



Government of Vanuatu

RTI Web Accessibility Guidelines

Guidance for web developers and content managers

Right to Information Unit and Office of the Government
Chief Information Officer, Prime Minister's Office,
Government of the Republic of Vanuatu

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- Easy Checks - A First Review of Web Accessibility, <https://www.w3.org/WAI/eval/preliminary.html>
- How to Meet WCAG 2.0, https://www.w3.org/WAI/WCAG20/quickref/?currentsidebar=%23col_overview
- Introduction to Understanding WCAG 2.0, <https://www.w3.org/TR/UNDERSTANDING-WCAG20/intro.html#introduction-fourprincs-head>
- Understanding Conformance, <https://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance>

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The RTI Unit and OGCIO worked in partnership with the Vanuatu Civil Society Disability Network (VCSDN) and Oxfam in Vanuatu. The VCSDN includes the following member organisations:

- VSPD – Vanuatu Society for People with Disability
- DPA – Disability Promotion Advocacy Association
- SFA – Sanma Frangipani Association
- VPC – Vanuatu Paralympic Committee
- WSB - Rainbow Disability Theatre
- VCC – Vanuatu Christian Council of Churches
- SGEP - Skills for Growth Economic Program (TVET now change to SGEP)
- Care International – Girls Empowerment Program
- OiV - Oxfam in Vanuatu.

The impetus for this project was the International Telecommunications Union pilot project entitled 'ICT Accessibility for Vanuatu' led by Gunela Astbrink of GSA InfoComm. Thanks are warmly extended to Ms Astbrink for her enthusiasm, advice and support for this project.

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Introduction

Internet access in Vanuatu is rapidly increasing and improving. The Government's National ICT Policy commits the Government to achieve 98 percent population coverage with narrow and broadband access by 2018. Government agencies are developing websites and putting much needed information on these sites, yet accessibility has not been a key factor in website development until now. The National ICT Policy includes in its methodology a commitment to socially inclusive development, and in line with this commitment, the Government is working with people with disabilities to help improve access to ICTs for all.

People with disabilities in Vanuatu currently face a number of barriers to accessing information, including physical access to government and learning institutions and access to early warning communication in times of disaster. A recent survey on people with disabilities in Vanuatu¹ recommended that the government and other organisations further invest in inclusive education, strengthen services to meet the needs of people with disabilities, provide greater opportunities for participation of people with disabilities, and promote awareness of rights of persons with disabilities.

The combination of internet access with the creation of accessible websites will open up many opportunities for people with a disability that are not available otherwise.

However, a recent audit of the accessibility of Vanuatu Government websites found that no website hosted and managed by the Office of the Government Chief Information Officer (OGCIO) is accessible. These findings come from an International Telecommunications Union (ITU) pilot project which aims to assess and develop ways to assist accessibility to ICTs across the Pacific, starting with Vanuatu.

The Web Accessibility Guidelines presented below have been developed to help web developers and web content managers to set up and maintain Vanuatu Government websites to international standards for accessibility. The Guidelines will assist the Government of Vanuatu to implement Articles 9 (Accessibility) and 21 (Freedom of expression and opinion, and access to information) of the CRPD. Importantly, implementing these Guidelines will open up information and services to people with a disability across Vanuatu.

The Guidelines have been developed through a collaboration between the Right to Information Unit, the Office of the Government Chief Information Officer, both within the Office of the Prime Minister, Oxfam in Vanuatu and the Vanuatu Civil Society Disability Network, comprising representatives from Vanuatu organisations representing people with a disability. Funding for the project was provided by Australian aid through the Scope Global AVID Disability Initiative Grant program.

The Guidelines are based on the *Web Content Accessibility Guidelines 2.0* (WACG2.0). WCAG 2.0 was developed by the World Wide Web Consortium through its Web Accessibility Initiative to set international accessibility standards for website design and content management.

¹ Disability Desk, Ministry of Justice and Community Services, Vanuatu Government, *Vanuatu Pilot Survey On Persons with Disabilities: Report 2015*, UNICEF Pacific and Ministry of Justice and Community Services, Vanuatu Government, Vanuatu, December 2015

These Guidelines have been developed for web developers and content managers working in the Vanuatu public sector and for contractors engaged to develop, update or maintain Government websites. However, it is hoped that they will be used by any web developers and content managers in Vanuatu.

