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# **ClimWeb Documentation**

*Release 1.1.2-3-gbc3d2fa*

## **ORGANISATION**

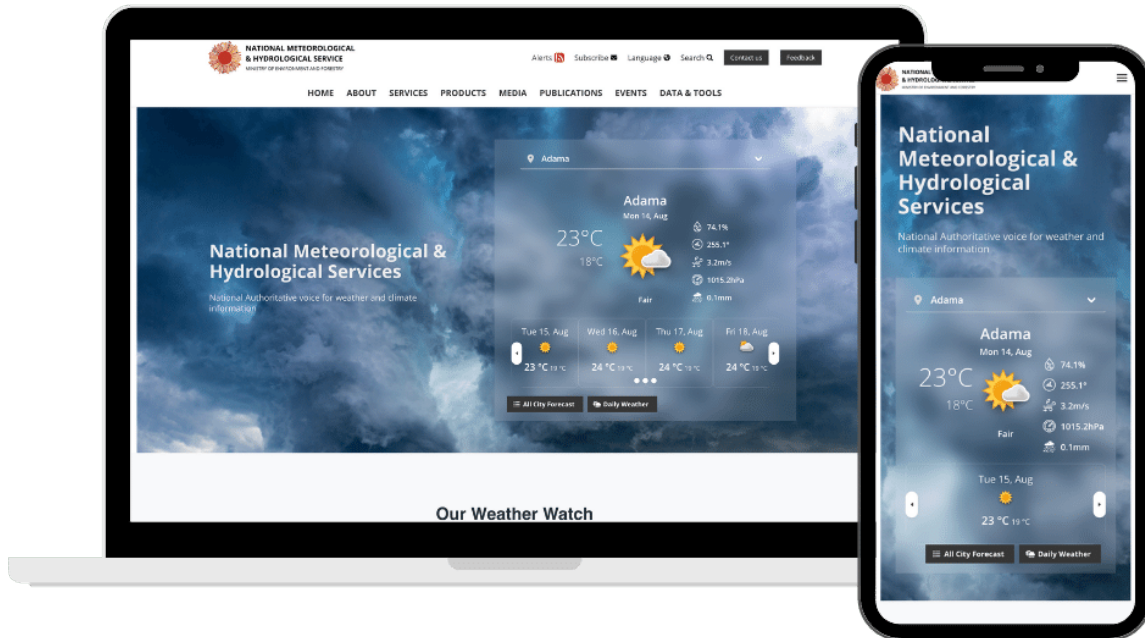
**Apr 13, 2026**



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Downloadable pdf versions can be found at:

**i To download the PDF version of this guide use**

- ClimWeb Manual (English)
- ClimWeb Manual (French)
- ClimWeb Manual (Swahili)





## 1.1 Introduction

Amidst escalating and urgent impacts of climate change, Africa exhibits major challenges in coping with its consequences, particularly in terms of controlling extreme weather events, and delivering accurate and timely information to the public.

In response to these challenges, the World Meteorological Organization’s (WMO) Regional Office for Africa launched a Content Management System (ClimWeb) which is a website template, specifically designed to aid the digital transformation of National Meteorological and Hydrological Services (NMHSs) in Africa

This innovative template, built on **free and open-source standards**, features a modern design, seamless marketing integrations, a user-friendly weather warnings publisher (in CAP Format) and advanced weather and climate data visualization tools.

The technical development of the system has been supported by experts seconded by **NORCAP** a part of the **Norwegian Refugee Council**, with guidance of the WMO Regional Office for Africa.

The technical support provided to NMHSs at the WMO Regional Office for Africa include:

- Focal Points verification and updates for different WMO Programmes including OSCAR Surface, WIGOS, WDQMS and CAP
- OSCAR Surface verification and Station Metadata Update
- Data transmission challenges identification, troubleshooting and resolution
- WMO Country Profile Database updates
- Website and Content Management System (ClimWeb) development and support
- CAP Activation and Dissemination
- Social Media Management and communication, Email Marketing and User Data Management



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This document provides an overview of the Content Management System (ClimWeb) and its features, the delivery and support.

This new ClimWeb template offers:

- Customisable and modern design
- Seamless marketing integrations
- User-friendly CAP Warnings Composer
- Interactive georeferenced data visualisation for NMHSs weather and climate products, as well as data from external sources.

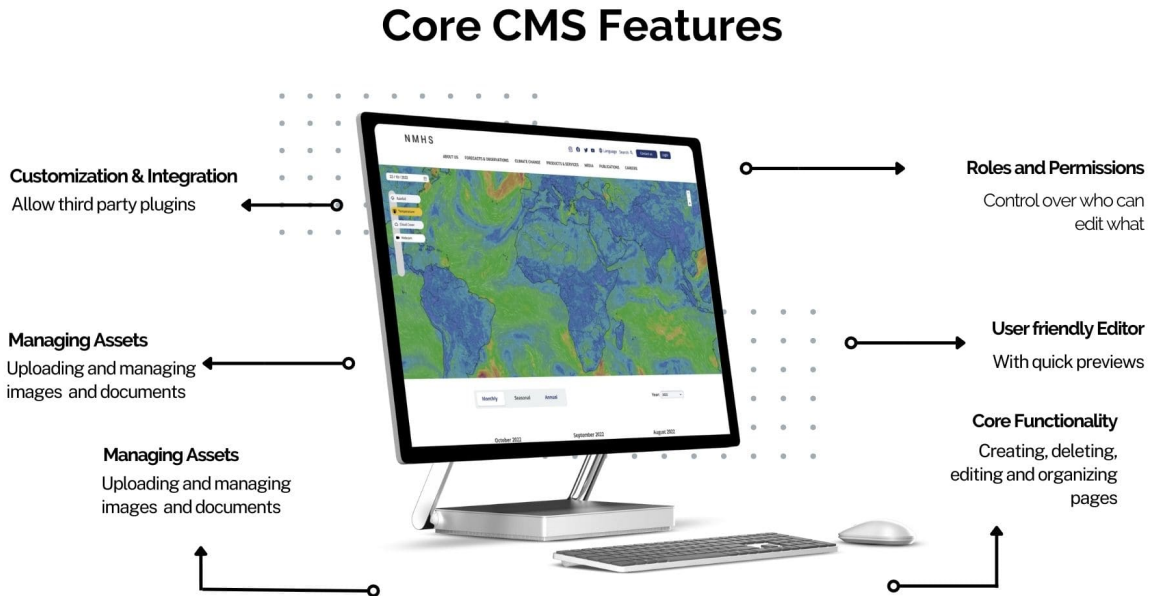
It adopts **best practices in data visualization and hydro meteorological department and climate communications**. All components of the website are built on free and open-source standards allowing for collaboration and contribution.

The CAP Warnings Composer is expected to **increase the adoption of the Common Alerting Protocol in Africa**, key to increasing the reach of alerts, and their connectivity to broadcast, web and mobile networks. Africa remains one of the world's most vulnerable regions to climate change and increasing extremes. Increasing the protection of the population through improved climate and early warning communications is crucial.

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### 1.1.1 Considerations during the design & development phase

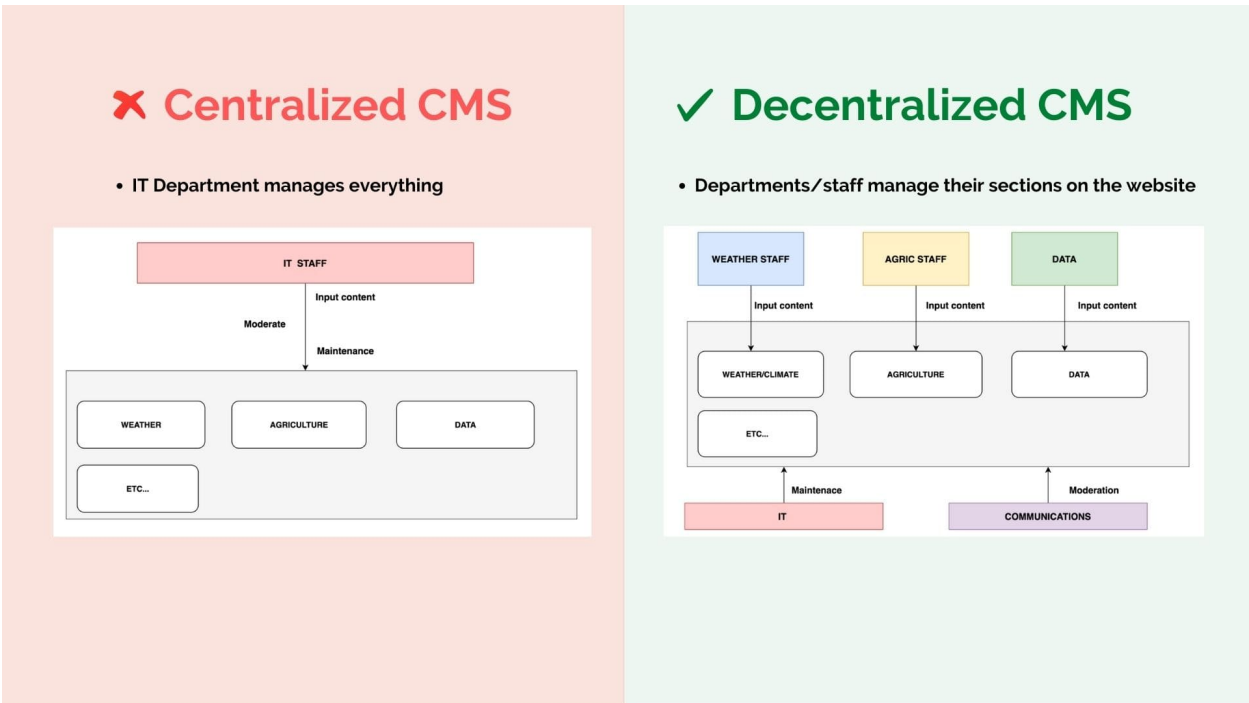
During the design and development phase, fundamental factors were taken into consideration to ensure the delivery of a Content Management System that would improve the efficiency of management.



It factored in:

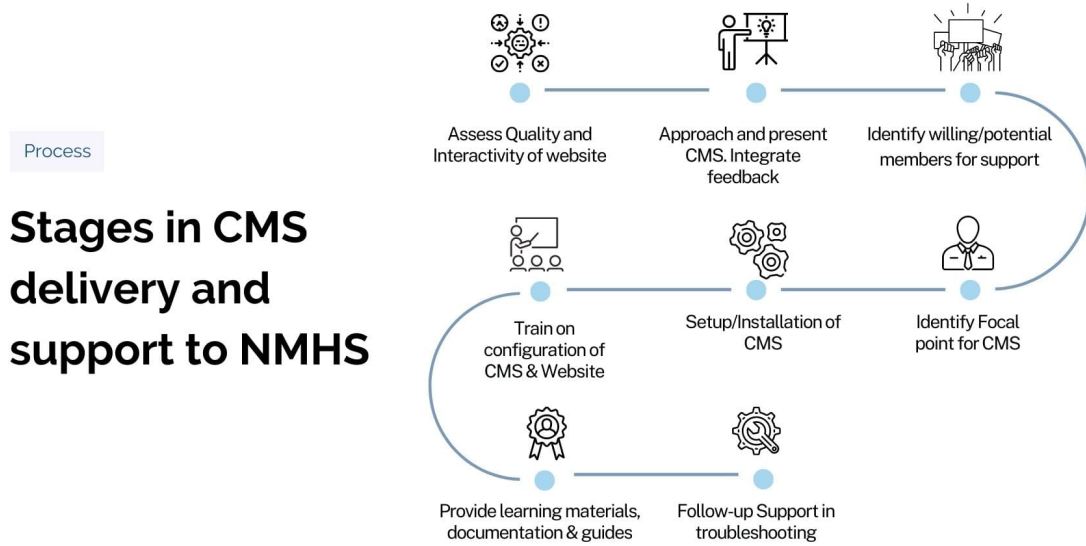
- Well **defined content structure** and pages management
- **User-friendly interface** with a modern look and feel
- Great **user experience and ease** in locating content
- A **decentralized ClimWeb architecture** was adopted to allow management of departmental sections by different user roles and allow for content moderation and publishing **workflows**.

Currently, most of the NMHSs website's management is not decentralized. This means that the website is managed by one staff, usually from the IT department. This is not very efficient as every department has its own content, but the content management systems are not user-friendly to allow for easy management of content by different departments. The new ClimWeb template allows for the management of different sections of the website by different staff, thus removing the load from the IT department and allowing for more efficient management of the website.

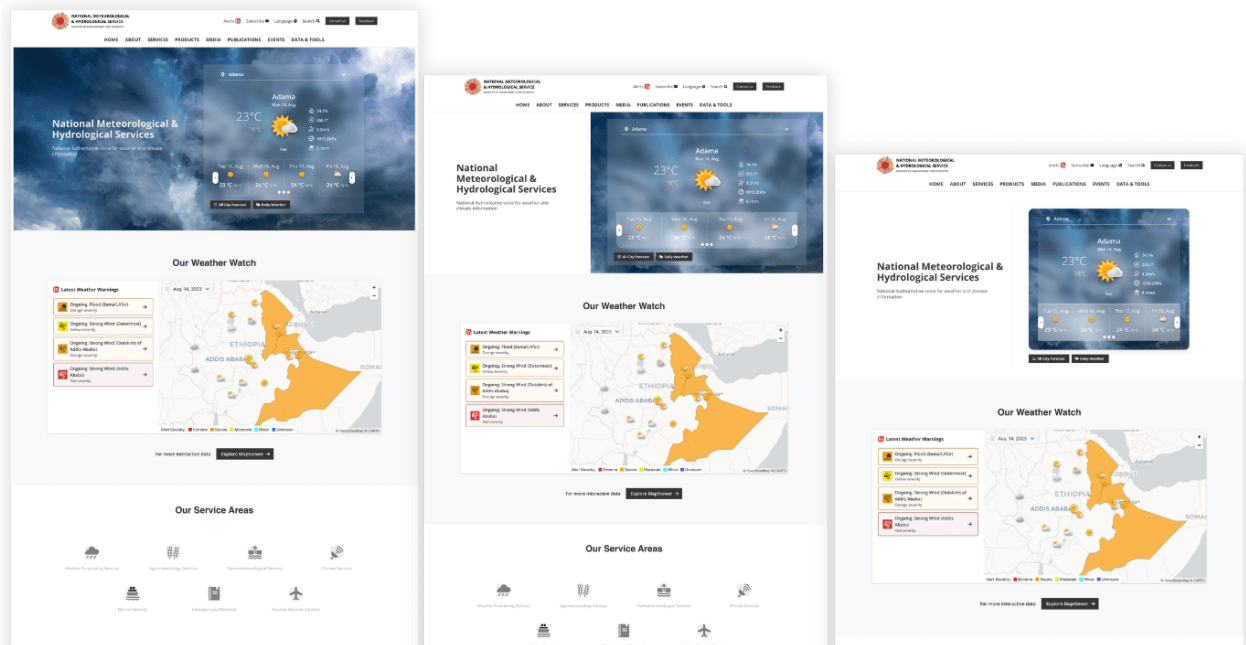


### 1.1.2 Delivery and support

For a smooth and efficient delivery of the ClimWeb and customization of the website template to the NMHS, a step by step process is adopted. The quality and interactivity of the website is first assessed followed by approaching and presenting the ClimWeb and integrating feedback. Thereafter, willing/potential members for support are identified together with a focal point for coordination. The ClimWeb is then installed and training on the configuration of ClimWeb and customization of the website conducted. Additionally, learning materials, documentations and guides are provided alongside follow-up support in troubleshooting



### 1.1.3 Core Components and Integrations



- **User friendly website Content Management System**
  - Modern look and design, mobile friendly.
  - Adopts best practices and designs benchmarked for weather and climate information dissemination for NMHSs in Africa.

- Easy to use and customise without technical skills.
- Decentralised content management. Different staff can be assigned and manage different sections of the website.
- Defined content publishing workflows. Editors and moderators can be defined for every section of the website.
- Embedding Multimedia Content - Youtube etc.

- **Cap Alerts Publishing**

- Modern Cap Warnings Composer with simple user friendly and mobile friendly CAP alert creation and management.
- Moderated Publishing Workflow from CAP composer to approver, including commenting and email notification support.
- Conforms to CAP Version 1.2 Standards.
- Search Engine Optimisation support to increase visibility and attract targeted traffic to an alert.
- Support for Approval Workflow from composer to approver, including commenting and email notification support.
- Interoperable XML API of Alert List and Detail for integration with CAP Aggregators
- Live CAP creation and editing preview.
- Draw / Upload Polygon Functionality for Alert Area/Areas.
- Alert to Alert/Alerts Reference Linkage.

- **Events registrations and Integration with Online Meeting Platforms (Zoom)**

- Create event registration forms hosted on the website.
- Automatically send invitation emails to users as they register to events from the website.
- Keep record of all your registrants for internal analysis.
- Allow users registering to events to also subscribe to your products.

- **Interactive Georeferenced data visualisation**

- Upload and visualise own gridded data (forecasts, advisories, climate data products) on a map.
- Upload and visualise vector data (Point, areas) on a map.
- Visualise own CAP alerts.
- Visualise thematic/sectorial data products interactively.
- Integrate external data sources ( from Regional Centers, Global Producing Centers, Satellite, Google Earth Engine etc).
- Provide a platform to support impact based forecasts, analysis and advisories.

- **Email Marketing integration and user analytics**

- Sign Up forms for users to subscribe to NMHSs products (using Mautic or Mailchimp).
- Analyse your email marketing users data.

- **Survey creation and results analysis**

- Create custom surveys hosted on own website.
- Analyse results on interactive dashboards.

- **User analytics**

- User base breakdown (eg. by sectors, gender, geographic area, etc, from user database - email marketing software).
- User satisfaction (from surveys) data and trends .
- Website traffic analytics (eg. google analytics) .
- System traffic analytics (eg. hazards watch) .
- Social media analytics
  - \* Twitter
  - \* Facebook
  - \* Instagram
  - \* Youtube

## 1.2 Rationale

### 1.2.1 Supporting the achievement of WMO’s Long Term Goals and implementation of flagship initiatives in Africa

- To cover everyone on earth with early warnings by 2027
- Supporting the Global Multi-hazard Alert System (GMAS) for Africa
- Digital transformation of NMHSs in the region

In February 2023, the eighteenth session of the Regional Association I (RA I) took note of the recommendation from the Regional Conference on the emerging needs of NMHSs in Africa on digital transformation and requested in [Decision 13 \(RA I-18\)](#) the Secretary-General and Technical Commissions to support regional activities to close the gaps in the region. In this context, thereafter, **the World Meteorological Organization (WMO) Regional Office for Africa developed a Content Management System (ClimWeb) as a website template specifically designed to aid the digital transformation of National Meteorological and Hydrological Services (NMHSs) in Africa.**

### 1.2.2 Supporting key United Nations conventions and initiatives

- The Paris Agreement on Climate Change (2015) and NDCs
- The United Nations Framework Convention on Climate Change (UNFCCC)
- The Sendai Framework for Disaster Risk Reduction
- The UN Sustainable Development Goals (UN SDGs)
- The Convention on Biological Diversity (CBD)
- The United Nations Convention to Combat Desertification (UNCCD)

### 1.2.3 Supporting African policies and plans

- African Union’s Climate Change Strategy (2020-2030)
- African Union’s Agenda 2063 “The Africa We Want”
- African Union’s Digital Transformation Strategy for Africa (2020-2030)
- Climate Change, Disaster Risk Reduction, Environment, and Food Security strategies by Regional Economic Commissions ( AMU, CEN-SAD, COMESA, EAC, ECCAS, ECOWAS, IGAD, and SADC)

## 1.3 Technology

The ClimWeb includes tools and functionalities aimed at supporting the NMHSs in their daily website management activities, in providing information and services to their users.

This section seeks to present the choice of technologies, development approach and present the packages that support the functionalities available on the ClimWeb at a high level.

The developed ClimWeb is open-source and hosted on GitHub at <https://github.com/wmo-raf/nmhs-cms>

### 1.3.1 Base ClimWeb Framework

The website template is built on top of the open-source [Wagtail Framework](#). Wagtail itself is built on of [Django](#) , which is a high-level Python web framework that encourages rapid development and clean, pragmatic design



The following was taken into consideration when picking Wagtail as the framework of choice:

- **Python as the programming language.** The weather and climate domain requires a lot of interaction with scientific data. Python is one of the scripting languages that makes it easy to develop procedures for manipulating this kind of data. Developing a website using Python thus allows the flexibility of developing data-based functionalities
- **Easy to Use:** One of the key features of Wagtail is its intuitive, user-friendly interface. This makes it easy for content editors to manage websites without having to learn the complexities and technicalities of the underlying framework.

- **Flexibility:** Wagtail is flexible when it comes to creating and managing websites. It allows for quick development of highly customized websites with complex layouts, content, and features, based on what the content editors need.
- **Extensibility:** Wagtail is designed to be easily extended with a wide variety of plugins, themes, components, and other features. This allows to add new features, customise the look and feel of their website, and extend the functionality of the ClimWeb.
- **Security:** Wagtail is designed with security in mind. It comes with Django’s built-in security features such as user authentication, input validation, and protection against common attack methods.
- **Scalability:** Being based on Django, Wagtail is designed to be highly scalable, making it an ideal choice for websites with large amounts of content and users. It can handle large amounts of data without any performance issues, allowing developers to create websites that can grow as their user base increases.
- **Enterprise features out of the box:** Wagtail includes user and group permissions, content and moderation workflows, reports, content editing history tracking, and other features that website administrators and teams need.
- **Experience of the development team:** The current development team of the NMHSs ClimWeb has extensive experience in developing Wagtail and Django based projects. This makes it quick to implement new features and functionality

### 1.3.2 Development Approach

We use the Django/Wagtail modular approach of developing “Django applications” to provide a set of features and functionality. A Django/Wagtail application is a Python package that provides some set of features. Applications may be reused in various projects.

Applications include some combination of Django models, views, templates, template tags, static files, URLs, middle-ware etc. These are then wired to the project with `INSTALLED_APPS` settings. An application thus, in this context, is a set of code that interacts with various parts of the framework.

The NMHS ClimWeb is thus designed with a set of internal applications that provide functionality for different web-pages of the functional website. These are organized under the pages directory of the ClimWeb source code. Each sub directory of the pages corresponds to a section on the website that can allow to create one or more related pages of that section

More specialized functionality is developed as external Wagtail applications that can be plugged into the code project. These are then installed as Python packages published on the Python Package Index (PyPI) , which is a repository of software for the Python programming language.

#### Functionality Packages

- **CAP Composer:** Common Alerting Protocol (CAP) composing and publishing tool that provides functionality to create and publish CAP formatted alerts.
- **Forecast Manager** – Interface for managing NMHSs City Forecasts
- **GeoManager** - Provides an interactive interface for managing and publishing Geo-referenced (GIS) datasets
- **Administrative Boundary Manager:** Provides functionality to load, manage and visualize boundaries for a country
- **WebStories Editor** - Provides functionality to create and publish [Google Web Stories](#)
- **Surveys Creator** – Provides functionality to create and publish surveys directly in the ClimWeb, visualization and analysis of the results using interactive graphics

## Third party tools integration packages

### Email Marketing

- **Mailchimp Integration:** Integrate Mailchimp into Wagtail Projects
- **Mautic Integration:** Integration of Mautic forms in Wagtail Projects.

### Online Meetings

- **Zoom Integration:** Integrate Zoom Events (meetings or webinars) registration to form pages created with Wagtail

### User Interface Frameworks and Libraries

- Templating - Django based templates
  - CSS Framework - Bulma
  - JavaScript Library - JQuery
  - Web Mapping Library - MapLibre GL JS
  - SVG Icon Sources - Font Awesome , Ocha Humanitarian Icons
- 

## 1.3.3 Developing new functionality

A modular approach is used when developing new functionality to be included in the ClimWeb. The new functionality should be developed in isolation as a Wagtail Python package and published on PyPi for installation using Pip.

We follow the following steps in general:

- Explore existing packages in the Wagtail/Django community that provide similar functionality.
- If an existing package exists and cannot be directly integrated into the ClimWeb, we try to customize as much as we can on top of this package, to make it interoperable. Otherwise, we use it directly
- If we cannot find existing packages, then we develop the package from scratch. The idea is to avoid reinvention of the wheel where possible.

## 1.3.4 Production Deployment

Docker is used to containerize the different components of the ClimWeb.

Other containers used include

- PostgreSQL with PostGIS extension as the database
- Nginx as the webserver and web proxy
- Memcached as the caching system for web requests
- Eclipse Mosquitto as the MQTT message broker. Mainly used for CAP alerts messaging

These are put into a docker compose configuration file, used to deploy the project using Docker Compose.

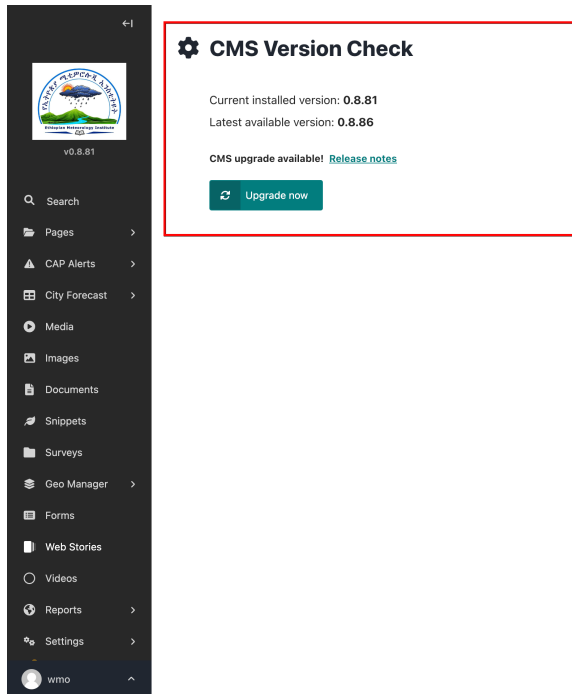
An initialization repository is provided that brings together all the different components into one project. This can be accessed at <https://github.com/wmo-raf/nmhs-cms-init> . An installation guide is provided in the README file of the repository.

### 1.3.5 Managing Updates

New releases with bug fixes and feature updates are periodically published on the [nmhs-cms repository releases](#).

When there is a new release, The ClimWeb Admin interface will show a message indicating that there is a new release. The Website administrator can then choose to upgrade to the new version, after going through the release notes that accompany every release.

The upgrade is through a click of a button, that triggers a docker build process with the new versions. Once the new version is built successfully, the container is restarted with the new version effected.



In rare cases where the automatic build trigger fails, the system admins are trained to manually perform the upgrade

### 1.3.6 Security in Django/Wagtail

The ClimWeb, by using Django/Wagtail, out of the box contains the following security features inbuilt. More details on each feature can be found at <https://docs.djangoproject.com/en/5.0/topics/security>

- Cross site scripting (XSS) protection
- Cross site request forgery (CSRF) protection
- SQL Injection protection
- Clickjacking protection
- SSL/HTTPS protection settings
- Host header validation
- Referrer Policy Protection
- Cross-origin opener policy
- Session Security
- User-uploaded content protection

### ClimWeb Specific security features:

- Ability to change admin url periodically
- Daily backup mechanisms
- Brute force login preventions
- 2 Factor Authentication for administrator account

## 1.4 Pilot Phase

The regional office began piloting the ClimWeb with several African countries from **July to December of 2023**, in response to formal request from the WMO's Permanent Representatives (PRs), addressed to the director of WMO Regional Office for Africa. This section summarizes the progress in the pilot phase, conclusions drawn from the technical support and collaboration provided to NMHSs in developing their pilot websites.

### 1.4.1 Summary of the progress

Initially, the selected pilot countries were:

- Ethiopia
- Mozambique
- Niger
- Burkina Faso
- Ghana

However, several additional countries have expressed interest in adapting the ClimWeb

The status of Climweb setup for each country can be found at <https://climtech.africa/climweb/> |

The development of the website generally encompasses eleven steps.

- The initial step is installation of the ClimWeb software package
- Preparation of the base ClimWeb setting
- Organisation of the website's pages
- Listing of the desired pages,
- Listing of services and products made by NMHSs
- Setup of the MapViewer package
- Automatic products visualisation
- Event pages setup and registration integration
- Integration of NMHSs's social media accounts into the website
- Setup of CAP composing tool
- Integration of email marketing tool with the website to enable users to sign up to receiving services via email.

### 1.4.2 Conclusion and recommendations

#### Broad Implementation and Technical Support

- **The ClimWeb has been enthusiastically embraced by member states in Africa**, as numerous PRs have submitted formal requests to pilot the system to modernize their existing websites. Currently, ten countries are in

various stages of ClimWeb customization, with the first group aiming to launch their updated websites between February and March 2024.

- **Countries have recognized the ClimWeb’s potential to significantly enhance service provision and elevate visibility** not only among their public but also across line ministries and other stakeholders at the national, regional, and global levels. The ClimWeb is expected to foster greater public trust in the products and warnings, enhance national visibility, and improve institutional positioning within government structures. Additionally, its integration with digital marketing tools like email marketing and social media is anticipated to spur user growth. The ClimWeb has also been designed to optimize the utilization of satellite products, amplify the impact and visibility of warnings, and enable more effective comparison of national, regional and global forecast, and monitoring products.
- **Given the crucial role of a website as an institution’s global interface, it is recommended that the ClimWeb be made broadly accessible to NMHSs across Africa.** The WMO’s continued technical support in customizing and adopting the ClimWeb is essential. A professional, user-friendly, and service-oriented website will bolster NMHSs’ presence and demonstrate their value at the national level, potentially leading to increased funding and recognition from national governments.

### Licensing and Operational Guidelines

- Adopting a Free Open Software System (FOSS) License for the ClimWeb is recommended, catering to the diverse needs of NMHSs. While the ClimWeb is specifically tailored for meteorological services, it should be noted that WMO offers it without any liability or warranty. NMHSs are encouraged to employ the ClimWeb according to their preferences, with the assurance of continued assistance from WMO and its partners in areas of installation and staff training.

### Establishing a Community of Practice and Digital Public Good

- **In recognition of its transformative potential, the ClimWeb should be declared a “Digital Public Good.”** This status will enhance its global visibility and utility. Furthermore, establishing a community of practice, comprising experts from various fields including ICT, climate science, and social sciences is crucial. This community will play a pivotal role in ensuring the ClimWeb’s continuous development, adapting it to the evolving challenges in climate services. A “Digital Public Good” refers to digital products, typically software, data, AI models, standards, or content, that adhere to specific criteria of openness and inclusivity. These goods are designed to foster collaboration and inclusivity, often focusing on solving societal challenges especially in areas such as climate, healthcare, education, and governance. The annex contains further information on the criteria for digital public goods.
- **To ensure sustainable maintenance and iteration of the system functionalities and technologies we recommend developing a community of practice** made of ICT, climate and social science experts from NMHSs, Regional Climate Centers, Global Producing Centers, Satellite Agencies, Universities and any relevant institutions leading in innovation in climate services.

### Global Accessibility and Contribution to Early Warning Systems

- **Expanding the ClimWeb’s reach beyond Africa is vital, aligning with the goals of the UN’s Early Warning for All Initiative.** The ClimWeb, with its advanced tools and integrations, can significantly enhance early warning systems globally, thereby contributing to improved disaster preparedness and response.

### Enhanced Visibility and Resource Accessibility

- **To maximize its impact, the ClimWeb’s code and user guides should be made widely accessible.** A dedicated landing page, alongside distribution through partner organizations’ websites and networks, will ensure ease of access and usability. This step is crucial in promoting transparency, user engagement, and the system’s widespread adoption.

### 1.4.3 Resources

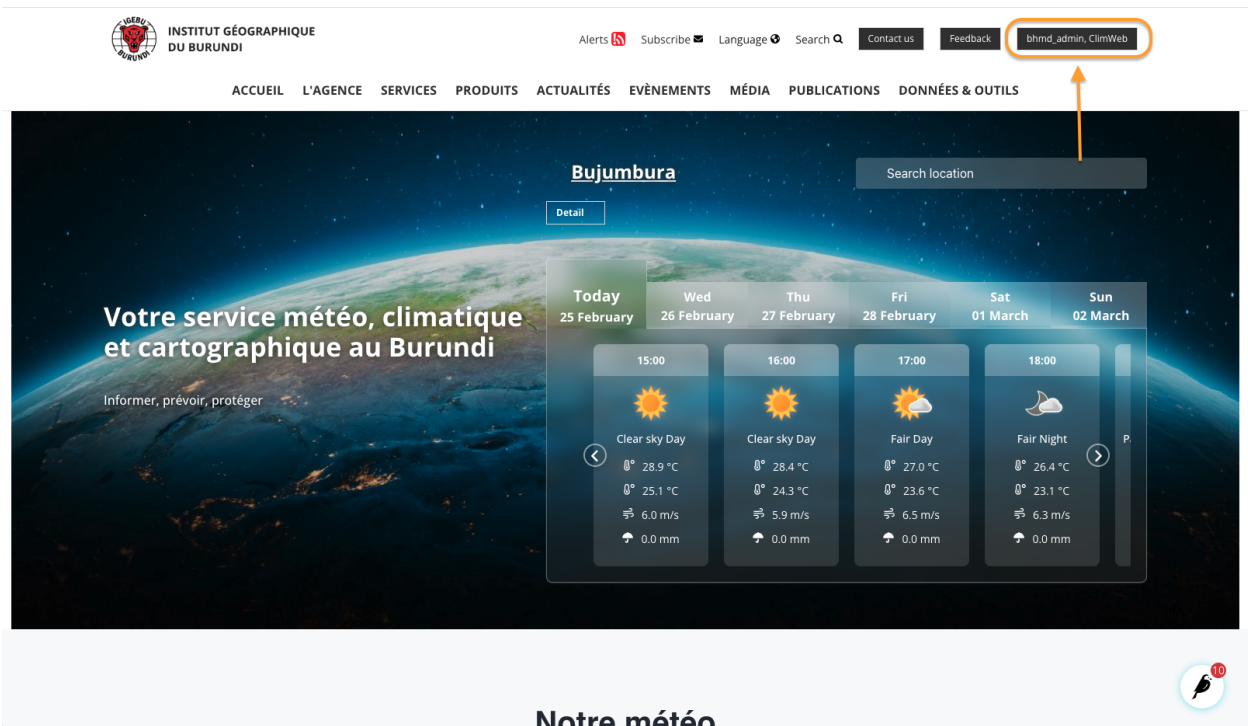
- [ClimWeb Pitch](#)
- [Installation guide](#)
- [Customization training parts](#)
- [Customization video Tutorials](#)

## 1.5 Find Your Way Around

This section describes the different pages that you are going to see as you navigate around the NMHS Content Management System Admin interface.

### 1.5.1 How to reach the Dashboard

The ClimWeb login button can be found at the top left corner of the website.



Logging into the ClimWeb automatically takes you to the Dashboard. If you navigate away from the dashboard, you can return to it at any time by clicking on the NMHS logo in the top-left section of your screen.

### 1.5.2 The Dashboard

The Dashboard is the main hub of the website. From the dashboard, you can access all of the content you create in the ClimWeb as well as reports, settings, and other content management features.

What you see in your Dashboard depends on your user role. Common user roles include editors, moderators, composers, approvers, forecasters and administrators.

The following are some of the tools that you can find within the Dashboard:

## The Dashboard Panels

The dashboard panels provide you with an overview of the various states of your pages.

The different panels on your dashboard are as follows:

### 1. Your pages in a workflow

The Your pages in a workflow panel shows you any pages in moderation that you own or have submitted for moderation yourself. It also shows the moderation tasks that are pending and how long the tasks have been open.

### 2. Awaiting your review

If your webmaster or web developer gives you permission to perform moderation actions, your Wagtail dashboard displays the Awaiting your review panel. This panel shows content that's ready for you to review.

From the panel, you can perform the following actions:

Click the name of a page to edit that page. Use the buttons to move the page to the next stage in your workflow by requesting changes to a page, approving the page, or approving the page with a comment. Get a quick view of the page status by hovering over the indicator circles to get more information about the pending task. The indicator circles show a tick for a completed task or an empty circle for an incomplete one. See how long a page has been waiting for review. Your most recent edits The Your most recent edits panel displays the five pages you last edited.

The panel also shows the date that you last edited the pages as well as the current status of the pages.

### 3. Your locked pages

The Your locked pages panel shows all of the pages you've locked so that only you can edit them. From this panel, you can quickly view the date you locked a page. To edit a locked page, click the name.

## The Sidebar

On the left-hand side of the dashboard and throughout the ClimWeb is a menu called the Sidebar. You can use the Sidebar to navigate to different parts of the ClimWeb.

The Sidebar helps you quickly access your content as well as ClimWeb features and settings. The items on the Sidebar can vary depending on what you have access to. These features include Search, Documents, Snippets, Forms, Reports, Settings, and Help.

If you want the Sidebar to take up less space, you can click the white arrow near the top of the Sidebar to switch it into slim mode and give yourself more space for writing.

### 1.5.3 The Explorer Page

The Explorer page allows you to view a page's children and perform actions on them. On the Explorer page, you can publish and unpublish pages. You can also move the pages to other sections, drill down into the content tree, or reorder child pages within a parent.

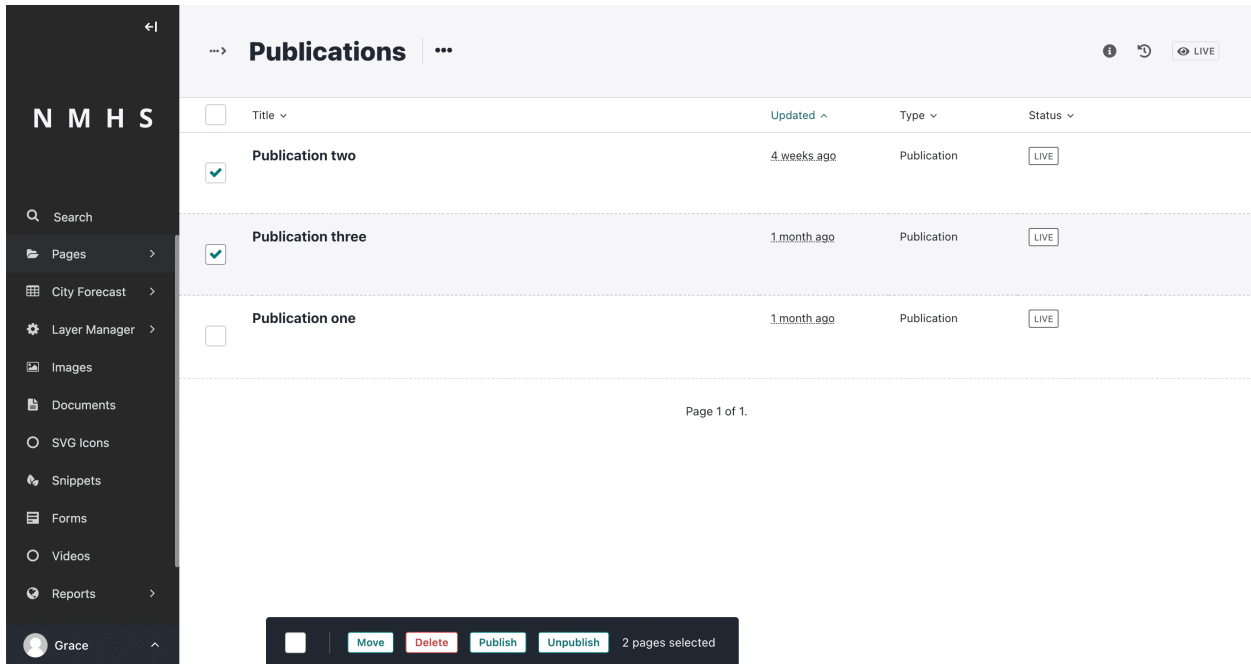
You can see the name of the page whose Explorer page you are on as a heading at the top of the screen. If the page has child pages within it, then you can see a list displaying the child pages below the heading. Clicking the title of a child page takes you to the edit screen, from which you can edit that child page.

If you hover over a child page, you get an arrow on the right-hand side of that child page row. Clicking the arrow displays a further level of child pages.

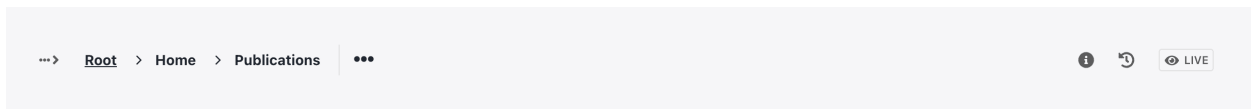
The screenshot shows the Explorer page for 'Accueil'. The sidebar on the left lists various navigation options. The main content area displays a table of child pages with columns for Title, Updated, Type, and Status.

Title	Updated	Type	Status
Services d'Aviation	1 week ago	Aviation page	LIVE
Alertes	6 months ago	Cap alert list page	LIVE + DRAFT
Images satellitaires	8 months ago	Satellite Imagery Page	LIVE
Le Climat de nos Villes	8 months ago	City climate data page	LIVE
Stations	8 months ago	Stations page	LIVE
Média	9 months ago	Media Page	LIVE
Demande de données	9 months ago	Data request page	LIVE
Inscrivez-vous à nos mises à jour	9 months ago	Mailchimp mailing list subscription page	LIVE
Services	10 months ago	Service List Page	LIVE
Donnez-nous votre avis	10 months ago	Feedback page	LIVE
Publications	10 months ago	Publications Index Page	LIVE
Actualités	10 months ago	News Index Page	LIVE
Contactez Nous	10 months ago	Contact Page	LIVE
Événements	10 months ago	Event Index Page	LIVE

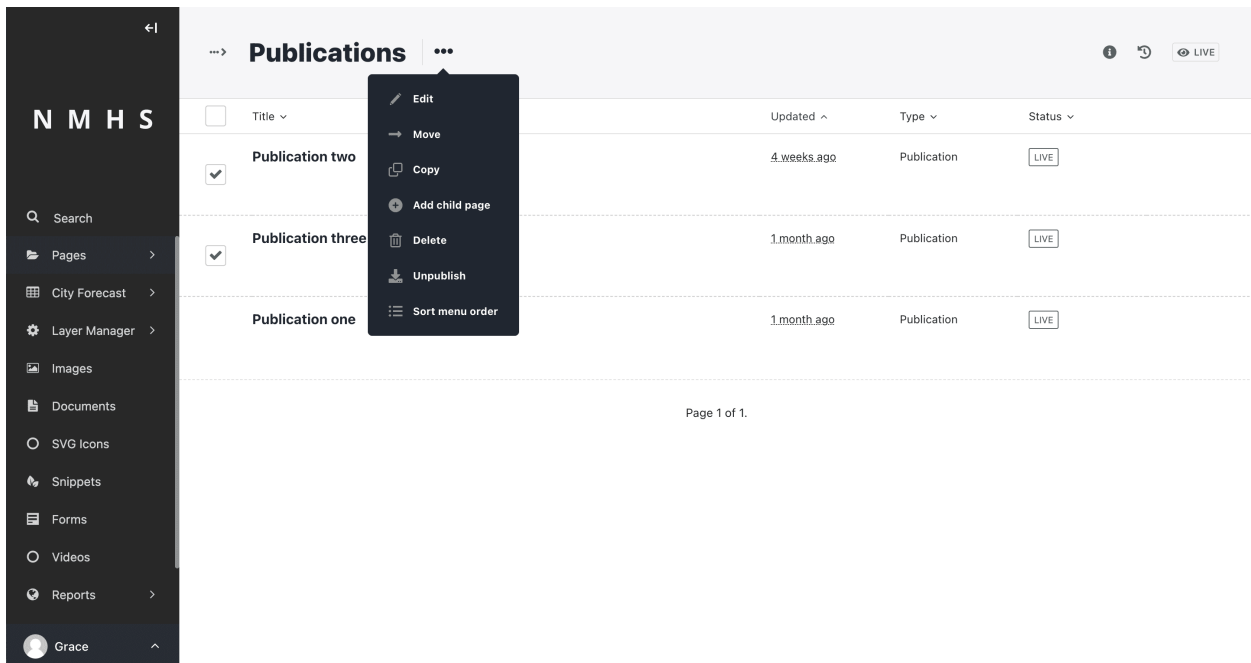
Additionally, hovering over a child page displays a checkbox at the left-hand side of the child page row. Selecting one or more child pages by clicking their checkboxes gives you an action bar at the bottom of the Explorer page. Clicking on any of the options in the action bar takes you to a confirmation page from which you can confirm the action.



As you drill down through the site, the breadcrumb (the row of pages beginning with the home icon) displays the path you have taken. Clicking on the page titles in the breadcrumb takes you to the Explorer screen for that page.



Clicking on the ... Actions dropdown shows a list of actions for the parent page, like Move, Copy, Delete, Unpublish, and History. Also, clicking the Sort menu order option from the dropdown takes you to the ordering page.



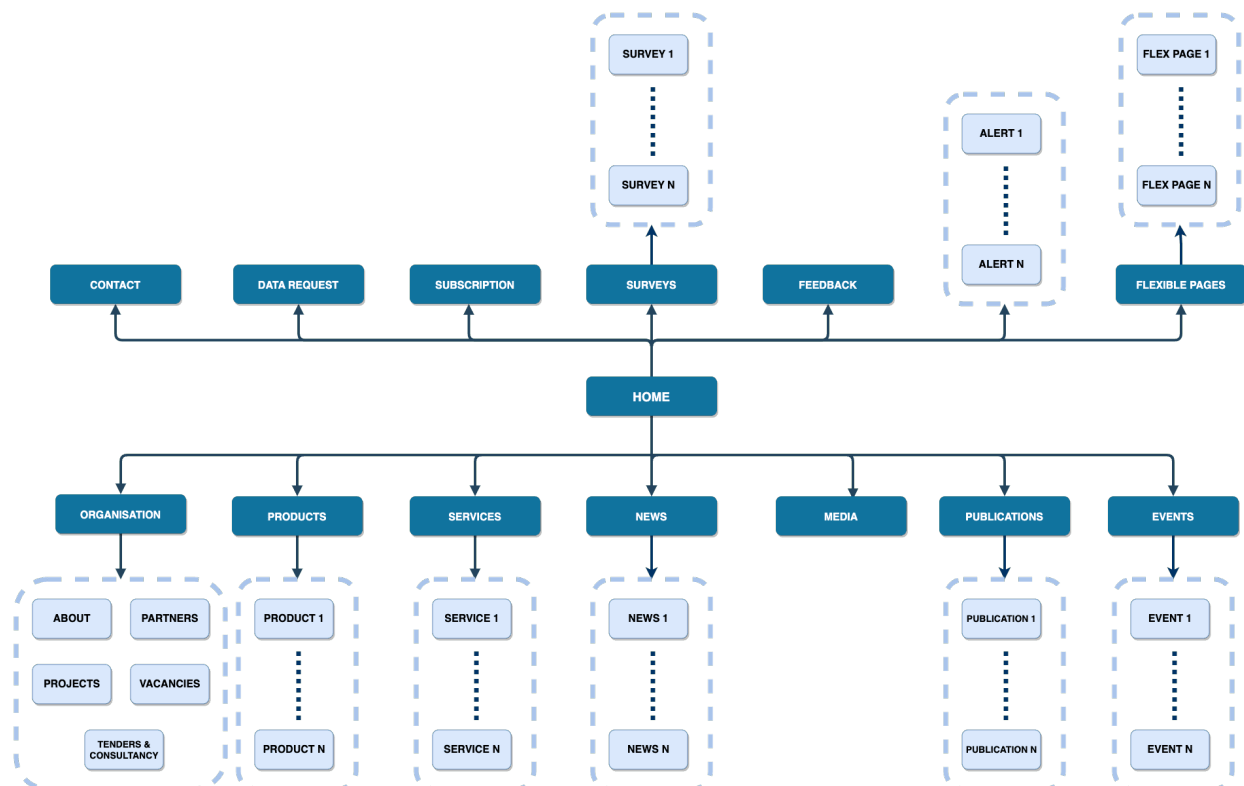
## 1.5.4 Search the ClimWeb

The search feature is the topmost feature in the Sidebar. You can use the search feature to quickly search for content in the ClimWeb.

Search results for 'publication' showing 2 matching pages:

Title	Parent	Updated	Type	Status
Publications	Home	10 hours ago	Publications index page	LIVE
Publication two	Publications	4 weeks ago	Publication	LIVE

## 1.6 Pages



The section below gives an overall guide on the concept of a page and managing pages together with their elements. However, if you would prefer a guide to manage specific pages refer to sections listed below.

## 1.6.1 Organisation Pages

The screenshot shows the website header for the National Meteorological & Hydrological Service, Ministry of Environment and Forestry. The header includes a logo, navigation links (HOME, ABOUT, SERVICES, PRODUCTS, MEDIA, PUBLICATIONS, EVENTS, DATA & TOOLS), and utility buttons (Subscribe, Language, Search, Contact us, Feedback, admin, CMS). Below the header is a breadcrumb trail: HOME / ORGANISATION. The main content area is titled 'Explore our Organisation' and features five circular icons with labels: 'About', 'Partners', 'Projects', 'Tenders & Consultancies', and 'Vacancies'. A dark footer bar at the bottom contains the URL '20.56.94.119/cms/organisation/' and a notification icon with a red '1'.

The Organisational Index page lists the pages below:

### About Page

#### Create an About Page

The creation of this page assumes you have already created an organisation index page which is the parent page of this page. To create an organisation index page, please refer to *Managing Organisation Page*.

To create an about page, navigate to organisation page and create a child page from it selecting the about page.

Page 'Organisation' created and published. [View live](#) [Edit](#)

Home ... 🔔 🔄 LIVE

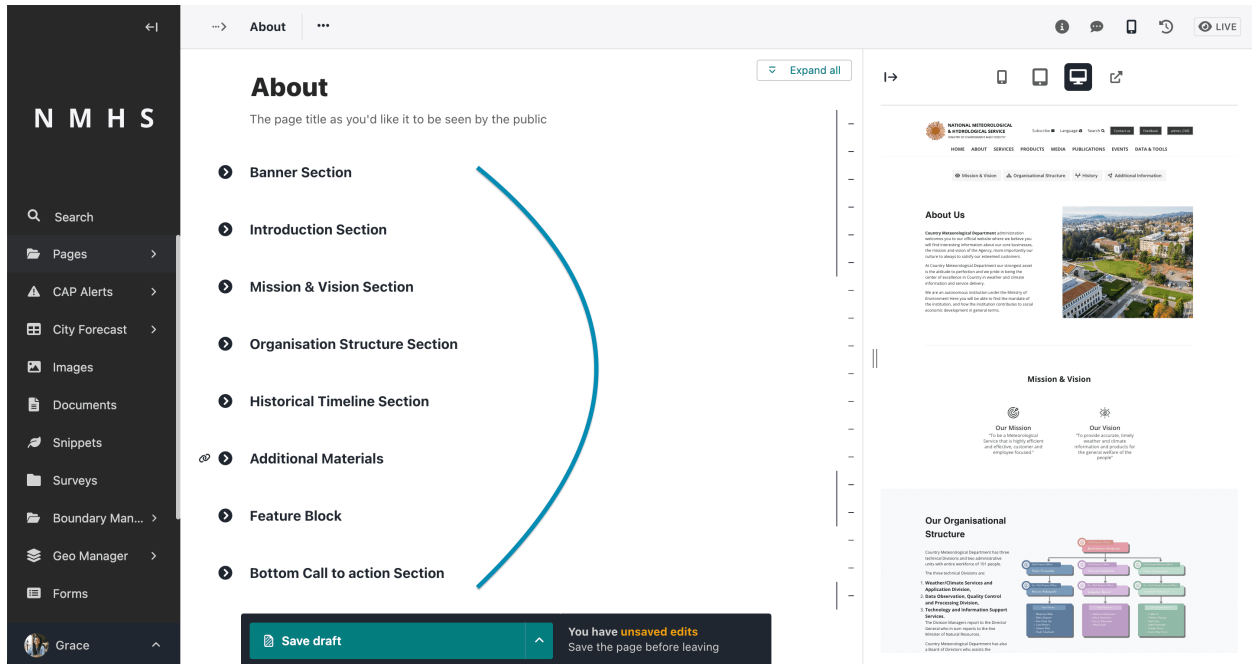
Title	Updated	Type	Status
<b>Organisation</b> <a href="#">Edit</a> <a href="#">View live</a> <b>Add child page</b> <a href="#">More</a>	Just now	Organisation Index Page	LIVE <span>+</span>
<b>Services</b>	1 day ago	Service List Page	LIVE
<b>Alert 1</b>	1 week ago	Cap alert page	LIVE + DRAFT
<b>Earthquake</b>	1 week ago	Cap alert page	LIVE
<b>test</b>	1 week ago	Survey page	LIVE
<b>Products</b>	1 week ago	Product Index Page	LIVE

**Create a page in Organisation**

Choose which type of page you'd like to create.

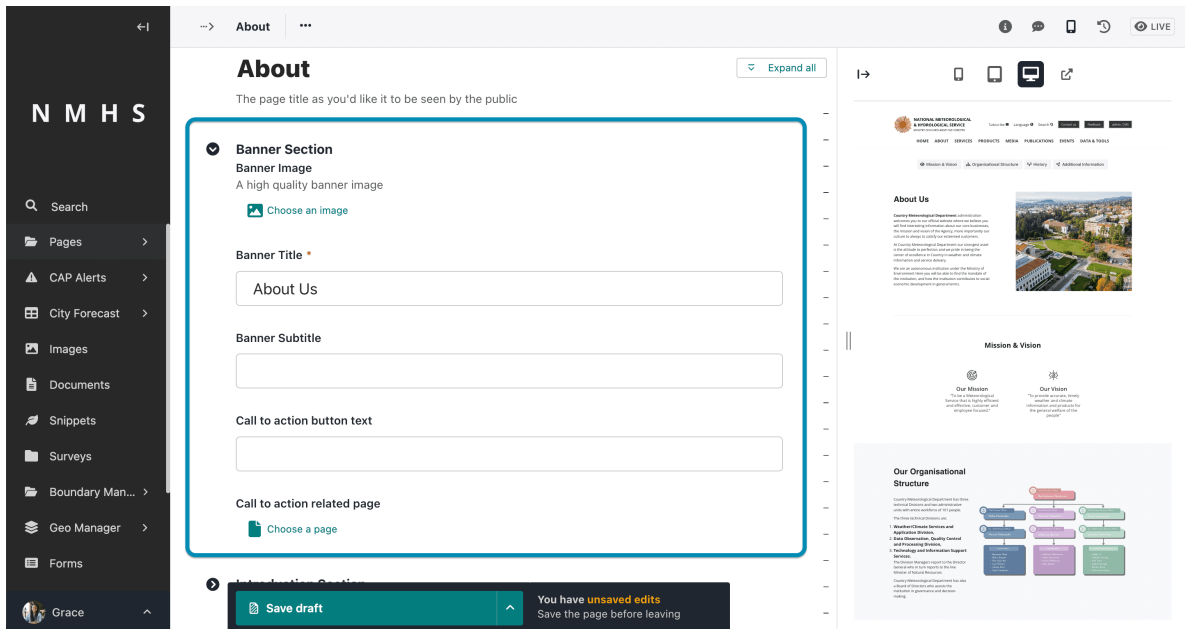
- About Page** ← Pages using About Page
- [Partners Page](#) Pages using Partners Page
- [Project Index Page](#) Pages using Project Index Page
- [Tender Page](#) Pages using Tender Page
- [Vacancy Page](#) Pages using Vacancy Page

The About page is divided into various sections.

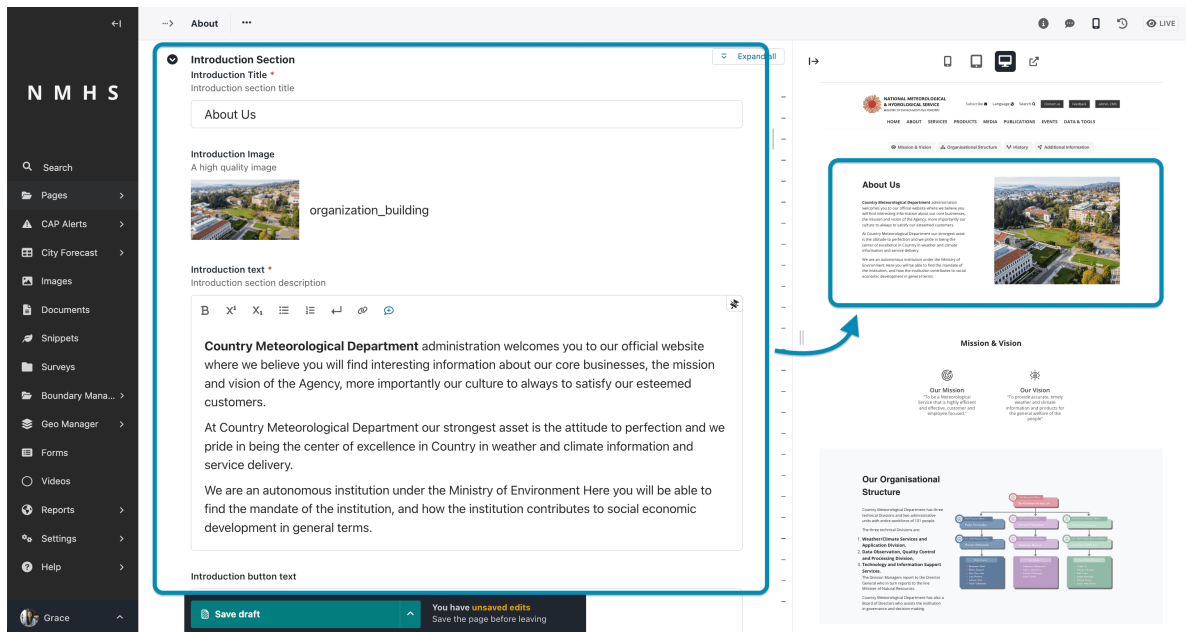


The sections include:

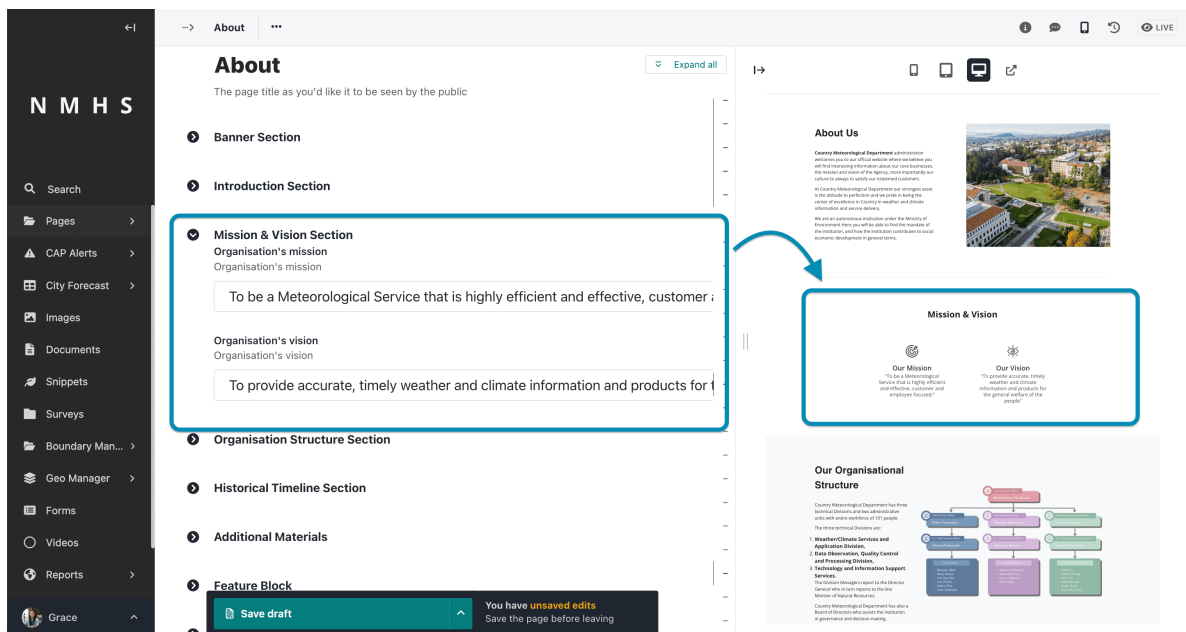
- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed



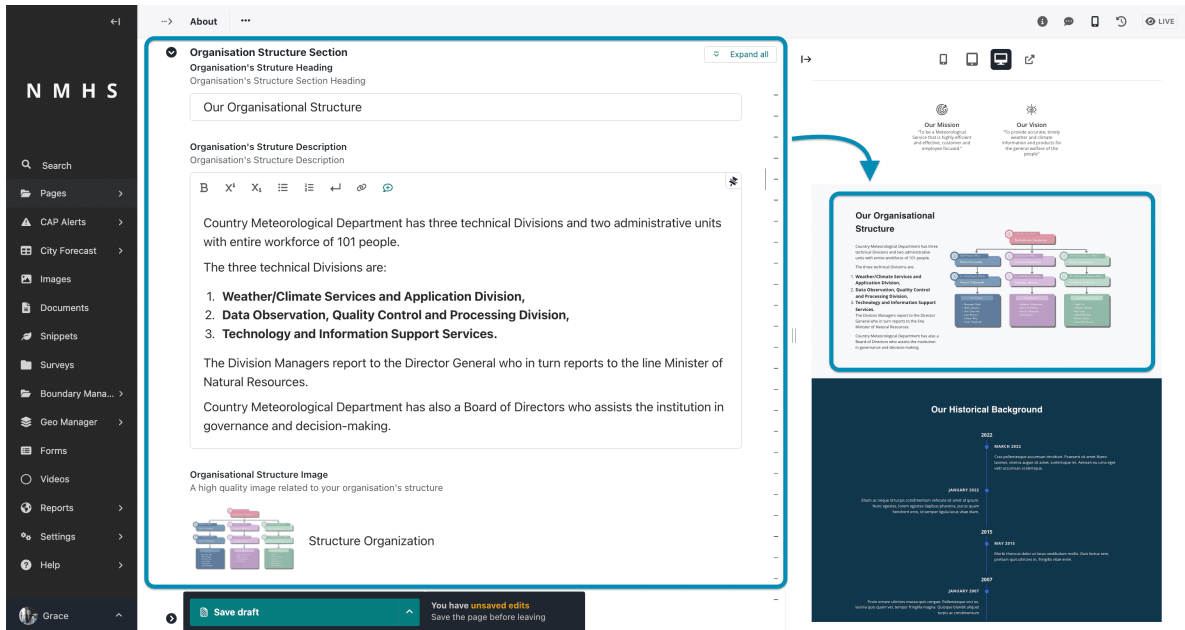
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.



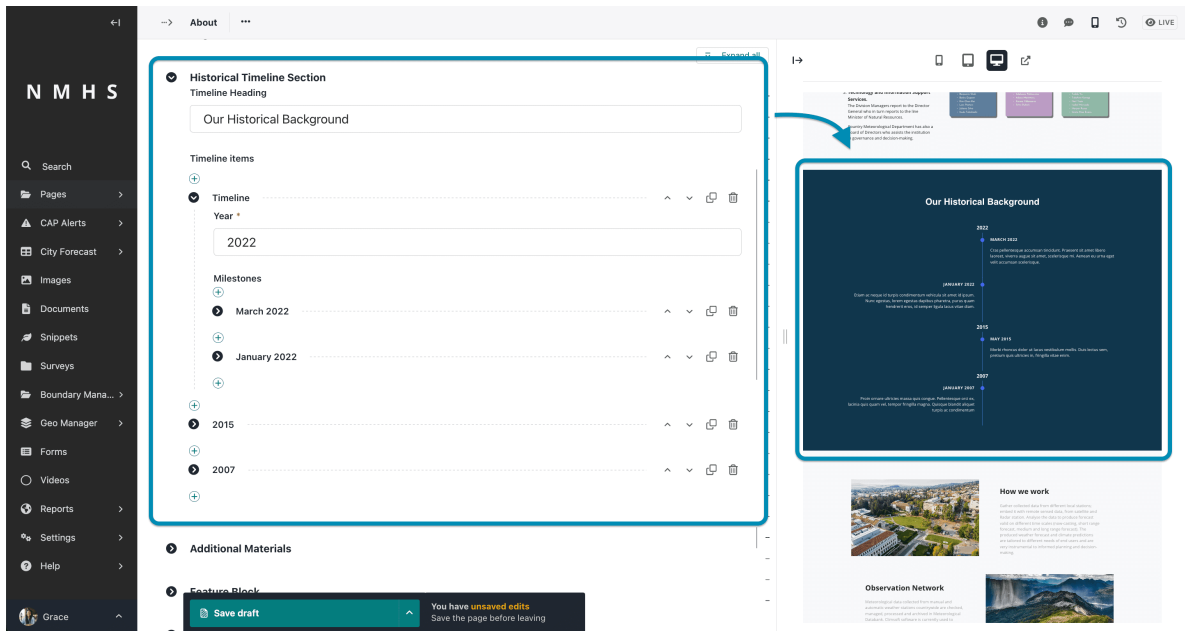
- **Mission and Vision Section** - this is the organisation’s mission and vision



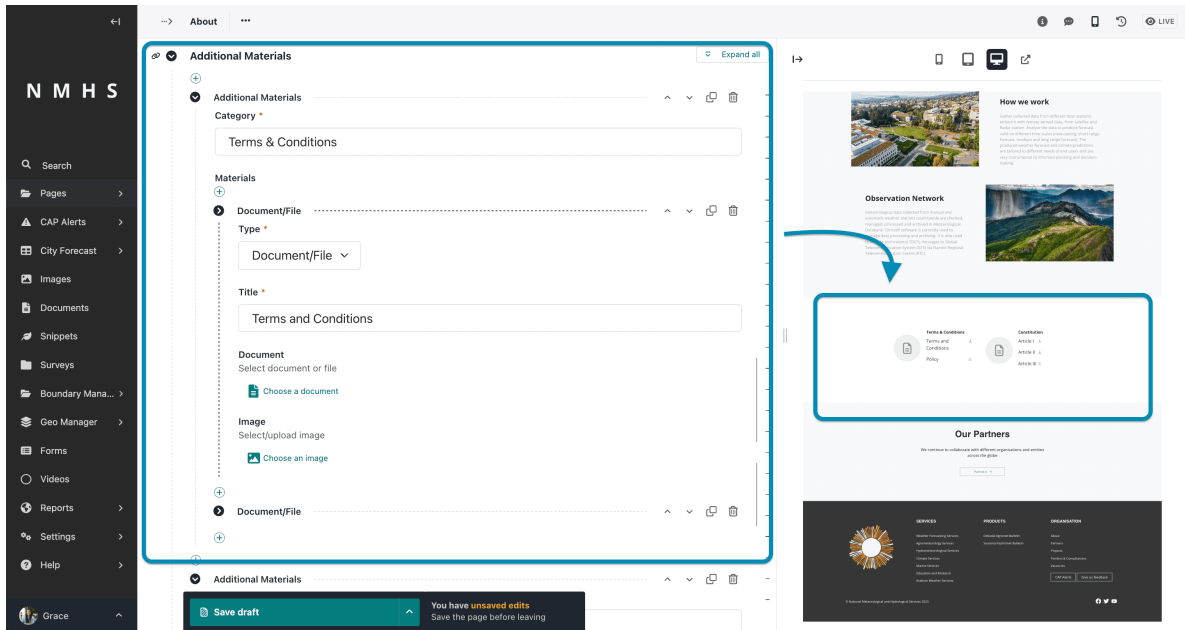
- **Organisation Structure Section** - this contains a heading description and image of the organisational structure.



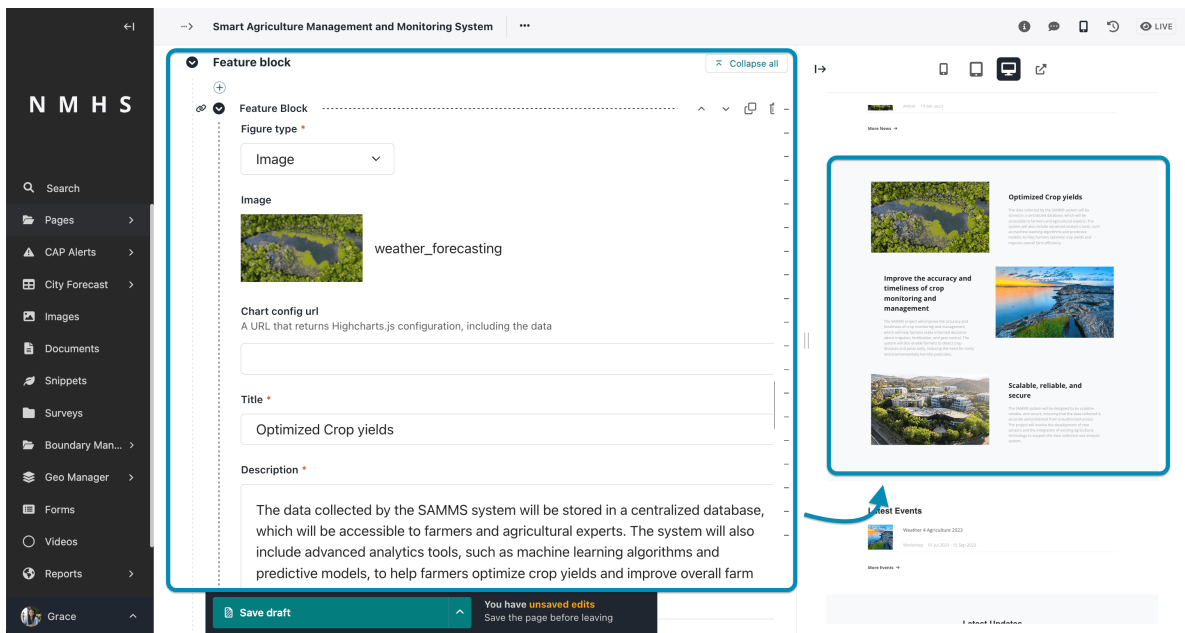
- **Historical Timeline Section** - the historical timeline section allows for narration of the history of the organisation grouping the milestones on an yearly basis.



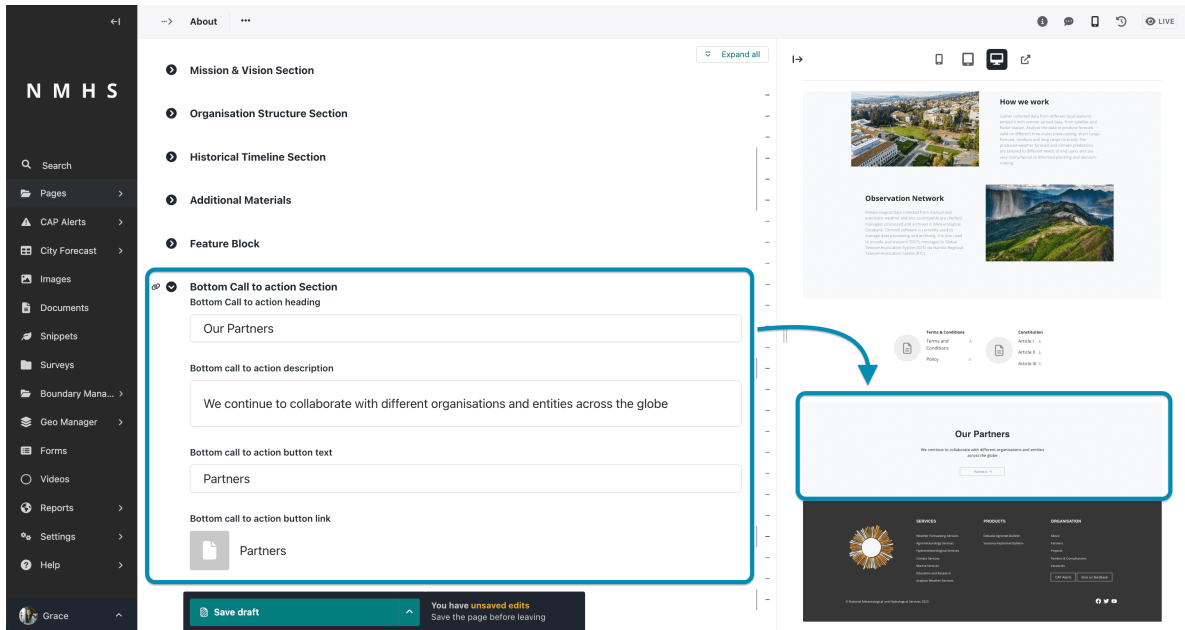
- **Additional Materials** - any additional material including documents or images relating to the organisation can be added here for download.



- **Feature Block Items** - this section allows addition of a series of alternating blocks containing an image, title, description and call to action button.



- **Bottom Call to action Section** - call to action button at the bottom of the page.



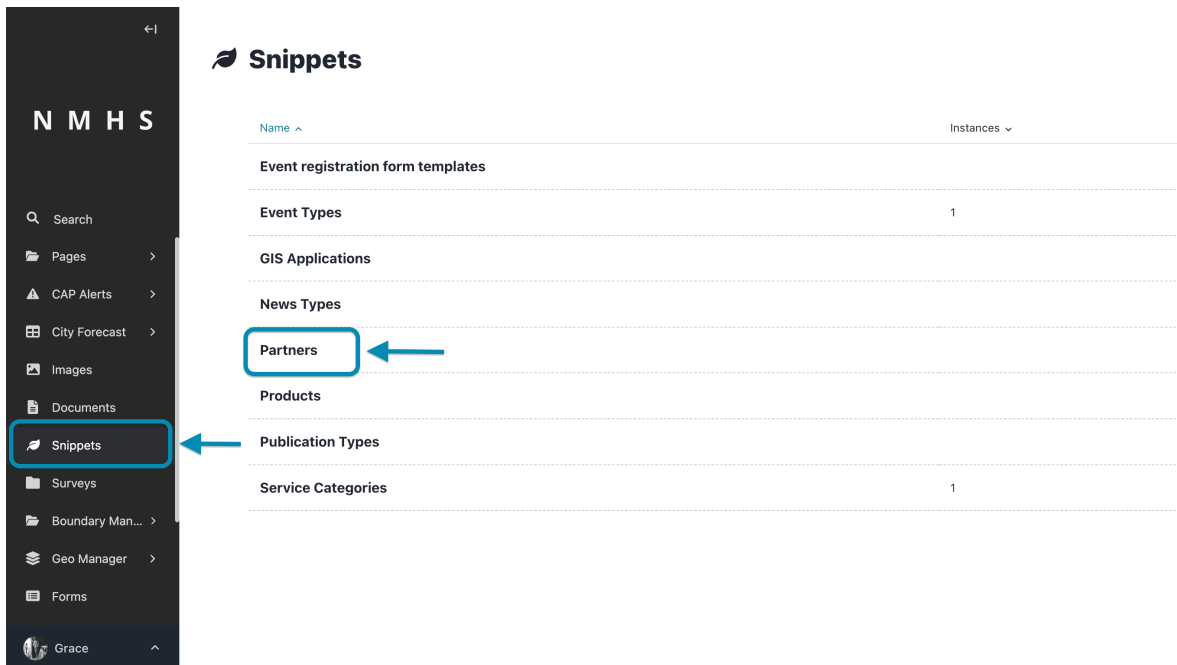
## Partners Page

The steps to create a partners page are:

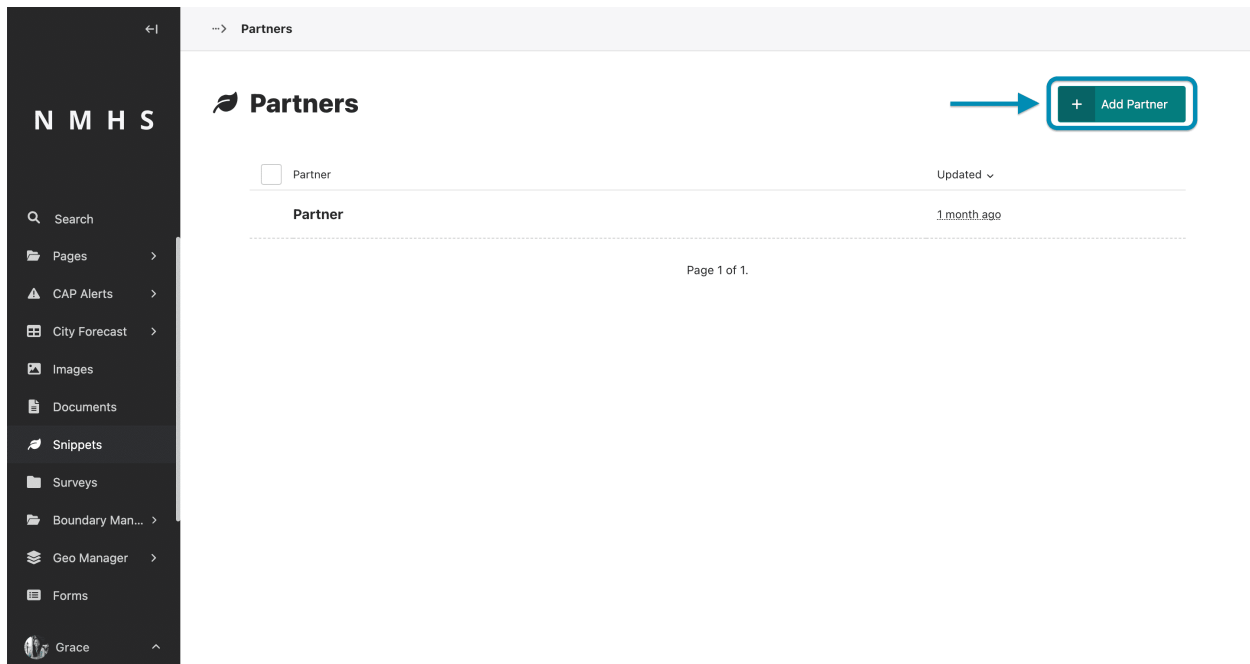
1. Create a list of partners
2. Create a partners page

### 1. Create a list of partners

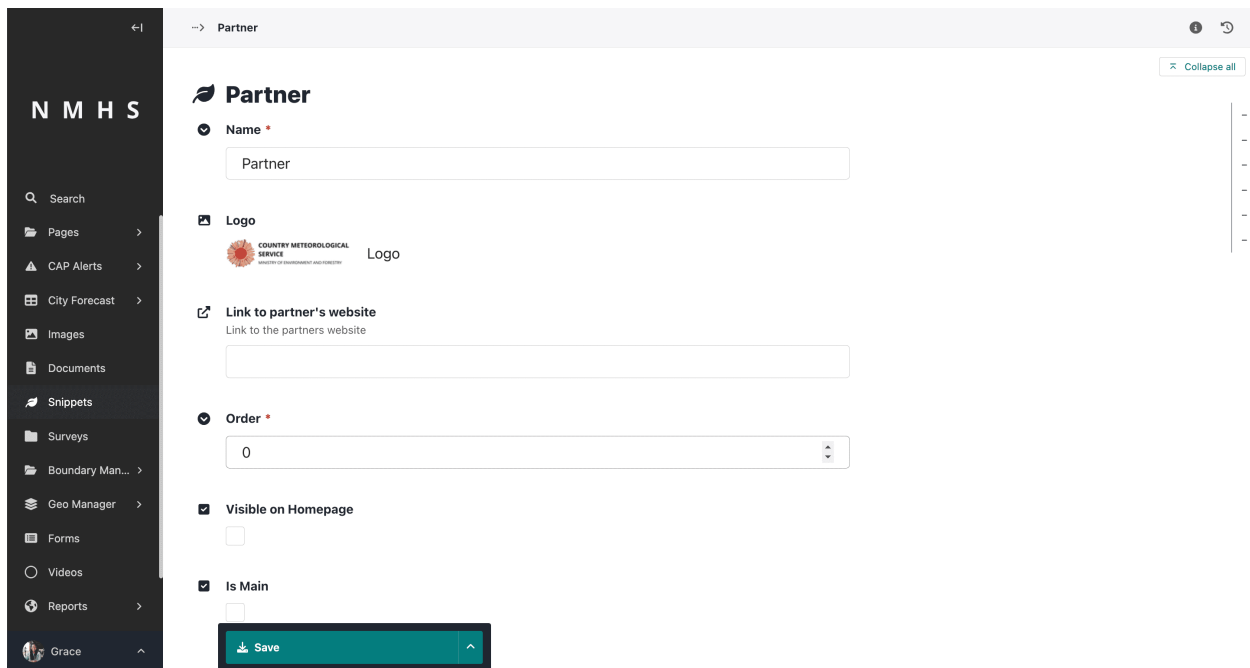
To list partners begin by accessing the partners menu from snippets as shown below.



Click on add partners



Provide the partner name, logo, link to website and any other relevant info in the form.

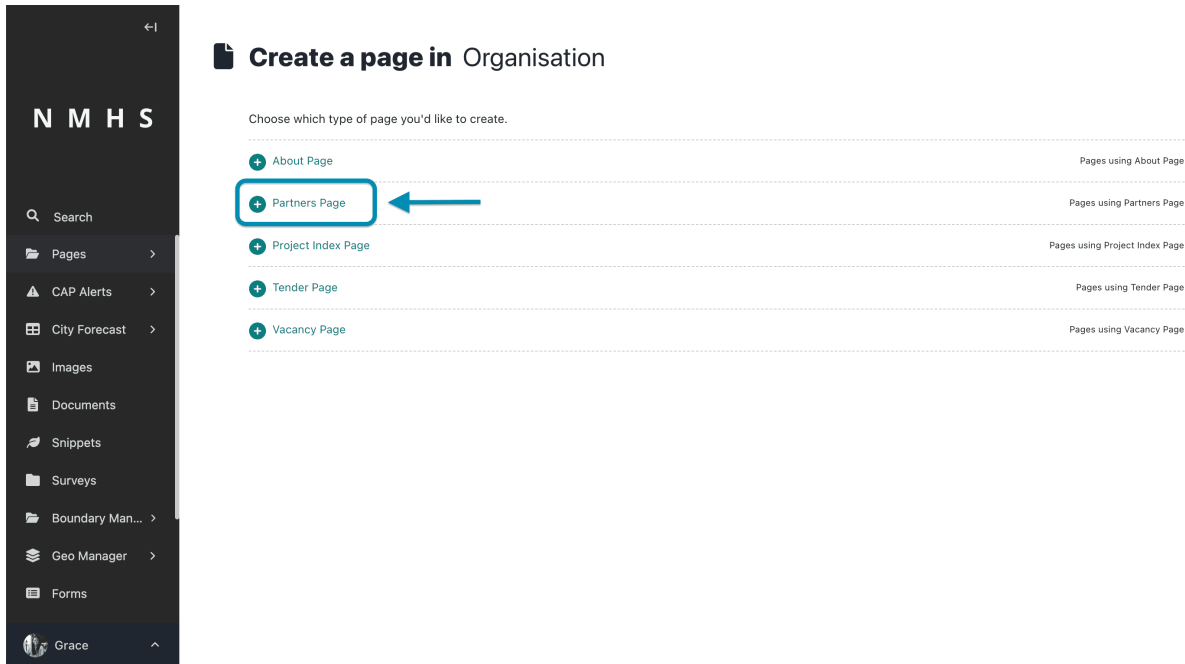


Repeat this process to list more partners

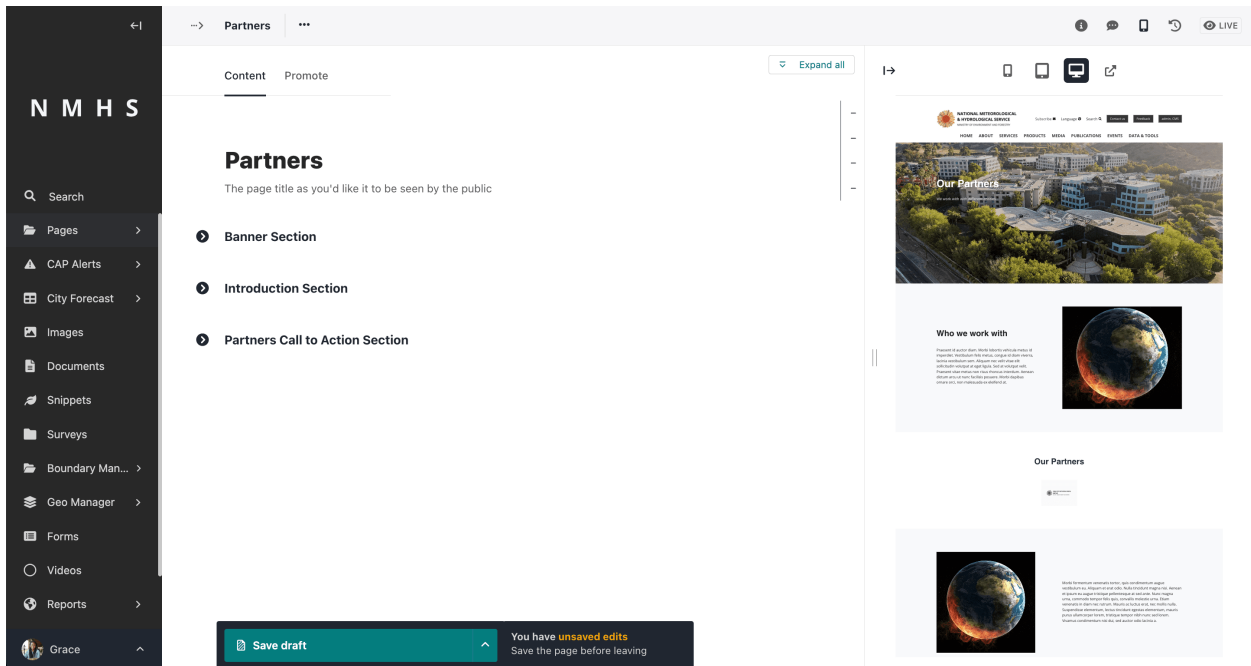
## 2. Create a partners page

The creation of this page assumes you have already created an organisation index page which is the parent page of this page. To create an organisation index page, please refer to *Managing Organisation Page*.

To create a partner page, navigate to organisation page and create a child page from it selecting the about page.



