# INDIAN OCEAN
COMMISSION

## Gap Analysis Report

*Deliverable 2*

*28th February 2014*

ISLANDS
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Our lands. Our life. Our future.

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## Figures and Tables

# 1. Introduction

## 1.1. Context and objectives

Acclimatise has been commissioned by the Indian Ocean Commission (IOC) to "define the design and architecture of a Regional Climate Change Portal". This portal will aim to ensure that climate change related information is readily accessible to regional users in a coordinated and user-friendly manner. This will seek to address the specific needs, preferences and expectations of regional users while avoiding unnecessary duplication of efforts and overall misuse of resources.

Bearing this in mind, this project will be grounded in a comprehensive review of the existing IOC 'Acclimate' platform, from which lessons learnt and useful insights can be drawn. This will help to achieve best value for money by understanding what worked and what did not as part of the Acclimate platform's development, both in terms of its interface and contents. This includes the different features, services and tools that have been provided by the Acclimate platform, as well as the technical layout and editorial approach favoured to keep it up-to-date.

This report will inform the development of the web specifications for the future Regional Climate Change Portal (hereinafter referred to as *future Portal*) to be undertaken between April and May 2014.

## 1.2. Methodology

For the purpose of this deliverable, a three-step process was followed:

1. **Step 1: Review and description of the Acclimate platform the contents (features, services and resources) and interface of,** by analysing web traffic statistics that describe user attributes and website usage. This section also includes a review of the major evolutions since the creation of the Acclimate platform in April 2010. This includes an inventory of features, tools and services that have been provided by the platform under its three versions (i.e. website, portal and minisite). This section also addresses the financial arrangements and editorial approach used to maintain and keep it up-to-date, which are both important considerations to inform the long-term sustainability of the future Portal.
2. **Step 2**: **Comparison of the Acclimate portal** against 13 best practice regional and global climate change knowledge portals. Based on this review, both common and best practices are established.
3. **Step 3**: **A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis**, informed by steps 1 and 2, with a view to guide the development of the future Portal, both in terms of contents, interface, management, editing and funding. The SWOT analysis will also aim to inform the elaboration of Phase 2 by addressing the important issue of the long- term sustainability of the future Portal (as per task 6).

## 1.3. Structure of the report

This report is structured as shown in Figure 1 below.

**Section 1**
- Introduction
- Methodology
- Structure of the report

**Section 2**
- Review and description of the Acclimate platform, its use and its development

**Section 3**
- Benchmark analysis of the Acclimate platform against 13 international climate change knowledge portals

**Section 4**
- SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis with key take-away messages

Figure 1: Structure of the report

## 2. Review and analysis of the Acclimate platform

The Acclimate project was launched in 2008, with the primary objective of strengthening the capabilities of the IOC and of its member states[1] to better manage the impacts of climate change. The project aimed to increase regional cooperation, whilst mainstreaming adaptation into the IOC operations. The Acclimate platform was one of the main project outputs, with the following objectives, as stated by the Acclimate portal manager (Brice Montfraix):

- Showcase the Acclimate project and its activities, acting as its primary channel for communicating and informing targeted audiences on the project;

- Provide information related to adaptation across all levels (including IOC, other regional organizations and national governments, the private sector, international development community and individual citizens), with a view to share knowledge and best practice, as well as raise awareness amongst practitioners in the public and private sectors;

- Promote a common and shared understanding of climate change, impacts, vulnerabilities and adaptation across all levels;

- Increase the visibility of national actions across all levels, with a view to facilitate and develop partnerships and exchanges; and

- Raise awareness on climate change, its impacts and vulnerabilities and the linkages between climate change and priority concerns of, and challenges faced by the IOC member states.

In April 2010, the Acclimate platform was launched with the following domain address http://www.acclimate-oi.net/. A more resource and feature-rich portal version was then created in October 2011.  A screenshot of the Acclimate platform under its portal version is provided below (Figure 2).

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[1] These include Comoros, Madagascar, Mauritius, Seychelles and La Reunion.
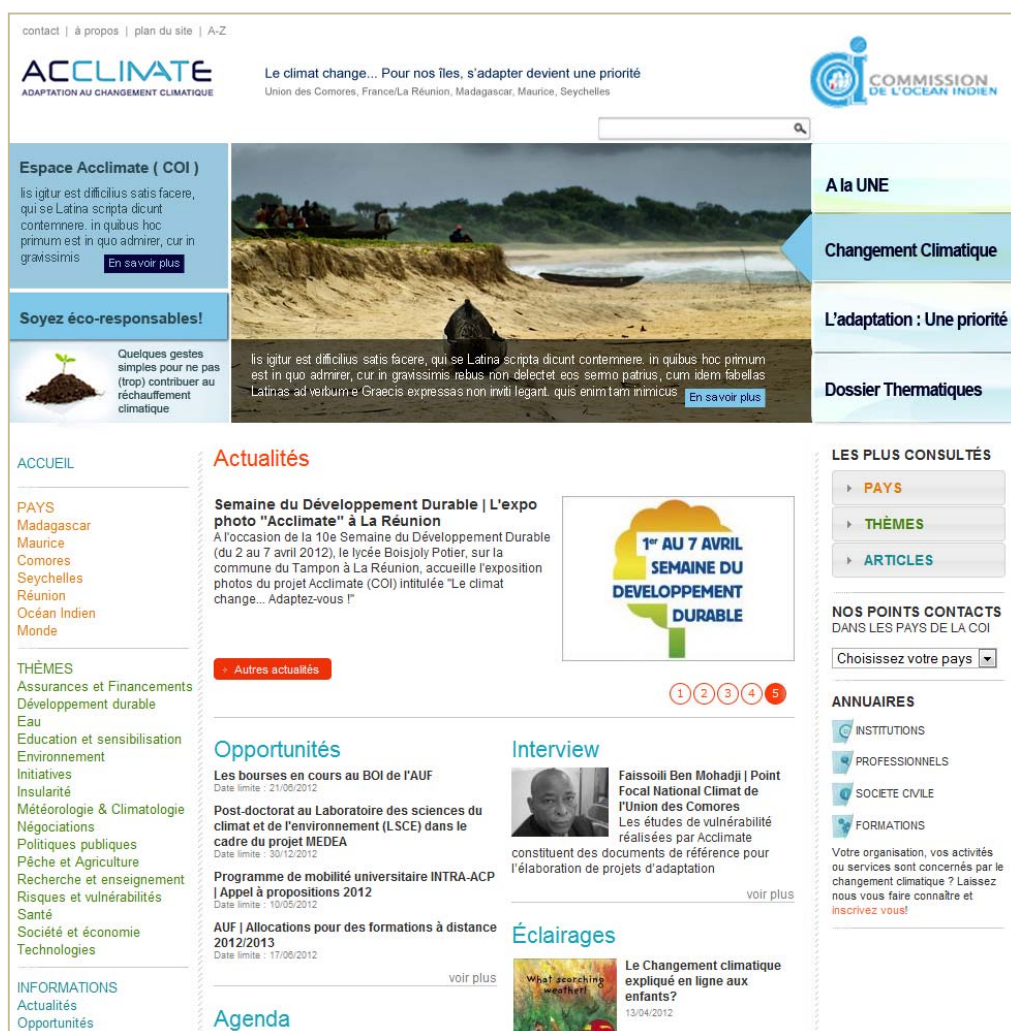
Figure 2: Screenshot of the Acclimate Portal dated from April 17, 2012

After the end of the Acclimate project in December 2012, this portal was managed by the Acclimate project manager (Brice Montfraix). In October 2013, the website was transferred to a shared server that was less expensive. This move led to the loss of several gigabytes of data (including images, climate knowledge resources, documentation and backend website architecture). This loss significantly altered the interface and reduced the content of the portal, which was taken offline. As it currently stands (as per 28th February 2014), the Acclimate platform is a 'minisite' version providing a very limited set of features, contents and services, most of which were left over from the portal. These include a description of the Acclimate platform, general information about the IOC and the topic of adaptation, the Acclimate projects, the Acclimate project's outputs (reports and studies), links to regional climate reports, national climate change documentation (including UNFCCC national communications, national adaptation plans) for each of the IOC member countries, and other relevant regional and international resources (including the regional adaptation strategy, IPCCC AR4)[2].

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[2] Please see http://www.acclimate-oi.net for a complete list of available resources.

**Acclimate website**

**April 2010-October 2011**

*In April 2010, the website Acclimate was launched. From that date until the launch of the portal, several successive improvements are made to the site to meet the project goals.*

**Acclimate portal**

**October 2011-October 2013**

*A portal version with new functionalities is launched in October 2011 and regularly updated until the Acclimate project ends in December 2012. Hosting is maintained until October 2013, when the former Acclimate project manager (Brice Montfraix) requests WebHostingBuzz to transfer the site to a less expensive shared server.*

**Acclimate minisite**

**October 2013 -present**

*The transfer of the Acclimate portal to the shared server resulted in the loss of several gigabytes of data affecting the content and structure of the website, which is now only available in a truncated form with limited resources and features.*

**Figure 3: the development of the Acclimate platform**

The analysis undertaken in Section 2.2 and Section 2.3 focuses on the portal version of the Acclimate platform; corresponding to the period from October 2011 to October 2013 in Section 2.2, while section 2.3 looks at the period October 2011 to December 2012 (when there is data available). The contents and resources that were available on the portal are described, as well as an overview of the web traffic during the 14 month period from the creation of the portal version until the end of the Acclimate project (October 2011-December 2012). Although a large amount of data and information were lost during the server move in October 2013, this analysis of the old portal will help inform the design of the future Portal, in terms of its interface and contents, as well as by addressing the important issue of its long-term sustainability (human, material and technical requirements). These results are presented as part of a SWOT analysis (see section 4).

Table 1 summarises the key facts relating to the project and its outputs.