These Guidelines will help to make Vanuatu Government web content universally accessible all users including people with disabilities who may experience barriers to communication and information.

1. What is Web Accessibility and why is it important?

Web accessibility means websites are able to be seen, read, heard or otherwise understood by people with disabilities. The use of Web Accessibility features can assist all people, by making websites easier to use and understand, and by providing a number of options for accessing information in different ways; they can assist people with slow internet connections, or those accessing websites through a mobile device.

Some people with vision impairments may use assistive technologies such as screen readers, which read out the text in a website, or text magnifiers to make text larger and easier to read. Some people may not be able to use a mouse to click on buttons or links, and so may need to move around a website using the keyboard or voice commands. Some deaf people and those who are hard of hearing may not be able to access audio and therefore require access to a transcript for any audio material posted on a website.

Making a website accessible means providing the following features listed below:

- Provide a suitable **text equivalent for everything that is not text (audio, video, images)**
- **Structure information**, so that users' assistive technology can 'read' and understand the structure
- Ensure **colour contrast** between the website's written information and its background; and enough **volume contrast** between a website's spoken information and its background noises
- Make it possible to use the website with **only a keyboard**
- Do not have website elements that **flash** quickly, and give users enough time to read/use the website
- Website users can **find what they're looking for** easily
- Users can **read and understand information on the website easily**
- Website is constructed robustly, so that it will work on as many computers, mobile devices, and browsers as possible.

There are international standards on accessibility that can be used to ensure websites are designed, developed and maintained to assist people with disabilities to access the information in them. The World Wide Web Consortium's *Web Content Accessibility Guidelines 2.0* (WCAG 2.0) have been developed to assist developers and content managers to make their websites accessible.

The WCAG2.0 Guidelines are based on four basic principles, namely that websites should be:

1. Perceivable
2. Operable
3. Understandable and
4. Robust.

Each of these principles is described and explained in more detail in Section 2 below.

The WCAG 2.0 Guidelines are the basis for this document, and developers and content managers are encouraged to visit the WACG 2.0 sites to access the latest information, techniques and other tools to assist them in their work.

Links to relevant WCAG 2.0 Guideline pages are provided throughout this document.

2. Web accessibility – success criteria, techniques and levels of conformance

The WACG 2.0 Guidelines are based on 4 basic principles²: Websites should be *Perceivable*, *Operable*, *Understandable* and *Robust*. For each of these principles, there are Success Criteria which can be used to assess the level of accessibility of a website. Success criteria are also used in the planning and development stages to build accessibility into websites.

Success criteria are also a useful way to *demonstrate* a website's accessibility. Agencies can include a list of success criteria and which of these they meet in an Accessibility Statement on their agency website (see section 5.3 *Include a web accessibility statement on your website*, below).

The World Wide Web Consortium WCAG 2.0 Guidelines include 3 levels of conformance to accessibility standards, Level A, AA and AAA. Level A provides basic conformance to accessibility standards, and Level AAA provides the highest level of conformance to the standards. For more detailed information on the levels of conformance, visit the World Wide Web Consortium page, Understanding Conformance, <https://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance>.

OGCIO aims to work with Government agencies to ensure that all existing sites at least conform to Level A compliance with the WCAG 2.0 standards. When working with agencies to develop new websites or to undertake major upgrades of existing sites, OGCI will aim for compliance to level AA where possible.

It is easier to design an accessible website from the outset rather than fixing existing websites. For this reason, the OGCI is encouraging agencies with existing websites to consider applying some basic techniques to update existing websites to at least conform with the WCAG 2.0 level A standards.

Government agencies will be encouraged to conform to level AA standards for all new websites and all major upgrades of existing websites. Accessible websites are more easily rendered on a mobile phone and therefore are easier for everyone to use.

Techniques for meeting the WCAG 2.0 accessibility standards are available from the World Wide Web Consortium's website, How to Meet WCAG 2.0, https://www.w3.org/WAI/WCAG20/quickref/?currentsidebar=%23col_overview.

Below is a list of common accessibility issues, the success criteria to address these issues, and links to techniques which can be used to meet the success criteria. Specific information on techniques is not provided here, as they will vary depending on the software being used, and also as techniques change and are updated over time. For these reasons, it is important for developers to access the latest version of the techniques available from the World Wide Web Consortium at the site listed above, or see the links provided for each accessibility principle below.