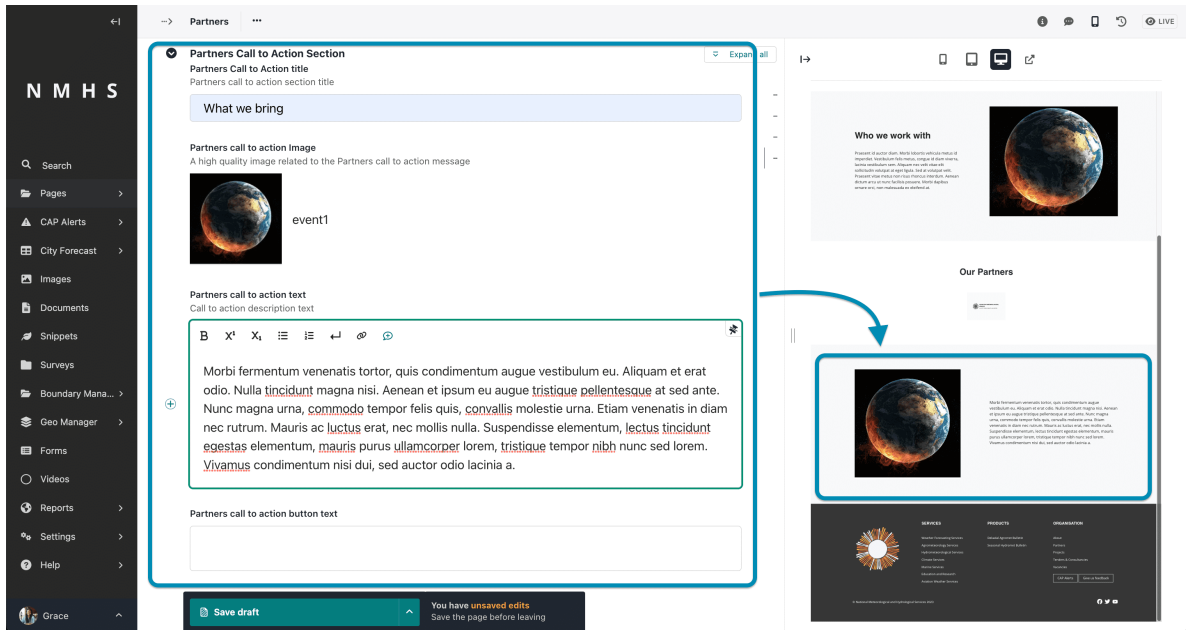
The Partners page contains the sections below:



- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed

- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.

- **Partners Call to Action Section**



**Note**

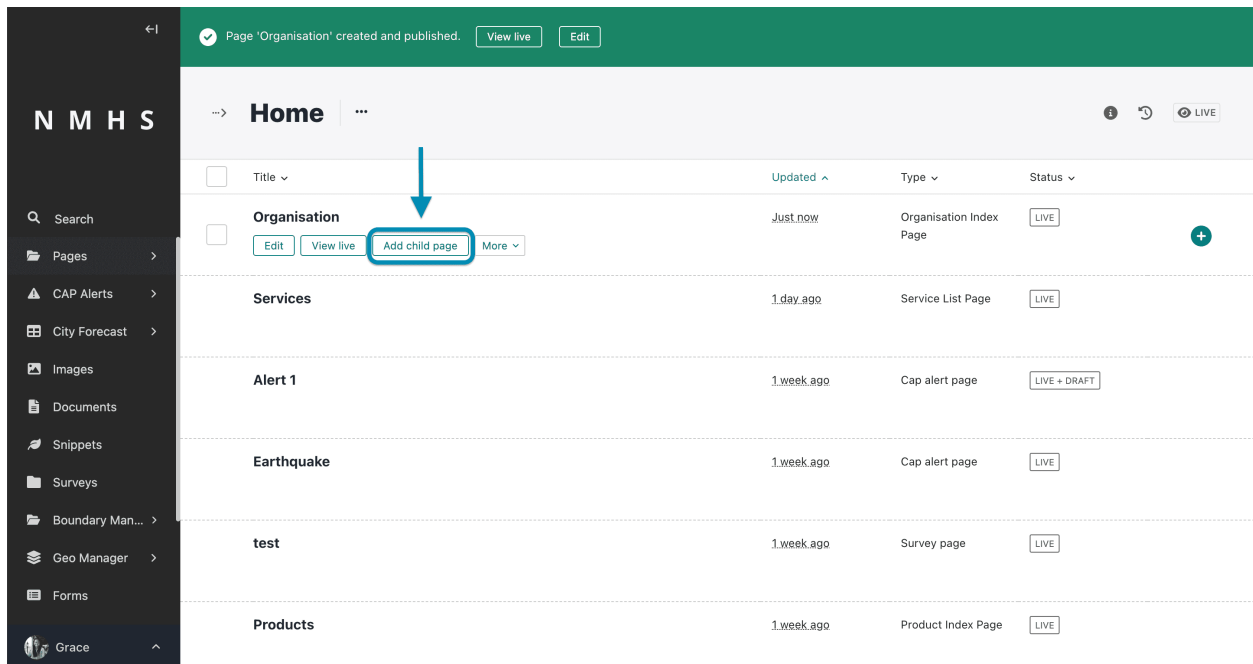
All listed partners in step 1 will be displayed automatically on the partners page.

## Projects

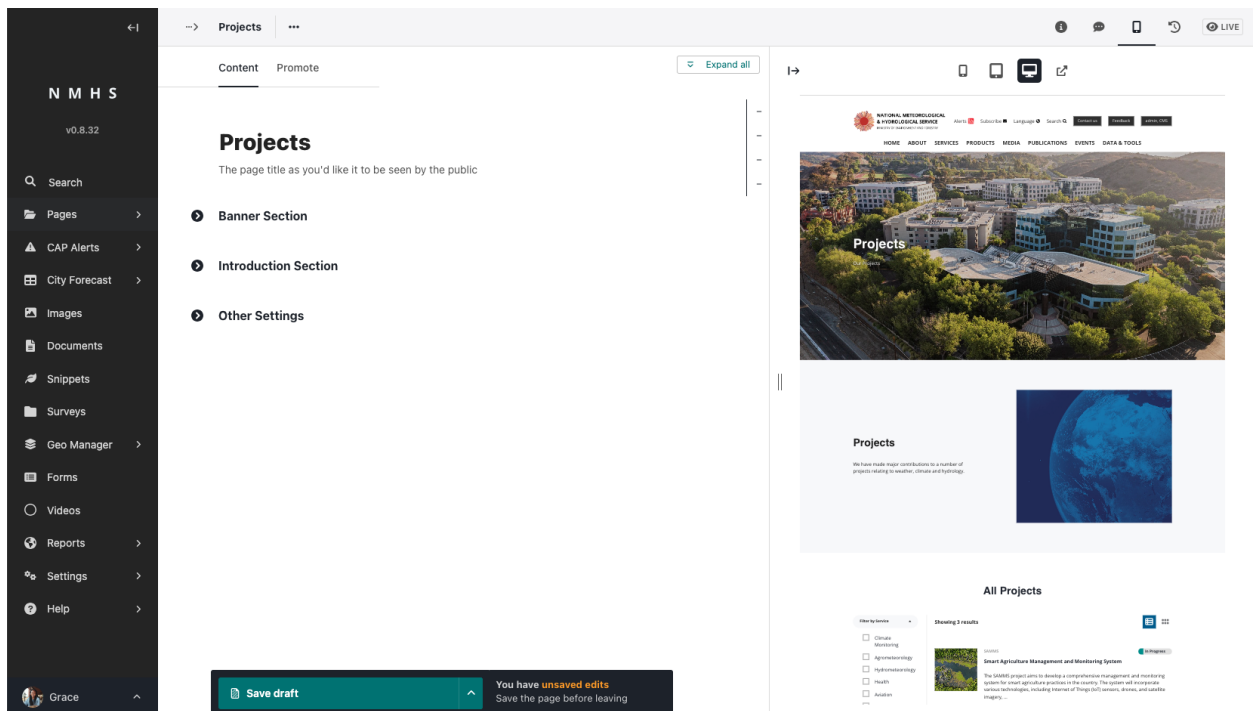
### Create a Projects Listing Page

The creation of this page assumes you have already created an organisation index page which is the parent page of this page. To create an organisation index page, please refer to *Managing Organisation Page*.

To create a project listing page, navigate to organisation page and create a child page from it selecting the projects listing page.



The Projects Listing page is divided into various sections.

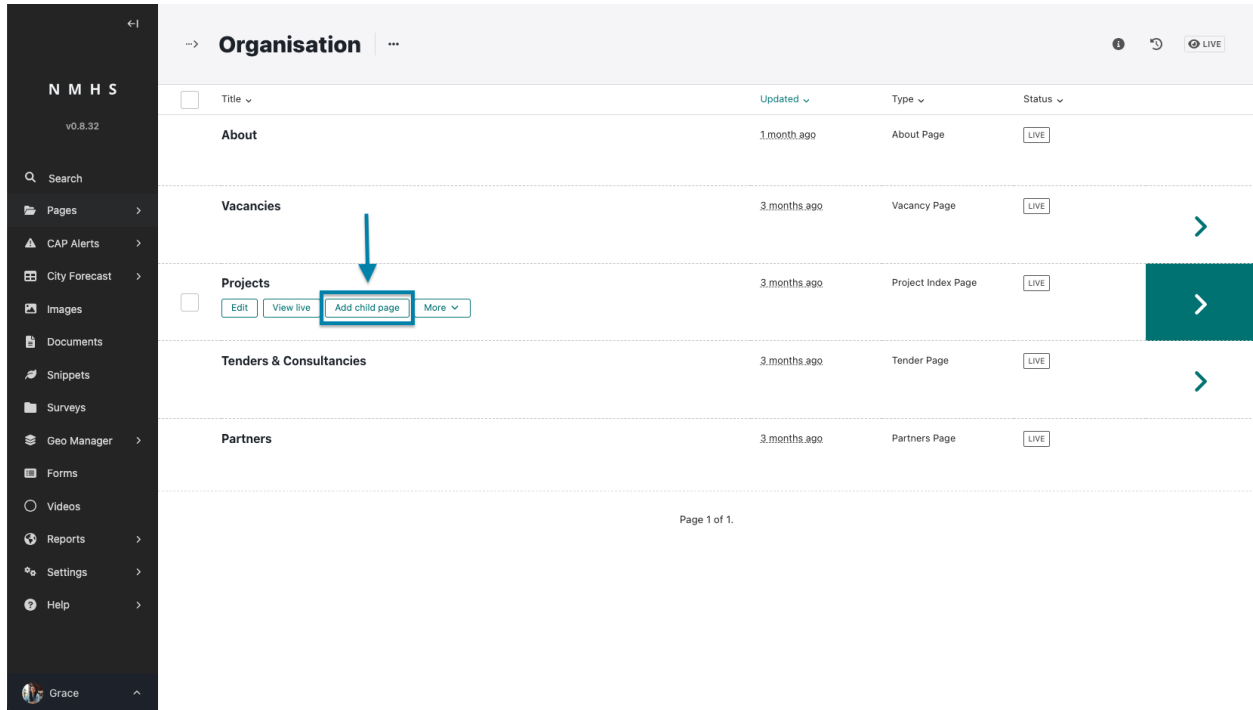


The sections include:

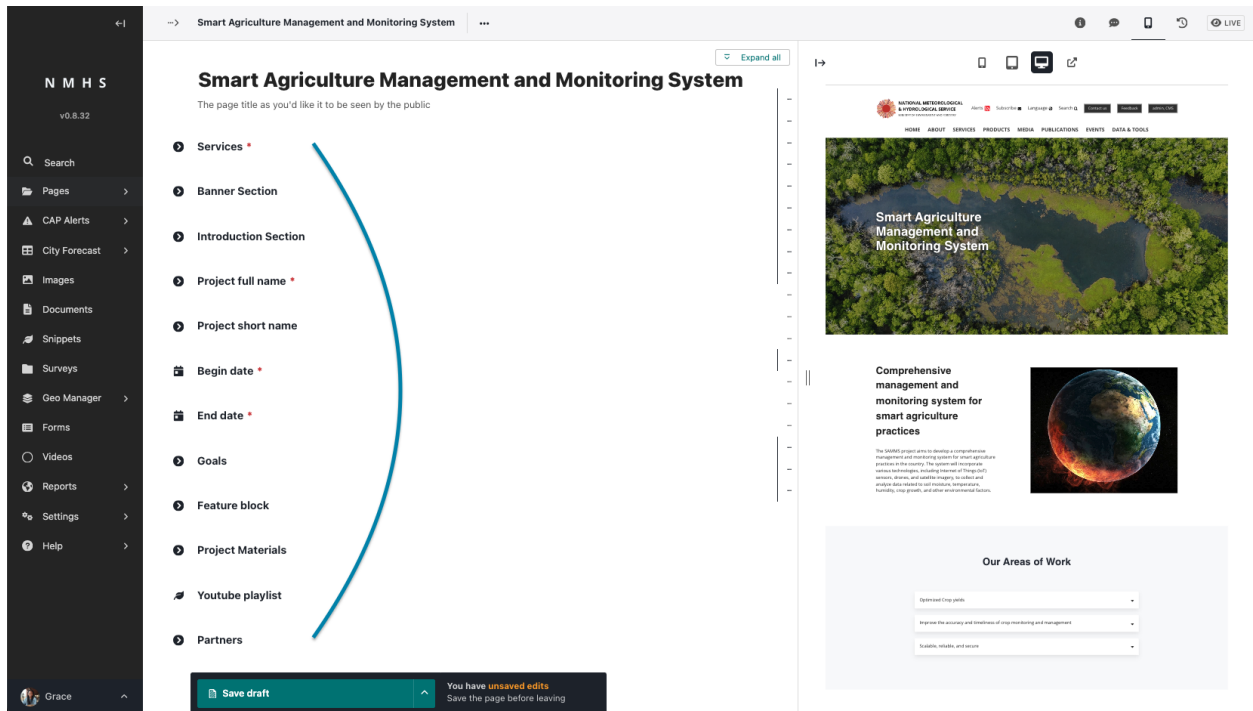
- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.
- **Other Settings** - this holds information on Projects per page.

## Create a Projects Page

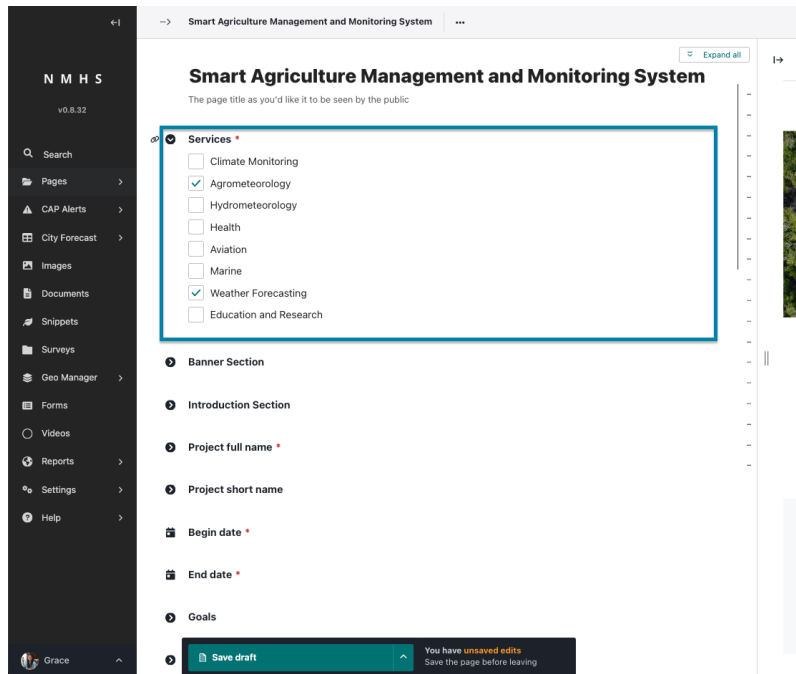
To create a project page, navigate to project listing page and create a child page.



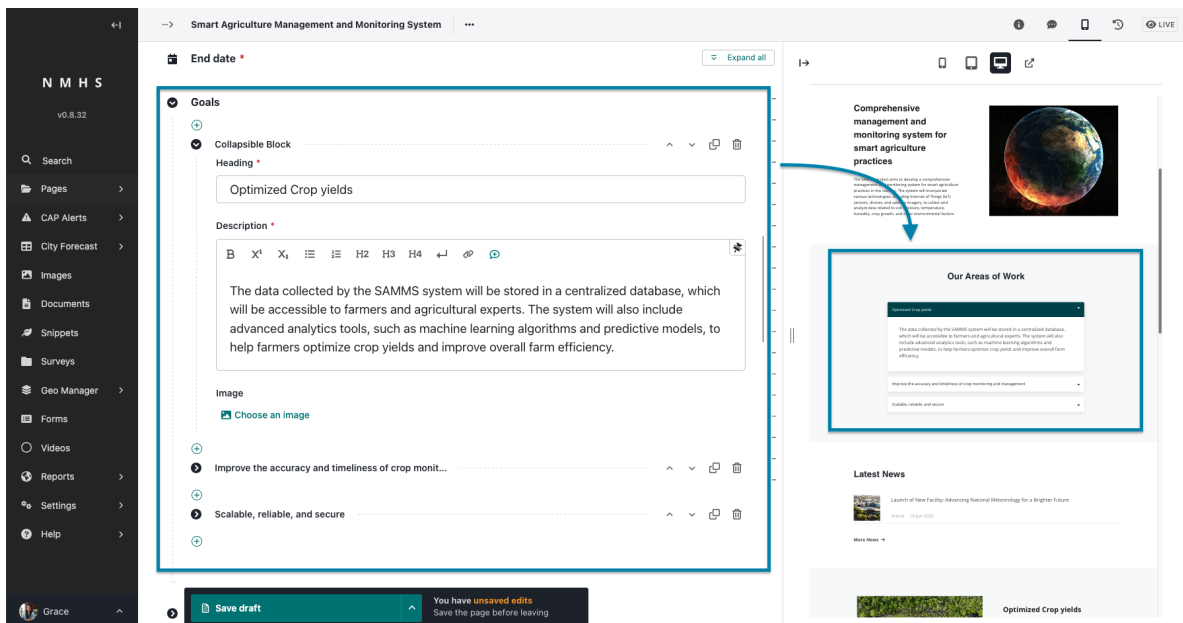
The Projects Listing page is divided into various sections.



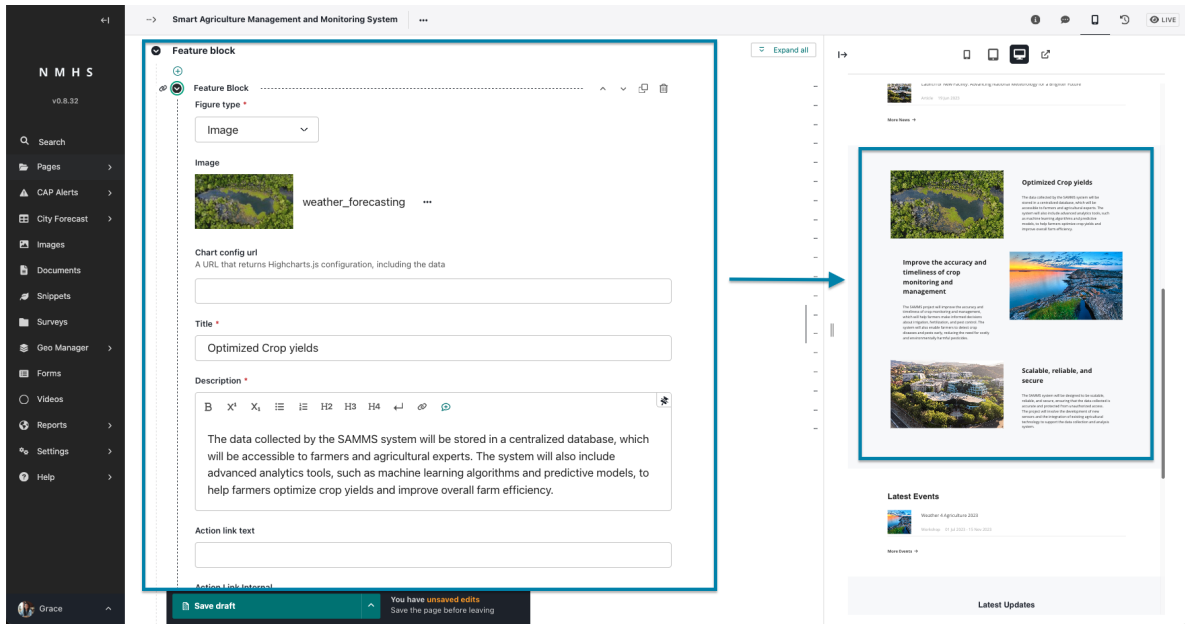
The sections include:



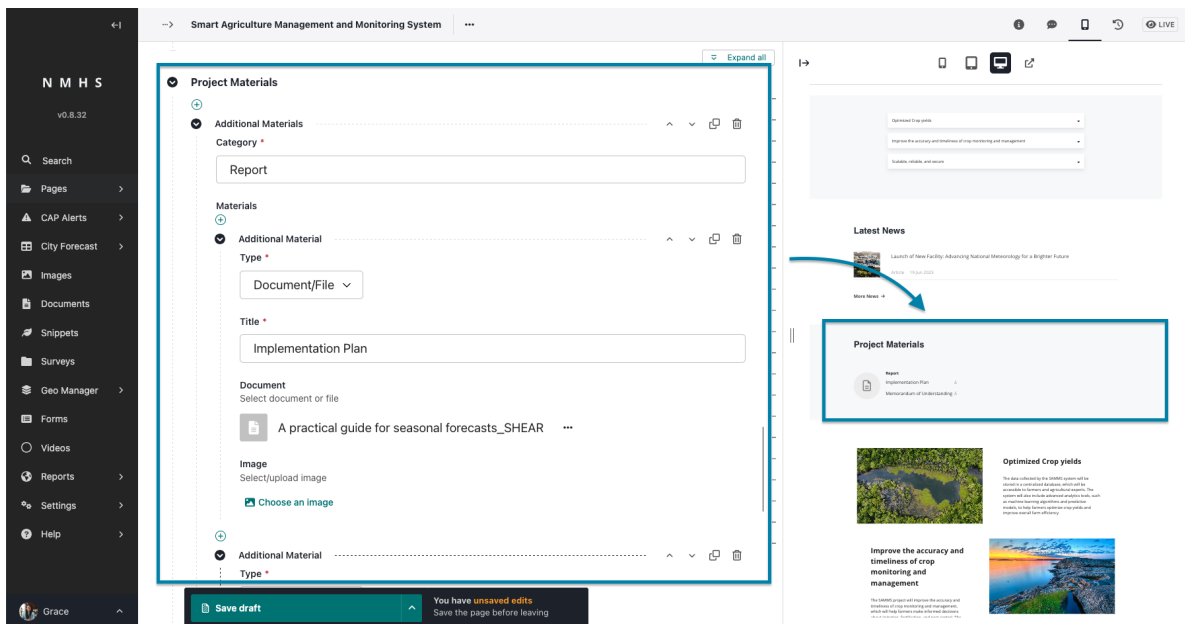
- **Services** - this is a list of services linked to the project.
- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.
- **Projects full name, short name, begin and end date**
- **Goals** - includes a heading, description and optional image of one or more goals



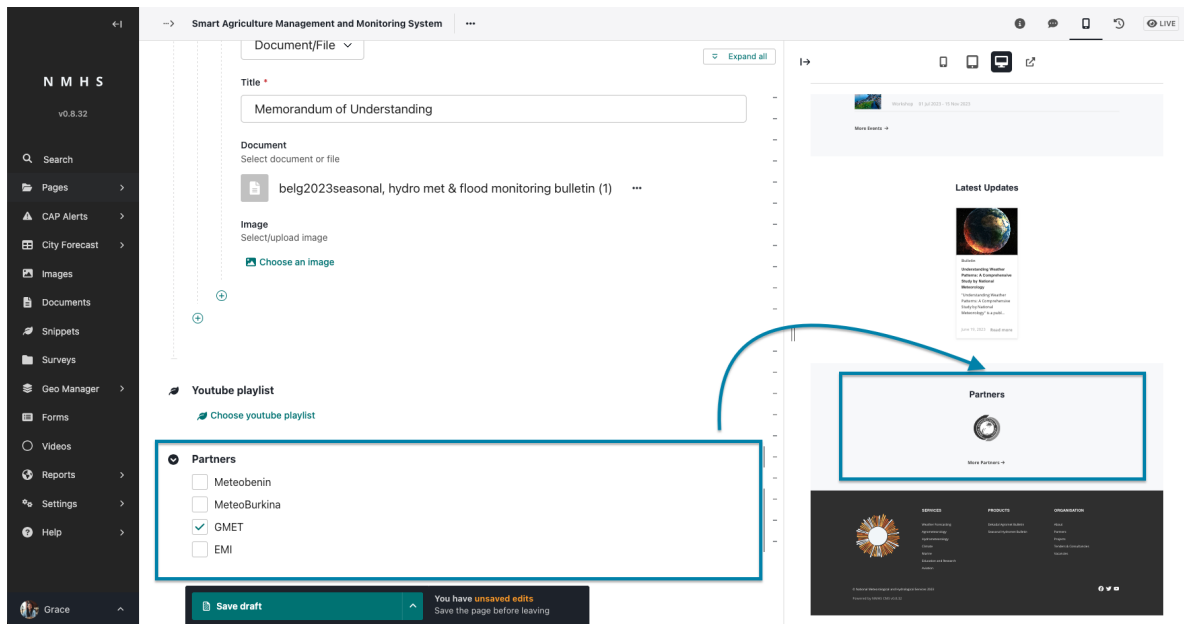
- **Feature Block** - includes a heading, description, call to action link and text and optional image of one or more features



- **Youtube Playlist**
- **Project Materials** - section for adding document or image for materials relating to the project.



- **Partners** - list of partners related to the project.

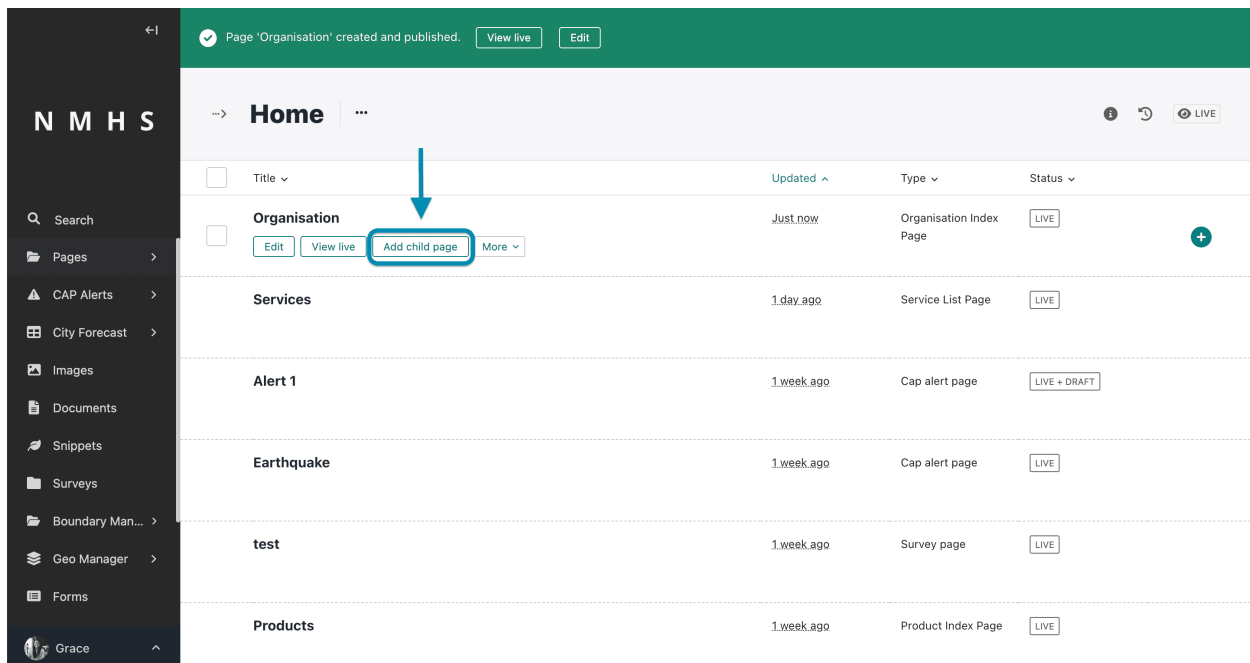


## Tenders

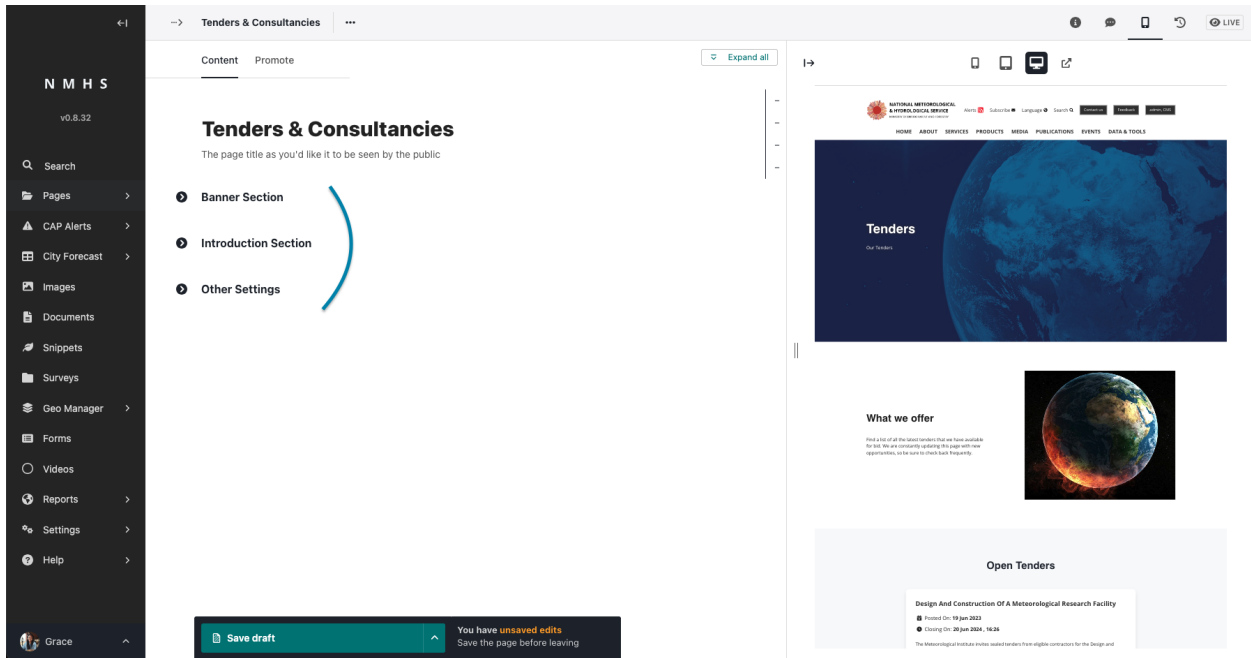
### Create a Tenders Listing Page

The creation of this page assumes you have already created an organisation index page which is the parent page of this page. To create an organisation index page, please refer to *Managing Organisation Page*.

To create a vacancy page, navigate to organisation page and create a child page from it selecting the Tenders page.



The Tenders List page is divided into various sections.

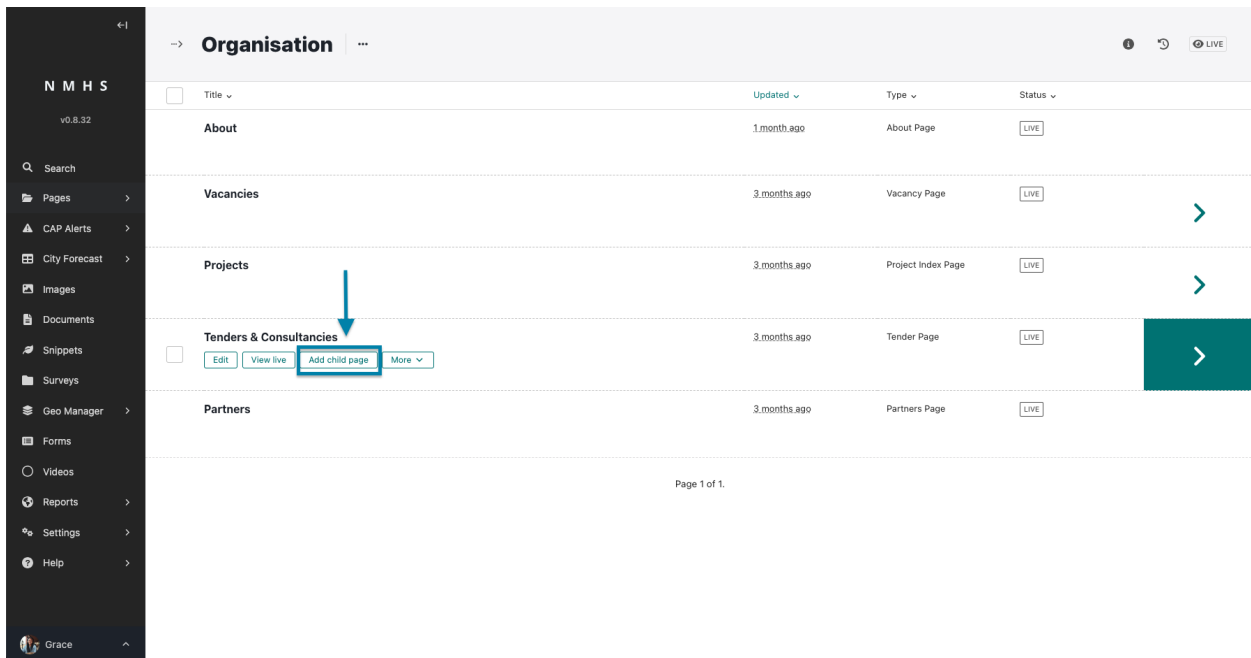


The sections include:

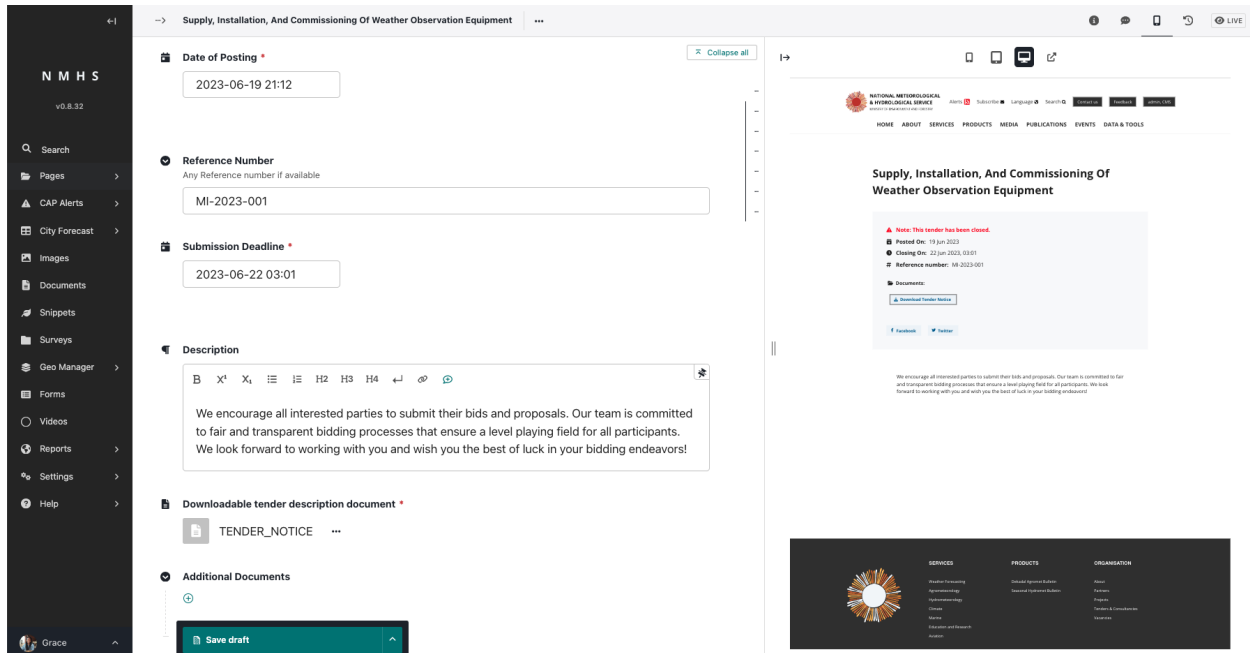
- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.
- **Other Settings** - this holds information on Tenders per page and text to appear when no vacancy is open.

## Create a Tenders Page

To create a Tenders page, navigate to Tenders listing page and create a child page.



The Projects Listing page is divided into various sections.



The sections include:

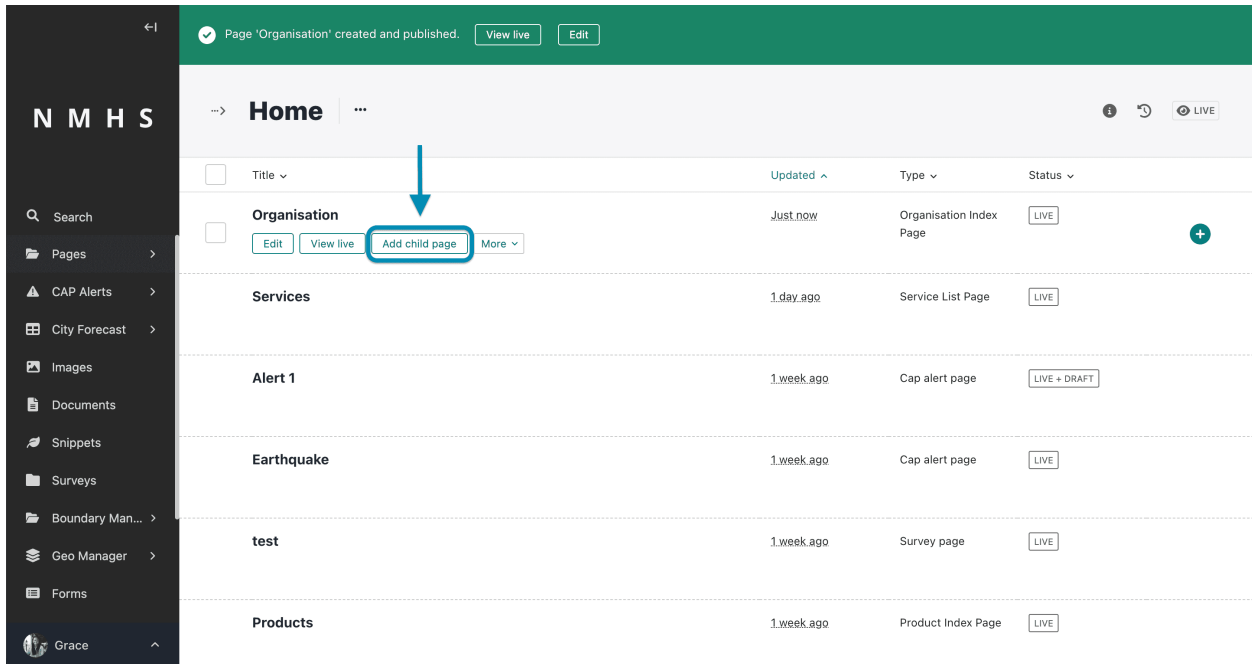
- **Date of Posting** - the date the vacancy was posted on
- **Duty Station** - the duty station for the vacancy
- **Duration** - the work duration of the job
- **Job Description** - long text describing the job
- **Application Deadline** - when the application closes
- **Downloadable Job Description Document** - Optional downloadable job description document

## Vacancies

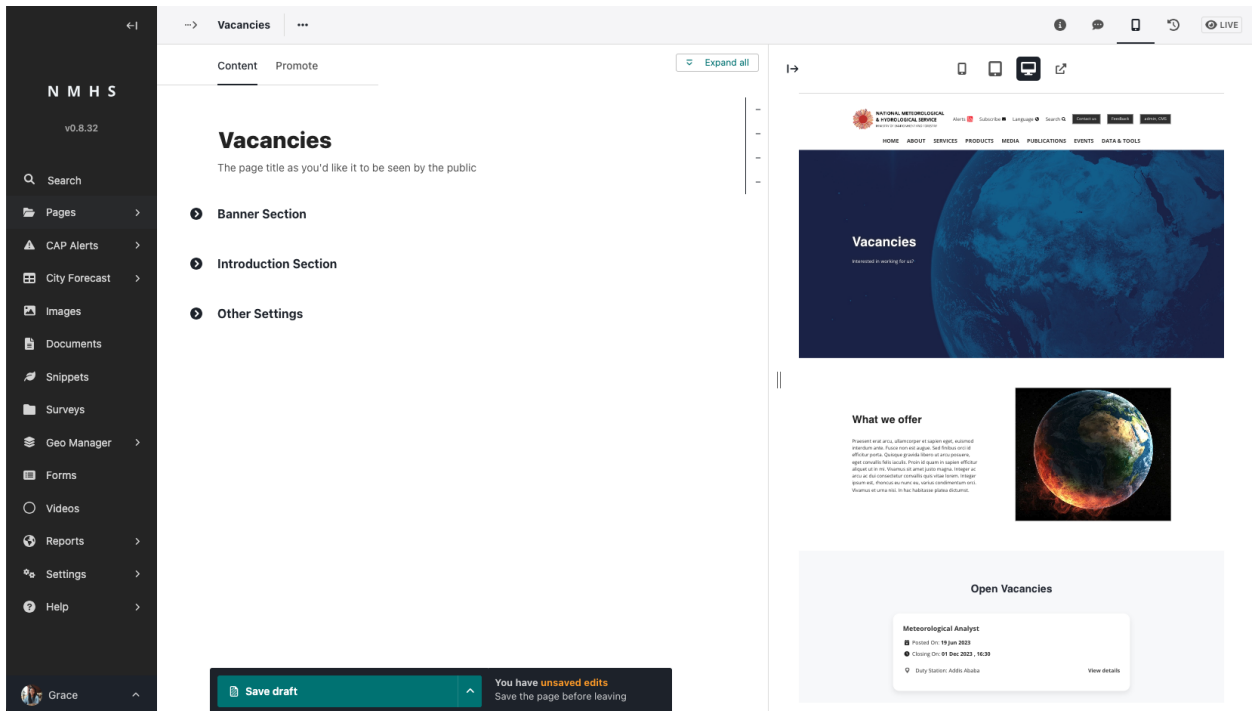
### Create a Vacancy Listing Page

The creation of this page assumes you have already created an organisation index page which is the parent page of this page. To create an organisation index page, please refer to [Managing Organisation Page](#).

To create a vacancy page, navigate to organisation page and create a child page from it selecting the vacancies page.



The Vacancies List page is divided into various sections.

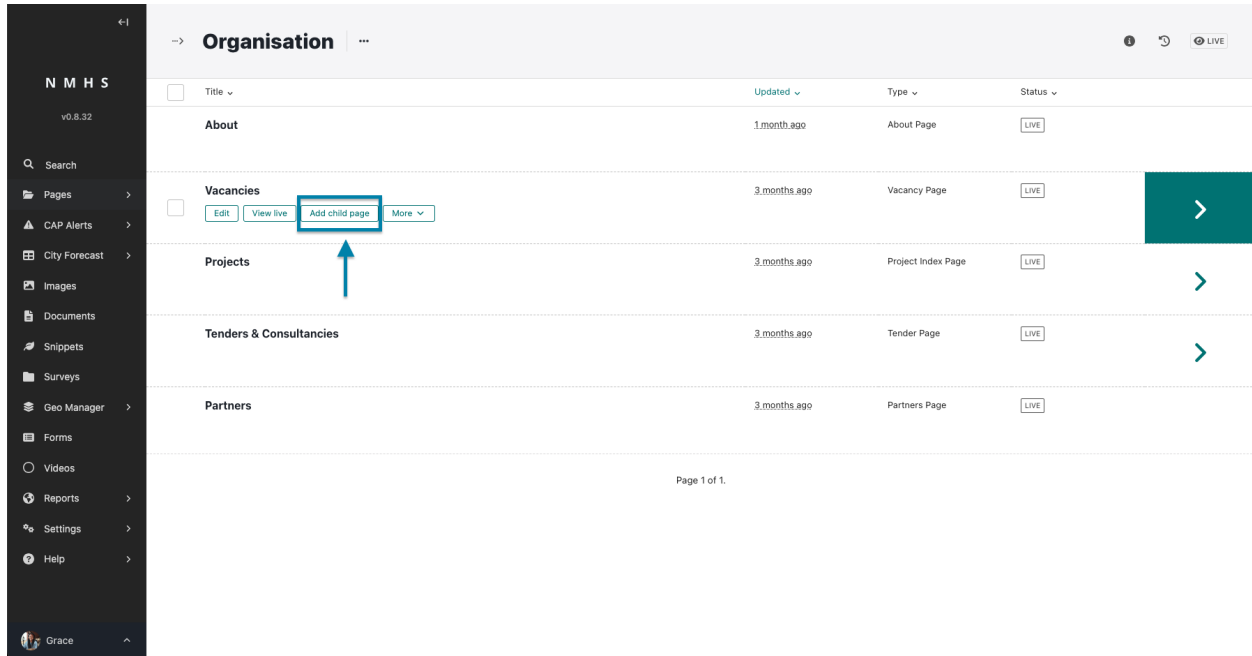


The sections include:

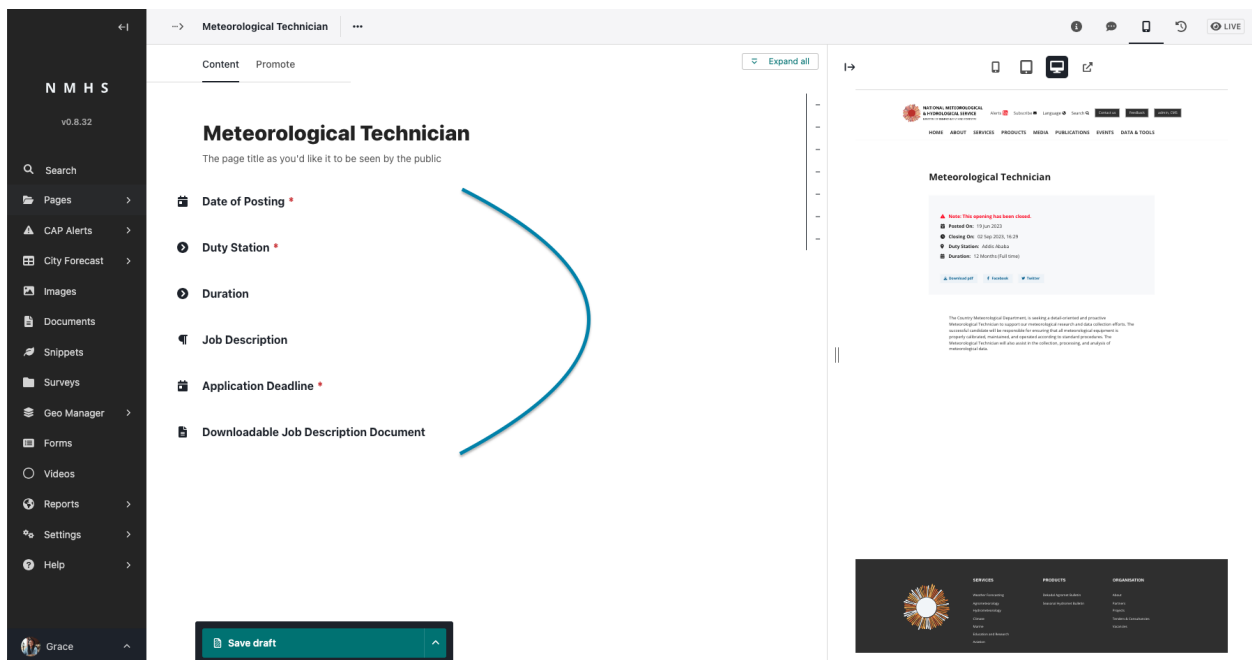
- **Banner Section** - this contains the banner image, title, subtitle and call to action button. If no banner image is provided then this section will not be displayed
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.
- **Other Settings** - this holds information on vacancies per page and text to appear when no vacancy is open.

## Create a Vacancies Page

To create a vacancies page, navigate to vacancies listing page and create a child page.



The Projects Listing page is divided into various sections.

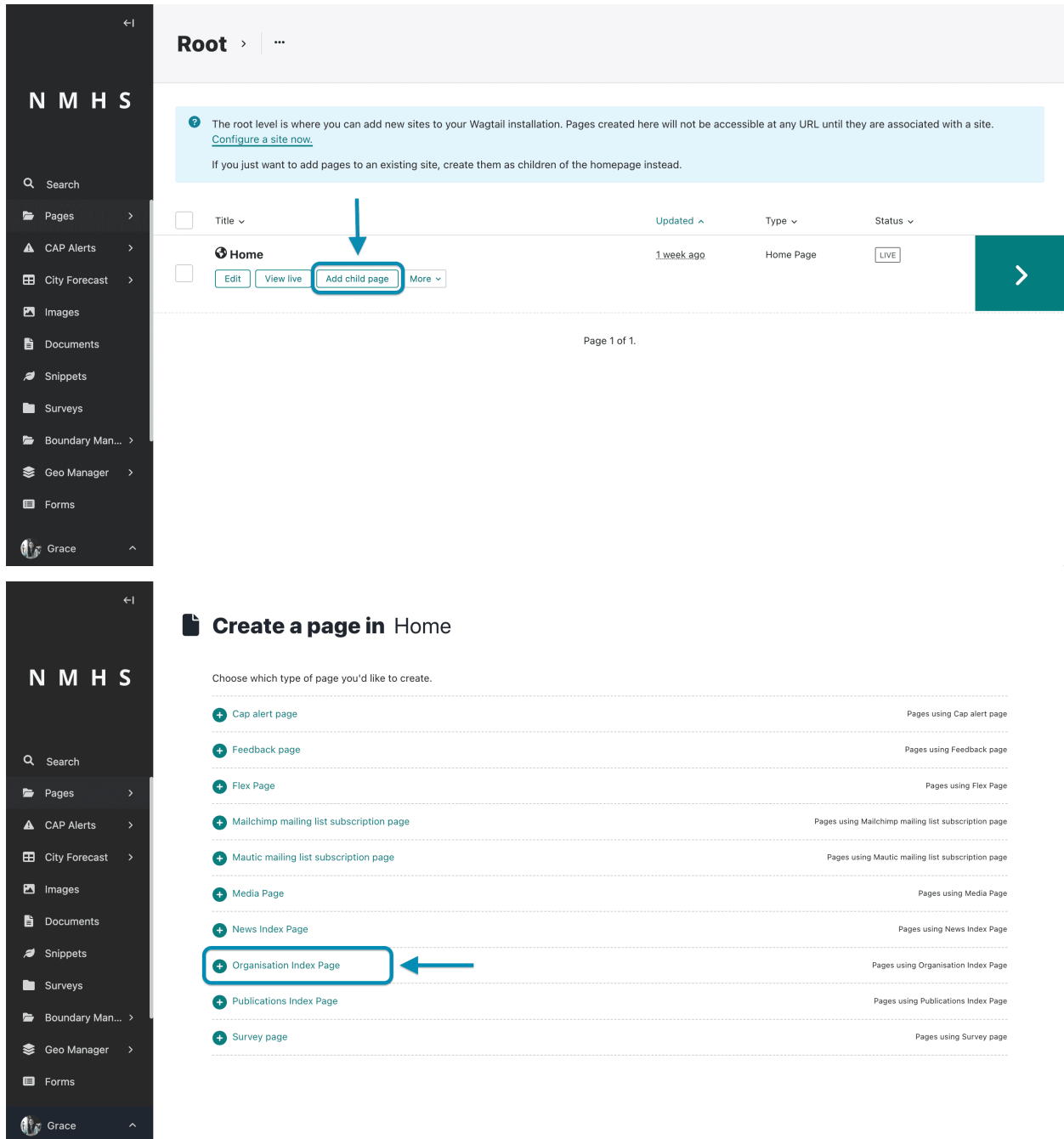


The sections include:

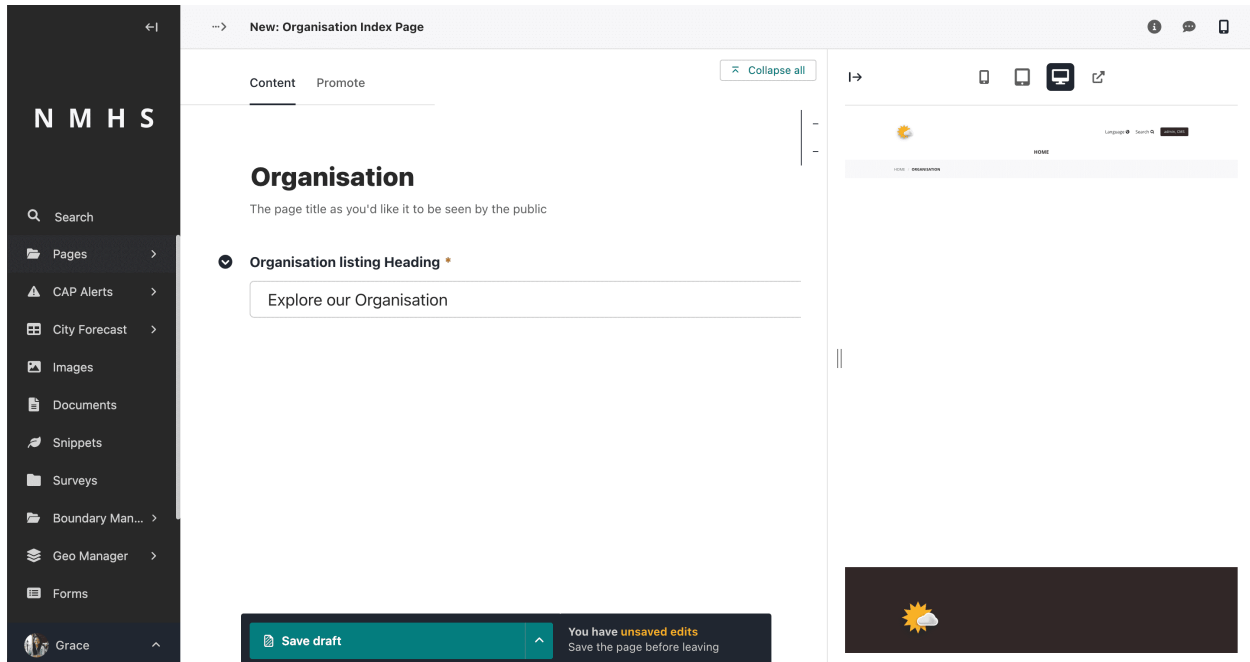
- **Date of Posting** - the date the vacancy was posted on
- **Duty Station** - the duty station for the vacancy
- **Duration** - the work duration of the job
- **Job Description** - long text describing the job

- **Application Deadline** - when the application closes
- **Downloadable Job Description Document** - Optional downloadable job description document

To create the overall organisation page that houses the pages above, begin by adding a child page to the home page and selecting ‘Organisation Index Page’.



Populate the form with page title and listing heading as below:



**Note**

This option will only appear if an 'Organisation Index Page' does not already exist as only one instance of this page is allowed. If it already exists proceed to prepare the other pages listed above.

## 1.6.2 Products

The creation of products follows the steps below:

1. Creation of a product and a service category
2. Creation of one or more product categories for each of the products
3. Creation of one or more product item types for each of the product categories
4. Creation of a product page that will serve all products for a specific category
5. Creation of one or more product items for a product page

### Product Creation Example Scenario

Assume you would like to have Dekadal Agromet Bulletin Products on the website, the practical way to do it using the steps above would be:

#### Step 1: Create an 'Agromet Service Category' and a 'Dekadal Agromet Bulletin' Product

To create a service, navigate to the 'Snippets' section on the explorer menu and select 'Services' as below:

**Snippets**

Name ^	Instances v
<b>Event registration form templates</b>	
<b>Event Types</b>	5
<b>GIS Applications</b>	
<b>News Types</b>	5
<b>Partners</b>	1
<b>Products</b>	2
<b>Publication Types</b>	6
<b>Service Categories</b>	8

Click on 'Add service' to create a new service.

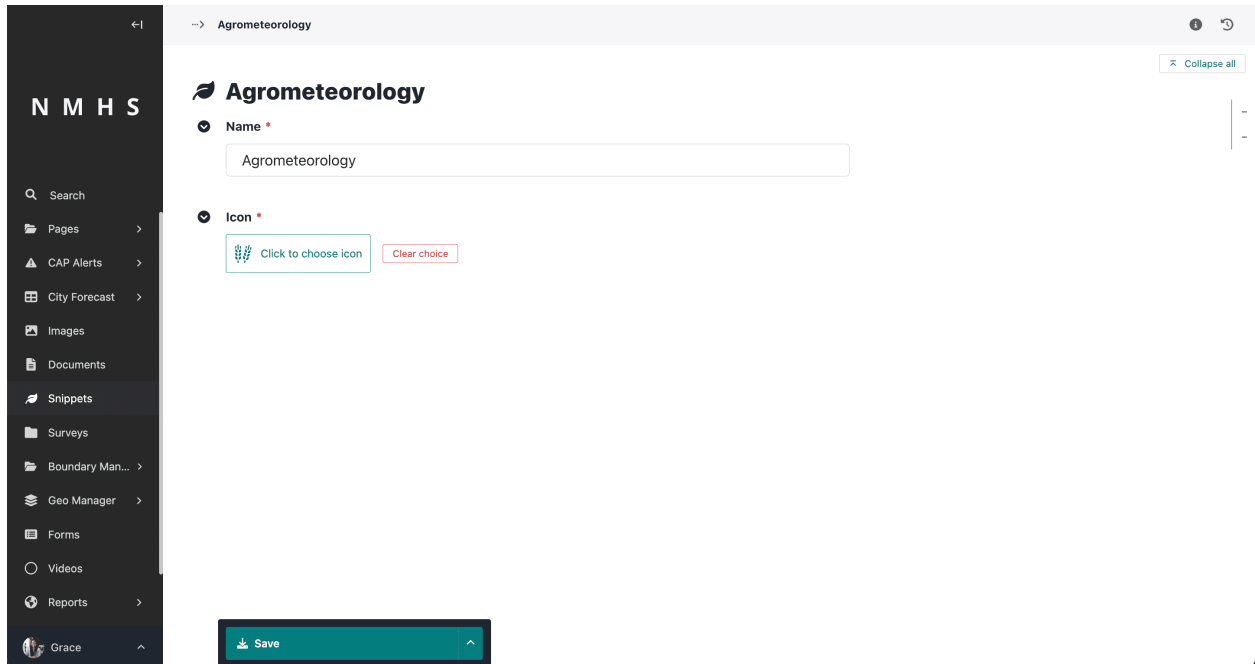
**Service Categories**

[+ Add Service Category](#)

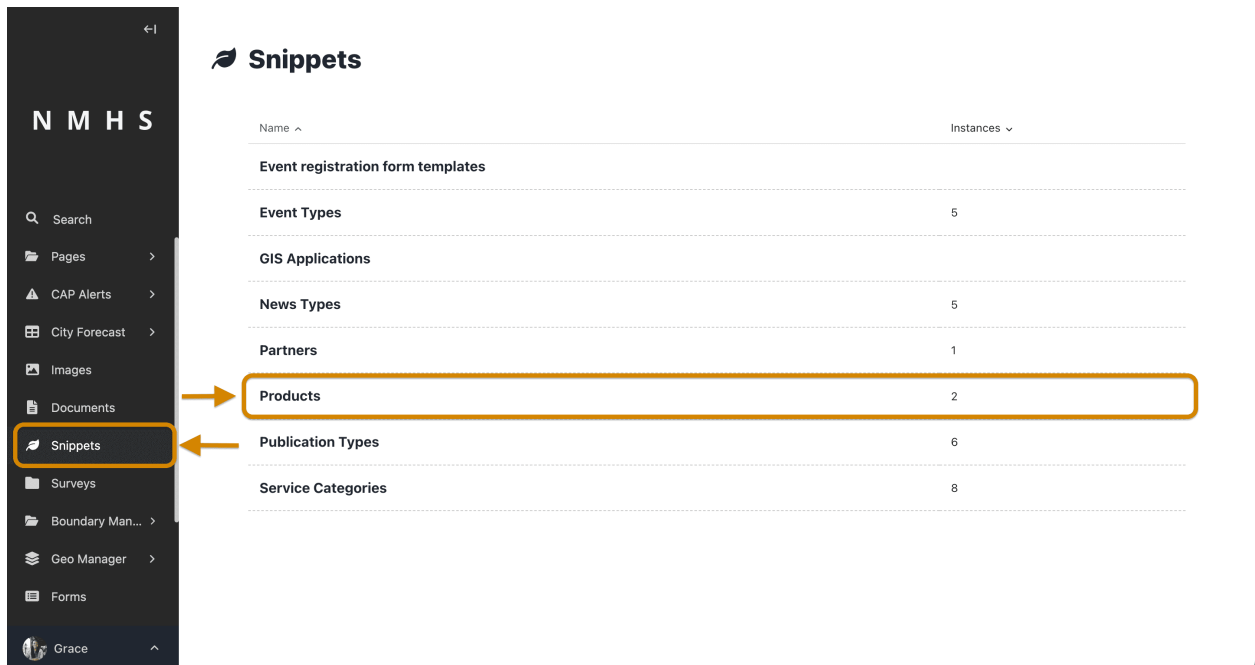
<input type="checkbox"/> Service Category	Updated v
<b>Education and Research</b>	4 weeks ago
<b>Weather Forecasting</b>	4 weeks ago
<b>Marine</b>	4 weeks ago
<b>Aviation</b>	4 weeks ago
<b>Health</b>	4 weeks ago
<b>Hydrometeorology</b>	4 weeks ago
<b>Agrometeorology</b>	4 weeks ago
<b>Climate Monitoring</b>	4 weeks ago

Page 1 of 1.

Provide service category name and choose an icon and save.



To create a product, navigate to the 'Snippets' section on the explorer menu and select 'Products' as below:



Click on 'Add product' to create a new product.

The screenshot shows the 'Products' page in the N M H S application. The left sidebar contains navigation options: Search, Pages, CAP Alerts, City Forecast, Images, Documents, Snippets, Surveys, Boundary Man..., Geo Manager, and Forms. The main content area displays a table with the following data:

Product	Updated
Seasonal Hydromet Bulletin	4 weeks ago
Dekadal Agromet Bulletin	4 weeks ago

Below the table, it indicates 'Page 1 of 1'. A '+ Add Product' button is highlighted with a red box and an arrow.

Fill in the form providing the name of the product e.g Dekadal Agromet Bulletin

The screenshot shows the 'Dekadal Agromet Bulletin' form in the N M H S application. The left sidebar is the same as in the previous screenshot. The main content area displays the form with the following fields:

- Product Name \***: A text input field containing 'Dekadal Agromet Bulletin'.
- Product Categories**: A section with an 'Add product category' button.

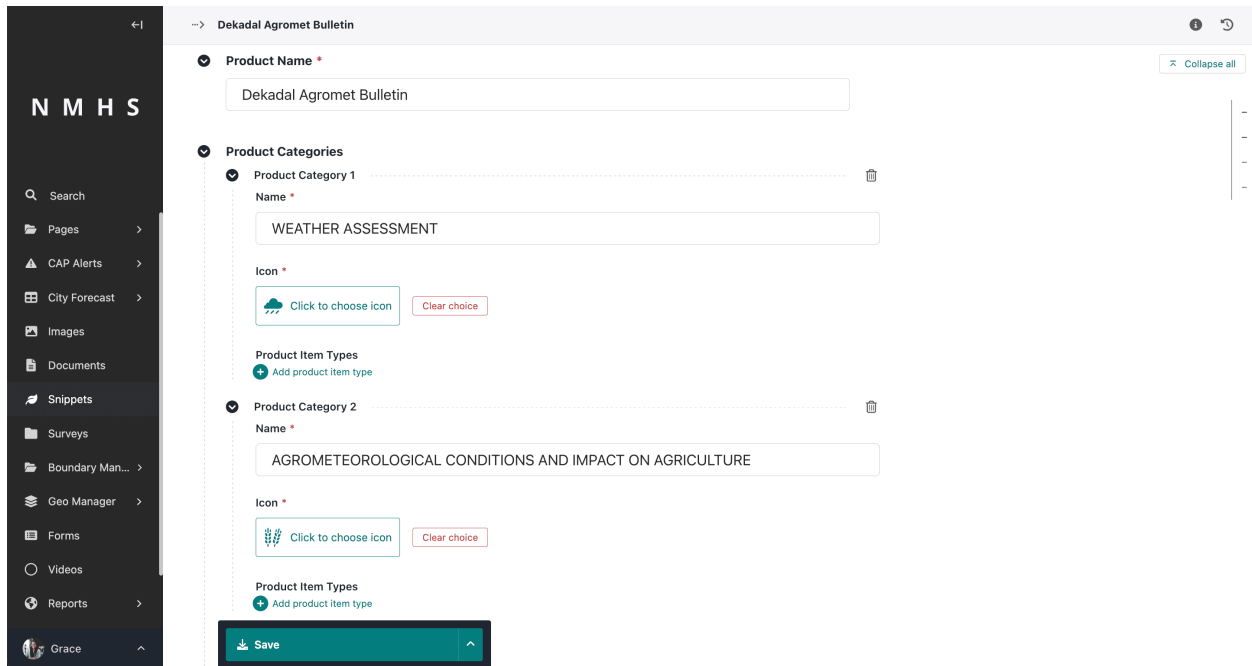
A 'Save' button is highlighted with a red box at the bottom of the form.

## Step 2: Creation of one or more product categories for each of the products

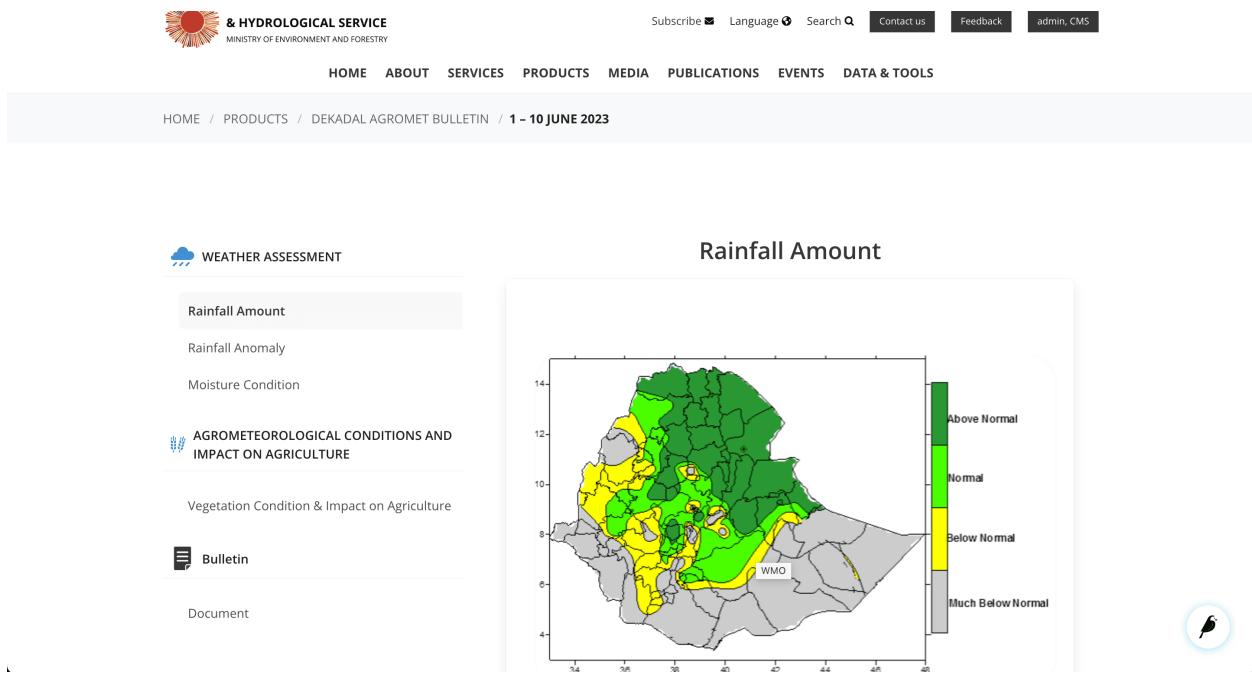
Create a product category based on sections measured and reported in Dekadal Agrometeorology providing the name and icon e.g

- Category 1 - Weather Assessment
- Category 2 - Agrometeorological conditions and impact on agriculture

• Category 3 - Bulletin



Category 1 and 2 can contain text and images and allows you to break down your bulletin into sharable sections while category 3 can hold the bulletin file/document for download by users. A preview of these categories to the public would appear as below on the website.



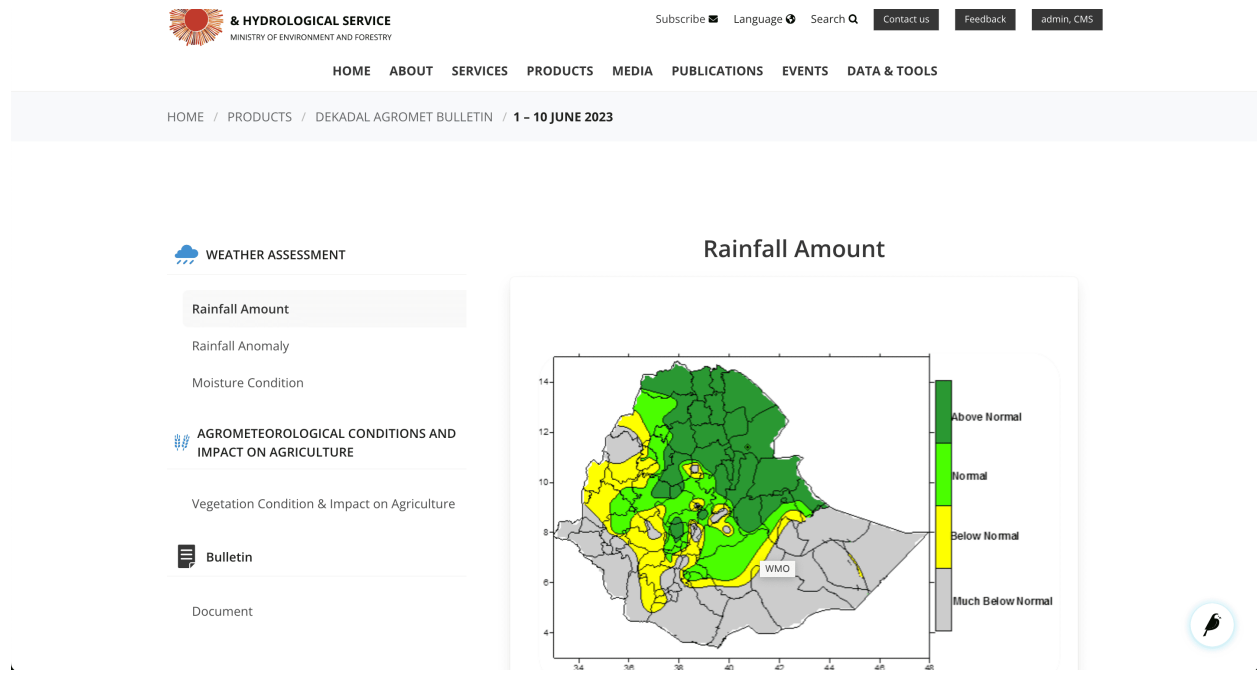
### Step 3: Creation of one or more product item types for each of the product categories

For each of the three categories above, you can now add product item types e.g

- **Category 1 - Weather Assessment**
  - Rainfall Amount
  - Rainfall Anomaly
  - Moisture Condition
- **Category 2 - Agrometeorological conditions and impact on agriculture**
  - Vegetation Condition & Impact on Agriculture
- **Category 3 - Bulletin**
  - Document

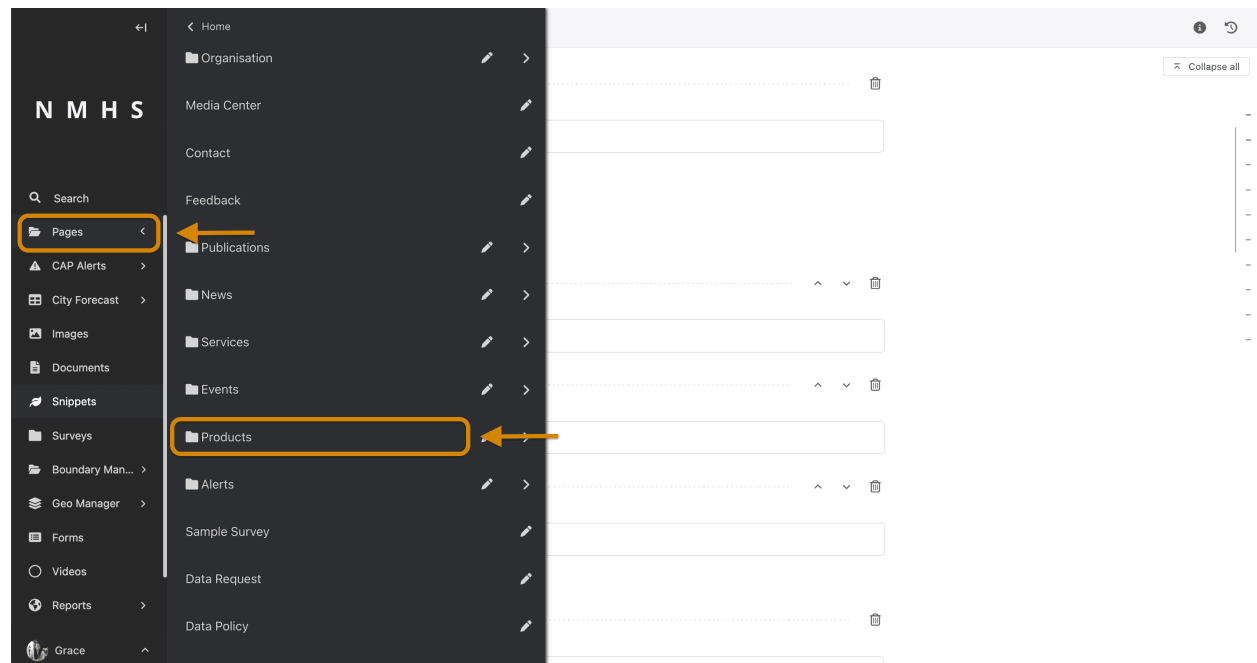
The screenshot displays the 'Dekadal Agromet Bulletin' configuration page in the NMHS system. On the left is a dark sidebar with the 'NMHS' logo and a search bar. Below the search bar are navigation links for Pages, CAP Alerts, City Forecast, Images, Documents, Snippets, Surveys, Boundary Man..., Geo Manager, Forms, Videos, and Reports. The main content area is titled 'Product Categories' and contains a 'Product Category 1' section. This section has a 'Name' field with the value 'WEATHER ASSESSMENT' and an 'Icon' field with a 'Click to choose icon' button and a 'Clear choice' button. Below this are three 'Product Item Types' sections: 'Product Item Type 1' with 'Name' 'Rainfall Amount', 'Product Item Type 2' with 'Name' 'Rainfall Anomaly', and 'Product Item Type 3' with 'Name' 'Moisture Condition'. At the bottom of the main area is a '+ Add product item type' button. A teal 'Save' button is highlighted at the bottom of the page.

A preview of these product item types to the public would appear as below on the website.

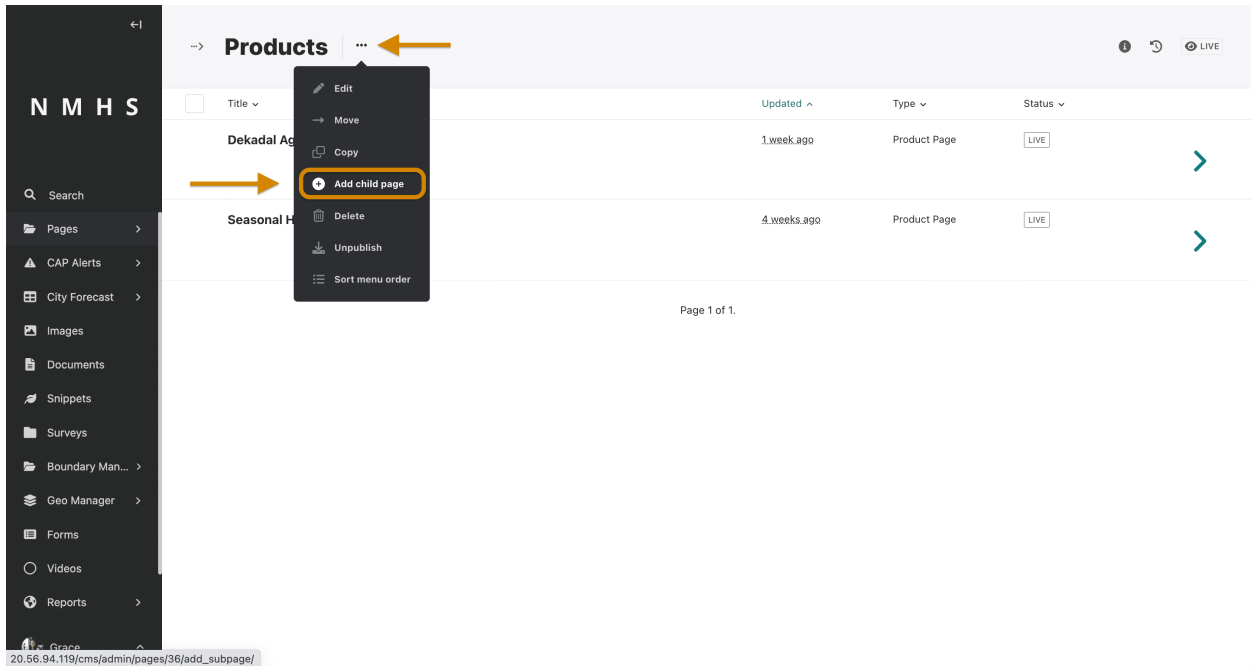


## Step 4: Creation of a product page that will serve all products for a specific category

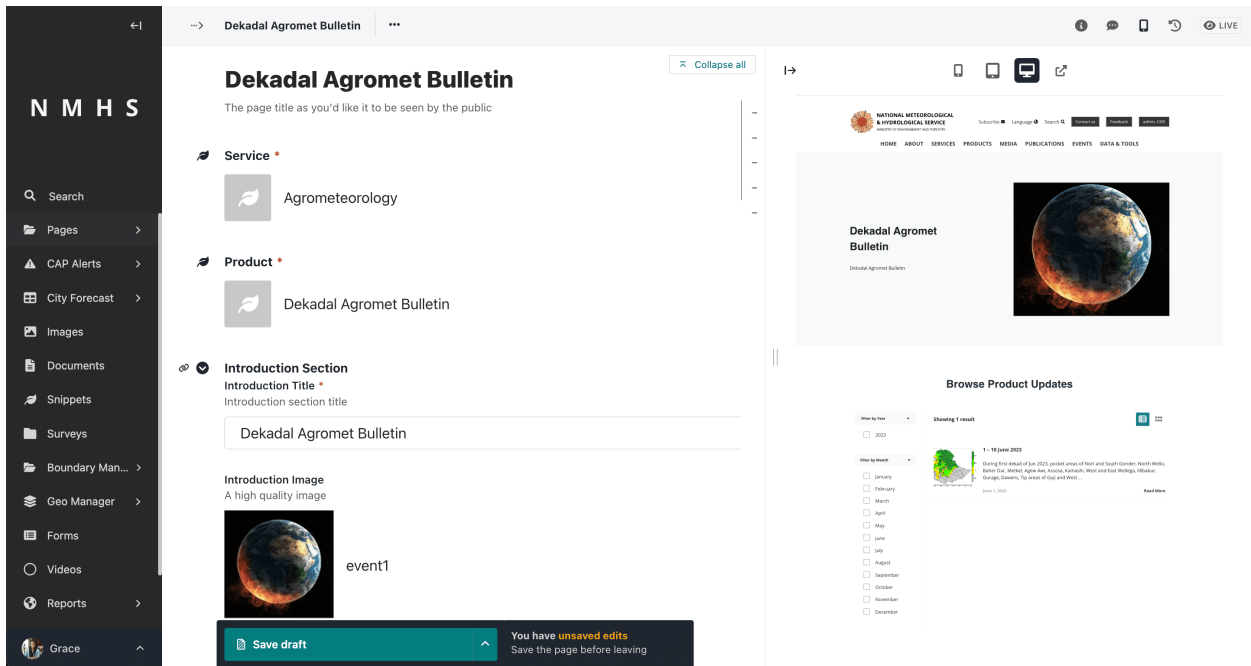
Once a product, its categories and items have been defined, a product page can be created to hold all products linked to it. To create this, navigate to 'pages' in the explorer menu and click on products.



Click on the three dots and select 'Add child pages'



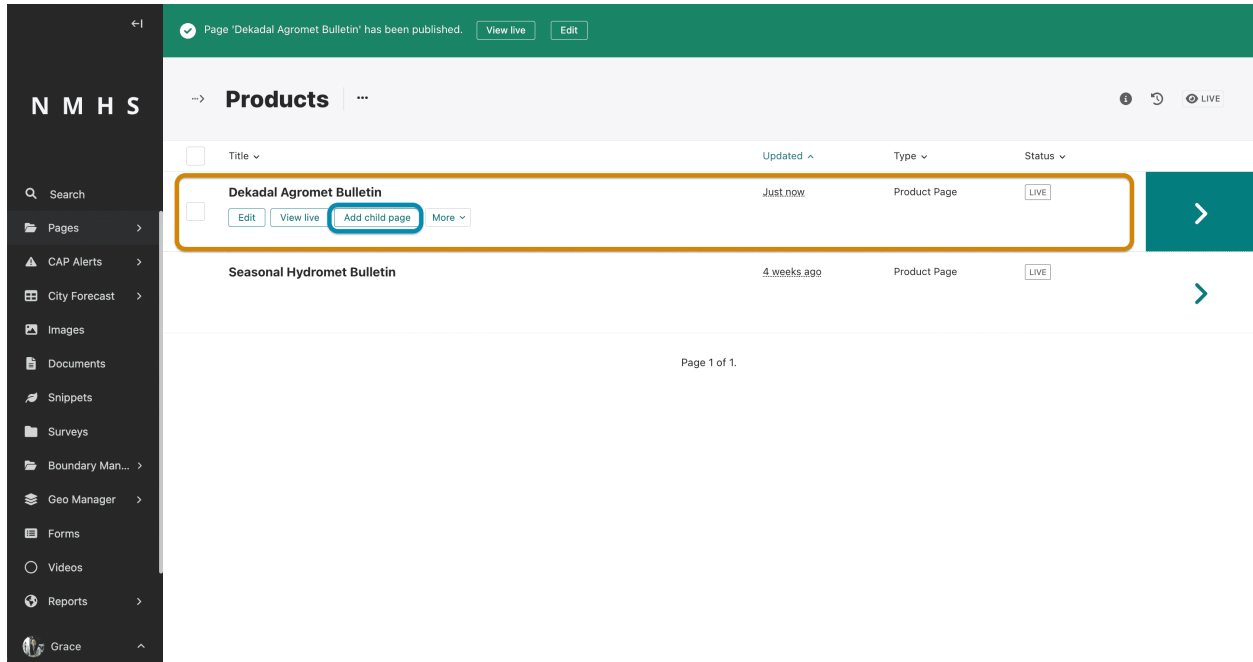
Choose the relevant service category and product as below. Fill in another necessary and optional inputs including an introduction section, introduction image and text that will appear at the top of the Dekadal Agromet Bulletin Page.



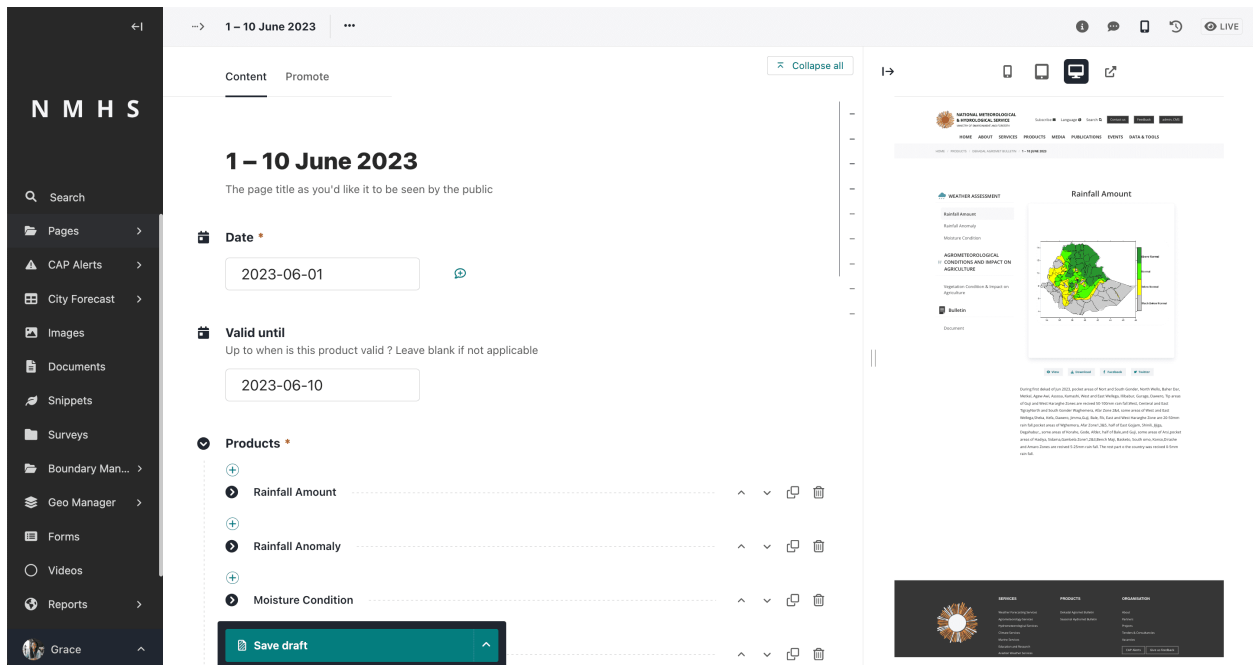
Save draft / Publish page.

## Step 5: Creation of one or more product items for a product page

Add a product item by hovering over Dekadal Agromet Bulletin and selecting ‘add child page’.

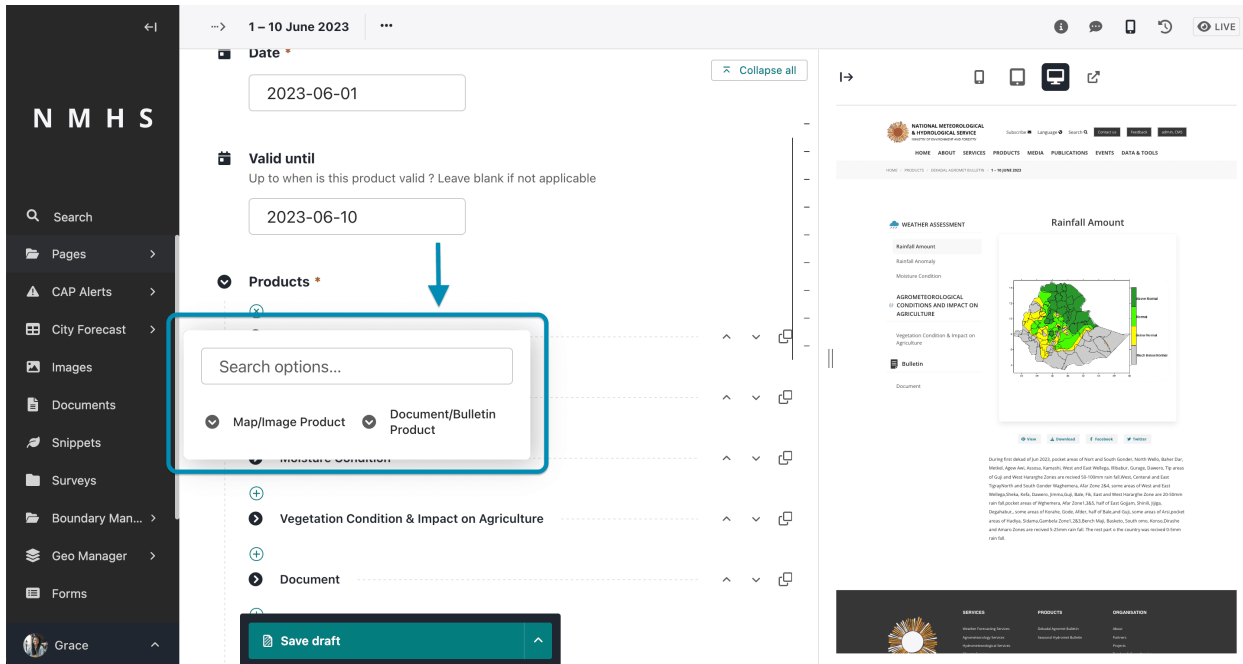


For example, you can add a product item for **1 - 10 June 2023** , by specifying the date, valid until and products.