**Table 1: Overview of the Acclimate platform**

| Funder | French Fund for Global Environment (FFEM), French Ministry of Foreign Affairs, French Agency for Development (AFD) |
|---|---|
| Manager | Brice Montfraix |
| History | The Acclimate Project was officially launched in March 2009.  The "acclimate-oi.net" website was online in April-May 2010.  A portal version was launched on Monday, 10 October 2011 and remained on-line until October 2013.  The present "minisite" Acclimate replaced it. |
| Objectives | • To showcase the Acclimate project.<br>• To be the primary channel for communication and information on the project.<br>• To channel information related to adaptation into the region and abroad (awareness-raising and knowledge sharing).<br>• To increase the visibility of national actions to a global scale.<br>• To network people and institutions. |
| Unique selling point | • Access to a near real time monitoring of the Project.<br>• No portal of this kind in the region, compared to other (insular) regions. |
| Target Audience | Government officials, academics and researchers, financial partners, the steering committee, stakeholders, and interested people/institutions (private and public sectors) concerned about climate change. |
| # unique visitors/month (2012)[3] | 1,453 unique visitors per month (average). |
| Tools, services, features | • Reports<br>• Opportunities<br>• Country profiles<br>• Maps<br>• Directories<br>• Search tools<br>• Newsletter |
| Editorial Approach | • Answering: Who ? Where ? When ? What ? Why ?<br>• Information is provided in French.<br>• Information provided is serious, attractive, complete, timely, accurate, objective, verified, and independent of any religious influence, political, ideological or commercial.<br>• Titles are short, precise and catchy.<br>• Short sentences; common vocabulary, with each technical term, abbreviation or acronym must be spelled out; etc.<br>• Internal validation only. |
| Modes of interaction | Emails; E-newsletters |

During the different stages of its evolution the Acclimate platform has been host to an array of content. Originally, as a website, Acclimate hosted two databases that existed side-by-side but were not interconnected, with one referencing Acclimate project-related contents and the other containing local, regional and international climate adaptation content. This second part was referred to as the 'portal' part of the site. The two sides were integrated and developed when the website transferred to its full portal format, with the objective of becoming a more practical, more

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[3] 2012 is used as the reference year for average visitors since it is the only complete calendar year during which the Acclimate portal was online.

interesting and more popular resource for western Indian Ocean stakeholders. Some of other the changes included change of graphics/design, improved technologies adapted to work at weak bandwidths and better organisation.

The transition from the website to the portal faced some obstacles, however, including:

- The pairing of the databases ("Espace Acclimate" and the bulk of the portal, see next section for further information) complicated the work of the under resourced project team;;

- The navigation was not as good as desired, with the exception of the home page; and

- Technical challenges faced by external ICT providers (e.g. DesignCreeds) in providing support for the portal project.

## 2.2     Contents and resources of the Acclimate portal

The Acclimate portal was structured in two distinct but interwoven components:

- "Espace Acclimate", which presented the information related to the Acclimate project, notably the project's rationale, objectives, and main activities/actions; and

- The bulk of the portal presented information connected to adaptation to climate change in the South West Indian Ocean and abroad.

The rest of this section presents on this second component. Table 2 below lists the main content, resources and features that were available on the Acclimate portal.

Table 2: Primary content, resources and features of the Acclimate portal (October 2011-October 2013)

| Regularly updated content | Resources and features |
|---|---|
| <ul><li>News items</li><li>Opportunities (jobs, funding, calls for proposals etc.)</li><li>Agenda of events</li><li>Newsletter</li></ul> | <ul><li>Glossary</li><li>Expert commentary and opinion</li><li>External source articles</li><li>Publications and reports</li><li>In-house writing</li><li>Expert interviews</li><li>Multimedia</li><li>Country Profiles</li><li>Funding sources/profiles</li><li>Guidance/manuals</li><li>Statistics</li><li>Directories of institutions, individual experts, civil society, training events</li></ul> |

| | |
|---|---|
| | • External links |
| | • Space for contributions |
| | • Frequently Asked Questions (FAQ) |

The content was organised by:

- Geography, with country-specific pages for Madagascar, Mauritius, Comoros, Seychelles, Reunion, the Indian Ocean, and the world (see Figure 4). Each of the IOC member pages had a brief country profile with basic indicators such as population, development index and principal vulnerable sectors. The pages grouped together relevant news, documents, key actors, projects, and insights related to each particular country. This approach allowed users to access information with the appropriate regional focus.

- Themes, such as *Sustainable Development, Insurance and financing, Public policy, Risk and vulnerability, and Meteorology and climate.* These theme pages also contained news, opportunities, documents, and multimedia, as well as links to external resources, centred on each theme. The theme pages contained similar content to country pages, however, they were presented simply as a list, while country pages displayed a more visually appealing layout with discrete sections (see Figure 4).
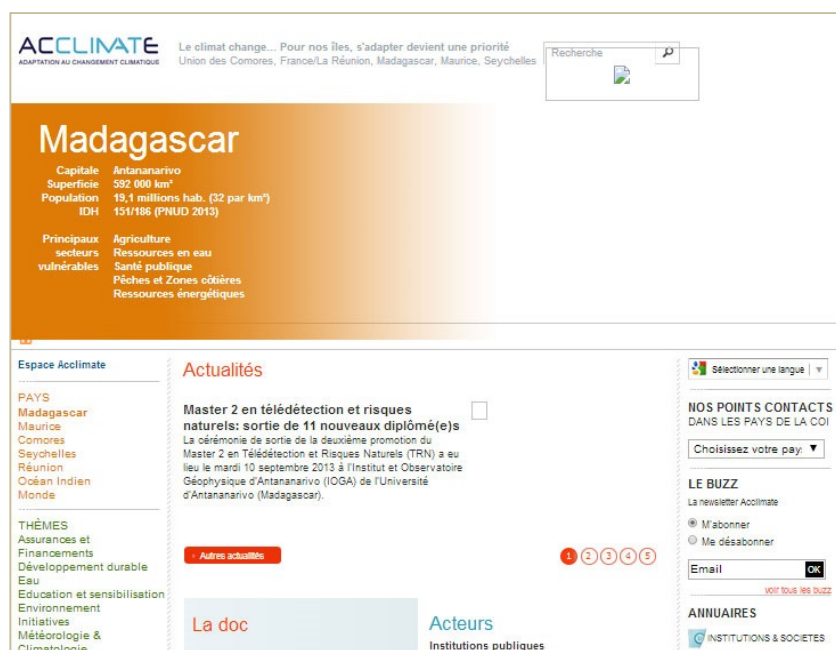


**Figure 4: Screenshot of country page for Madagascar (missing images in screenshot are due to data loss after the server transfer)**

Acclimate also offered a search function under its *Resources* page. This search engine allowed the user to conduct a search for contents using the following criteria: year, type, theme, source, keyword and country. However, the link to the search function was not as prominent on the website as country profiles or theme pages, and was not included on every page.

The Acclimate platform is currently operating as a reduced 'minisite' lacking most of the functionality and resources that had been developed over time, particularly in terms of the breadth and depth of the database of resources. Of the current four main tabs on the website (excluding the *home* button) two are focused solely on the Acclimate project, one is an informative section on the IOC and only the last tab is a knowledge database. This general climate change and adaptation database is now limited in functionality and content to only a handful of resources referenced for direct download mostly. Also, the database is no longer searchable. The country profiles, news, opportunities, services, FAQ sections are no longer available.

## 2.3    User statistics

This section provides an overview of user profiles across five main areas (geographical distribution, occupation, frequency of usage, first-time visitors, and most popular pages) and key web traffic statistics. Please note this information is only provided for the period between October 2011 and December 2012, from the creation of the portal version of the Acclimate platform until the end of the Acclimate project.

- Geographical distribution: Roughly two-thirds of the visitors came from only four countries: France, with 34% of the visitors, then Mauritius (28%) Madagascar (15%) and La Reunion (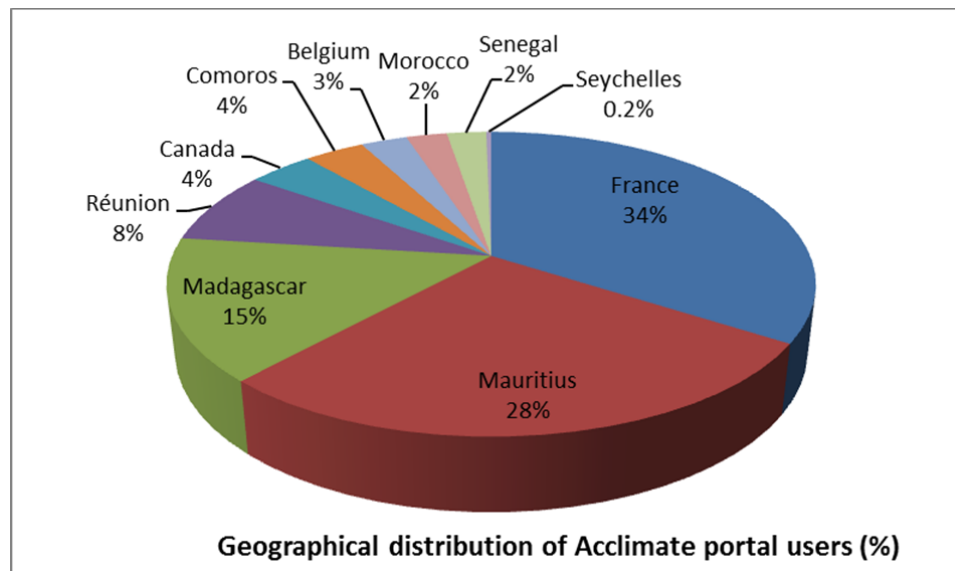8%). All of the IOC member countries, with the exception of Seychelles, appear in the top 10 list of countries. The top ten also includes Canada, Belgium and Morocco. As a portal only available in French, it is unsurprising to see that the majority of users are based in francophone countries.



**Geographical distribution of Acclimate portal users (%)**

- Occupation: the majority of Acclimate users were from the research, academia or scientific communities, as well as to a lesser extent, regional ministers and government officials[4].
- Frequency of usage:  Overall, web traffic data shows that the number of visits, visitors and page views steadily increased from October 2011 to December 2012, from the start of the portal version until the end of the Acclimate project. Over the same period however, the number of pages per visit, visit duration, and average visit duration continuously decreased. The bounce rate remained relatively constant with an average of 61.2%.  The total time spent on a page average per user remained low at two minutes and seven seconds.

Key web traffic statistics are summarised in Table 3 below.