² The text below is derived from the World Wide Web Consortium page, Introduction to Understanding WCAG 2.0, <https://www.w3.org/TR/UNDERSTANDING-WCAG20/intro.html>

Principle 1. Perceivable - Make it easier for users to see and hear content including separating foreground from background.

For example:

- People with vision impairment must be able to receive information via sound or touch
- Deaf people and hard of hearing users will require captioning of audio visual material and transcripts of audio material. Best practice could include provision of sign interpreted material in audio visual material.
- Users with low vision must be able to receive information with alternative formatting or zoomed to larger sizes
- Users who are color deficient must be able to receive information without use of color

Success Criteria for Principle 1:

Guideline	Success Criteria	How to meet success criteria
Guideline 1.1: Text Equivalent	"Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language."	<ul style="list-style-type: none"> • Use ALT tags for images and text descriptions for animations, 3D models and other media. • Use CAPTCHA alternatives. <p>Guideline 1.1 details http://www.w3.org/TR/WCAG20/#text-equiv</p>
Guideline 1.2: Time Based Media (Audio/Video)	"Provide alternatives for time-based media."	<ul style="list-style-type: none"> • Provide captions for video. • Provide audio transcriptions for audio. <p>Guideline 1.2 details http://www.w3.org/TR/WCAG20/#media-equiv</p>
Guideline 1.3: Adaptable	"Create content that can be presented in different ways (for example simpler layout) without losing information or structure."	<ul style="list-style-type: none"> • Use appropriate semantic markup whenever possible for HTML documents, including header styles. • Use appropriate markup for table headers. • Use appropriate markup, including form LABELS, to identify form and

		<p>application controls.</p> <ul style="list-style-type: none"> • Preserve the visual sequence of content even with disabled styles. • Flash objects are implemented so that a screen reader will read them in the appropriate sequence. <p>Guideline 1.3 details http://www.w3.org/TR/WCAG20/#content-structure-separation</p>
<p>Guideline 1.4: Distinguishable</p>	<p>"Make it easier for users to see and hear content including separating foreground from background."</p>	<ul style="list-style-type: none"> • Ensure appropriate contrast between text and background. • Ensure that content is distinguishable independent of color. • Avoid automatically-playing audio, slideshows and animation. Provide play buttons instead. • Use CSS formatting instead of graphics to format text whenever possible <p>Guideline 1.4 details http://www.w3.org/TR/WCAG20/#visual-audio-contrast</p>

Principle 2. Operable - User interface components and navigation must be operable.

For example:

- Functions triggered via mouse or gesture are also available via a keyboard
- All users are given sufficient time to read and use content.
- Content does not induce seizures.
- Users are given mechanisms to **skip repetitive content**.
- Landmarks are provided to assist in screenreader navigation (e.g. meaningful page title, semantic headings, ARIA landmarks) meaningful headers and meaningful and unique link text.
- Multiple paths are provided to navigate Web site structure.

Success criteria for Principle 2

Guideline	Success criteria	How to meet success criteria
Guideline 2.1: Keyboard Accessible	"Make all functionality available from a keyboard."	All form and application controls can be operated from a keyboard. For example: <ul style="list-style-type: none"> • Arrow keys can control sliders, or numbers can be entered to set parameters. • Tab keys can be used to be navigate between form fields and buttons. • Keyboard commands can be used to activate and operate video players. • Keyboard commands can be used to close and control windows. <p>Guideline 2.1 details http://www.w3.org/TR/WCAG20/#keyboard-operation</p>
Guideline 2.2: Enough Time	"Provide users enough time to read and use content."	When appropriate: <ul style="list-style-type: none"> • The user is warned of time limit expiration and permitted to extend time. • Scrolling or blinking text can be paused. • Users have the option to block an automatic update of content. <p>Exceptions are allowed when changes in timing would interfere with an essential function.</p> <p>Guideline 2.2 details http://www.w3.org/TR/WCAG20/#time-limits</p>
Guideline 2.3: Seizures	"Do not design content in a way that is known to cause seizures."	<ul style="list-style-type: none"> • Flashing objects should be avoided or limited to 3 flashes per second. • Exceptions are allowed for flashes below the general or red flash

		<p>threshold.</p> <p>Guideline 2.3 details http://www.w3.org/TR/WCAG20/#seizure</p>
Guideline 2.4: Navigable	"Provide ways to help users navigate, find content, and determine where they are."	<ul style="list-style-type: none"> • HTML Frames are given meaningful titles • Users are given mechanisms to skip repetitive content. • Landmarks are provided to assist in screen reader navigation, e.g. meaningful page title, meaningful headers and meaningful and unique hyperlink text. • Multiple paths are provided to navigate through Web site content. • Keyboard users are able to see a cursor or other indicator of position on the screen. <p>Guideline 2.4 http://www.w3.org/TR/WCAG20/#navigation-mechanisms</p>

Principle 3. Understandable - Information and the operation of user interface must be understandable.