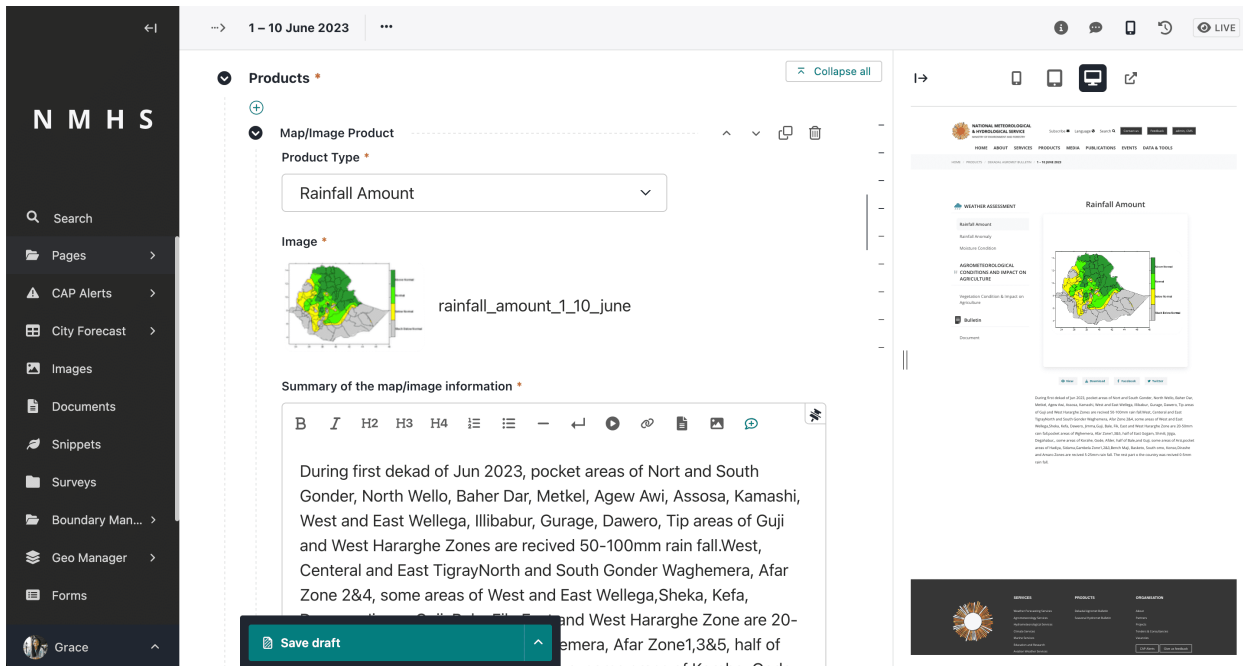


The ‘products’ input accepts two options:

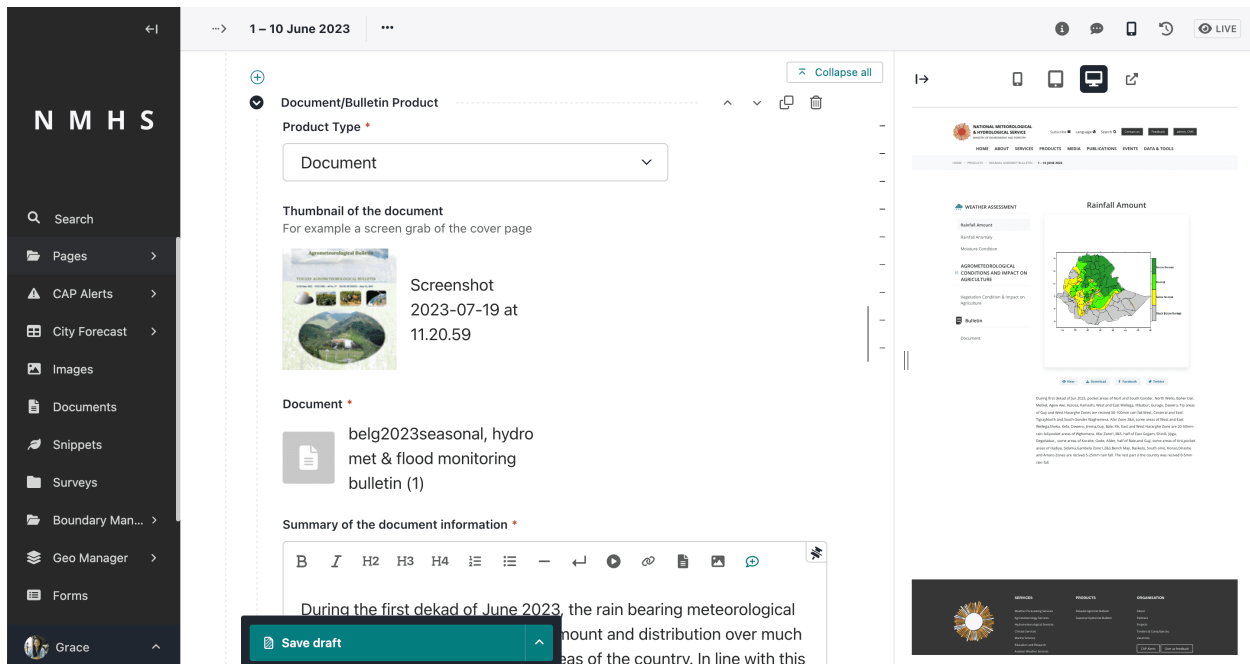
- Map/Image Product
- Document/Bulletin Product



An example of a product based on Map/Image product would be the type 'Rainfall Amount'



An example of a product based on Document/Bulletin product would be the type 'Document'



**Note**

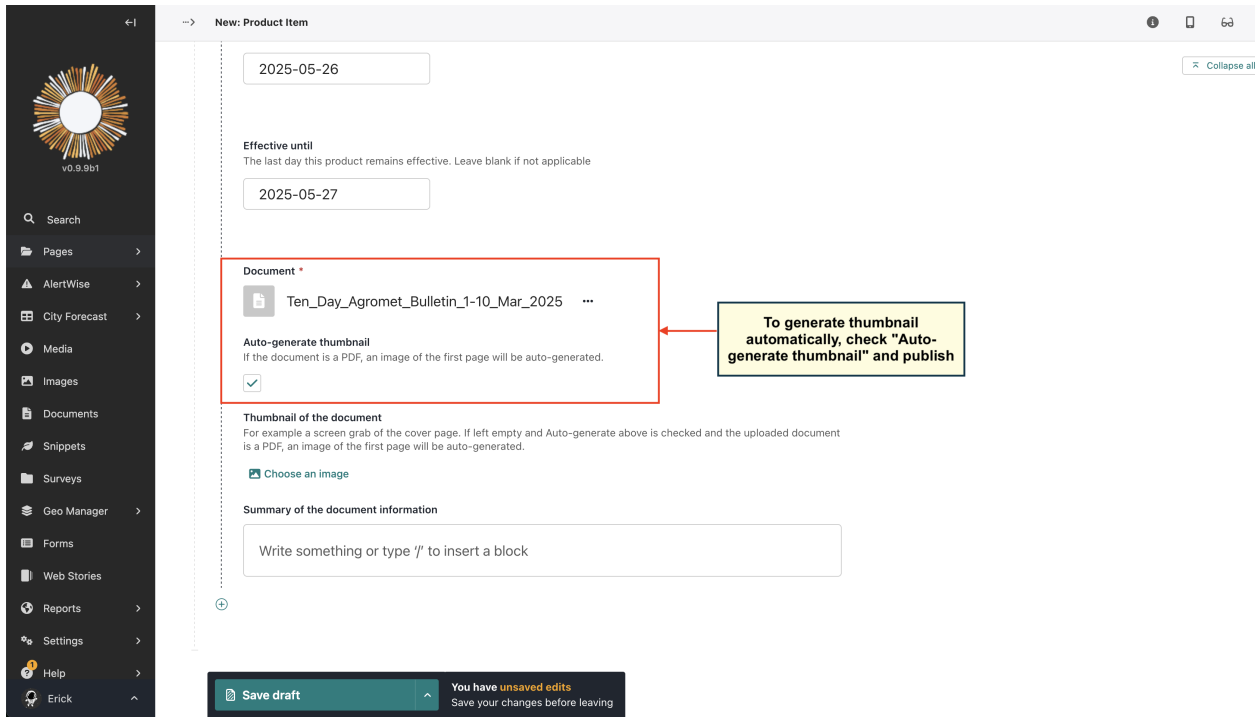
When adding a new bulletin, you will only need to begin from *Step 5: Creation of one or more product items for a product page* section above to upload the document or any related text and images about a new period.

**Automatic generation of thumbnails**

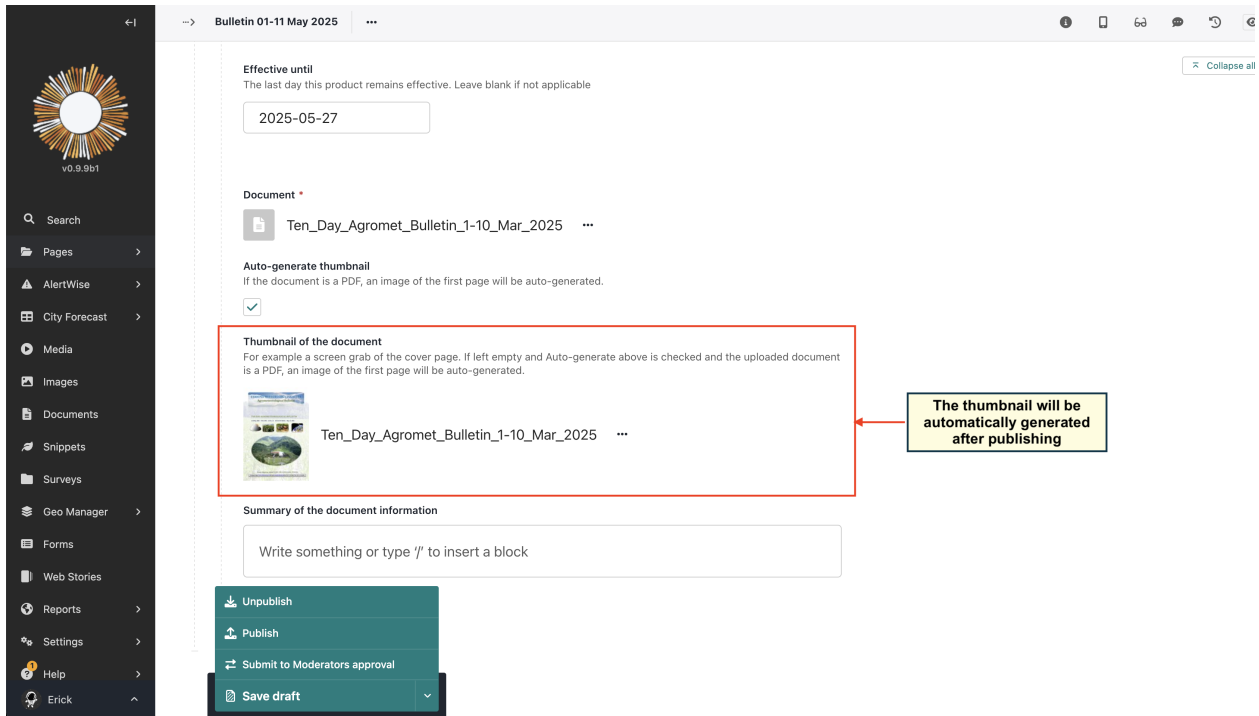
When a product item of type Document is created, a thumbnail is automatically generated.

Previously, the thumbnail had to be manually uploaded, but now it is automatically generated from the first page of the document.

This feature simplifies the process of managing product items and ensures that each item has a visual representation without requiring additional manual steps.



After the product item is published, the thumbnail is generated automatically and used for previews and listings.



**Note**

This feature is currently only available for PDF files. If you upload a non-PDF file, you will need to manually upload a thumbnail image.

### 1.6.3 Services

#### Creation of Services

The creation of services follows the steps below:

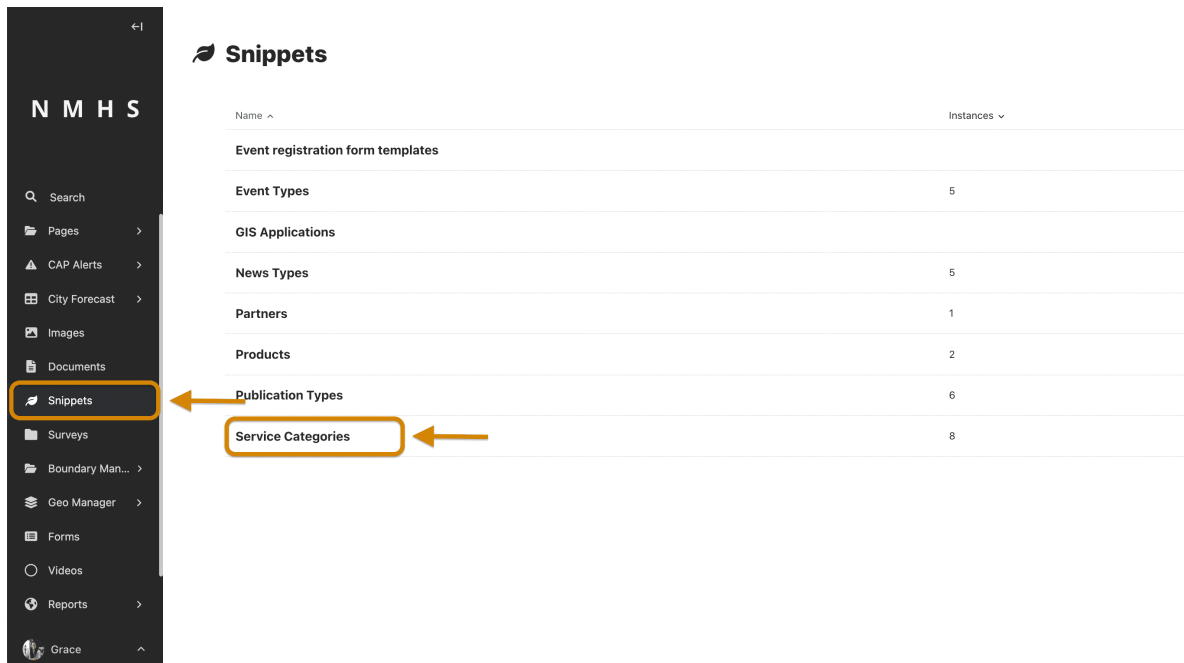
1. Create a service category
2. Create a service listing page
3. Create a service page

#### Service Creation Example Scenario

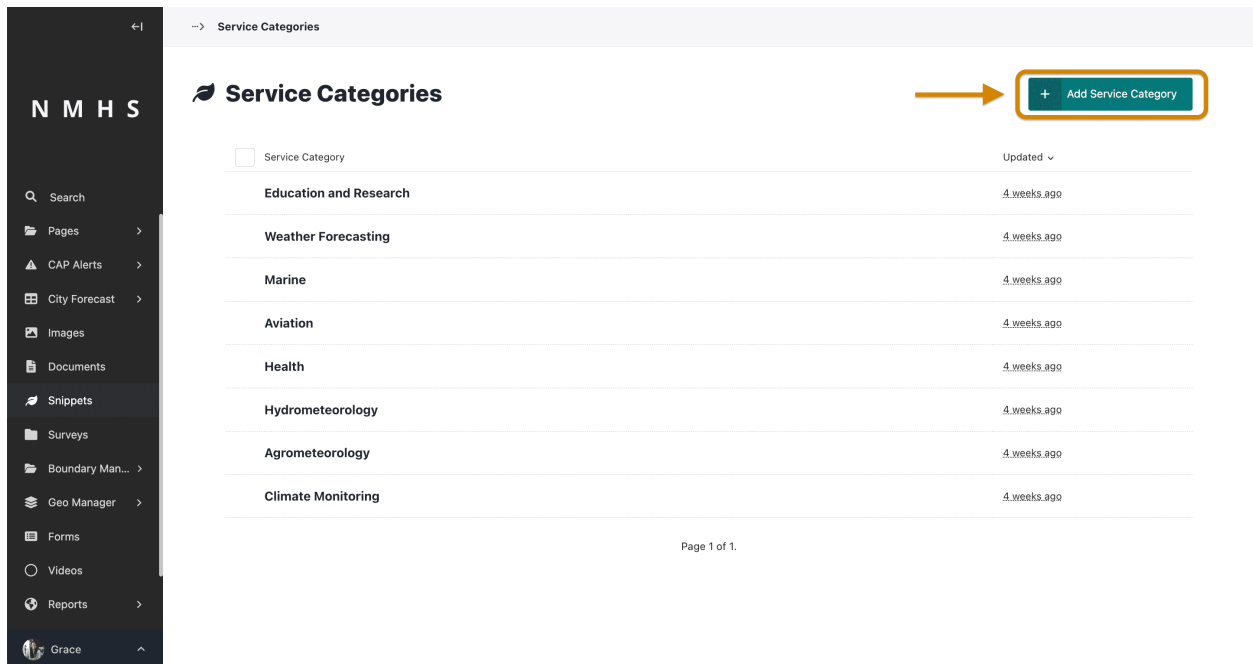
Assume you would like to have Agrometeorology Service on the website, the practical way to do it using the steps above would be:

#### Step 1: Create an ‘Agromet Service Category’

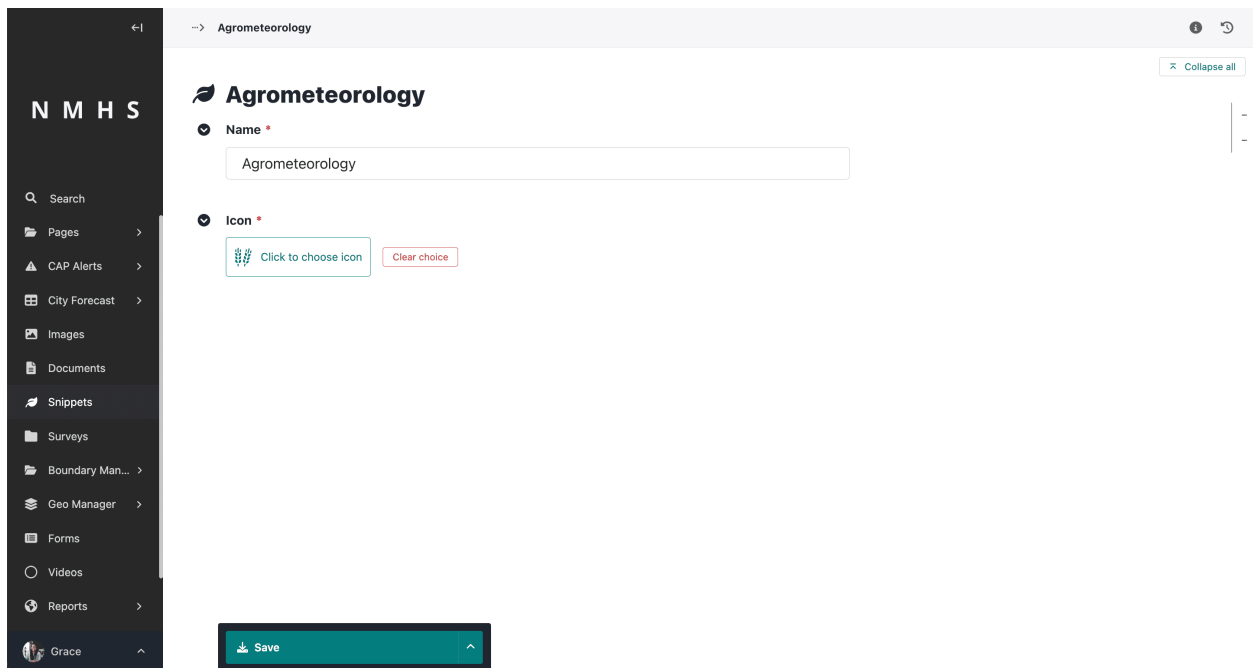
To create a service, navigate to the ‘Snippets’ section on the explorer menu and select ‘Services Categories’ as below:



Click on ‘Add service category’ to create a new service.

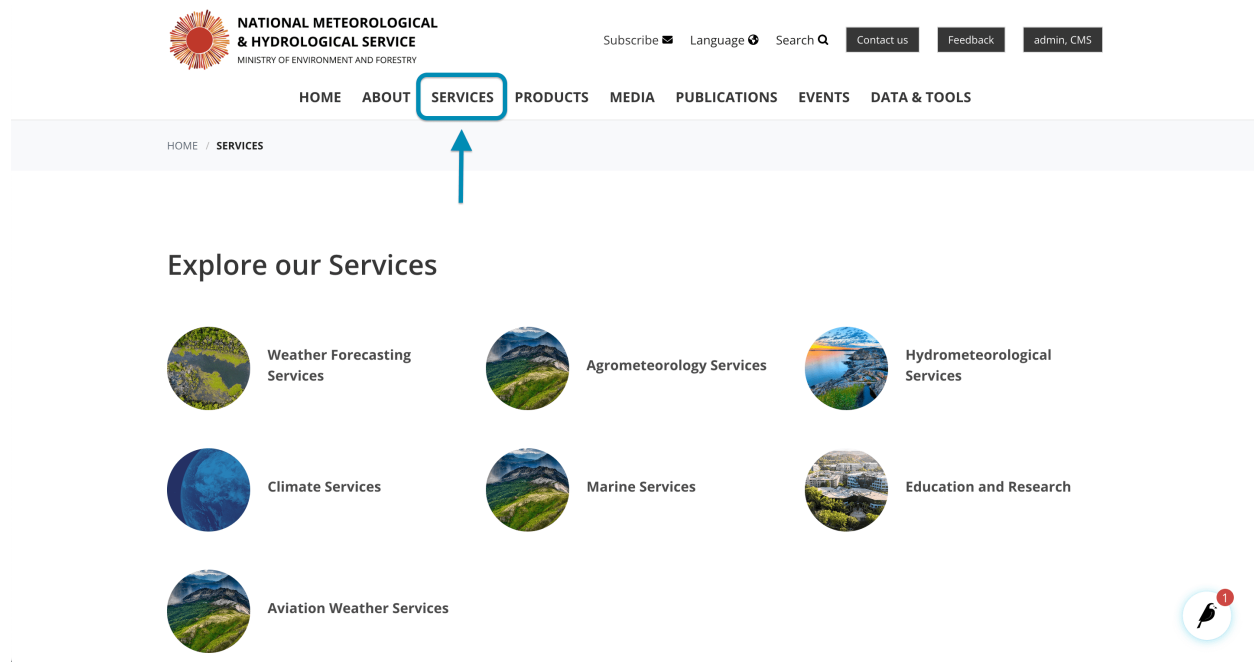


Provide service category name and choose an icon and save.



## Step 2: Create a Service Listing page

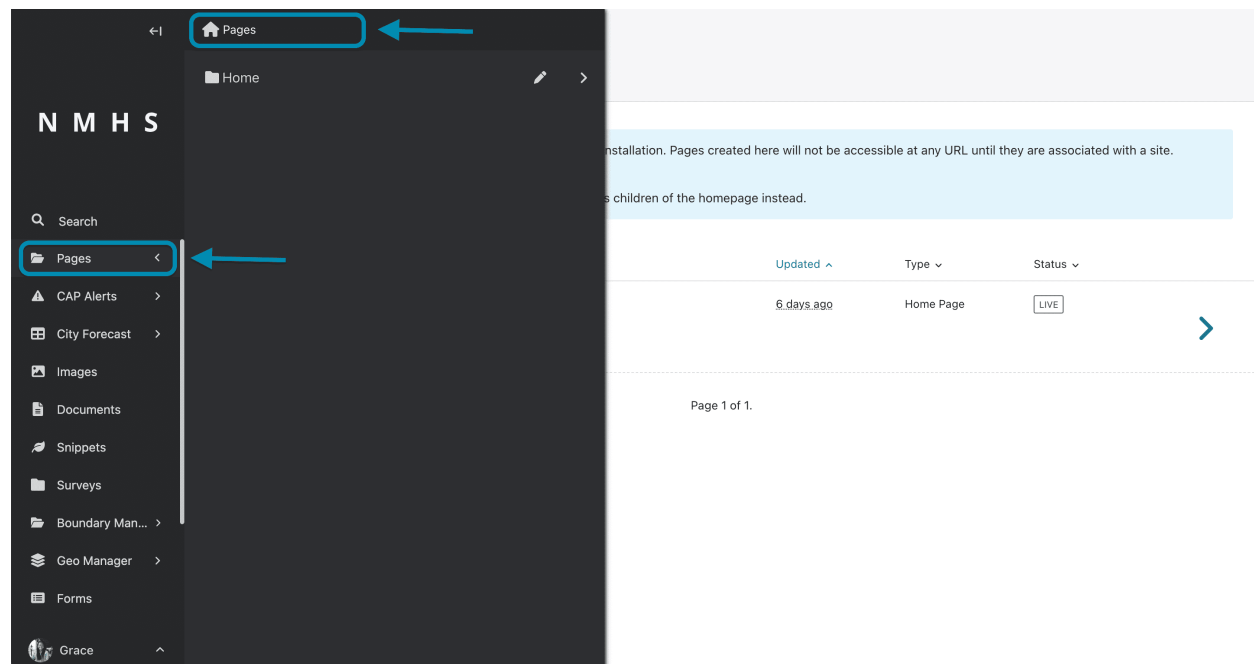
A listing page is a page that holds a list of pages. For example, a Service Listing page would hold an agrometeorology service page, weather forecasting page, etc.



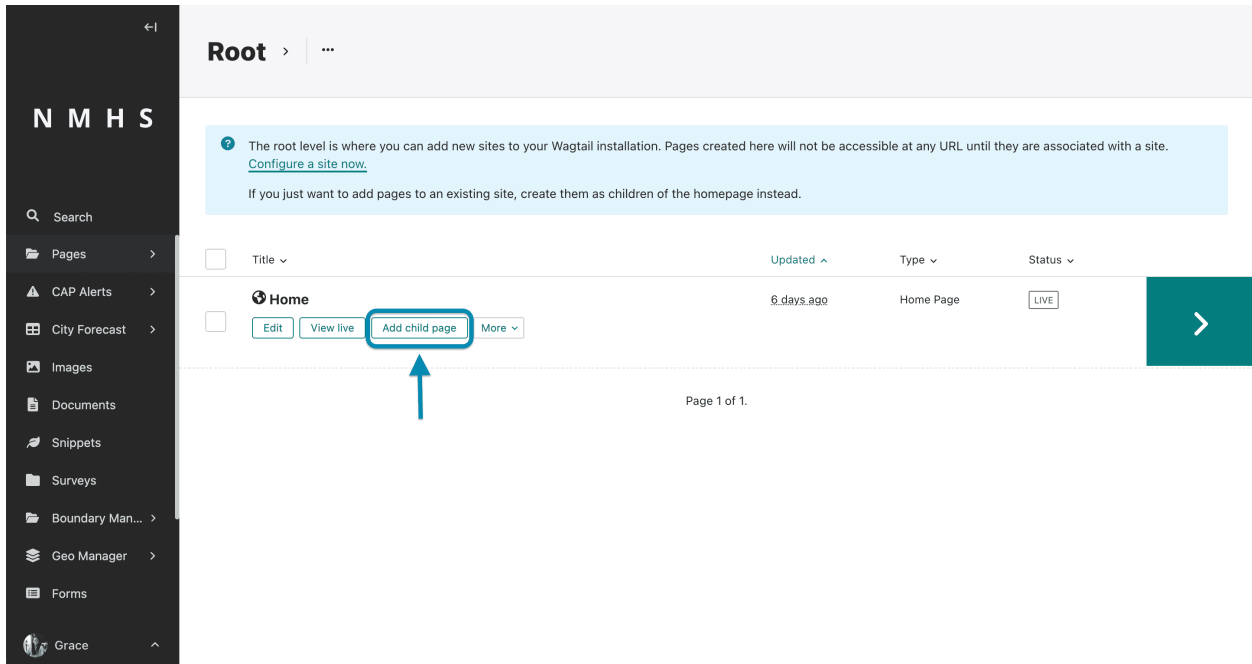
To create this page navigate to the 'pages' item on the explorer menu as shown below and click on the pages item at the top.

**Note**

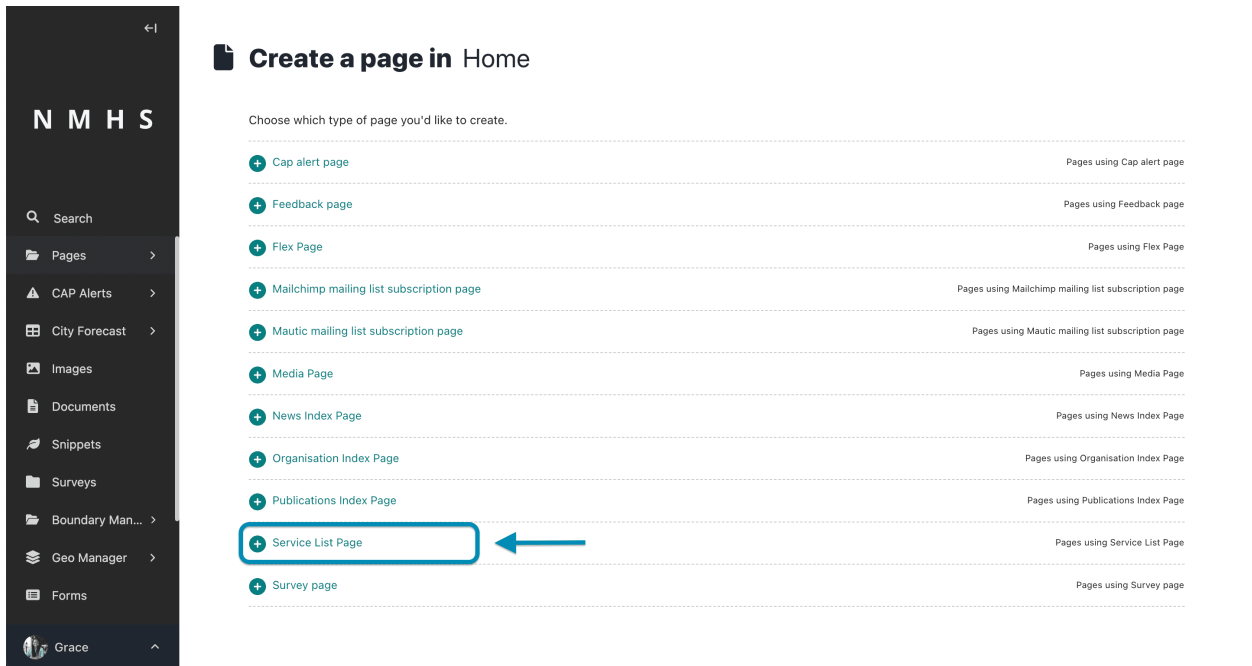
This option will only appear if no service listing page already exists as there can only be one instance/occurrence of a service listing page.



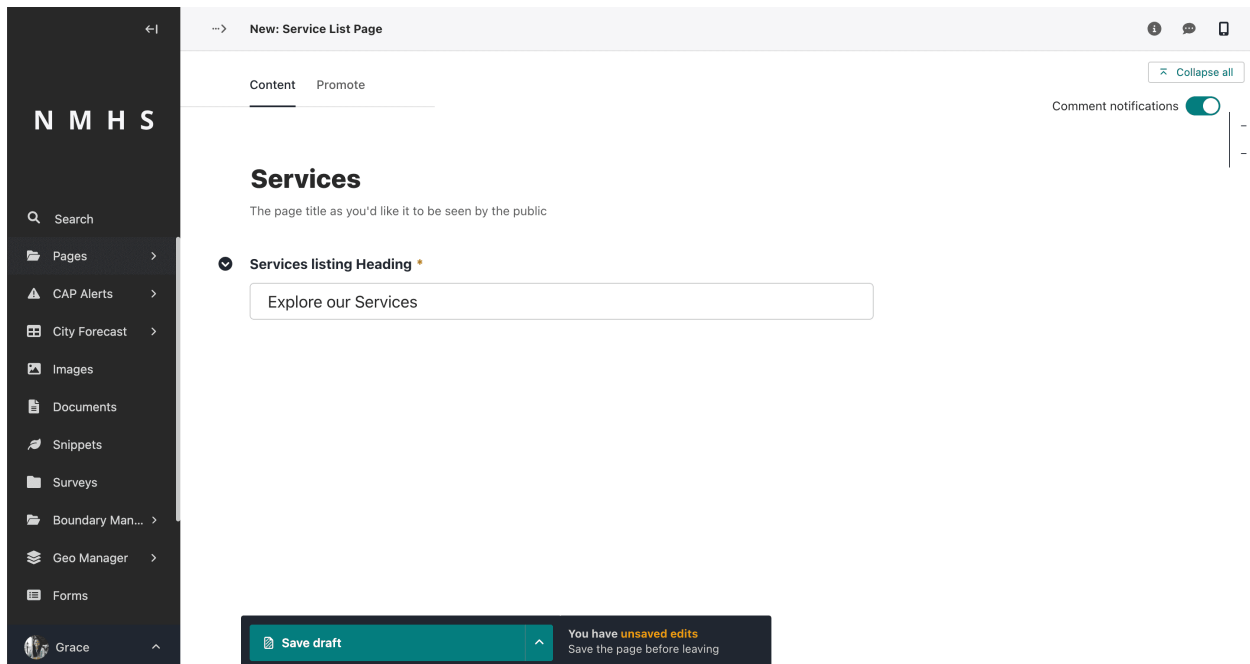
Hover over the Home item and click 'Add Child Page'



Select Service List Page from the type of pages provided.

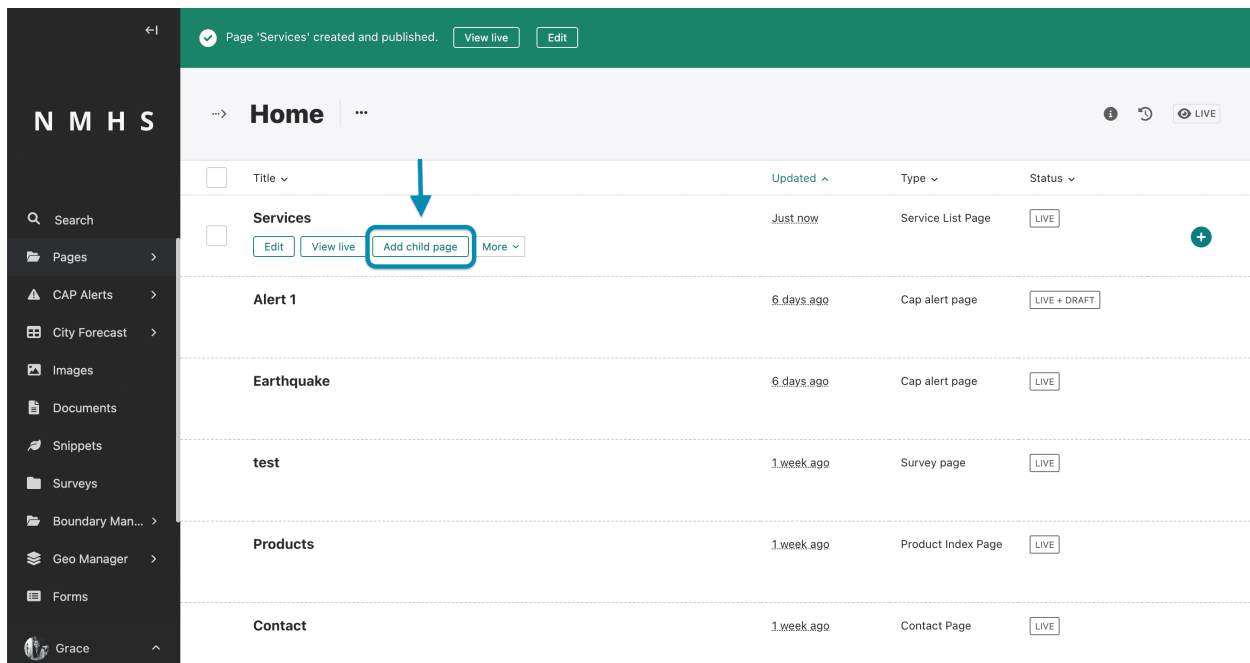


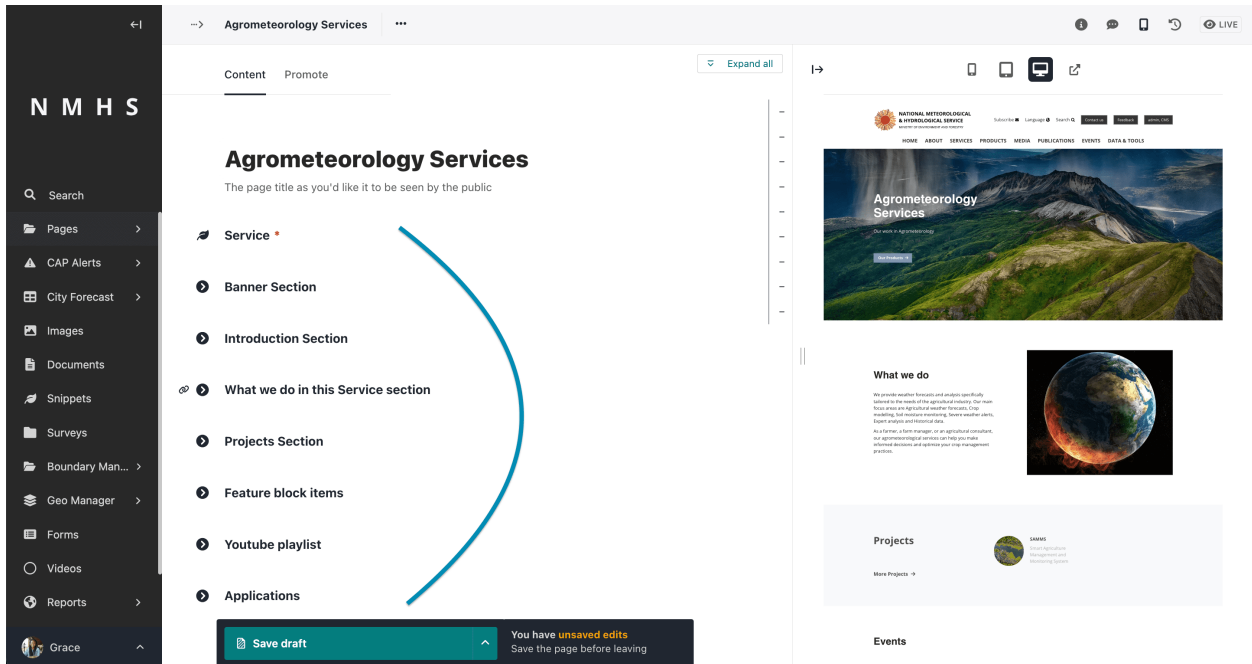
Provide a the page title and Heading and either save draft, publish or submit to moderation depending on your privileges.



### Step 3: Create a service page

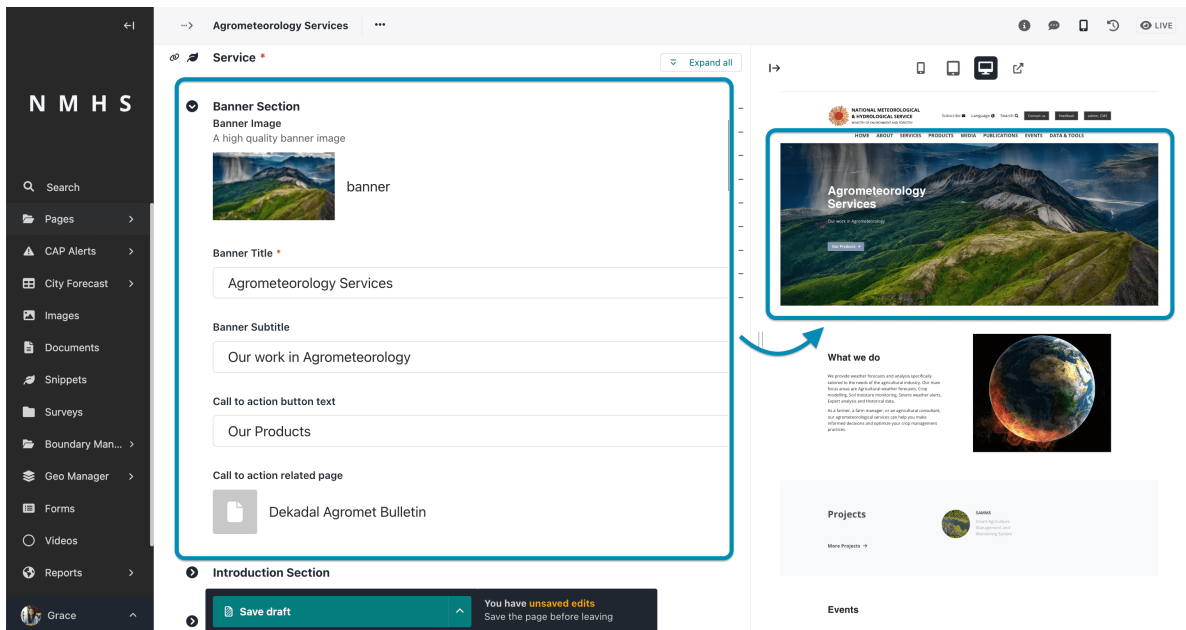
This will navigate to the list of pages under the home page including the service list page you just created. Hover over the the services listing page and click on 'add child page'.



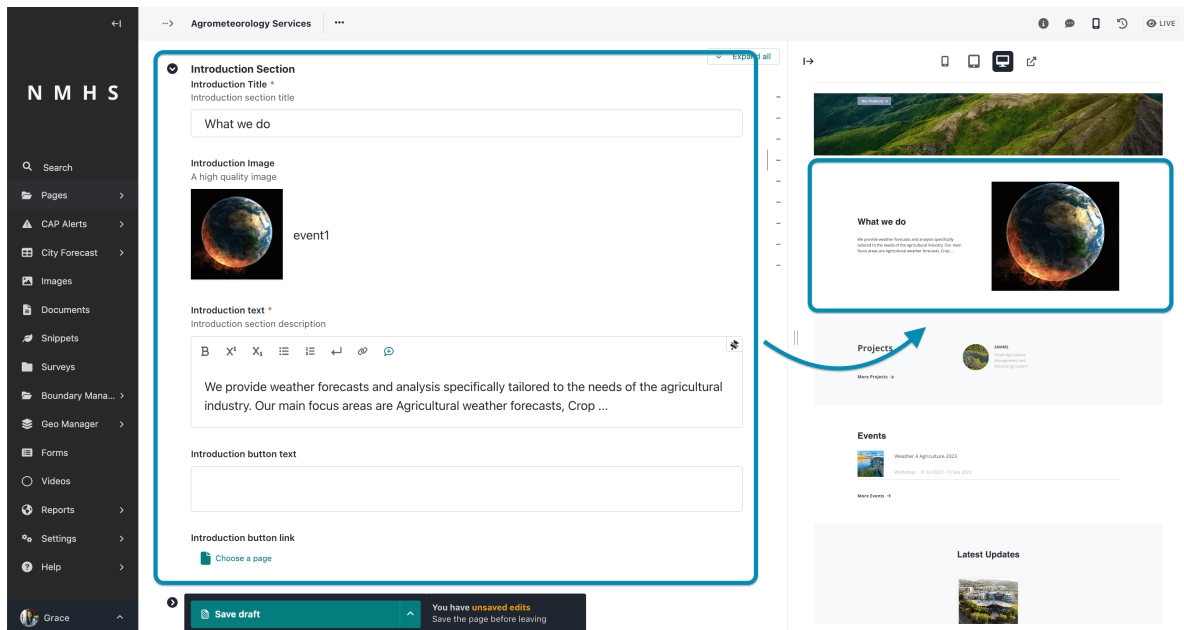


The sections of a service page include:

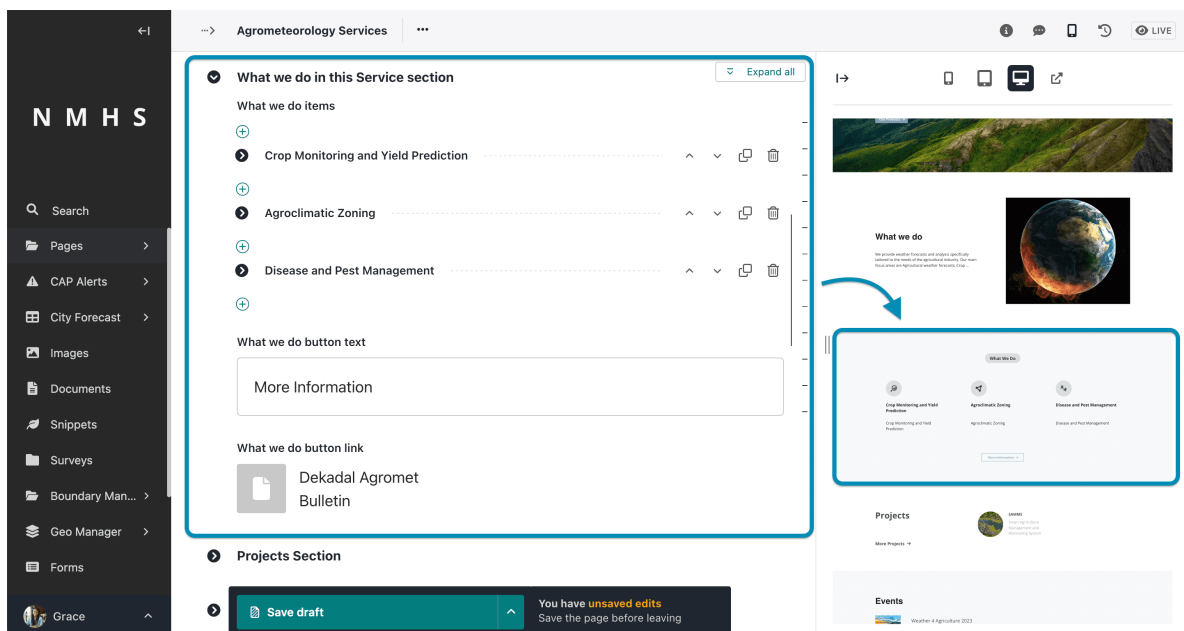
- **Service Category** - selected from previously prepared service category in step 2.
- **Banner Section** - this contains the banner image, title, subtitle and call to action button.



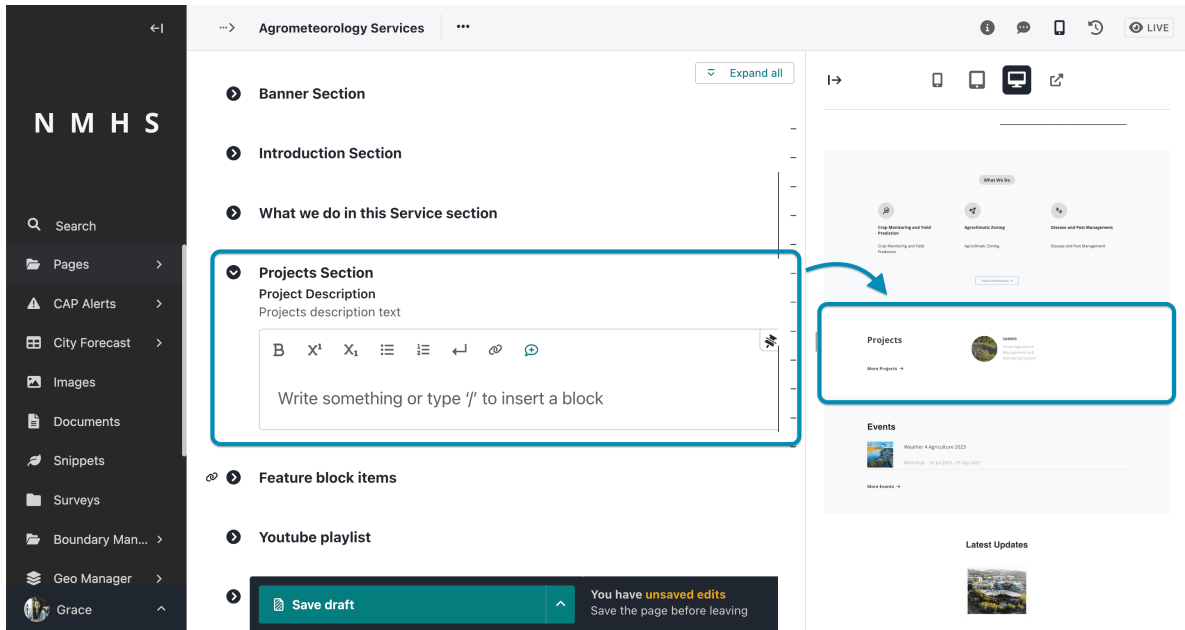
- **Introduction Section** - this contains the introduction title, introduction image, introduction text and button.



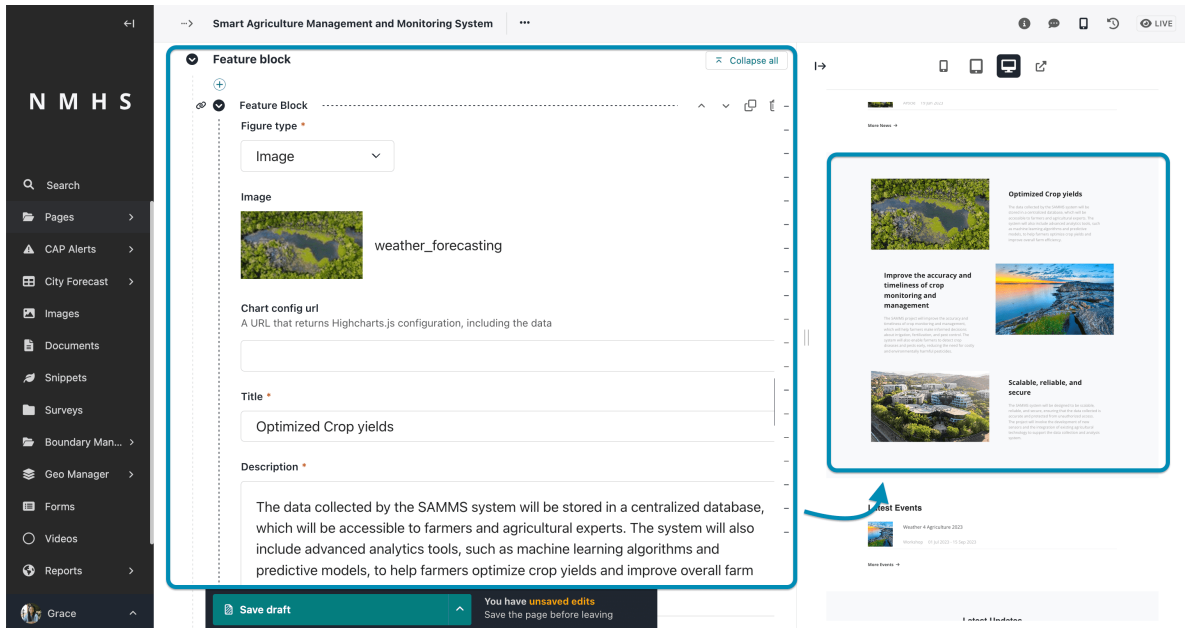
- **What we do in this Service section** - entails the 'what we do' items and what we do button.



- **Projects Section** - This contains a description of the projects linked to the service being edited. Please refer *Manage Projects* to guide on creation of projects and linking them to services.



- **Feature Block Items** - this section allows addition of a series of alternating blocks containing an image, title, description and call to action button.



- **Youtube playlist** - this section enables selection of an existing youtube playlist with videos related to this service.
- **Applications** - this section enables selection of an existing system applications related to this service.

**Note**

Projects, Events, News and Publications are linked to the service in their respective pages.

## 1.6.4 News

### Creation of news

The creation of news follows the steps below:

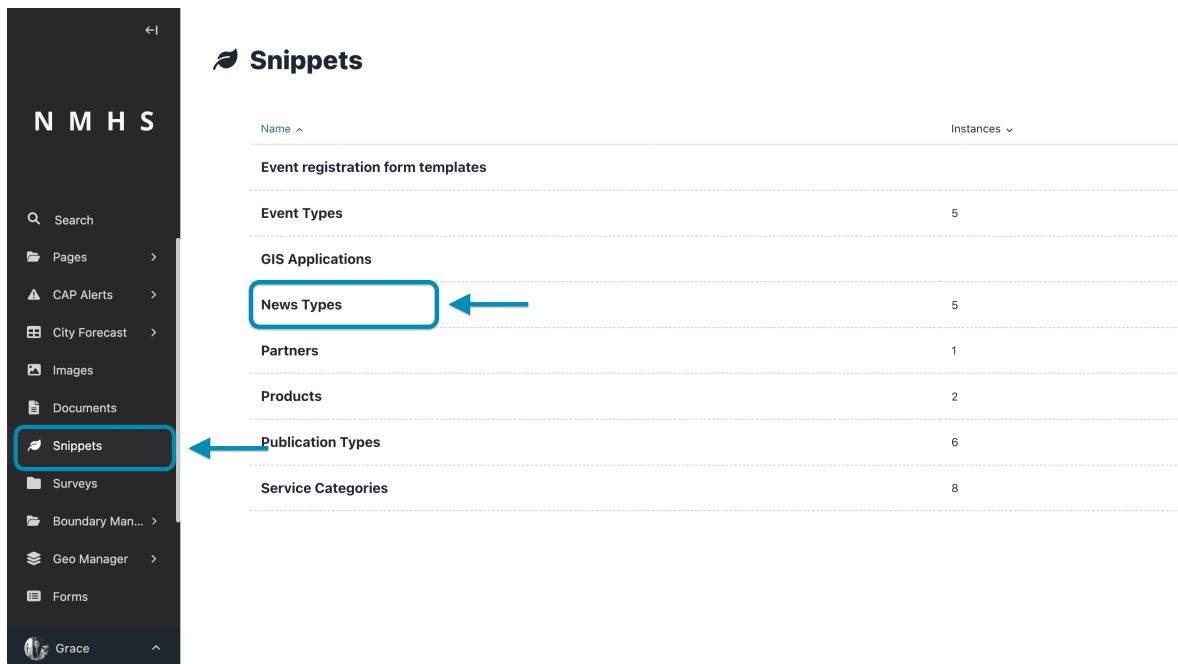
1. Create a news type
2. Create a news listing page
3. Create a news page

### News Creation Example Scenario

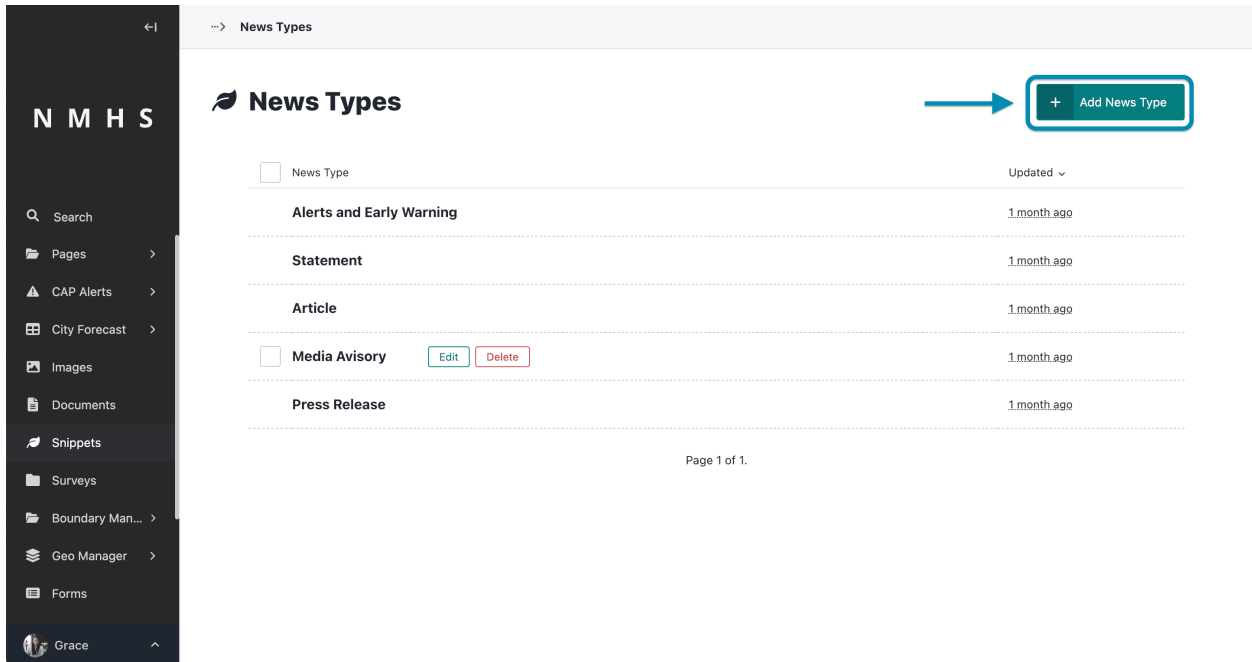
Assume you would like to have news on the website, the practical way to do it using the steps above would be:

#### Step 1: Create an news type

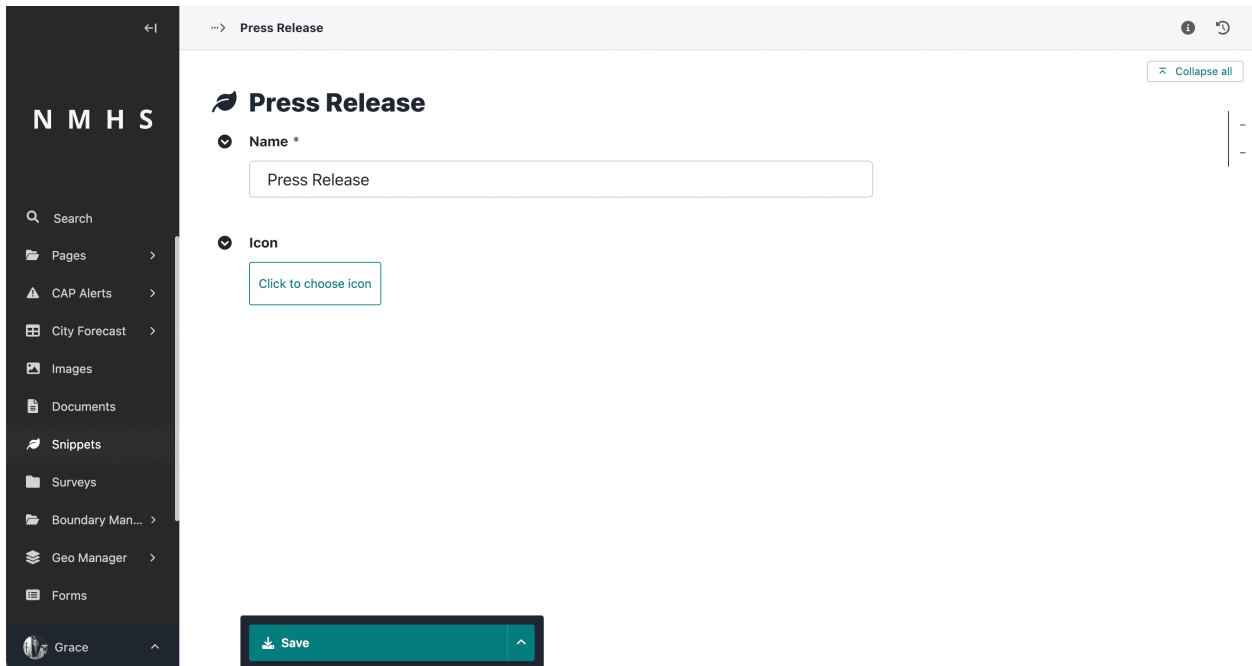
To create a news type, navigate to the ‘Snippets’ section on the explorer menu and select ‘News Types’ as below:



Click on ‘Add news Type’ to create a new news type.




Provide news type name and choose an icon and save.



## Step 2: Create a news listing page

A listing page is a page that holds a list of pages. For example, a news Listing page would hold one or more news. It lists the banner, latest featured news and all other news.




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## News

Our Latest Updates



### Featured News



Featured

Facebook Twitter

#### Launch of New Facility: Advancing National Meteorology for a Brighter Future

In an exciting stride towards enhancing the nation's meteorological capabilities, a groundbreaking facility was recently unveiled, heralding a new era in weather forecasting and climate monitoring. The launch of this state-of-the-art establishment represents a significant milestone in the field of meteorology, offering immense potential for improved accuracy, efficiency, and resilience in weather-related services across the country.

Tags: Announcement, News, Weather, Agromet

19 Jun 2023

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### All News Updates

Filter by News Type

- Press Release
- Media Advisory
- Article
- Statement
- Alerts and Early Warning

Filter by Service

- Climate Monitoring
- Agrometeorology
- Hydrometeorology
- Health
- Aviation
- Marine
- Weather Forecasting
- Education and Research

Filter by Year

- 2023

Showing 1 result



Article

#### Launch of New Facility: Advancing National Meteorology for a Brighter Future

In an exciting stride towards enhancing the nation's meteorological capabilities, a groundbreaking facility was recently unveiled, heralding a new era in weather forecasting and climate monitoring. The launch of this state-of-the-art establishment represents a significant ...

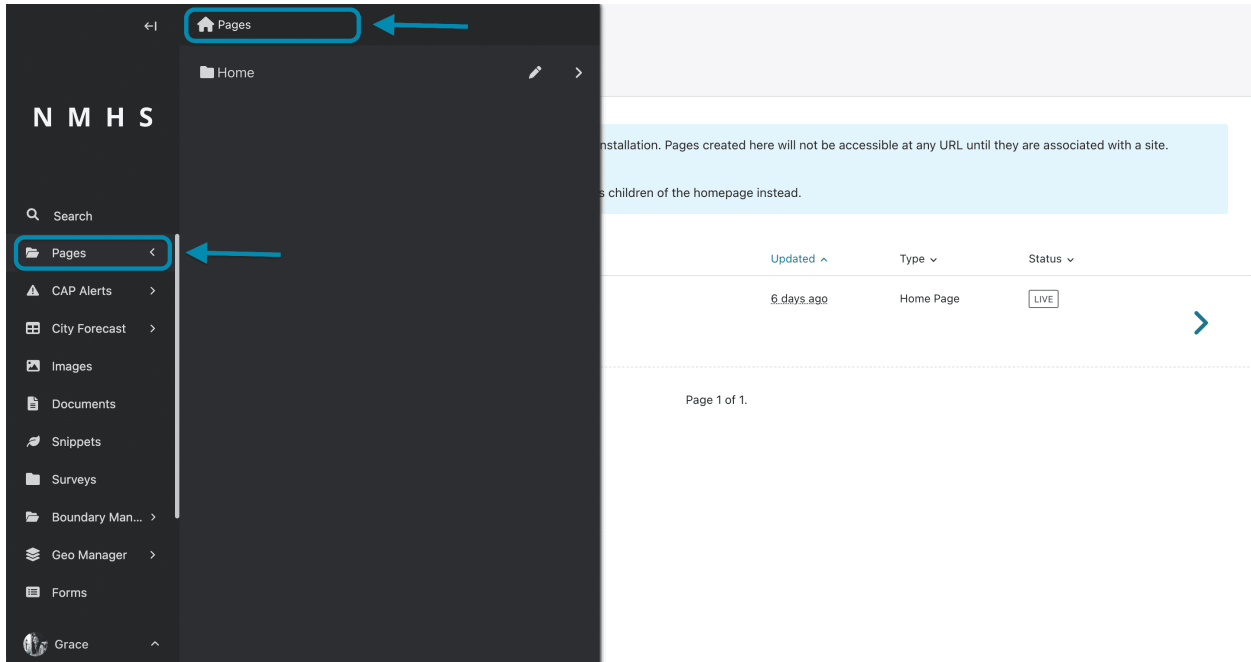
19 Jun 2023

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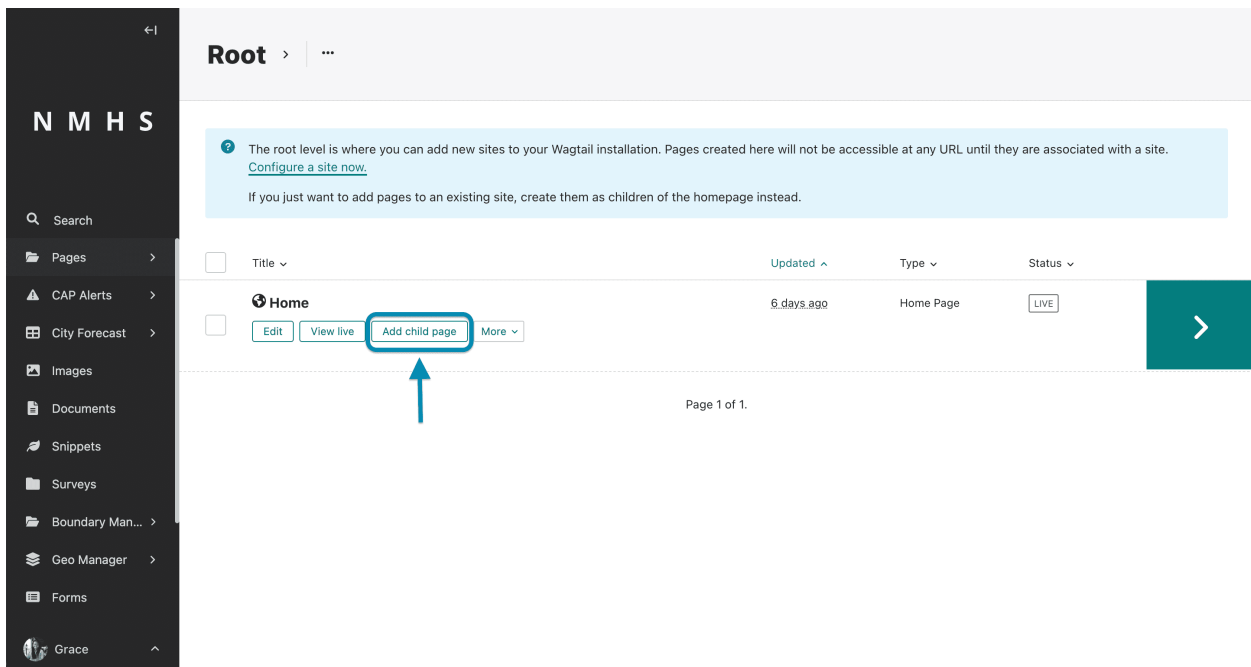
To create this page navigate to the 'pages' item on the explorer menu as shown below and click on the pages item at the top.

**Note**

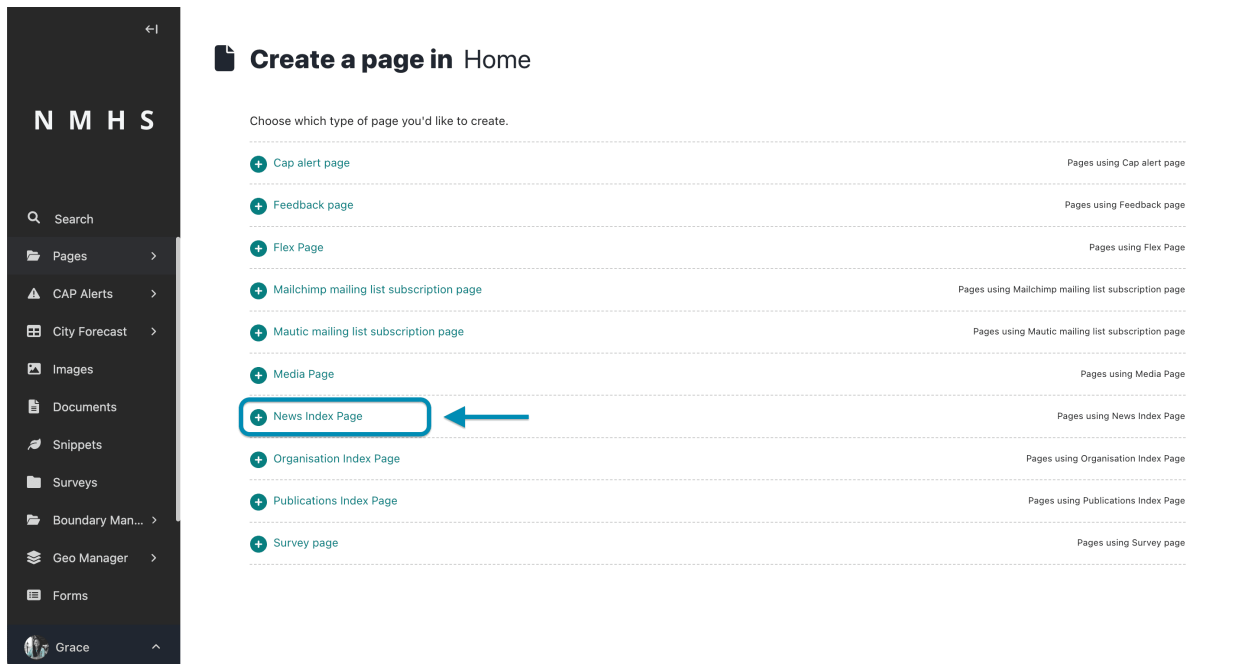
This option will only appear if no news listing page already exists as there can only be one instance/occurrence of a news listing page.



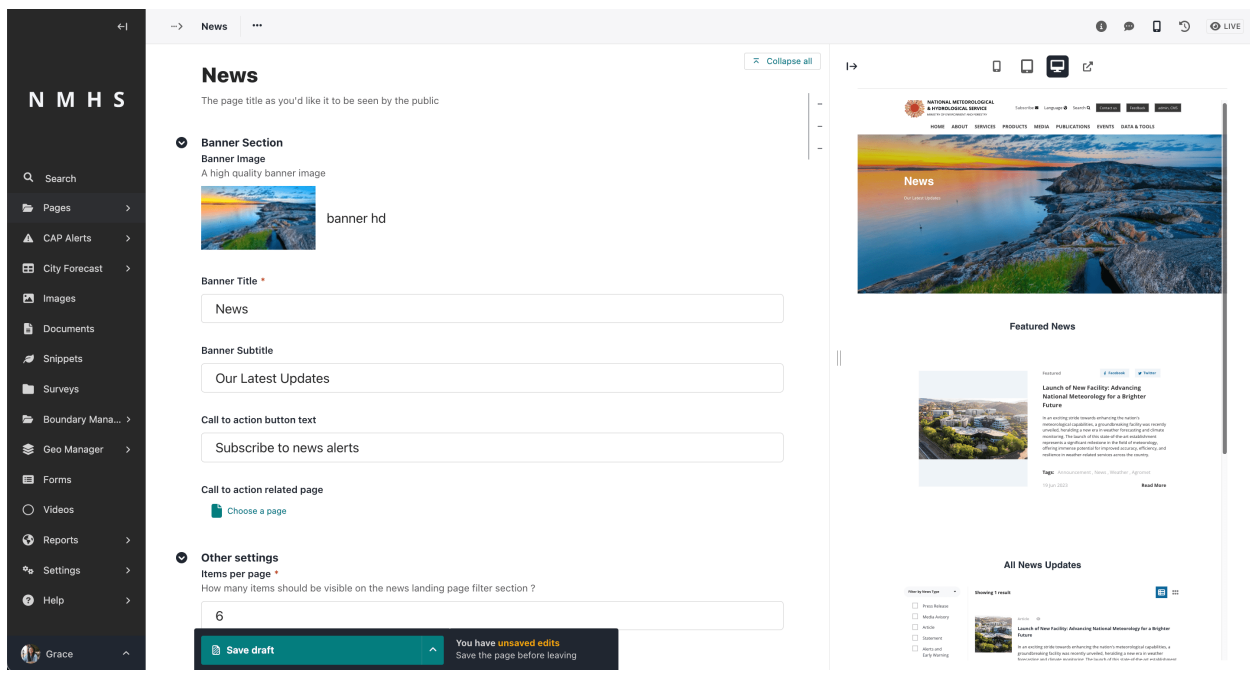
Hover over the Home item and click 'Add Child Page'



Select news List Page from the type of pages provided.

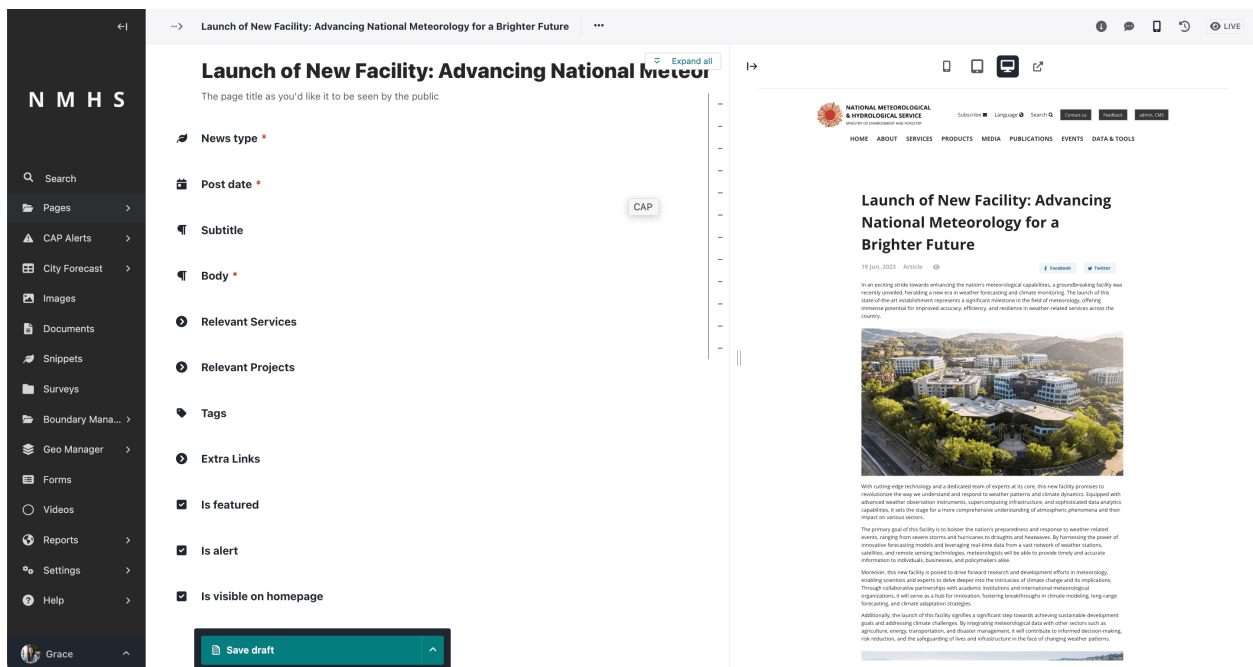
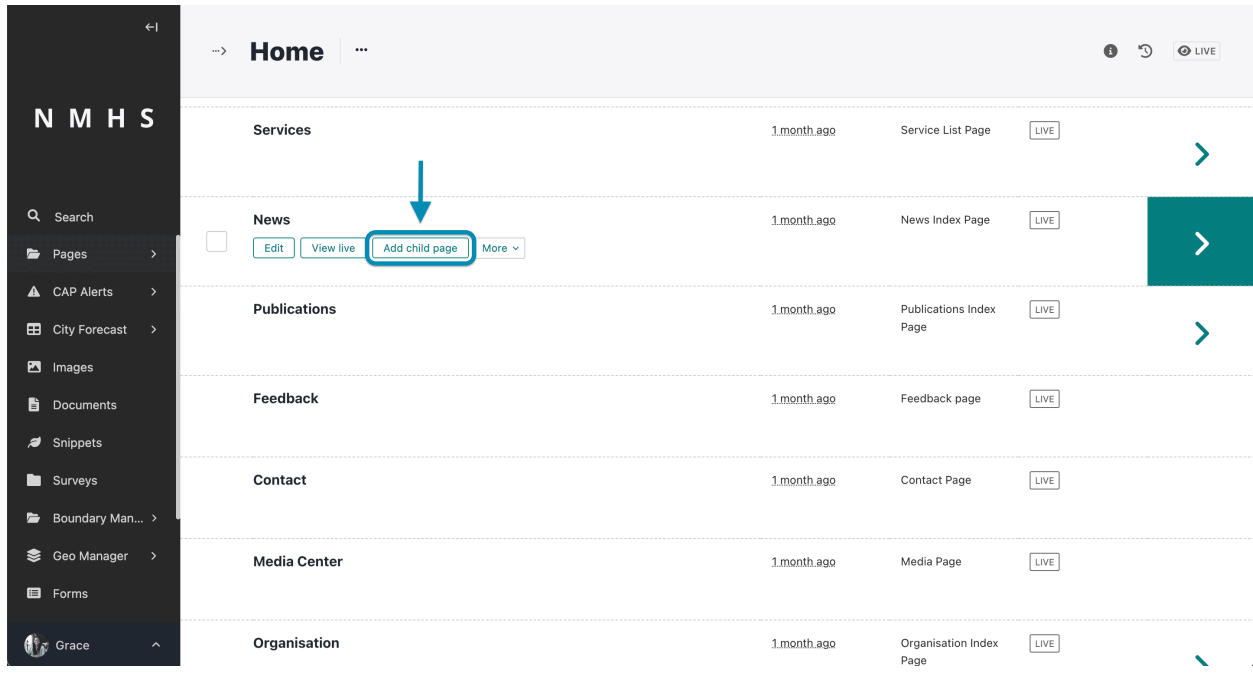


Provide a the page title, banner image, title, subtitle and call to action and either save draft, publish or submit to moderation depending on your privileges.



### Step 3: Create a news page

This will navigate to the list of pages under the home page including the news list page you just created. Hover over the the news listing page and click on 'add child page'.



The sections of a service page include:

- **News Type** - selected from previously prepared news type in step 1
- **Relevant Service** - selected from previously prepared service categories. Refer to *Create Services Categories Section* to create service categories.
- **Relevant Projects** - select from previously prepared projects. Please refer *Manage Projects* to guide on creation of projects.
- **Post date** - the date the news was published

- **Subtitle** - optional subtitle
- **Body** - the body of the news
- **Tags** - tags related to the news
- **Extra Links** - additional links
- **Is featured** - If enabled, the news will appear as Featured news on the news listing page
- **Is visible on homepage** - If enabled, the news will appear in the homepage as an alert/latest update

**Note**

To create additional news in the future you would need to begin from *Step 3: Create a news page* if the desired news type is already defined.

## 1.6.5 Publications

### Creation of Publications

The creation of publications follows the steps below:

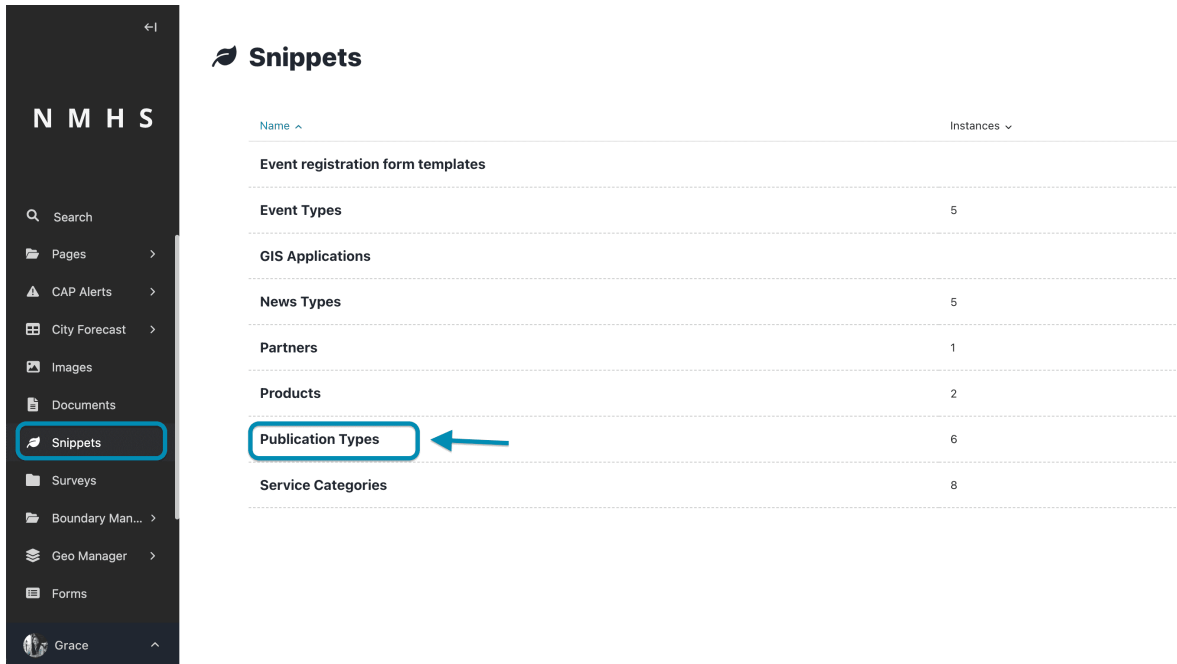
1. Create a publication type
2. Create a publication listing page
3. Create a publication page

### Publication Creation Example Scenario

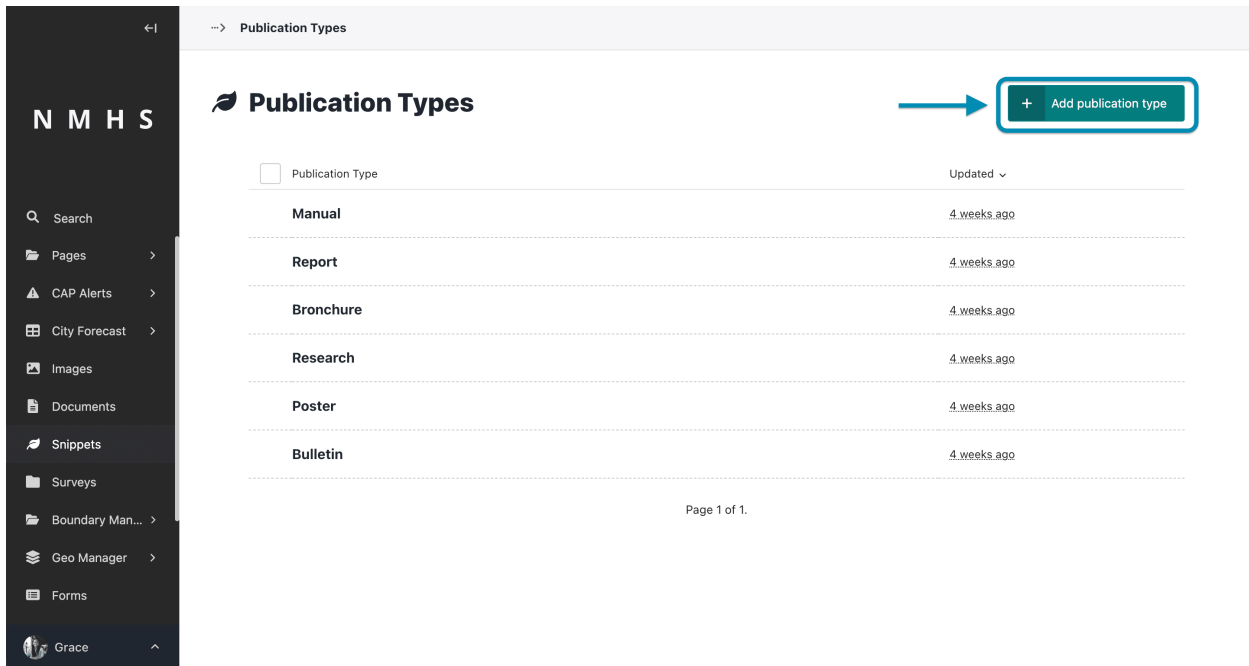
Assume you would like to have publication relating to Agrometeorology on the website, the practical way to do it using the steps above would be:

#### Step 1: Create an publication type

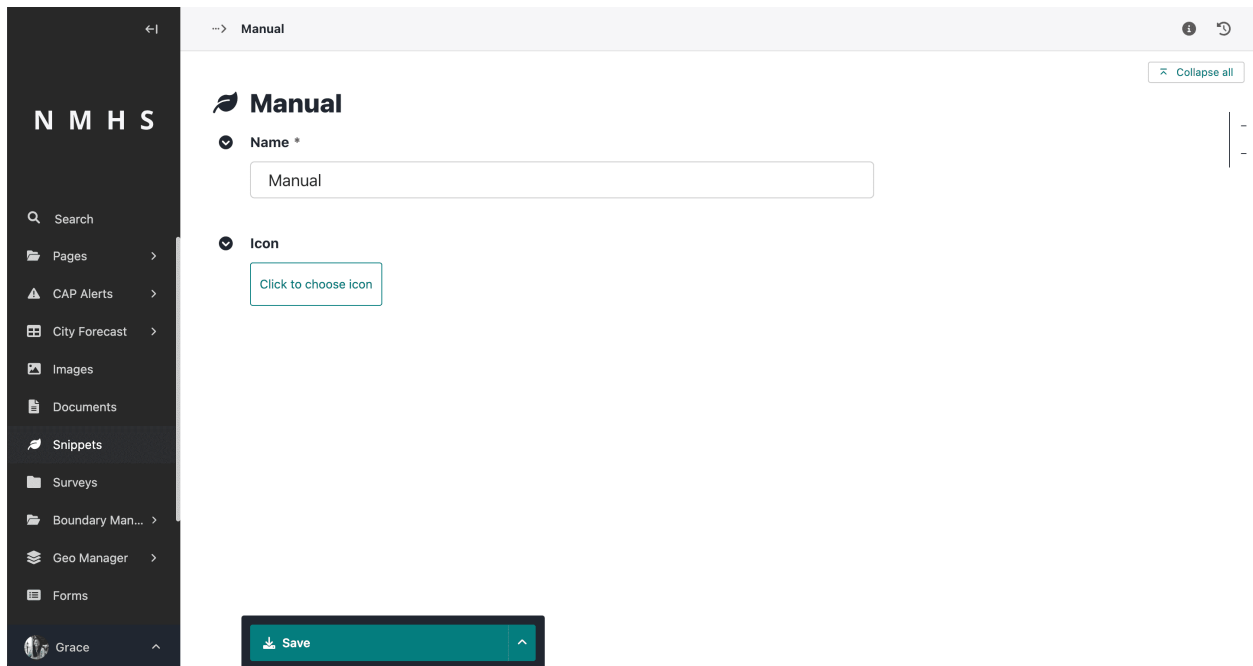
To create a publication type, navigate to the ‘Snippets’ section on the explorer menu and select ‘Publication Types’ as below:



Click on 'Add Publication Type' to create a new publication type.