**Table 3: Web traffic statistics for the period of October 2011 to December 2012**

| Indicator | Value |
|---|---|
| Visits | 27,553 |
| Unique visitors | 19,083 |
| Page views | 96,943 |
| Pages/visit | 3.52 |
| Average visit duration | 00:05:20 |
| Average time spent on a page | 00:02:07 |
| New visits | 63.43% |
| Bounce rate[5] | 61.02% |

- First-time visits: From a total of 27,553 visits over the period in question, there were 19,083 unique visitors. Unique visitors are those that are counted only once, therefore excluding repeat visitors. In relation to the overall number of visitors, the proportion of first-time visitors remained roughly constant at 63.43%. Therefore first-time visits to the Acclimate platform were more common than repeat visits.
- Most popular pages: An analysis of the top 20 most viewed pages reveals trends in popularity. The most viewed page was the Acclimate home page, with 12, 510 views. The

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[4] This is based on analysis by Brice Montfraix, Acclimate project manager, using the email addresses of users who downloaded reports/documents from the Acclimate platform. Users were asked to enter their email address each time they wished to download resources from the portal. Users represented private companies (ie. Bio Intelligence Services, Biodiversity by Design, Transenergie), public bodies (ministries, mostly from Madagascar, Mauritius, and Reunion), meteorology institutes (ie. Meteo-France, Finnish Meteorological Institute), research Institutions (ie. French Agricultural Research Centre for International Development (CIRAD), Institut de recherche pour le développement (IRD) etc.), international institutions (ie. Food and Agriculture Organization (FAO), United Nations Conference on Trade and Development (UNCTAD), World Meteorological Organization (WMO) etc.), financial partners (ie. Agence Française de Développement (AFD), Japan International Cooperation Agency (JICA) etc.), regional universities (Reunion, Mauritius) and international universities (University of the Sunshine Coast, Australia and George Washington University, USA).

[5] The bounce rate is the percentage of single-page visits, which means visitors leave the website after accessing the entrance page, rather than visiting further pages within the site.

other pages were assessed in comparison to this figure[6]. The following trends were identified in order of popularity:

- Opportunities were the most viewed section of the portal. Popular opportunities included those for financed training from the Agence Internationale de la Francophonie (10.34% of page views), bursaries (8.56%), jobs (5.69%), training (5.26%) and calls for projects (5.08%) and proposals (3.71%).
- Country profile pages were the second most viewed section. Appearing in the top 20 page views are the country profiles for Madagascar (12.6% of page views), Comoros (7.14%), Mauritius (6.49%), and Reunion (5.46%). It is interesting to note that Seychelles is not among these most viewed pages. This corresponds to the fact that Seychelles is also not part of the top 10 in terms of geographical distribution of users (see Figure 5).
- The resources page also received a significant number of visitors (7.08% of page views). This section included various types of information and resources, such as guidance, multimedia, statistics, official reports, and highlights, as well as a search engine tool.
- The "Espace Acclimate" also received a considerable proportion of the web traffic with 6.58% of page views. This web section provided information on the Acclimate project, including its activities, and a general project overview.

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[6] It should be noted that this method assumes that the entry point to the portal was the homepage. This does not include visitors who arrived at the site via direct links (ie. from emails or articles).

## 2.4    IT history of the Acclimate platform

Table 4 below summarises key IT facts regarding how the Acclimate platform was developed, hosted and managed from the technical side for each of its subsequent versions since its creation in April 2010.

**Table 4: Summary of key IT facts from each of the three versions of the Acclimate platform**

| Version of the Acclimate platform | Acclimate website (April 2010-October 2011) | Acclimate portal (October 2011-October 2013) | Acclimate minisite (October 2013-present) |
|---|---|---|---|
| Developer | GECKOM & DesignCreeds, Mauritius | Blue Ice Executive, Mauritius | Blue Ice Executive, Mauritius |
| Webhost | WebHostingBuzz (USA) | WebHostingBuzz (USA) | OVH Europe |
| Content Management System (CMS) | Wordpress | Drupal | N/A *(the minisite does not have a CMS)* |
| Web manager | Brice Montfraix | Brice Montfraix Pierre de Portzamparc | N/A *(the minisite is not actively managed)* |
| Costs | • Web development for EUR 6000.<br>• Server costs for WebHostingBuzz at USD 70 per year.<br>• No license costs for WordPress. | • Web development and maintenance for EUR 16,000.<br>• Server costs for WebHostingBuzz at USD340 per year (dedicated server).<br>• No license costs for the open source CMS Drupal. | • Web development for EUR 1,000.<br>• Server costs at USD 95 per year (shared server). |
| Advantages and disadvantages of the hosting and management system | This webhost has the capacity that are lacking in the region to host the website. In the initial stages of development, proximity and direct management allow customization of the site and better alignment with users' needs and demand. | This webhost has the capacity that are lacking in the region to host the website.<br><br>A comparative advantage of Drupal was conducted by the web developer. It showed that Drupal was the most well –equipped to address. CMS  is freely available | The transfer to the shared server resulted in the loss of several gigabytes of data. The Portal interface and most of its contents are still available but parked offline and inaccessible. A 'minisite' version replaced it online. However, this minisite does not offer all the previous features, resources and services of the portal. |

## 2.5    Institutional arrangements and financial sustainability

In its earliest stage as a website, the Acclimate platform was run as a pilot programme by IOC without institutional arrangements or partnerships with other organisations. While the portal was being developed in 2011, IOC solicited involvement from the member countries by:

- Setting up a committee of writers to contribute to the platform.
- Engaging with national focal points.
- Raising financial contributions to support the Acclimate platform.

However, these three attempts to build sustainable institutional arrangements with national governments, other regional stakeholders and development partners were not successful.

Attempts to secure alternative funding or revenue streams were unsuccessful. This led to the decision by the Acclimate platform's manager (Brice Montfraix) to move the portal to a shared server, which was associated with a loss of several gigabytes of data and information.

A Memorandum of Understanding (MoU) was signed with the Technical Centre for Agricultural and Rural Cooperation (CTA) based in Belgium to facilitate content sharing between the portals. However this agreement was not implemented when the Acclimate portal was taken offline in October 2013 and transformed in a minisite.

Through each of the stages of the Acclimate platform's development, the platform managers operated with very limited financial resources. Attempts to secure alternative funding or revenue streams were unsuccessful, and an effort to save money (moving to a cheaper server) led to the loss of the portal.

## 2.6    Editorial approach and mode of interaction

The editorial objectives of the Acclimate portal were to provide information that was serious, attractive, complete, timely, accurate, objective, verified, and independent of any political, ideological, religious or commercial influence. With short, precise and catchy titles and text using common and plain vocabulary, with any technical terms or abbreviations clearly explained, the Acclimate portal targeted a broad and non-expert audience. However, the lack of editorial partnerships was associated with a limited thematic scope and generation of new content.

The Acclimate project team (Brice Montfraix and Pierre de Portzamparc) produced a total of 24 newsletters as a means for interacting with users. These contained information on adaptation to climate change and other related actions in the region and globally. Called "The Buzz", the newsletter was generated automatically with new content and the information published on the front page of the portal. It was emailed every two months to the project's contacts in the IOC region and internationally.

# 3 Benchmark analysis of international best practice

This section presents the most common features, services and resources for a range of 13 climate change knowledge platforms. This analysis aims to determine what constitutes best practice and minimum requirements for the future Western Indian Ocean regional portal. This allows us to conduct a benchmark analysis between the Acclimate platform and international best practice, as part of the SWOT analysis presented in the next section (see Section 4).

## 3.1 Methodology

To determine what constitutes best practice and the minimum requirements for the future regional portal, 13 international climate change knowledge platforms were reviewed and compared (see Table 5 for the full list). The majority of these portals focus on adaptation (with 6 out of 13)[7]. Seven however, relate to climate change in general (i.e. both adaptation and mitigation), sustainable development and/or climate finance[8]. In terms of geographical scope, most of these platforms are global (7 out of 13), while only six are specific to a region[9].

Though called many things, from portal to platform to website, each act as a 'portal' or conduit where resources and information are organised and presented. These portals were primarily identified based on the review conducted by IISD/IDS (IISD, 2013), relevant studies on climate knowledge management (CDKN, 2012 and CDKN, 2013) as well as our expert knowledge. It should be noted that this list is non-exhaustive but provides useful insights through the multiplicity of regions, institutions/ actors and topics covered.

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[7] These include the Acclimate portal, AfricaAdapt, the Asia Pacific Adaptation Network, CAKE, EU Climate-Adapt and weADAPT.

[8] These include the Caribbean climate change portal, CKDN, the World Bank Climate Change Knowledge Portal, Climate Change Policy & Practice, Climate Finance Options, Eldis and the Pacific Climate Change Portal.

[9] These include the Acclimate portal, AfricaAdapt, the Asia Pacific Adaptation Network, the Caribbean climate change portal, EU Climate-Adapt and the Pacific Climate Change Portal.

**Table 5: Overview of the 13 international climate change knowledge portals reviewed as part of the analysis**

| No. | Name of portal | Owner of the website | Partners | Region of focus | Topic of focus |
|---|---|---|---|---|---|
| 1 | Acclimate | Indian Ocean Commission | Fonds Français pour l'environnement Mondial, Ministère des Affaires étrangères (France), Agence Française de Développement and Région Réunion. | Indian Ocean | Adaptation |
| 2 | AfricaAdapt | Environment and Development Action in the Third World (ENDA-TM), Forum for Agricultural Research in Africa (FARA) and IGAD Climate Prediction and Applications Center (ICPAC) | Enda Tiers Monde, FARA and IPAC | Africa | Adaptation |
| 3 | Asia Pacific Adaptation Network | Asia Pacific Adaptation Network | ADB, Ministry of the Environment (Japan), USAID, UNEP, SEI, IGES and RRCAP. | Asia Pacific | Adaptation |
| 4 | CAKE: Climate Adaptation Knowledge Exchange | EcoAdapt | EBM Tools, Isnaldn Press, TNC, Northeast Climate Adaptation Project and Model Forest Policy Program. | Global | Adaptation |
| 5 | Caribbean Community Climate Change Centre Repository and Regional Clearinghouse | Caribbean Community Climate Change Centre | N/A[10] | Caribbean | Climate chance |
| 6 | Climate Development Knowledge Network Database | Climate Development Knowledge Network (CDKN) | PwC, ODI, lead, FFLA, futuro latinoamericano and SouthSouthNorth | Global | Climate compatible development |
| 7 | Climate Change Knowledge Portal | World Bank | IBRD, IDA, IFC, MIGA and ICSID. | Global | Climate change |
| 8 | Climate Change Policy & Practice | International Institute for Sustainable Development (IISD) | IISD and the Swiss Agency for Development and Cooperation | Global | Climate change |
| 9 | Climate Finance Options | United Nations Development Programme and World Bank | UNDP and World Bank | Global | Climate finance |
| 10 | Eldis Climate Change Resource Guide | Institute of Development Studies | IDS, Irish Aid and DFID | Global | Climate change |

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[10] Partner organisations are not specified for the CCCCC's Clearing House and website.

| No. | Name of portal | Owner of the website | Partners | Region of focus | Topic of focus |
|-----|----------------|----------------------|----------|-----------------|----------------|
| 11 | European Adaptation Platform (Climate-Adapt) | European Commission and the European Environment Agency | n/a | Europe | Adaptation |
| 12 | Pacific Climate Change Portal | Secretariat of the Pacific Regional Environment Programme | *multiple* | Pacific | Climate change |
| 13 | weADAPT | Stockholm Environment Institute | *multiple* | Global | Adaptation |

Table 6 below lists the criteria[11] used in the review and evaluation of these 13 platforms.