For example

- Site is free of unannounced pop up windows.
- Separate **Submit** or **Go** buttons/links are provided to initiate page changes (versus autosubmit upon selection).
- Navigation and labels are consistent across a Web site or application.
- Mechanisms are available to detect errors and provide clear instructions to users on fixing errors.
- Language of text or subsection of text is identified.

Success criteria for Principle 3:

Guideline	Success criteria	How to meet success criteria
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<p>Guideline 3.1: Readable</p>	<p>"Make text content readable and understandable."</p>	<ul style="list-style-type: none"> • Identify language of text or subsection of text with a language code. • Identify and define unusual words or jargon. <p>Guideline 3.1 details http://www.w3.org/TR/WCAG20/#meaning</p>
<p>Guideline 3.2: Predictable</p>	<p>"Make Web pages appear and operate in predictable ways."</p>	<ul style="list-style-type: none"> • Avoid unannounced pop up windows. • Avoid disabling the browser's Back button. • Provide a separate Submit or Go button/link to initiate page changes (versus autosubmit upon selection). • Allow automatic slideshows and scrolling or blinking text to be paused. • Give users the option to block automatic updates of content. <p>Guideline 3.2 details http://www.w3.org/TR/WCAG20/#consistent-behavior</p>
<p>Guideline 3.3: Input Assistance</p>	<p>"Help users avoid and correct mistakes."</p>	<ul style="list-style-type: none"> • Provide appropriate form field validation. • Provide clear labels for form and application controls. • Provide usable instructions for entering information into forms and applications (preferably before the form field). • Provide clear and usable error messages identifying the location of error and information for correcting it. <p>Guideline 3.3 details http://www.w3.org/TR/WCAG20/#minimize-error</p>

Principle 4. Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

For example, in content implemented using mark-up languages (html), elements have complete start and end tags and elements are nested according to their specifications, so that assistive technologies can interpret and parse content.

Success criteria for Principle 4:

Guideline	Success criteria	How to meet success criteria
Guideline 4.1: Compatible	Maximize compatibility with current and future user agents, including assistive technologies.	<ul style="list-style-type: none">• Use validated markup• Label the name and role of all user interface components.• Identify the value for all data fields, including parameters for interface controls. <p>Guideline 4.1 details http://www.w3.org/TR/WCAG20/#ensure-compat</p>

3. Assessing website accessibility

As a first step, agencies should assess their existing web sites to check for accessibility. All new websites should also be planned and assessed for accessibility before they are published, and any issues addressed before publication where possible. Proper planning for accessibility will help to ensure that most issues are addressed prior to publication (see section 5 below).

A list of key accessibility issues, how to check for them and what to do is provided at the World Wide Web Consortium website:

Quick Accessibility Check – A First Review of Web Accessibility

<https://www.w3.org/WAI/eval/preliminary.html>

To better understand whether a website is accessible and what can be done to add accessibility features, there are also a number of automatic tools available that can provide a basic assessment of a site's accessibility, based on the success criteria outlined in section 3 above. Some tools also provide assistance and advice on how to fix accessibility issues.

A list of some automated assessment tools is provided at *Web Accessibility Evaluation Tools List*, <https://www.w3.org/WAI/ER/tools/>.

Three free tools that may be of particular assistance to web developers are:

1. **Accessibility Bookmarklets** <http://accessibility-bookmarklets.org/>

This site provides a visual guide to accessibility issues in selected websites, including:

- Making otherwise hidden accessibility features on web pages (like ARIA landmarks, roles, labels and descriptions and alternative text for non-text objects) more visible
- Showing whether HTML markup (like lists, headings, label elements, and appropriate landmark roles) is used with proper semantics for accessibility
- Flagging elements or regions on web pages where information that could improve accessibility (like elements not contained in landmarks, image alt text or long descriptions, list accessible names or descriptions, or form control labels) is missing

2. **Achecker** <http://achecker.ca/checker/index.php>

This tool checks single HTML pages for conformance with accessibility standards to ensure the content can be accessed by everyone.