Provide publication type name and choose an icon and save.



## Step 2: Create a publication listing page

A listing page is a page that holds a list of pages. For example, a Publication Listing page would hold one or more publications. It lists the banner, latest 3 featured publications and all other publications.



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# Publications


Our publications

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## Featured Publications



Poster  
**The Impact of El Niño on Local Weather Systems: National Meteorology's Investigation**  
"The Impact of El Niño on Local Weather Systems: National Meteorology's Investigation&quo...  
June 19, 2023 [Read more](#)



Bulletin  
**Understanding Weather Patterns: A Comprehensive Study by National Meteorology**  
"Understanding Weather Patterns: A Comprehensive Study by National Meteorology" is a publ...  
June 19, 2023 [Read more](#)

## All Publications

Showing 2 results

Search by title

Bulletin

Poster

Research

Bronchure

Report

Manual

Filter by Service

Climate Monitoring

Agrometeorology

Hydrometeorology

Health

Aviation

Marine

Weather Forecasting

Education and Research

Filter by Project

NWDCAS

AMDAR

SAMMS

Filter by Year

2023

**The Impact of El Niño on Local Weather Systems: National Meteorology's Investigation**

"The Impact of El Niño on Local Weather Systems: National Meteorology's Investigation" is a publication that highlights the extensive research conducted by the National Meteorology department regarding the influence of El Niño on local weather ...

19 Jun 2023 [Read More](#)

**Understanding Weather Patterns: A Comprehensive Study by National Meteorology**

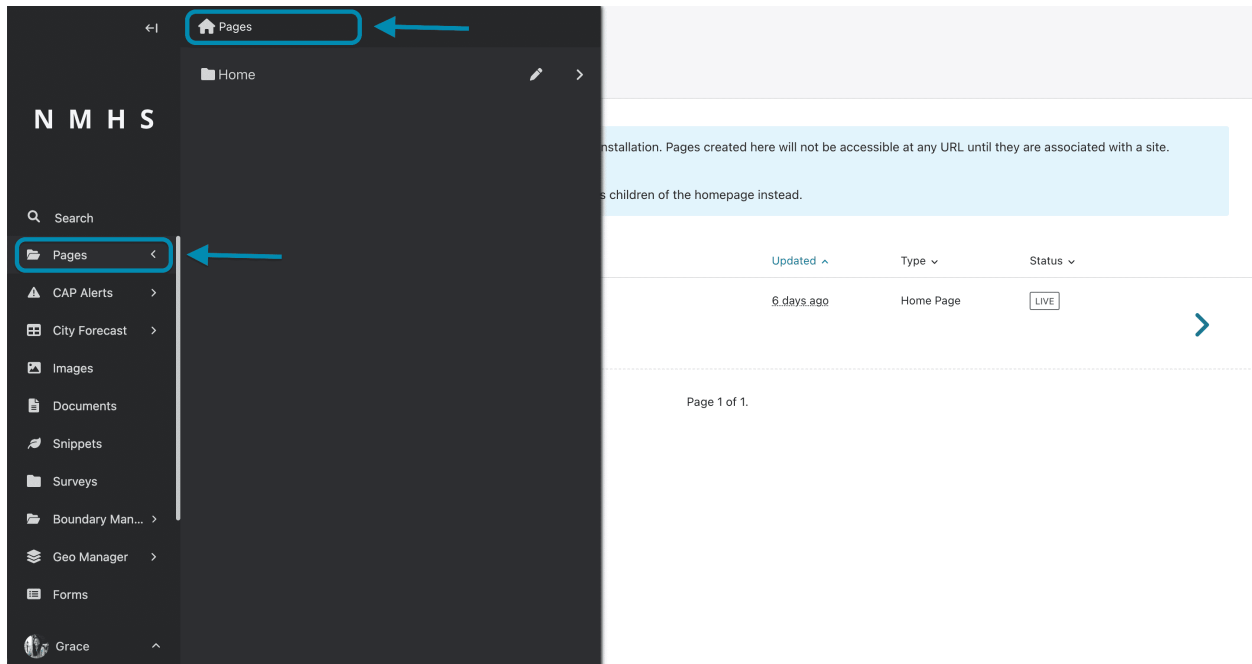
"Understanding Weather Patterns: A Comprehensive Study by National Meteorology" is a publication that showcases the in-depth research conducted by the National Meteorology department to gain a profound understanding of weather patterns. Weather patterns play a ...

19 Jun 2023 [Read More](#)

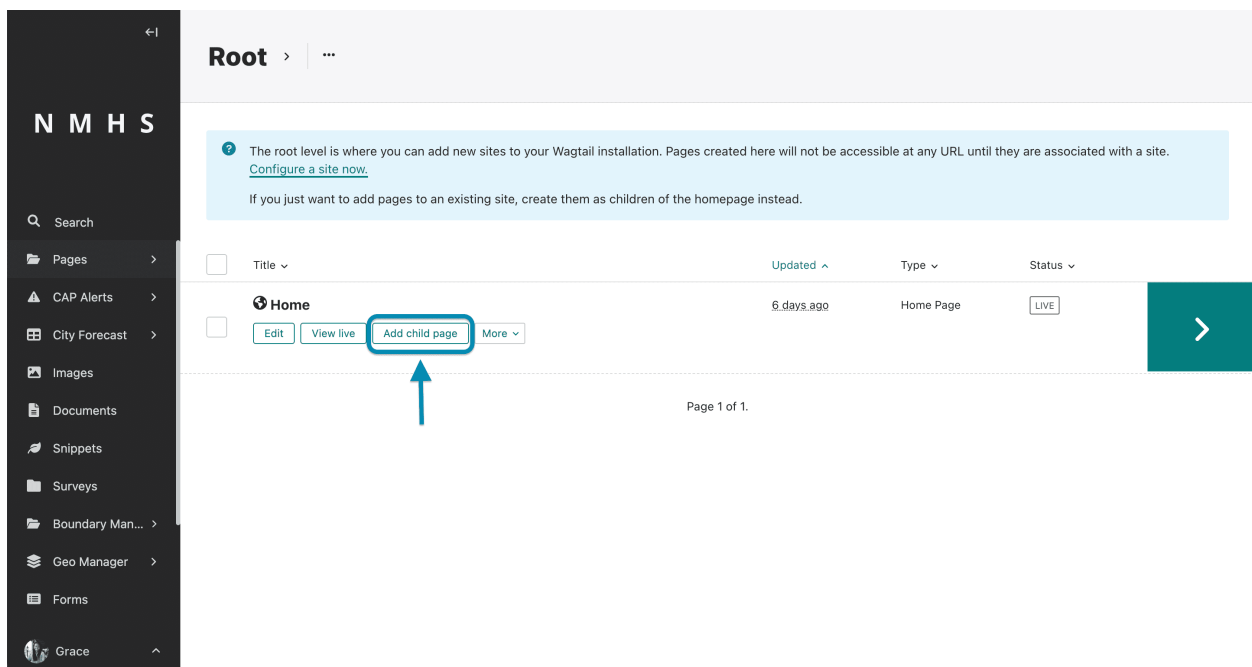
To create this page navigate to the 'pages' item on the explorer menu as shown below and click on the pages item at the top.

**Note**

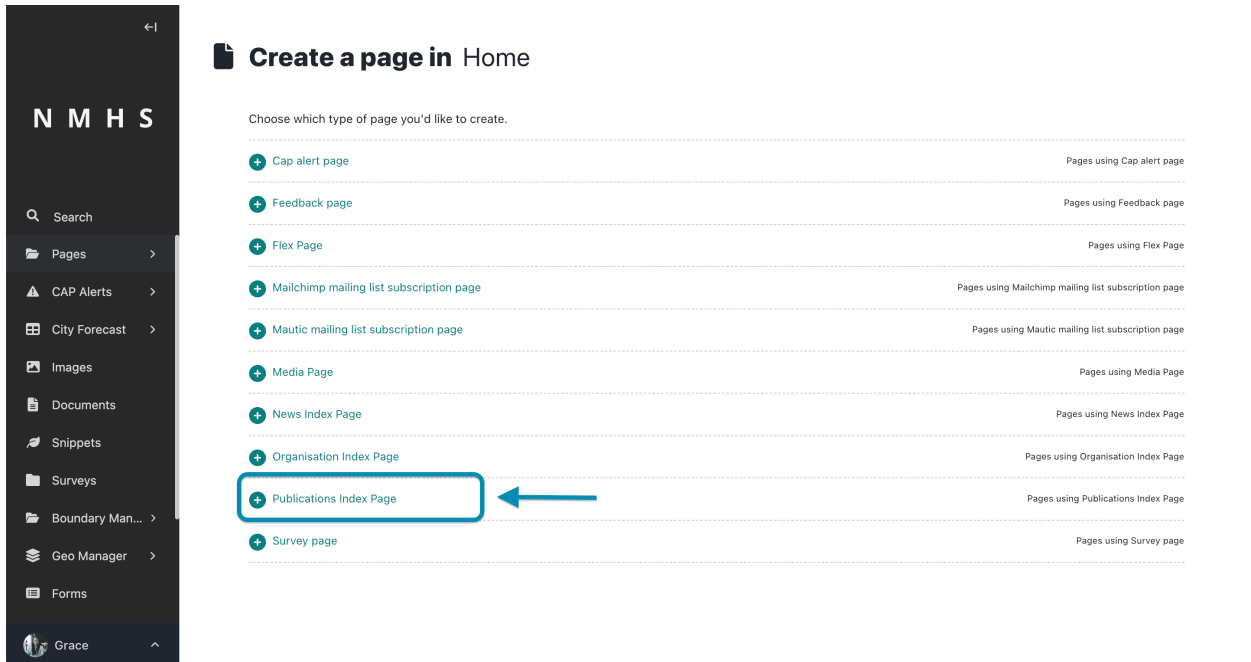
This option will only appear if no publication listing page already exists as there can only be one instance/occurrence of a publication listing page.



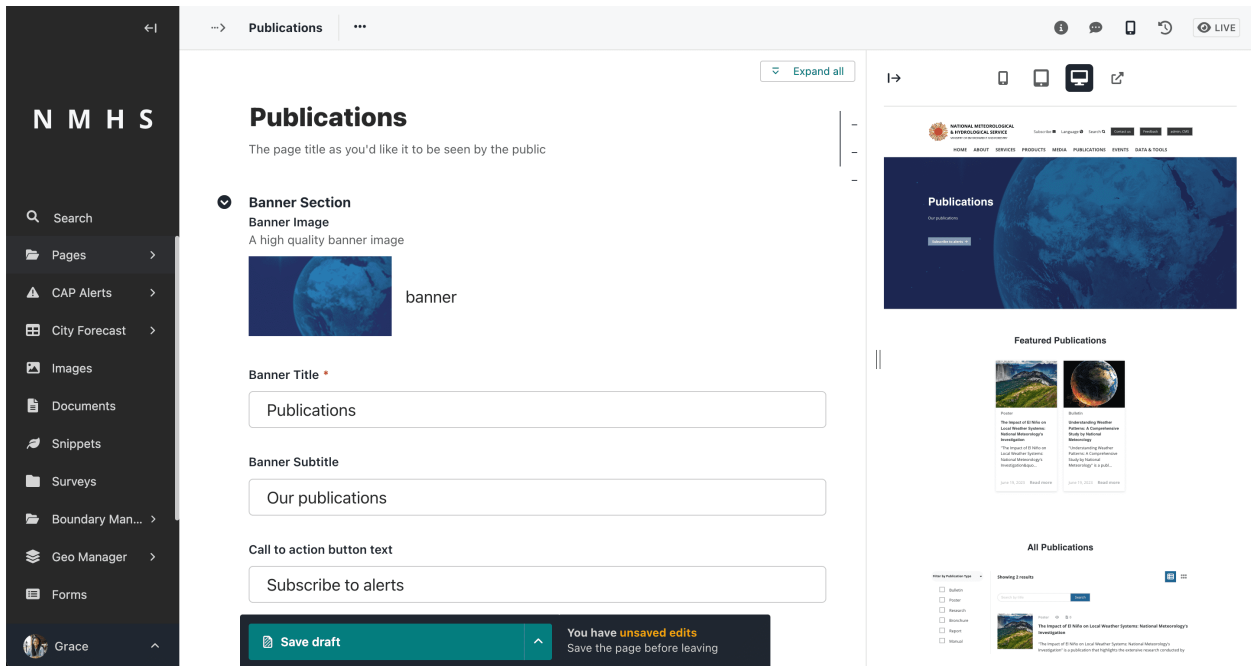
Hover over the Home item and click 'Add Child Page'



Select Publication List Page from the type of pages provided.

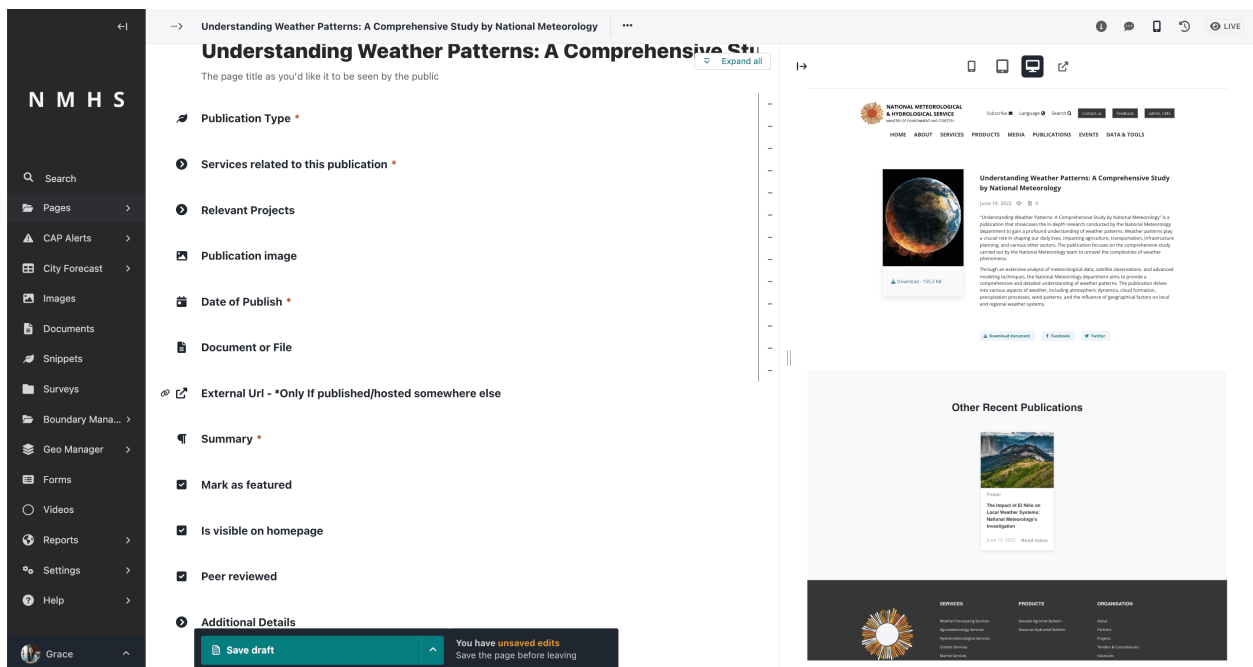
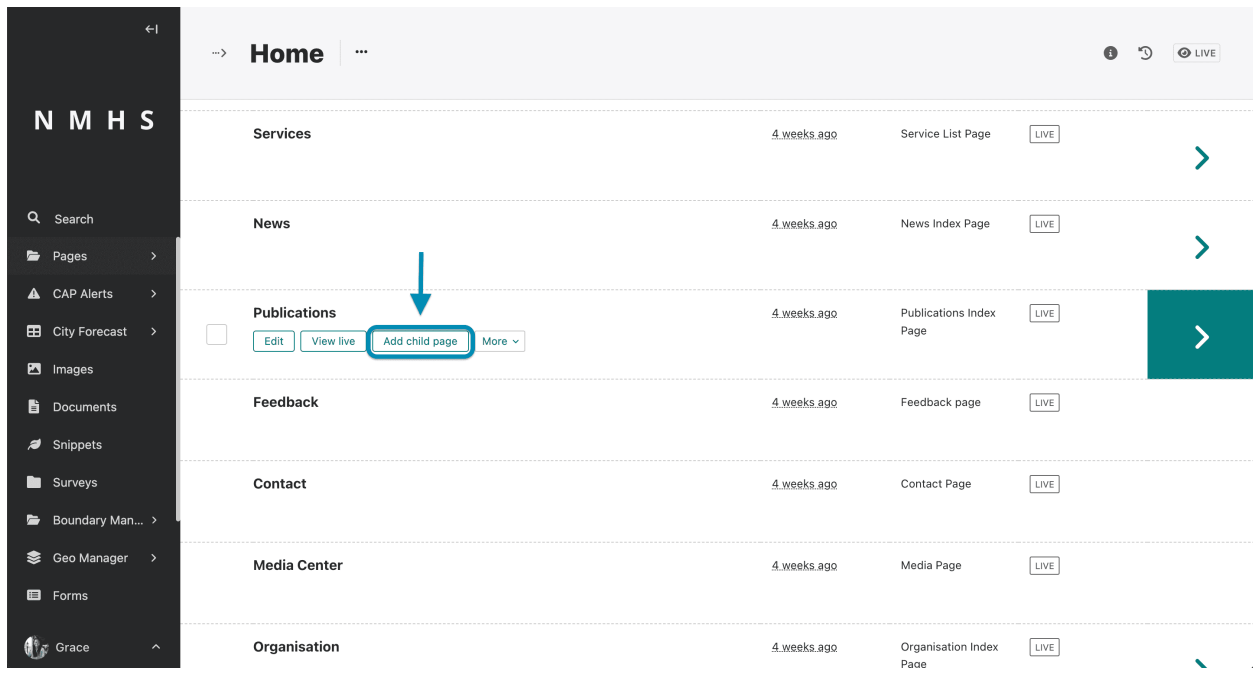


Provide a the page title, banner image, title, subtitle and call to action and either save draft, publish or submit to moderation depending on your privileges.



### Step 3: Create a publication page

This will navigate to the list of pages under the home page including the publication list page you just created. Hover over the the publication listing page and click on 'add child page'.



The sections of a service page include:

- **Publication Type** - selected from previously prepared service category in step 1
- **Service Category** - selected from previously prepared service category. Refer to *Create Services Categories Section* to create service categories.
- **Projects Section** - select from previously prepared projects. Please refer *Manage Projects* to guide on creation of projects.
- **Publication Image** - This can be a screenshot of the front page of the publication

- **Date of Publish** - the date the publication was published
- **Document or File** - Here you can upload pdfs, word documents, powerpoints, zip files or any other file of the publication
- **External Url** - Only If published/hosted somewhere else, provide a link to published resource if external
- **Summary** - Brief Summary of the publication
- **Mark as featured** - If enabled, the publication will appear as Featured publications on the publications listing page
- **Is visible on homepage** - If enabled, the publication will appear in the homepage as an alert/latest update
- **Peer reviewed** - enable this option if the publication has been peer reviewed
- **Additional Details** - this include an optional start and end date for which the publication is considered relevant.

### Note

To create additional publications in the future you would need to begin from *Step 3: Create a publication page*.

## Publication thumbnail autogeneration

If your publication is a PDF, the thumbnail can be automatically generated from the first page of the PDF. This means you don't need to manually upload a thumbnail image for the publication, unless you want to use a custom image and not the first page of the PDF.

The screenshot shows the 'Sample Publication' form with the following details:

- Date of Publish:** 2024-03-27
- Document or File:** Humanitarian Icons DESIGN GUIDELINES
- Auto-generate thumbnail:**  If the document is a PDF, an image of the first page will be auto-generated.
- Publication Image (Thumbnail):** This can be a screenshot of the front page of the publication. If left empty and Auto-generate above is checked and the uploaded document is a PDF, an image of the first page will be auto-generated. The image shows the cover of 'Humanitarian Icons DESIGN GUIDELINES'.
- External Url - \*Only If published/hosted somewhere else:** Link to published resource if external (empty field).
- Save draft:** A button at the bottom of the form.

### Note

This feature is currently only available for PDF files. If you upload a non-PDF file, you will need to manually upload a thumbnail image.

## 1.6.6 Flexible Pages (Flex Page)

This is a type of content page that offers a high degree of customization and flexibility in terms of layout and content structure. Unlike other pages above, which have a fixed set of predefined fields, a Flex Page allows you to add various content blocks and sections to create dynamic and richly structured pages.

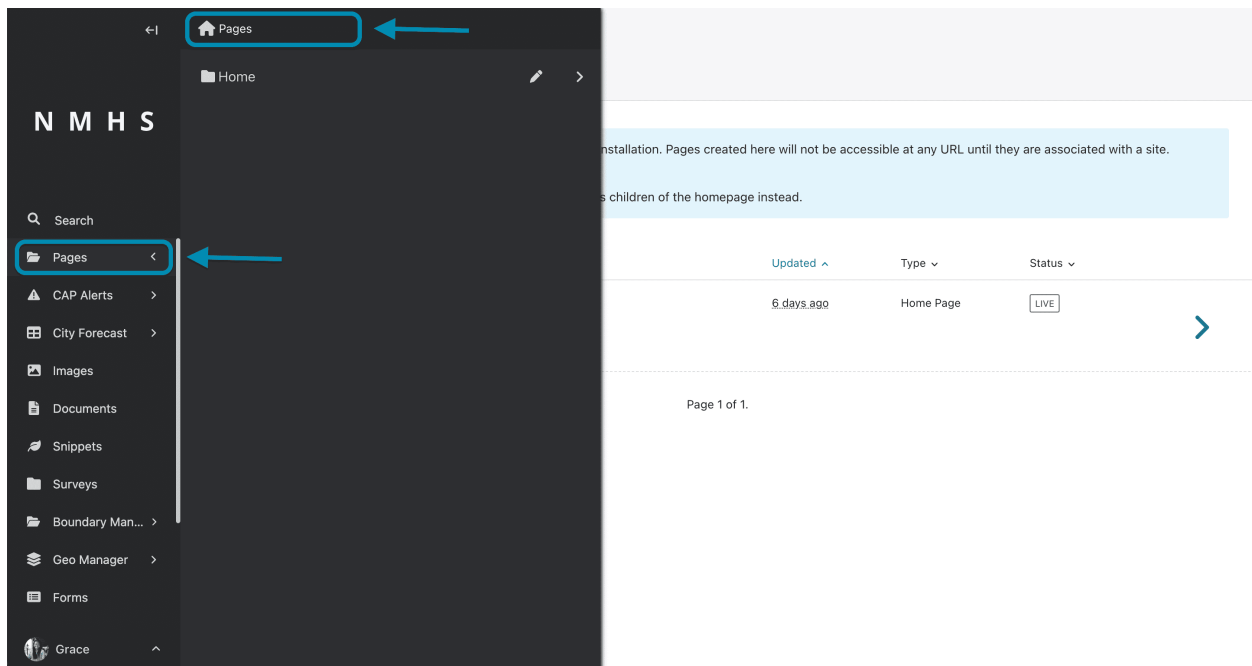
With a Flex Page, you have the flexibility to add, rearrange, and customize these content blocks within the page editor. This enables you to build complex and unique page layouts without the need for technical expertise or assistance from developers.

The ability to create Flex Pages is one of the features that make Wagtail a powerful and user-friendly ClimWeb. It allows website administrators and editors to have greater control over the presentation of content, making it easier to maintain a consistent design while accommodating diverse content needs across different pages of the website.

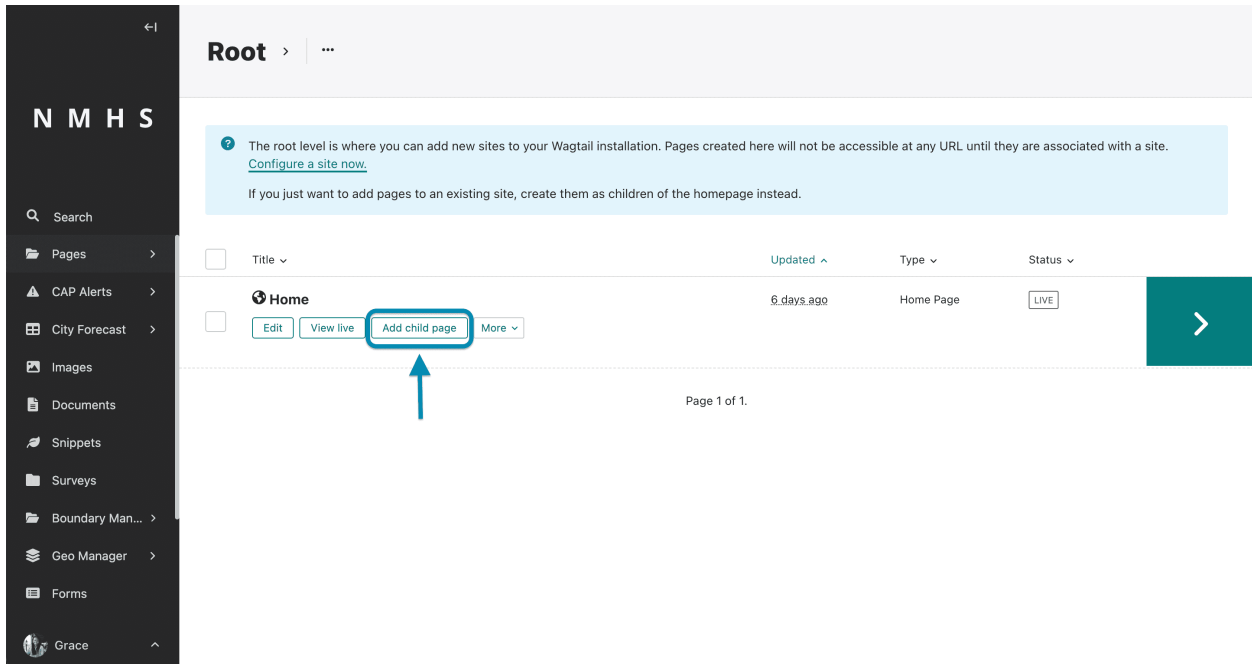
---

### Create a Flex Page

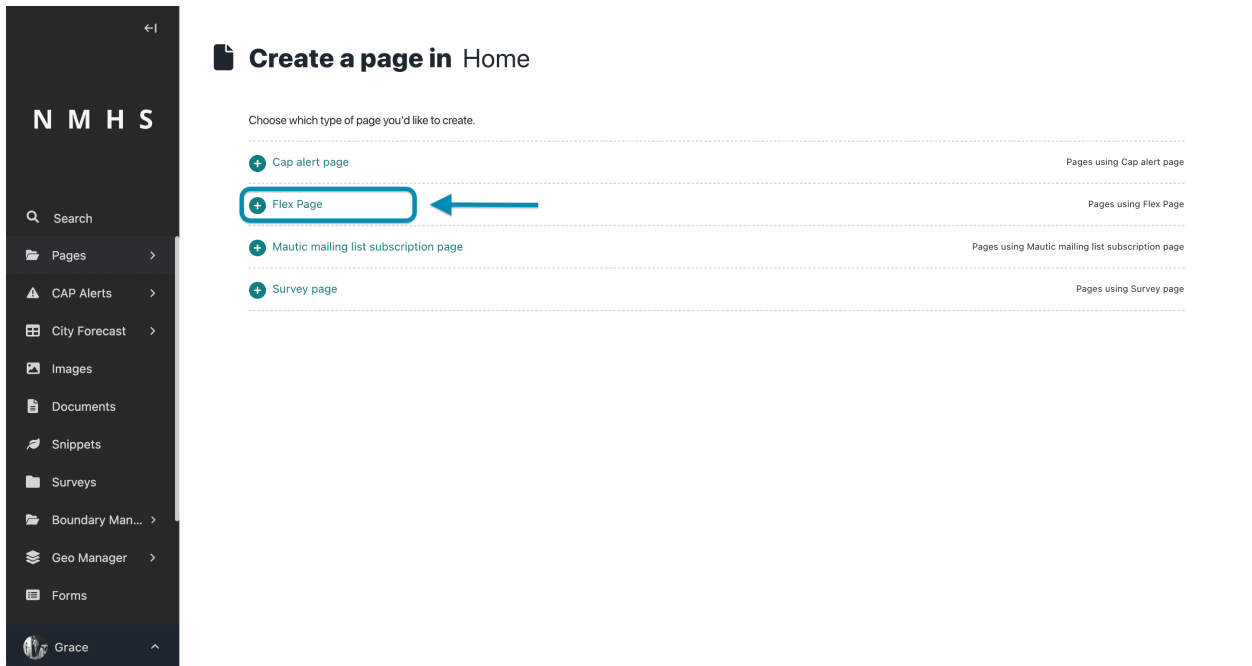
To create this page navigate to the ‘pages’ item on the explorer menu as shown below and click on the pages item at the top.



Hover over the Home item and click ‘Add Child Page’

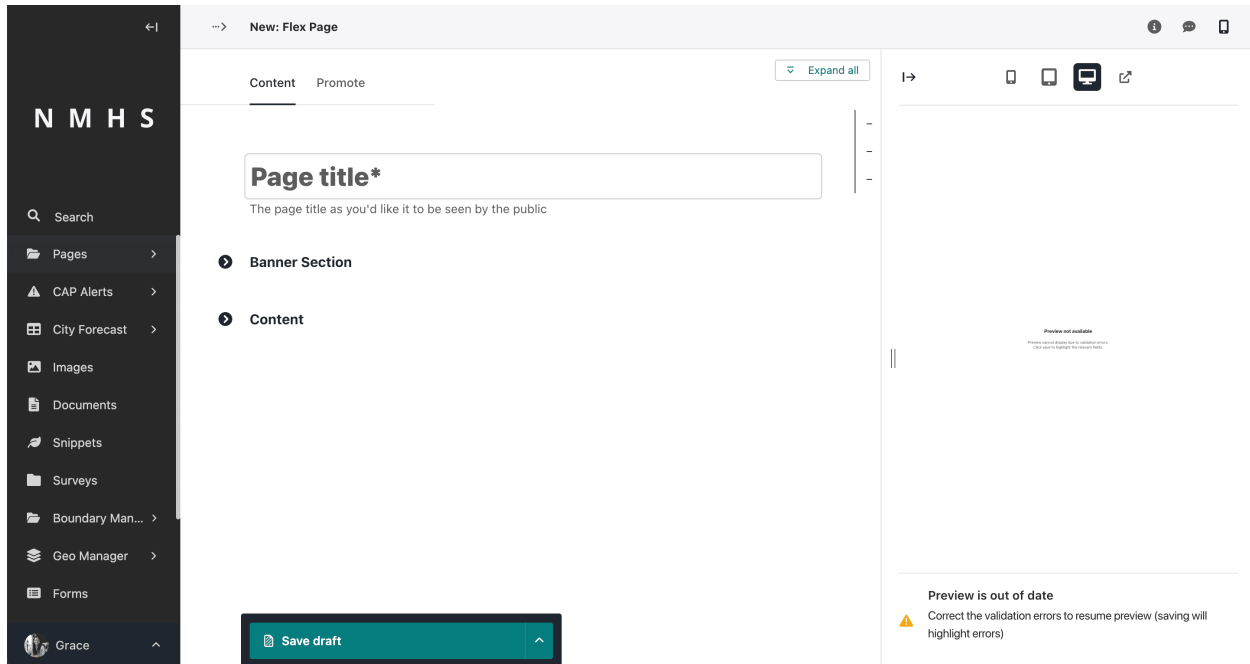


Select Flex Page from the type of pages provided.

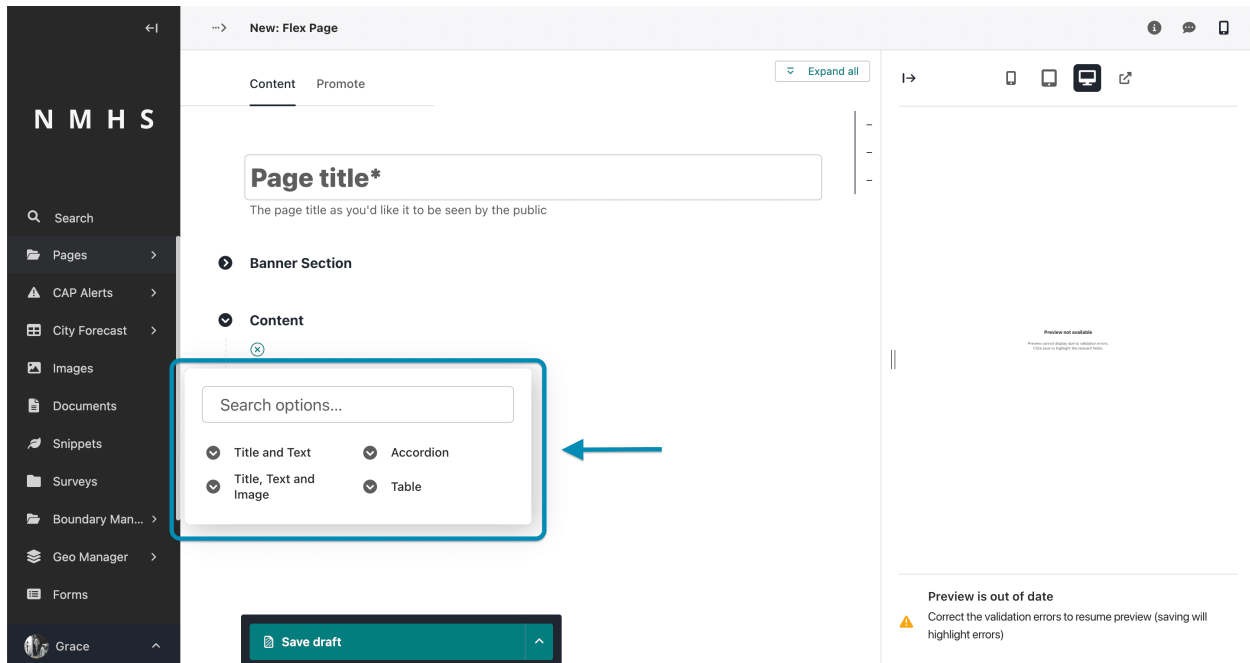


### Sections of a Flex Page

The main sections of the flex page include the **page title**, **banner** and **content** section.



The **content** section contains a set of reusable and reorderable blocks, i.e



1. Title and Text Block

**Title and Text**  
 Title \*  
 Section title  
 Internet data delivery system

**Text \***  
 Section description

- Higher officials will investigate the application and send to Data Management and Dissemination (DMDD). Then DMDD will pass the application to Data Users Team (DUT). DUT make a note of the application and send it to team members .
- The team members will make sure whether the requested data is found in electronic format or not in conjunction with other teams and departments.
- If the requested data is not available in the computer, it will be prepared in collaboration with other teams within the DMDD.
- Then users will be asked to transfer the cost of the requested data to NMAs Bank account in National Bank of Ethiopia. Its account number is GOV0160 10 10 22 900 .
- When they make the required payment they will get the data. But this procedure may take more than a month due to bank transfer delay.

Save draft

**Who have the right to collect meteorological data freely?**

**Meteorological services delivery procedures**

**Internet data delivery system**


## 2. Title, Text and Image Block

**Title, Text and Image**  
 Title \*  
 Section title  
 Dataset and Information Resources

**Text \***  
 Section description

The data/information collected and managed by NMSA covers from the upper tens centimeter layer of the Earth surface to the first tens of kilometers of the atmosphere. The datasets are huge in volume and diversified in forms: digital, textual, symbolic, cards, charts, reports, descriptive, satellite imageries, occurrence and non-occurrence of certain weather events etc. Some of the information gathered from the stations may be used directly but others need to be analyzed by professionals to change to useful information at the users level.

**Image**



event1

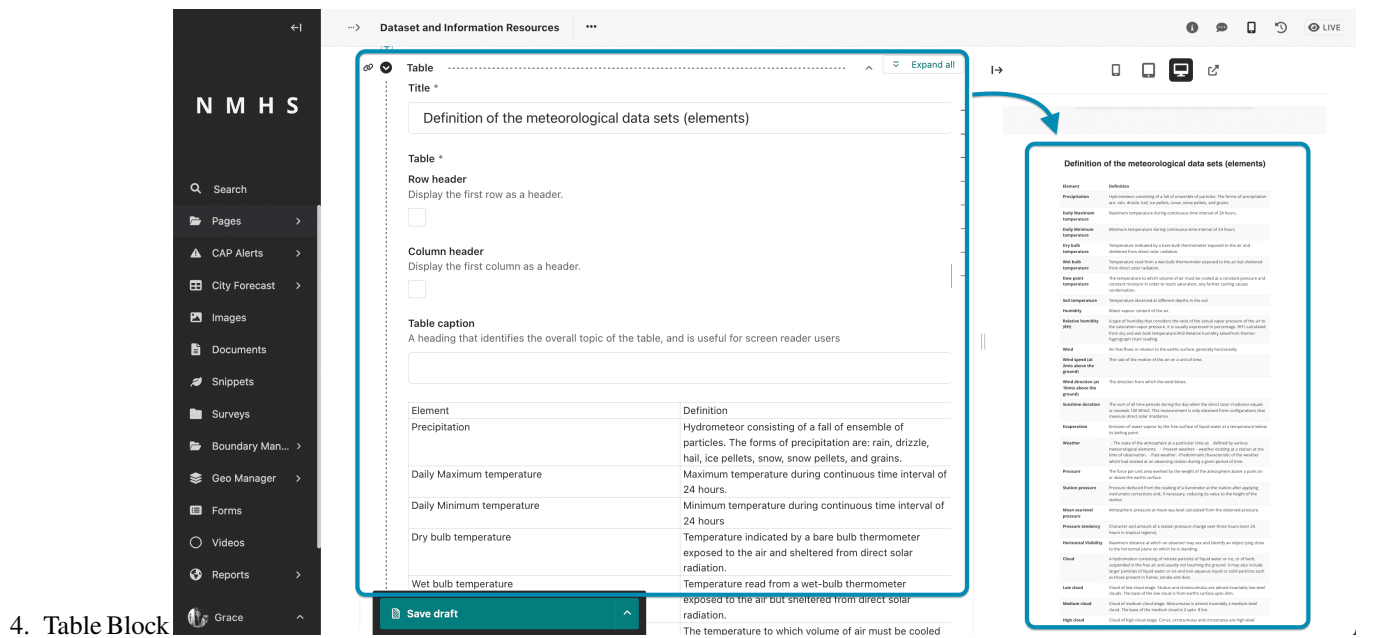
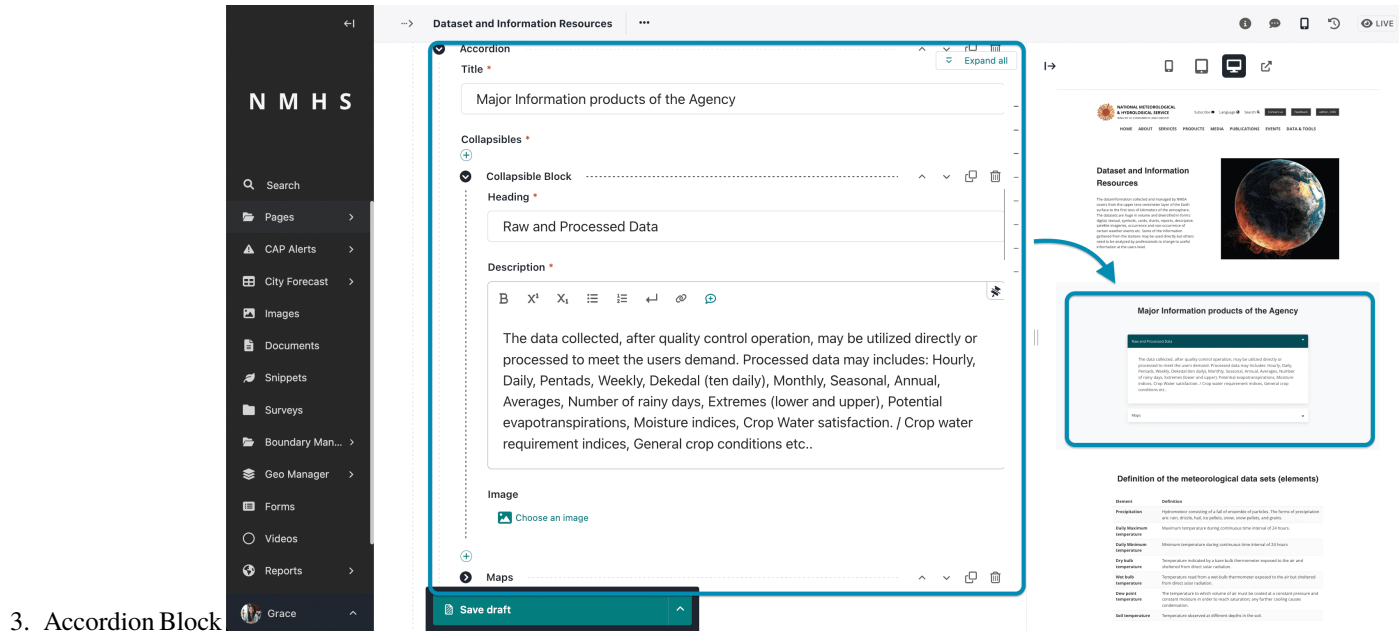
Save draft

**Dataset and Information Resources**

**Major Information products of the Agency**

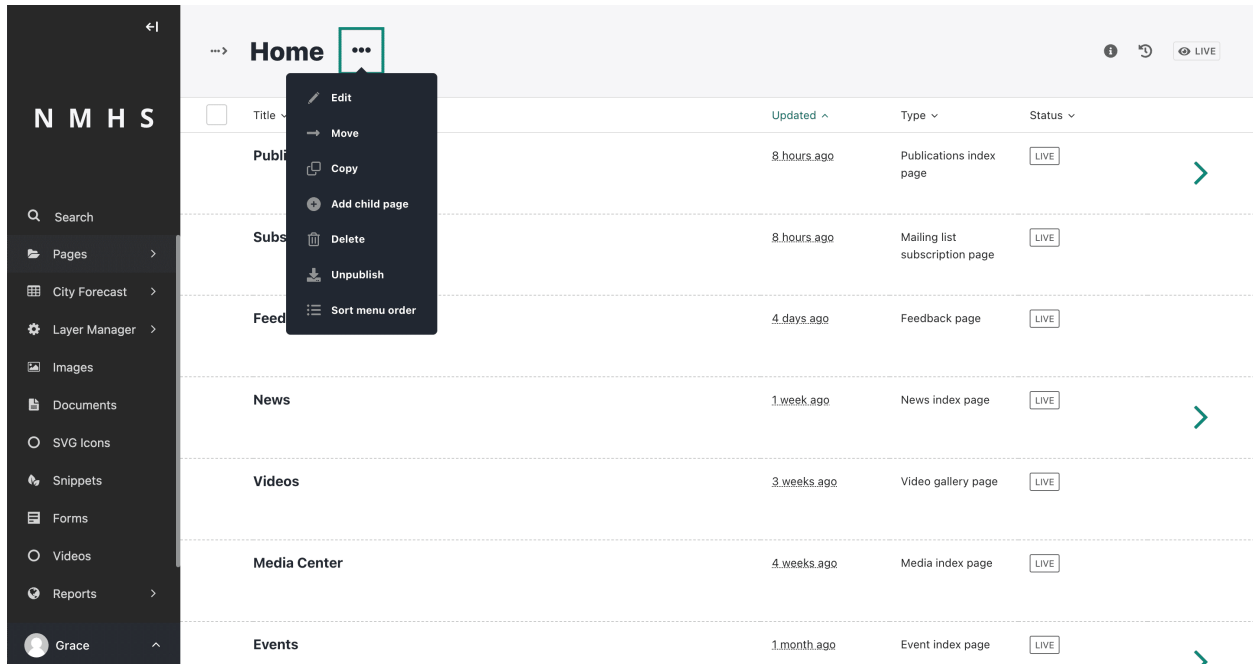
**Definition of the meteorological data sets (elements)**

Element	Definition
<b>Observation</b>	Information consisting of a set of elements of quantity. The terms of observation are raw, basic, fact, or primary, source, user, parties, and genre.
<b>Daily Maximum temperature</b>	Maximum temperature during continuous time interval of 24 hours.
<b>Daily Minimum temperature</b>	Minimum temperature during continuous time interval of 24 hours.
<b>Daily Mean temperature</b>	Temperature obtained by the arithmetic mean of the 24 hourly observations from direct solar radiation.
<b>Surface temperature</b>	Temperature measured by a thermally insulated instrument exposed to the air but shielded from direct solar radiation.
<b>Sea level temperature</b>	The temperature of the surface of the sea for which a correction is made for surface moisture in order to reach saturation vapor pressure conditions.
<b>Soil temperature</b>	Temperature observed at different depths in the soil.
<b>Humidity</b>	Water vapor content of the air.
<b>Relative humidity (RH)</b>	A ratio of wet-bulb that considers the ratio of the actual vapor pressure of the air to the saturation vapor pressure. It is usually expressed as percentage. RH calculated hourly and with 10-minute and 15-minute intervals (stationary instrument). Temperature and humidity.
<b>Wind</b>	An Air Flow in respect to the earth surface, generally horizontally.
<b>Wind speed (W)</b>	The rate of the motion of air or a part of it.



### 1.6.7 Creating new pages

To create a new page, click ... Actions and select the Add child page option. This creates a child page of the section you are currently in. In this case, a child page of the Breads page. The **Home Page** is the top most page in the hierarchy.



### 1.6.8 Edit Existing pages

You can access an existing page's edit screen in three ways.

- First, by clicking ... **Actions** and then select the Edit option from the dropdown.
- Second, by clicking the page's title if you are accessing the page from its **parent's Explorer page** or in search results.
- Last, if you are accessing the page from the Explorer page of its parent, you can **hover over the page** and then click Edit.

On the edit screen, you can find the title of the page you are editing at the top of the page. If the page is already published, then you can find a link to the live version of the page at the top right of the page. To change the title of the page, click the title field and enter a new title.

Title	Updated	Type	Status
Services d'Aviation	1 week ago	Aviation page	LIVE
Alertes	6 months ago	Cap alert list page	LIVE + DRAFT
Images satellitaires	8 months ago	Satellite Imagery Page	LIVE
Le Climat de nos Villes	8 months ago	City climate data page	LIVE
Stations	8 months ago	Stations page	LIVE
Média	9 months ago	Media Page	LIVE
Demande de données	9 months ago	Data request page	LIVE
Inscrivez-vous à nos mises à jour	9 months ago	Mailchimp mailing list subscription page	LIVE
Services	10 months ago	Service List Page	LIVE
Donnez-nous votre avis	10 months ago	Feedback page	LIVE
Publications	10 months ago	Publications Index Page	LIVE
Actualités	10 months ago	News Index Page	LIVE
Contactez Nous	10 months ago	Contact Page	LIVE
Événements	10 months ago	Event Index Page	LIVE

While on the edit screen, you can perform several actions, such as copying, moving, or deleting a page. To perform any of these actions, click ... Actions at the top of the edit screen and select the applicable option from the dropdown.

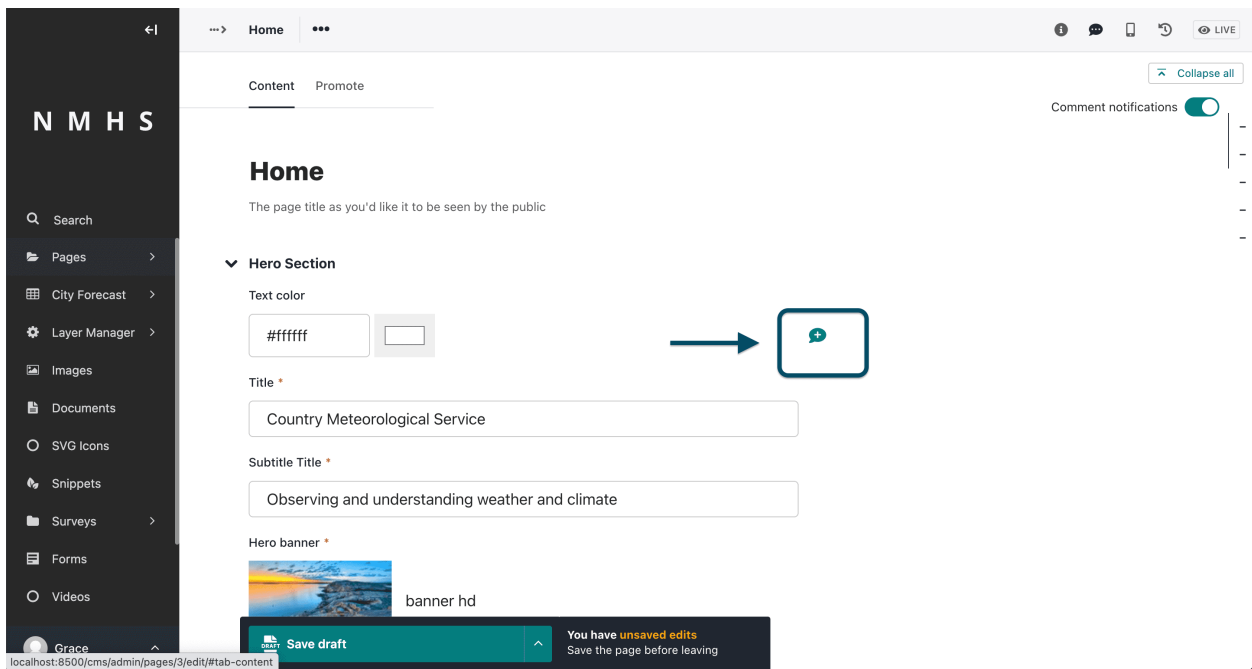
## 1.6.9 Search Engine Optimization

To promote your page for search engine optimization, using the promote tab set the title tag and meta description. This will encourage web crawlers to correctly index your page and rank it higher in search results for related topics. Under the promote tab, the slug is created automatically from the page's initial title

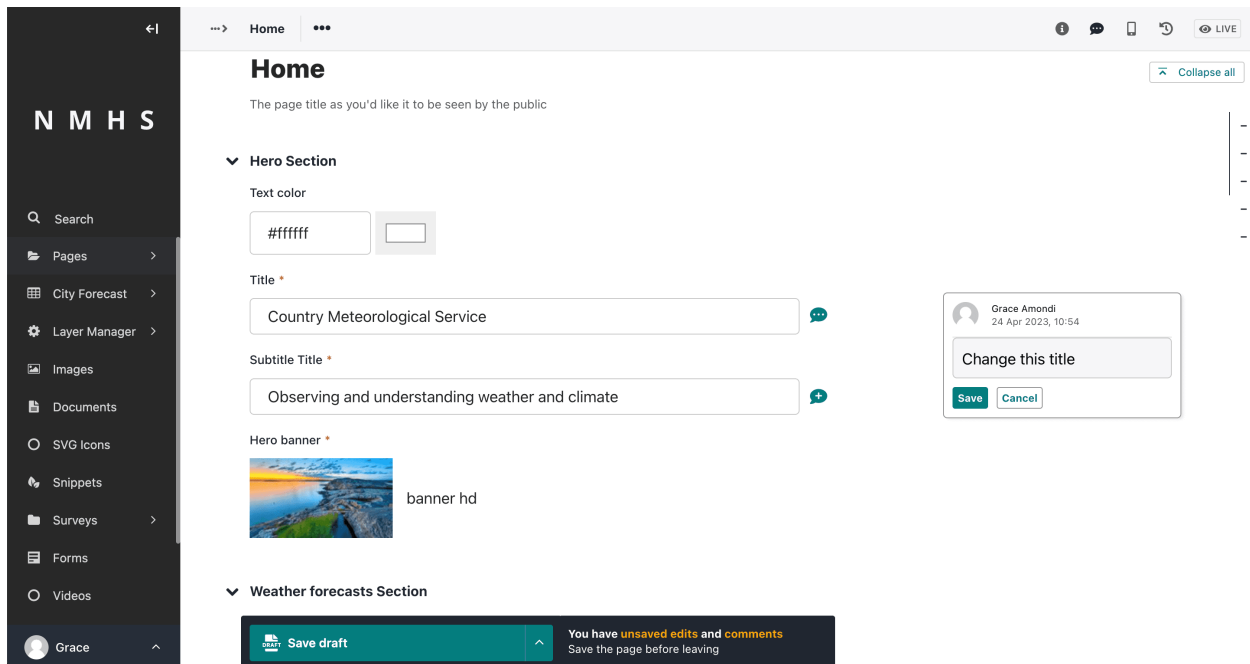
Title	Updated	Type	Status
Services d'Aviation	1 week ago	Aviation page	LIVE
Alertes	6 months ago	Cap alert list page	LIVE + DRAFT
Images satellitaires	8 months ago	Satellite Imagery Page	LIVE
Le Climat de nos Villes	8 months ago	City climate data page	LIVE
Stations	8 months ago	Stations page	LIVE
Média	9 months ago	Media Page	LIVE
Demande de données	9 months ago	Data request page	LIVE
Inscrivez-vous à nos mises à jour	9 months ago	Mailchimp mailing list subscription page	LIVE
Services	10 months ago	Service List Page	LIVE
Donnez-nous votre avis	10 months ago	Feedback page	LIVE
Publications	10 months ago	Publications Index Page	LIVE
Actualités	10 months ago	News Index Page	LIVE
Contactez Nous	10 months ago	Contact Page	LIVE
Événements	10 months ago	Event Index Page	LIVE

### 1.6.10 Create and edit comments

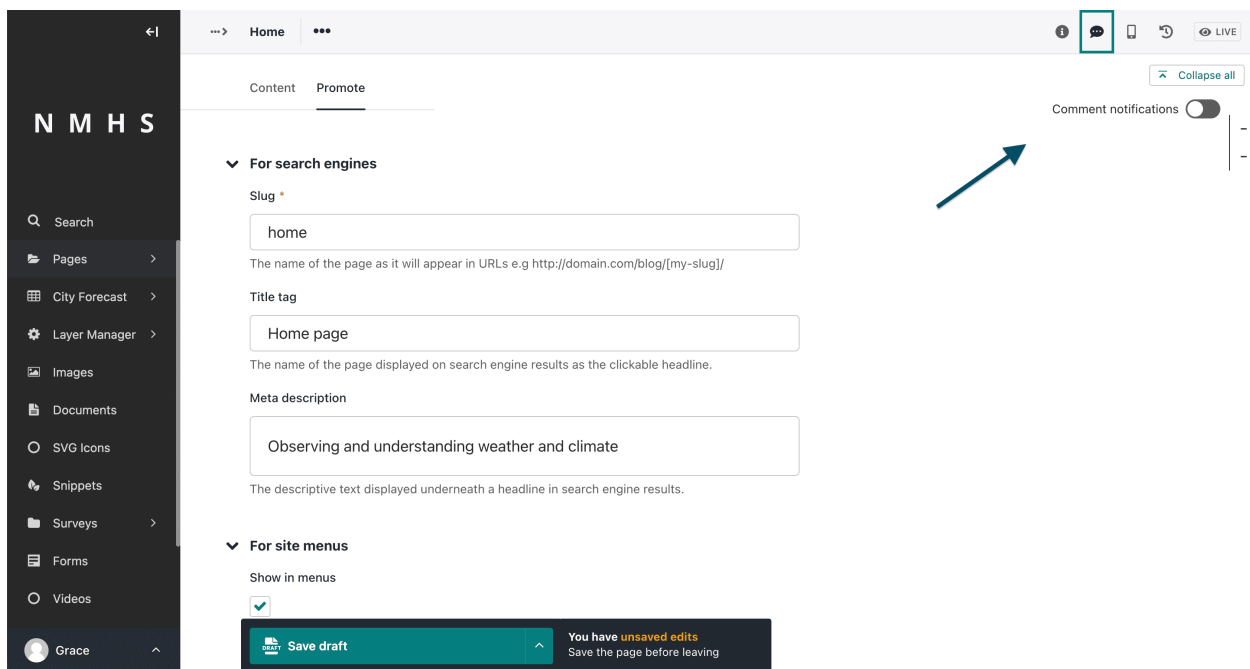
To toggle on commenting mode, click Comments at the top of the edit screen page. Once commenting mode is on, you can create a new comment or reply to a comment by hovering over any commentable field to reveal the add comment icon.



If there is no pre-existing comment in the field, click the add comment icon to create a new comment. However, if there is an existing comment, clicking either the field button or the comment brings the comment thread into focus. This allows you to add new replies.



The arrow to the right of the comments icon shows the comment notifications panel, where you can enable or disable email notifications for other users' comments on the page.

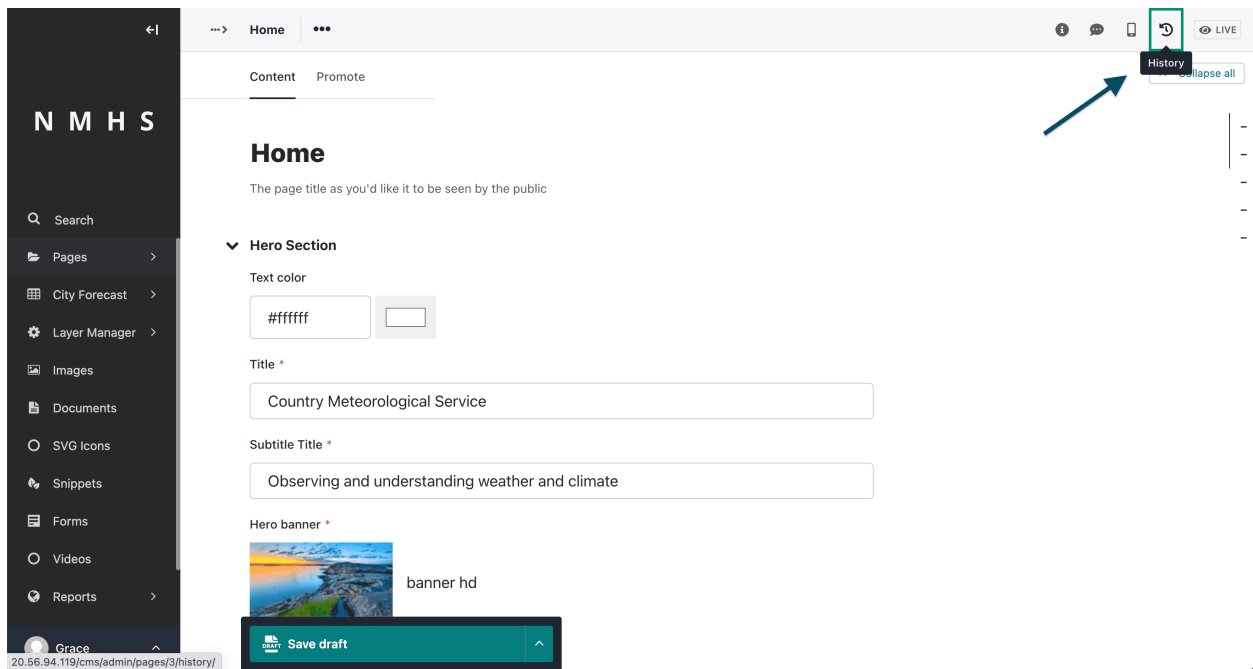


**Note**

You will always receive email notifications for threads you are part of, unless you opt out of all comment notifications in your account settings. All participants in a thread will receive email notifications for new replies, even if they no longer have permission to edit the page.

### 1.6.11 Manage Page History

it is possible to retrieve a version of the content you previously saved as a draft or published. You can do this by hovering over a page on the Explorer page and clicking More from the resulting dropdown options. Alternatively, you can access the page history screen by clicking the History icon in the top-right corner when editing a page.



On the page's history screen, you can see all the actions previously done on that particular page and the users that carried out the actions. Also, you can see the date or time that the action occurred.

You can also search for specific versions of your content on the page history screen by applying a filter.

**Page history Home** Edit this page

Action	User	Date / Time
Published <span>LIVE VERSION</span>	Grace Amondi	3 weeks ago
Draft saved <span>CURRENT DRAFT</span>	Grace Amondi	3 weeks ago
Published	Grace Amondi	3 weeks ago
Draft saved	Grace Amondi	3 weeks ago
Published	Grace Amondi	3 weeks ago
Draft saved	Grace Amondi	3 weeks ago
Published	Grace Amondi	3 weeks ago
Draft saved	Grace Amondi	3 weeks ago

**Filter**

Apply filters

Action:

User:

Date:  Date from  Date to

Hide commenting actions:

If you want to compare different draft versions, hover over the draft and click Compare with previous version or Compare with current version.

To replace the current version of the draft with a previous version, hover over the preferred version of your draft on the page history screen and click Review this version. Then click Replace current version located at the bottom of the screen. This action appears as a Revert action on the page history screen and you can always go back to review it.

**Home** Content Promote

**Hero Section**

Text color:

Title:

Subtitle Title:

Hero banner: Replace current draft

**Preview:** Country Meteorological Service. Latest Weather Warnings. Explore Current Conditions.

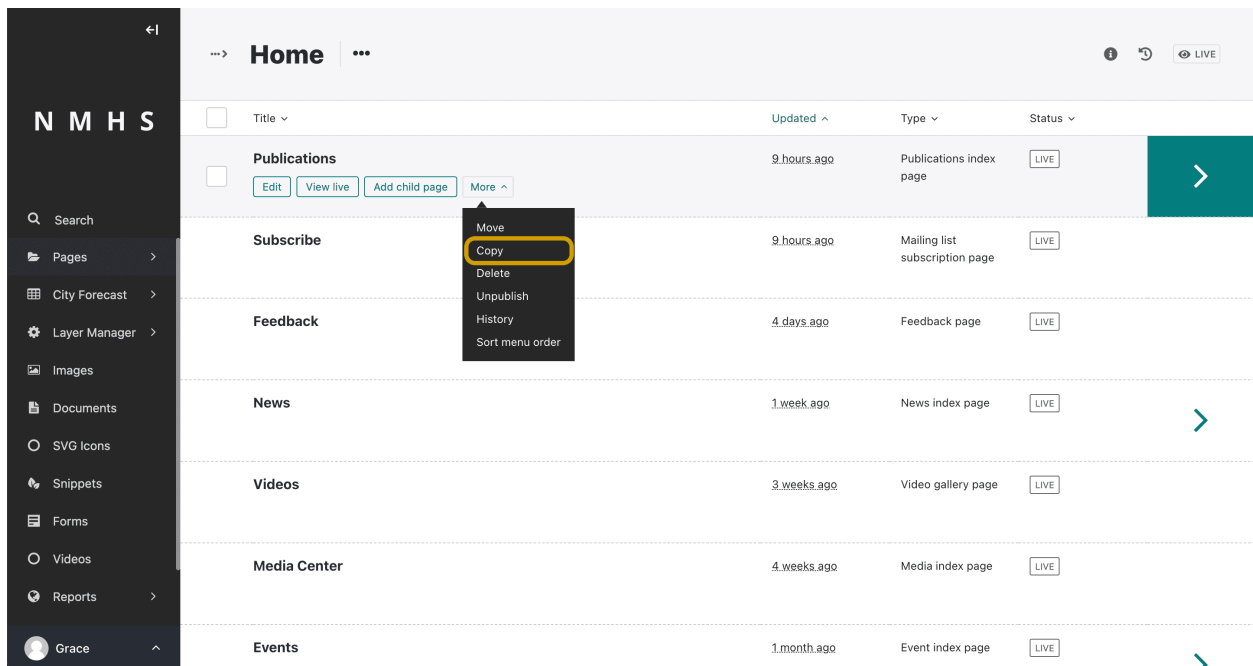
## 1.6.12 Workflow

If the page is currently in a workflow, then you can see an additional indicator underneath the title showing the current workflow task. Clicking this shows more information about the page's progress through the workflow and any comments left by reviewers.

If you have permission to perform moderation actions, for example, approval or requesting changes on the current task. In that case, you can see additional options in the action bar at the bottom of the page

## 1.6.13 Copy pages

Sometimes, you don't need to create a new page from scratch. For example, you may have several pages that are similar in terms of structure but differ in content. In that case, you can copy an existing page and only change the required parts.



To copy an existing page, hover over a page in an Explorer page, then click More and select Copy. Selecting Copy from the dropdown takes you to a form where you can enter the title and slug of the copy and also choose its parent page. You then get the option to publish the copy right away and an option to mark the copy as an alias of the original page. Once you have completed the form, click Copy this page.

**Copy Publications**

New title \*

Publications

New slug \*

publications

New parent page \*

Home

This copy will be a child of this given parent page.

Copy subpages

This will copy 3 subpages.

Publish copies

4 of the pages being copied are live. Would you like to publish their copies?

Alias

Keep the new pages updated with future changes

Copy this page

Congratulations, you just copied a page. You can now find your copied page on the Explorer page.

### 1.6.14 Alias pages

When copying a page, you have the option to mark it as an alias. The content of an aliased page always stays in sync with the original.

This is useful when you want a page to be available in multiple places. For example, if you have a page about Publications as a child page of Home, and you want to make the Publications page available in the Pastries section.

Creating an alias for an existing page is similar to creating a copy. Hover over a page in the Explorer page, click More, and then select Copy. Selecting Copy takes you to the copy page form. On the copy page form, choose another page as the parent page by clicking Choose another page.

**Copy Publications**

New title \*  
Publications

New slug \*  
publications

New parent page \*  
Home  
This copy will be a child of this given parent page.

Copy subpages  
  
This will copy 3 subpages.

Publish copies  
  
4 of the pages being copied are live. Would you like to publish their copies?

Alias  
  
Keep the new pages updated with future changes

Copy this page

Then, click the Alias checkbox and click Copy this page to complete the aliasing.

**Copy Publications**

New title \*  
Publications

New slug \*  
publications

New parent page \*  
Home  
This copy will be a child of this given parent page.

Copy subpages  
  
This will copy 3 subpages.

Publish copies  
  
4 of the pages being copied are live. Would you like to publish their copies?

Alias  
 ←  
Keep the new pages updated with future changes

Copy this page

Congratulations, you just aliased a page. You can now find your aliased page on the Explorer page of the parent page. If you try to edit the aliased page, you get a notification that it's an alias of another page. To edit an aliased page, you have two options:

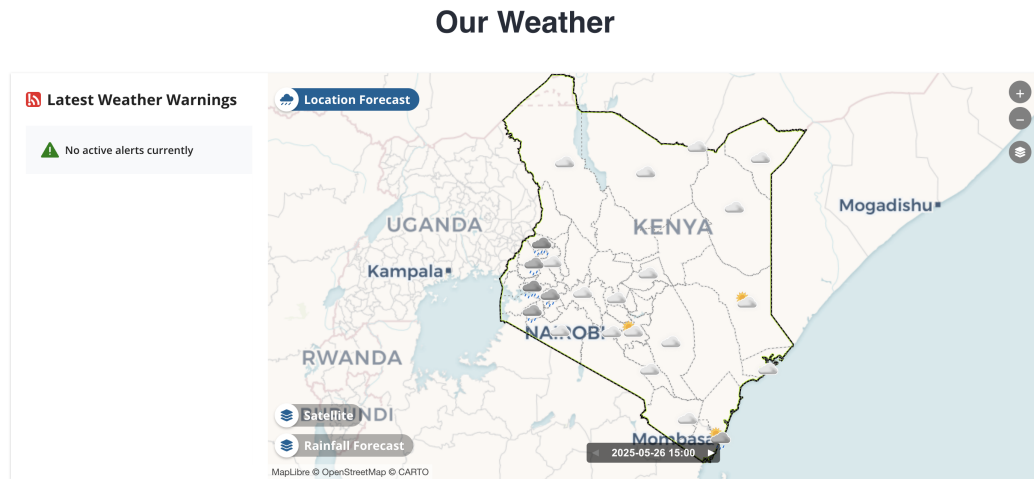
- Edit the original page. This option changes both the original page and the aliased page.
- Convert the alias page to an ordinary page, which is a copy of the original. If you choose this option, you must make manual changes to the alias page in order for it to be in sync with the original page.

## 1.7 Configure Settings

### 1.7.1 Homepage Map Settings

The homepage map enables to visualize the following information:

- Location/City Forecast
- Currently active Weather Warnings,
- Up to 5 Geomanager/MapViewer Layers (if enabled)



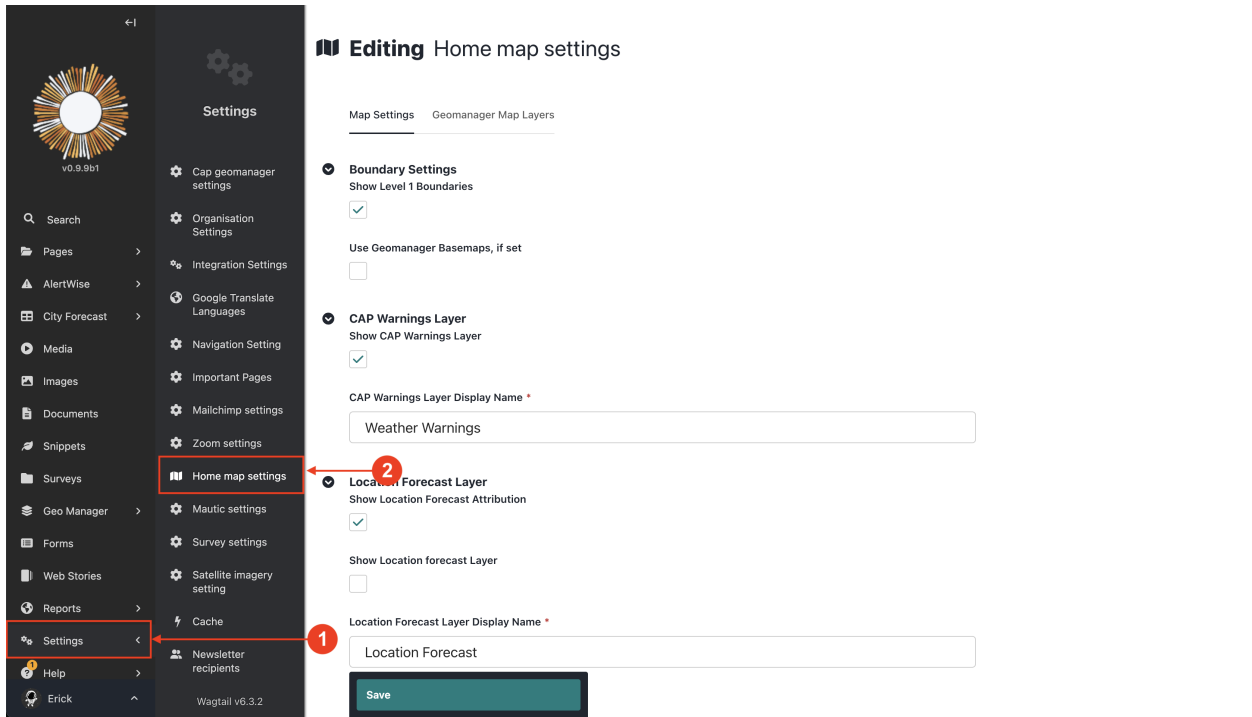
For more interactive data [Explore on MapViewer →](#)



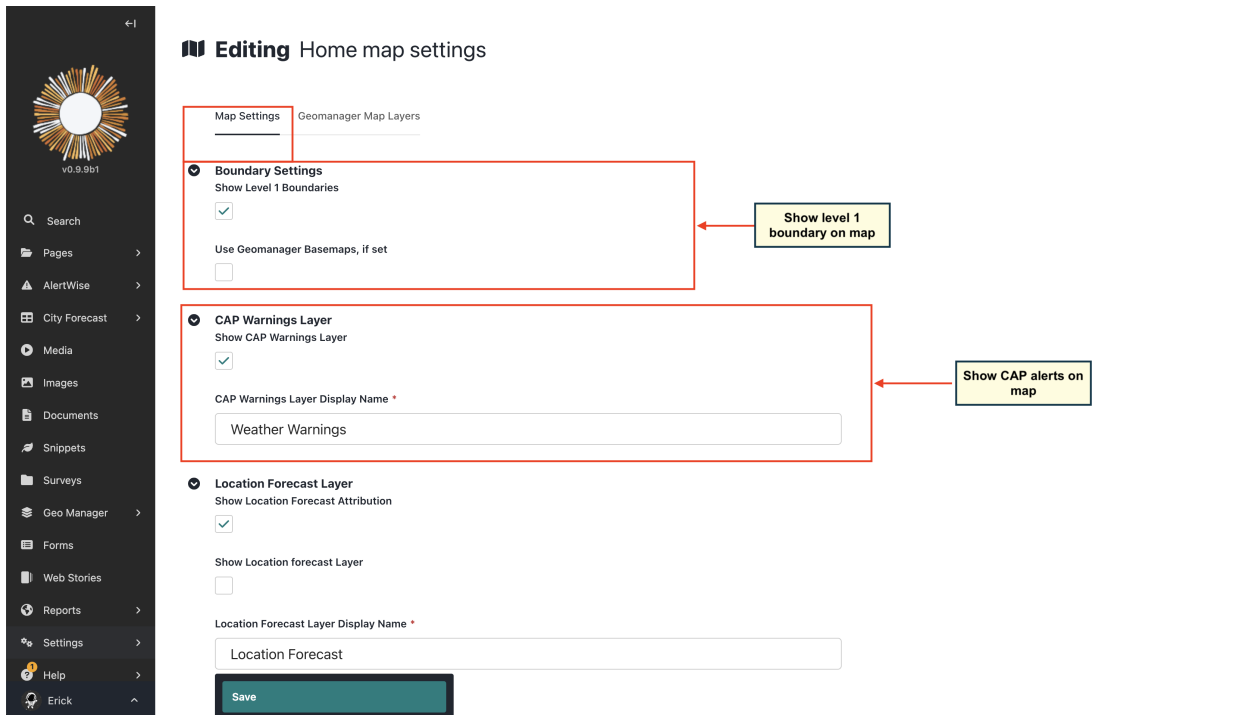
### Settings

You can modify the homepage map settings from the settings menu on the left side-bar of the Admin interface. *Scroll down if settings menu is not visible.*

Click on (1)Settings > (2) Homepage map settings



## Boundary Settings



- **Show Level 1 Boundaries:** Check this box to show the level 1 boundaries on the map. By default, this is disabled to reduce the bandwidth required to load the map.
- **Use Geomanager Basemaps:** Check this box to use the Geomanager basemaps instead of the default basemaps. This is useful if you have configured custom basemaps in Geomanager.

## CAP Warnings Settings

- **Show CAP Warnings Layer:** Check this box to show the currently active CAP warnings on the map. Checked by default. This layer is only shown on the map when there is at least one active CAP warning.
- **CAP Warnings Layer Display Name:** This is the name of the CAP warnings layer that will be displayed on the map. By default, it is set to **Weather Warnings**. You can change it, for example, to the corresponding language of your Climweb Instance.

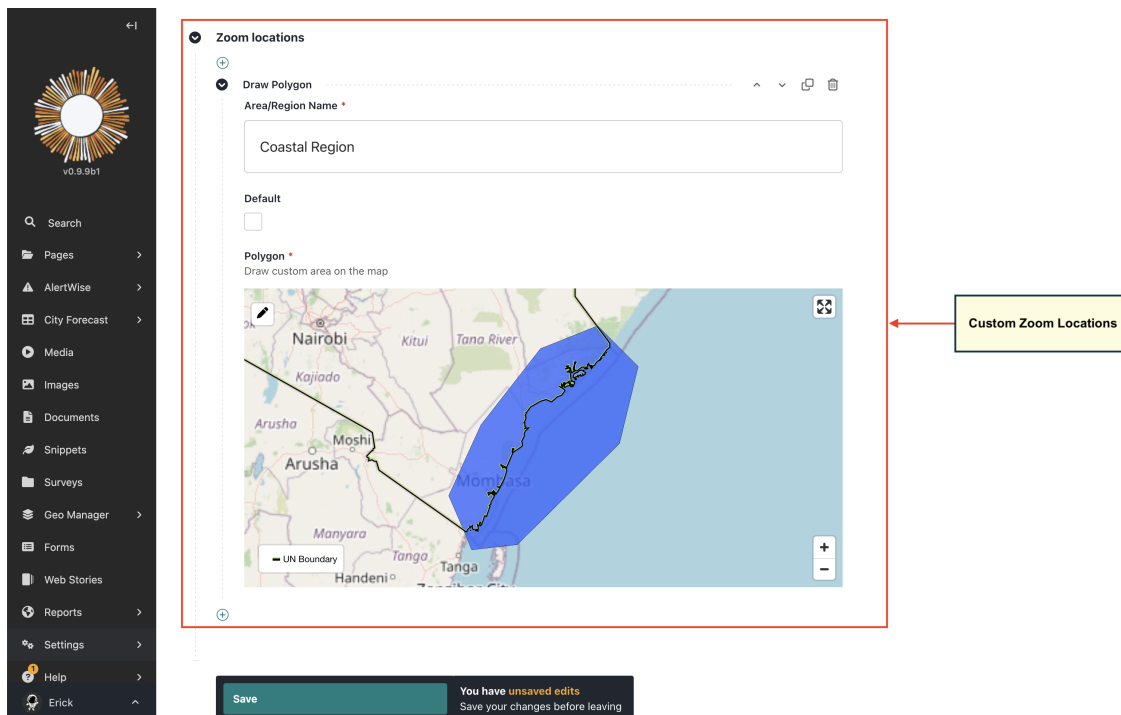
## Location Forecast Layer

- **Show Location Forecast Layer:** Check this box to show the location forecast layer on the map. This layer shows the forecast for different cities as set in the system. By default, this is enabled.
- **Location Forecast Layer Display Name:** This is the name of the location forecast layer that will be displayed on the map. By default, it is set to **Location Forecast**. You can change it, for example, to the corresponding language of your Climweb Instance.
- **Show Location Forecast Attribution:** Check this box to show the attribution for the location forecast data, if you are pulling forecast data from **YR.no** api. By default, this is disabled.
- **Location Forecast date display format:** This is the format in which the date will be displayed on the map for the location forecast layer. You can select the correct format from the dropdown list.
- **Cluster Location Forecast Points:** Check this box to cluster the location forecast points on the map. This is useful if you have a large number of location forecast points and want to reduce the clutter on the map. By default, this is disabled.
- **Cluster Minimum number of points:** This is the minimum number of points required to cluster the location forecast points on the map. By default, it is set to 2. You can change it to a value that works best for your number of locations.
- **Cluster Radius:** This is the radius in pixels for clustering the location forecast points on the map. By default, it is set to 50. You can change it to a value that works best for your number of locations.

Clustering is a technique used to group similar points together on the map to reduce clutter and improve the user experience. When clustering is enabled, the map will show a single point for a group of points that are close to each other. When the user zooms in, the points will be expanded to show the individual points. This is useful when you have a large number of points on the map and want to reduce the clutter. However, it can also make it difficult to see individual points when zoomed out. You can experiment with the clustering settings to find the best configuration for your map, by adjusting the minimum number of points and the radius for clustering. Continue adjusting these settings until you find a balance between clustering and showing individual points that works best for your map.

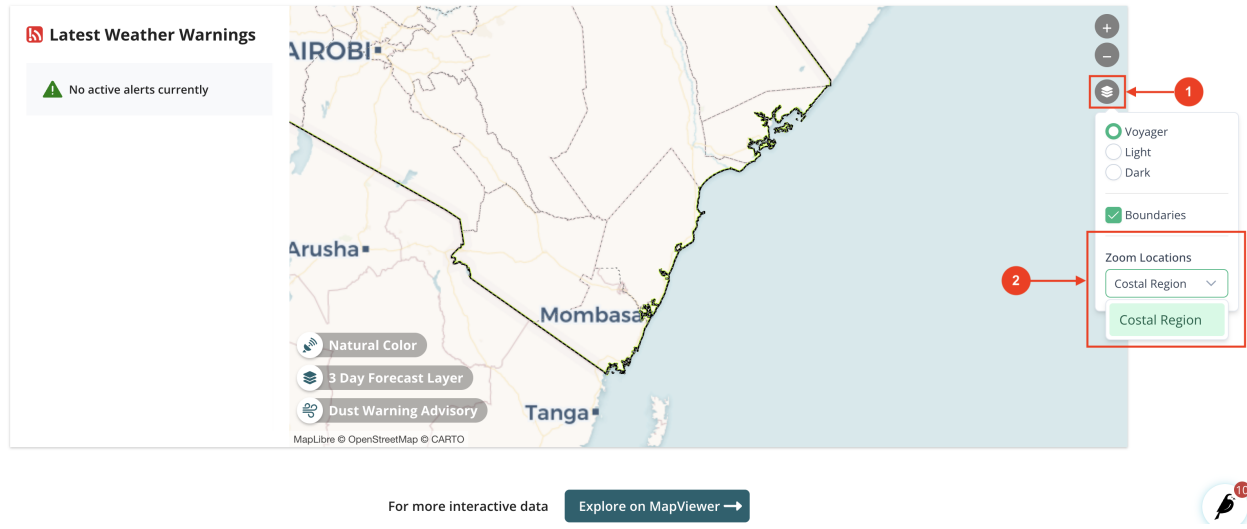
## Zoom Locations

Zoom locations are predefined locations on the map that the user can zoom to. This is useful for quickly navigating to common locations on the map, such as the capital city or other important locations. You can add, edit or delete zoom locations, as shown below:



This will be displayed as a dropdown on the map, allowing the user to quickly zoom to the selected location.

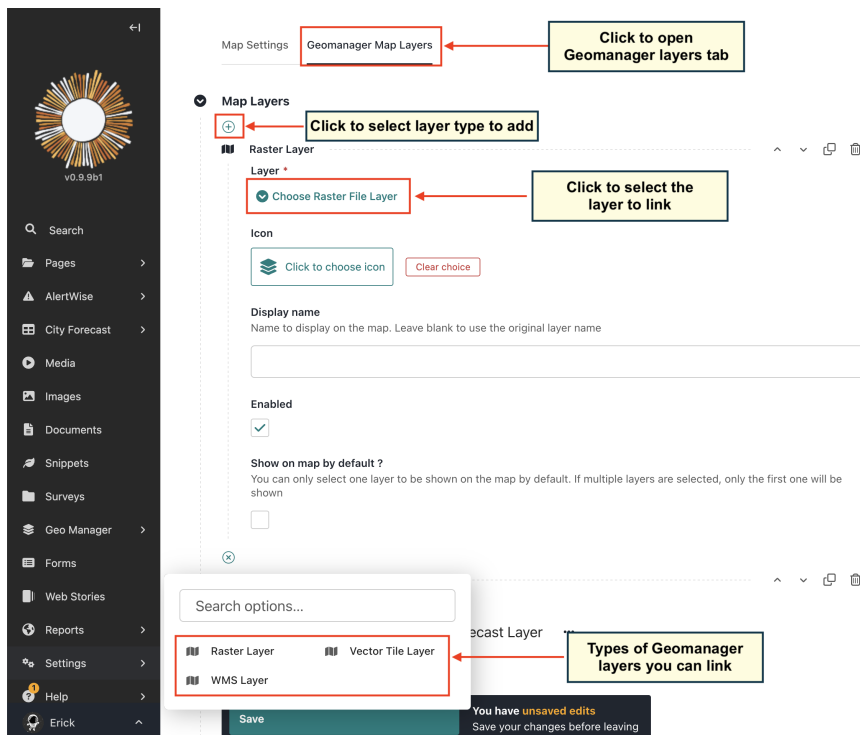
## Our Weather



### Geomanager Layers

You can add up to five (5) Geomanager layers to the homepage map. Geomanager layers are custom layers added to Climweb using the Geomanager Module. Once you add layers on Geomanager, they can be added to the homepage map.

To access the Geomanager layers settings, click on the Geomanager Layers tab in the homepage map settings.



Clicking on the Plus (+) button will open a popup where you can select the type of Geomanager layer you want to add. Currently, you can add the following types of Geomanager layers:

- Raster Layer
- Vector Tile Layer
- WMS Layer

Once you select the type of layer, you will be prompted to enter the required information for that layer.

- **Choose Layer:** You can click to select the layer you want to add from the list of available layers in Geomanager.
- **Icon:** You can select an icon for the layer that will be displayed on the map
- **Display Name:** This is the name of the layer that will be displayed on the map. By default, it is set to the name of the layer in Geomanager. You can change it, for example, to the corresponding language of your Climweb Instance.
- **Enabled:** Check this box to show the layer on the homepage map. By default, this is enabled.
- **Show on map by default:** Check this box to show the layer on the map by default. If this is not checked, the layer will not be shown on the map until the user selects it from the layer list. If multiple layers are selected, only the first one will be shown.

If you mark a layer as **Show on map by default**, it will be only shown when **Show Location Forecast Layer** or **Show CAP Warnings Layer** are disabled.

## 1.7.2 Two-Factor Authentication (2FA)

### Setting Up Two-Factor Authentication (2FA) in Wagtail

Two-Factor Authentication (2FA) adds an extra layer of security to your Wagtail admin account. It requires both your password and a unique code generated by an authenticator app, making it harder for unauthorized users to access your account.

#### Step 1: Log in to the Wagtail Admin Panel

1. Open your web browser and navigate to your Wagtail admin login page.
2. Enter your username and password, then click **Log in**.

#### Step 2: Set Up an Authenticator App on your phone


To complete 2FA setup, you will need an authenticator app such as:

- Google Authenticator (Android/iOS)
- Authy (Android/iOS)
- Microsoft Authenticator (Android/iOS)

• Authy for iOS or Android  
• A password manager like 1Password, that also supports generating One-Time-Passwords

To configure two-factor authentication for your Wagtail CMS account, install one of those apps and scan the below QR code. Note that if you lose or reset your phone, you will no longer be able to log in.

QR Code



If you're unable to scan the image, try pasting the following into your app:

URL:

**Name \***  
The human-readable name of this device.

**OTP token \***  
Enter the numeric code displayed on your device after scanning the QR code

**Current password \***  
As an extra security measure, we need your current password.

### Linking Your Authenticator App

1. Open your preferred authenticator app.
2. Select the option to **Add a new account**.
3. Scan the QR code displayed on your Wagtail admin screen upon login.
  - If you cannot scan the QR code, manually enter the provided setup key.
4. Your authenticator app will generate a six-digit code.

### Step 3: Verify and Complete Setup

1. Enter the six-digit code from your authenticator app into the **Verification Code** field on Wagtail.
2. Optionally change the device name “Device #1”
3. Enter your current password
4. Click **Create** and your device should be added to the list.