**Table 6: Climate portals evaluation criteria**

| General information | Regularly updated content | Organisation of content |
|---|---|---|
| <ul><li>Name</li><li>Domain</li><li>Owner of the website</li><li>Target audience</li><li>Languages</li><li>Geographic coverage</li><li>Allows user contributions</li><li>Location of resources</li><li>Ease of use</li><li>Regional relevance (official regional languages, regional relevant documents, etc.)?</li></ul> | <ul><li>News</li><li>Opportunities (Jobs, RFPs etc.)</li><li>Events/ calendar of events</li><li>Newsletters</li><li>RSS feed</li></ul> | <ul><li>By topic or theme</li><li>By resource type</li><li>By geography</li><li>By country (applicable only to regional portals)</li></ul> |
| | **Resources available** | **Communities** |
| | <ul><li>Glossary</li><li>Experts Q&A</li><li>Case studies/ project descriptions</li><li>Expert commentary and opinion</li><li>External source articles</li><li>Publications and reports</li><li>In-house writing</li><li>Interviews</li><li>Photos</li><li>Videos</li><li>Country Profiles</li><li>Funding information</li><li>Climate projections/data</li></ul> | <ul><li>Discussion forum for members</li><li>Members/ donors roster</li><li>Special access resources for registered members</li><li>Member contributions</li><li>Links to social media</li></ul> |
| | **Search tools** | **Miscellaneous** |
| | <ul><li>Search engine</li><li>Interactive map/ geolocator</li></ul> | <ul><li>reegle API (Application Programming Interface) tagging tool[12]</li><li>Knowledge navigator</li><li>User guide</li></ul> |

## 3.2  Overall layout and presentation

This section presents the overall layout and presentation of the platforms reviewed. This determines the ease of use and navigation by users, as well as their ability to access relevant resources and information.

Based on our review of the 13 platforms, a user-friendly layout and presentation presents the following three desirable features:

- Introduction: a short welcome or introductory text box on the home page indicating what the objectives of the platform are, the information it provides, the organisation that hosts it and the audience it targets. The European Climate Adaptation Platform (Climate-Adapt)

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[11] These criteria were identified based on a review of relevant literature (see References) as well as expert judgment/ knowledge.

[12] The reegle API tagging tool is a service developed by REEP (Renewable Energy and Energy Efficiency Partnership), a market catalyst in the sector of clean energies. reegle is the name of REEP's knowledge portal.

platform is a good example (see Figure 6). Such an introduction helps first-time users quickly identify the nature, scope and intent of the platform, and helps them become familiar with the platform. It should be noted that some portals do not include these design elements (e.g. weADAPT), a choice which can disorient users by not directing them towards the information they seek, and as such, discourage its usage.



**Figure 6: European Climate Adaptation Platform (Climate-Adapt) home page welcome message**

- Menus: clearly labelling a portal's key tabs is essential for the user to quickly locate the resources he or she seeks. Some of the most common tabs provided are items such as themes, projects, resources, tools, opportunities, a geographical denominator (cities, regions, countries, etc.) and a direct link to a searchable database.

An effective approach to creating a menu, found in some portals such as the Pacific Climate Change Portal (see Figure 7), consists in providing a visible pathway of past menu choices as the user progresses through the different sections and subsections of the platform. This helps them access the desired information while always remaining oriented within the structure of the website. It also provides the opportunity to go back to the broader list of categories or resources. While admittedly elementary, those portals that neglect these basic tenets of web design fall short, irrespective of how significant their collections of resources or more complex web design elements may be.



**Figure 7: Pacific Climate Change Portal menu and visible pathway**

- Visual identity: maintaining a visual identity throughout the various sections and pages of the website creates a helpful consistency that informs the user that they are still within the original website, as opposed to redirected to a resource on another location (peer website, article hosting platform, etc.). Most evaluated portals meet this criterion, though those that do not create divisions between the subsections that break the continuity of a user's search, creating uncertainty as to the source (and thus reliability) of resources.

## 3.3 Organisation of resources

This section discusses the different ways the reviewed portals categorise or organise resources. The organisation of resources on a climate knowledge platform influences to what extent users can efficiently find and access the information they seek, and hence the platform's usage and web traffic statistics. Online knowledge portals use a variety of methods to organise their content, including by geography, theme or type of documents as well as through searchable databases. This section explores different combinations of these. Recurring characteristics identified in the 13 platforms reviewed suggests the following best practice options:

- Topical organisation of content: each platform organises resources according to primary topics (also divided along the lines of 'themes' or 'sectors'), a standard entry point to discovering a portal's resources and information. The topical breakdown, or type and number of categories vary with the regional focus or complexity of the portal. Most portals reviewed provide a brief description for each topic with links to useful resources. For instance, Figure 8 presents how this information is structured for the EU Climate-Adapt.



Figure 8: the EU Climate-Adapt topical organisation bar

Though a common element, a topical organisational structure must meet some basic standards to effectively guide users, many of whom may not be experts or knowledgeable about the topic. For example, topics must be well defined and clearly differentiated. The platform's layout should also be sufficiently clear to enable users to easily and quickly locate information they need and understand the different routes leading to it, for instance under a given topic located in the broader silo of information, or through another part of the portal (multiple topics, country profiles, etc.). On the Caribbean website for instance, the term *topics* is found as a main category (where key climate change terms are explained), but *topics* is also a subcategory of the database, that lists various items without any topical logic. Such variations are misleading for users, leading to additional and useless clicks, decreasing their likelihood of finding what they need and increasing their tendency to exit the website early, a serious problem for the Acclimate platform, whose bounce rate is high (60% of the users leave the website after visiting one page (discussed in Section 2.3).

- Geographical organisation of content: 12 out of the 13 platforms, whether they have a global outreach or are specific to a region, organise resources by geography (countries, regions, etc.)[13]. To access information specific to a location, platforms will have a menu bar listing the geographic areas they cover for the user to filter search results. Other platforms (7 out of 13) will use maps to directly identify the country of interest and access its resources[14]. These features can influence the user's browsing experience at various levels.

  For instance, the weADAPT platform allows the user to exactly locate where its featured projects are implemented on a Google map. This allows users to access very localized information (down to the community level). However, Google maps, with their full range of options and high resolution, can tax slower internet connections and computers. Other platforms use a static map image where users can click on their area of interest to access country profiles. This is not without technical limitations, as the CCCCC website shows. On this website, the user should be able to access country-specific information by simply clicking on the country on a regional map. As the website currently stands (as of 28th February 2014), country profiles seem inaccessible.

  In contrast, the World Bank Climate Change Knowledge Portal's world map enables users to select major river basins. This unique feature goes beyond the traditional geo-political borders used to categorise portal resources and offers, by instead providing an opportunity to address transboundary issues, including climate impacts. Climate change knowledge portals should look for innovative ways of addressing concerns relevant to the region-specific context.

- Organisation by type of resources: There are many different types of documents useful to users interested in climate change. To assist users who know what kind of resource they need, knowledge portals often organise resources according to type or format. However, this approach has some pitfalls if not effectively developed. For example, this is only useful if

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[13] Only the Climate Change Policy and Practice website does not have a geographical organisation of content.
[14] These include the Asia Pacific Adaptation Network, CAKE, the Caribbean climate change Portal, the World Bank Climate Change Knowledge Portal, Climate Finance Options, EU Climate-Adapt and weADAPT.

the approach is consistent throughout the portal. The EU Climate-Adapt, for instance, identifies 10 types of document and allows the user to select between them while using database search tools as well as within different subsections. On the other hand, CDKN's resource organisation is hampered by unclear headings (projects, resources and stories) that lead to a confusing array of overlapping resources. For instance, *Feature* and *Opinion* resources can be found both under the header S*tories*, as well as under *Resources,* without any explanation of how they differ. This is not an issue when one wants to access all types of resources pertaining to a topic or country, but if the user is interested in one type of resources only it is important that they all be available in their subsection (that all stories are available under the stories section, and all features under the feature section) as opposed to scattered throughout the website. Indeed, for example the AfricaAdapt portal lacks the option for users to browse by resource type, requiring users to find resources by theme or through its projects pathways only.

- Searchable database: users can also access resources through search tools. Each platform includes a search box, often on the home page and throughout most sub-pages, but some portals[15] provide significantly more advanced search engines. For example, the EU Climate-Adapt platform offers a sophisticated search tool with a large range of criteria allowing users to narrow down search results (see Figure 9 on the right). These include: theme, geography, type, timescale, sectors of activities, etc. CAKE provides a similar searchable database, however accessing it is not as intuitive and accessible as the EU Climate-Adapt's tool. There are no clearly visible links directing users to it, but instead a single small link under the general search bar to *"brows*e all CAKE content*".* This lack of accessibility and visibility can be addressed by clearly advertising the searchable database across the platform.

An efficient and user-friendly organisation of resources does not necessarily have to be chosen between the types of organisation described above. Some or all can be deployed in concert to meet the various needs of users.