3. **Asqatasun** <http://asqatasun.org/>

This tool can provide a web accessibility assessment including:

- scan a whole site for accessibility issues
- scan a given page, and manually produce a report
- scan an offline file (e.g. template being created but not online yet).

4. Planning for Accessibility

5.1 Accessibility considered at the start of any web design or upgrade project

All government agencies should include accessibility in their planning for new websites and major upgrades of existing websites. To do this, agencies can make use of the information in these Guidelines, and the links to up to date information and guidance available from the World Wide Web Consortium's extensive WCAG 2.0 Guidelines and related materials.

Agencies should also consult with the Office of the Government Chief Information Officer (OGCIO) at the start of the planning process. This will help agencies to understand and learn from the experience of the OGCIO and other agencies in planning, developing, publishing and maintaining websites.

5.2 Stakeholders involved and consulted in planning, development and testing

Agencies should involve the intended users of their website including people with disabilities and other key stakeholders in the planning and development of websites, perhaps through setting up a website development committee to oversee the planning and development process. For example, agencies could liaise with Oxfam in Vanuatu's Vanuatu Civil Society Disability Network.

Agencies should also test new and upgraded websites throughout the development stages, and before publishing the website, to identify and address any issues early. Making sure target users can access the information on the website will help to ensure agencies are meeting their obligations and objectives in providing information to the public.

5.3 Include a Web accessibility statement on your website

Include a web accessibility statement for websites. Web accessibility statement should provide the following information:

- How the website has been made accessible, and how accessibility will be maintained on the website
- If or how the website conforms with official accessibility guidelines and/or the WCAG 2.0 Guidelines
- If and when improvements to the accessibility of the website will be made
- How users can provide feedback about the website's accessibility (see 5.4 below)
- List the accessibility features of the website.

5.4 Ensure feedback mechanisms are available for users

All websites should include an email address, accessible form, phone number or other way to provide feedback to the agency about any accessibility issues faced by users. This is a really important feature to include in all websites, as it provides an ongoing opportunity for agencies to communicate and receive input from users on the usability and accessibility of content.

Some issues identified can be addressed immediately if possible, or can be kept on file for future website developments/upgrades.

5.5 Keep accessibility issues register so issues raised are addressed

As mentioned above, a register or file with all accessibility issues provided by users or identified through checks or audits should be kept by agencies. This will be of use in future website developments, upgrades or the creation of new pages or whole new sites.

5.6 Share information about accessibility issues with other agencies

Consider sharing accessibility issues identified on your own websites, or those identified on other sites, with OGCIO and colleagues in other agencies. If you have solutions to these issues, share these too, so that agencies are aware of issues and how they can be resolved. If you have issues that you do not know how to resolve, share these too – It may be that other agencies and the web developers at OGCIO have already faced the same issue and have a solution you may be able to use.

5. Resources

For Website Users

My Computer, My Way, AbilityNet

Advice on how to make use of accessibility settings on computers, laptops, mobile devices

<https://mcmw.abilitynet.org.uk/>

My Web My Way, British Broadcasting Corporation (BBC)

<http://www.bbc.co.uk/accessibility/index.shtml>

Better Web Browsing: Tips for Customizing Your Computer, World Wide Web Consortium

<http://www.w3.org/WAI/users/browsing>

Assistive Technologies

NVDA Screen Reader (for Windows), NV Access (free software)

<http://www.nvaccess.org/download/>

For Website developers, designers and content managers

Web Accessibility Initiative, World Wide Web Consortium

<http://www.w3.org/WAI/>

How to Meet WCAG 2.0, World Wide Web Consortium

<http://www.w3.org/WAI/WCAG20/quickref/>

Planning and Implementing Web Accessibility, World Wide Web Consortium

<http://www.w3.org/WAI/managing.html>

Better Practice Checklist - Information Architecture for Websites, Department of Finance, Government of Australia

<http://www.finance.gov.au/archive/policy-guides-procurement/better-practice-checklists-guidance/bpc-information-architecture/>

Web Style Guide, 3rd Edition, Patrick J Lynch and Sarah Horton

<http://webstyleguide.com/index.html>