly gathering data, from satellites, drones, apps and mobile phones, to support our emergency response. In order to utilise the full potential of GIS we need to work together with all stakeholders, internal and external, to continue to bridge the gap between needs from the field and services offered by different partners.

WFP is constantly utilising new and cutting-edge technologies to ensure we are better prepared and able to provide humanitarian assistance to every corner of the globe as and when it is needed. From the Integrated Context Analysis (ICA) – combining food insecurity trends with exposure to shocks to understand their impacts - to the Automated Disaster Analysis and Mapping (ADAM) system – alerting staff and partners in near real time – WFP has embraced the use of recent technologies, big data and advanced analytics to improve our situational awareness on the ground.

I see GIS in action on a daily basis in our emergency operations across the globe and at all levels of the emergency management of a response. From our field staff that need detailed operational maps to HQ senior management where information on key indicators is essential in making life-saving decisions. When I was acting as Emergency Coordinator in the early phases of emergency response in Northeast Nigeria, spatial analysis played a crucial role in ensuring we had the most up to date and accurate data available. GIS allowed us to combine food security information, from the rapid field assessments, conflict hotspots and access constraints, to develop a clear understanding of where the needs and threats were and the best means to reach the hardest hit communities.

This catalogue is just a small selection of the thousands of maps and other geospatial products that our GIS teams produce. From flood extent dashboards to access constraints maps to the Humanitarian Topographic Atlas, this catalogue showcases some of the indispensable work that takes place at WFP.

Margot Vandervelden

___ CONTENT

___INTRODUCTION

'EVERYTHING THAT HAPPENS, HAPPENS SOMEWHERE'

2019

One in nine people worldwide do not have enough to eat. Many of these people are in remote and inaccessible areas. When emergencies hit, previously accessible areas often become cut-off. Knowing how to rapidly reach these locations with lifesaving support is critical to the work of the United Nations World Food Programme (WFP).
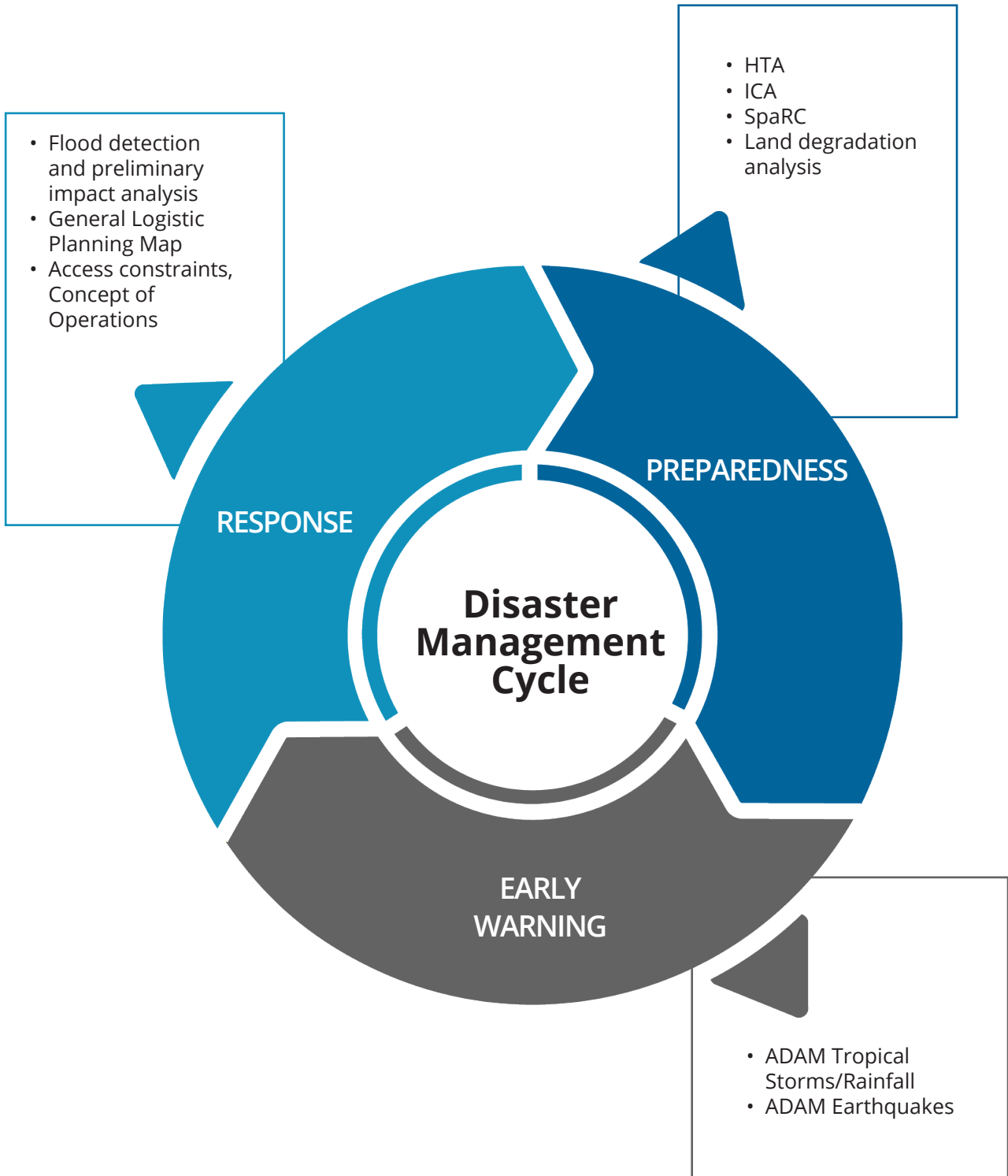
The Geospatial Support Unit at WFP uses cutting-edge geospatial technology to visualize and analyze the areas we work in. The Unit produces over 2,000 maps every year to support Country Offices, Regional Bureaux and Headquarters in providing global assistance to over 86million people.