**Figure 9: European Climate Adaptation Platform searchable database**

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[15] These include EU Climate-Adapt, the Caribbean climate change portal and CAKE.

## 3.4    Format of resources

This section describes the different formats of resources provided by the 13 reviewed platforms. While the diversity of resources varies between platforms, the following resources are the most common : factsheets and brochures; project descriptions; policy briefs; guidelines; toolkits; manuals; in-house thematic guides; journal, academic articles; photos; videos; interviews/ opinions. Additionally, 11 out of the 13 platforms   feature news items on their homepage and a few[16] provide thematic news embedded in the topical sections of the platform.

Project descriptions are present in all the regional platforms[17] (for Africa, the Caribbean, the Pacific, Europe and Asia). This reflects both the interest of regional stakeholders to read about localised information and a role for regional portals as case study sharing platforms (IISD, 2013). For example, AfricaAdapt uses various forms of media, such as videos and interviews, in the 'community voices' section to share stories directly from local communities affected by climate change.

Six of the 13 portals[18] also use video and photo resources, often by linking to their Flickr or YouTube accounts for photo or video sharing, respectively. The Pacific portal has embedded image and video galleries within the site, however the resources featured lack explanatory context (titles, dates, author, subject, etc.).

Videos and other media have an added-value as they can convey a story that documents cannot, such as the on-the-ground interviews featured on AfricaAdapt. Despite the obvious benefits of media resources, existing literature suggests that written material is the main type of resources that users seek in a climate change knowledge platform, such as reports, policy-documents and journal articles (IISD, 2013). As such, it is important to note that resources should only be included when they provided added- value for users and are adequate to user technology.

## 3.5    Regional relevance

This section describes how regional specificity is handled among the 13 reviewed portals.

Six of the 13 portals, including the Acclimate portal, are region-specific. Others cover multiple countries or are global. As regional portals are of particular interest to this analysis, this section describes how portals incorporate information and resources specific to their region. Ensuring regional relevance is critical for the future Portal, as climate change is context-specific. Each region will be affected differently, according to its specific climatic and socio-economic context (determining the vulnerability and adaptive capacity of the region and its member countries). However, insights and best practice can be drawn from other regional and international platforms for application in the Indian Ocean. These include:

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[16] These include CAKE, CDKN, Climate Change Policy and Practice.
[17] These include AfricaAdapt, the Asia Pacific Adaptation Network, the Caribbean climate change portal, EU Climate-Adapt and the Pacific Climate Change Portal.
[18] These include AfricaAdapt, weADAPT, CDKN, CAKE, the Caribbean climate change portal and the Pacific Climate Change portal.

- Availability in relevant language(s): regional relevance is only maintained if a platform is available in the languages mainly used across the region. Language is an issue at two levels: 1) the language of a portal's page content and navigation panels, and; 2), the language of information, tools, reports, resources and other contents. This is particularly important as this was identified as a main barrier to the wider usage of the Acclimate platform, which was only available in French. An automatically translated English version of the portal through Google translate was also available, but this provided poor translation of the portal's navigation panel and page content. In addition, the majority of the platform's information, tools, reports and other content were only available in French.

  The AfricaAdapt portal is a good illustration of the challenge of accommodating multiple languages. Although the platform exists in two full professionally translated versions in both French and English, as the two most common languages used across Africa, the English content is richer and more up-to-date. The latest resources in French are dated 2010, in contrast to the English contents dated up to 2013. This may reflect the lack of financial and technical resources to update both versions of the website or a paucity of relevant international resources on climate change in French. This is an important issue to address in the development of the future Portal.

  Language is also discussed below in the context of accessibility (see Section 3.6).

- Providing region-specific information: portals take different approaches when serving up country or region-specific information. For example, some portals[19] provide profiles for each country in their region where users are immediately linked to relevant resources. As previously noted this is the EU Climate-Adapt platform (Figure 10). In contrast, AfricaAdapt does not have country profiles, providing only regional subsections with project descriptions.
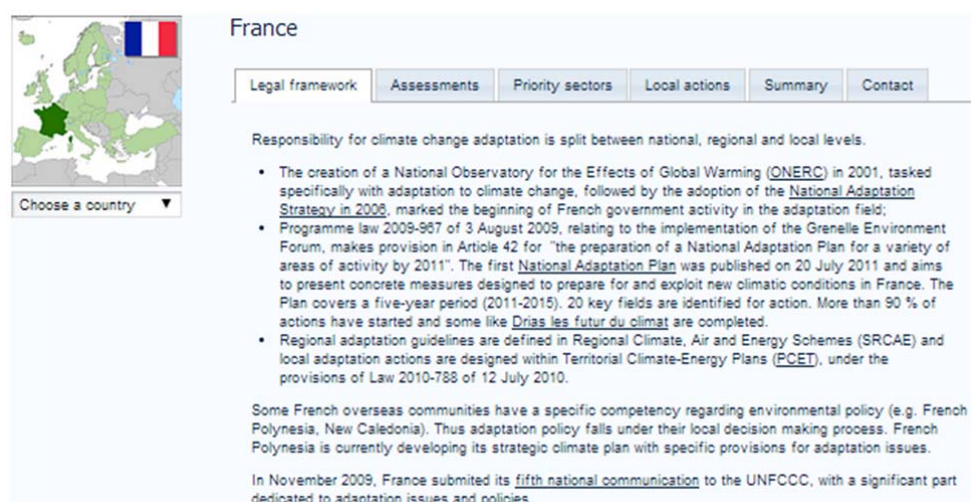


Figure 10: Example of a country profile on Climate-Adapt

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[19] These include Eldis, CDKN, the Pacific Climate Change Portal, EU Climate-Adapt, the World Bank Climate Change Knowledge Portal and the Acclimate platform.

- Providing information from analogous regions: given the relative scarcity of climate-related information and resources in the western Indian Ocean, it is important to draw from best practice existing resources and information from analogous regions. To avoid information overload, it is important that such resources be carefully selected and filtered. It is useful to look at how the information and resources were presented and organised on the Acclimate portal. Information and resources are organised across the three following levels: 1) the country level, 2) the regional level and 3) the international and global level.

For an alternative and more sophisticated option, the Asia Pacific Adaptation Network displays an 'Adaptation Good Practices' search engine, which allows users to filter information and resources between countrywide, sub-regional, sub-national or community levels (see Figure 11 below) .
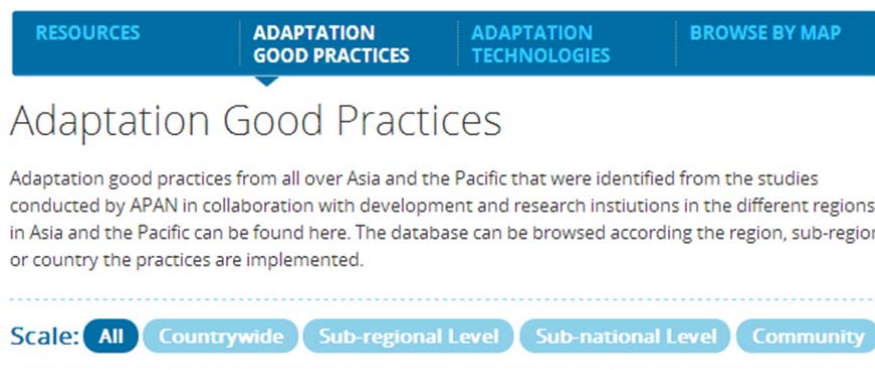


Figure 11: The Adaptation Good Practices search engine of theAsia Pacific Adaptation Network

- Avoiding information overload: there is a potential risk in overloading users. Bearing this mind, climate change portals need to provide the right information by being cognizant of the needs and interests of their regional users[20]. This requires selecting contents, resources and information relevant to the regional context. For instance, the searchable database of the Pacific Climate Change Portal does not allow the user to filter geographically. These are organised in a searchable database without geographic filters. While it provides hundred of useful resources and information, it is difficult and time consuming to distinguish region-specific from global resources.

- Providing regional case studies: while best practice climate change information and resources are critical to the regional climate change knowledge platforms, region- or country-specific case studies are an important resource to 5 of the 6 reviewed regional platforms (except Acclimate)[21]. For instance, the weADAPT platform contains numerous project descriptions from around the world with contact information, as well as links to

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[20] User needs will be assessed as part of the next deliverable "User needs assessment".
[21] These include AfricaAdapt, EU Climate-Adapt, the Caribbean climate change portal, Pacific Climate Change Portal and the Asia Pacific Adaptation Network .

related websites and organisations. The user can access them by browsing a world map and selecting the projects in the regions and countries of interest. Other platforms such as the AfricaAdapt and CCCCC websites also provide localised project information. The former organises projects according to African sub-regions but lacks a search engine or country filters to help the user to seek information of interest. The latter enables the user to search project descriptions by country of the members of the CARICOM (Caribbean Community).

## 3.6 Accessibility

This section identifies two major issues undermining the accessibility of the reviewed portals. These relate to:

- Translation**:** Many of the portals can be navigated in multiple languages. However, while some sites are fully translated, offering two or more versions of the portal in different languages, other portals offer users an automated Google translation. Professional translation of all the websites elements is preferable, but can be costly and resource intensive. Google translation on the other hand is imperfect but offers several benefits: it is free, automated, instantaneous and it translates 80 languages. In resource-constrained institutions and countries, automated translation can increase a portal's accessibility and relevance to regional users (see Section 3.5)

IT demand: Web design is another element that influences a portal's accessibility because internet access and speed vary considerably for users across SIDS and developing regions generally. The challenge of striking an appropriate balance between good design and accessibility is met with varying success among the reviewed portals. For instance, the Asia Pacific Adaptation Network (APAN) has a sophisticated Google map that allows users to quickly identify which resources are available in their area of interest. However, this tool is resource-intensive and would work poorly on an older computer or with slow internet connection. Interestingly, APAN addresses this challenge by providing text lists as alternative, which is less resource-intensive ways to access the same resources. Another challenge of complex websites is that they have more potential 'fail points', or more features with more components and connections that may cease to work. It is however, important to note that all portals are freely accessible providing climate-related information and knowledge as a public good. Several portals[22] require users to register by entering their name and contact details to access some of the information and/or resources, or to contribute with article suggestions, project descriptions or case studies, but otherwise access is generally open.