## Two Factor Settings

Name

Device #1

Update device

Remove device

New device

### Logging in with 2FA

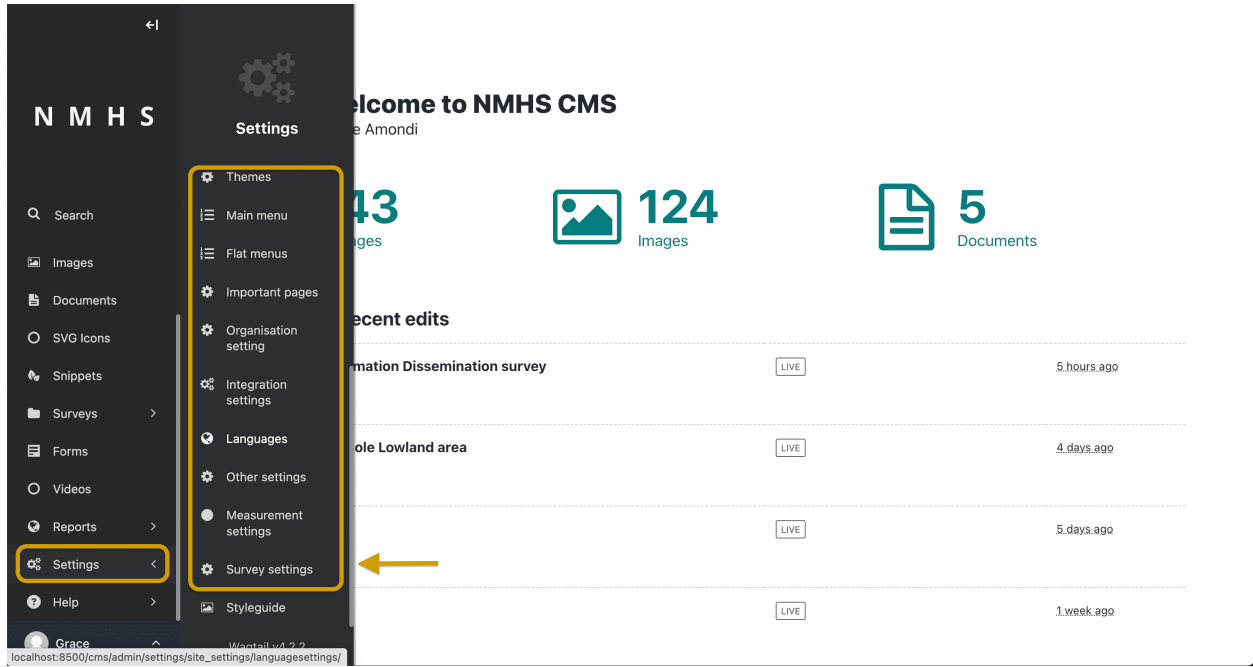
1. Next time you log in, enter your username and password as usual.
2. After entering your password, Wagtail will prompt you for a **two-factor authentication code**.
3. Open your authenticator app, retrieve the latest code, and enter it in the provided field.
4. Click **Verify** to complete the login process.

---

By enabling 2FA, you add an extra layer of security to your Wagtail admin account, protecting your data from unauthorized access.

### 1.7.3 Base Settings

All settings can be found at the settings menu on the left side-bar. *Scroll down if settings menu is not visible.*

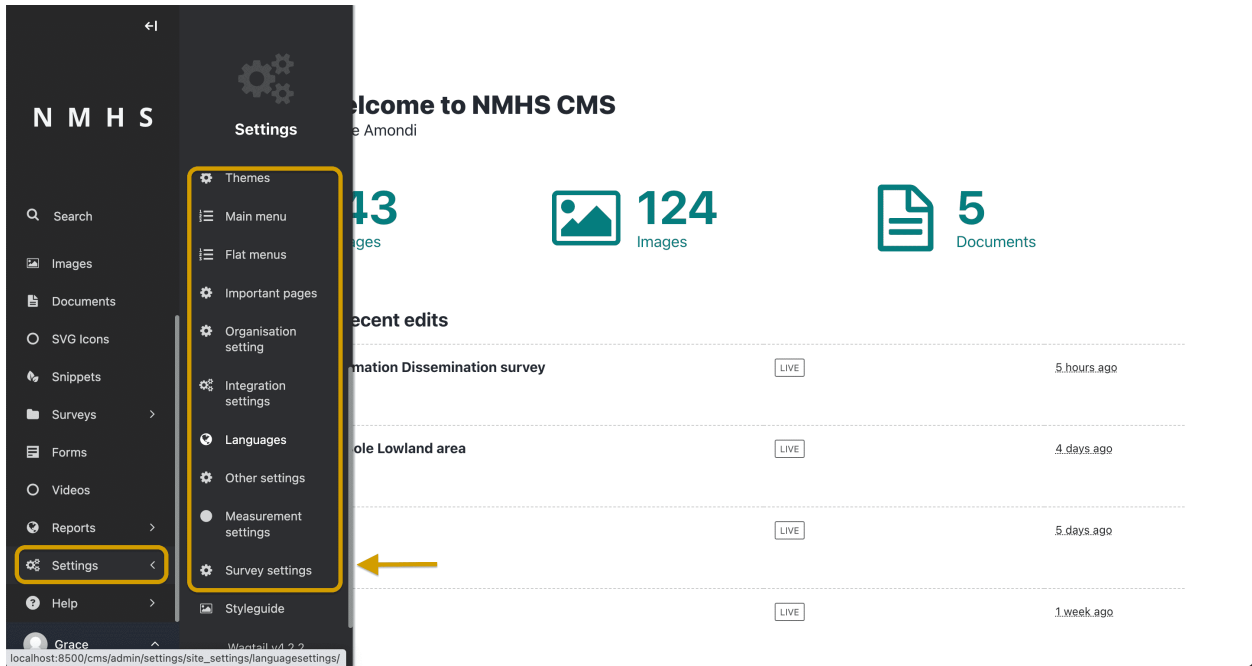


This section covers:

- Managing Organisation Settings
- Managing Themes
- Managing Integrations
- Managing Languages
- Managing Measurement Units

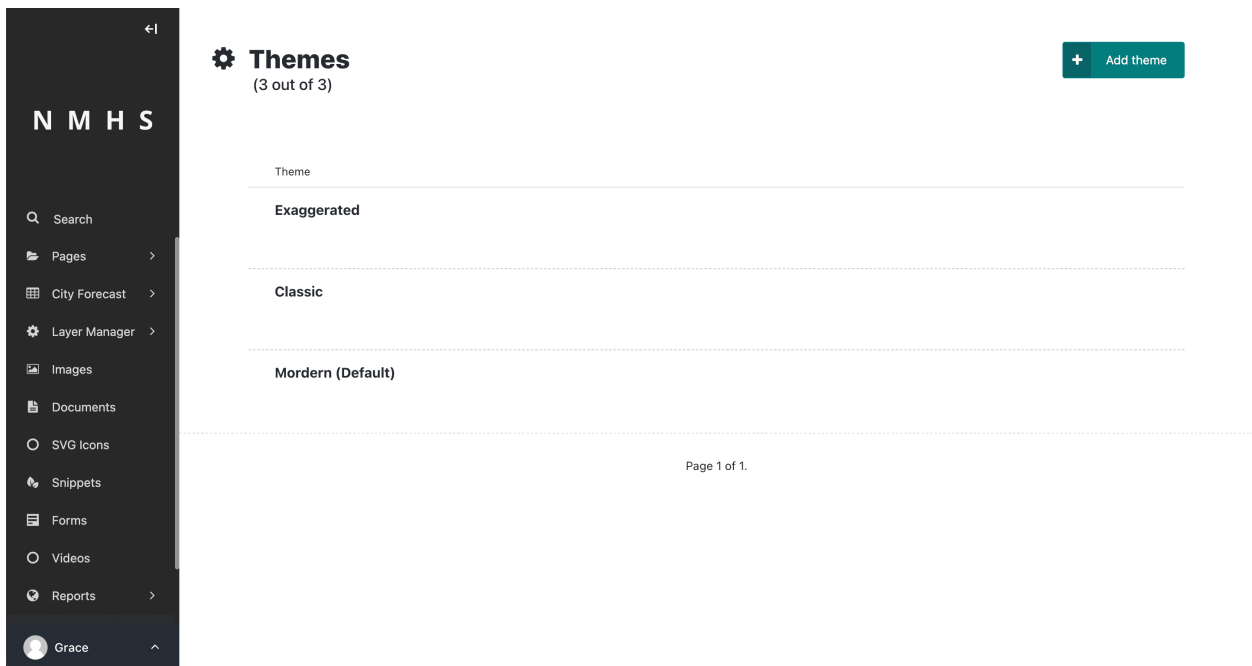
#### Managing Organisation Settings

Organisation settings include the logo, country, address, contact information and social media address (Twitter, Facebook, Youtube and Instagram)

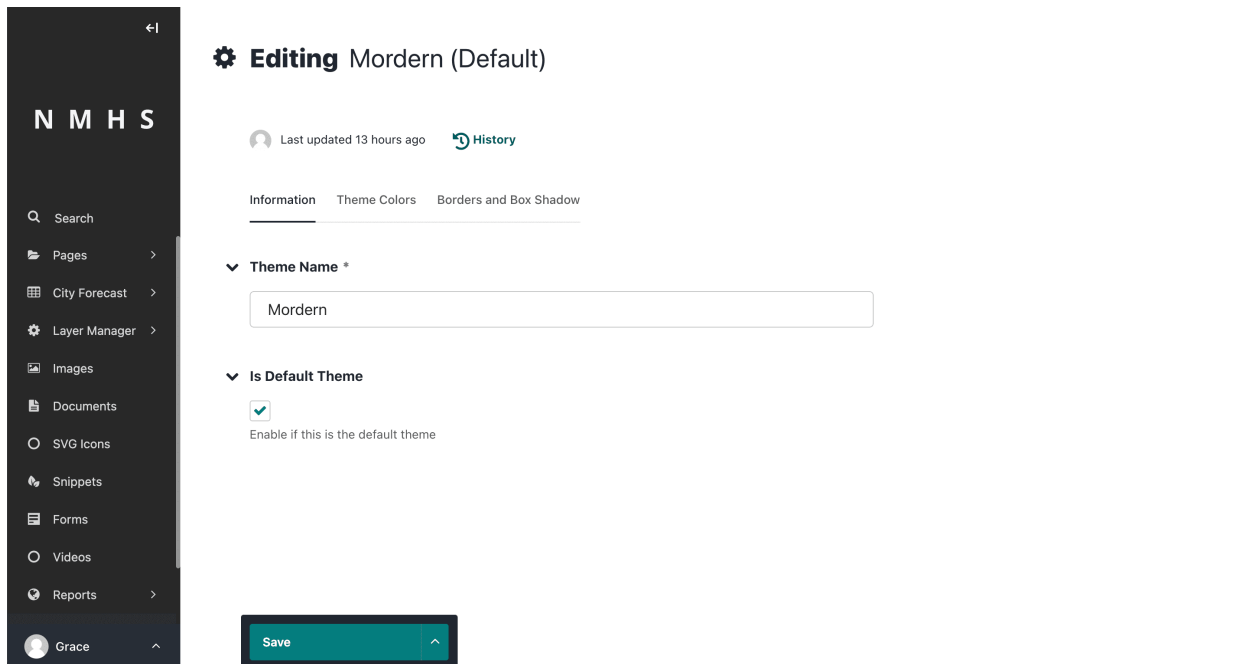


## Managing Themes

The ClimWeb allows you to create/edit/delete a theme. You can also set a default theme which will be applied to all pages of the website.

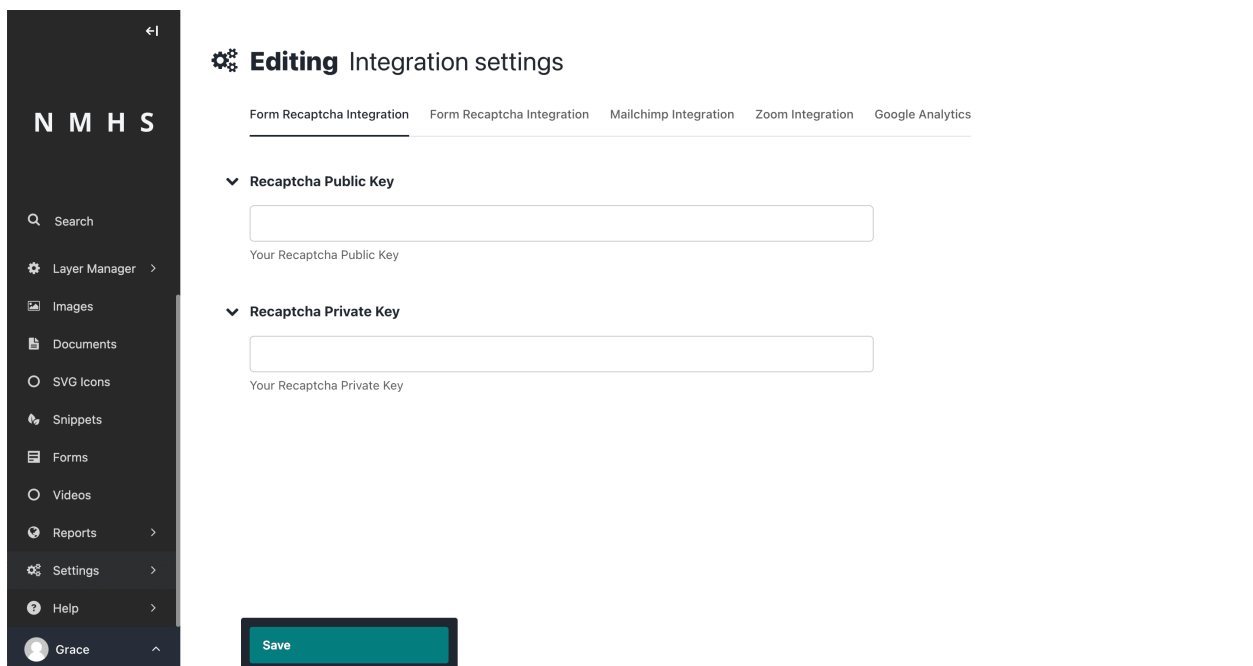


The theme configurations include theme name, theme colors, borders and shadows.



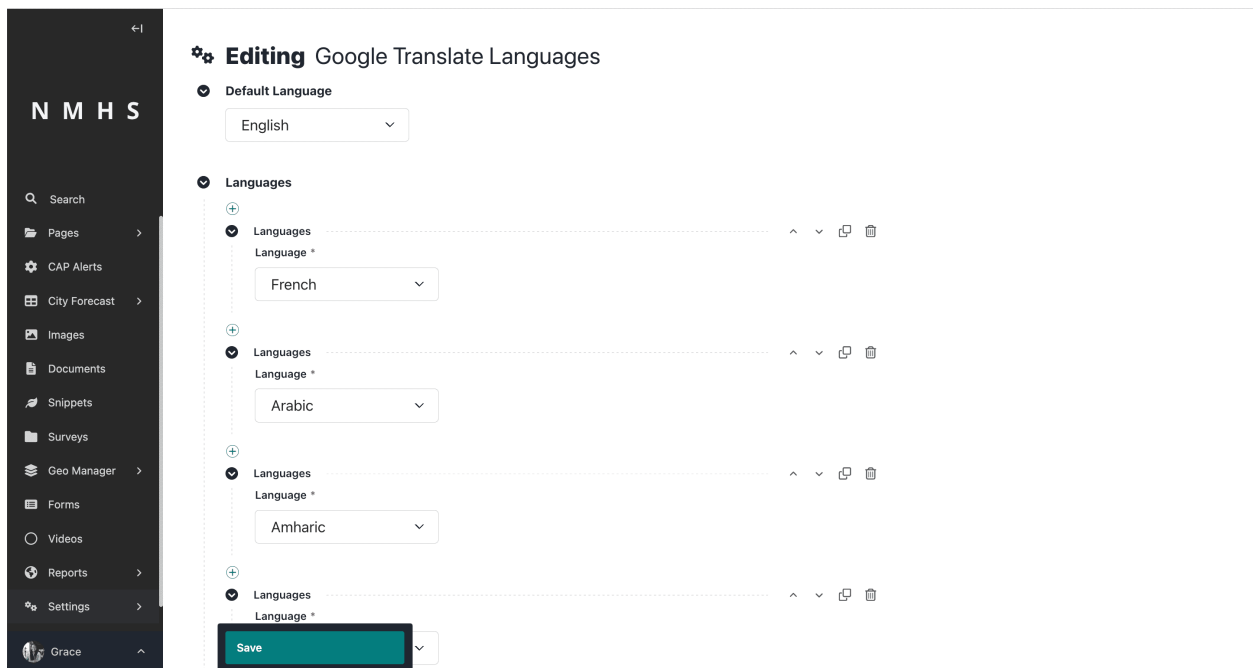
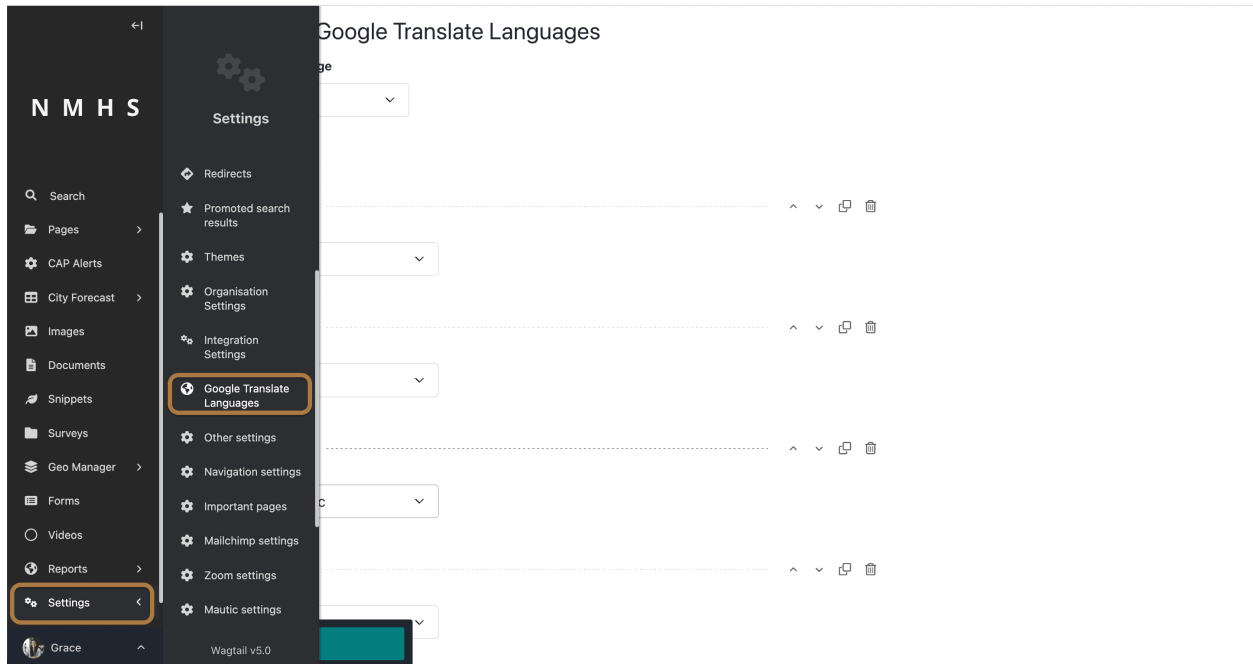
## Managing Integrations

The ClimWeb supports integrations with 3rd party softwares including Recaptcha, YouTube API, Mailchimp, Mautic, Zoom and Google analytics.



## Managing Website Languages

Multiple languages can be configured inorder to allow translation of the website by users to their preferred language. A language prefix and name is required and default state to specify the primary language the website is published in.



## Managing ClimWeb Languages

To change the language of the ClimWeb UI, this setting can be configured from the user account settings.

**Welcome to NMHS CMS**  
Grace Amondi

57 Pages      39 Images      7 Documents

▲ CMS upgrade available. Your version: 0.8.32 Latest version: 0.8.33. [Upgrade](#)

**Your most recent edits**

Item	Status	Time
Weather 4 Agriculture 2023	LIVE	4 days ago
Flooding in low land areas of Afar and Somali Region	LIVE	2 weeks ago
Glossary	LIVE	2 weeks ago
Atmosphere	LIVE	2 weeks ago
Climate	LIVE	3 weeks ago

**User Profile:**

Last Name \*  
Amondi

Email \*  
miswa.grace@gmail.com

**Profile picture**  
Upload a profile picture:  
Choose file No file chosen

**Locale**  
Preferred language  
English

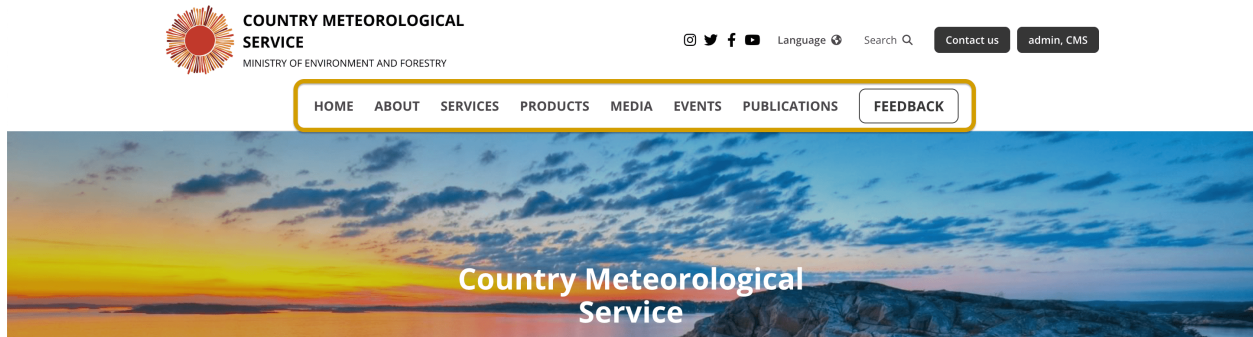
Current time zone  
-----

**Theme preferences**  
Admin theme \*  
System default

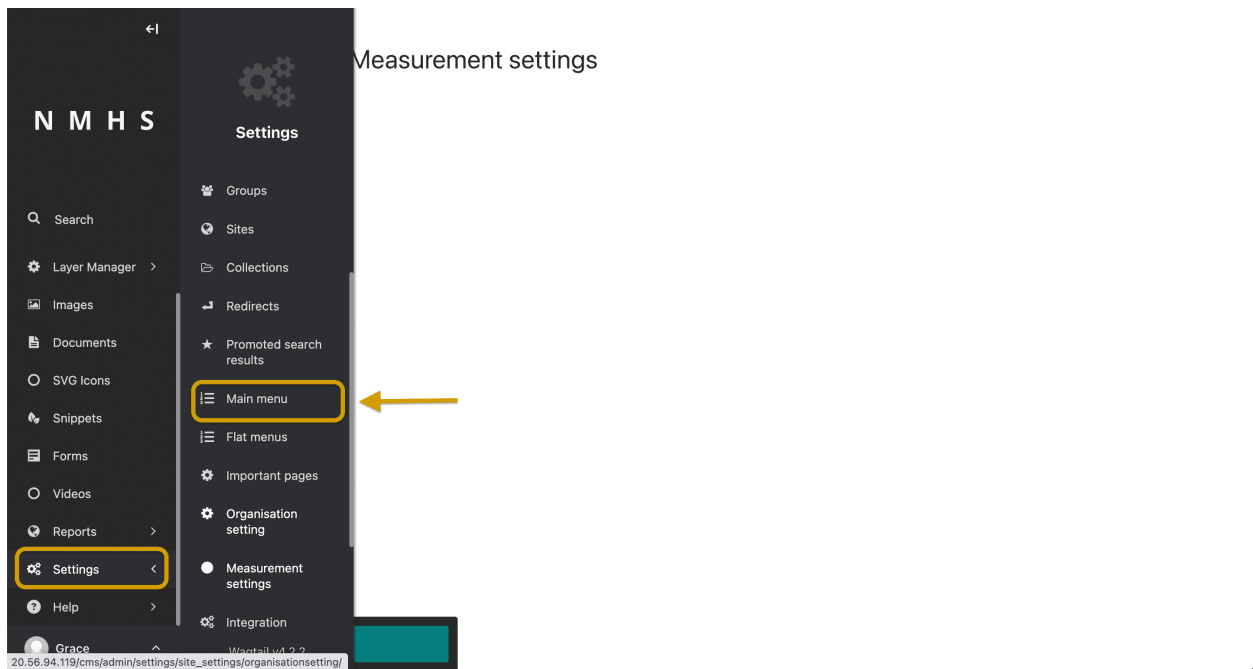
**Password**  
Old password  
New password

### 1.7.4 Menus

## Managing Top Navigation



The menu items of the top navigation of the website can be added/edited or removed. to access the menu configurations in the ClimWeb, click on the settings and main menu on the left sidebar.



Depending on whether a child page allows for sub menu items or not the navbar dropdown will be displayed. Each menu item takes in a:

- link to an internal page / link to a custom URL
- Option to append a value to the url
- The link display text
- Handle (Use this field to optionally specify an additional value for each menu item, which you can then reference in custom menu templates.)
- Submenu visibility option

Editing Main menu

Content Settings

Menu items

menu item 1

Link to an internal page

Home

Link to a custom URL

Append to URL

Use this to optionally append a #hash or querystring to the above page's URL.

Link text

Home

Provide the text to use for a custom URL, or set on an internal page link to use instead of the page's title.

Handle

Save

## Managing Footer Navigation

COUNTRY METEOROLOGICAL SERVICE  
MINISTRY OF ENVIRONMENT AND FORESTRY

PRODUCTS

Weekly Forecasts

SERVICES

Weather Forecasting  
Hydrometeorological Services  
Agrometeorology Services  
Marine Services  
Aviation Weather Services

ORGANISATION

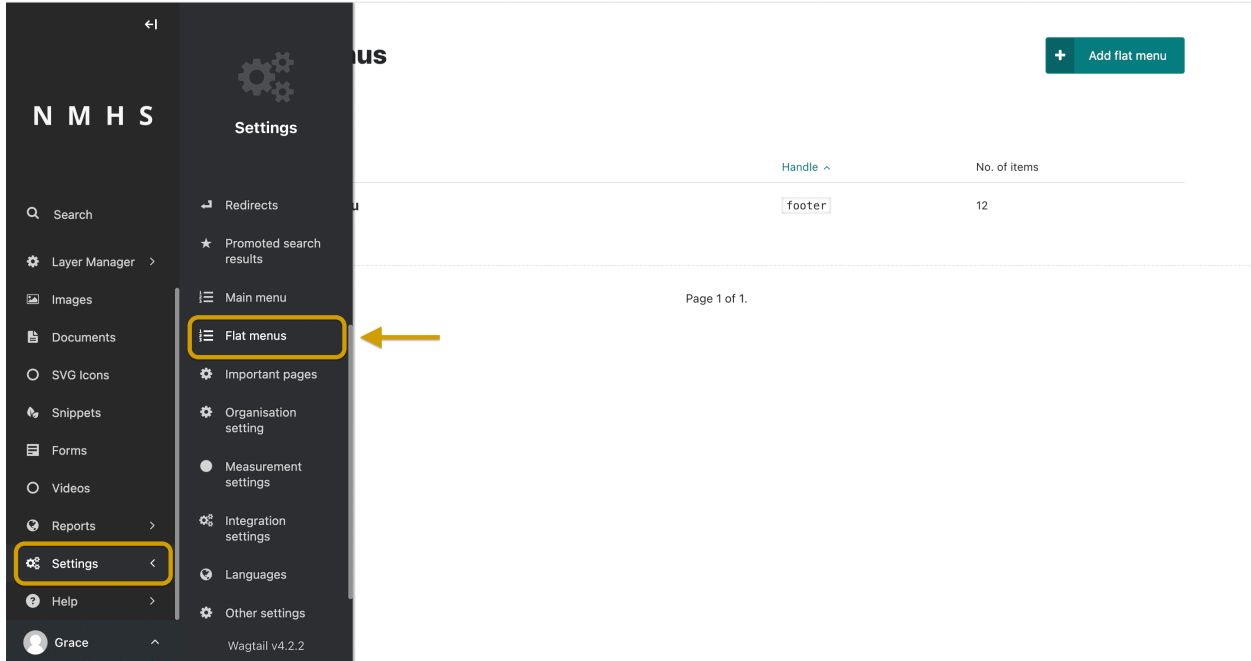
News  
Publications  
Events & Trainings  
Media Center  
Tenders & Consultancies  
Vacancies

OUR OFFICE

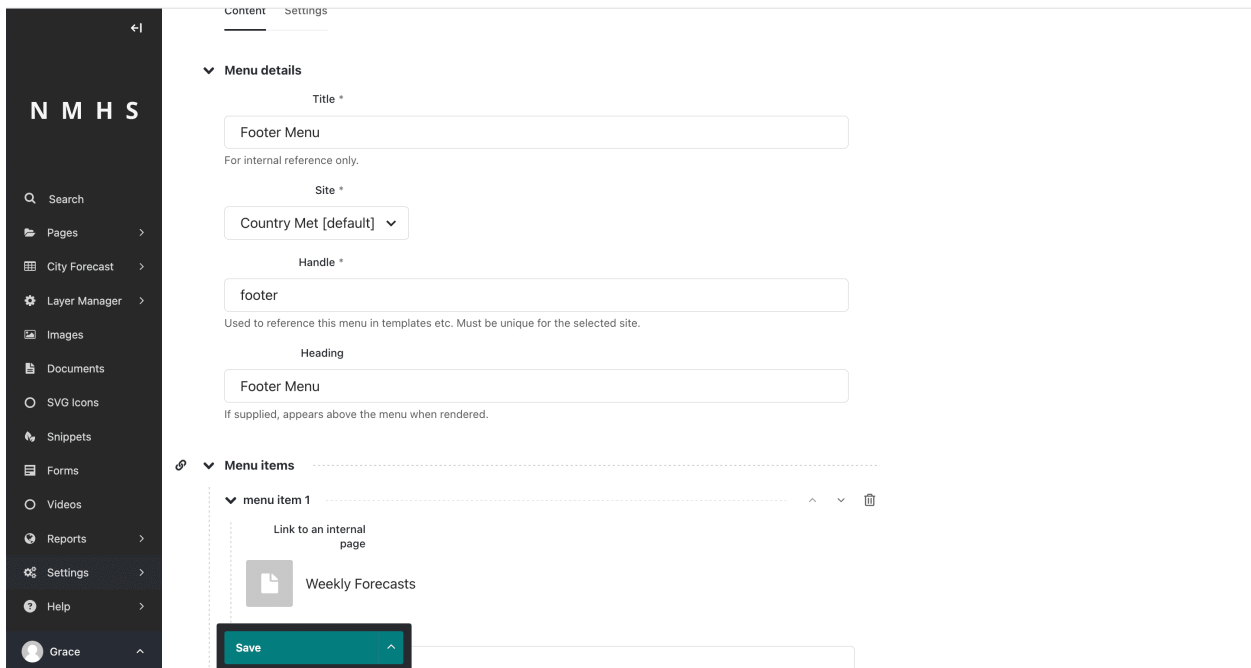
Bole Corner  
Bole Road,  
P.O. Box 30259, 00100 GPO  
Addis Ababa, Ethiopia

Tel: 10000001  
Email: email@email.com

Similarly, to configure the footer, select settings on the left sidebar and select flat menus instead.



Edit footer menu and add menu items. You can group pages by giving them the same handler name. For example, weekly forecast and monthly forecasts can be grouped in 'Products' handler.



## 1.7.5 Users & Roles

### Manage Users

The ClimWeb allows several users to manage content in the admin interface. These users have roles, which determine the access rights they can exercise.

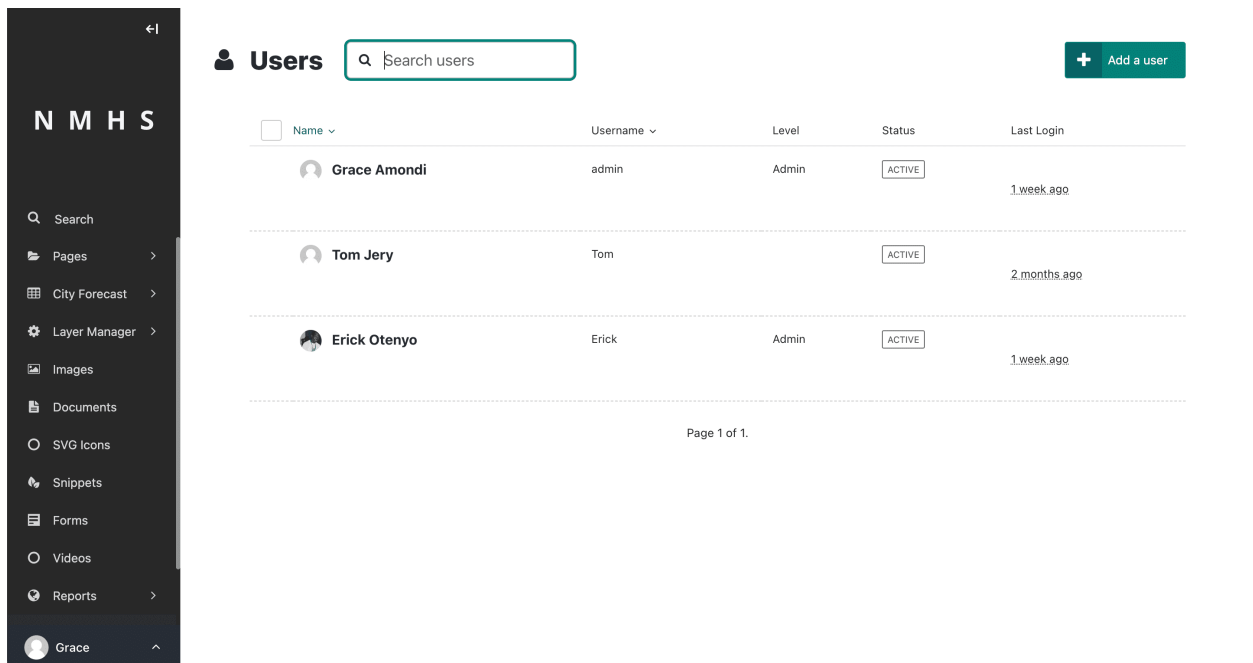
By default, there are 5 roles:

- **Administrator** - This role has complete control over the ClimWeb and can perform tasks such as managing user accounts, creating and deleting pages, and modifying site settings.
- **Moderator** - A moderator has the next level of access after an administrator. A moderator has access to creating drafts and publishing them.
- **Editor** - This role has the ability to create and edit content on the website. They can add and remove pages, modify existing content, and publish new content.
- **Forecaster** - This role provides accurate and timely weather forecasts for the region or area that the website serves.
- **CAP Composer** - role are authorized to view and create draft CAP alerts, but not to approve nor to publish final CAP alerts;
- **CAP Approver** - role are authorized to view and create draft CAP alerts, and approve and publish CAP final alerts

### Administrator

An administrator has the highest level of access to the admin interface, and are able to perform all actions in the Admin interface. A common task of an administrator is to add, modify, or remove user profiles. As an administrator, you can add, modify, and remove users via the Users interface. To access the Users interface, go to Settings > Users from the Wagtail Sidebar.

In the Users interface, you can see all of your users, their usernames, roles, and status. The status of a user can either be active or inactive. You can sort this listing either by Name or Username.



The screenshot displays the 'Users' management interface. On the left is a dark sidebar with the 'N M H S' logo and a menu of options including Search, Pages, City Forecast, Layer Manager, Images, Documents, SVG Icons, Snippets, Forms, Videos, and Reports. The main content area is titled 'Users' and features a search bar, an 'Add a user' button, and a table of users. The table has columns for Name, Username, Level, Status, and Last Login. Three users are listed: Grace Amondi (admin, Admin, ACTIVE, 1 week ago), Tom Jerry (Tom, Admin, ACTIVE, 2 months ago), and Erick Otenyo (Erick, Admin, ACTIVE, 1 week ago). The page indicates 'Page 1 of 1'.

Name	Username	Level	Status	Last Login
Grace Amondi	admin	Admin	ACTIVE	1 week ago
Tom Jerry	Tom	Admin	ACTIVE	2 months ago
Erick Otenyo	Erick	Admin	ACTIVE	1 week ago

You can add a new user, using the 'add a user' button at the top right and assign them an email, username, first name, last name, password and role. Once the ClimWeb user logs in to their account they will be able to edit this information to their preference.

**Add user**

Account Roles

Username \*

Required. Letters, digits and @/./+/-/\_ only.

Email \*

First Name \*

Last Name \*

Password \*

Your password can't be too similar to your other personal information.  
 Your password must contain at least 8 characters.  
 Your password can't be a commonly used password.  
 Your password can't be entirely numeric.

Password confirmation \*

Select multiple users by checking the checkbox to the left of each user row, then use the bulk action bar at the bottom to perform an action on all selected users.

**Users**  + Add a user

<input type="checkbox"/>	Name	Username	Level	Status	Last Login
<input checked="" type="checkbox"/>	Grace Amondi	admin	Admin	ACTIVE	1 week ago
<input checked="" type="checkbox"/>	Tom Jery	Tom		ACTIVE	2 months ago
<input type="checkbox"/>	Erick Otenyo	Erick	Admin	ACTIVE	1 week ago

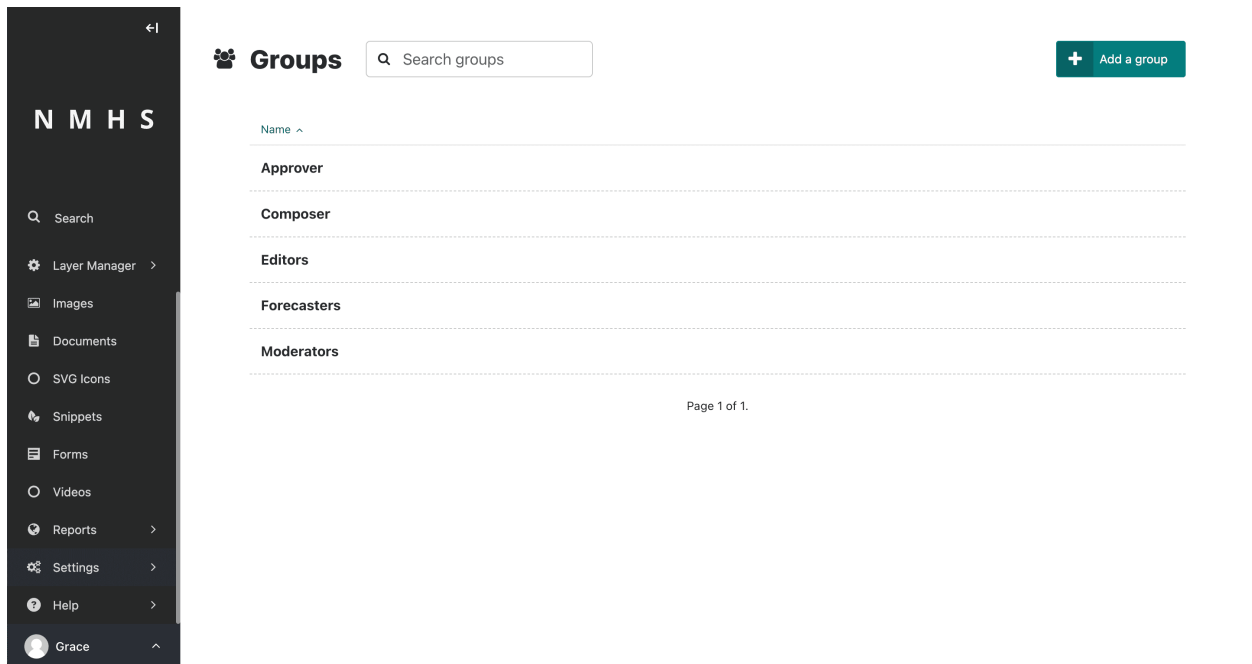
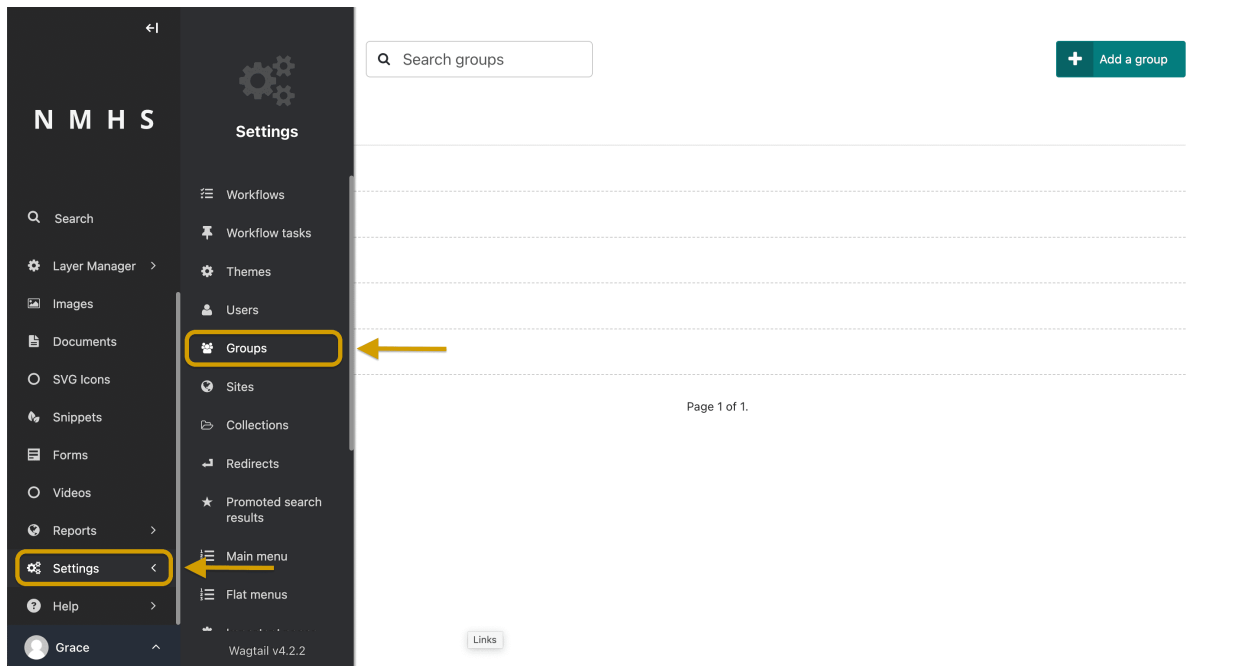
Page 1 of 1.

Delete Set active state Assign role 2 users selected

Clicking on a user's name opens their profile in an edit screen. From here, you can then edit that user's details. It is also possible to change users' passwords from their edit screen, but it is worth encouraging your users to use the Forgotten password link on the login screen instead. This should save you some time!

## Managing Roles

To manage (add, edit, delete) roles, select from settings, groups as below. Each group corresponds to a role with permissions.



To edit a role and assign different permissions, click on the group. This will navigate to a separate page where you can manage the permissions of the role.

Name	Add	Change	Delete	Custom permissions
Product Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
Service Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
Publication type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
News Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
GIS Application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
Event type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view
Important pages		<input type="checkbox"/>		
Partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Can view

## 1.7.6 Workflows

### About workflows

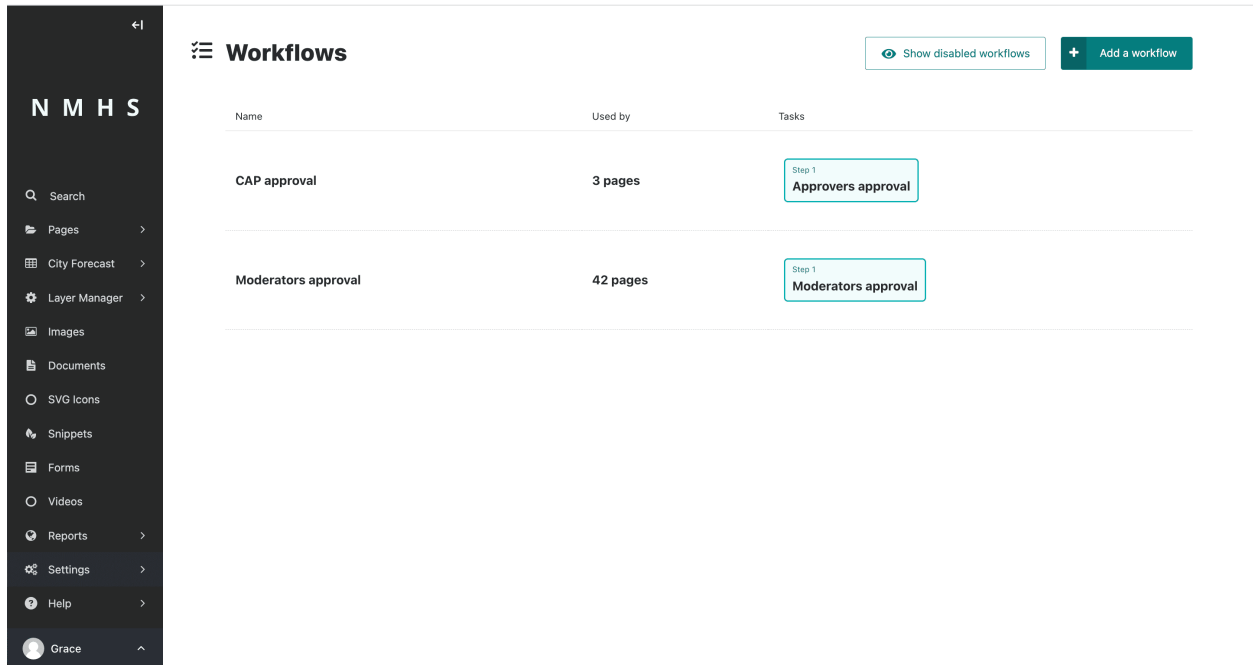
Workflows allow you to configure how moderation works on your site. Workflows are sequences of tasks that require approval before completion. A completed workflow usually results in the publication of a page, depending on your website’s settings.

To access the Workflow interface, go to **Settings > Workflows** from the left Sidebar.

Used by	Tasks
3 pages	Step 1 Approvers approval
42 pages	Step 1 Moderators approval

From the Workflow interface, you can see all of the workflows on your site and the order of tasks in each. To create a new workflow, click Add a workflow from the Workflow interface.

Furthermore, the Workflow interface shows how many pages each workflow covers. If you click the number of pages, you can see a list of all the pages a workflow applies to.



## Edit workflows

In the Workflow interface, click on the name of a workflow to edit it or to assign it to a part of the page tree.

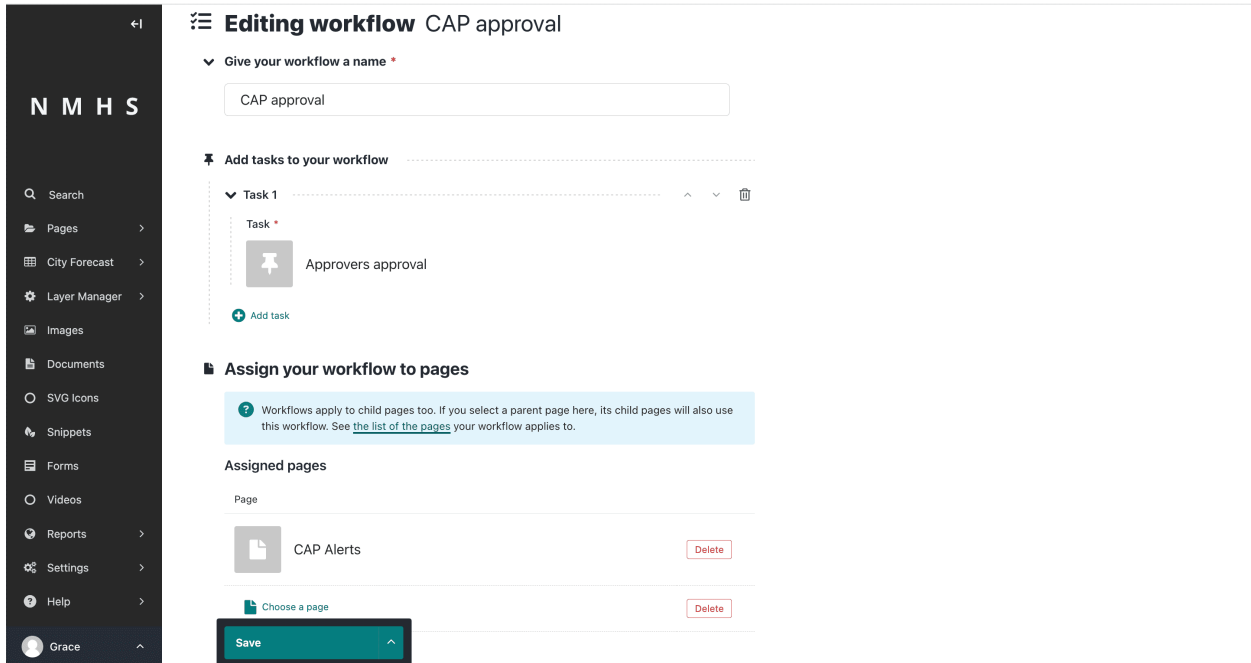
Click **Add task** under **Add tasks to your workflow** to add a task. When adding a task to a workflow, you can create a new task or reuse an existing one.

To change a task in the workflow, hover over the task under **Add tasks to your workflow** and select **Choose another task** from the pop-up options.

You can also reorder tasks in a workflow by hovering over a task under the **Add tasks to your workflow** and then clicking the up and down arrow.

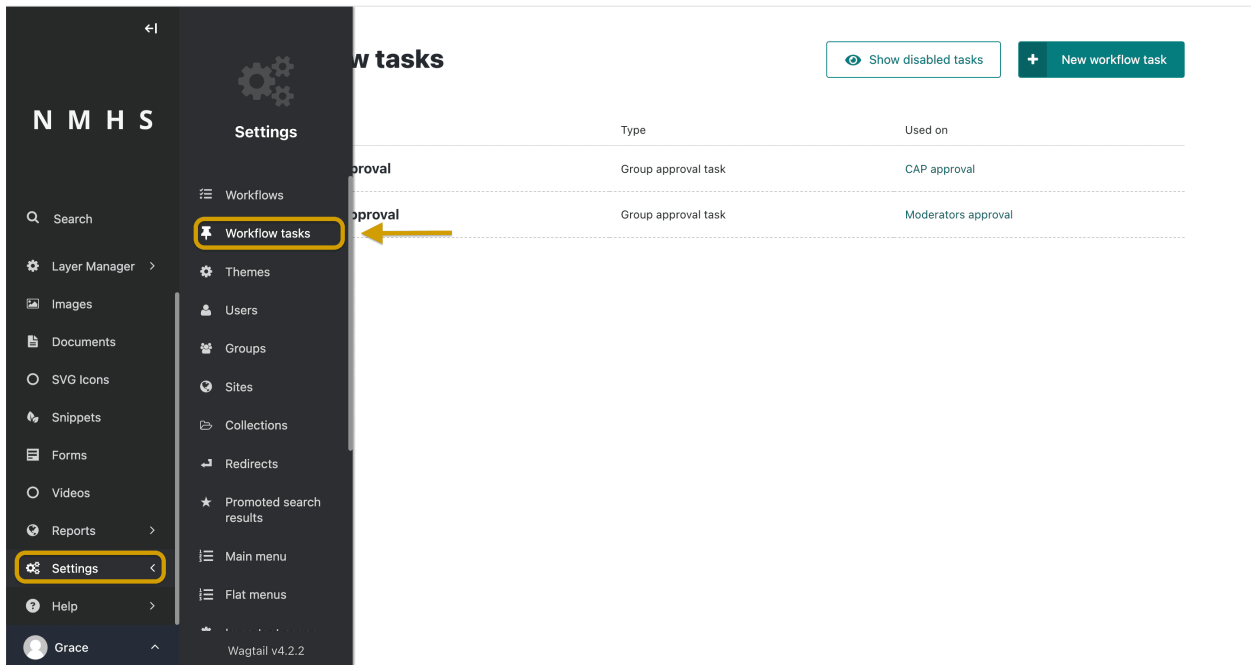
Under **Assign your workflow to pages**, you can see a list of the pages assigned to a workflow. All child pages take the same workflow as their parents. So if the root page of your site gets assigned to a workflow, it becomes the default workflow. You may remove a page from the workflow by clicking **Delete** at the right of each entry. Also, you can change the page in an entry to another by clicking **Choose another page**.

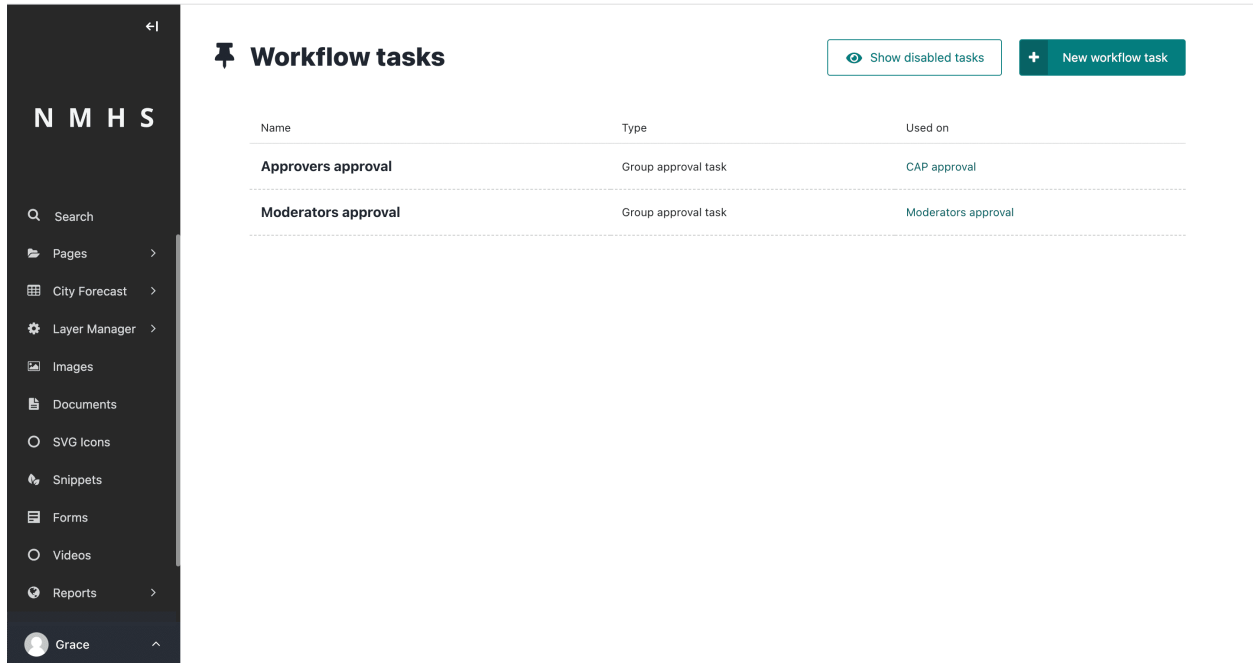
The action menu at the bottom allows you to save your changes, or disable the workflow. Disabling a workflow cancels all pages currently in moderation in that workflow, and prevents others from starting it. If the workflow was previously disabled, then you get the option to enable it in the action menu.



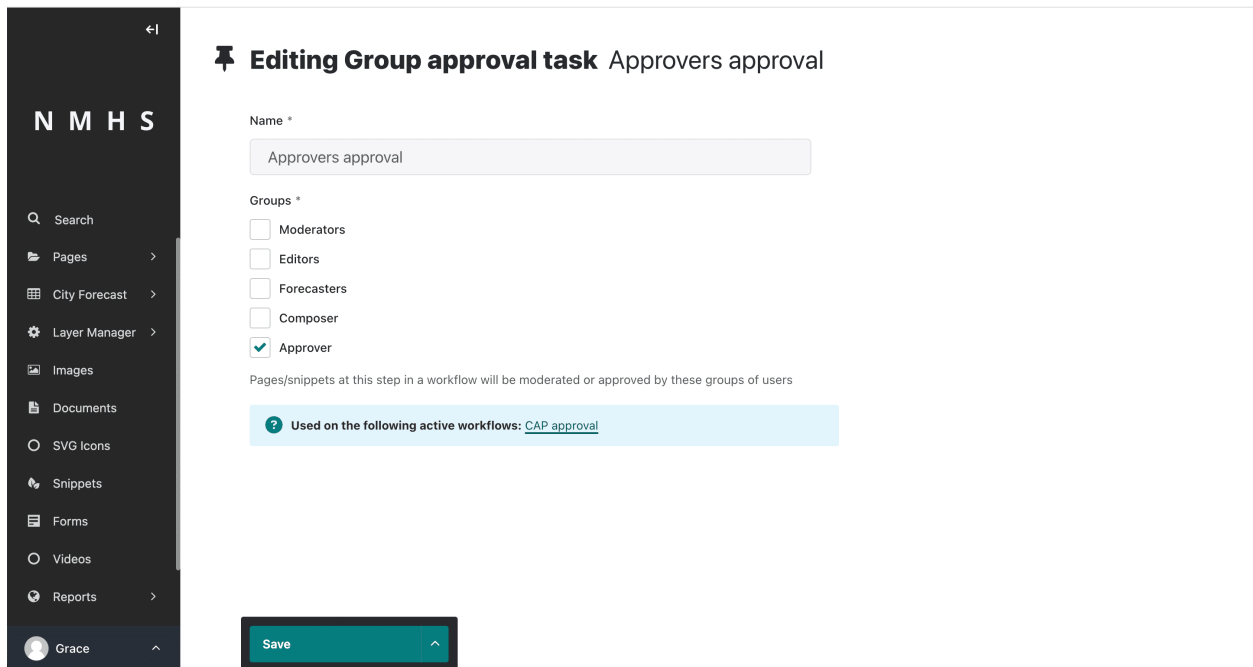
### Create and edit tasks

To create a task, go to Settings > Workflows tasks from the Sidebar. This takes you to the Tasks interface, where you can see a list of the currently available tasks and which workflows use each task. Similar to workflows, you can click the name of an existing task to edit it. To add a new task, click Add a task.





When creating a task, if you have multiple task types available, then they are offered to you as options. By default, only group approval tasks are available. By creating a group approval task, you are able to select one or multiple groups. Members of any of these, as well as administrators, will be able to approve or reject moderation for this task.



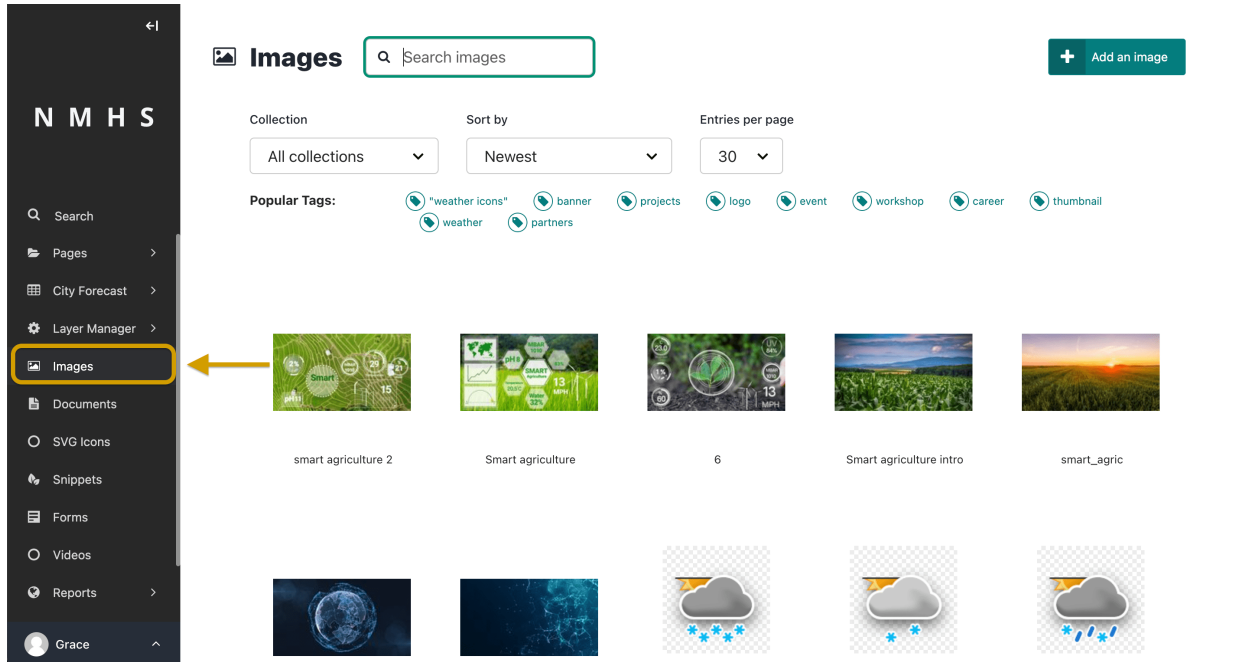
When editing a task, you may find that some fields, such as the name field, are uneditable. This is to ensure workflow history remains consistent. If you need to change the name of a task, then disable the old task, and create a new one with the name you need. Disabling a task causes any pages currently in moderation on that task to skip to the next task.

## 1.8 Content Assets

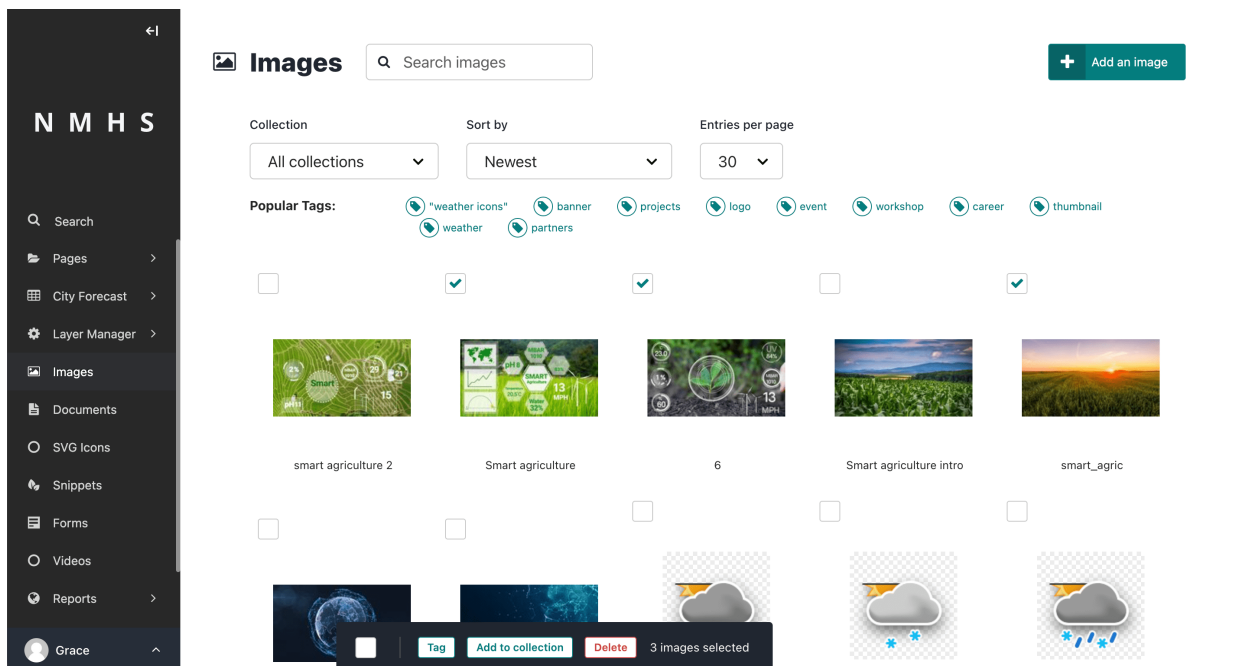
### 1.8.1 Images

#### Add, edit, and remove images

If you want to edit, add, or remove images from the Admin interface outside of the individual pages, you can do so from the Images interface. To access the Images interface, click Images in the Sidebar.

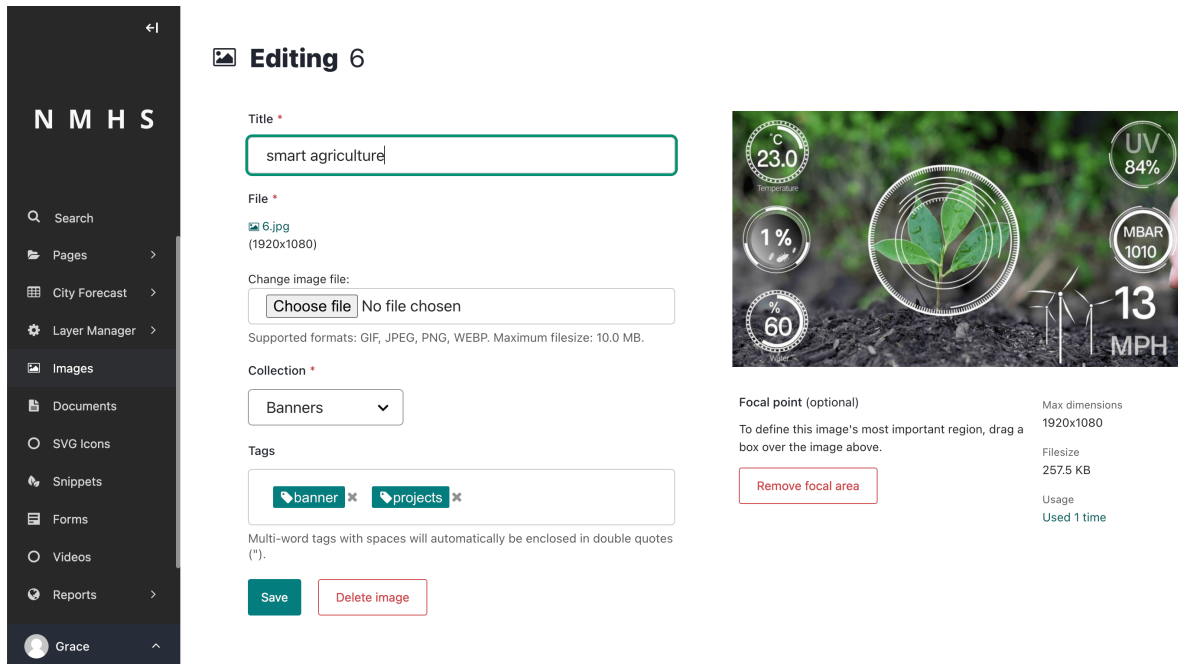


It is possible to select multiple images from the Images interface at once. To do this, select the checkbox on the top left of each image block, then use the bulk actions bar at the bottom to perform an action on all selected images.



Also, the ClimWeb allows you to edit the data associated with an image by clicking on the image to access its edit screen. Image data includes the title, the file, the collection associated with it, the associated tags, and the focal area.

Changing the image file when editing an image updates the image without updating the pages on which it appears.



Changing the file will change it on all pages that use the image.

### Set the focal area of an image

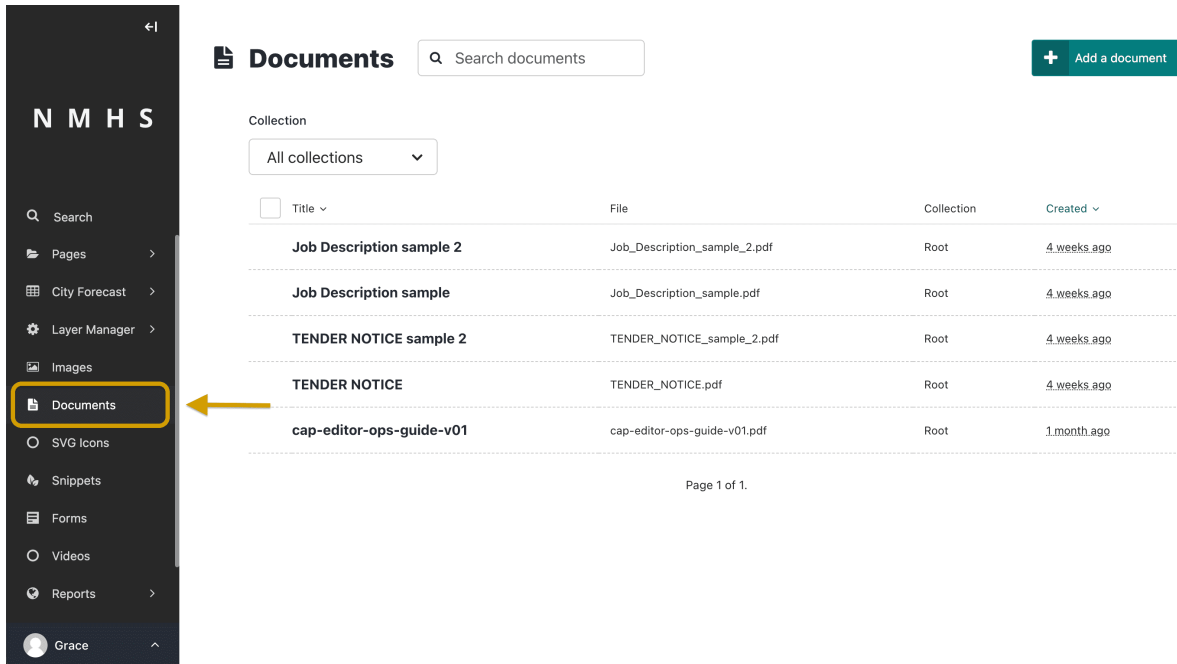
The Images interface allows you to set a focal area, which can affect how your image displays to visitors on the front end. If you crop your images in some way to make them fit into a specific shape, then the focal area defines the centre point from which you crop the images.

You can set the focal area of an image by clicking the image to access its edit screen. Then drag a marquee around the most significant element of the image, and then click Save to save it. Once you set the focal area of an image and save it, you can see the most significant element of the image on the front end.

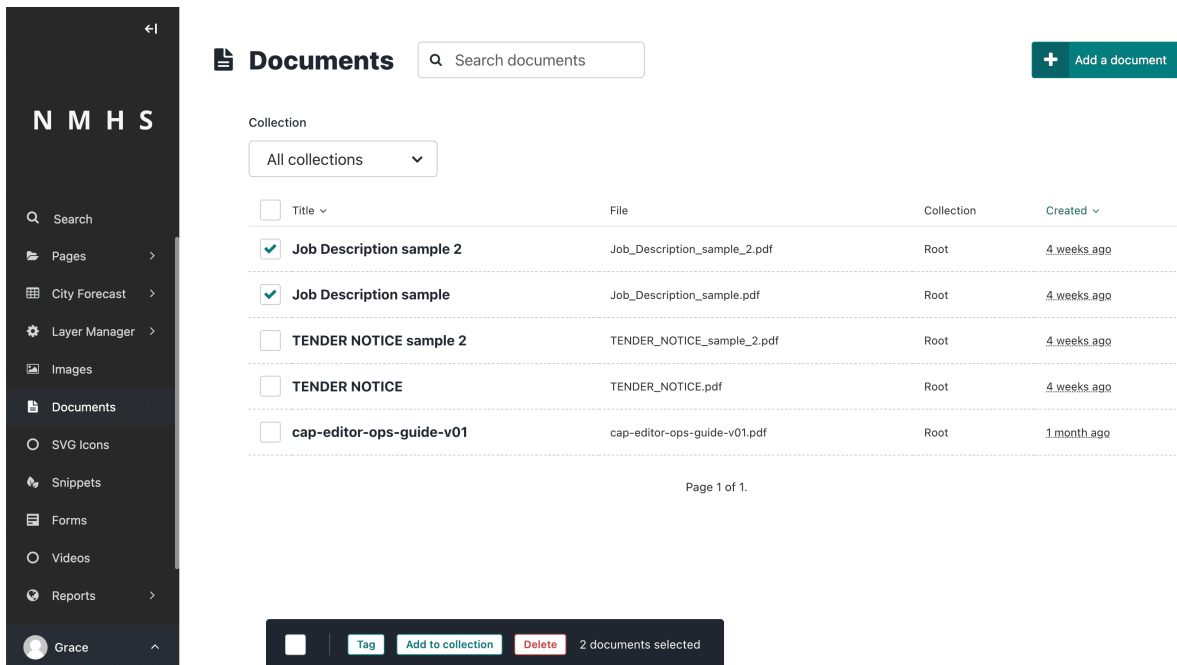
To remove the focal area, click Remove focal area in the edit screen.

## 1.8.2 Documents

You can manage documents such as PDF files from the Documents interface. To access the Documents interface, click Documents in the Sidebar. This interface allows you to add documents to and remove documents from the Admin interface.

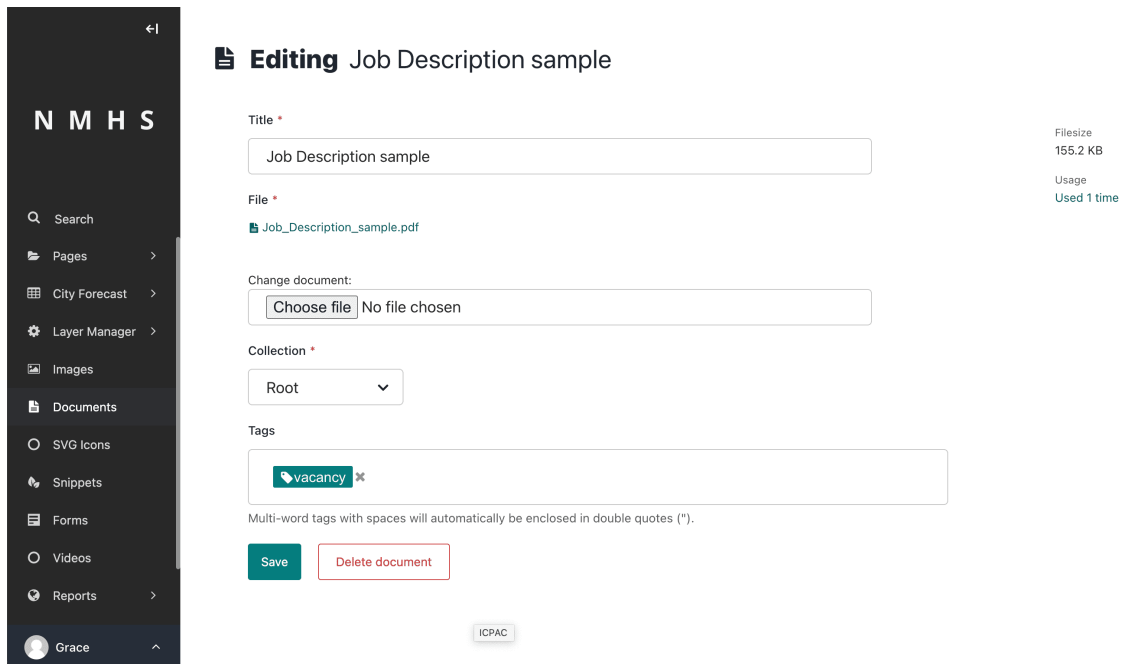


Add documents by clicking Add documents at the top right of the documents interface. Search for previously added documents by entering the title of the document in the search bar. The results automatically update as you type. You can also filter the results by Collection by selecting a collection from the Collection dropdown preceding the documents list.



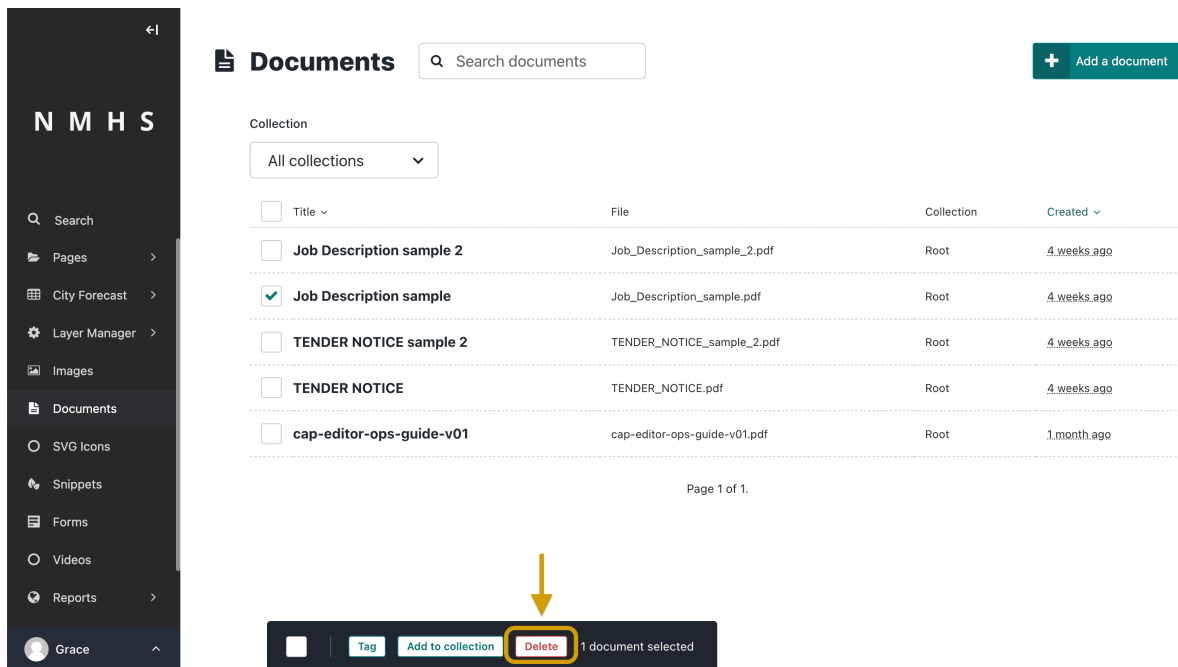
Select multiple documents by clicking the checkbox on the left side of each document, then use the bulk actions bar at the bottom to perform an action on all selected documents.

If you want to edit a document, click the title of the document. Doing this takes you to the edit screen.



When editing a document, you can replace the file associated with that document record. This means you can update documents without having to update the pages they're on. Changing the file changes it on all pages that use the document. You can also change the collection of the document by clicking on the Collection dropdown on the edit page and selecting a new collection of your choice. Add or remove tags using the Tags field on the edit screen. Once you are done editing a document, save your edits by clicking Save at the bottom of the edit screen.

To completely delete a document and its record, select the document by clicking the checkbox at the left-hand side of the document record row in the Documents interface. Then click Delete from the action bar displayed at the bottom of the Documents interface.

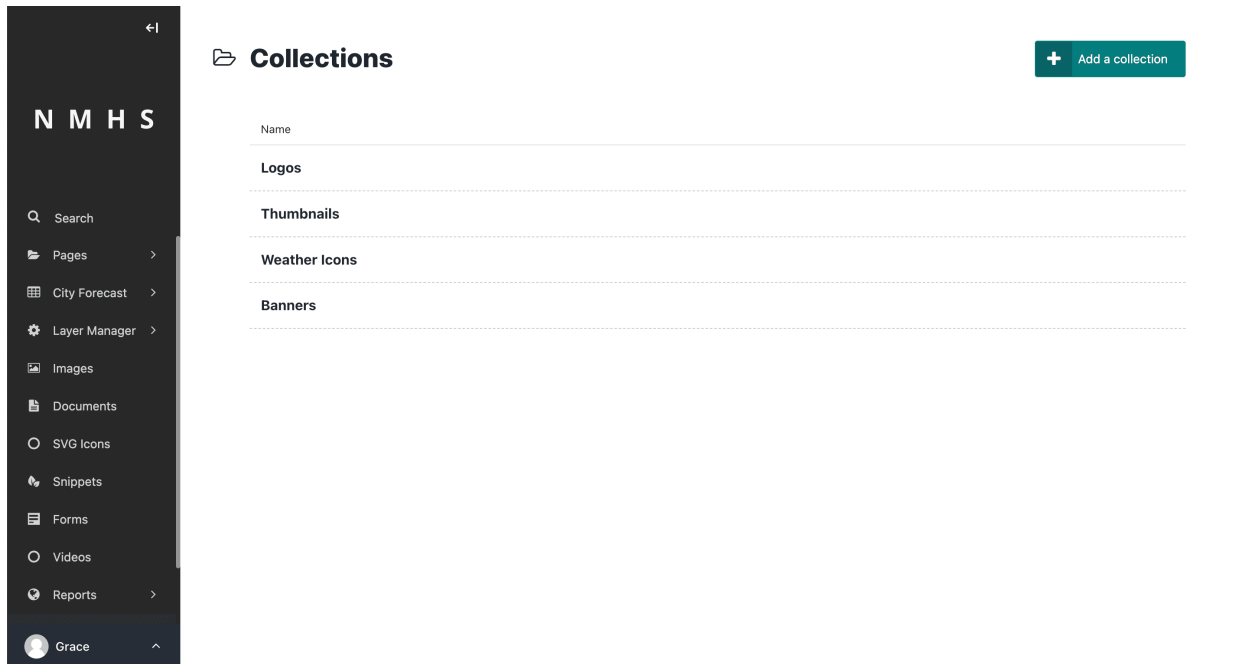
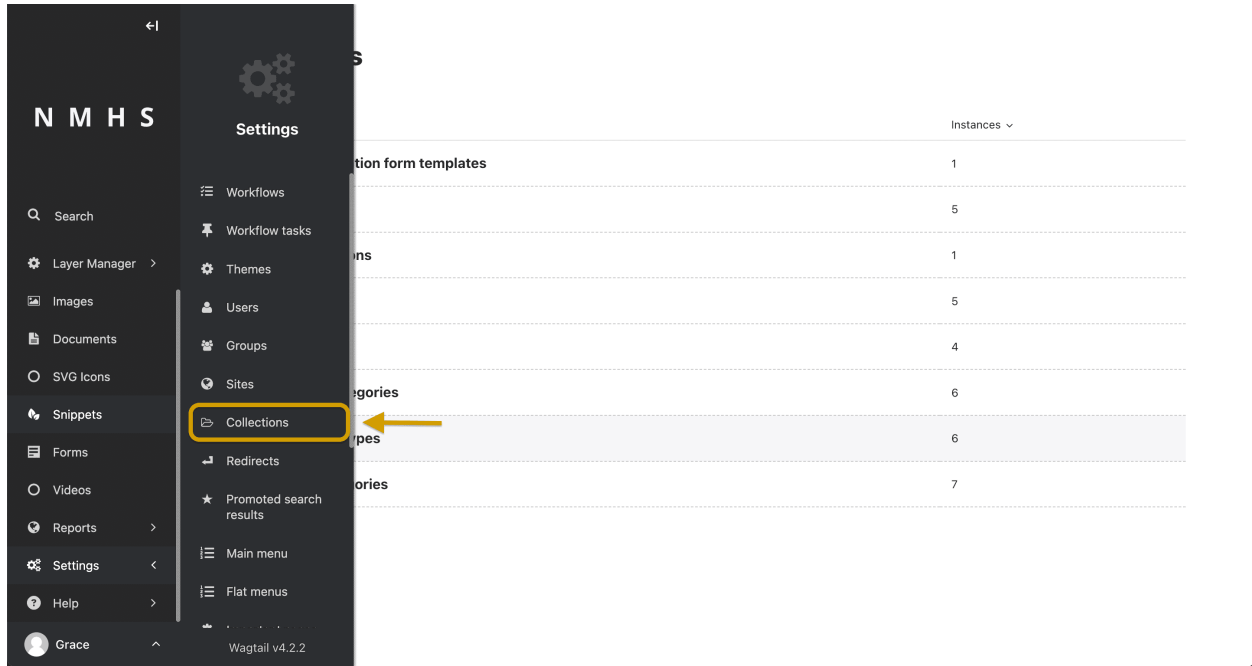


You can also delete a document and its record from the edit screen when editing a document by clicking Delete document at the bottom of the edit screen.

Deleted documents cannot be recovered.

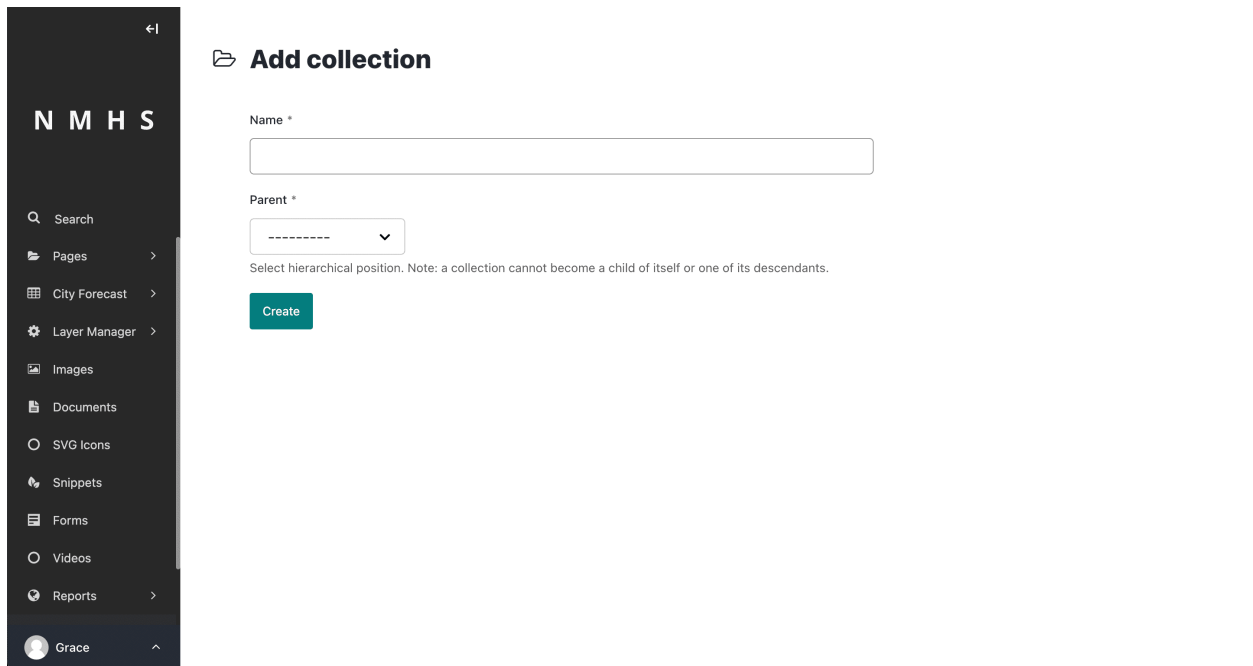
### 1.8.3 Collections

You can control access to specific sets of images and documents by setting up collections. By default, all images and documents belong to the root collection, but users with appropriate permissions can create new collections from the Collections interface. Go to Settings > Collections from the Wagtail Sidebar to access the Collections interface.