The Unit is a data hub - collecting diverse datasets such as food security indicators, environmental factors, conflict data, climate data and weather forecasts. In-depth analysis of this data and spatial visualization products enable WFP staff to develop insights into complex dynamics and inform decision-making.

WFP is constantly developing the latest technological advancements to create new products and improve existing technologies. From Unmanned Aerial Vehicles to Satellite Remote Sensing, geospatial technology is integrated into most of WFP's work in fighting global hunger.

This catalogue showcases the diverse projects and products that use geospatial technology to inform WFP and WFP-led cluster operations.

DISASTER CYCLE

- Flood detection and preliminary impact analysis
- General Logistic Planning Map
- Access constraints, Concept of Operations

- HTA
- ICA
- SpaRC
- Land degradation analysis

RESPONSE

PREPAREDNESS

Disaster Management Cycle

EARLY WARNING

- ADAM Tropical Storms/Rainfall
- ADAM Earthquakes

PREPAREDNESS

In the vision of Early Warning to Early Action, the preparedness phase is crucial for providing rapid geospatial support during major emergencies. This phase includes data preparedness, having standard operating procedures in place and capacity building. 'Data preparedness' is the ability of organizations to be ready to responsibly and effectively deploy and manage data collection and analysis tools, techniques and strategies in a specific operational context before a disaster strikes. Data that is limited and less organized prolong or inhibit the ability to make informed decisions. Inaccurate/ insufficient data may lead to poor understanding of the actual risk associated with any disaster. In the wake of an emergency, if data is not in an easily usable and well-defined format, it decreases the efficiency of map production. Being data ready would aid in providing immediate response with curated products.
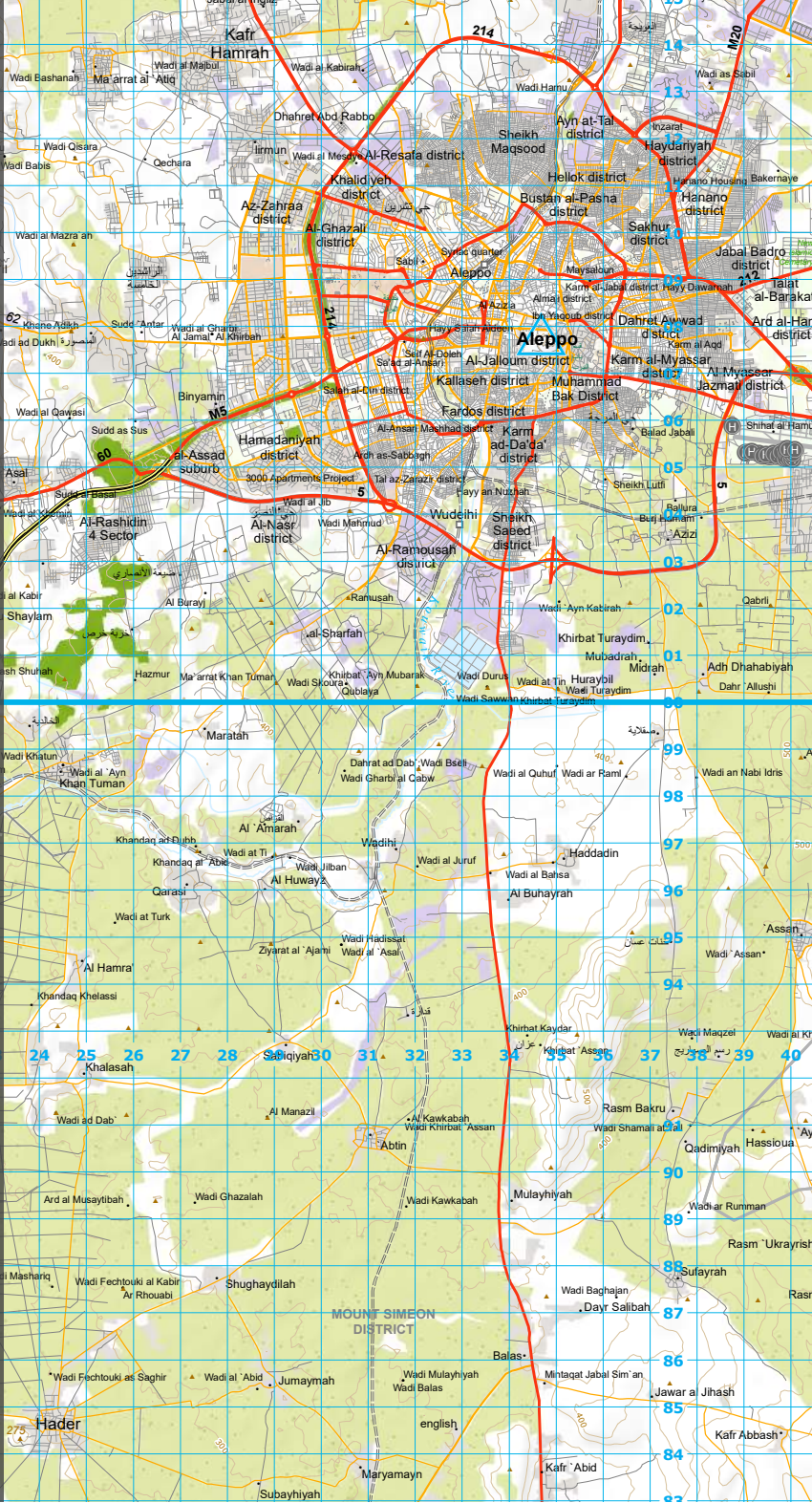
Effective disaster preparedness provides a platform to design realistic and coordinated planning, by reducing duplication of efforts and increasing the collaboration between different agencies, households and communities. This section highlights a few of the crucial products made available before an emergency strikes.

___HTA

LEVATION WATER BODIES ROADS PLACE NAMES

Humanitarian Topographic Atlas (HTA) is a project developed for supporting field operations during humanitarian crisis. The primary goal of HTA is to create high-quality, detailed, up-to-date and comprehensible topographic maps covering the areas of WFP field operations. The maps produced by HTA are based on open data such as elevation, water bodies, roads, place names and all other map features from the OpenStreetMap project. HTA maps are updated automatically on a variable basis, depending on the level of