## 3.7 Ease of use

This section presents different methods used by the reviewed portals for promoting ease of use, an issue directly connected to other characteristics addressed above, notably in terms of the content organisation and layout of the website. These include:

- Cross-referencing: With regards to resource organisation, whether by topic, geography or resource type, it is important that different pathways lead to the same pool of resources. Browsing the Eldis website for instance, a user can access the same resources via different

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[22] These include, for preferred access to resources: Climate Finance Options, weADAPT, CAKE, EU Climate-Adapt, the Asia Pacific Adaptation Network; and for contributing content: Eldis, weADAPT, CAKE.

pathways, starting with the *Topics* or *Resource Guides* menu and subsequently narrowing down their search to a specific report. Figure 12 features for instance a case study on water in India. Alternatively, the user can access the same report by browsing the resources directly associated with India (see Figure 13 below) accessible through the country profile. This cross referencing indicates an internal logic to a portal that keeps users oriented and able to access information organically.
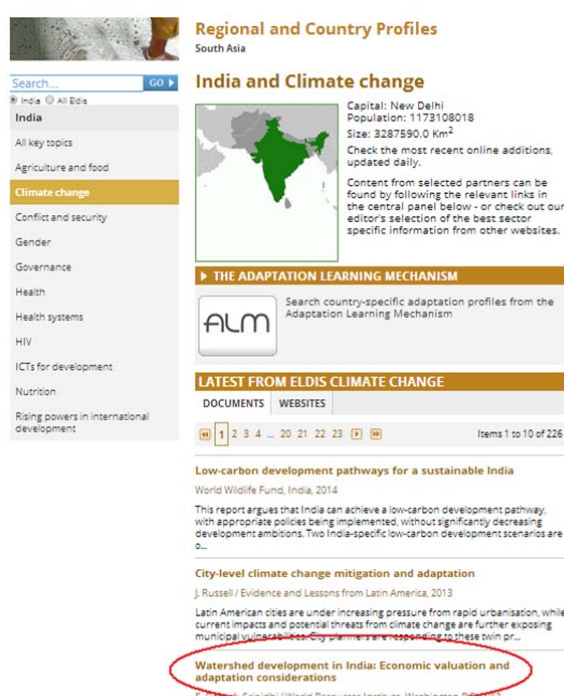


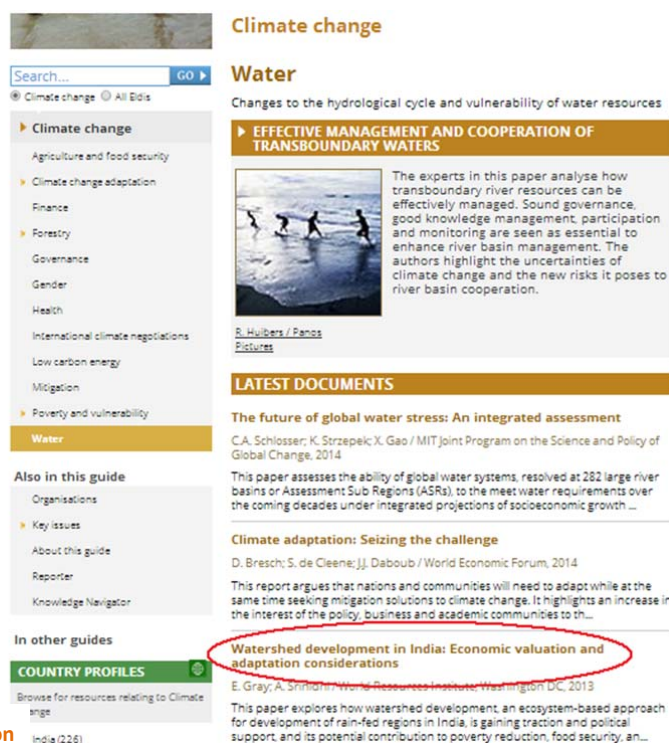Figure 12: Users accessing resources through a country selection

Figure 13: Users accessing the same resources through a topic selection

- Visibility: In the case of the Eldis website, as well as for other platforms including APAN, CAKE, Climate Finance Options, CDKN and Climate-Adapt, a detailed menu of resource categories always visible on the side of the page allows the user to narrow down the search results or go back as needed. As noted in section 3.2, if the pathway that led to resources remains always visible, it is easier for users to backtrack.
- User-friendly search engine tools: Generally, the starting point into the database should be as general as possible, and the criteria to narrow down resources visible and flexible. A good illustration is the APAN website.

Other platforms have less user-friendly databases where the user has to scroll down the window and multiple pages to see all the resources under a category, often without other

sorting options than by date or alphabetical order (title or author name). These design choices strongly impact the ease of use of a platform.

The importance of a portal's organisation in promoting ease of use is perhaps best demonstrated when it does not work well. weADAPT is a difficult platform to use as it fails at implementing the best practice search options described above:

- The home page does not indicate what type of resources the portal contains nor that it relies on user contributions;
- The user is asked to make a preliminary choice upon entering the website, based on four vague headers: *learn, share, connect, explore* (see Figure 14) without clear differentiation of what these choices mean or how they relate;
- These four headers (and their sub-sections) are not consistently represented in the rest of the portal; and
- The general organisation of resources and search options are also neither sufficiently explicit nor consistent, making navigation consistently confusing, reducing ease of use.
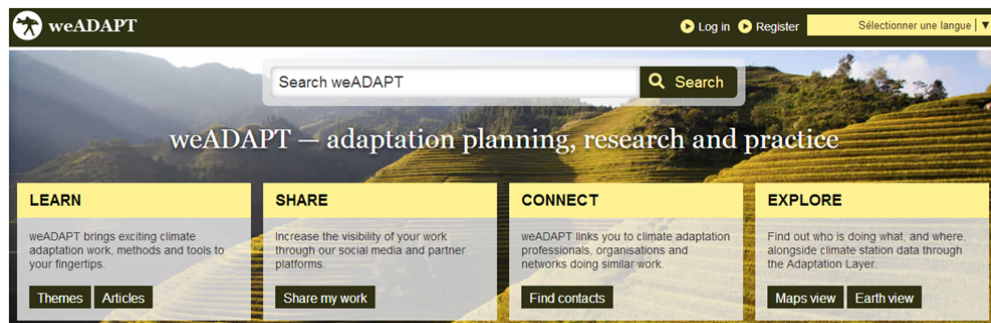


Figure 14: The four preliminary choices on the weADAPT home page

- Links to other sources: Another important element that impacts ease of use is how the platform connects to external sources of information. Users should know prior to clicking on a resource link 1) if they will leave the website and be redirected to the original source of the document, 2) if it will directly download the document, or 3) lead to a page presenting the resource (with download link, abstract, author, advised citation, etc.). An illustration of each alternative includes:
    - The Climate Finance Options platform and CDKN, for instance, have links indicating what other websites users can visit for more information (generally the original source of the fund or the project).
    - On the other hand, on AfricaAdapt, clicking on the title of a resource in a search result will occasionally directly open a download page of a file hosted by AfricaAdapt. For users with limited internet speed, it is important issue to flag if a link will bring them immediately to a large download.
    - A good way of not misleading the user is to have an abstract page that describes resources and offers a clearly identified download link, as is the case on CAKE (see Figure 15). This approach keeps a user oriented by clearly marking the boundaries of the portal and of external resources.

Figure 15: Contextual information on an available publication (CAKE)

Finally, if the portal hosts its search engine on a separate webpage, the connection with the original portal must be clear. For example, the Caribbean platform does not visibly advertise its powerful Clearinghouse, a searchable database. Likewise, the CCCCC's Clearinghouse, which is hosted on separate webpage, does not have a clearly identified link to go back to the main CCCCC website. The two are part of the same website but not visibly tied together, which disorients users and limits their ability to find the information they require.

## 3.8    Community of website users

This section discusses how the reviewed portals allow users to interact and enter into communities of engagement. Nearly half of the portals reviewed provide access to community spaces (or communities of practice) where registered members can engage in forum, discussion and knowledge sharing[23]. All of the communities are free of charge and only a few offer registered users preferred access to resources[24], but not all clearly state the advantages of joining the portal community[25].

It is useful to look at APAN as it allows community groups (i.e. users of the same profession or with common interests) to connect (either hosted on the website or on LinkedIn[26]).Discussion boards are also available where anyone can view content but users must sign in to contribute, as well as live chats with scheduled sessions on specific topic. The latest live chat hosted by APAN was a capacity building programme on the economics of climate change adaptation (on 10th September 2013).

The Climate Finance Options portal also has message boards for sector-specific communities of practice to engage in discussion. Registration is required to access these communities. weADAPT has a very easy to use public roster of its community members and encourages registered users to get in touch through the website.

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[23] These include AfricaAdapt, Climate Finance Options, Eldis, weADAPT, CAKE, the Caribbean climate change portal and the Asia Pacific Adaptation Network.
[24] These include Climate Finance Options, weADAPT, CAKE and the Asia Pacific Adaptation Network.
[25] These include EU Climate-Adapt and AfricaAdapt.
[26] This is also the case for Climate Finance Options.

Eldis Climate Change Resource Guide, weADAPT, CAKE also offer members opportunities to contribute knowledge – often in the form of case studies, resource recommendations, job or funding opportunities, tool recommendations or even details. Good examples of community contribution systems can be found on the weADAPT platform, which relies on contributions from global stakeholders for much of its content. It also provides step by step guidance on how to contribute knowledge.

The literature on climate portals suggests that traditional document repository platforms will continue to move towards the mainstreaming of "soft knowledge"[27] sharing platforms like weADAPT and CAKE, a drive indicated by some users' desire to "be linked to other people and/or personal experiences" (IISD, 2013).

## 3.9    Keeping content up-to-date

This section describes the various methods observed in portals for ensuring that its resources are constantly kept up-to-date. In addition to the latest policy developments, research, reports and projects, the majority of the platforms reviewed feature particularly time-sensitive information that require regular updates, such as news items[28], events[29] and job opportunities[30]. Nine out of the 13 reviewed platforms also provide updated events-related information such as a calendar of events or the possibility to synchronise the platform's calendar with the user's personal calendar[31].