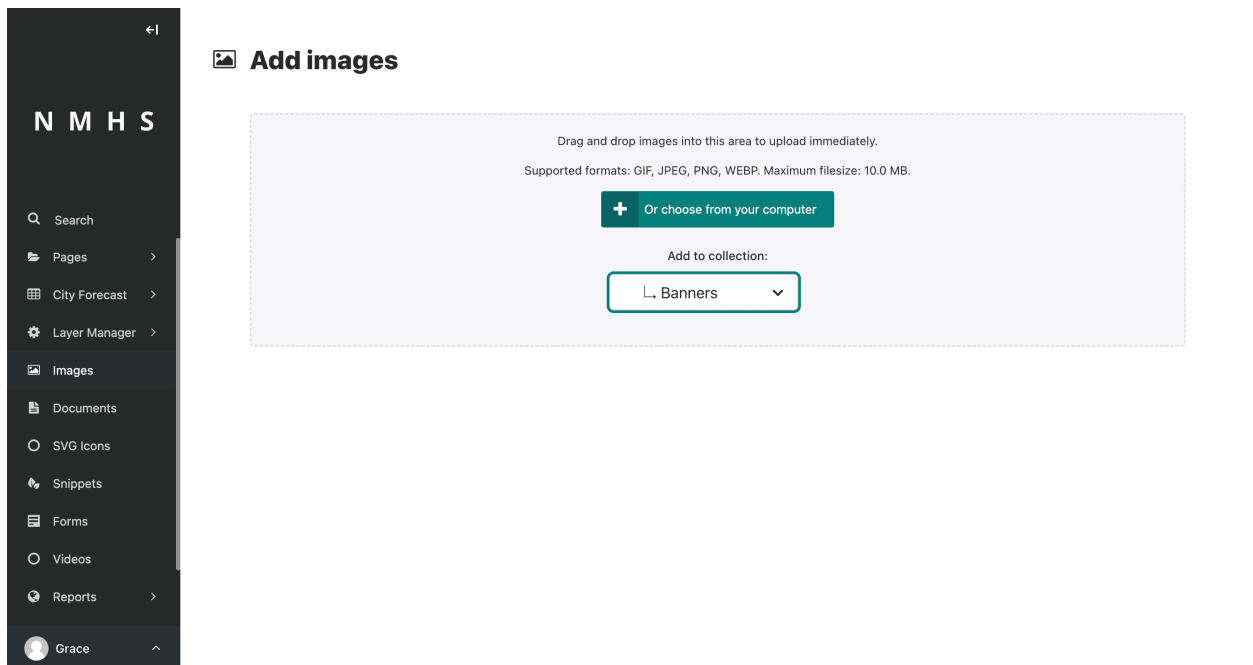
## Add a collection

To create a collection, click **Add a collection** from the Collections interface. Then enter a name in the **Name** field and select a parent. Click **Create** to complete the creation process.



## Add images or documents to a collection

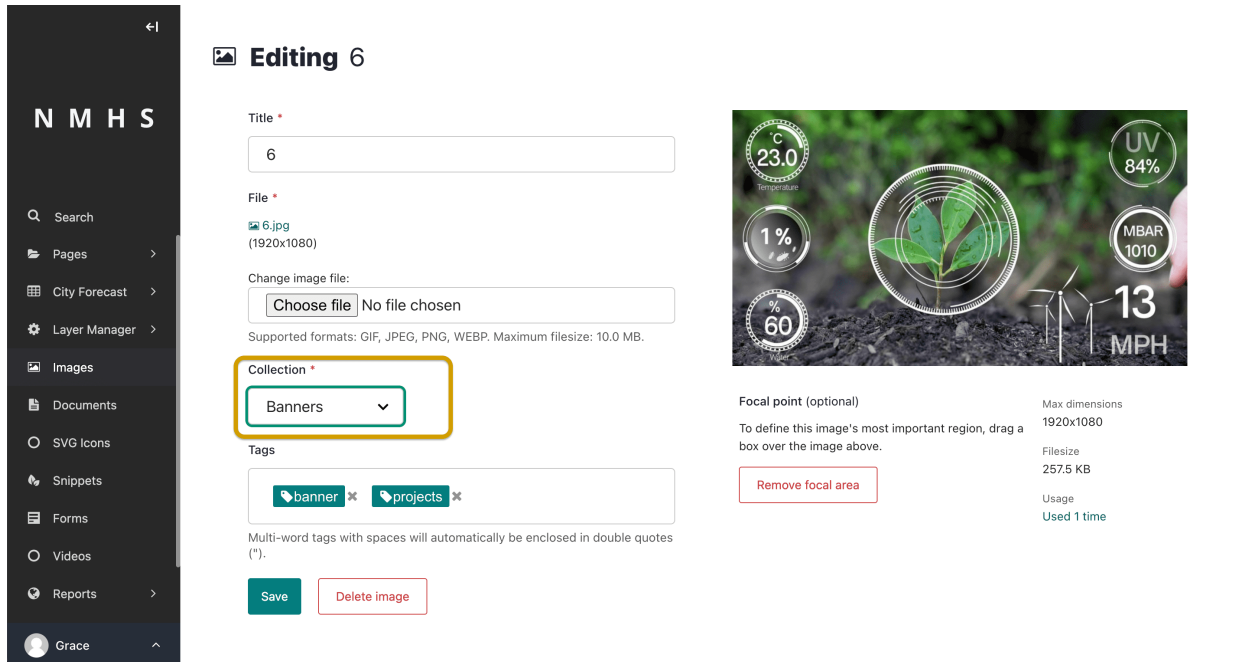
To add images to a collection, click Images from the Wagtail sidebar and select a collection from the Collections dropdown. Then click Add an image and follow the instructions on the screen.



The process of adding documents to a collection is similar to that of images. Click Documents from the Sidebar and select a collection from the Collections dropdown. Then click Add a document and follow the instructions on the

screen.

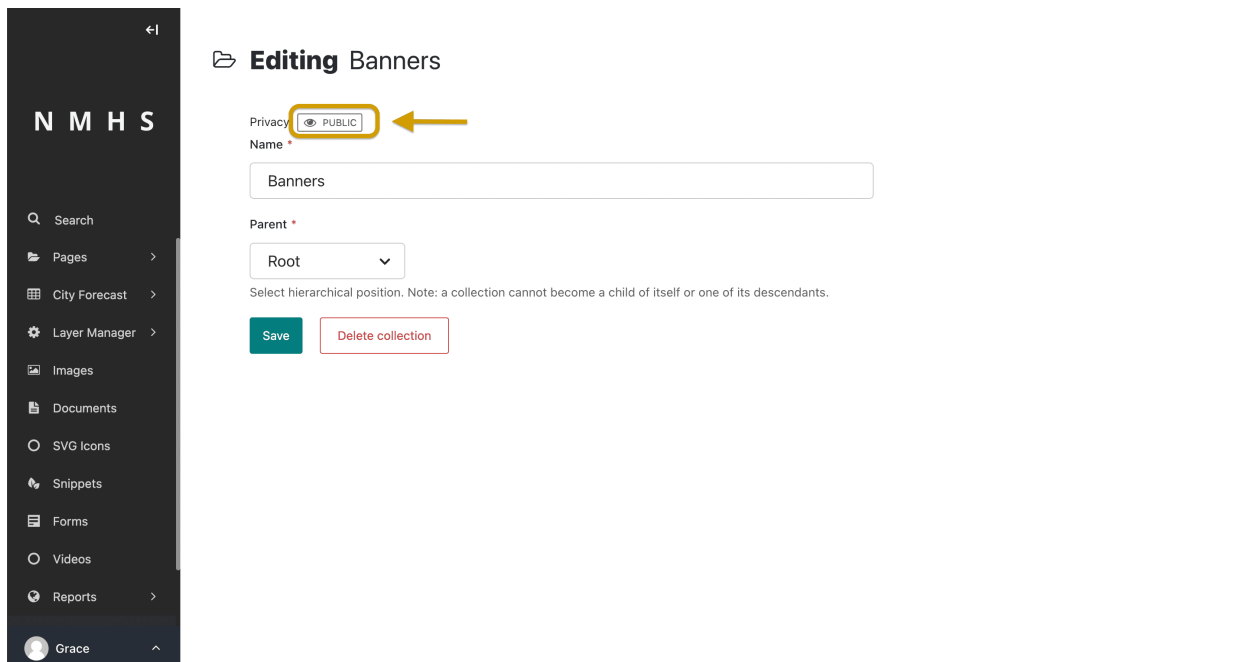
It's possible to add an image or document to a collection while editing them. To do this, click Images or Documents from the Sidebar and select the image or document you want to add to a collection by clicking it. Then choose a collection from the Collection dropdown in the edit screen.



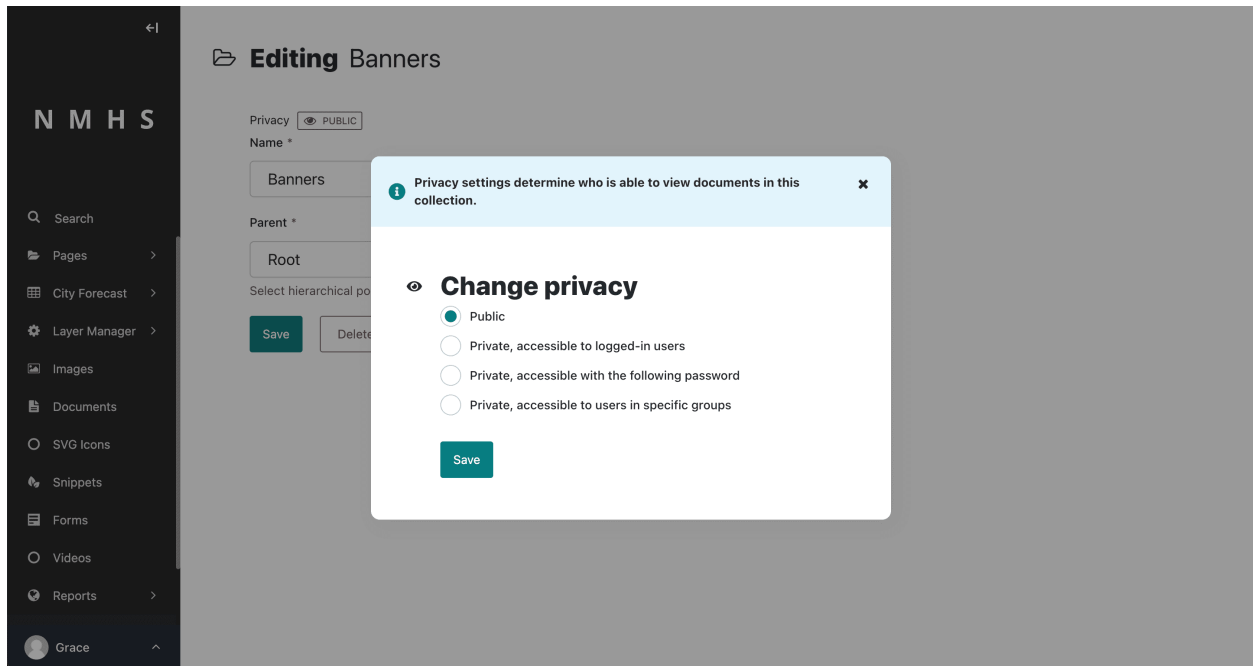
You can also select a collection as part of uploading multiple images or documents.

## Privacy settings

To set permissions to determine who is able to view documents within a collection, go to **Settings > Collections** and select a collection. Then click **Privacy** preceding the collection name.



Clicking Privacy gives you a pop-up modal from which you can select the level of privacy for the collection.



The permissions set on a collection apply to that collection and all collections below it in the hierarchy. Therefore, if you make the root collection private, all documents on the site become private. Permissions set in other collections only apply to those collections.

Privacy settings added to a collection are only enforced for documents within the collection. Privacy settings do not apply to images.

## 1.8.4 Snippets

### Using Snippets

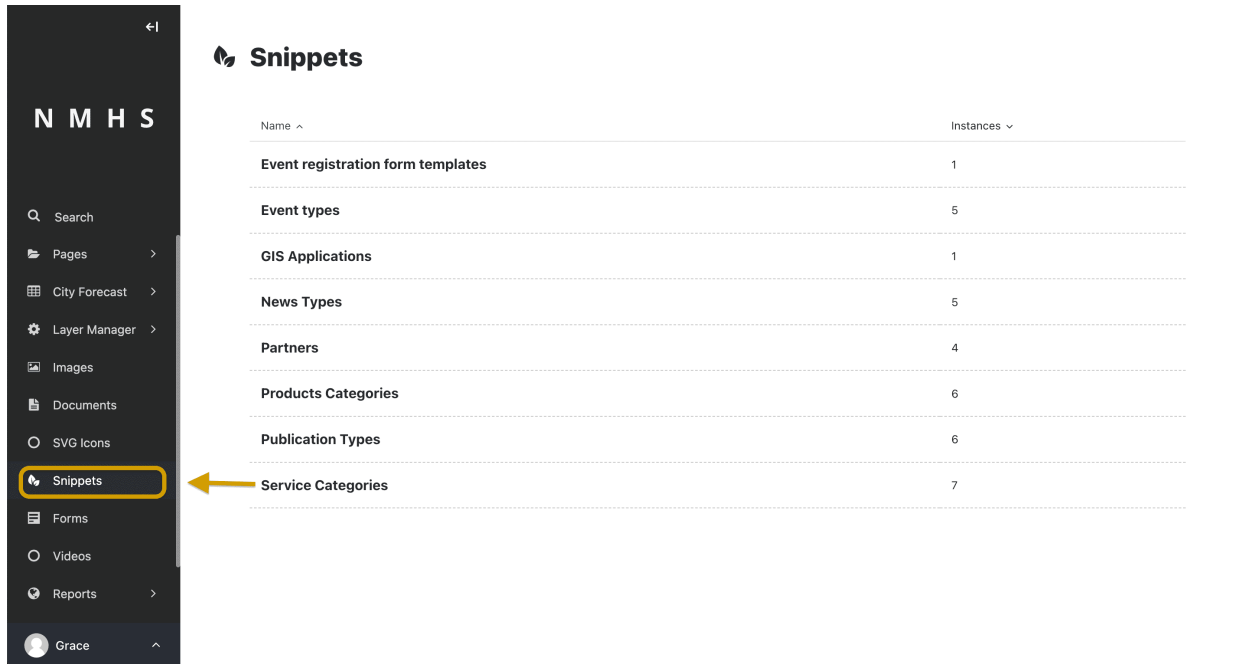
Snippets allow you to create elements on a website once and reuse them in multiple places. You only have to change something in a snippet once, and the changes appear in all occurrences.

The use of snippets varies between websites. Wagtail developers use snippets for the following purposes:

For blog post authors. As a result, you can add them to multiple pages and manage them from one place. For adverts. This way, you can apply them site-wide or on individual pages. To manage links in a global area of the site. For example, in the footer. For calls to action, such as newsletter sign-up blocks, that may be consistent across many different pages.

### The Snippets Menu

You can access the snippets by clicking **Snippets** in the Sidebar. Clicking **Snippets** takes you to the Snippets interface. To add, edit, or delete a snippet, click the snippet type that interests you. Clicking the snippet type takes you to the edit screen, from which you can add, edit, or delete a snippet. Hovering over an individual snippet displays the options to edit or delete that snippet. To add a new snippet to the snippet type, click **Add (snippet type)**.



Editing a snippet changes it on all of the pages on which it appears. In the top-right corner of the Snippet edit screen, you can see a label saying how many times you have used the snippet. Clicking this label displays a listing of all of these pages.

### Add snippets while editing a page

Open the Snippets interface in a new tab while editing the page by pressing Ctrl+click in Windows or cmd+click in macOS. You can also open a new tab by right-clicking it and then selecting the Open in new tab option. Add the new snippet from this new tab as you normally would. Then return to your existing tab and reopen the Snippet chooser window by clicking Snippets from the Sidebar.

Congratulations, you can now see your new snippet, even though you didn't leave the edit page.

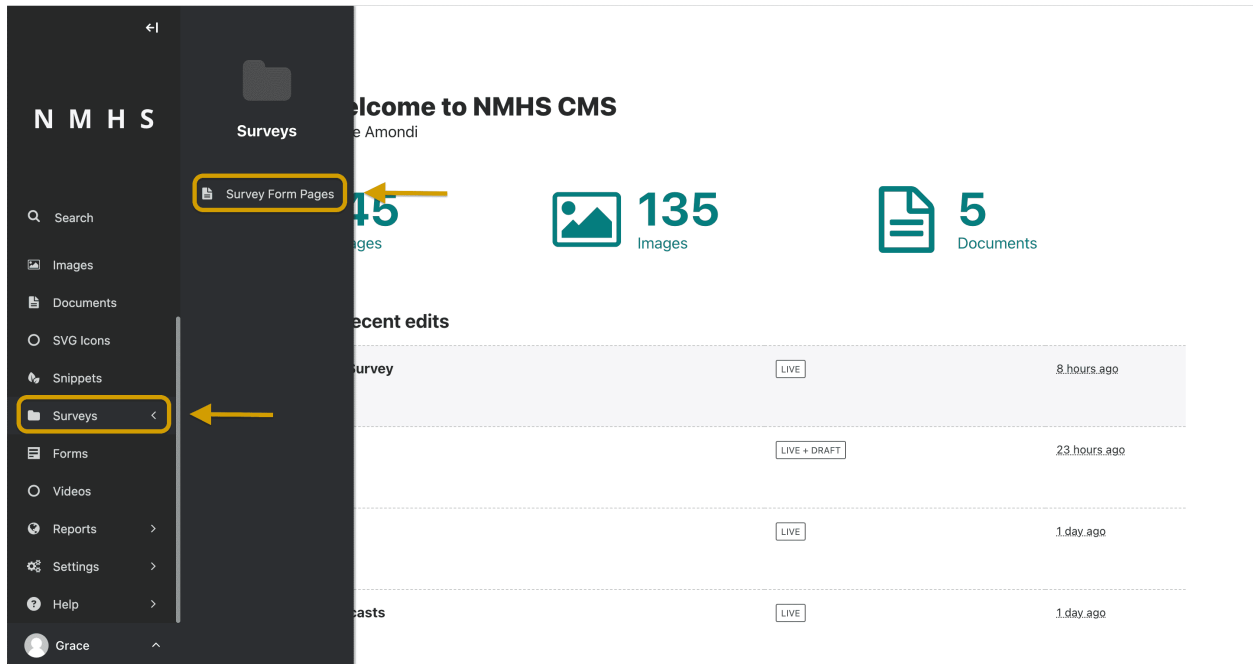
Even though this is possible, it is advisable to save your page as a draft as often as possible. This prevents you from accidentally exiting the edit page and losing your changes.

## 1.8.5 Surveys

### Using Surveys

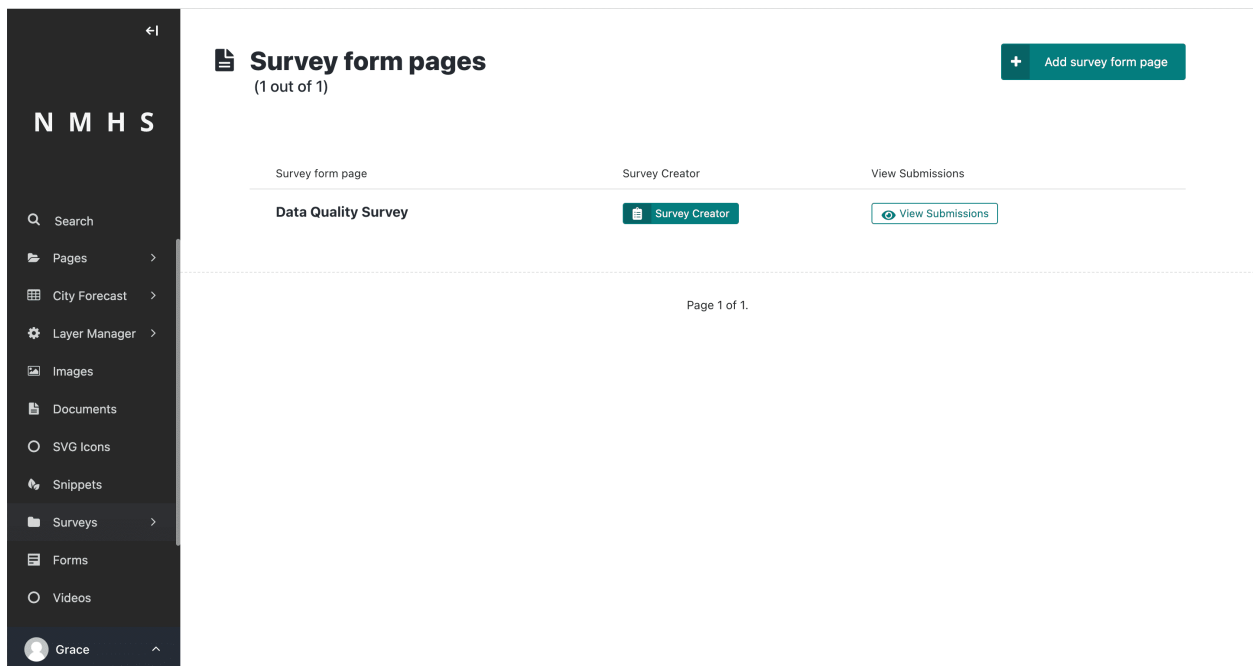
Surveys allow you to create a dynamic survey forms, create/modify survey structure, display and analyse survey results and save as PDF Document. With the survey editor it is possible to define conditional logic and answer validation for form fields.

The Survey editor can be accessed from the left side bar under surveys menu.

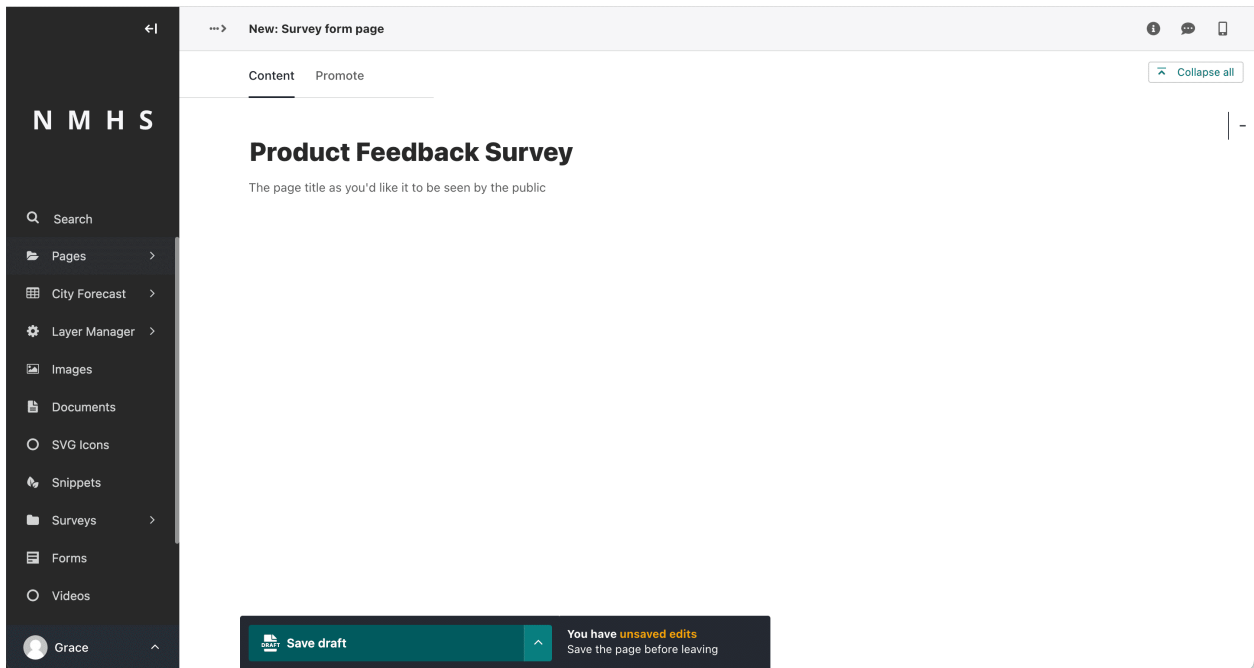
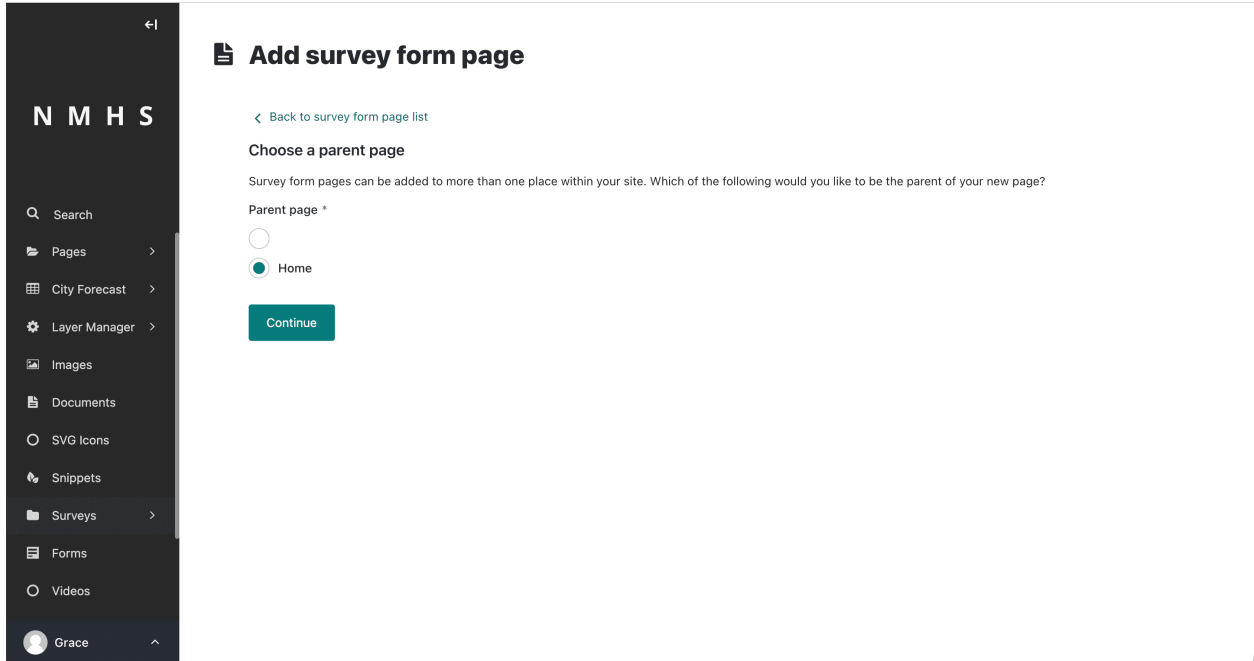


## Create Surveys and Panel Types

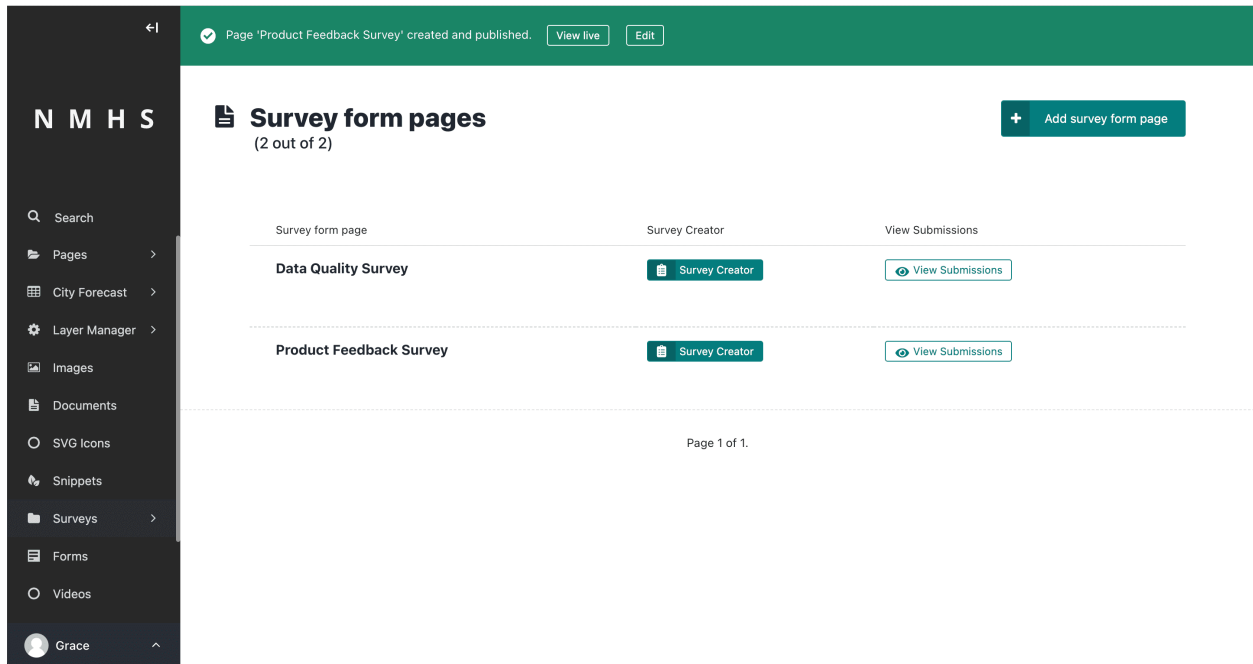
To create a survey, you will need to first add a **survey form page**. You can do this by clicking on the **Add survey form page** button at the top right corner of the page.



Select a parent page e.g 'Home' and continue to edit the page and supply a Page title. Publish this page. This page will render the form that will be created in the survey creator.

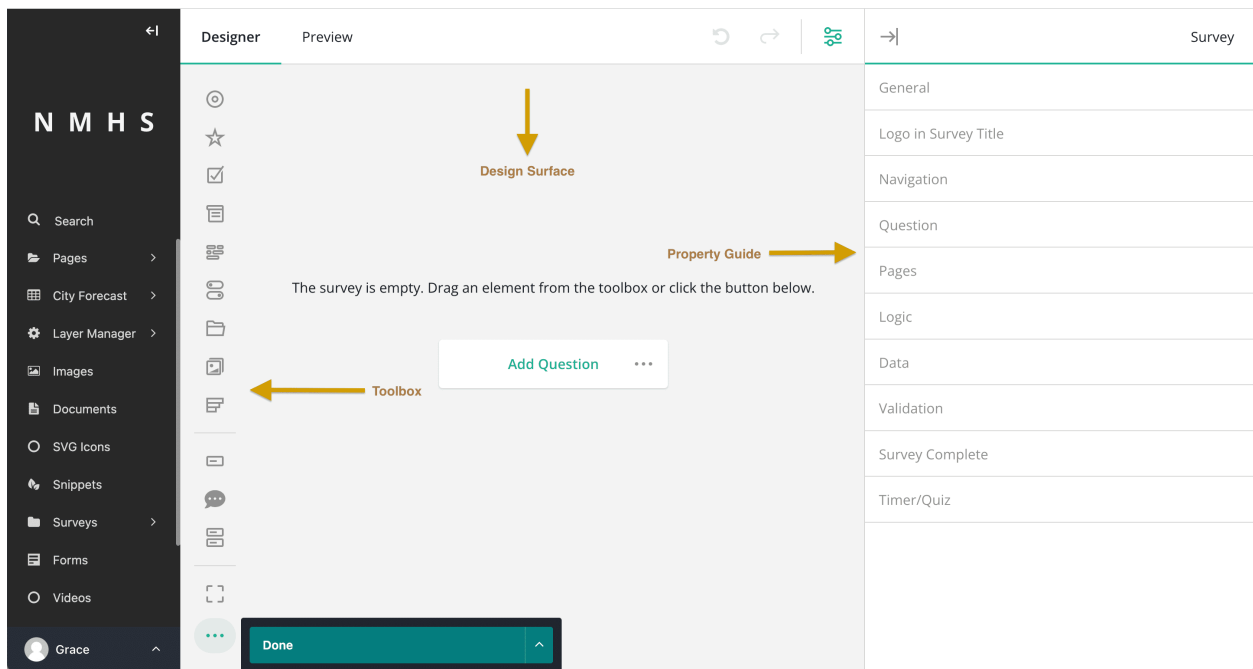


Navigate to the Survey creator to create form fields and their logic using the **Survey Creator** button. |



## The Survey Creator

This section describes how to perform basic tasks in the Survey Creator. There are currently two tabs in the creator i.e Designer and Preview tab.

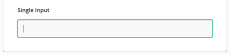

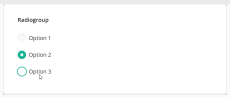
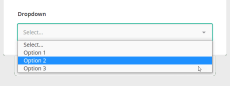
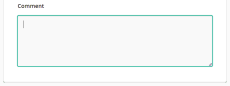

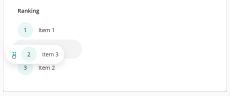
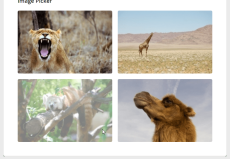




## Designer Tab

By using the Designer tab, you have the ability to customize your survey. You can move questions and panels from the **Toolbox** onto the **Design Surface** through drag and drop, and modify the question, panel, and survey settings using the **Property Grid**.



## Question and Panel Types

Type	Illustration	Image
<b>Single Input</b>	For open-ended questions that necessitate brief responses, employ the Single Input type where respondents can input their answers using a single-line text editor.	 A single-line text input field with a light blue border and a small blue cursor on the left.
<b>Checkbox</b>	For questions that allow for multiple answers, utilize the Checkbox type where respondents can choose one or more options by clicking on the corresponding checkboxes.	 A form with three options: 'Option 1' with an unchecked checkbox, 'Option 2' with a checked checkbox, and 'Option 3' with an unchecked checkbox.
<b>Radiogroup</b>	For questions that offer several options but allow only one response, use the Radiogroup type where respondents can select a single answer by clicking on one of the radio buttons.	 A form with three options: 'Option 1', 'Option 2' (selected with a blue radio button), and 'Option 3'.
<b>Dropdown</b>	In the Dropdown type, respondents can choose a single answer from a list of options displayed in a drop-down menu. Similar to Radiogroup, this type is suitable for questions that have multiple options but require only one answer. The Dropdown UI can also show more options while using less screen space.	 A dropdown menu with a 'Select...' placeholder and a list of options: 'Option 1', 'Option 2', and 'Option 3'. 'Option 2' is highlighted in blue.
<b>Comment</b>	For open-ended questions that require respondents to provide lengthy answers, use the Comment type where respondents can input their responses in a resizable multi-line text area. This type is suitable for questions that accept multi-line answers.	 A multi-line text input area with a light blue border and a small blue cursor on the left.
<b>Rating</b>	When you want respondents to provide a rating, use the Rating type where they can select a single number from within a specified range. This type is appropriate for questions that require a rating response.	 A rating scale from 1 to 5. The number 2 is selected, indicated by a blue circle.
<b>Ranking</b>	The Ranking type is suitable for questions where respondents need to establish the order of items. This type allows respondents to drag and drop items from a list to rearrange them based on rank or preference.	 A ranking interface showing three items: 'Item 1', 'Item 3', and 'Item 2'. 'Item 3' is in the first position, 'Item 2' is in the second, and 'Item 1' is in the third.
<b>Image Picker</b>	In a survey question where respondents are required to select one or several images or videos from a series, a value associated with the chosen image or video is saved to the survey results.	 A grid of four image thumbnails: a lion's face, a camel in a desert, a person holding a camera, and a close-up of a camel's head.
<b>Boolean</b>	When using a Boolean editor, respondents can switch between Yes or No to provide their response. The survey results will record the response as true for Yes or false for No.	 A Boolean editor with two buttons: 'No' and 'Yes'. The 'Yes' button is highlighted in blue.
<b>Signature Pad</b>	To capture a respondent's signature or any other hand-drawn input, use a type that allows respondents to draw their signature using mouse or touch gestures within a designated input area.	 A signature pad showing a green handwritten signature on a white background.

In progress...

## 1.8.6 Forms

## 1.9 CAPComposer (CAP Alerts)

The **Common Alerting Protocol (CAP)** provides an open, non-proprietary digital message format for all types of alerts and notifications. It does not address any particular application or telecommunications method. The CAP format is compatible with emerging techniques, such as Web services, as well as existing formats including the Specific Area Message Encoding (SAME) used for the United States' National Oceanic and Atmospheric Administration (NOAA) Weather Radio and the Emergency Alert System (EAS)

The CAP xml response follows the structure of the schema provided at <http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.html>

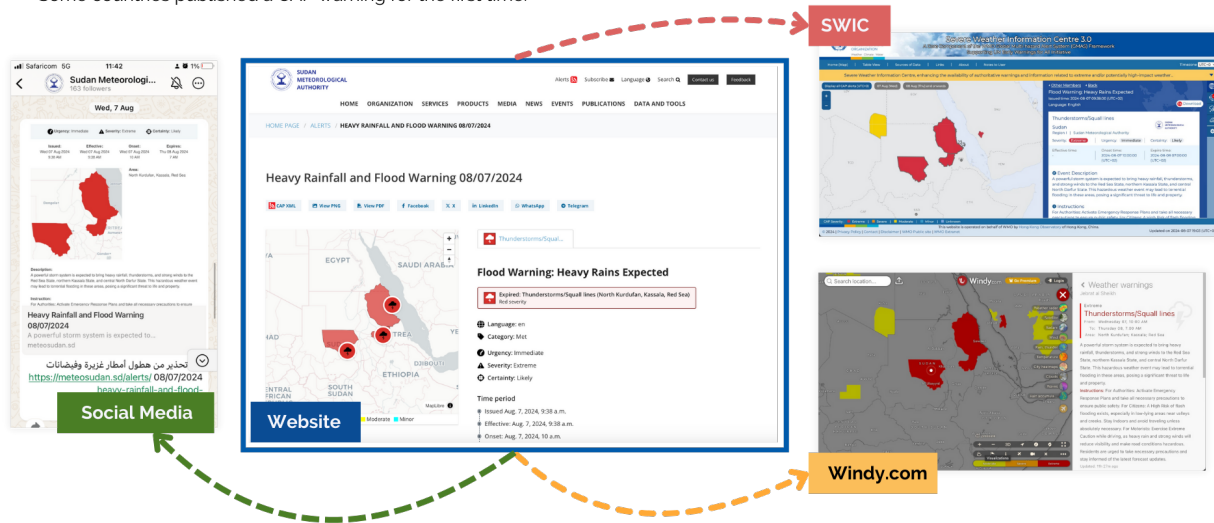
### 1.9.1 CAPComposer Features

#### CAP Warning Composer Features

The CAPComposer tool is a solution that provides a range of functionalities to support the NMHS in seamlessly issuing CAP. It has been developed with an aim of increasing the adoption of CAP by NMHS in Africa.

## Example of warning published by Sudan

Some countries published a CAP warning for the first time.



Some of the key features of the tool include:

#### Features

- Modern user-friendly composer that follows CAP 1.2 standard. Built on top of the awesome Wagtail CMS
- Preview a CAP alert as you edit. Save drafts for sharing with colleagues and collaborating
- Inbuilt CAP validation. The page will not save if you have not input the required data according to CAP standard
- User-friendly alert area map tool that allows multiple ways of constructing alert geographic areas, while keeping the interface simple

- Upload and use your country/territory's administrative boundaries
- Draw a polygon
- Draw a circle
- Selecting predefined areas that you create beforehand for common alert areas
- Inbuilt publishing workflow using Wagtail's powerful page model, with automated emails to composers and approvers
- Collaborate with team members using inbuilt comments (similar to how you could do in Word) with automated notifications. Request for changes and approvals
- Publish realtime notifications/messages to third party integrations using MQTT messaging protocol
- Predefine a list of hazards types monitored by your institution, with intuitive icons from [OCHA humanitarian icons](#)
- Extendable to add your custom logic and functionality. The package provides an abstract django model that can be inherited for customizations.

## 1.9.2 CAPComposer Base Settings

These are common details that are repeated across the CAPComposer tool and are set only once.

### Sender Details

These include:

1. CAP Sender name - Name of the sending institution
2. CAP Sender email - Email of the sending institution
3. The WMO Register of Alerting Authorities OID is used to generate the identifier each CAP Alert - This is the official OID assigned to each country in the [WMO register of alerting authorities](#)
4. Logo of the institution
5. Contact details-

# Base Settings

## Sender Details

- **Form** with common details that are repeated across the CAP Composer
- The **WMO Register of Alerting Authorities OID** is used to generate the identifier each CAP Alert
- This is the official OID assigned to each country in the WMO register of alerting authorities

## Hazard Type

Here the NMHSs input the different types of hazards they monitor. They can select the hazards from a WMO predefined list of hazards or create a new custom hazard/event type. Each hazard type can be associated with an Icon



## Assigning Event Codes

Each Hazard type should be associated with the following:

- **Hazard Type:** The name of the hazard type. You can select from the WMO predefined list or create a new one.
- **Category:** The category of the hazard type, as defined in the CAP Protocol.
- **Event Code:** The event code of the hazard type, as defined in [OASIS Event Term List for use with CAP](#). When selecting the event code, ensure you have the correct hazard Category selected, as the event codes are filtered by the selected hazard Category. You can confirm the event code by checking the [OASIS Event Terms](#). Scroll down to the Appendix B section, where the event codes are listed with the corresponding Category.

## Predefined Areas

Here you can create a list of common regions that are known to experience alerts. This will save you time so that you do not have to draw the same area each time for new alerts.

## Base Settings

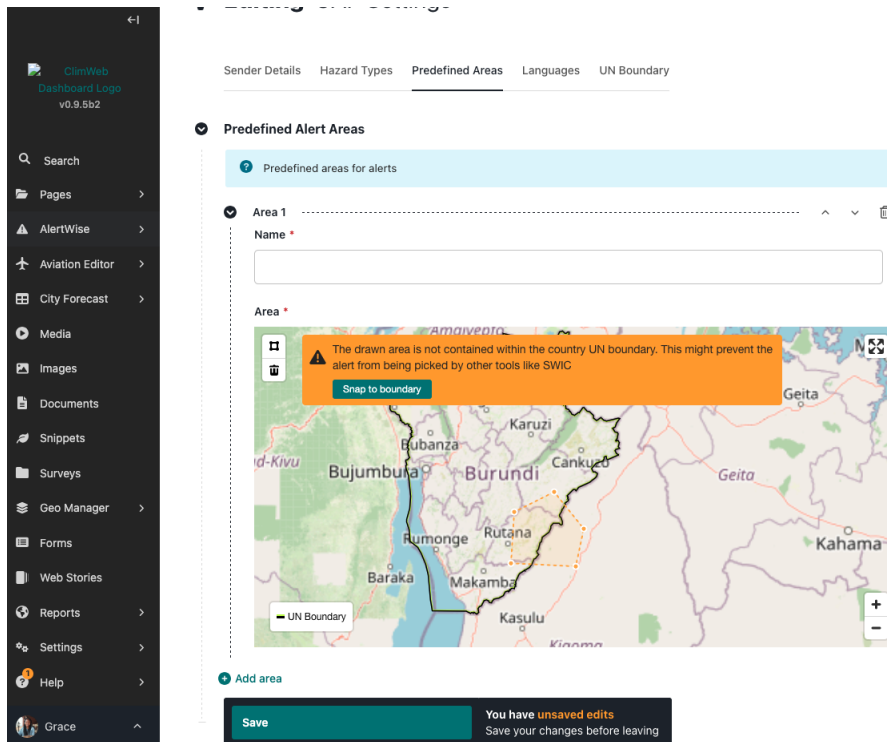
### Predefined Areas

- Here you can create a **list of common regions** that are known to experience alerts
- This will save you time so that you do not have to draw the same area each time for new alerts

### NOTE:

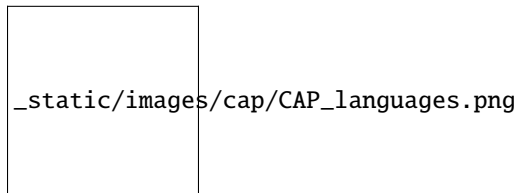
While drawing a boundary, if the area falls out of the UN Boundaries set, a warning and button will appear to snap the area back to the UN Boundaries. Snapping boundaries back to the UN Boundary ensures that

the CAP Alert is displayed on Severe Weather and Information Centre (SWIC) platform. To set up UN Boundaries, refer to [Setting up UN Boundary](#) section.



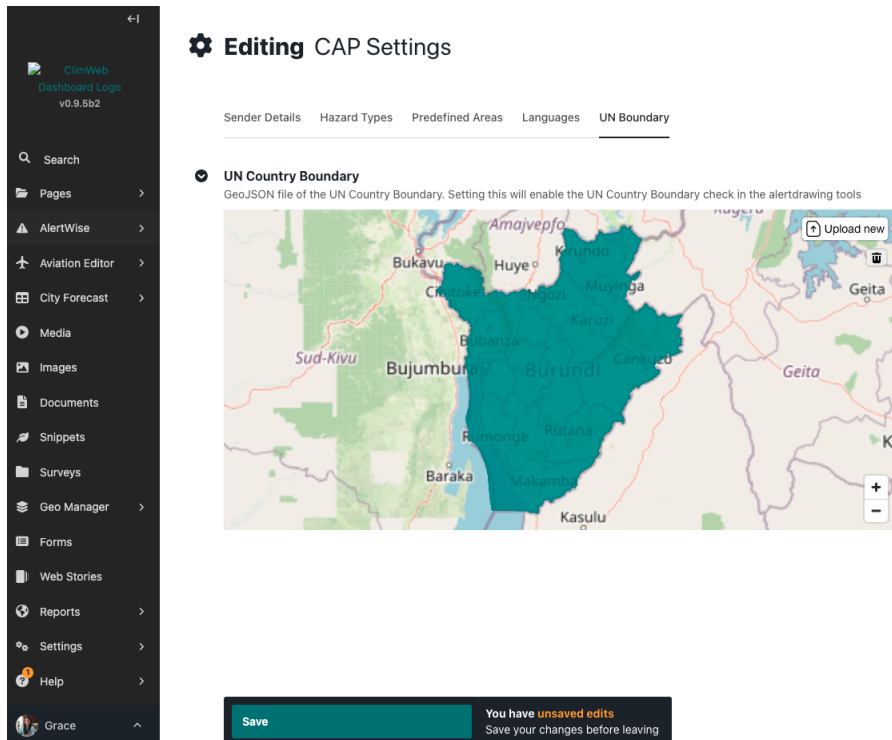
## Languages

To add one or more languages, the Language code such as fr and Language name such as French. This languages will be useful when creating multiple Alert Infos for a CAP Alert where one alert info corresponds to another one Alert info by its translated language.



## UN Boundary

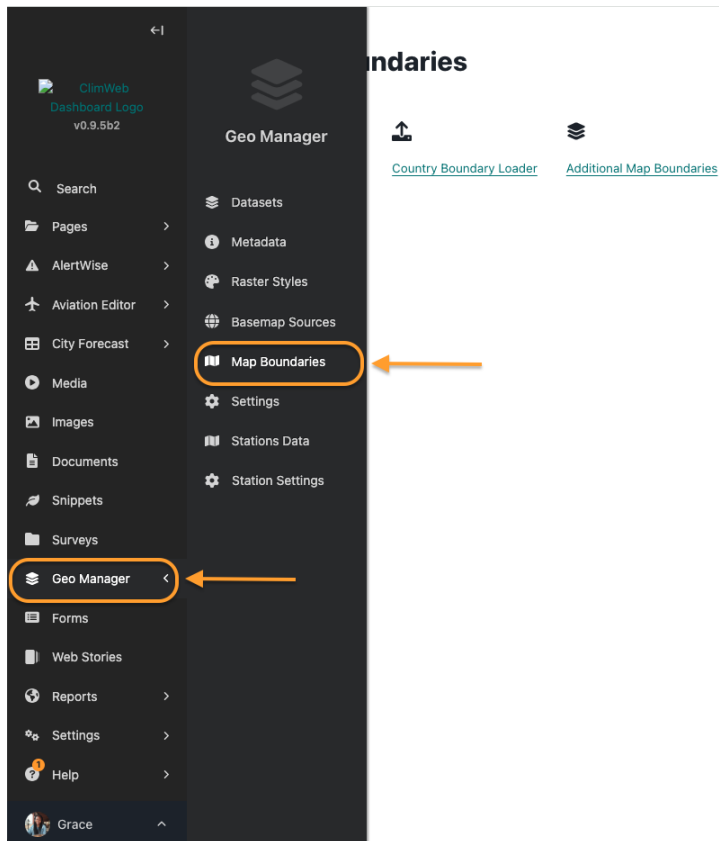
This section allows you to upload a GeoJSON file of the UN Country Boundary. Setting this will enable the UN Country Boundary check in the alertdrawing tools.



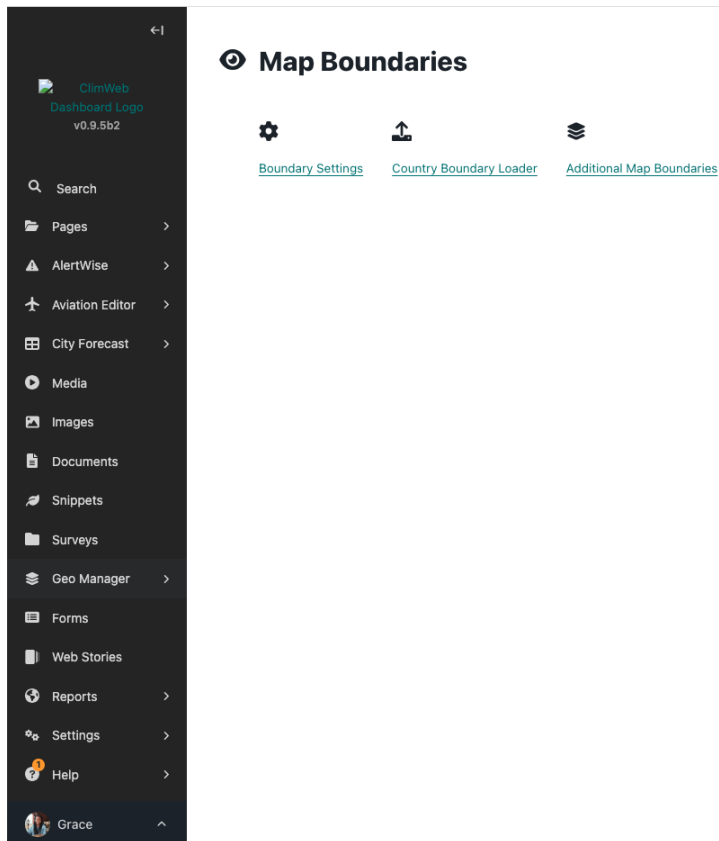
### 1.9.3 Setting Boundaries

This section guides you on how to set up boundaries which are useful in the creating an Alert Area by polygon .

The Geo Manager allows for the addition of boundaries to be used in the creation of an alert area using the admin boundary option.

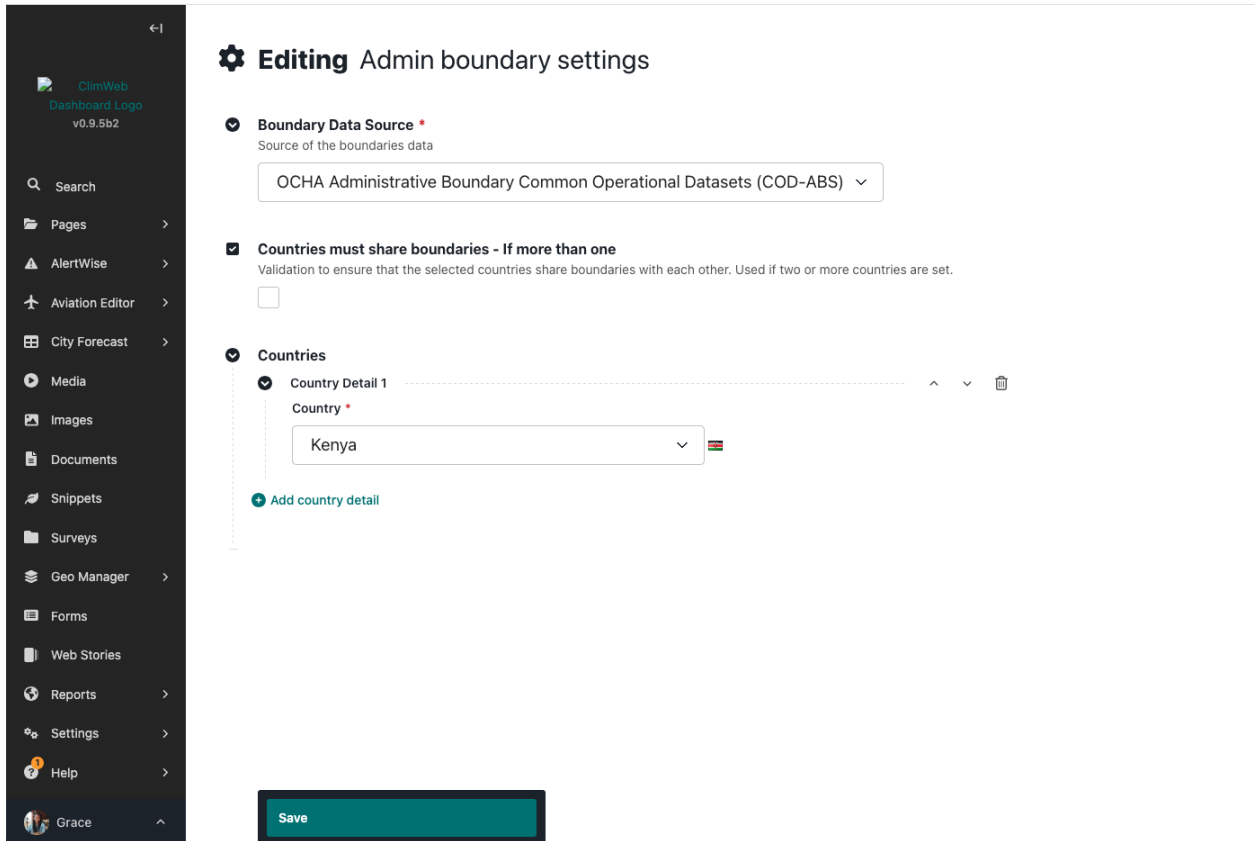


To access it, click on the geomanager in the explorer menu as below and select 'Boundary settings' to select the boundary data source and country/countries of interest. You will then need to add boundary data for the countries selected:



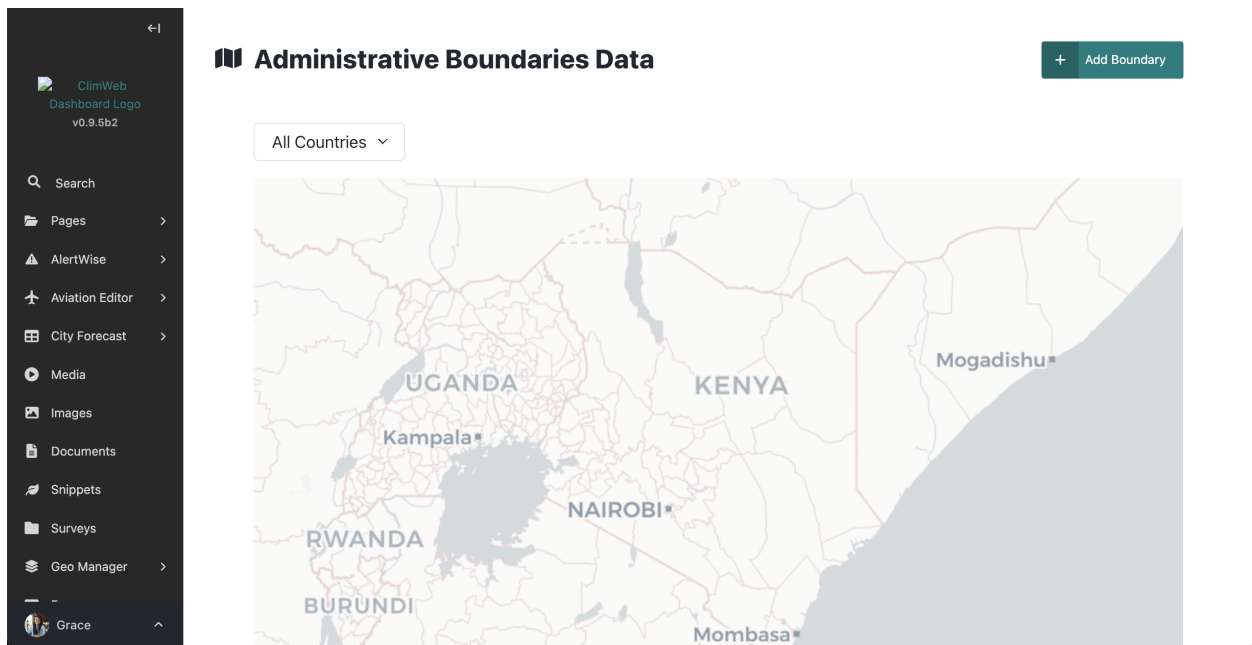
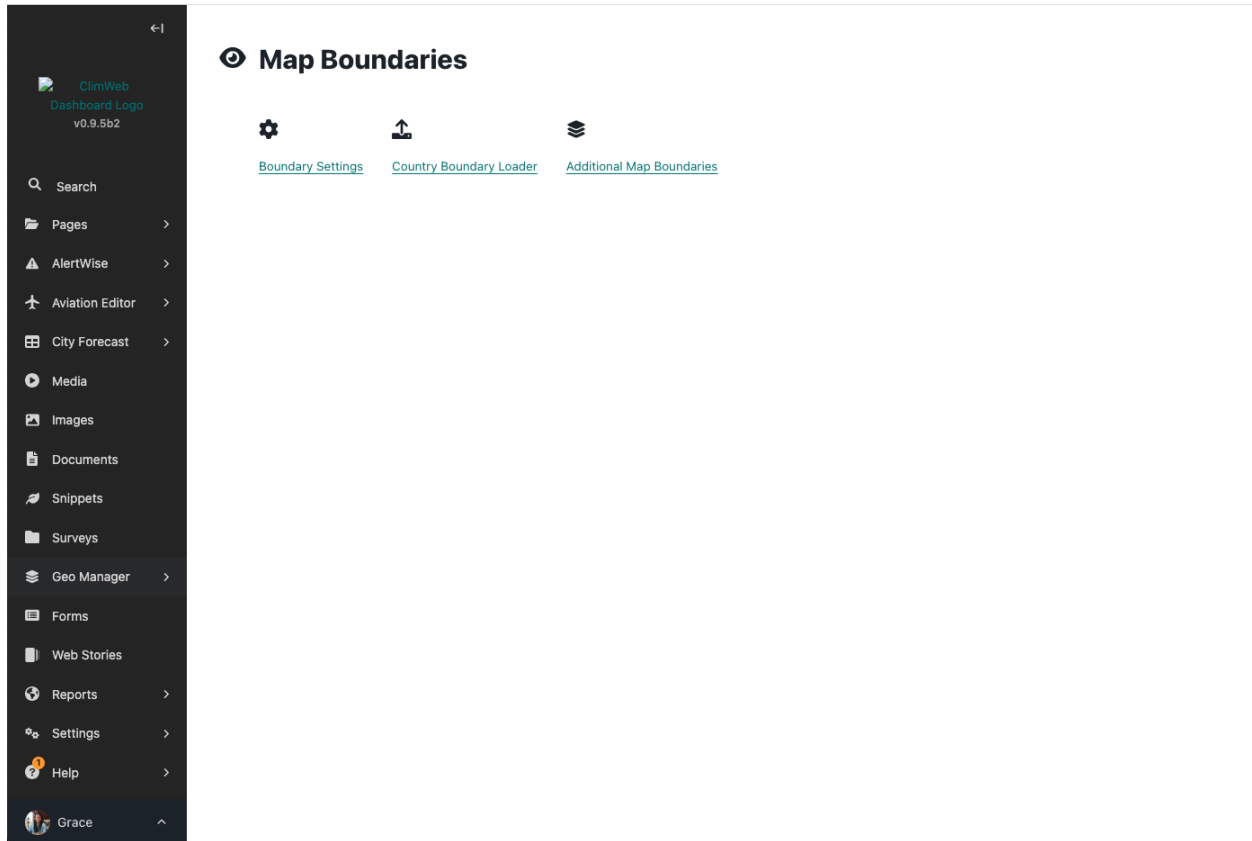
Select the 'boundary data source' where you will download the boundaries. The current options are:

- OCHA Administrative Boundary common Operational Datasets (COD-ABS) (*default*) <https://data.humdata.org/>
- Global Administrative Areas 4.1 (GADM) [https://gadm.org/download\\_country.html](https://gadm.org/download_country.html)



**Add one or more countries**

To add boundary data, access the menu as below and click on ‘Country Boundary Loader’ and click ‘Add boundary’ button:



Load country boundaries at each of different levels (level 0 to 4) in zipped shapefile format

Administrative Boundary CODs are baseline geographical datasets that are used by humanitarian agencies during preparedness and response activities. They are preferably sourced from official government boundaries but when these are unavailable the IM network must develop and agree to a process to develop an alternate dataset.

**You can learn more here:**

- [About Administrative Boundary CODs \(COD-AB\)](#)
- [More about OCHA CODs](#)

**You can access and download data from the source:**

- [Download from source](#)

Country \*  
Ethiopia ▾

Admin Boundary Level \*  
Level 0 ▾

Country Shapefile ZIP \*  
Choose file No file chosen

Language suffix \*  
EN ▾

Upload

**Note**

Zip shapefiles separately by Admin levels before upload.

## 1.9.4 CAP Composer and Approver Roles and Publishing Workflows

Within CAP, roles such as “Composer” and “Approver” are essential to ensure the accuracy and authorization of alerts before dissemination.

### CAP Composer Role:

A CAP Composer is responsible for creating and drafting alert messages. This role involves collecting pertinent information about an incident and structuring it according to the CAP format. The Composer ensures that all necessary details are included to inform the public or specific agencies effectively.

### CAP Approver Role:

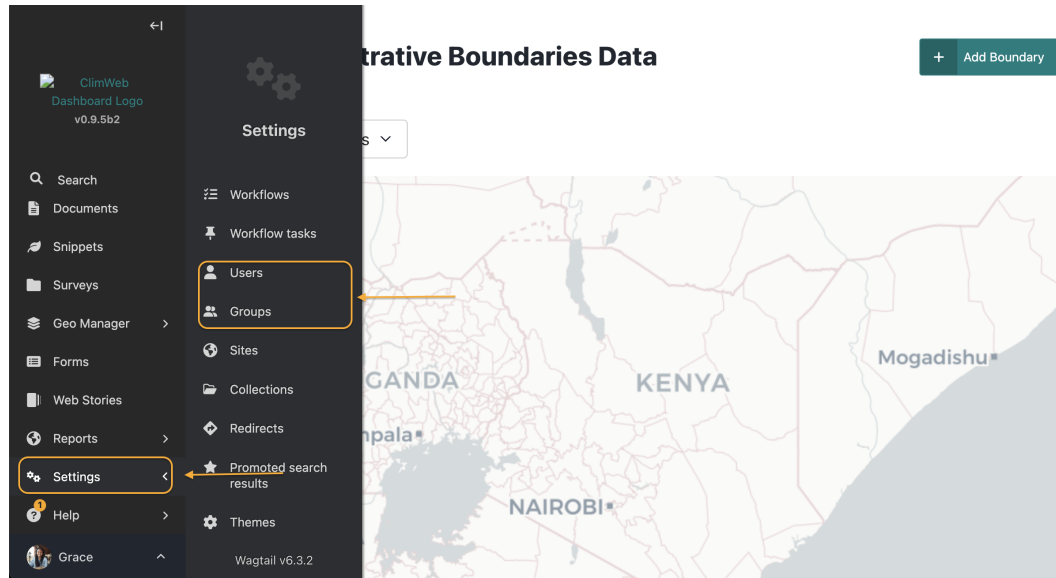
The CAP Approver reviews the alerts composed by the Composer. This role is crucial for validating the content, ensuring compliance with organizational protocols, and authorizing the release of the alert to the intended audience. The Approver acts as a quality control measure to prevent the dissemination of incorrect or unauthorized information.

### Configuring Composer and Approver Roles

The general process for setting up Composer and Approver roles involves the following steps:

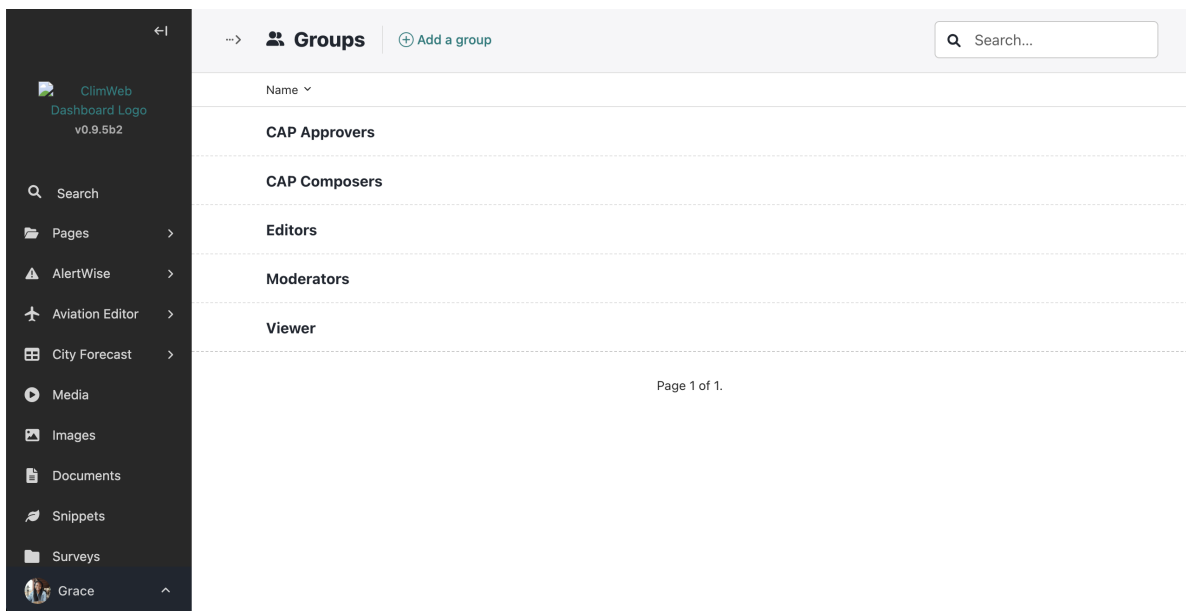
1. **Access the User Management or Administration Section:**

- Navigate to the system’s settings where users and groups are managed.

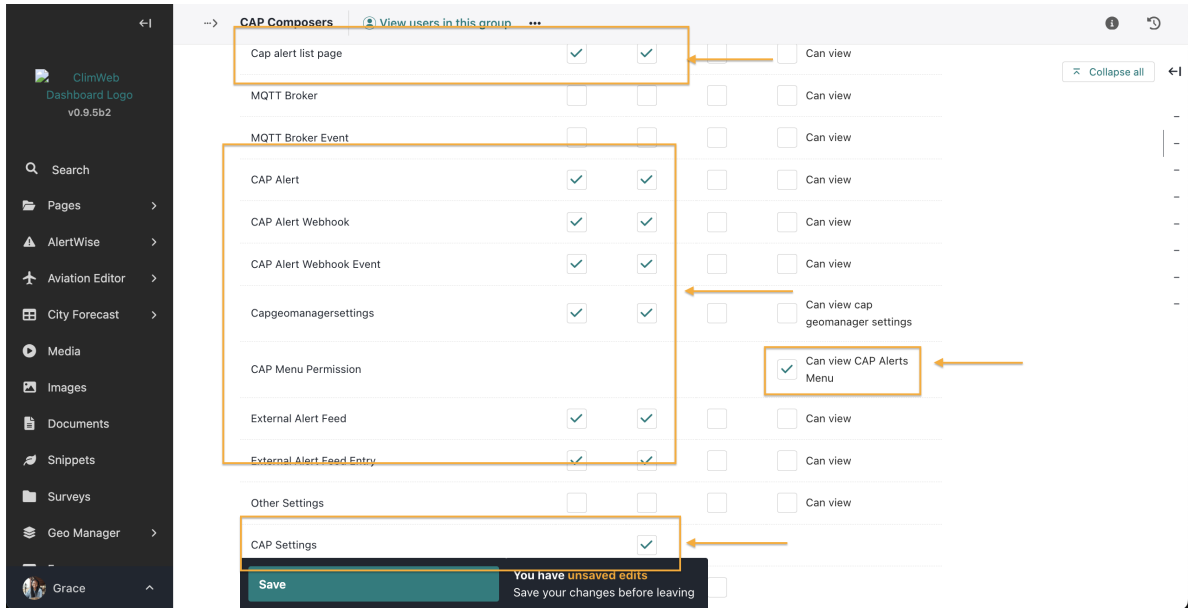
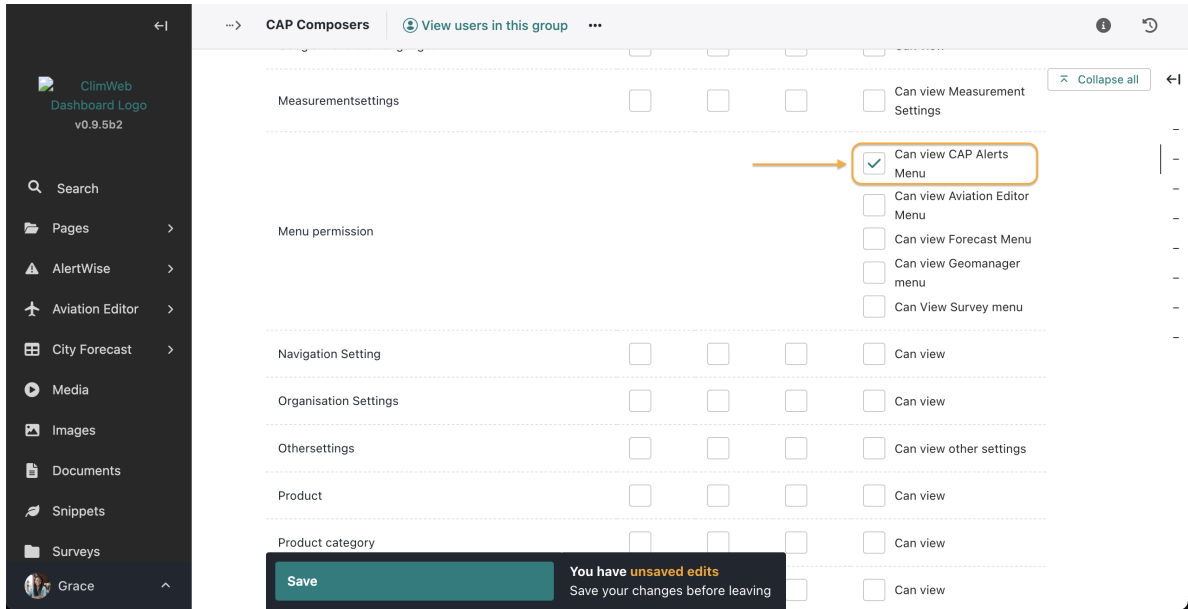


## 2. Define Roles and Permissions:

- Click on groups
- Create roles/groups titled “Composer” and “Approver.”



- Assign permissions to each role based on their responsibilities:
  - **Composer:** Permissions to create and edit alerts but not to publish them.



**Other permissions**

Name

Can access Wagtail admin

Enable 2FA

**Page permissions**

Page: Alerts

Page	Add	Bulk delete	Edit	Lock	Publish	Unlock	
Alerts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Delete

+ Add a page permission

**Media permissions**

Collection Add Edit

Save You have **unsaved edits** Save your changes before leaving

- **Approver:** Permissions to review, approve, or reject alerts, and to publish approved alerts.

**Menu permission**

Can view CAP Alerts Menu

Can view Aviation Editor Menu

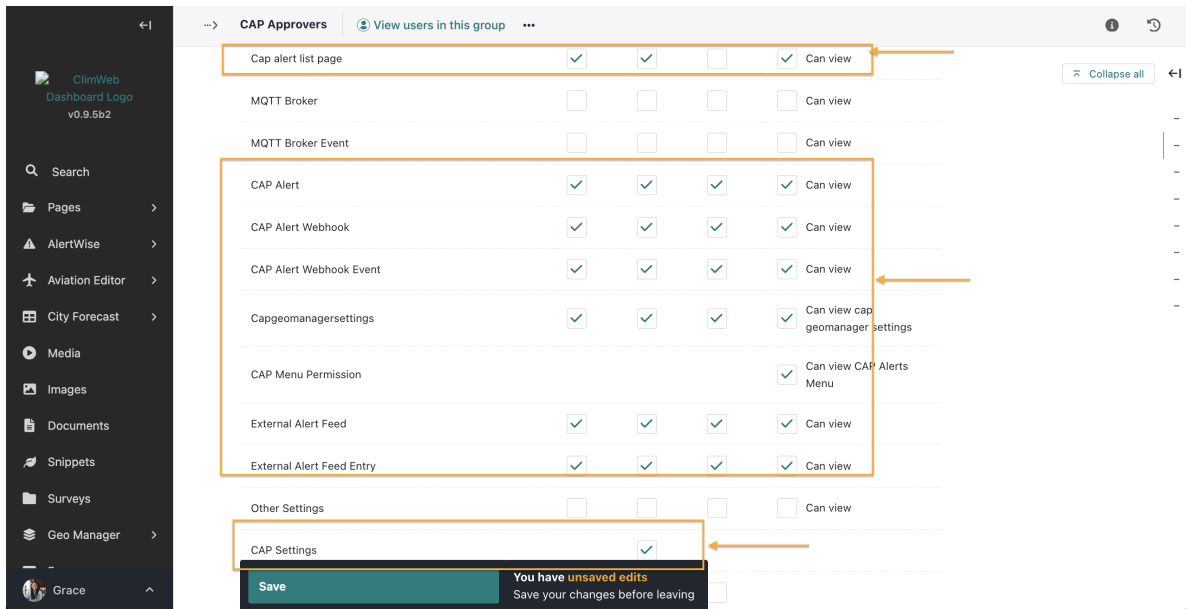
Can view Forecast Menu

Can view Geomanager menu

Can View Survey menu

Navigation Setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Organisation Settings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Othersettings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view other settings
Product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Product category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Product item type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Service Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
Theme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can view

Save You have **unsaved edits** Save your changes before leaving



### 3. Assign Users to Roles:

- Allocate users to the Composer and Approver roles based on their job functions and expertise.

*Note:* Ensure to enable 2Factor authentication for the Approver role

### 4. Implement Approval Workflows:

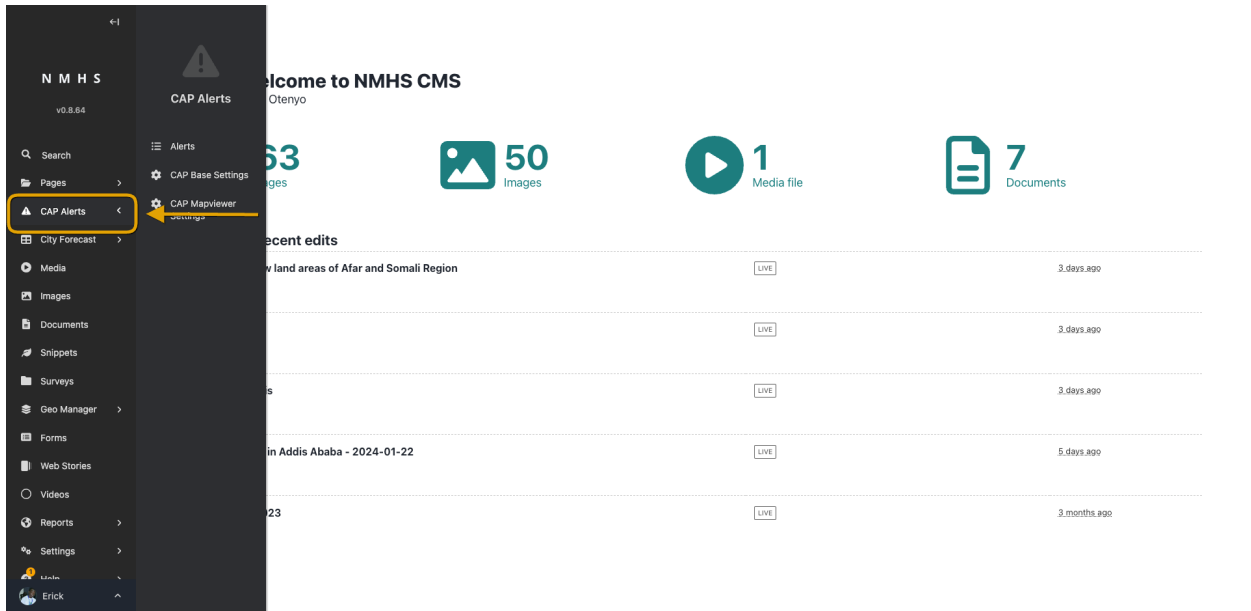
- Configure the system’s workflow to require approval from an Approver before an alert created by a Composer can be published.

### 5. Test the Workflow:

- Conduct tests to ensure that alerts follow the correct path from composition to approval and finally to dissemination.

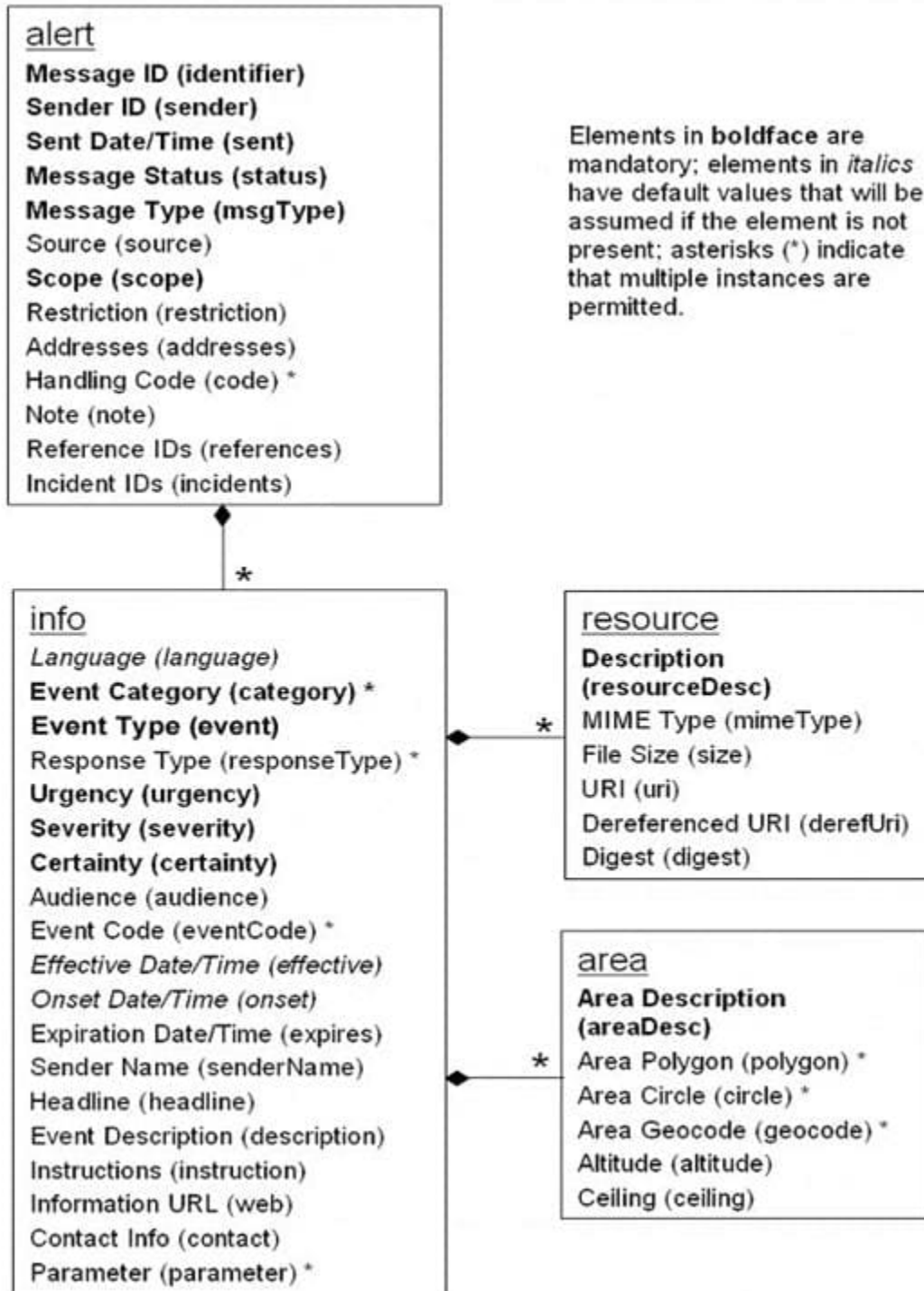
## 1.9.5 Creating CAP Alerts

To create a CAP Alert access the CAP composing interface from the explorer menu as below and add a new cap alert page:



## Sections in the Alert Page and corresponding XML

The overall Document Object Model of an alert is as below:



### Alert Identification

It contains the following entities required for a valid CAP message:

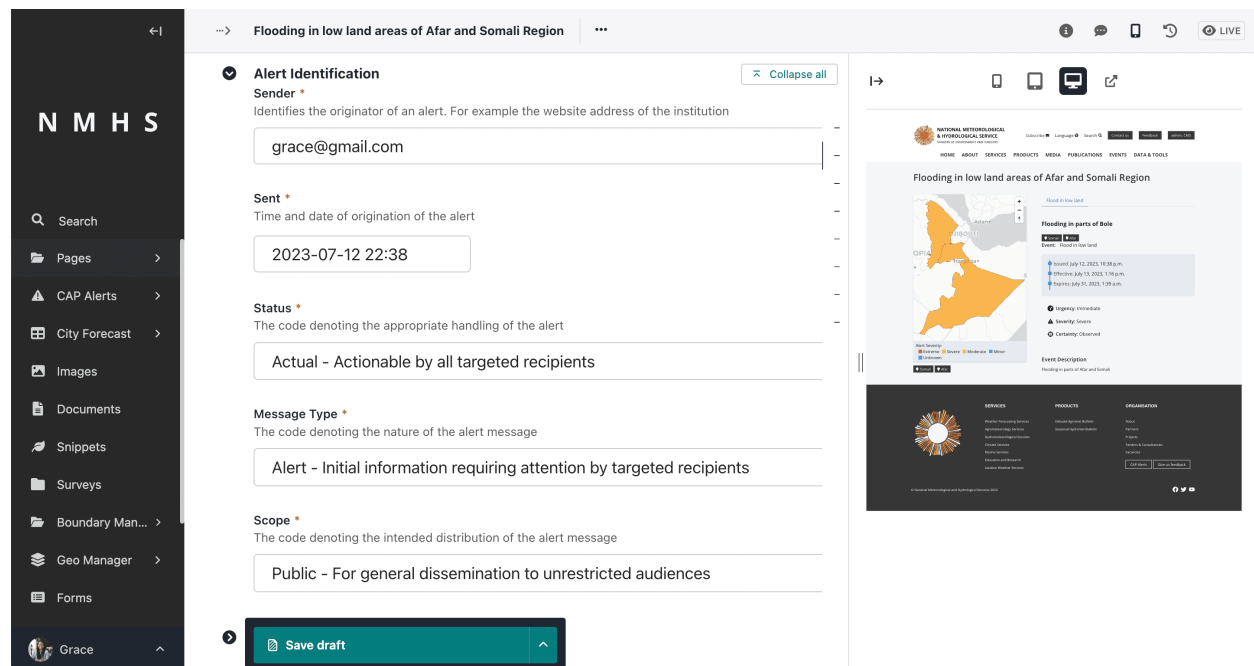
- Sender ID(sender),
- Sent Dat/Time (sent),

- Message Status (status),
- Message Type (msgType),
- Scope(scope),
- Restriction (restriction),
- Addresses (addresses),
- Note (note),
- Reference IDs (references) and
- Incident ids (incidents).

The alert identifier is generated automatically and is not editable.

**Note**

Some fields are visible based on selection of different parameters.



## Alert Information

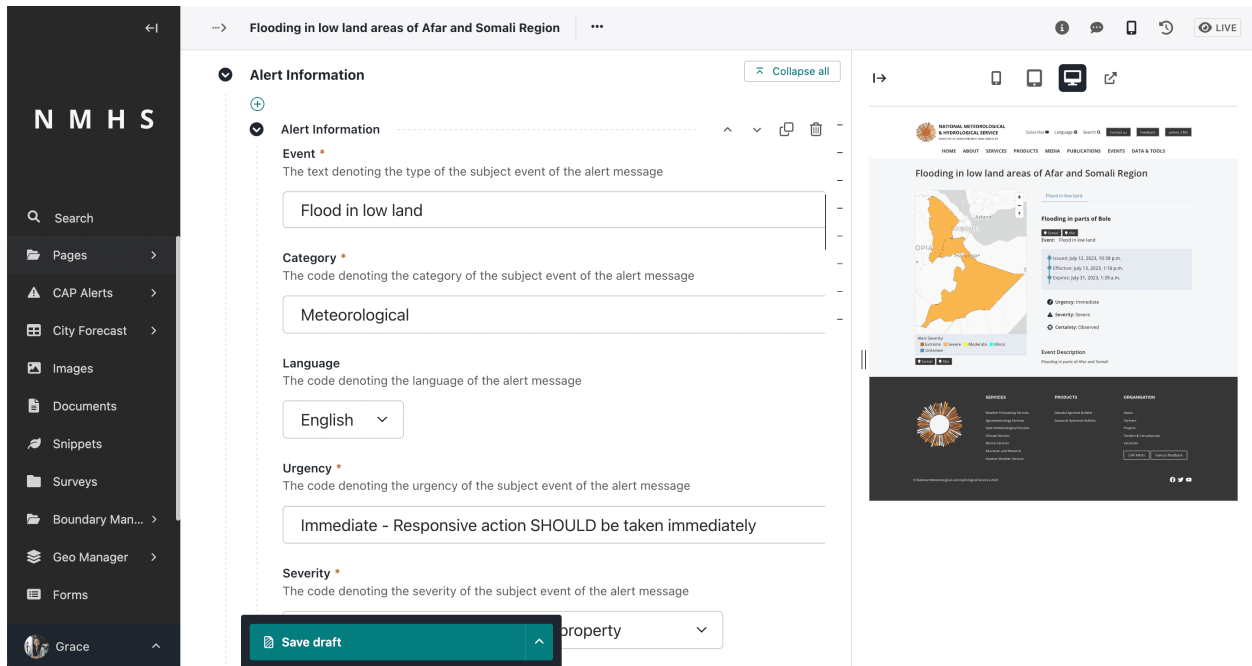
Corresponds to the <info> element in the CAP message. The entity specifies the alert’s details. At least one block is required for an alert. If you support multiple languages, it is recommended that you use one block for each language for the same entity.:

A CAP message expects at least one <info> element to be present. Multiple <info> blocks should all have the same <category> and <event> element values.