Climate Change Policy and Practice has the most regularly updated information with news organised in a daily feed or in sections such as "News by Actor" or "News by Issues". The homepage of the website includes a calendar widget (Figure 16) and the option to see all upcoming events, as well as an option to synchronise the calendar to the user's personal electronic calendar (through iCal).
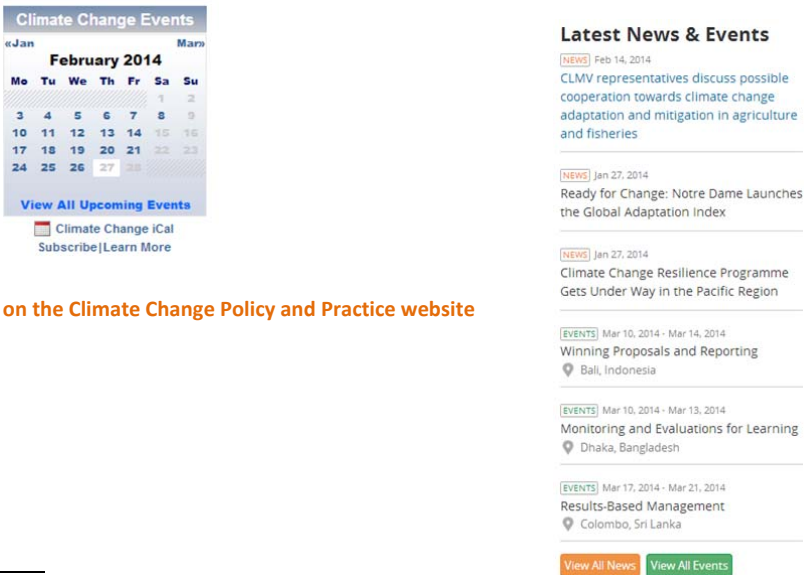


**Figure 16: Events calendar widget on the Climate Change Policy and Practice website**

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[27] Soft knowledge refers here to opinions, preferences, experiences and qualitative judgement.

[28] All of the platforms, except weADAPT and the World Bank Climate Change portal had news sections.

[29] These include Acclimate platform, AfricaAdapt, Climate Change Policy and Practice, Pacific Climate Change Portal, EU Climate-Adapt and Asia Pacific Adaptation Network.

[30] These include the Acclimate platform, Climate Change Policy and Practice, and the Caribbean climate portal.

[31] These include the Acclimate platform, AfricaAdapt, Climate Change Policy and Practice, CDKN, CAKE, the Caribbean climate change portal, the Asia Pacific Adaptation Platform, the EU Climate-Adapt and the Pacific Climate Change Portal.

Platforms with significant news sections organise it in different ways. CAKE for instance highlights different news updates within different sections of the platform. For example, a user may see a new project on the case study page or a new publication on the virtual library page. APAN, on its homepage displays a column with news and events with the option of showing one or the other only (Figure 17) as well as choosing location specific events.

Regional portals also have news and events sections with items relevant to their regions. The news sections are kept up to date on AfricaAdapt, the CCCCC website (with links to the active Caribbean Climate blog) and the Pacific Climate Change Portal. However, events information on other portals is outdated, such as at AfricaAdapt which is two years old. This shows that a portal, if not well funded or managed, can have such time-sensitive information become quickly out of date. A portal that does not appear current will not inspire users to use it extensively, return to it or to contribute. News and other information sources that must be kept timely should only be included if adequate editorial mechanisms and related human/ financial resources are in place to keep them up-to-date.

## 3.10 Connectivity to external resources and platforms

A major role of portals is how they link their users to other platforms and external sources of information. This section compares how connectivity is handled among portals.

All of the climate knowledge portals reviewed have some degree of connectivity to other online sources of information, including peer-platforms, donor websites, government websites, resources or specific project websites. Most of these connections are made when a user clicks on a resource for download or to access its original source location.

Six out of the 13 platforms [32] reviewed acknowledge the limits of what they offer and provide links to key external resources. For example, on its front page the World Bank Climate Change Portal, redirects users to resources it does not contain, including key adaptation tools and mitigation resources (see Figure 18).  No website can contain all resources, and by clearly establishing its limits the World Bank adaptation portal saves users' time.



| ABOUT THIS SITE | OTHER CLIMATE DATA SOURCES | ADAPTATION TOOLS | MITIGATION RESOURCES |
|---|---|---|---|
| ▸ Why a Climate Change Knowledge Portal | ▸ IPCC Data Distribution Center | **Knowledge Sharing and Reference** | **Mitigation Data Sources** |
| ▸ User's Guide | ▸ SERVIR | ▸ Adaptation Learning Mechanism | ▸ WRI- CAIT |
| ▸ Contact | ▸ NOAA climate services | ▸ Climate Adaptation Knowledge Exchange | ▸ IEA Policies and Measures Databases |
| | ▸ CIAT climate models | ▸ weAdapt | ▸ Technology Needs Assessment (TNA) Project |
| | ▸ IRI Columbia | **Tools** | ▸ UNEP Climate Change Mitigation |
| | ▸ University of East Anglia | ▸ CDKP Climate-compatible development | ▸ Sustainable Energy Advisory Facility (SEAF) |
| | ▸ UNDP climate profiles | ▸ UK-CIP Adaptation Wizard | ▸ UNEP RISOE Center |
| | ▸ CI:GRASP | ▸ CRisTAL | ▸ Center for Climate and Energy Solutions. |
| | ▸ International Partnership on Mitigation of MRV | ▸ Hands on Energy Adaptation Toolkit | |
| | | **Others** | |

**Figure 18: Links to key adaptation and mitigation tools on the World Bank Climate Change Portal**

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[32] These include the Acclimate platform, the Asia Pacific Adaptation Network, CDKN, the World Bank Climate Change Knowledge Portal, the EU Climate-Adapt and weADAPT.

Another important aspect of connectivity is the importance of social media websites and applications. Major social media tools such as Facebook, Twitter and RSS feeds were integrated in nine of the 13 portals reviewed[33]. Other common links were to LinkedIn, YouTube and Flickr. These social media resources are efficient ways not only to advertise the portal to potential new users, but also to regularly up-to-date the portal's content in the form of news, new resources, photos, etc.

## 3.11   Climate knowledge management and brokering

This section explores an area of growing interest among climate knowledge brokers (CDKN, 2013; CDKN, 2012 and IISD, 2013). This relates to how to use interactive online tools to facilitate links between knowledge platforms. These tools address problems tied to duplication of knowledge and reconcile the benefits of the growing number of online climate change knowledge platforms, while avoiding unnecessary duplication of efforts and resources. The reegle API (Application Programming Interface) tagging tool and the Knowledge Navigator, both presented and endorsed at the CDKN workshops (CDKN 2012 and CDKN 2013), are two examples.

- The reegle API is a free tagging tool developed to extract key words from informational resources, create tags from those key words and thus make portal databases more searchable. The application is available in several languages (English, Spanish, Portuguese, French and German) and is pre-programmed to identify key words in the clean energy and climate change sectors, as well as words with a geographic focus (e.g. regions, countries, cities). Eldis and weADAPT both use the reegle API tagging tool.

- The Knowledge Navigator is an online interactive application that helps users navigate between different climate change platforms according to their resource needs. The Knowledge Navigator is not a tool to directly access resources but to identify which platforms are more likely to host them. The widget is available for free installation on any website (see Figure 19). It is an IDS service developed with the support of CDKN. The application has three search options: *subject area*, *geographic coverage* and *keyword.* After entering their search terms, the navigator then matches the user's needs to one or several of the 103 participating platforms. This tool is useful users who know something already of what they need, but does not necessarily allow them to explore contextual or related information.

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[33] These include the  Acclimate platform, AfricaAdapt, Climate Change Policy and Practice, Climate Finance Options, Eldis, weADAPT, CDKN, CAKE, the Caribbean climate change portal and the Asia Pacific Adaptation Network.
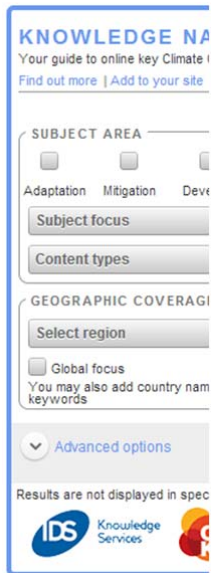
**Figure 19: The Knowledge Navigator widget**

These two knowledge sharing tools ultimately serve two different purposes. The Knowledge Navigator assists users at an early stage by helping them to identify where to best find the resources they need. It also addresses the concern of duplication for knowledge brokers who can redirect users towards better suited platforms while avoiding unnecessary duplication of efforts. For instance, a regional platform can redirect users towards more global ones and avoid hosting non-regional specific resources. The reegle API helps knowledge brokers and climate change platform administrators to make their resources more available by better categorising them. The application can be used to organise a vast database or to cross reference and suggest related resources to users. Both of these tools answer the shortcomings that come with the proliferation of resources and portals, tackling information overload and the challenge of organising information clearly, quickly and accurately. Both of them are also free.

# 4 SWOT analysis and recommendations

A SWOT (strengths, weaknesses, opportunities and threats) analysis was conducted, informed by lessons learnt and experience accumulated through the development of the Acclimate platform, and international best practice through a review of 13 peer portals. The overall objective is to inform the development of the future Portal, by building on strengths, addressing weaknesses, maximising opportunities and anticipating threats based on :

- A thorough understanding of what worked and what did not as part of the Acclimate platform's development, and,
- An analysis of general features, services, resources and other contents provided by the Acclimate platform and 13 climate change knowledge platforms. This also includes the technical layout/interface and editorial approach favoured to keep portals up-to-date.

Recommendations are provided in Section 4.3.

The following matrix summarised the results of the SWOT analysis:

| Strengths | Weaknesses |
|---|---|
| • **The former community of Acclimate users still exists and can be consulted** <br> • **Popular sections of the old portal can be leveraged to bring back old users and draw in new ones** <br> • **The old Portal was well designed and resourced compared to other climate information portals** | • Lack of clearly defined objectives and target audience <br> • Lack of an English version of the portal <br> • Lack of capacity to update time-sensitive content (news items, opportunities, etc.) <br> • Low levels of connectivity and slow internet connections across the region impeding the development of complex, highly visual or interactive web designs <br> • Most users quickly left the old site |
| **Opportunities** | **Threats** |
| • **Interface and layout of the previous versions were strong and can be recycled** <br> • **Build on past web-traffic, which suggests strong and sustained demand for a regional climate portal** <br> • **Useful insights and lessons learned to be drawn from the Acclimate platform during 2011-2013 (under its three versions)** <br> • **Establish editorial partnerships** <br> • **Explore innovative ways of organising resources, especially regional information** <br> • **Use technological and social media tools to improve knowledge management and sharing** <br> • **Become a voice and a resource for climate change in the region** <br> • **Leverage diversified multi-annual revenue sources** <br> • **Build on past communities of users** <br> • **Establish an online community that helps support the site** | • Lack of regional capacities for webhosting and website management <br> • Lack of continuity, attention and knowledge retention after the end of project lifecycle <br> • Lack of sustained buy in from the IOC, regional and national stakeholders/ institutions <br> • Limited funding or resources |

## 4.2    SWOT results

### 4.2.1 Strengths

- Interface and layout: Under its most advanced version (October 2011-October 2013), the Acclimate portal had an architecture that was easy to navigate and access that corresponds to best practice, as identified in the benchmark analysis of peer-platforms (see Section 3).
- Most popular features and pages: certain pages including those on opportunities (with training, events, jobs and calls for tenders), country profiles, and information about the ISLANDS project were the most popular. The layout and content of these pages could be leveraged in the future Portal.
- Community of past-users: The Acclimate platform has developed a significant community of past-users. In total, 619 contacts were provided by the former manager of the Acclimate project manager (Brice Montfraix). This was used for the user needs assessment conducted as part of the next deliverable.

### 4.2.2 Weaknesses

- Lack of clearly defined objectives: Since the early stages of the Acclimate platform's development, its objectives have not been clearly defined. Without clear, quantifiable objectives a portal risks ambiguity and/or failing to meet the needs of its users. It is vital to address this weakness in the creation of the future Portal by working with the IOC and advisory committee to establish Specific, Measurable, Assignable, Realistic and Time-related (SMART) objectives.[34]
- Lack of clearly defined target audience: The target audience of the Acclimate platform was not clearly. Without a comprehensive understanding of the target groups, their needs expectations and preferences, there is a risk of misalignment between the portal's objectives and its design and contents.
- Web traffic: user statistics between October 2011-December 2012 show that users spent relatively little time on the platform, as well as visited few pages, as indicated by the 60% bounce rate, referring to users leaving the portal after visiting only one page.
- Language: the old portal was only available in French with an automated but poor English translation. It is crucial that all the resources available on the portal are accessible from both the French and the English version regardless of the language of their content. Users might chose to browse the portal in French although they are seeking English or French language documents indifferently. It is detrimental to have two professionally translated versions of the portal if both do not give access to the same library of resources (regardless of the language of the resources, which are defined by their author organisation).

### 4.2.3 Opportunities

- Interface and layout: the previous interface and layout were successful and met benchmark standards, and thus can be largely recycled. This will save time and money in the development of new Acclimate portal.

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[34] SMART criteria is a project management tool for setting objectives.

- Web traffic: While active, the Acclimate portal drew a steadily increasing number of visitors, suggesting sustained interest in its subject and its offerings. However, the same data shows that while the total number of visitors increased, the average amount of time they spent on the website decreased. An opportunity exists to take advantage of the user interest that exists while addressing the shortcomings of the old portal that led users to leave quickly. One solution is to increase the prominence of most visited pages, such as the opportunities (funding, jobs, training events and calls to tender for projects) and country profiles pages. Other suggestions for addressing this opportunity will be drawn upon the user survey currently underway.
- Editorial approach: At a higher level, editorial partnerships could be developed to avoid the duplication of work, promote the production of contents in the region, develop the skills of non-experts, professionalise the content and increase added-value of the information. The IOC already had success developing a content sharing agreement with CTA (through a signed MoU) in early 2013. Re-establishing this relationship with CTA is an opportunity to develop a mutually sustaining partnership. In addition, the use of a tool such as the Knowledge Navigator, praised in the Climate Knowledge Brokers community would have the benefit of redirecting users to resources found on other platforms with different focuses, rather than having the IOC portal duplicate their information.
- Regional identity and buy-in: The portal should be strongly anchored in the region – both socially and legally - in order to improve its outreach to local stakeholders.  This can be accomplished by creating a regional editorial board that represents the diversity of languages spoken in the Indian Ocean and enhances local knowledge dissemination as well as regional integration. The portal could also better represent the voices of the Indian Ocean communities through case studies and testimonials (maybe in the form of videos). Building a strong community of users should also be an objective of the portal, whether by requiring registration to access resources and interactive pages (discussion forums, users' contributions, live chats, etc.) or simply creating a roster of members. The latter and other innovative ways should be explored to encourage registered community members to become more engaged and exchange amongst themselves. Such features are also a good way for the portal managers to collect email addresses and build a database of users.
- Community of users:  619 users of previous iterations of the Acclimate platform signed up for the email newsletter, a collection of contacts that represents past, present and potentially future users. Gathering information from these individuals, particularly in the upcoming deliverable on user needs and expectations, is a valuable source of experience and insight to draw upon. Furthermore, we can use the same domain name to capture this past community of users, as well as direct advertisements to this community as the new portal is released. Other useful tools that can contribute to the community of users are links to social media profiles and platforms such as Facebook, Twitter or the more professional LinkedIn where communities of practices and discussion groups can be created. These applications are also efficient ways of providing an up-to-date, automated and regularly updated flow of content: news, photos, etc.
- Region-specific content: In terms of organisation, the platform could explore innovative ways of localizing resources relevant to the region, similarly to how the World Bank portal offers river basin-specific data and resource visualisation. There could also be a SIDS section

in the geographical organisation of resources to share access resources from the most analogous regions of the world. Finally, a search results filtering mechanism as seen on the Asia Pacific Adaptation Network would simplify browsing through the entirety of the data library by narrowing down the resources.

- Long-term sustainability: To ensure the long-term sustainability, diversified and multi-year funding streams should be sought. The IOC can take a prospective and proactive approach to upscale and diversify revenue sources. In addition, AdWords and AdSense provide easy ways to generate ongoing revenue streams. Collaboration with other thematic portals is another way to help fund the portal and/ or save money. Funding sources also exist in appropriately developing and managing information directories. In this respect know-how and capacities are available in the IOC region, especially in Reunion and Madagascar.

### 4.2.4 Threats

- Insufficient capacity and resources: Several related threats emerge from the lack of regional capacity to support the project. For example, when programme managers attempted to change the portal servers because regional webhosting services were limited and expensive, several gigabytes of data were lost. This incident meant that the Acclimate portal was reduced to a 'minisite' with significantly fewer features and resources, replacing which has led to new expenses. Lost time and resources were one impact; another was that the portal became of significantly less use, as evidenced by a significant drop in visitors. Similarly, under-resourced staff are unable to quickly respond to technical issues should they arise, which can lead to long-term negative impacts, as experienced with the server change. Similarly, it is not recommended to include resources on the portal that need to be regularly updated if the management of the website does not have the capacity. News or other time sensitive sections without regular updates would make the portal look old, neglected and out-of-date.

- Financial sustainability: The development of the future Portal requires the identification of a web developer, web manager and web host with sufficient technical and human capacity whilst providing the best value for money. A balance not easy to strike, as suggested by the experience of the Acclimate platform. The sustainability of the web portal should be a precondition and a point of consideration from the beginning of the project, with a plan for local/regional stakeholders to first supplement and then replace project financing. Financial sustainability must be discussed between local, national and international actors dealing with the matter of climate change or related issues, and should be considered from the get-go of any such project. Developing diversified and sustainable sources of funding are necessary to ensure the consistent and reliable allocation of resources to manage and update the portal. The absence of these steps is a major threat to a portal's success.

- Lack of buy-in: Lack of political buy-in from regional and national stakeholders, is a similarly important threat, and one of the downfalls of the previous Acclimate platform.

- Short project cycles: The end of a project cycle is another threat to a long-term project such as the development of a regional portal. The IOC should bear this in mind in engaging financial and technical partners to secure adequate resources for the second phase (i.e. the implementation of the web specifications and final roll out of the portal) and beyond. As project cycles conclude leadership, oversight, editing and management can also disappear or

be weakened if upkeep measures are not established and resources are not allocated at the conclusion of the project.

- Technological capacity: Low levels of internet connectivity and slow connections are common in the western Indian Ocean region. A simple web design is most appropriate for users who are occasionally hampered by slow connections. Highly visual or interactive web design can be a hindrance to accessing resources in such areas.

## 4.3    Take-away messages

A series of take-away messages are summarised below with a view to directly inform the next phases of the project:

Table 7 - Take away messages from the SWOT analysis

| Regarding the development of web specs of the Acclimate portal as part of Deliverable 5 | Regarding the development of the Terms of References for Phase 2 (i.e. the implementation of the web specs and final rollout of the portal) as part of Deliverable 6 |
|---|---|
| <ul><li>Clearly articulate goals for the portal and its implementation</li><li>Clearly articulate user needs and expectations</li><li>Design a website that is logical and simple to navigate</li><li>Design a website that is not resource intensive, but meets the technical capabilities of its users</li><li>Utilise existing social media sites like LinkedIn and Flickr to generate content and encourage communities of practice to spring up in parallel to the portal</li><li>Leverage popular sections of the old portal (e.g. opportunities, country profiles) to drive traffic to less popular pages and sections of the portal, as well as return regularly</li><li>Build a portal with limited 'fail points', complex design elements that may fail and cripple the website</li><li>Employ knowledge brokering tools (e.g. reegle API)</li></ul> | <ul><li>Create a bilingual editorial board</li><li>Do not set in motion features that require regularly updates (e.g. a news section) if long-term provision of resources to maintain those features are not provided</li><li>Build editorial partnerships to populate the website and keep its content fresh</li><li>Re-establish connections with CTA and other organisations interested in content sharing</li><li>List the new Acclimate portal on Knowledge Navigator to help drive new users to the portal</li><li>Diversify funding by joining AdWords or AdSense</li><li>Build a portal that suits the level of funding available for its management over the portal's lifetime</li></ul> |

# 5 References

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