Each Information block contains the following elements:

- Language (language)
- Event Category/Categories (category)
- Event Type (event)

- Response Type/Types (responseType)
- Urgency (urgency)
- Severity (severity)
- Certainty (certainty)
- Audience (audience)
- Event Code/Codes (eventCode)
- Effective Date/Time (effective)
- Onset Date/Time (onset)
- Expiration Date/Time (expires)
- Sender Name (senderName)
- Headline(headline)
- Event description (description)
- Instructions (instruction)
- Information URL (web),
- Contact Info (contact) and
- Parameter/Parameters(parameter)

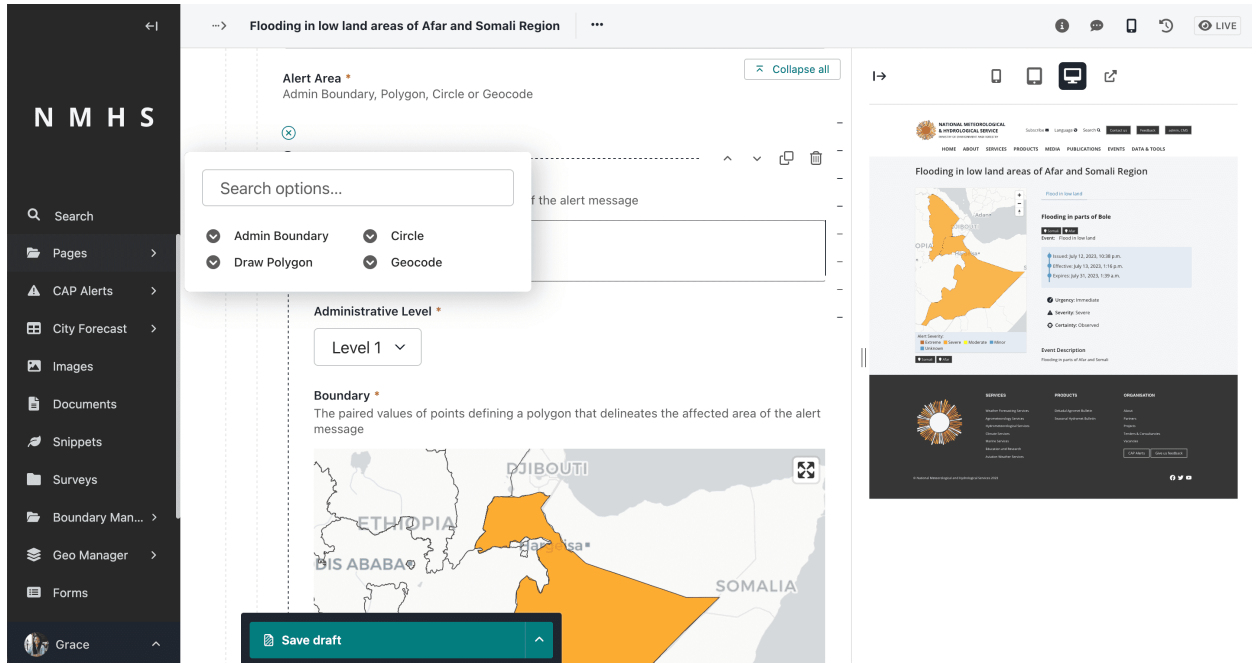


## Alert Area

Information Entity that defines the geographic area to be notified. Multiple areas can be defined in the alert. Each area contains the following elements:

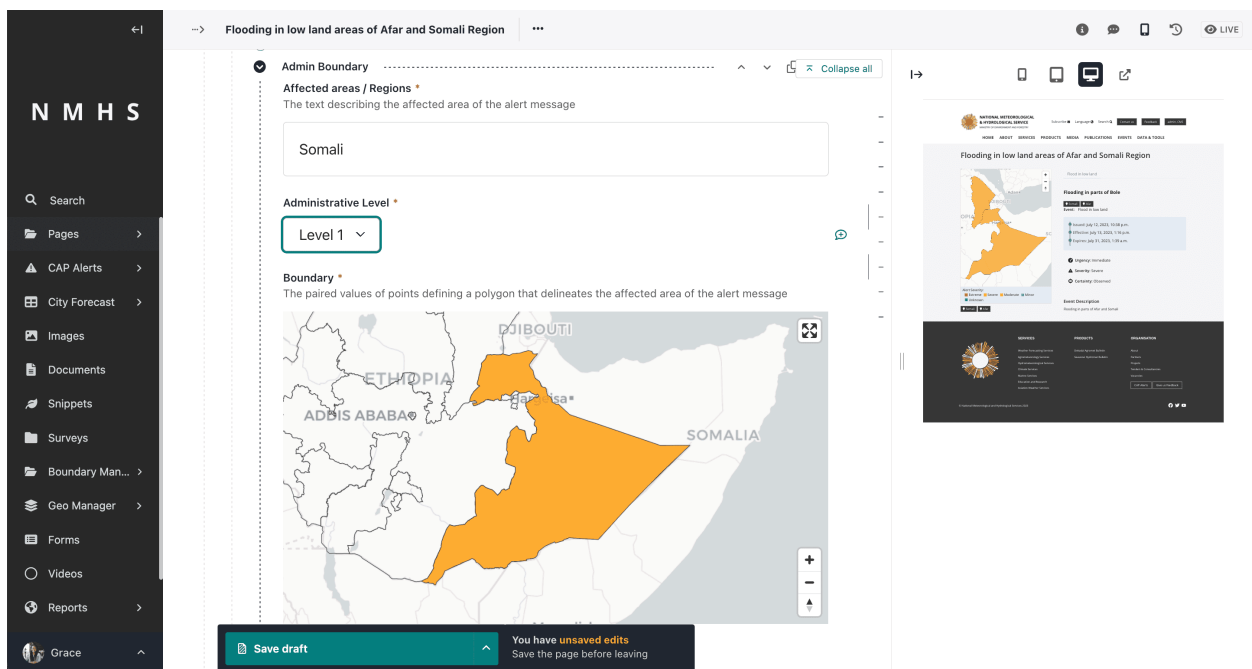
- Area Description (areaDesc),
- Area Polygon/Polygons (polygon),

- Area Circle/Circles (circle),
- Area Geocode/Geocodes (geocode),
- Altitude (altitude),
- Ceiling (ceiling)

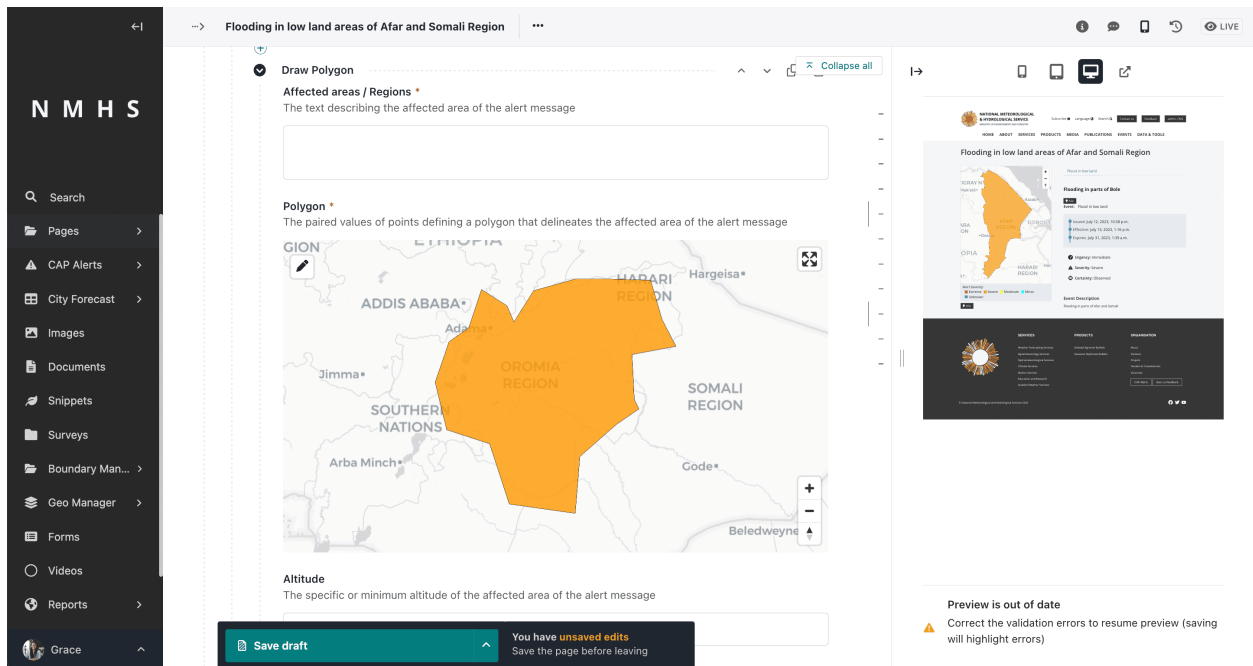


The Alert area input has 4 selector options:

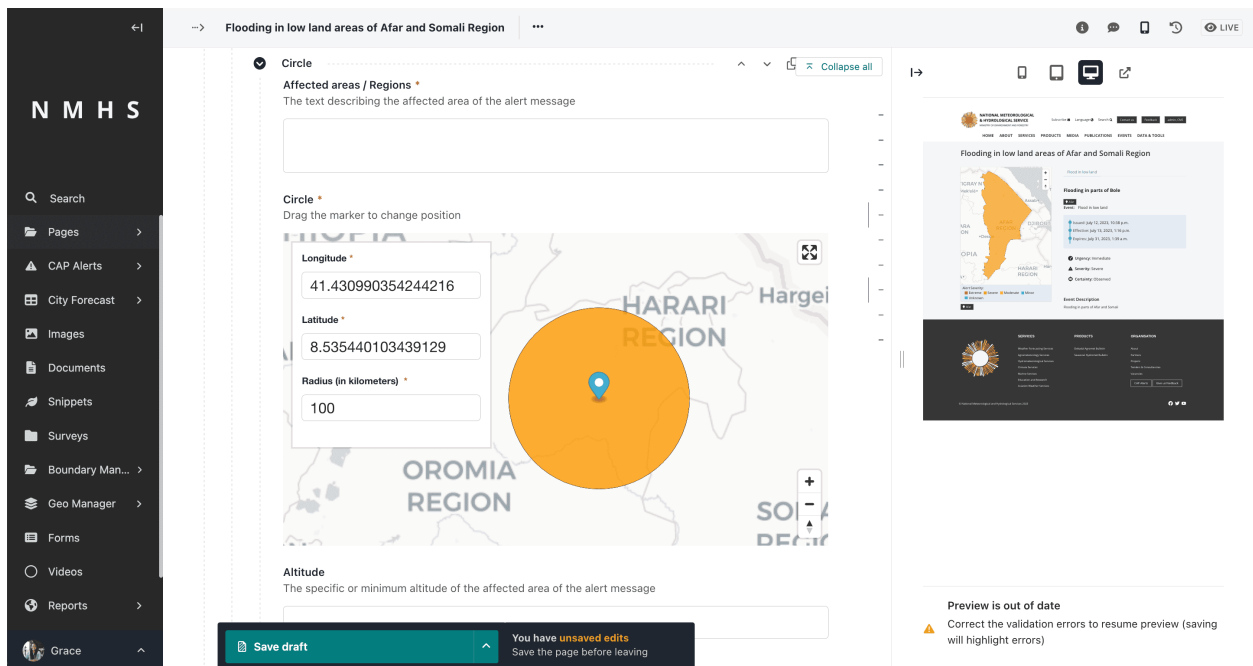
- Admin Boundary (area is picked from predefined boundaries). To use this option, ensure that admin boundaries are initially loaded. Refer to [Setting up boundaries](#) section.



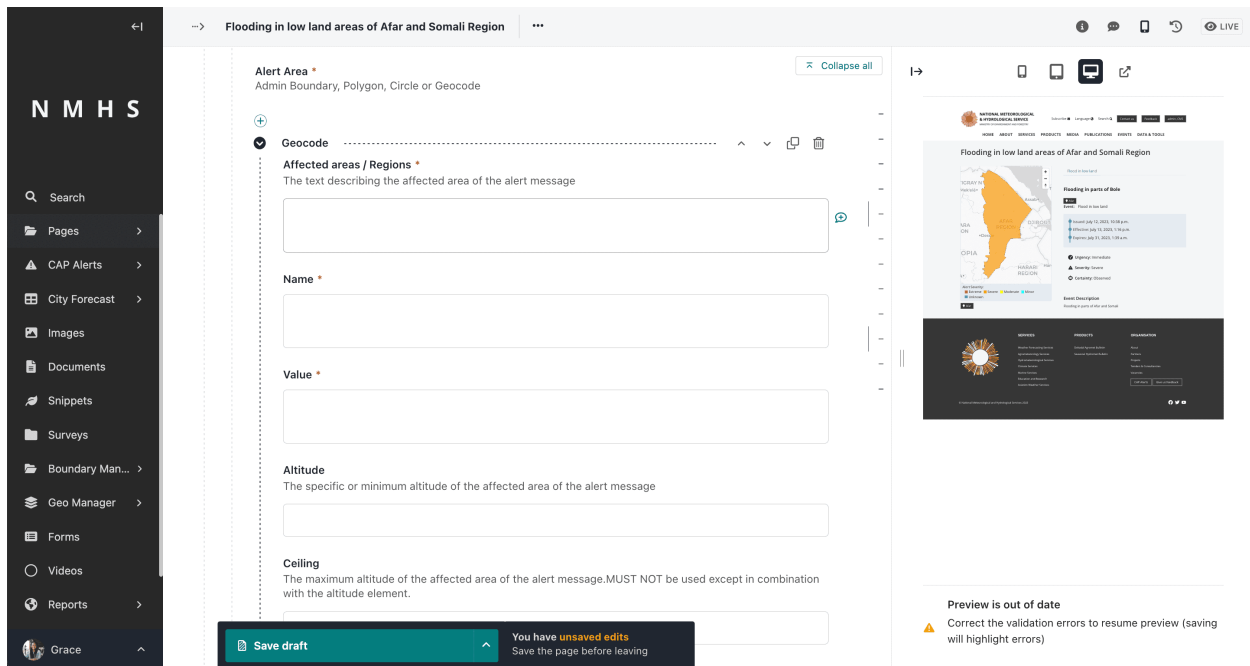
- Polygon (drawing a polygon). If you have not yet uploaded boundaries refer to [Setting boundaries Section](#)



- Circle (drawing a circle which specifies the latitude, longitude and radius)



- Geocode (specifying area geocode name and value). Using this option presumes knowledge of the coding system



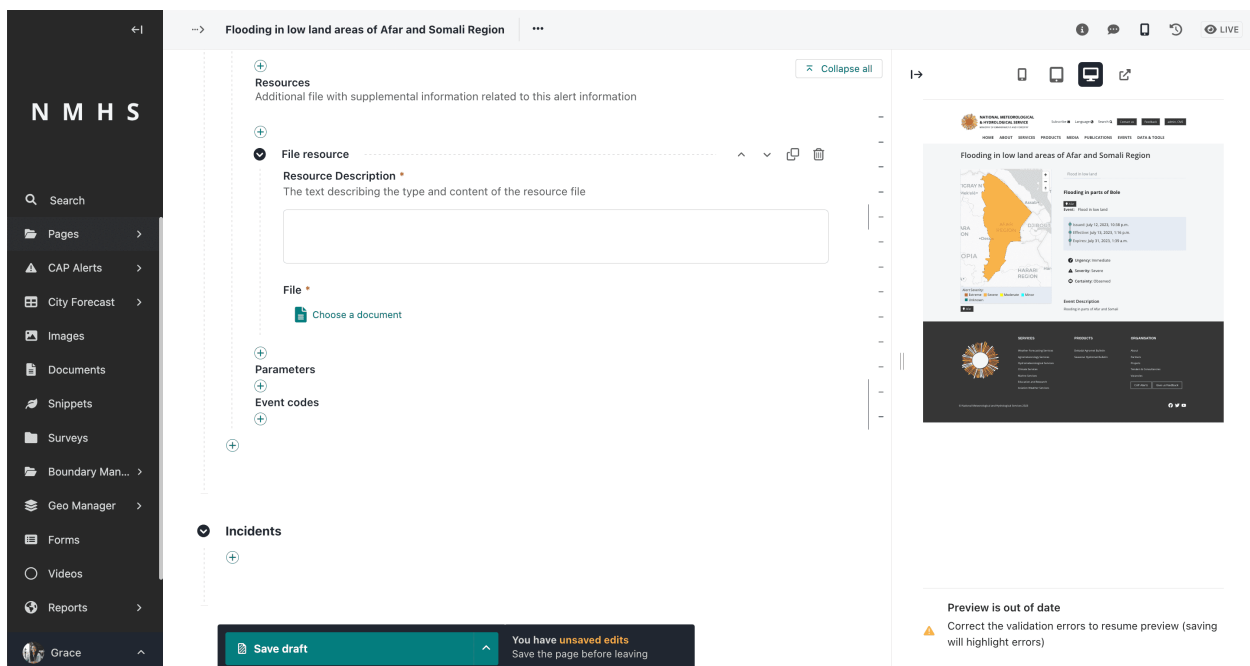
## Alert Resource

Entity that defines supplemental information related to an object Multiple instances of this section are allowed. It contains:

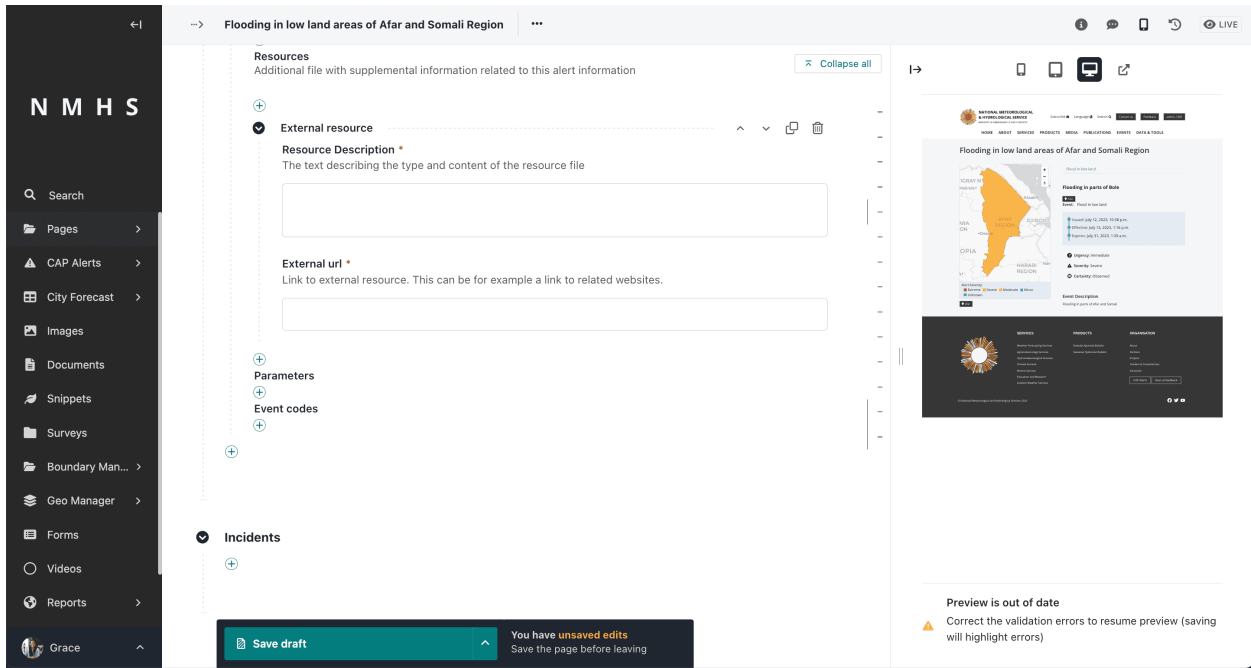
- Description (resourceDesc), MIME Type (mimeType), File Size (size), URI (uri), Dereferenced URI (derefUri) and Digest (digest)\*\*

The Alert resource input has 2 selector options:

- File resource (takes in a file and description)



• External resource

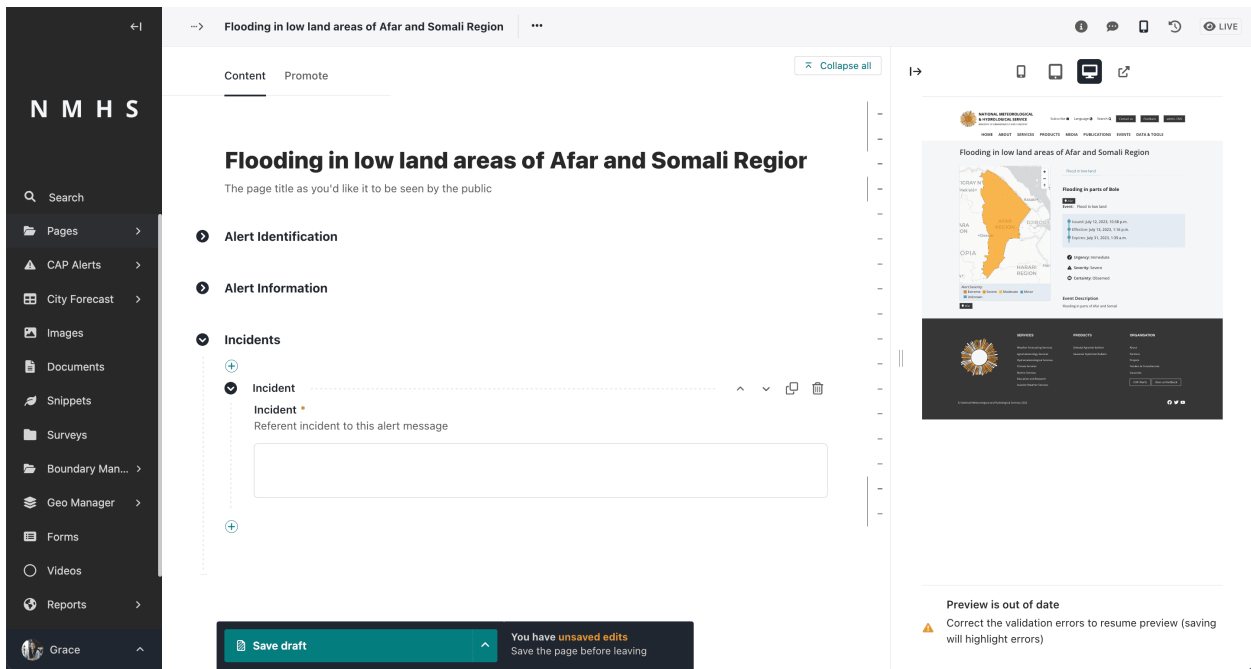


Additional CAP Inputs

Addition alert information elements include parameters and event codes

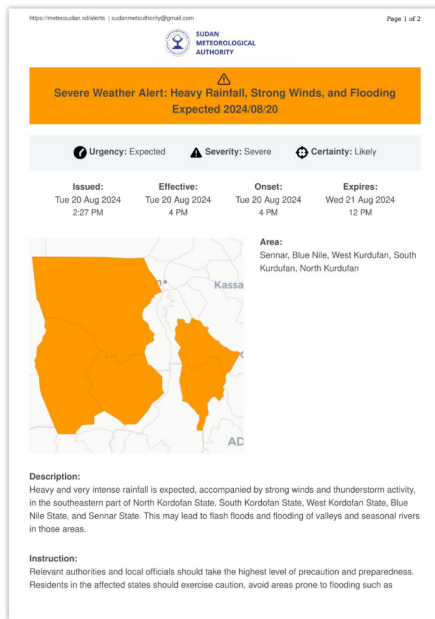
Incidents

This defines the reference incident to the current alert, if any.



## 1.9.6 Generating PNG/PDF

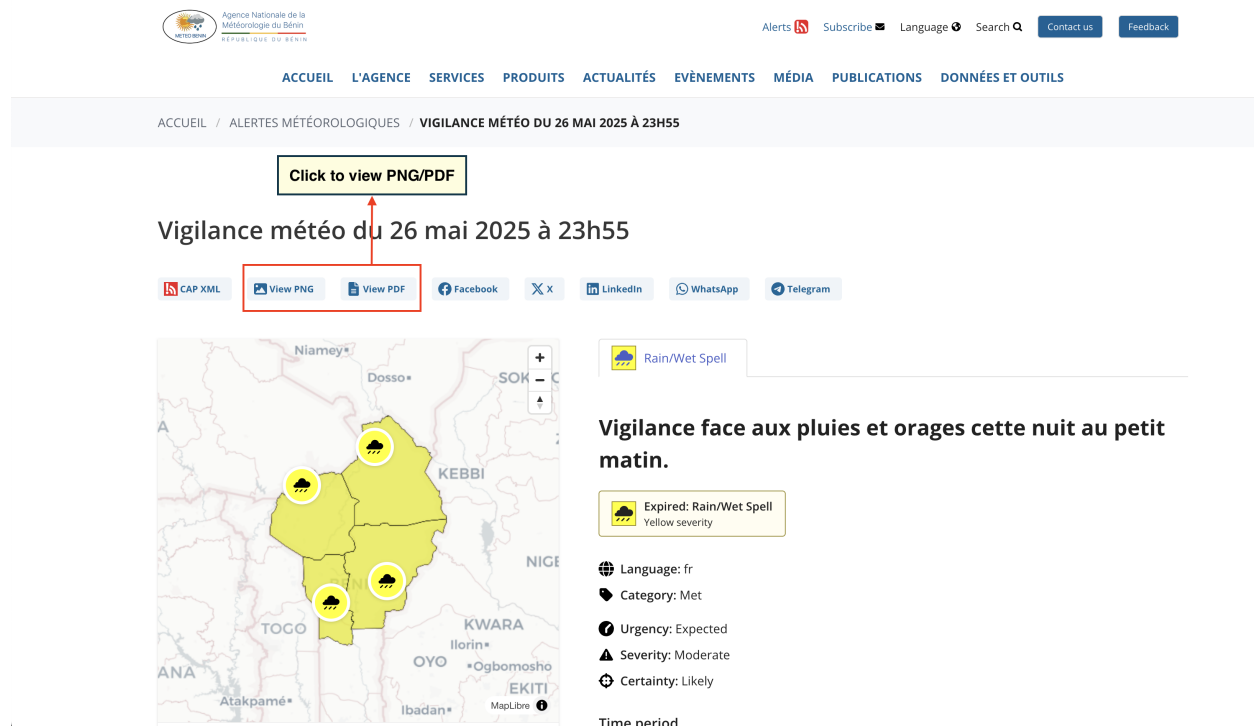
A PNG and PDF version of a published CAP is generated automatically after publishing an alert.



## Creating PNGs and PDF after an alert has been published

- By using **Wagtail Signals**, we can perform custom processes after a CAP alert has been published.
- This **allows to hook processes** like generating PNGs and PDF versions of the alert, which will then be linked to the alert
- **weasyprint** is used to generate a PDF from an HTML template, which in turn is converted to a PNG
- The **PNG is used in the meta tags of HTML** to generate a preview of the alert when sharing on social platforms

The links to view/download the PNG and PDF files are available on the published CAP detail page



If for some reason the PNG or PDF files are not generated, you can manually trigger the generation by clicking the “Create PNG/PDF” button on the Admin page of the CAP.

v0.9.9b1

- Search
- Pages
- AlertWise
- City Forecast
- Media
- Images
- Documents
- Snippets
- Surveys
- Geo Manager
- Forms
- Web Stories
- Reports
- Settings
- Help
- Erick

## CAP Alerts

**A button to trigger creation of PNG/PDF**

CAP Alert	
Actual - 2025-05-14 12:26 - Strong Winds expected over northern parts	<span style="border: 2px solid red; padding: 2px;">Create PNG/PDF</span> <span>Edit</span> <span>Copy</span> <span>Delete</span>
Actual - 2025-05-06 07:31 - Strong Winds in Northern Kenya	<span>Create PNG/PDF</span> <span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2025-04-23 14:22 - Large Ocean waves in the indian Ocean.	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2025-04-23 14:22 - Strong Winds expected over northern parts	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2025-04-23 14:22 - Strong Winds expected over northern parts of the country	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2025-04-23 14:21 - Strong Winds expected over northern parts of the country	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2024-09-19 17:25 - Large Ocean waves in the indian Ocean.	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2024-09-19 17:00 - Large Ocean waves in the indian Ocean.	<span>LIVE</span> <span>Edit</span> <span>Copy</span>
Actual - 2024-06-07 09:25 - Heavy rainfall over parts of the country	<span>LIVE</span> <span>Edit</span> <span>Copy</span>

Page 1 of 1.

+ Add CAP Alert

---

Filter

By live

All

Yes

No

---

By Message Type

All

Alert - Initial information requiring attent by targeted recipients

Update - Updates and supersedes the earlier message(s) identified in referenc alerts

Cancel - Cancels the earlier message(s) identified in references

---

By Sent

Any date

Today

Past 7 days

This month

This year

**Note**

The Create PNG/PDF button is only available for CAPs that have been published. If the CAP is not published, the button will not be visible.

## 1.10 City Forecasts

Alerts 5 Language 📄 Search 🔍 Contact us Feedback WMO, ClimWeb 🔔

---

HOME
ORGANIZATION
SERVICES
PRODUCTS
CLIMATE CHANGE
NATIONAL OZONE OFFICE
DATA AND TOOLS
RESOURCES

### Maseru

Detail

Ministry of Environment and Forestry

## Lesotho Meteorological Services

We are at your service / re sebelisa

Today 26 March	Fri 27 March	Sat 28 March	Sun 29 March	Mon 30 March	Tue 31 March
15:00  Fair Day 🌡️ 24.4 °C 🌡️ 17.3 °C ☔ 0.0 mm 🌬️ 2.3 m/s	16:00  Partly Cloudy Day 🌡️ 23.7 °C 🌡️ 16.3 °C ☔ 0.0 mm 🌬️ 2.2 m/s	17:00  Partly Cloudy Day 🌡️ 21.5 °C 🌡️ 16.0 °C ☔ 0.0 mm 🌬️ 2.1 m/s	18:00  Cloudy 🌡️ 19.9 °C 🌡️ 15.7 °C ☔ 0.0 mm 🌬️ 1.5 m/s		

City forecasts displayed on the homepage, and forecasts page can be added through the ClimWeb in two ways:

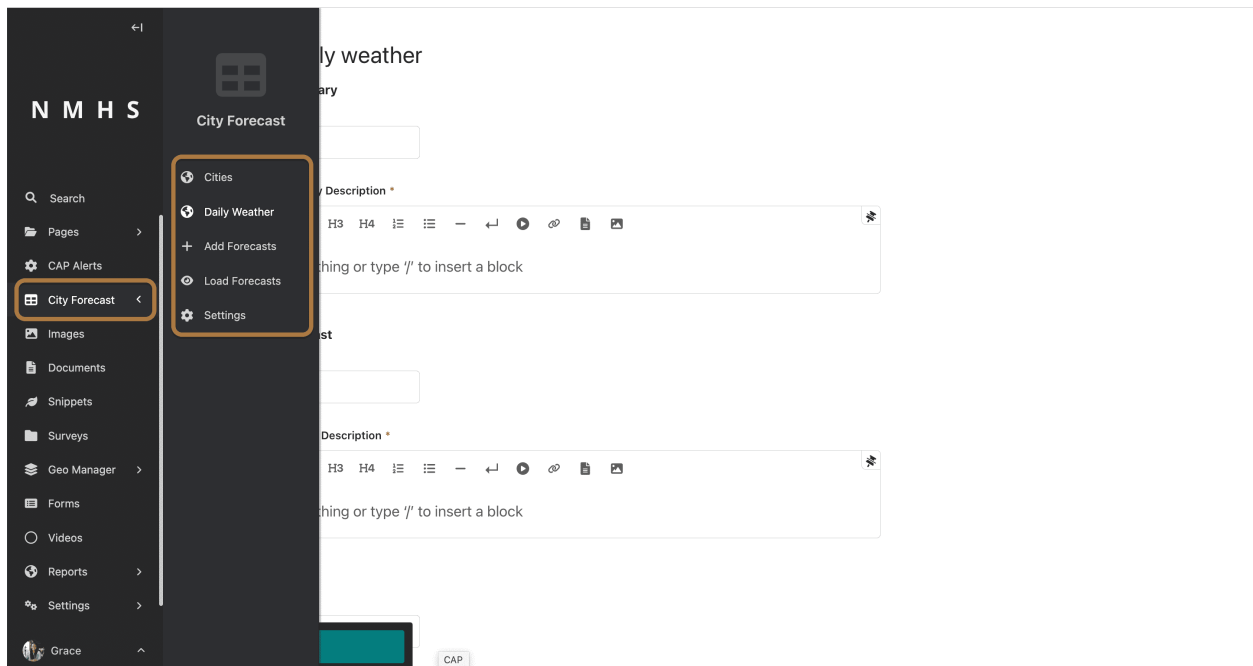
1. Manually adding daily forecasts
2. Fetching city forecasts from an external source i.e YR Meteo Norway's location forecast API <https://developer.yr.no/featured-products/forecast/>

**Note**

The forecast manager comes with predefined weather conditions and icons. Please refer to YR Weather symbols documentation for guidance on icons and naming convention. <https://api.met.no/weatherapi/weathericon/2.0/documentation>

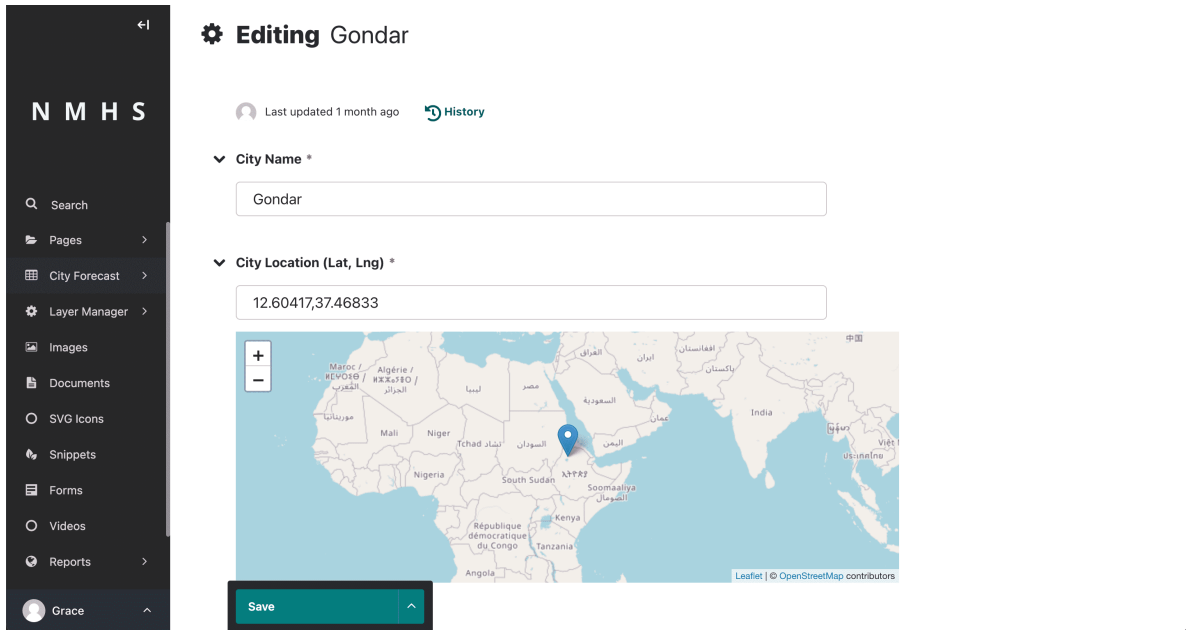
### 1.10.1 Manually Adding Forecasts

The city forecast explorer menu can be accessed on the left sidebar.

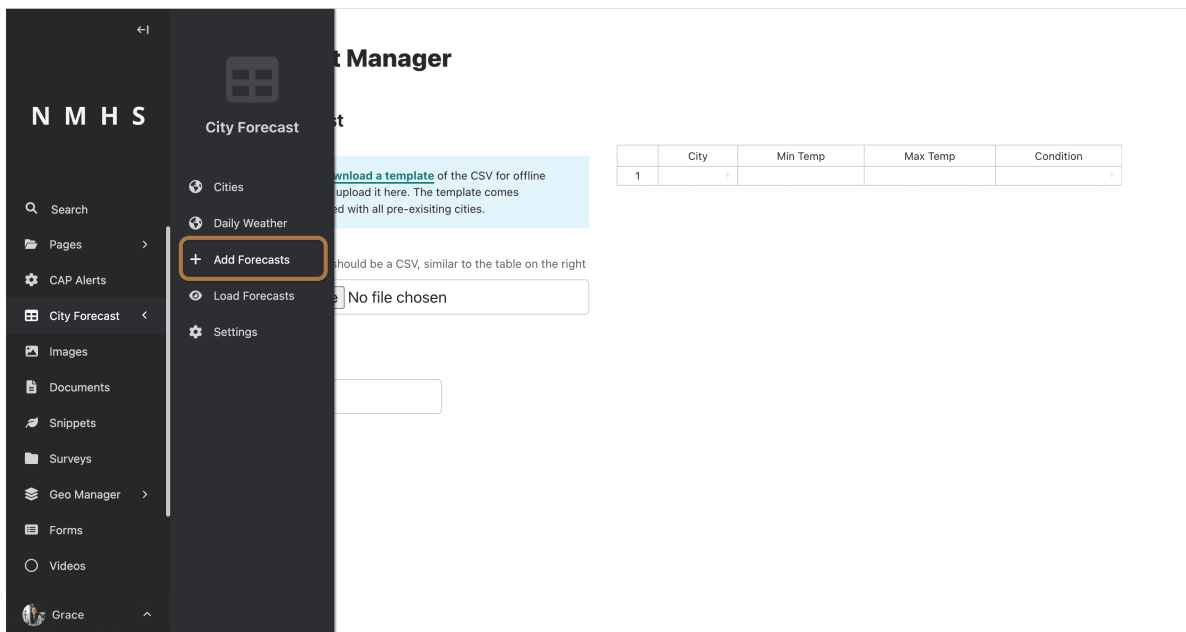


Here you have the ability to:

- Add/Edit/Delete a city (city name and location).



- Import city forecasts in CSV format.



Using the forecast manager, it is possible to load city forecasts in CSV format created offline or alternatively populate the table on the right with data. A template of the standard CSV structure is provided prepopulated with a list of all cities listed in the database. However, the forecast manager can accept a different structure and allow for correct matching of each of the columns. A forecast date must be provided for the data being uploaded before publishing.

**Forecast Manager**

**Add forecast**

You can [download a template](#) of the CSV for offline editing and upload it here. The template comes prepopulated with all pre-existing cities.

**Forecast Upload**  
The uploaded file should be a CSV, similar to the table on the right

Choose file: city\_forecasts\_template copy.csv

**Forecast Date \***  
Date of forecast: 2023-07-10

Verify that all columns match correctly

City: \* Min Temp: \*  
 City: [City] Min Temp: [Min Temp]  
 Max Temp: \* Condition: \*  
 Max Temp: [Max Temp] Condition: [Condition]

Publish

	City	Min Temp	Max Temp	Condition
1	Adama	10	20	clearsky
2	Addis Ababa	15	24	fog
3	Gode	20	25	cloudy
4				

- Preview previously added city forecasts (last 7 days)

**Forecast Manager**

**Table Forecast**

2023-07-10

City	Min Temp celsius	Max Temp celsius	Condition
Adama	12	21	lightrainshowers
	17	27	partlycloudy
	11	20	lightrainshowers
	14	20	partlycloudy
	12	20	lightrainshowers
	10	16	lightrain
	16	25	partlycloudy
	16	25	partlycloudy
	22	32	partlycloudy
	26	36	partlycloudy
	23	34	lightrain
	14	19	rain
	14	19	rainshowers
	15	22	lightrainshowers
	14	26	lightrainshowers
	31	40	cloudy
	31	41	partlycloudy

Map showing weather icons for cities in Eritrea: Khartoum, Asseb, Debouti, Berbera, Malakal, Juba, Gulu.

It is also possible to fetch and preview the last 7 day city forecasts. The forecast manager allows for switching between each of the available dates and preview both in tabular and georeferenced formats.

**Forecast Manager**

Latest Available Forecast: July 19, 2023

	City	Min Temp celsius	Max Temp celsius	Condition
1	Addis Ababa	12	21	lightrainshowers
2	Adama	17	27	partlycloudy
3	Bale Robe	11	20	lightrainshowers
4	Hawassa	14	20	partlycloudy
5	Jimma	12	20	lightrainshowers
6	Arba Minch	10	16	lightrain
7	Jijiga	16	25	partlycloudy
8	Harari	16	25	partlycloudy
9	Dire Dawa	22	32	partlycloudy
10	Gambella	26	36	partlycloudy
11	Assosa	23	34	lightrain
12	Bahir Dar	14	19	rain
13	Gondar	14	19	rainshowers
14	Lalibela	15	22	lightrainshowers
15	Mekelle	14	26	lightrainshowers
16	Semera	31	40	cloudy
17	Asaita	31	41	partlycloudy
18				

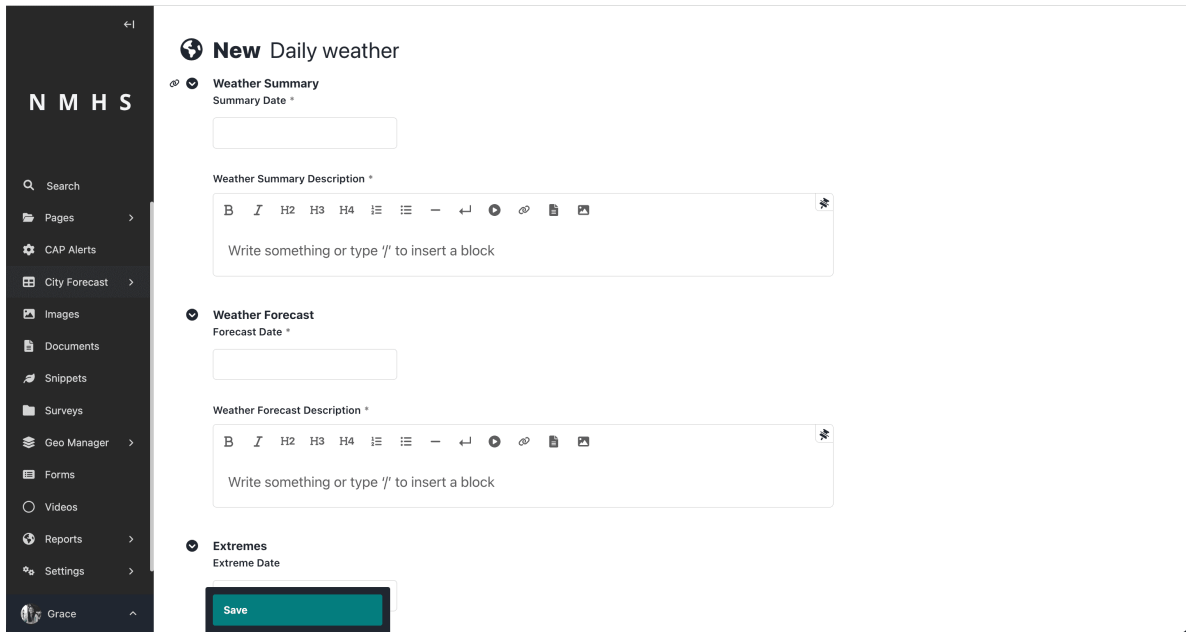
- Add Daily Weather Summary

**Add Daily Weather Summary**

+ Add daily weather

2023-07-05

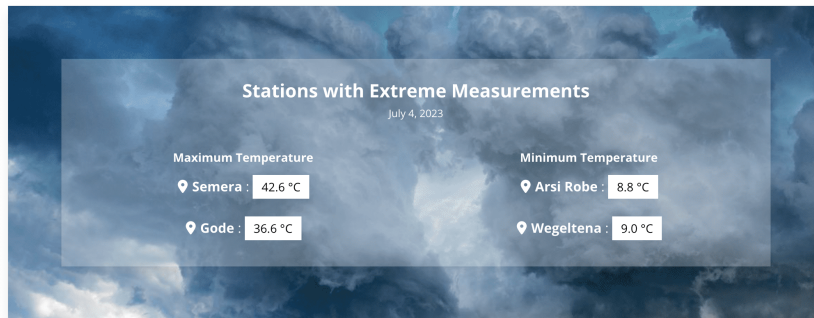
Page 1 of 1.



Additionally, a daily weather summary containing descriptive information about the observed conditions, weather forecast and extreme station readings is also provided. A preview of this information would appear as below on the website:

## Daily Weather Report

Issued on July 5, 2023



### Forecast Summary for July 5, 2023

For the next day, the weather Forecast information indicates that the Kiremt rain-bring weather features will continue over the western half, central, northeast and southern highlands of the country. In line with this, from Amhara region, East and West Gojam, Awi zone; West, North, Central and South Gondar; South and North Wello, Waghemra, North Shewa; Tigray region northwest and central zones; from Oromia region Jimma, Iluababora, Bunobedele, West, East and Horogudru Wolega, West, Southwest, North and East Showa and Arsi zones; Addis Ababa; B/Gumuz Region all Zones, SNNPR Gurage, Silte, Kambata Tembaro, Hadiya and Halaba Zones; Sidama region and Southwest Ethiopia region, Kefa, Dawro, Bench Sheko and Sheka zones receive light to heavy rains. Among the areas, South Gondar, East and West Gojam, Jimma, Bunobedele, West and North Showa zones and Arsi zones will experience heavy rain at a few places. In addition, Afar Region Zone 1, 2, 3, 4 and 5; Gambella Region Agnewak, Nuwer and Majang Zones; south and east Tigray zones; from the SNNPR, Wolayta, Gedo, Gamo and Gofa zones; West and East Hararge, Bale; Harar and Somali Region Siti Zone will have light to moderate rainfall in some places.

### Past Weather Summary for July 3, 2023

Yesterday, the wet weather condition has continued over the western half, central, northeast, and southern parts of the country. In association with this, from the Oromia region, Jimma, Iluababora, Bunobedele, West, East, Kelem and Horogudru Wolega, West, Southwest, East and North Showa, Arsi, Bale zones; Addis Ababa; Amhara region North, Central and South Gondar, West and East Gojam, Awi zone, North Wello, Waghemra, North Shewa; from the SNNPR Gurage, Silte, Kambata Tembaro, Halaba and Wolitasodo zones; all Zones of Sidama Region; Southwest Ethiopia Region Kefa, Bench Sheko and Sheka Zones; Agnewak and Majang Zones of Gambella Region received light to moderate rainfall. On the other hand, east and southeastern parts of the country were under the domination of partially cloudy weather condition.

## 1.10.2 Fetching from an external source

To enable automated fetching of city forecasts from an external source i.e YR Meteo Norway's location forecast API <https://developer.yr.no/featured-products/forecast/>, this option needs to be set to true.

The forecast will be fetched every three hours and get updated accordingly.

Editing Forecast setting

Forecast Source Measurement Units

Enable automated forecasts

Save CAP

## 1.11 Mapviewer

COUNTRY METEOROLOGICAL SERVICE  
MINISTRY OF ENVIRONMENT AND FORESTRY

HOME

LEGEND ANALYSIS

OROMIA, ETHIOPIA

DAILY MAXIMUM TEMPERATURE  
Date: 2023-00-10 09:07  
Mean: 17.35

DAILY MAXIMUM TEMPERATURE - TIMESERIES ANALYSIS FOR ...

20  
5.0  
23 Mar 22 10 Jul 23

The results are approximated by sampling the selected area. Results are more accurate at closer zoom levels.

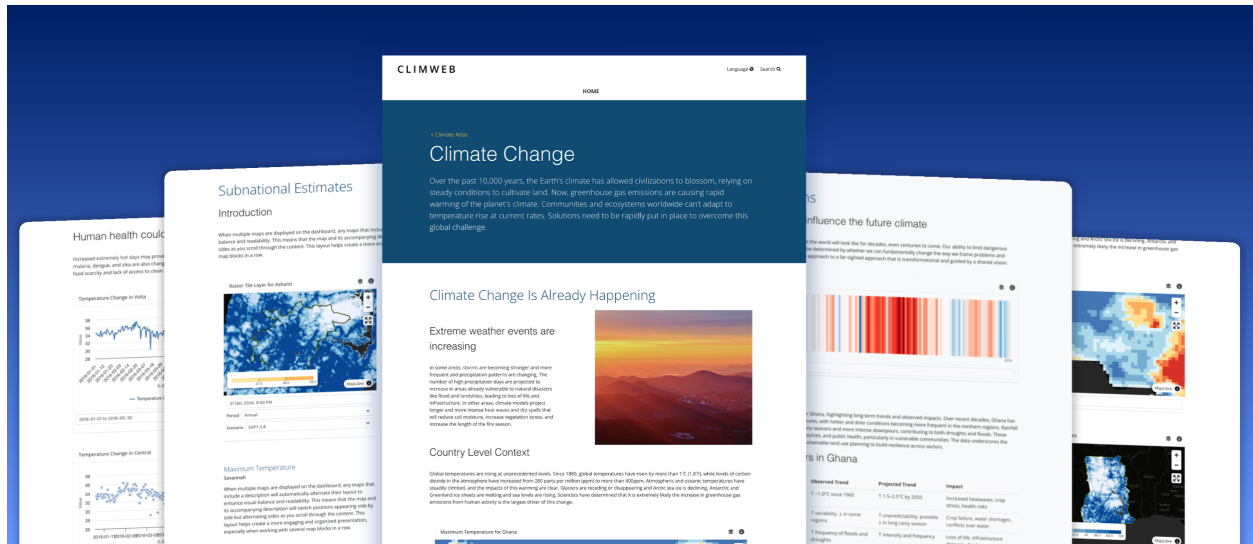
SAVE AREA

100km 100mi

© OpenMapTiles © OpenStreetMap Contributors

zoom: 5.28 lat, lon: 8.72912, 38.48610

## 1.12 Atlas | Interactive Dashboards



The Atlas is a component of climweb that enables **modular, reusable, and CMS-editable dashboards** that bring together maps, charts, warming stripes, and narrative content for effective climate data storytelling. This component is **linked to the geomanager/mapviewer component** within climweb allowing linkage with already created datasets/layers and boundary data. It features:

- **Interactive dashboards** built using reusable blocks for maps, charts, text, images, and other components — enabling flexible and modular page layouts
- **Dynamic maps** supporting raster, vector tile, and WMS layers with custom symbology and legend options
- **Warming stripes** for a visual summary of long-term temperature trends
- **Customizable charts** for time-series and comparative analysis in bar, column, line or scatter plots
- A **user-friendly CMS** that allows teams to manage and update dashboard content independently
- Analysis at different **admin levels**

### 1.12.1 Creating Dashboard Gallery

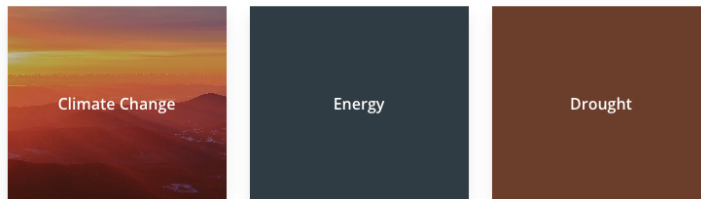
This section will guide you create and manage dashboards in an Atlas.

#### Accessing Dashboards Gallery / Atlas

This is the page that lists all dashboard.

# Climate Atlas

Discover collections of curated climate data, maps, and insights tailored to help you explore trends, risks, and impacts across regions.



1. Log in to the **Wagtail Admin**.
2. If this is the first time creating the dashboards you will be required to first create a parent Atlas/Dashboard Gallery page that houses all dashboards. Go to **Pages -> Home** and create it as a child page of the home page. This will require a title and description.


The screenshot shows the Wagtail Admin interface. On the left is a dark sidebar with a search bar and navigation menu items: Pages, Atlas, Alerts, City Forecast, Media, Images, Documents, and Snippets. The main content area shows a list of pages under the 'Home' parent page. The table has columns for Title, Updated, Type, and Status. The pages listed are:

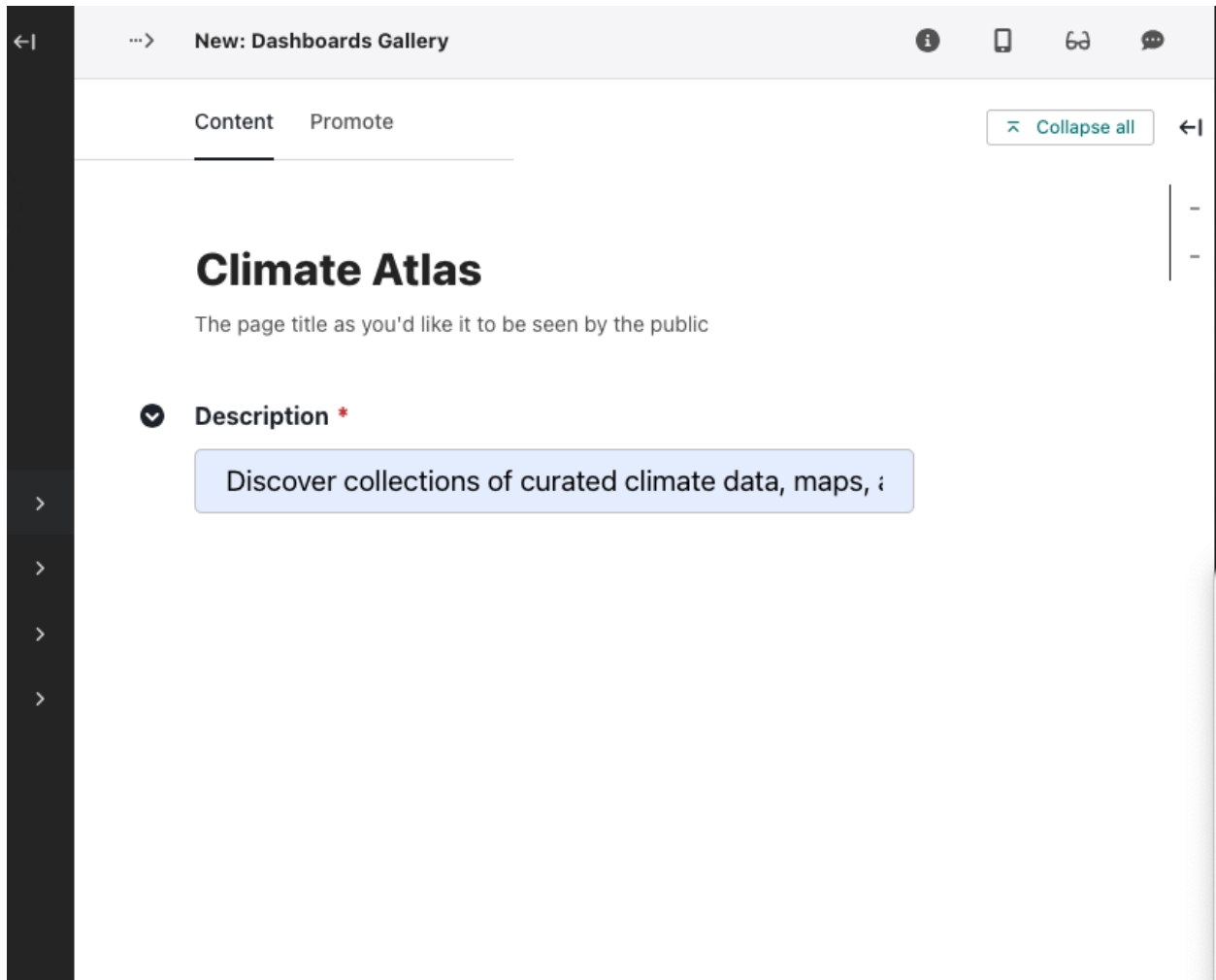
Title	Updated	Type	Status
Post Digital Transformation Workshop June 2025 feedback	2 months ago	Survey page	LIVE
Give us your feedback	2 months ago	Feedback page	LIVE
Contact us	2 months ago	Contact Page	LIVE
Data request	2 months ago	Data request page	LIVE
Our stories	3 months ago	Web story list page	LIVE
Stations	4 months ago	Stations page	LIVE
Events	4 months ago	Event Index Page	LIVE
News	4 months ago	News Index Page	LIVE

<-1

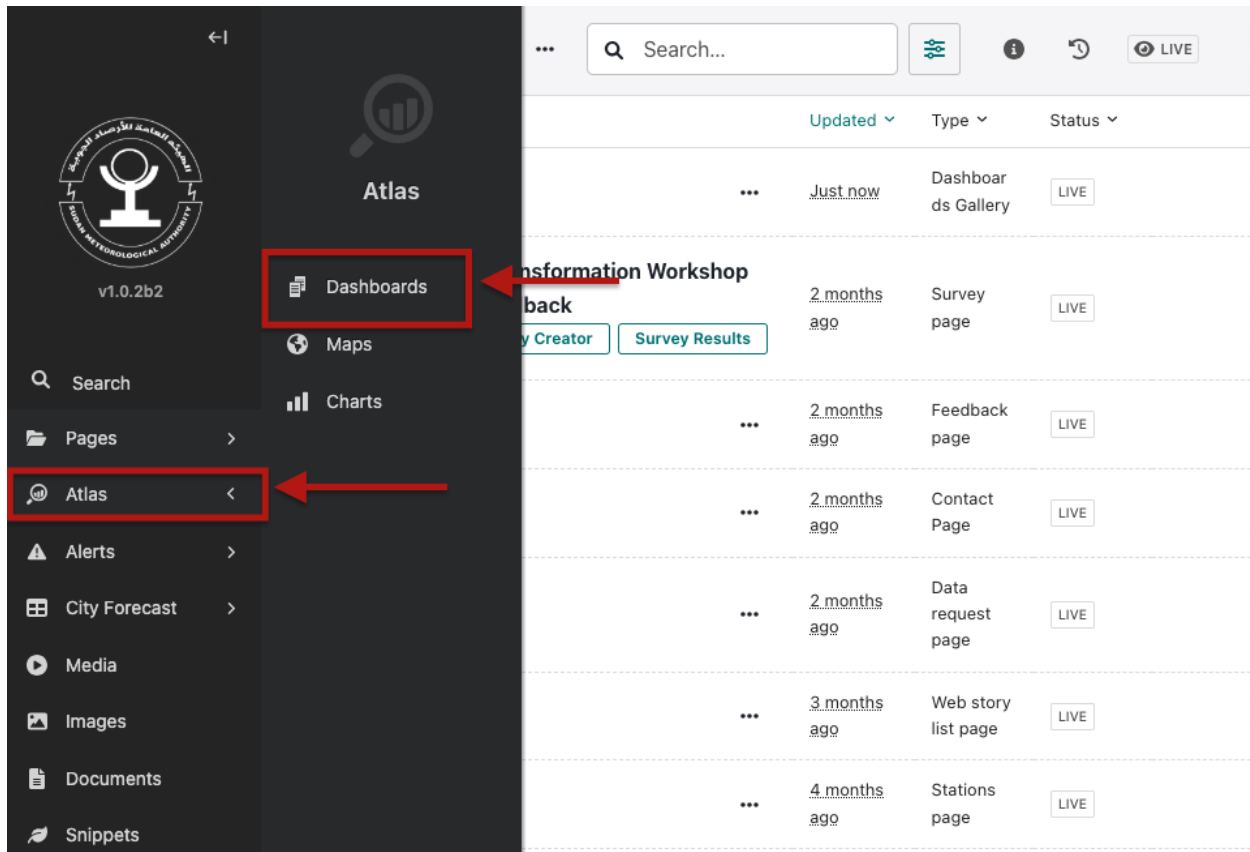
## Create a page in Home

Choose which type of page you'd like to create.

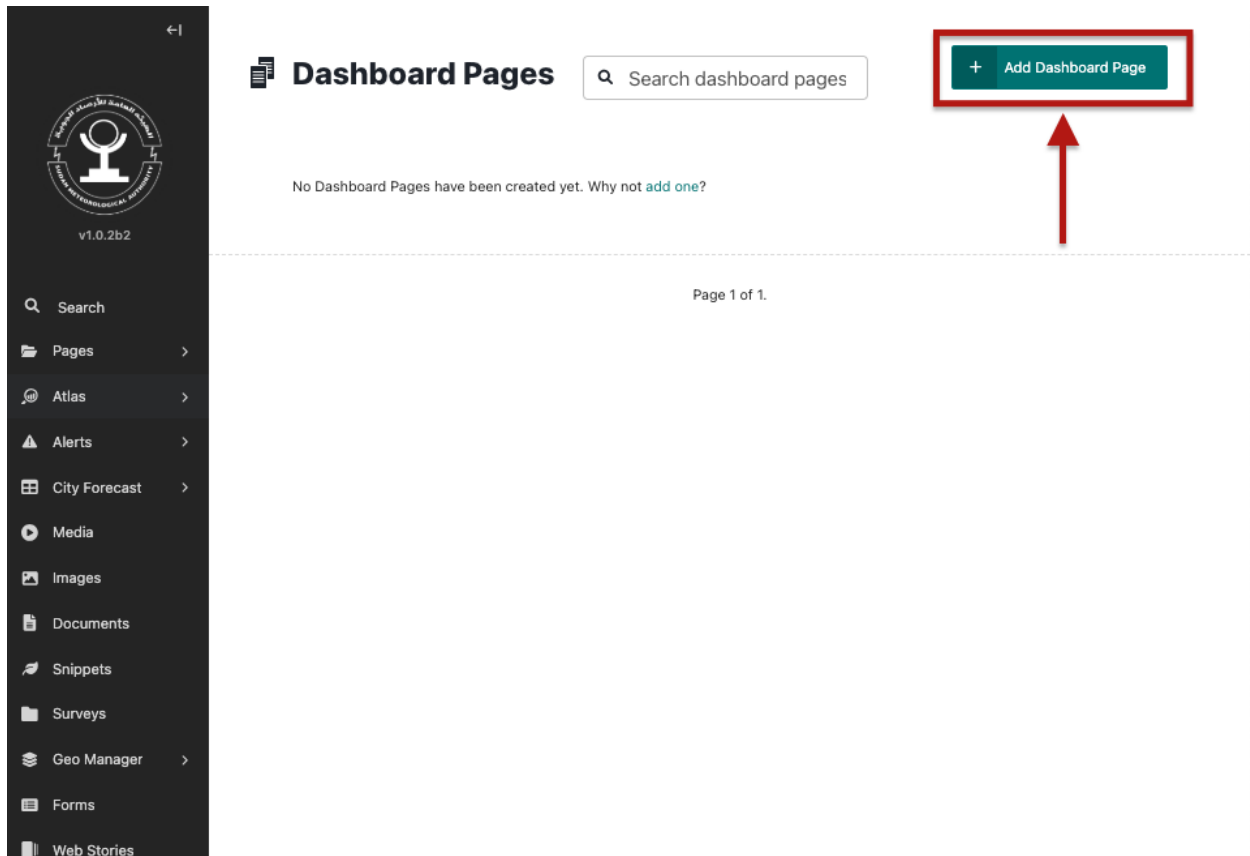
-  City climate data page Pages using City climate data page
-  **Dashboards Gallery**  Pages using Dashboards Gallery
-  Flex Page Pages using Flex Page
-  Glossary index page Pages using Glossary index page
-  Mautic mailing list subscription page Pages using Mautic mailing list subscription page
-  Survey page Pages using Survey page



3. In the left menu, go to **Atlas** → **Dashboards**.

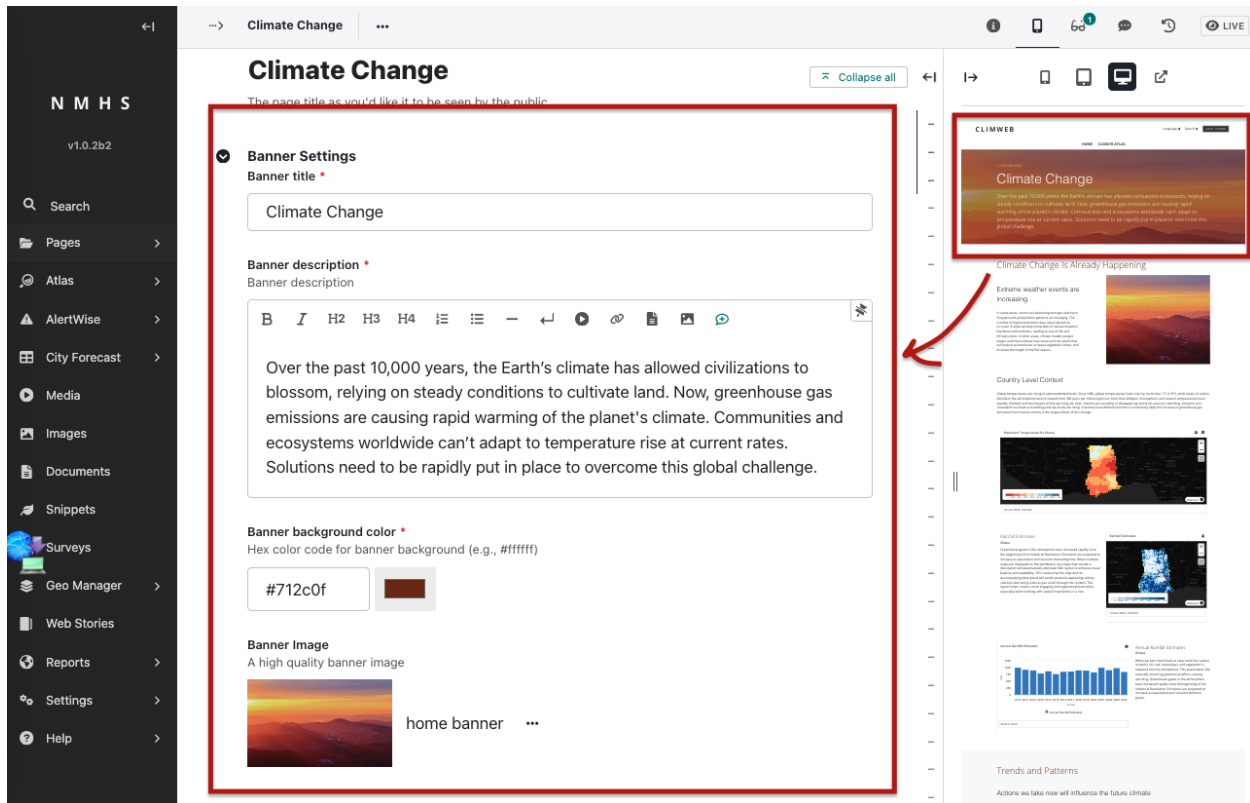


4. Select an existing dashboard or click **Add Dashboard Page** to create a new one.

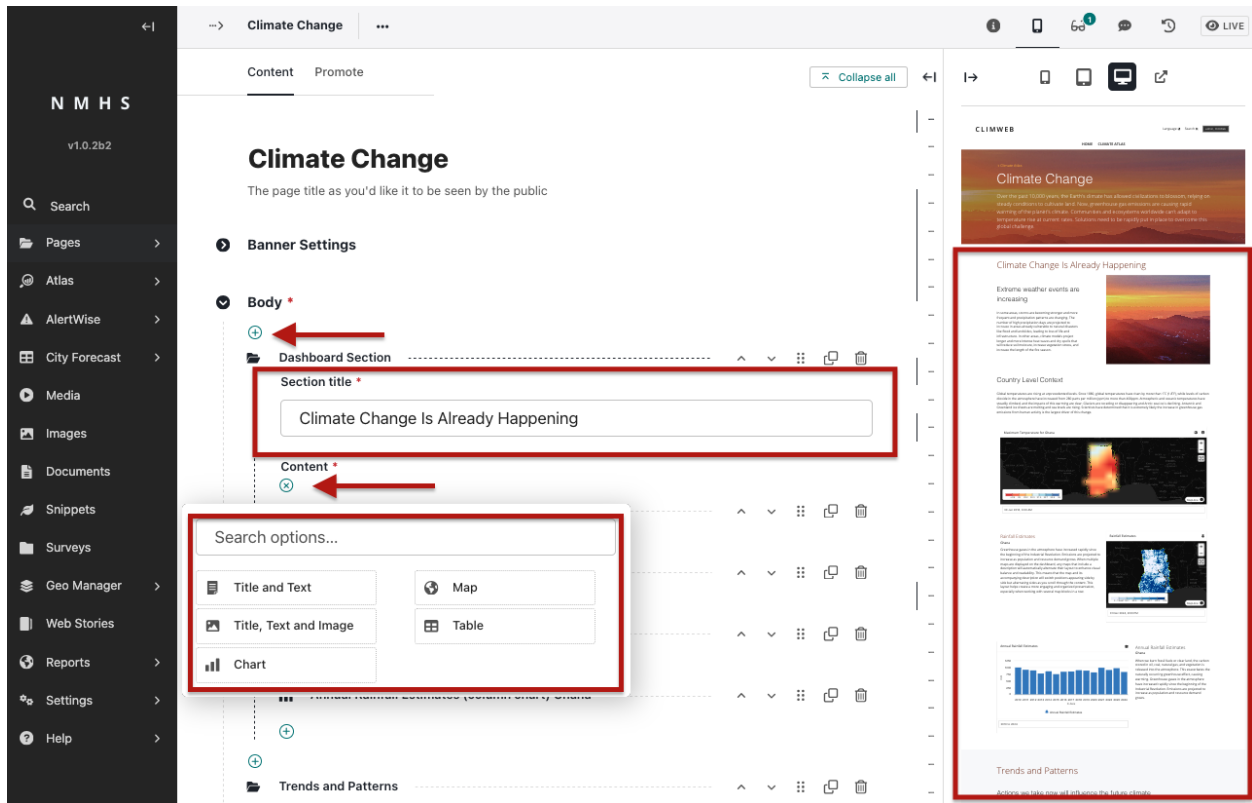


## 1.12.2 Creating a Dashboard Page

When creating a new Dashboard Page:



- Enter a **page title**, **banner title** and optional **banner description**.
- Choose a **background color** (theme for the atlas that will be used for section headings) and **banner image** if desired.
- In the body, add sections containing content using reusable **blocks** (explained below). Each Section requires a section title and description. You can build dashboards using different block types:
  1. **Title & Text Block** – Simple block for adding a section heading and supporting text.
  2. **Title, Text & Image Block** – A heading, text, and image side by side.
  3. **Table Block** – Add tabular data (rows and columns).
  4. **Map Block** – Display an interactive map (from a Map Snippet).
  5. **Chart Block** – Display a chart (from a Chart Snippet).



Once blocks are added, scroll to the bottom of the page. Click **Save Draft** to preview or **Publish** to make the dashboard live.

### 1.12.3 Creating Reusable Maps and Charts (Snippets)

Snippets are reusable components for maps and charts. You must first create these before you can add them to a dashboard page.

## How to Create a Map Snippet

The screenshot shows the Atlas Maps management interface. On the left, the navigation menu is visible with 'Atlas' and 'Maps' highlighted. The main content area displays a list of dashboard maps. A red box highlights the 'Add dashboard map' button in the top right corner.

Map Layers	Area desc
Temperature	Maximum Temperature - Maximum Temperature
Temperature	Maximum Temperature - Maximum Temperature
Temperature	Maximum Temperature - Maximum Temperature
ates	Average Annual Temperature - Average Annual Temperature
ayer	Temperature Raster Tile
ayer	Temperature Vector
olor	Natural Color

Filter  
By area desc

- All
- Ashanti
- Ghana
- Savannah
- Sene West

1. In Admin Menu, go to **Atlas** → **Maps** → **Add Map**.

2. Fill in the following:

- **Title** – A short name for the map.
- **Optional Description** – Explains what the map shows.
- **Dataset** – Choose from datasets created in **GeoManager**.
- **Layer Type** – One per snippet (**Raster File Layer, Raster Tile Layer, WMS Layer, or Vector Tile Layer**).
- **Legend** – Already defined in **GeoManager** when creating the dataset (not in the snippet).
- **Admin Area** – Select an admin level and then click on the map to generate the area description.

3. Save the snippet.

The screenshot displays the ClimWeb interface with a dark sidebar on the left containing navigation items like 'Search', 'Pages', 'Atlas', 'AlertWise', 'City Forecast', 'Media', 'Images', 'Documents', 'Snippets', 'Surveys', 'Geo Manager', 'Web Stories', 'Reports', 'Settings', and 'Help'. The main content area shows a map configuration panel for a layer titled 'Maximum Temperature'. At the top, there are two tabs: 'Layer' (highlighted with a red box) and 'Admin Boundary' (highlighted with an orange box). Below the tabs is a 'Title' field containing 'Maximum Temperature'. A 'Description' field contains text explaining how multiple maps alternate layout on a dashboard. The 'Map Layers' section is expanded, showing a search bar and four layer type options: 'Raster file layer', 'Raster tile layer', 'Wms layer', and 'Vector tile layer'. A red box highlights this section, and a red arrow points to the 'Raster tile layer' option. A 'Save' button is visible at the bottom of the configuration panel.

← | N M H S | v1.0.2b2

Search | Pages | Atlas | AlertWise | City Forecast | Media | Images | Documents | Snippets | Surveys | Geo Manager | Web Stories | Reports | Settings | Help | Grace

Last updated 4 weeks ago | History

Layer: **Admin Boundary**

Admin level \*  
Administrative Level  
Level 1 ▾

Area desc  
The text describing the affected area of the alert message  
Savannah

Area  
Map showing Savannah Region in Ghana highlighted in black.

Save

**Note:** Each snippet can only contain **one layer**.

## How to Create a Chart Snippet

The screenshot shows the Wagtail Admin interface for 'Dashboard Charts'. On the left, a dark sidebar contains navigation items: 'Atlas' and 'Charts' are highlighted with red boxes and arrows. The main content area displays a table of dashboard charts. The table has columns for 'Title', 'Edit', 'Delete', 'Chart type', and 'Area desc'. The 'Add Dashboard Chart' button is highlighted with a red box and a red arrow. A filter sidebar on the right shows options for 'By chart type' and 'By area desc'.

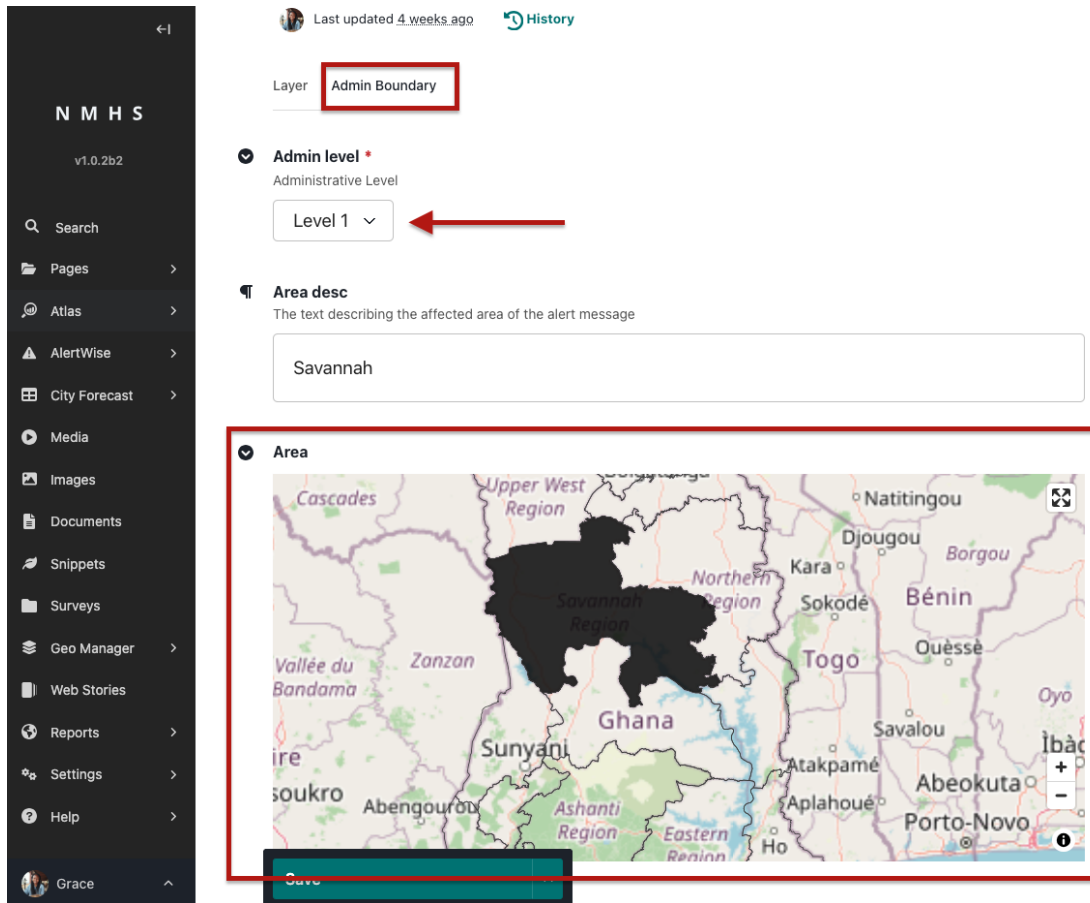
Title	Edit	Delete	Chart type	Area desc
Change	Edit	Delete	Area Chart	Ahafo
Change	Edit	Delete	Line Chart	Volta
Change	Edit	Delete	Scatter Plot	Central
Change	Edit	Delete	Vertical Bar Chart	Eastern
Change	Edit	Delete	Line Chart	Ghana
Estimates	Edit	Delete	Vertical Bar Chart	Ghana
Change	Edit	Delete	Warming stripes	Bono East
Temperature	Edit	Delete	Line Chart	Ghana
al Temperature	Edit	Delete	Horizontal Bar Chart	Savannah

1. In Wagtail Admin, go to **Snippets** → **Dashboard Charts** → **Add Chart**.
2. Fill in the following:
  - **Title** – A short name for the chart.
  - **Optional Description** – A short explanation of the chart.
  - **Dataset** – Choose the dataset that will power the chart.
  - **Chart Type** - available options are bar graph, column graph, line chart, area chart and heatmap
  - **Chart Colour** - The color that will be applied to the graph when styling the data.
  - **Admin Area** – Select an admin level and then click on the map to generate the area description.

The screenshot displays the configuration interface for a dashboard titled "Temperature Change". On the left is a dark sidebar with the "N M H S" logo and version "v1.0.2b2", along with a list of navigation items: Search, Pages, Atlas, AlertWise, City Forecast, Media, Images, Documents, Snippets, Surveys, Geo Manager, Web Stories, Reports, Settings, Help, and a user profile for "Grace".

The main configuration area includes:

- Layer** and **Admin Boundary** dropdown menus at the top, both highlighted with red boxes and red arrows pointing to the **Title** field below.
- Title**: A text input field containing "Temperature Change".
- Description**: A rich text editor with a toolbar (bold, italic, underline, list, link) and a placeholder text "Write something or type '/' to insert a block".
- Data Configuration**: A section containing a **Dataset** dropdown menu with the selected item "Maximum Temperature - Maximum Temperature" and a **Data unit** input field.
- Chart Type Selection**: A dropdown menu with options: Line Chart, Vertical Bar Chart, Horizontal Bar Chart, **Area Chart** (selected), Scatter Plot, and Warming stripes. Below this is a color picker showing the hex code "#a21568".
- Save**: A teal button at the bottom right.



3. Save the snippet.

## 1.12.4 Block Layout Rules

- Blocks can be arranged in any order.
- **When two Map blocks or two Chart blocks appear consecutively and each has a description, the text/title alternates sides automatically:**
  - Example: First block → text on the left, map/chart on the right.
  - Next block → text on the right, map/chart on the left.
- This ensures dashboards remain visually balanced and easy to read.

With this setup, you can create rich dashboards combining **text, images, tables, maps, and charts**—all styled for clarity and interactivity.

## 1.12.5 FAQs

**Q: How do I reset a chart or map to its default state?**

A: Refresh the page to reset all filters and parameters.

**Q: Can I download the data shown in the charts or maps?**

A: Currently, data download functionality is not available. Contact the administrator for data access.

**Q: Why is the warming stripes chart not showing any data?**

A: Ensure that the selected date range has data available. If the issue persists, check the dataset configuration.

---

This guide provides a comprehensive overview of the dashboard application. For further assistance, contact the support team.

## 1.12.6 Troubleshooting

### Common Issues

- 1. Error Loading Data:**
  - Ensure you have a stable internet connection.
  - Check if the dataset or layer ID is valid.
- 2. Selectors Not Updating:**
  - Refresh the page to reload parameter selectors.
  - Ensure the dataset supports the selected parameters.
- 3. Date Range Not Applying:**
  - Verify that the selected date range has data available.

## 1.13 Mailing Integrations

### 1.13.1 Mautic

Mautic is an open-source alternative to Mailchimp.

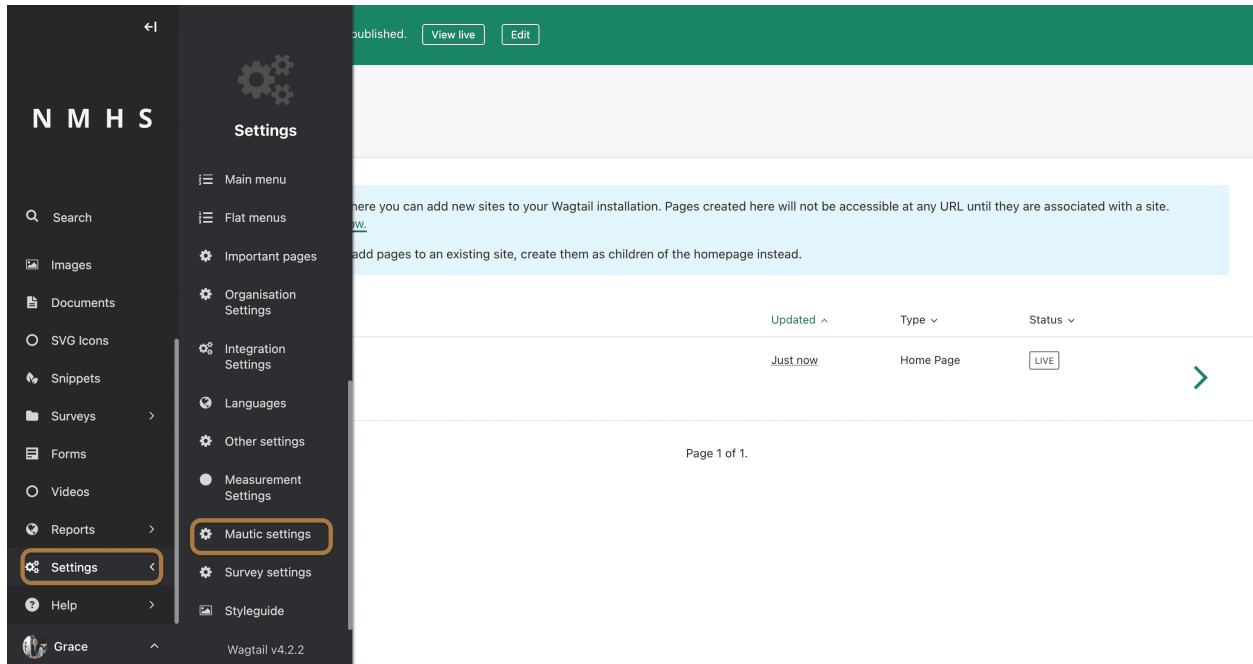
The aim of this package is to render a given Mautic Form on a Wagtail page, and send the submitted data to Mautic. Other Mautic functionalities might be added later as need arises.

For package developer guide visit [Wagtail Mautic Developer Guide](#)

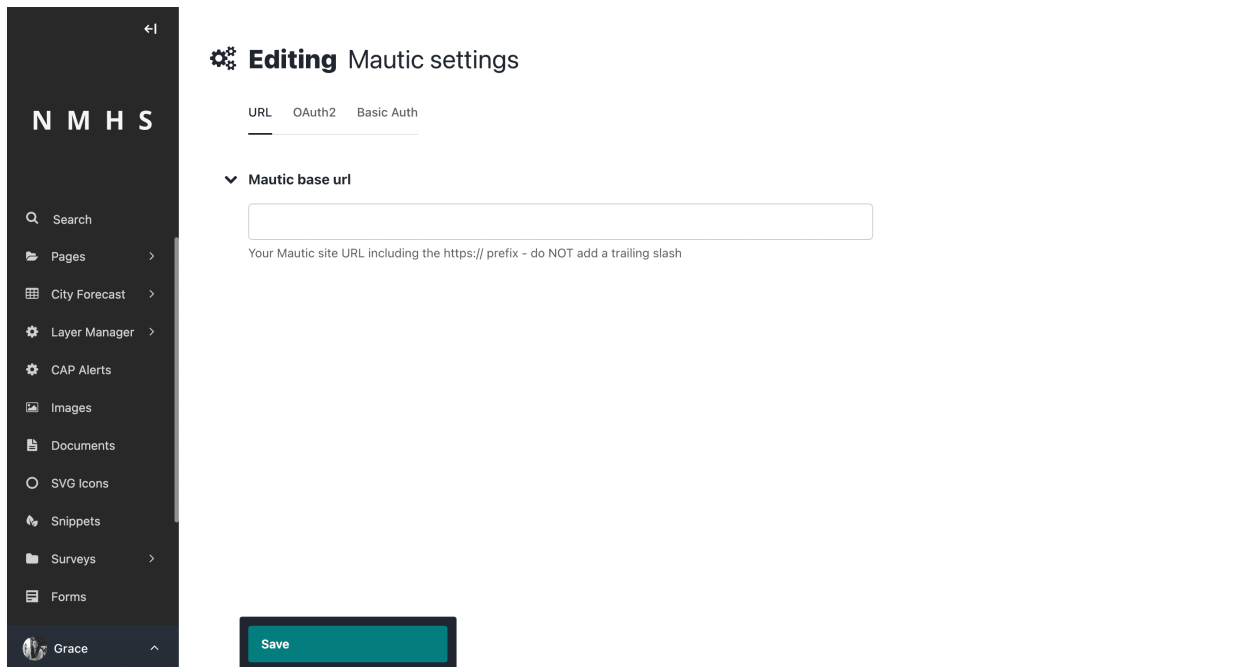
### Settings

NOTE: This instructions assume you have knowledge of setting up Wagtail and configuring Mautic, as we don't cover the specifics.

Mautic Settings will be added to the Wagtail Admin Menu as below



Add in the URL for your Mautic instance (including the https://) to the Mautic Url field.



You can use two methods for authentication:

- OAuth2 that requires client id and client secret from Mautic
- Basic Authentication that needs username and password. To use Basic Auth, you must enable this on Mautic Configuration

## OAuth2

**Editing Mautic settings**

URL OAuth2 Basic Auth

**Mautic client id**

Mautic Client ID. Obtain from Mautic Settings

**Mautic client secret**

Mautic Client Secret. Obtain from Mautic Settings

Save

## Basic

**Editing Mautic settings**

URL OAuth2 Basic Auth

**Mautic username**

Mautic username. Add if not using client ID and secret

**Mautic password**

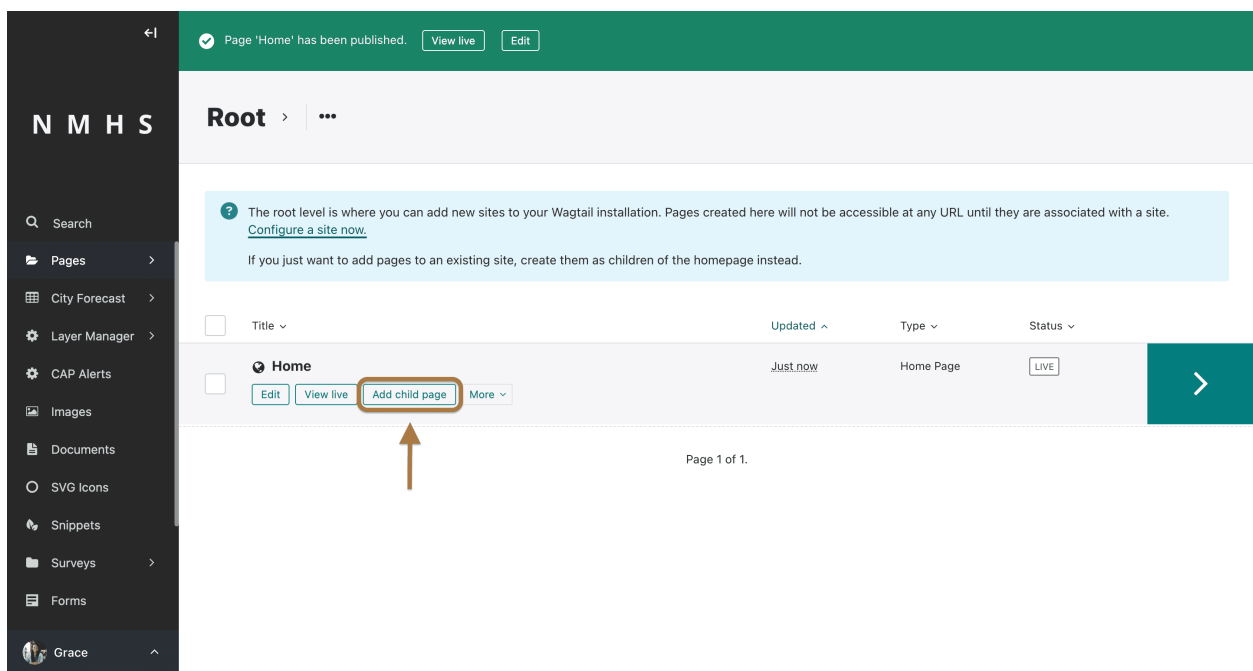
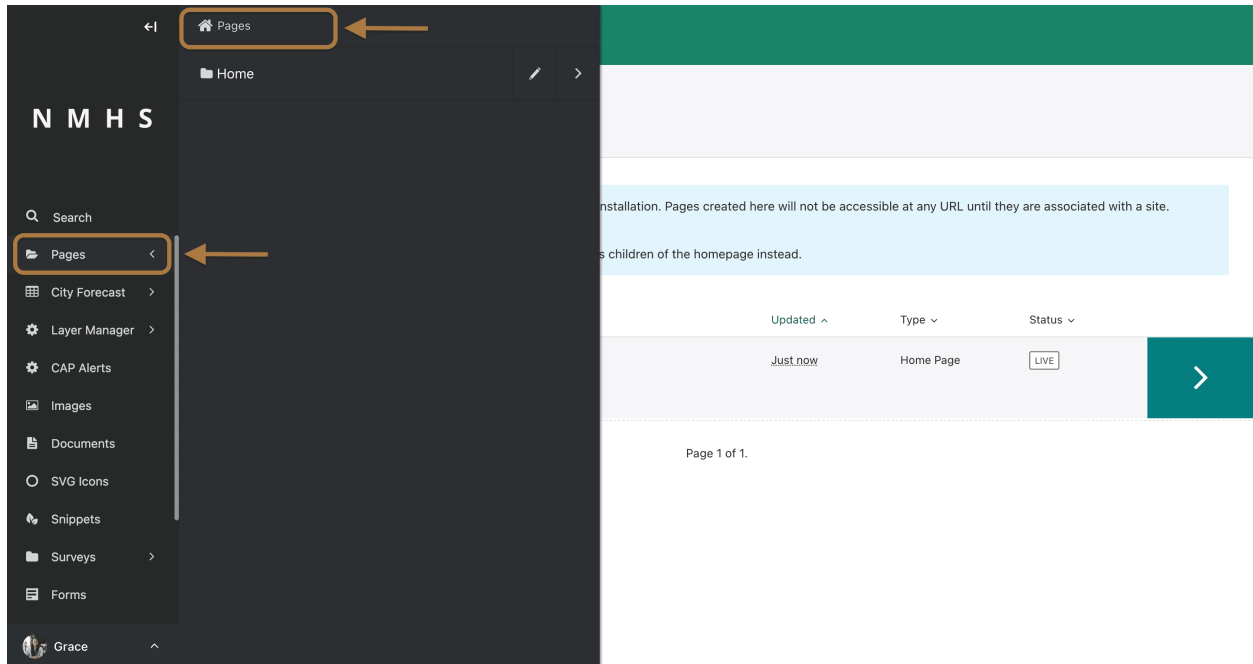
Mautic Password. Add if not using client ID and client secret. Will not be visible once saved. Saving again will override any previously saved password

Save

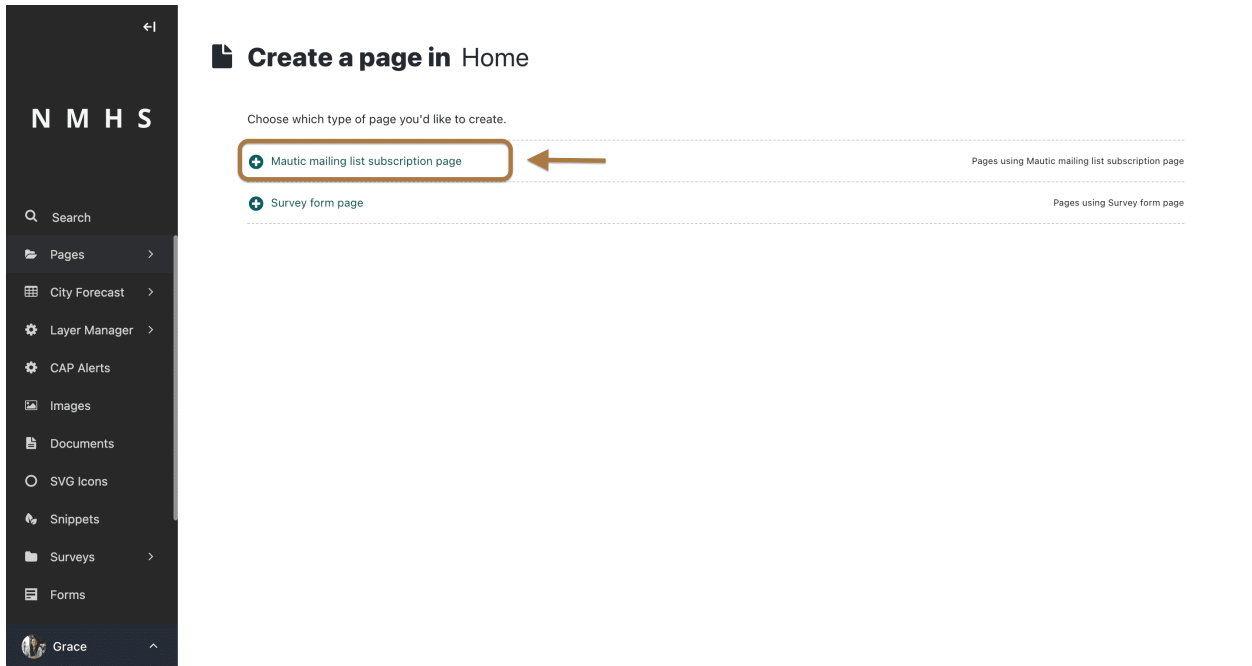
20.56.94.119/cms/admin/settings/wagtailmautic/mauticsettings/2/#tab-basic\_auth

## Usage

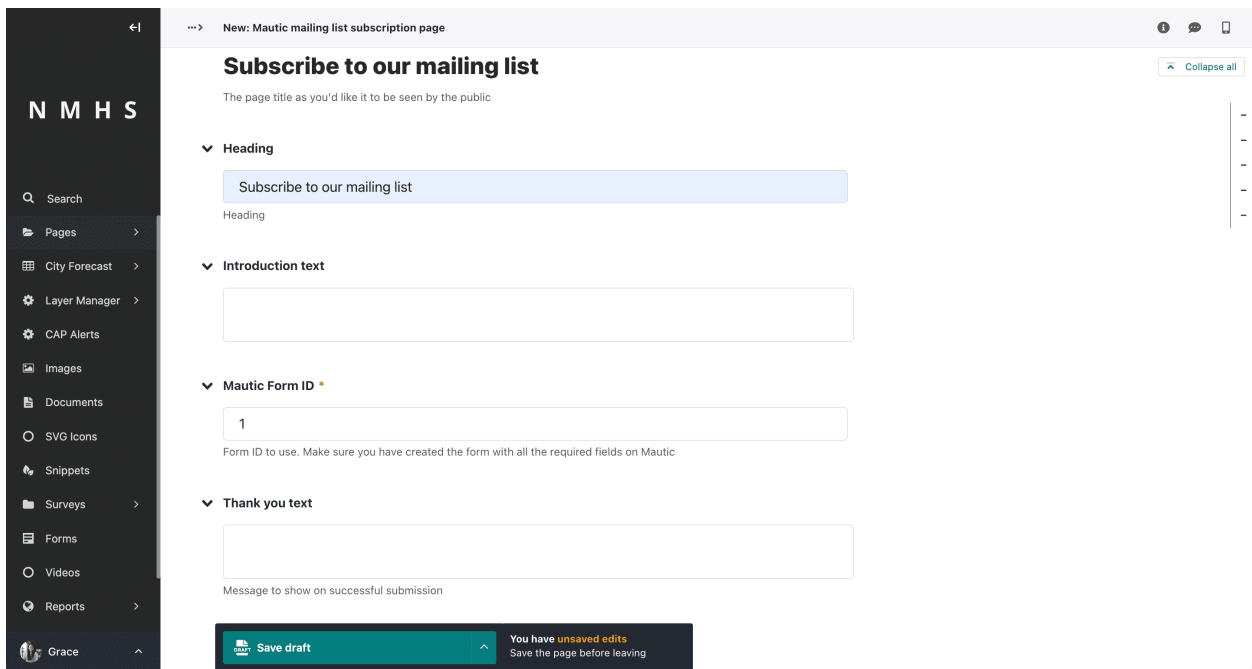
To create a subscription page based on mautic integration, navigate to Pages on the left side panel, select Pages and click on add a child page to the home page by hovering over the homepage.



Select Mautic mailing list subscription page from the list. Note that, if this page was already created then this option will not appear as only one instance of this page is allowed.



Fill in the form with necessary input. Example below. The Mautic form ID is retrieved from the subscription form created on Mautic’s software. Refer to [Mautic User Guide](#)



Once the page is published, this page will render all fields created in Mautic.

## 1.13.2 Mailchimp

In progress ...

## 1.14 Translations Contribution Guide

A step-by-step guide for contributors helping make climate information accessible in multiple languages.

**Project link:** [crowdin.com/project/nmhs-cms](https://crowdin.com/project/nmhs-cms)

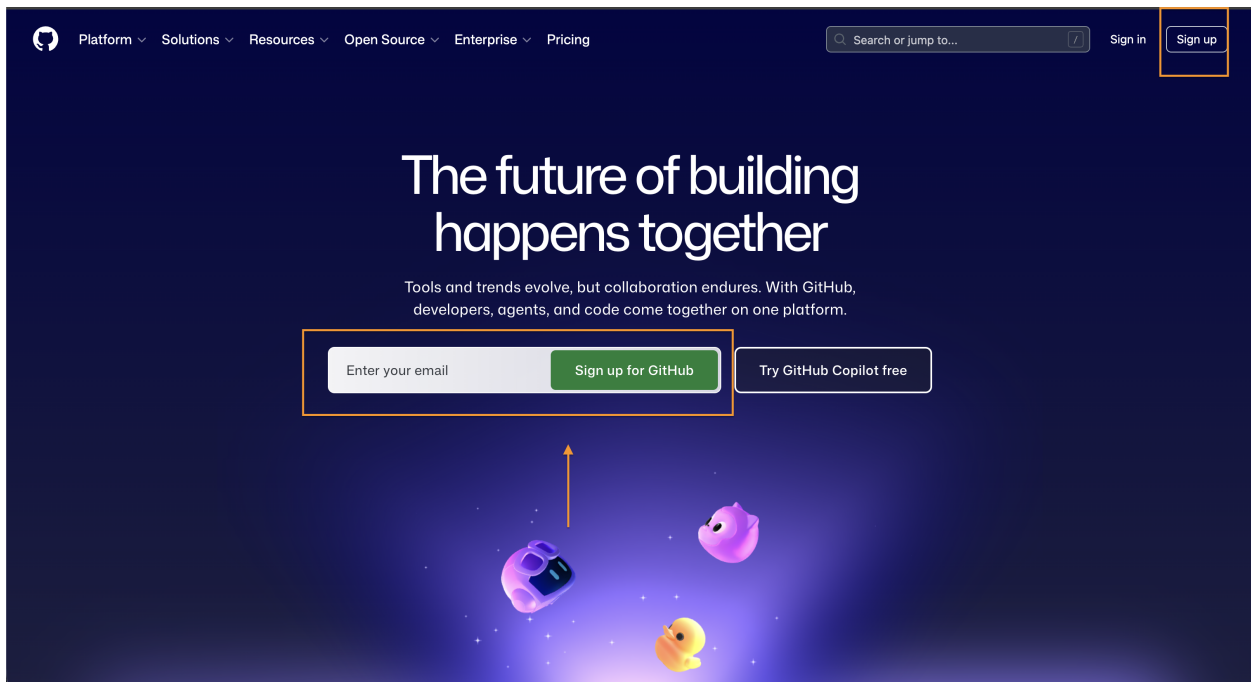
---

### 1.14.1 Part 1 — Getting Started

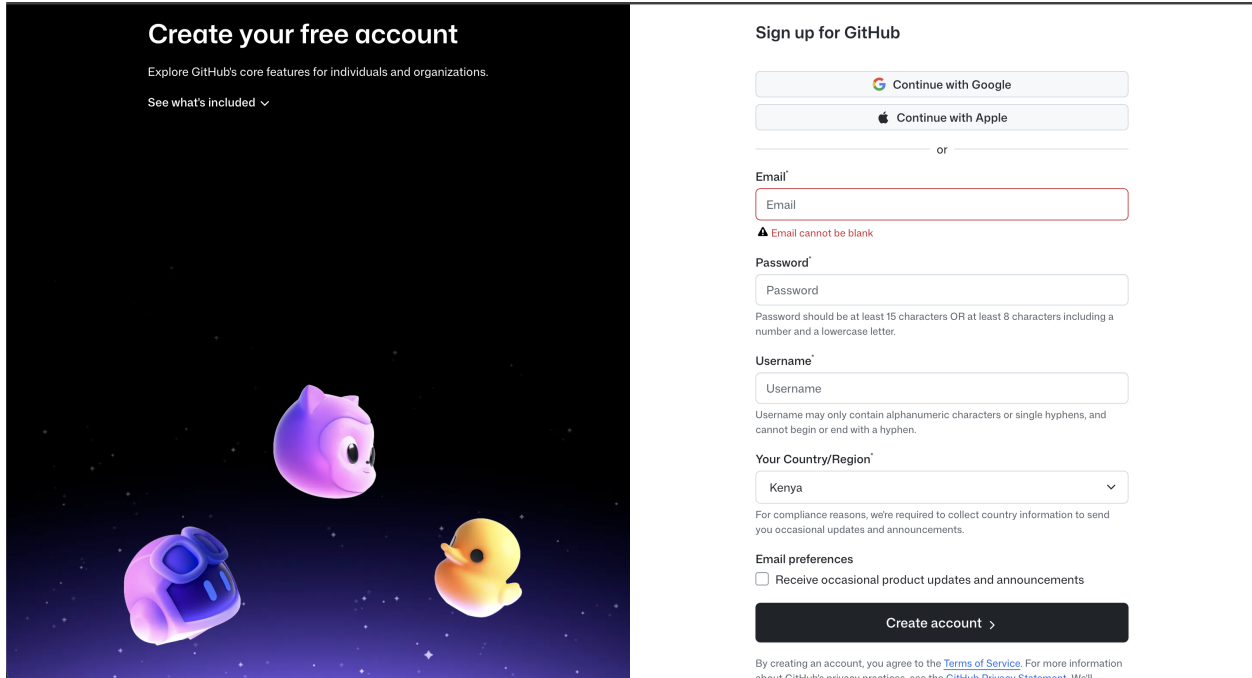
#### Step 1: Create a GitHub Account

Contributors are encouraged to sign in to Crowdin using GitHub. If you don't have a GitHub account yet, here's how to create one:

1. Go to [github.com](https://github.com) and click **Sign up** in the top-right corner.



2. Enter your **email address** and click **Continue**.
3. Create a **password** and click **Continue**.
4. Choose a **username** — this will be your public identity on GitHub.
5. Complete the short verification puzzle to confirm you're human.
6. Click **Create account**. GitHub will send a **verification code** to your email — enter it to activate your account.



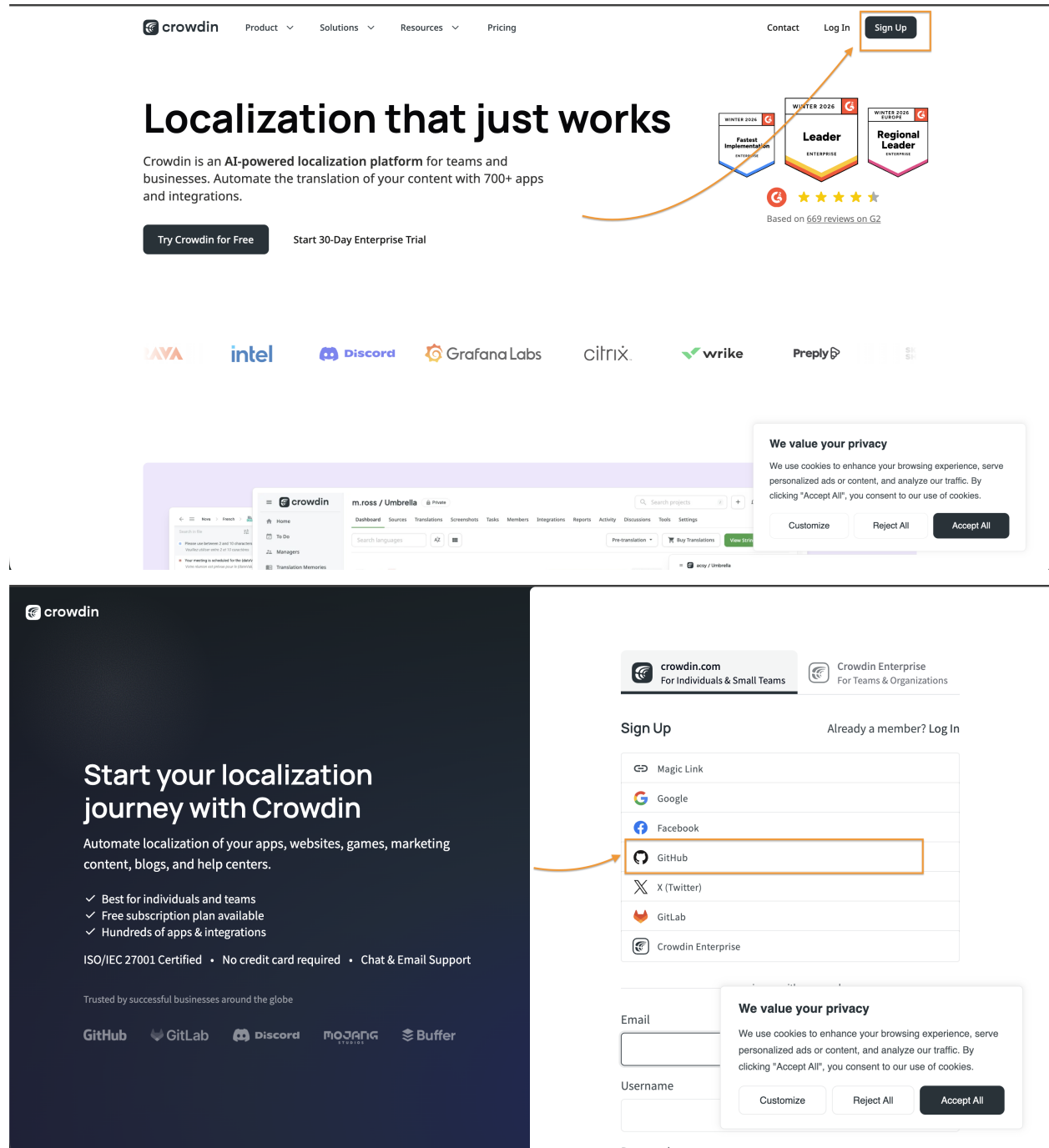
- On the welcome screen, you can skip the optional setup questions by scrolling down and clicking **Skip personalisation**.

**Tip:** Choose a username that represents you professionally — it will be visible to other contributors on the ClimWeb project.

You now have a GitHub account and are ready to sign in to CrowdIn!

## Step 2: Create a CrowdIn Account via GitHub

Go to [crowdin.com](https://crowdin.com) and click **Sign Up**. On the signup page, select **Continue with GitHub** instead of filling in the email form.



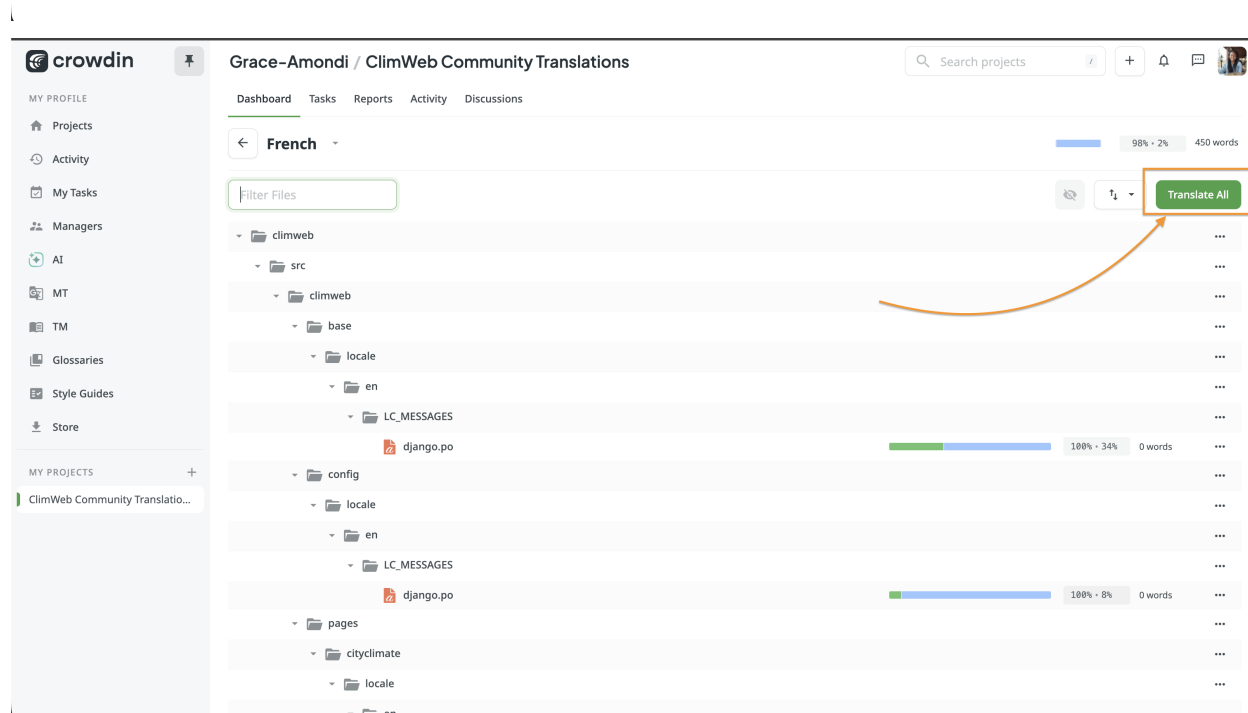
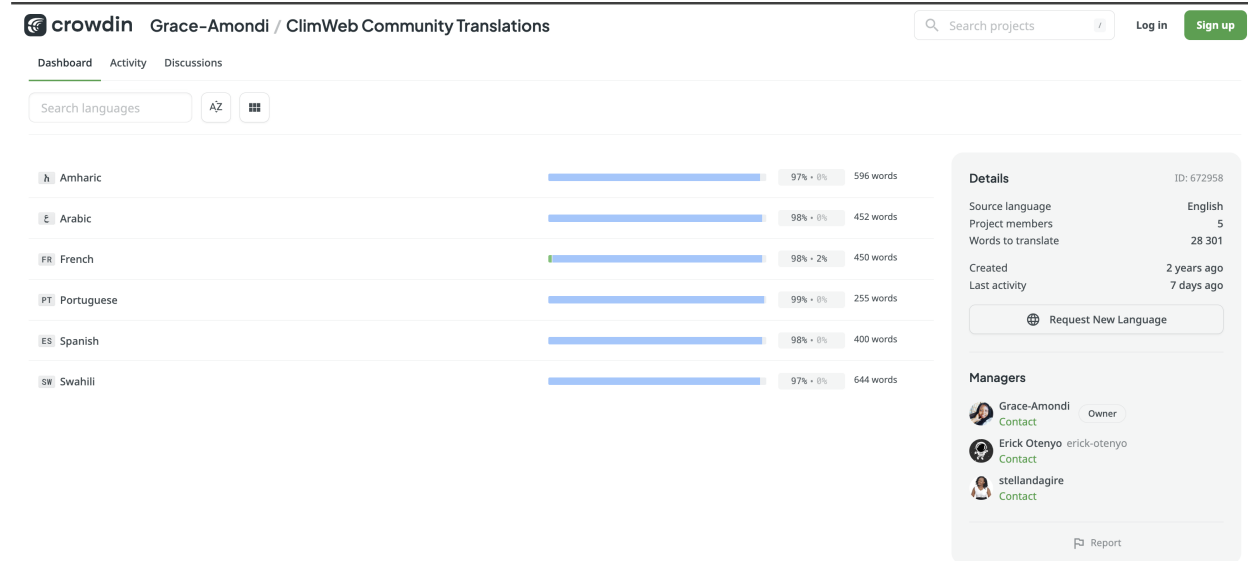
GitHub will ask you to authorise Crowdin — click **Authorize crowdin** to allow the connection. You'll be redirected back to Crowdin with your account ready to use.

Once signed in, go to your **Account Settings** (click your profile picture in the top-right corner) to set your preferred languages — this helps Crowdin show you relevant projects.

### Step 3: Join the ClimWeb Project

Visit the ClimWeb Community project directly at: [crowdin.com/project/nmhs-cms](https://crowdin.com/project/nmhs-cms)

On the project **Dashboard**, you'll see all available languages and their current translation progress. Click on your language to get started.

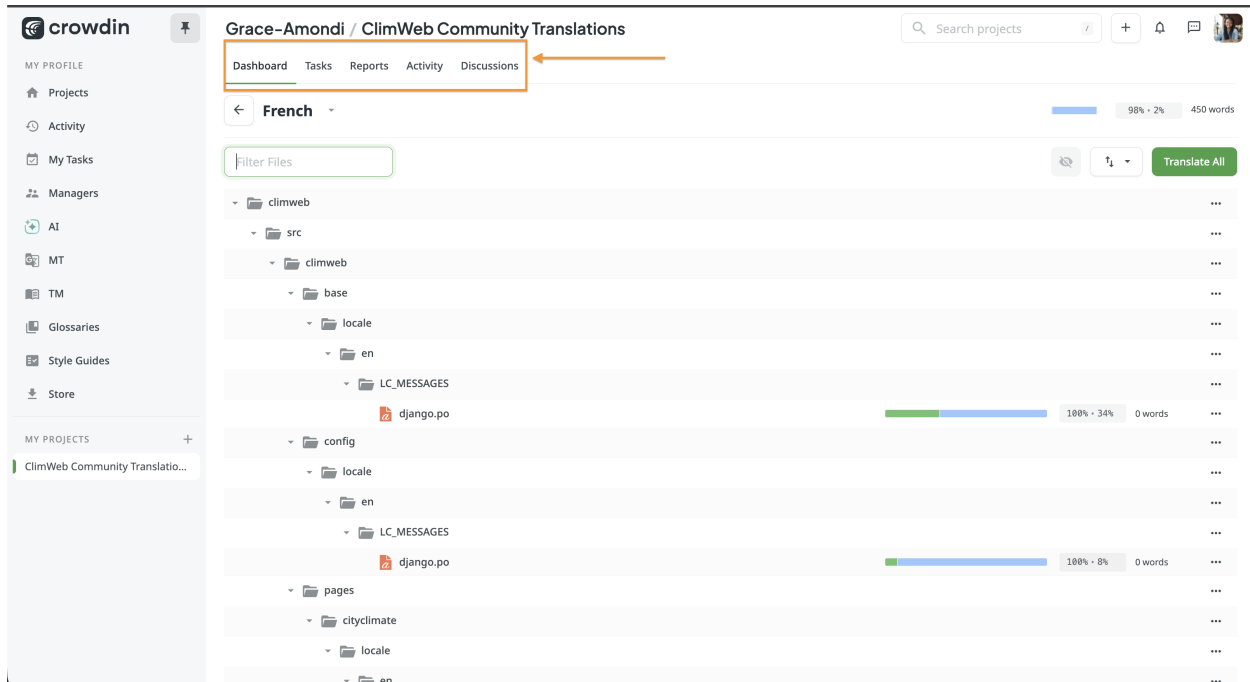


**Note:** Some languages may require you to click **Join** and wait for a project manager to approve your request before you can begin translating.

## Step 4: Explore the Project Dashboard

The project Dashboard has several tabs you should know:

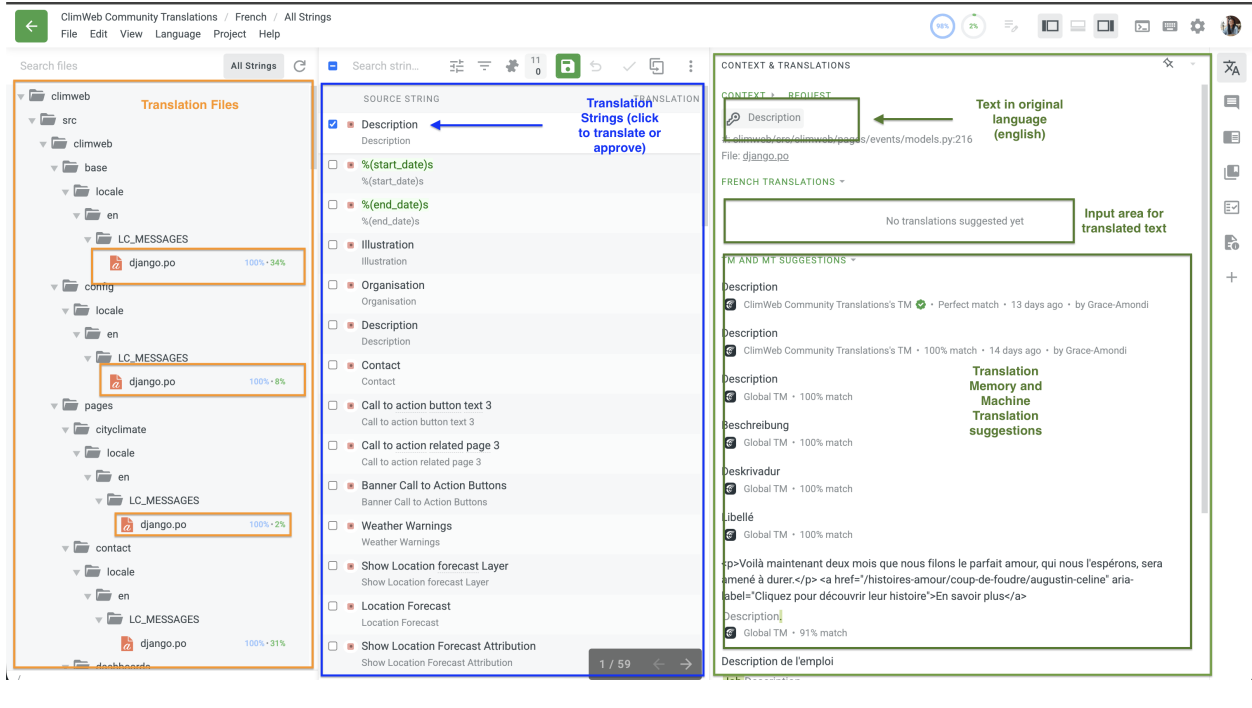
Tab	What it's for
<b>Dashboard</b>	Overview of languages, progress, and project details
<b>Tasks</b>	Any specific translation tasks assigned to you
<b>Reports</b>	Your personal contribution statistics
<b>Activity</b>	A live feed of what's happening across the project
<b>Discussions</b>	A space to ask questions and collaborate with other translators



Click on your language, then select a file or click **Translate All** to open the editor.

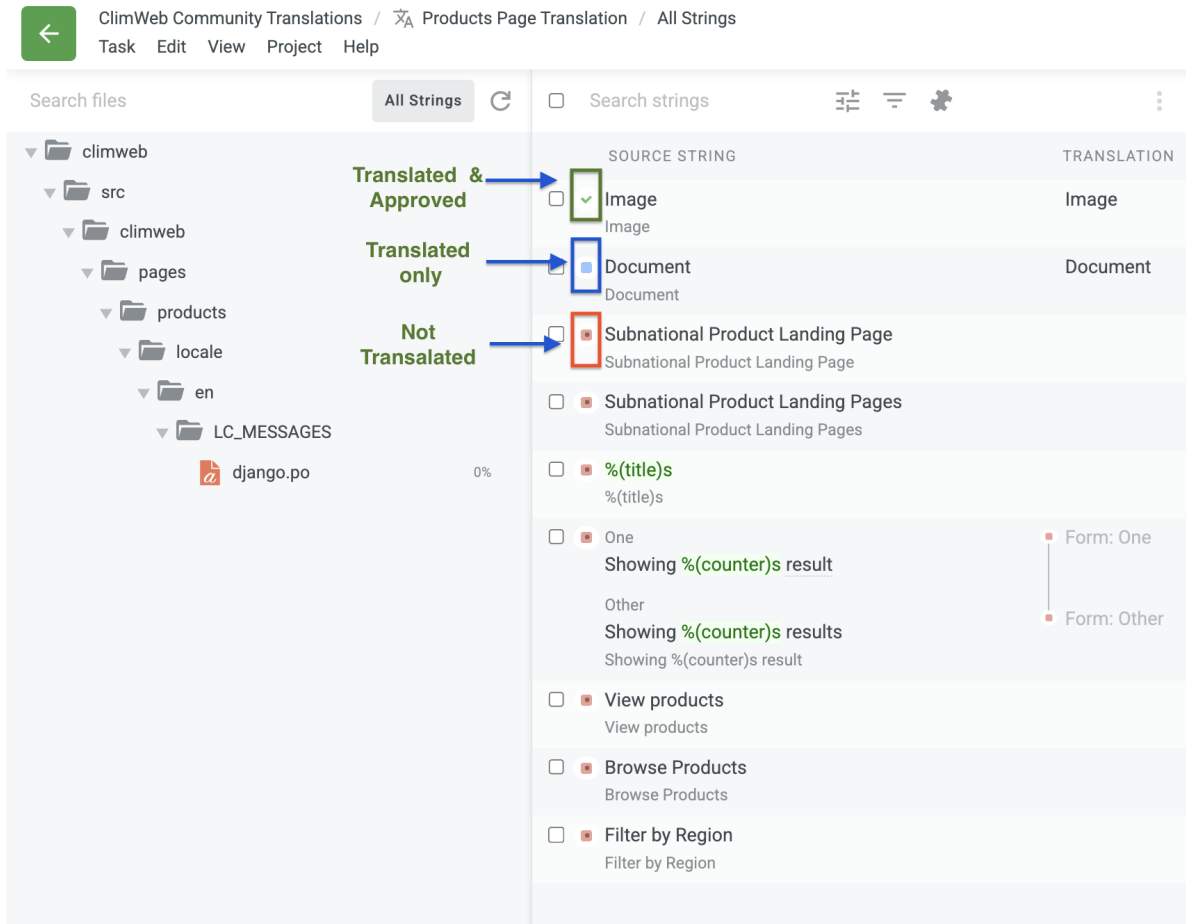
### 1.14.2 Part 2 — Translating in the Editor

The Crowdin editor has three main panels:



### Step 5: Understand the Editor Layout

- **Left panel** — The files for translation showing the progress of translation and approval progress in percentage
- **Centre panel** — The list of strings (phrases or sentences) waiting to be translated. Untranslated strings are shown first. **(Red means untranslated, Blue means translated but not approved, Green means translated and approved)**



- **Right panel** — The active string. You'll see the original English text at the top, and a text field below where you type your translation. It also contains suggestions from Translation Memory (TM), Machine Translation, and the Glossary to help guide you.

## Step 6: Translate a String

1. For the selected file, click on a string in the centre panel to select it.
2. Read the English source text carefully in the centre panel.
3. Type your translation in the text field below it.
4. Press **Enter** or click the green **Save** button to submit and move to the next string.

**Tip:** Watch for variables like %1, {name}, or 0 — do **not** translate these. Copy them exactly as-is into the correct position in your translation.

You can also click a **TM suggestion** on the right panel to pre-fill your translation field, then edit as needed.

## Step 7: Use Suggestions Wisely

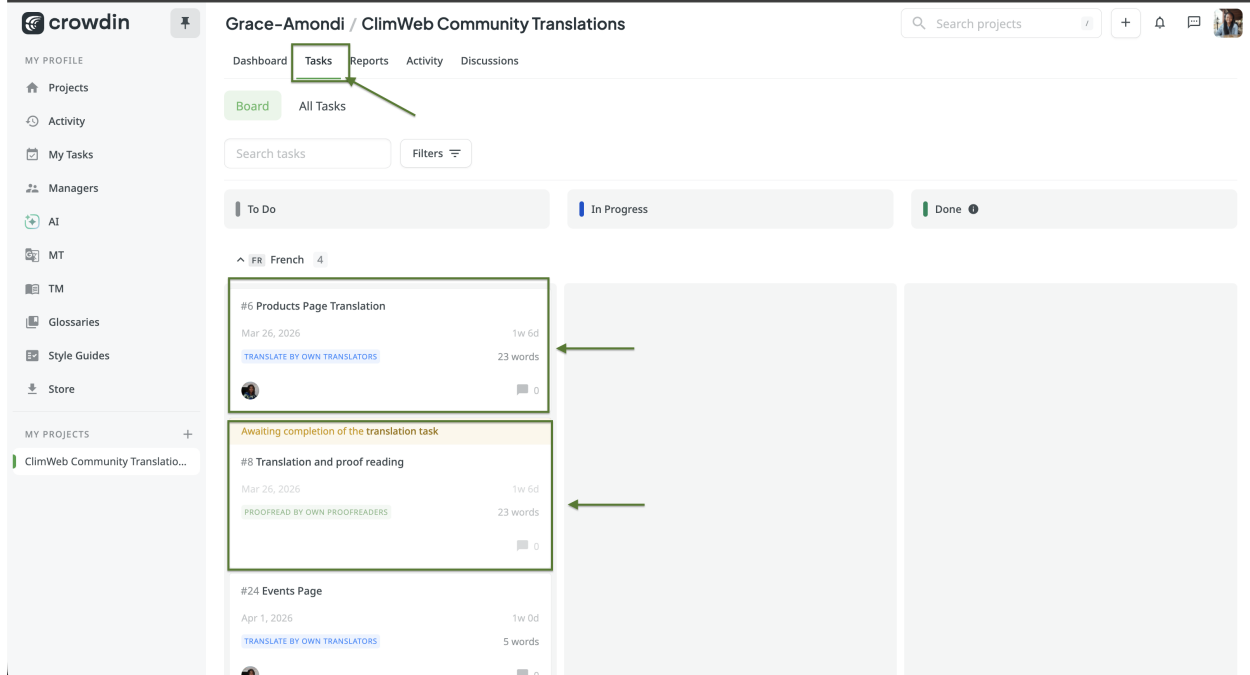
Crowdin offers several aids to help you translate faster and more consistently:

- **Translation Memory (TM)** — Shows how similar strings have been translated before. A 100% match means the exact same string was translated previously. Use these as a starting point but always review them.

- **Machine Translation (MT)** — Automatic suggestions from engines like Google Translate or DeepL. These can be helpful but always need human review and editing.
- **Glossary** — Highlighted key terms with approved translations. Always use glossary terms for consistency across the project (e.g., specific climate or weather terminology).

## Step 8: Working with Tasks

Project managers may assign you specific **Tasks** — these are focused batches of strings that need to be translated or proofread by a set deadline. Tasks help the team coordinate effort and prioritise what gets done first.



To find your tasks:

1. Go to the **Tasks** tab on the project Dashboard.
2. Click on a task to see its details — the assigned language, deadline, and the specific files or strings included.
3. Click **Open in Editor** or **View Strings** button to start working on the strings within that task.
4. Your progress is tracked separately per task, so the team can see how much has been completed.

The screenshot displays the Crowdin interface for the 'Grace-Amondi / ClimWeb Community Translations' project. The 'Tasks' tab is selected, showing a board for '#6 Products Page Translation'. A green arrow points to the 'View strings' button. Below the board, a table shows members and their assigned words. A second screenshot shows the 'All Strings' view with a list of source strings and their translations, including a '9 STRINGS' button at the bottom.

Project members	Time Spent	Assigned words	Words left	Actions
Diane M. LAUROU diane-laourou		23	23	...

Name	Assigned words
climweb	23
src	23
climweb	23
pages	23
products	23

SOURCE STRING	TRANSLATION
<input checked="" type="checkbox"/> Image Image	
<input type="checkbox"/> Document Document	
<input type="checkbox"/> Subnational Product Landing Page Subnational Product Landing Page	
<input checked="" type="checkbox"/> Subnational Product Landing Pages Subnational Product Landing Pages	
<input type="checkbox"/> %(title)s %(title)s	
<input type="checkbox"/> One Showing %(counter)s result	Form: One
Other Showing %(counter)s results	Form: Other
<input checked="" type="checkbox"/> View products View products	
<input type="checkbox"/> Browse Products Browse Products	
<input type="checkbox"/> Filter by Region Filter by Region	

**Tip:** Always check the Tasks tab first when you log in. Assigned tasks usually have deadlines and should be prioritised over general open contributions.

If you have not been assigned a task yet, you can still contribute freely by selecting a language and translating any untranslated strings — every contribution counts!

### 1.14.3 Part 3 — Proofreading

**Note:** Proofreader access is granted by project managers. If you'd like this role, reach out to the ClimWeb community coordinators.

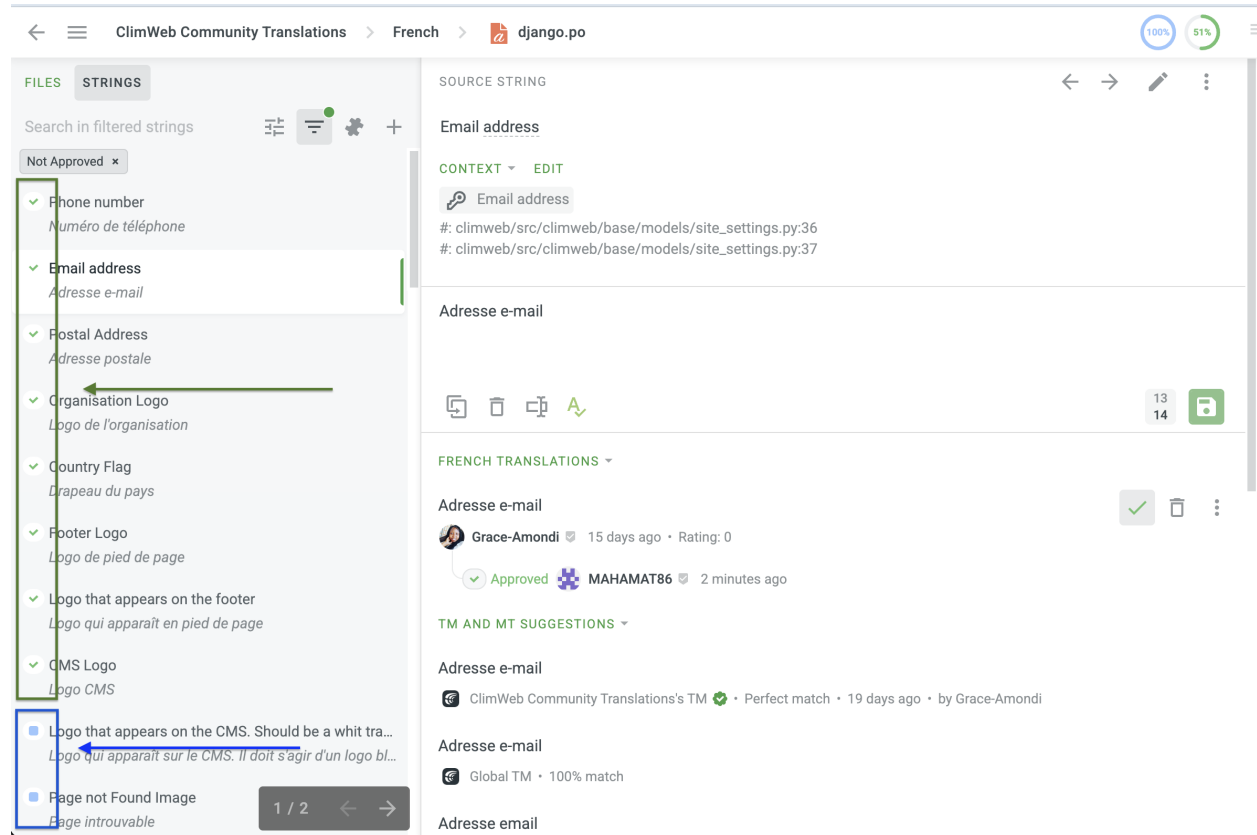
#### Step 9: What Proofreaders Do

Proofreaders review translations submitted by translators and give them the final **approval** to be used on the ClimWeb platform. One can have both translator and proofreader privileges. As a proofreader, you:

- Review completed translations for accuracy, grammar, and naturalness.
- Click **Approve** (✓) on strings that are correct.

The screenshot shows the 'ClimWeb Community Translations' interface for the 'French' language and the 'django.po' file. The 'STRINGS' tab is active, showing a list of strings on the left. The main area displays the 'SOURCE STRING' 'Numéro de téléphone' with its context: 'Phone number' and '#: climweb/src/climweb/base/models/site\_settings.py:35'. Below this, the 'FRENCH TRANSLATIONS' section shows a translation by 'Grace-Amondi' with a green checkmark icon, indicating it is approved. Other translations are shown with blue square dots, indicating they are awaiting approval. The interface also includes a 'TM AND MT SUGGESTIONS' section with various matches.

Approved tasks will have a green tick and tasks awaiting approval will have a blue square dot.



- Edit and correct strings that are inaccurate before approving.
- Leave **comments** on strings to explain changes or ask the translator a question.

## Step 10: Approving & Editing Strings

1. Switch to **Proofreading mode** in the editor using the mode selector at the top.
2. Strings awaiting approval will be highlighted — read each translation carefully against the English source.
3. If correct, click the **Approve** button (✓). The string turns green.

New menu layout is available! [Try it now](#) ×

The screenshot shows a translation interface for the text "adresse postale". At the top right, there are two circular progress indicators: one for 98% (blue) and one for 2% (green). A green box highlights these indicators, with a green arrow pointing from the 98% indicator down to the QA Issues section. The QA Issues section contains the text "Capitalization of the first letters does not match the source." Below this, there is a translation suggestion by "Grace-Amondi" with a green checkmark icon in a box, also highlighted by a green box and a green arrow pointing from the QA issue text down to it. The interface also shows a "CONTEXT" menu, a "Postal address" key icon, source code information, and various icons for editing and saving.

4. If the translation needs a fix (usually appears under QA Issues), click on the translation text to edit it directly, make your changes, then approve.
5. Use the **Comments** tab on the right to leave notes for translators — this keeps feedback transparent and constructive.

## 1.14.4 Best Practices

Tip	
1	<b>Keep climate terms consistent.</b> Always refer to the Glossary for weather and climate-specific vocabulary.
2	<b>Don't translate variables.</b> Placeholders like %1, {count}, or 0 are dynamic values — copy them exactly as-is.
3	<b>Use the Discussion tab.</b> Not sure how to translate something? Post in Discussions to get input from the community.
4	<b>Sound natural.</b> Translate the meaning, not word-for-word. Your translation should read as if it were originally written in your language.
5	<b>Check screenshots.</b> Screenshots show where a string appears in the UI — use them to understand context before translating.
6	<b>Review your work.</b> After saving a translation, re-read it once more. Quality matters more than speed.

---

**You're all set!** Every string you translate or proofread helps make ClimWeb accessible to more people around the world. Thank you for being a contributor to the community — your language skills make a real difference.

---

*Project: [crowdin.com/project/nmhs-cms](https://crowdin.com/project/nmhs-cms)*

## 1.15 Frequently Asked Questions (FAQs)

### 1. What technologies is the ClimWeb Built on?

The ClimWeb, along with its various components, is **completely open-source** and developed on the [WMO RAF GitHub account](#). This implies that the institution will have **unrestricted access to the source code**, allowing them to identify and report any bugs, request new features, and even actively contribute to the development of the codebase. This open approach encourages collaboration and fosters a sense of ownership and involvement within the institution.

### 2. Who will manage the ClimWeb Content?

The NMHS **installing the ClimWeb and its components will be fully responsible** for inputting and managing the content that goes into the ClimWeb, from their side. This means that they take the instance of the code and run it, without anyone else having access to the operational instance, unless authorized to do so.

### 3. What if an NMHS already has a website?

In cases where an NMHS already has an existing website but is interested in testing the new ClimWeb, they have the option to install and run it **concurrently with their existing system** for a specific duration. This allows them to thoroughly evaluate and experience the functionalities offered by the new ClimWeb. Once the NMHS is satisfied and comfortable with the new ClimWeb, a phased approach can be adopted to gradually transition and fully migrate their website to the new ClimWeb. This ensures a smooth and well-managed transition process.

### 4. What does 'ClimWeb' mean?

The term 'ClimWeb', as used in this document, refers to **all the components** working together to have a running website, more especially on managing the website content. Read more about the ClimWeb Key functionalities <https://github.com/wmo-raf/nmhs-cms/wiki>

### 5. What with NMHSs services that do not have IT people

A fundamental aspect considered during the design and development phase of the ClimWeb was to establish a clear and well-defined system for managing content and page structure. This involved creating a **user-friendly interface with a modern design and intuitive features**, aimed at providing users with a seamless and enjoyable experience. The objective was to enable users to easily locate content and utilize the ClimWeb **without the need for specialized IT skills**.

## 6. Security risks?

The ClimWeb, which is being built using open-source technologies, benefits from the advantage of having a community of developers who actively contribute to enhancing its security and stability. Furthermore, the ClimWeb offers robust **support for secure authentication mechanisms**, including username/password authentication, integration with third-party authentication systems such as OAuth, and the ability to implement custom authentication backends. Additionally, the ClimWeb performs **regular backups to safeguard the website's data** and enable its restoration in case of data loss. The NMHS are encouraged to share **only the final products** intended for the public.

## 7. Where is it hosted?

The ClimWeb is deployed **at the National Meteorological and Hydrological Service (NMHS) level**, utilising either **cloud-based infrastructure or on-premises servers**. Please refer to the provided **server specifications** for more details on the hosting environment.

## 8. Is WMO RAF managing or handing over completely?

The NMHSs **independently manage all components of the ClimWeb in a decentralized manner** at the departmental level. The ClimWeb includes an administrative role (superuser) that possesses complete privileges to access all components of the system. Further information regarding users and roles can be found at (<https://github.com/wmo-raf/nmhs-cms/wiki/Manage-Users-and-Roles>). It is important to note that WMO RAF does not have involvement in managing the ClimWeb, as its administration and control lie solely with the NMHSs. While WMO RAF does not directly manage the ClimWeb, it does offer valuable support to NMHSs by **providing training and guidance** on the proper management of the ClimWeb. WMO's role is to assist NMHSs in acquiring the necessary knowledge and skills to effectively handle and maintain the ClimWeb. This training and guidance aim to empower NMHSs in utilizing the ClimWeb to its full potential and ensuring optimal performance and functionality.

## 9. Training and capacity building: how will it be done?

WMO RAF will conduct training sessions for the ClimWeb, which can be arranged in **either face-to-face or online formats**. Comprehensive **training materials**, including user guides (<https://github.com/wmo-raf/nmhs-cms/wiki>) and developer guides (<https://github.com/wmo-raf/nmhs-cms>), are also available. The training sessions will be specifically targeted towards designated **\*\*departmental focal points\*\*** responsible for each component of the ClimWeb. This approach ensures that the training is tailored to meet the specific needs and roles within the NMHS, enabling efficient knowledge transfer and effective utilization of the ClimWeb.

## 10. What about NMHS that want to migrate their website? What provision for migration?

The migration process will commence by initially **identifying the current content of the pages, as well as identifying additional pages that may be relevant and determining any obsolete content**. Moreover, recommendations will be provided regarding optimal practices pertaining to wording, images, colors, and other related aspects. The manual migration of each page will be conducted in collaboration with departmental focal points to ensure efficient coordination.

## 11. What support will be offered by WMO RAF?

Support on the operationalization of the ClimWeb cuts across:

- Assessing Quality and interactivity of existing NMHS website
- Approach and present the ClimWeb to the NMHS. Integrate suggested feedback

- Identify departmental focal points for ClimWeb coordination including overall ClimWeb administrator
- Installation and setup of ClimWeb in-premise servers/cloud servers
- Provision one-on-one training and capacity building to departmental focal points on configuration and customization of the ClimWeb and Website
- Provision of learning materials, documentations, and guides of the ClimWeb
- Follow-up support in troubleshooting and resolving technical bugs

This also includes the implementation of CAP Alerts, Georeferenced data visualization, email marketing, events, surveys, and user analytics integration.

## 12. How does the ClimWeb work in low internet connectivity

The ClimWeb is optimized for low bandwidth scenarios. This involves the minimisation of the use of large images, videos or heavy media files that might consume a significant amount of bandwidth. The ClimWeb also supports **caching mechanisms** that can help reduce the load on the server and improve the website's performance. By enabling caching, static content can be stored on the user's device, reducing the need for repeated downloads, and enhancing the experience on low bandwidth connections.

## 13. Geo-referenced data visualization: What data sources and formats are supported?

An essential feature provided by the ClimWeb is its capability to **facilitate interactive visualization of georeferenced data**. This includes the ability to upload and visualize gridded data in formats such as NetCDF and GeoTIFF, as well as vector data in the form of points and polygons. The ClimWeb also supports the integration of CAP Alerts and enables the inclusion of data from external Web Map Service (WMS) sources for comprehensive data visualization.

## 14. Can they use the CAP editor alone?

The CAP Editor has been developed to be flexible in its deployment options. It can be run independently as a **standalone application**, which is accessible at <https://github.com/wmo-raf/cap-editor>. Alternatively, it can be fully **integrated into the ClimWeb**, providing seamless management of CAP Alerts within the ClimWeb environment. More information about the integration and usage can be found at <https://github.com/wmo-raf/nmhs-cms/wiki/Manage-CAP-Alerts>.

# 1.16 Technical Guides

## 1.16.1 Architecture

### Overview

Climweb is a Django-based web application with Wagtail CMS integration, designed for use by National Meteorological and Hydrological Services (NMHSs) in their content management and deliver of climate information and services.

The system is designed to be modular and extensible, allowing for easy addition of new features and content types. It is built with a focus on customization and flexibility, enabling NMHSs to tailor the system to their specific needs.

### Web Framework & CMS

- Built on Django framework with Wagtail CMS integration
- Uses ASGI (Asynchronous Server Gateway Interface) for modern web capabilities
- The system Implements both WSGI and ASGI configurations for flexibility

## Backend Architecture

The backend architecture section describes the core components of Climweb's backend.

## Pages/Apps structure

The pages/apps structure section provides an overview of how the pages/apps are organized within Climweb, using the conventional Django app structure.

## Extending Climweb

The extending Climweb section discusses how to extend the functionality of Climweb by creating custom plugins, which add more features and capabilities to the system.

## Management Commands

Climweb provides a set of management commands that can be used to perform various tasks related to the system's operation and maintenance.

The management commands section provides an overview of these commands and their usage.

## Development

The dev environment runs Climweb services with source code hot reloading enabled. It also runs the django server in development modes. It is recommended that you use `dev.sh` found in the root of the Climweb repo.

## Running the dev environment

If you want to contribute to Climweb you need to setup the development environment on your local computer. The best way to do this is via Docker compose so that you can start the app with the least amount of hassle.

### Note

For production deployment, please visit <https://github.com/wmo-raf/climweb-docker>

## Cloning the repository

The first step is to clone the Climweb repository from GitHub. You can do this by running the following command in your terminal:

```
$ git clone https://github.com/wmo-raf/climweb.git
$ cd climweb
```

## Create .env file

Next, you need to create an environment file that contains the necessary configuration for the development environment. You can do this by copying the sample dev environment file provided in the repository:

```
$ cp .env.dev.sample .env
```

Update the `.env` file with the required configuration. See the Environment Variables section for reference on the available environment variables and their descriptions.

## Quickstart

If you are familiar with git and Docker Compose run these commands to launch Climweb's dev environment locally, otherwise please start from the Installing Requirements section below.

```
$ git clone https://github.com/wmo-raf/climweb.git
# Our supplied ./dev.sh script wraps Docker Compose setting the correct env vars for
# you to get hot code reloading working well.
$ ./dev.sh
# Run ./dev.sh help for further details.
$ ./dev.sh help
```

## Installing requirements

If you haven't already installed docker and Docker Compose on your computer you can do so by following the instructions on <https://docs.docker.com/desktop> and <https://docs.docker.com/compose/install>

### Note

Docker version 19.03 is the minimum required to build Climweb. It is strongly advised however that you install the latest version of Docker available. Please check that your docker is up to date by running `docker -v`.

You will also need git installed which you can do by following the instructions on <https://www.linode.com/docs/development/version-control/how-to-install-git-on-linux-mac-and-windows>.

Once you have finished installing all the required software you should be able to run the following commands in your terminal.

```
$ docker -v
Docker version 28.1.1, build 4eba377
$ docker compose version
Docker Compose version v2.35.1-desktop.1
$ git --version
git version 2.37.1
```

If all commands return something similar as described in the example, then you are ready to proceed!

## Starting the development environment

First, you need to clone the repository. Execute the following commands to clone the main branch. If you are not familiar with git clone, this will download a copy of Climweb's code to your computer.

```
$ git clone https://github.com/wmo-raf/climweb.git
Cloning into 'climweb'...
...
$ cd climweb
```

Now that we have our copy of the repo and have changed directories to the newly created climweb, we can bring up the containers.

If you do not want to use the provided `dev.sh` script, you can run the following command to start the development environment:

```
$ docker compose -f docker-compose.yml -f docker-compose.dev.yml up
```

#### Note

Note that the `docker-compose.dev.yml` file is used to override the default `docker-compose.yml` file with development specific settings.

## Accessing the web application

Once the containers are up and running, you can access the Climweb application in your web browser at <http://localhost:8000>. The port can be changed in the `.env` file if needed by modifying the `CLIMWEB_DEV_PORT` variable.

## Creating a superuser

To create a superuser for the Climweb application, you can run the following command in a separate terminal window:

```
$ docker compose -f docker-compose.yml -f docker-compose.dev.yml exec climweb climweb ↵
↵createsuperuser
```

## Keep the container running

The containers need to keep running while you are developing. They also monitor file changes and update automatically, so you don't need to worry about reloading. Any change to the code will trigger a reload and you can see the changes immediately.

### `./dev.sh`

`dev.sh` is a helper bash script which makes working with Climweb's development environment a breeze.

By default, running `./dev.sh` will start the dev env and make sure the containers are running as your actual user.

### Examples of `./dev.sh` usage:

```
$ ./dev.sh # same as the up command above but also ensures the containers run as the ↵
↵running user!
$ ./dev.sh --build # ups and rebuilds
$ ./dev.sh restart # stops and then ups
$ ./dev.sh restart --build # stops, builds, ups
$ ./dev.sh build_only # just builds
$ ./dev.sh dont_migrate # ups but doesn't migrate automatically on startup
$ ./dev.sh dont_migrate dont_sync dont_attach restart --build # even more flags!
$ ./dev.sh run backend manage migrate
# Any commands found after the last `./dev.sh` command will be passed to the `docker ↵
↵compose up` call made by dev.sh
# This lets you say do --build on the end or any other docker-compose commands using dev. ↵
↵sh!
```

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```

$ ./dev.sh restart {EXTRA_COMMANDS_PASSED_TO_UP}
$ ./dev.sh down # downs the env
$ ./dev.sh kill # kills (the old stop_dev.sh)
# WARNING: restart_wipe will detail ALL volumes associated with that environment
# permanently.
$ ./dev.sh restart_wipe --build

```

### Why ./dev.sh ensures the containers run as you

In dev mode Climweb's source control directories are mounted from your local git repo into the containers. By mounting these the containers will see source code changes and automatically rebuild. However, if the containers are not running as your actual user then the containers might accidentally change the ownership or create files owned by the user running inside the container. So by running the containers as your user there is no chance that your source control directories will have file ownership problems. Additionally, it is best practice to not run Docker containers as the default root user.

### Environment Variables

Variable	Description	Required	Default	More Details
CMS_DB_USER	CMS Database user	YES		
CMS_DB_NAME	CMS Database name	YES		
CMS_DB_PASSWOF	CMS Database password.	YES		
CMS_DB_VOLUME	Mounted docker volume path for persisting database data	YES		
CMS_SITE_NAME	The human-readable name of your Wagtail installation which welcomes users upon login to the Wagtail admin.	YES		
CMS_ADMIN_URL	Base Path to admin pages. Do not use admin or an easy to guess path. Should be one word and can include an hyphen. DO NOT include any slashes at the start or the end.	YES		
CMS_DEBUG	A boolean that turns on/off debug mode. Never deploy a site into production with DEBUG turned on	NO	False	
CMS_PORT	Port to run cms	YES	80	

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Table 1 – continued from previous page

Variable	Description	Required	Default	More Details
CMS_BASE_URL	This is the base URL used by the Wagtail admin site. It is typically used for generating URLs to include in notification emails.	NO		
CMS_DEFAULT_LA	The language code for the CMS. Available codes are <code>en</code> for English, <code>fr</code> for French, <code>ar</code> for Arabic, <code>am</code> for Amharic, <code>es</code> for Spanish, <code>sw</code> for Swahili. Default is <code>en</code> if not set	NO	<code>en</code>	
CSRF_TRUSTED_OI	This variable can be set when <code>CMS_PORT</code> is not 80 e.g if <code>CMS_PORT=8000</code> , <code>CSRF_TRUSTED_OI</code> would be the following: <code>http://{YOUR_IP_AD}</code> <code>http://{YOUR_IP_AD}</code> <code>http://localhost:8000</code> and <code>http://127.0.0.1:8000</code>	NO		
TIME_ZONE	A string representing the time zone for this installation. See the <a href="#">list of time zones</a> . Set this to your country time-zone	NO	UTC	<a href="#">List of tz database time zones</a>
SECRET_KEY	A secret key for a particular Django installation. This is used to provide cryptographic signing, and should be set to a unique, unpredictable value. Django will refuse to start if <code>SECRET_KEY</code> is not set	YES		You can use this online tool <a href="https://djecrety.ir">https://djecrety.ir</a> to generate the key and paste

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Table 1 – continued from previous page

Variable	Description	Required	Default	More Details
AL- LOWED_HOSTS	A list of strings representing the host/domain names that this Django site can serve. This is a security measure to prevent HTTP Host header attacks, which are possible even under many seemingly-safe web server configurations.	YES		Django Allowed Hosts
SMTP_EMAIL_HOS	The host to use for sending email	NO		
SMTP_EMAIL_POR	Port to use for the SMTP server defined in SMTP_EMAIL_HOST	NO	25	
SMTP_EMAIL_USE	Whether to use a TLS (secure) connection when talking to the SMTP server. This is used for explicit TLS connections, generally on port 587	NO	True	
SMTP_EMAIL_HOS	Username to use for the SMTP server defined in SMTP_EMAIL_HOST. If empty, Django won't attempt authentication.	NO		
SMTP_EMAIL_HOS	Password to use for the SMTP server defined in SMTP_EMAIL_HOST. This setting is used in conjunction with SMTP_EMAIL_HOST_U when authenticating to the SMTP server. If either of these settings is empty, Django won't attempt authentication.	NO		

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Variable	Description	Required	Default	More Details
CMS_ADMINS	A list of all the people who get code error notifications, in format "Name <name@example.com>, Another Name <another@example.com>"	NO		
DE-FAULT_FROM_EMAIL	Default email address to use for various automated correspondence from the site manager(s)	NO		
RE-CAPTCHA_PUBLIC	Google Recaptcha Public Key. <a href="https://www.google.com/recaptcha">https://www.google.com/recaptcha</a> will need a Google account for RE-CAPTCHA_PRIVATE and RE-CAPTCHA_PUBLIC creation	NO		
RE-CAPTCHA_PRIVATE	Google Recaptcha Private Key	NO		
CMS_NUM_OF_WORKERS	Gunicorn number of workers. Recommended value should be $(2 \times \text{\$num\_cores}) + 1$ . For example, if your server has 4 CPU Cores, this value should be set to 9, which is the result of $(2 \times 4) + 1 = 9$	YES		<a href="#">Gunicorn Workers details</a>
CMS_STATIC_VOLUME	Mounted docker volume path for persisting CMS static files	YES	./climeb/static	
CMS_MEDIA_VOLUME	Mounted docker volume path for persisting CMS media files	YES	./climeb/media	
CMS_UPGRADE_HOOK	<a href="#">Webhook</a> url to your server that triggers a cms upgrade script	NO		

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Table 1 – continued from previous page

Variable	Description	Required	Default	More Details
BACKUP_VOLUME	Mounted docker volume path for persisting Backup dp and media files	YES	./climeb/backup	
WAG-TAIL_NEWSLETTEI	When using the default Mailchimp backend, this setting specifies the API key. An API key can be obtained from the <a href="#">Mailchimp website</a> .	NO		
WAG-TAIL_NEWSLETTEI	When sending a newsletter, this value will appear as the email sender's name.	NO		
WAG-TAIL_NEWSLETTEI	When sending a newsletter, this value will appear as the email sender's address. Be sure to configure your email domain to allow the newsletter service to send emails on behalf of this address, otherwise they will likely be marked as spam.	NO		

## Directory Structure

TODO

## Development tools

### Backend

#### PostgreSQL + PostGIS

Climweb uses PostgreSQL for persistent storage.

PostGIS is an extension to PostgreSQL that adds support for geographic objects

<https://www.postgresql.org>

#### Django + Wagtail CMS

At the core of the system we run the Django framework. A popular framework was chosen to lower the barrier of creating custom modules that extend Climweb. We also looked for a batteries included, simple, and proven framework. Django was the obvious choice.

<https://www.djangoproject.com>

Wagtail is an open-source content management system (CMS) built on top of Django, a popular Python web framework. It's designed to be developer-friendly, flexible, and provide a modern, intuitive editing experience for content creators.

The user interface of the Wagtail Admin and the overall editing experience provided by Wagtail made it a good choice for Climweb, as it allows for easy content creation and management.

<https://wagtail.org>

## Django REST framework

To quickly create endpoints, handle external authentication, object serialization, validation, and do many more things we use Django REST Framework.

<https://www.django-rest-framework.org>

## Internationalization

For internationalization (i18n), we leverage Django's built-in support. Django's internationalization framework allows us to easily translate our web application into multiple languages.

To use Django's internationalization features, we wrap our text with a special function called `gettext` or `gettext_lazy`. For more information, refer to the [Django Internationalization and Localization documentation](#).

## Frontend

Climweb mostly uses Django templates for the frontend. However, we also use `Vue.js` for some parts of the frontend that require more interactivity, such as the home page map component.

We use a custom approach to integrate `Vue.js` with Django. This approach combines the strengths of Django's templating system with `Vue`'s reactive components and is summarized as follows:

### Key steps in the integration of Vue into Django/Wagtail:

- **Vue Project Setup:** Use Vite to scaffold a Vue project within the Django project directory, enabling modern JavaScript development with features like hot module replacement.
- **Django Template Integration:** Embed Vue components directly into Django templates by adding a and including the Vue application's script via a tag pointing to the Vite dev server.
- **Development Workflow:** Leverage Vite's development server for rapid development and testing, allowing real-time updates to Vue components without full page reloads.
- **Production Build:** Configure Vite to output a production-ready build, and adjust Django's static files settings to serve the compiled assets appropriately.
- **State Management:** Incorporate Pinia for state management within Vue components, facilitating organized and maintainable application state.

This integration strategy enables us to enhance our templates with dynamic Vue components while maintaining the benefits of Django's server-side rendering and template system.

The approach is explained in details [here](#)

## Icons

We mostly use Font Awesome for SVG icons. Font Awesome is a popular icon library that provides a wide range of scalable vector icons. We use `wagtail-font-awesome-svg`, a Wagtail package that allows us to use Font Awesome icons in Wagtail projects.

<https://fontawesome.com>

## General Architecture

### Base Module (/base/)

- Core models and database schema
- Custom blocks and templates
- Form handling and validation
- View controllers
- Utility functions and mixins
- Task management system using Celery

### Configuration (/config/):

- Environment-specific settings
- URL routing
- API endpoints
- Database engine configuration
- Static file handling
- Internationalization support

## Content Structure

The system is organized into several key content sections, each implemented as a Django/Wagtail app:

1. **Home (/pages/home/)**
  - Custom home page implementation
  - Interactive map component (Vue.js integration)
  - Custom blocks and templates
  - Localization support
2. **Information Services**
  - Publications (/pages/publications/)
  - Products (/pages/products/)
  - Services (/pages/services/)
  - News (/pages/news/)
  - Events (/pages/events/)
3. **Data & Research**
  - Weather (/pages/weather/)
  - Satellite Imagery (/pages/satellite\_imagery/)
  - City Climate (/pages/cityclimate/)
  - Stations (/pages/stations/)
  - Data Request (/pages/data\_request/)

#### 4. User Interaction

- Contact (/pages/contact/)
- Feedback (/pages/feedback/)
- Email Subscription (/pages/email\_subscription/)
- Surveys (/pages/surveys/)

#### 5. Media & Resources

- Media Center (/pages/mediacenter/)
- Videos (/pages/videos/)
- Web Stories (/pages/webstories/)

#### 6. Specialized Features

- WDQMS (WIGOS Data Quality Management System) (/pages/wdqms/)
- Glossary (/pages/glossary/)
- Search (/pages/search/)

### Page Structure

Each page type, where fully implemented as a Django/Wagtail app, follows a consistent structure:

#### 1. Models (**models.py**)

- Database schema
- Content structure
- Custom fields and relationships

#### 2. Views (**views.py**)

- Page rendering logic
- Data processing
- Custom view handlers

#### 3. Templates (**/templates/**)

- Page layouts
- Component templates
- Custom blocks

#### 4. Static Assets (**/static/**)

- CSS/JS files
- Static Images and media
- Frontend components

#### 4. Configuration

- URL routing (**urls.py**)
- Wagtail hooks (**wagtail\_hooks.py**)
- App configuration (**apps.py**)

## Backup and Restore Guide

### Backup Mechanism

Climweb uses [django-dbbackup](#) for backup and restore of the database and media files. The backup process is scheduled using Celery tasks, and currently runs every midnight.

The <https://django-dbbackup.readthedocs.io/en/stable> documentation provides detailed information on how the package works.

### Backup Location

Currently, the backup files are store in the local filesystem of the server. The location is defined in the settings file as below:

```
# src/limweb/config/settings/base.py
DBBACKUP_STORAGE_OPTIONS = {
    'location': os.path.join(BASE_DIR, "backup")
}
```

### DB and Media files restoration

The restore process is done using the `dbrestore` management command.

Ensure you have placed your recent backup files in the backup directory. Usually these are two files, the database dump file and media files tar file

You need to start with an empty database with PostGIS as the only external extension installed.

If you have extensions like `postgis_topology` or `postgis_tiger_geocoder` installed, you might need to drop these extensions using similar command as below:

```
DROP
EXTENSION IF EXISTS postgis_topology;
DROP
EXTENSION IF EXISTS postgis_tiger_geocoder;
```

Then, you can run the restore command as below:

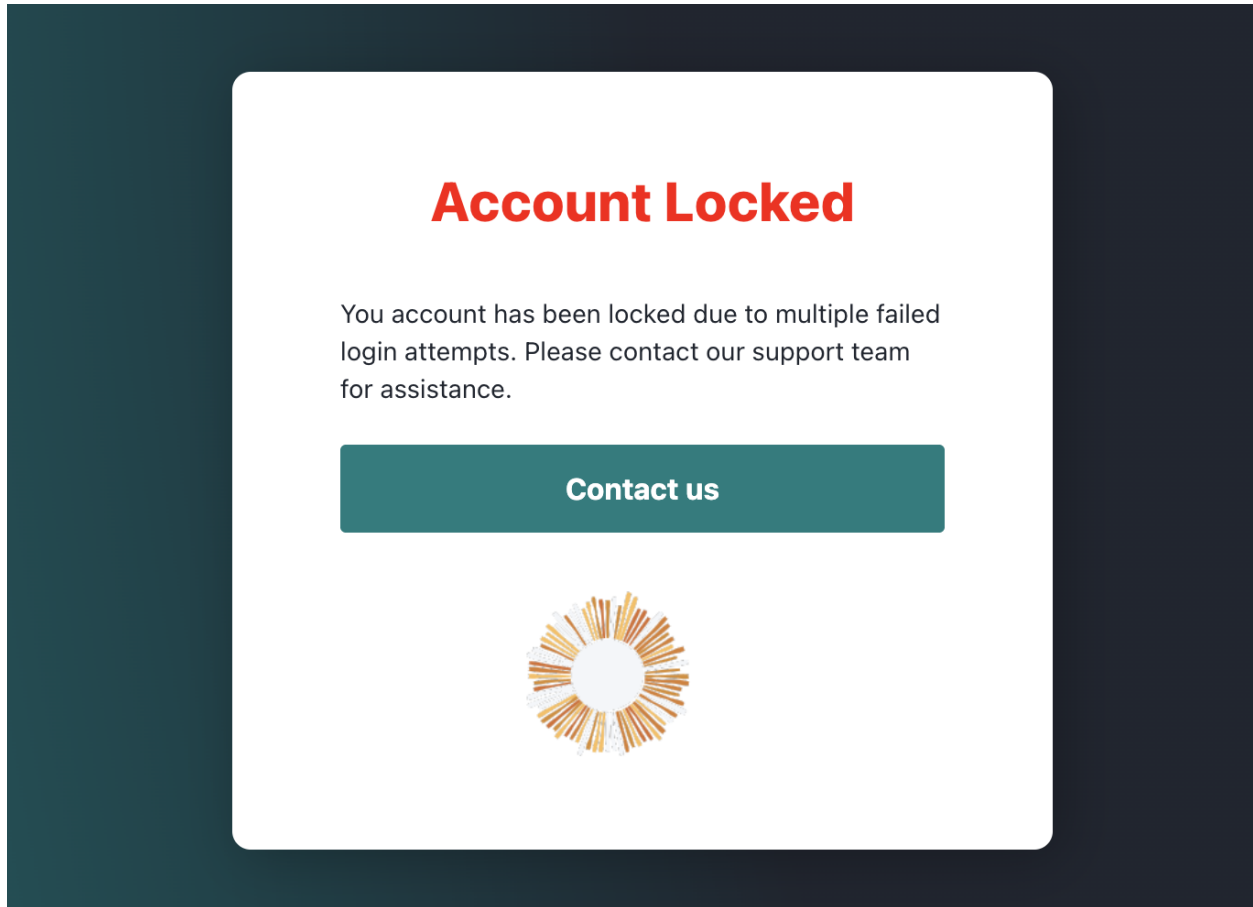
```
python manage.py dbrestore
```

### Management Commands

#### Resetting login attempts and lockouts

Climweb uses [Django Axes](#) to manage login attempts and lockouts.

An account is locked when a user has failed to login too many times.



This means that the instructions on Django Axes' documentation for resetting login attempts and lockouts are applicable to Climweb as well.

When Axes locks an IP address, it is not allowed to login again. You can allow IPs to attempt again by resetting (deleting) the relevant AccessAttempt records in the admin UI, or Command Line Interface (CLI).

### Resetting attempts from the Django admin UI

Records can be easily deleted by using the Django admin application.

Go to the django admin UI and check the Access Attempt view. Select the attempts you wish to allow again and simply remove them. The blocked user will be allowed to log in again in accordance to the rules.

On Climweb, the default URL path for the Django admin UI is `/dj-ad-admin/`. This can be changed in the settings file using the variable `DJANGO_ADMIN_URL_PATH`.

### Resetting attempts from the CLI

Django Axes offers a command line interface with `axes_reset`, `axes_reset_ip`, `axes_reset_username`, and `axes_reset_ip_username` management commands with the Django `manage.py` or `django-admin` command helpers:

- `python manage.py axes_reset` will reset all lockouts and access records.
- `python manage.py axes_reset_ip [ip ...]` will clear lockouts and records for the given IP addresses.
- `python manage.py axes_reset_username [username ...]` will clear lockouts and records for the given usernames.

- `python manage.py axes_reset_ip_username [ip] [username]` will clear lockouts and records for the given IP address and username.
- `python manage.py axes_reset_logs (age)` will reset (i.e. delete) AccessLog records that are older than the given age where the default is 30 days.

### Resetting attempts from the CLI in a Climweb Docker Compose environment

On a production Climweb instance, to clear all lockouts and access records, run the following command:

```
cd climweb
docker compose exec climweb /bin/bash climweb axes_reset
```

This is a shorthand command that does the following:

- `cd climweb` changes the working directory to the Climweb project directory.
- `docker compose exec climweb /bin/bash` runs a bash shell in the `climweb` container.
- `climweb axes_reset` runs the `axes_reset` command in the Climweb container.

### Extending Climweb

At the base, Climweb provides a generic, well researched and tested content structure that addresses most of the needs of the NMHSs, in providing a functional and user-friendly website. This structure is designed to be flexible and extensible, allowing for easy addition of services and products provided by the NMHSs.

However, the needs of each NMHSs may vary, and some may require additional features or customizations to meet their specific requirements. To address this, ClimWeb can be extended by creating new modules, that we call **Plugins**, which can then be integrated into the system.

These plugins can be used to add new features, modify existing functionality, or integrate with external systems. These can be developed by third-party developers, allowing for a wide range of customization options.

### Plugin Overview

ClimWeb Plugins are custom Wagtail apps that extend the functionality of ClimWeb. They can be used to add new features, modify existing ones, or integrate with external services.

Some examples of what you can do with a Climweb plugin are:

- Add new country specific modules, for example for data processing, payments integration etc.
- Add new page types that are not available in the core Climweb installation.
- Integrate with 3rd party APIs or software
- Install custom postgres extensions, system packages, python dependencies
- And much more!

### Important Notes on Plugins

- You should always make backups of your Climweb data before installing and using any plugin.
- You should only ever install plugins from a trusted source
- Ensure that you fully understand the plugins you are installing and using, as this entirely at your own risk.

In this guide we dive into how to create a Climweb plugin, discuss the plugin architecture and give you sample plugins to get inspiration from.

## Plugin Installation

There are a few ways to install a plugin:

### Using and environment variable

This method assumes you already have the Climweb docker compose services running.

You can use the `CLIMWEB_PLUGIN_GIT_REPOS` env variables when using the Climweb docker images to install plugins on startup.

- The `CLIMWEB_PLUGIN_GIT_REPOS` should be a comma separated list of `https git repo` urls which will be used to download and install plugins on startup.

After setting the environment variable, you can start the docker container using the following command:

```
docker compose up
```

These variables will only trigger and installation when found on startup of the container. To uninstall a plugin you must still manually follow the instructions below.

### Caveats when installing into an existing container

If you ever delete the container you've installed plugins into at runtime and re-create it, the new container is created from the base climweb docker image which does not have any plugins installed.

However, when a plugin is installed at runtime or build time it is stored in the `CLIMWEB_PLUGIN_DIR` which by default is `/climweb/plugins` container folder which should be mounted inside a docker volume. On startup if a plugin is found in this directory which has not yet been installed into the current container it will be re-installed.

As long as you re-use the same data volume, you should not lose any plugin data even if you remove and re-create the containers. The only effect is on initial container startup you might see the plugins re-installing themselves if you re-created the container from scratch.

### Uninstalling a plugin installed using an environment variable

- It is highly recommended that you backup your data before uninstalling a plugin.
- To uninstall a plugin you installed using one of `CLIMWEB_PLUGIN_GIT_REPOS` you need to make sure that you delete and recreate the container with the plugin removed from the corresponding environment variable. If you fail to do so and just `uninstall-plugin` using `exec` and `restart`, the plugin will be re-installed after the restart as the environment variable will still contain the old plugin

### Checking which plugins are already installed

Use the `list-plugins` command or built in `/climweb/plugins/list_plugins.sh` script to check what plugins are currently installed.

### Creating a Plugin

In this guide we will dive into how to create a Climweb plugin, discuss the plugin architecture and give an example plugin to get inspiration from and discuss how to publish your plugin.

## Plugin Architecture

A ClimWeb Plugin is fundamentally a folder named after the plugin. The folder should be a [Django/Wagtail App](#)

### Initialize your plugin from the plugin template

The plugin template is a [cookiecutter](#) template that generates a plugin with the required structure and files. This ensures that the plugin follows the expected structure and can be easily installed into climweb.

To instantiate the template, execute the following commands from the directory where you want to create the plugin:

```
pip install cookiecutter
cookiecutter gh:wmo-raf/climweb --directory plugin-boilerplate
```

For more details on using the plugin boilerplate, you can follow the [step-by-step guide](#) on creating a plugin using the plugin boilerplate.

### Plugin Installation API

A Climweb docker image contains the following bash scripts that are used to install plugins. They can be used to install a plugin into an existing adl container at runtime. `install_plugin.sh` can be used to install a plugin from an url, a git repo or a local folder on the filesystem.

You can find these scripts in the following locations in the built images:

1. `/deploy/plugins/install_plugin.sh`

On this repo, you can find the scripts in the `deploy/plugins` folder.

These scripts expect a ClimWeb plugin to follow the conventions described below:

### Plugin File Structure

The `install_plugin.sh` script expect your plugin to have a specific structure as follows:

```
├── plugin_name
│   ├── climweb_plugin_info.json (A simple json file containing info about your plugin)
│   ├── setup.py
│   ├── build.sh (Called when installing the plugin in a Dockerfile/container)
│   ├── runtime_setup.sh (Called on first runtime startup of the plugin)
│   ├── uninstall.sh (Called when uninstalling the plugin in a container)
│   └── src/plugin_name/src/config/settings/settings.py (Optional Django setting file)
```

The folder contains three bash files which will be automatically called by climweb's plugin scripts during installation and uninstallation of the plugin. You can use these scripts to perform extra build steps, installation of packages and other docker container build steps required by your plugin.

1. `build.sh`: Called on container startup if a runtime installation is occurring.
2. `runtime_setup.sh`: Called the first time a container starts up after the plugin has been installed, useful for running superuser commands on the container.
3. `uninstall.sh`: Called on uninstall, the database will be available and so any backwards migrations should be run here.

## The plugin info file

The `climweb_plugin_info.json` file is a json file, in your root plugin folder, containing metadata about your plugin. It should have the following JSON structure:

```
{
  "name": "TODO",
  "version": "TODO",
  "description": "TODO",
  "author": "TODO",
  "author_url": "TODO",
  "url": "TODO",
  "license": "TODO",
  "contact": "TODO"
}
```

## Expected plugin structure when installing from a git repository

When installing a plugin from git, the repo should contain a single `plugins` folder, inside which there should be a single plugin folder following the structure above and has the same name as your plugin.

By default, the `plugin boilerplate` generates a repository with this structure.

For example a conforming git repo should contain something like:

```
├── * (an outermost wrapper directory named anything is allowed but not required)
│   └── plugins/
│       └── plugin_name
│           ├── climweb_plugin_info.json
│           ├── setup.py
│           ├── build.sh
│           ├── runtime_setup.sh
│           ├── uninstall.sh
│           └── src/plugin_name/src/config/settings/settings.py (Optional Django setting_
└─> file)
```

## Plugin Boilerplate

With the plugin boilerplate you can easily create a new plugin and setup a docker development environment that installs `adl` as a dependency. This can easily be installed via `cookiecutter`.

## Creating a plugin

To use the plugin boilerplate you must first install the `Cookiecutter` tool (`pip install cookiecutter`).

Once you have installed `Cookiecutter` you can execute the following command to create a new ADL plugin from our template. In this guide we will name our plugin “My Climweb Plugin”, however you can choose your own plugin name when prompted to by `Cookiecutter`.

### Note

The python module depends on your chosen plugin name. If we for example go with “My Climweb Plugin” the Django app name should be `my_climweb_plugin`

```
cookiecutter gh:wmo-raf/climweb --directory plugin-boilerplate
project_name [My Climweb Plugin]:
project_slug [my-climweb-plugin]:
project_module [my_climweb_plugin]:
```

If you do not see any errors it means that your plugin has been created.

## Writing a Plugin

Now you have created a plugin, lets go into more detail of how to actually extend and customize Climweb using your plugin.

## Storing State

If your plugin needs to store state, you should only ever do this in:

- The database being used by Climweb
- Using Django's default storage mechanism
- The Redis being used by Climweb, but only for non-persistent state like a cache that is fine to be destroyed at any moment.

### Note

Never store any state in your plugin folder itself inside the container. This folder is deleted and recreated as part of the plugin installation process and any state you store inside it can be lost.

## Adding Python Requirements

Your plugin is just a normal python module which will be installed into the Climweb virtual environment using `pip` by `install_plugin.sh`. If using the plugin boilerplate you can add any python requirements to the pip requirements file found at `requirements/base.txt`.

## As a Django/Wagtail App

When the Climweb Django service starts up it looks for any plugins in the plugin directory. If it finds any it assumes the `src/plugin_name/` sub folder contains a Django App and adds it to the `INSTALLED_APPS`. This means that your plugin must be a Django/Wagtail app whose name exactly matches the name of the plugin folder.

In your plugin's Django/Wagtail app you can do anything that you normally can do with a Django/Wagtail app such as having migrations, using the `ready()` method to do startup configuration etc.

## Publishing your Plugin

The easiest way to share you plugin with others is by making a public git repository using GitHub, GitLab or some other git host. Once you have pushed your plugin folder to the git repository then anyone can then install your plugin following the steps in the Plugin Installation guide.

## Plugin Boilerplate

With the plugin boilerplate you can easily create a new plugin and setup a docker development environment that installs Climweb as a dependency. This can easily be installed via cookiecutter.