Regional Workshop for the Pacific
on the Clearing-House Mechanism (CHM)

13-17 June 2016 Nadi, Fiji

Guidance for Developing National Clearing-House Mechanisms

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Ministry of Local Government,
Housing and Environment

CHM Guidance

Contents

- Roadmap
- 0 - No CHM NFP
- 1 - No Capacity
- 2 - No Website
- 3 - Web Presence
- 4 - Good Website
- Final comments

CHM

Roadmap for establishing and strengthening national CHMs

Level	Situation	Action
0	No CHM NFP	Convince Party to nominate CHM NFP
1	CHM NFP not equipped	Find solutions to provide basic infrastructure & communication facilities
2	No national CHM website	Get tools & support to establish web presence
3	National CHM web presence	Enhance web content Improve user experience
4	Good national CHM website	Expand information services Establish interoperability mechanisms Support other national CHMs

Adapt guidance to national situation

- No one-size-fit-all solution
- Various needs → Various approaches and responses

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Level 0 – No CHM

Convince Party to nominate CHM NFP

- **Explain the important role of the CHM**
  - Support to the NBSAP process
  - Portal for national knowledge on biodiversity
  - Useful as national dissemination tool
    Public education & awareness
  - Can increase international visibility
    Country image, promotion of eco-tourism, ...
  - Should facilitate scientific & technical cooperation

- **Identify the right person or partner institution**
  - Survey of national biodiversity actors
    (scientific institution, museum, university, ...)
  - There may be a strong sustainable existing institution interested in carrying out the role of CHM NFP

    → Win-Win situation
  - Role of CHM NFP is very different from CBD NFP

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Level 0 – CBD NFP vs. CHM NFP

CBD NFP	CHM NFP
• Political Role • Government representative • Diplomat skills	• Technical Role • Project Manager • Entrepreneur skills
• Decision-making process - Negotiation - National Policy - National Planning	• Implementation process - Scientific & tech. cooperation - Information Management (gathering, disseminating) - Webmaster

- Both roles are important & time-consuming
  → Adequate capacity to be effective
- Importance of collaboration between CBD & CHM NFPs
  → **CHM NFP should serve the CBD NFP**

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Level 0 – Planning the new CHM

- **Promote and plan the CHM at national level**
  - Convince national decision-makers that CHM is useful
  - Integrate the CHM in the NBSAP
  - Identify & mobilize resources (National, GEF/NBSAP, other)
  - Prepare a plan with sustainability in mind
  - Establish inter-institutional coordination mechanism
  - Identify and capture national information & knowledge

- **Involve stakeholders and users**
  - Involve representatives of your target audience when planning, testing and collecting feedback
  - Joint ongoing process to improve effectiveness

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Level 0 – Planning the new CHM

Prepare a "business plan" for the New CHM

- **Institutional arrangements**
  - Responsibilities & Terms of references
  - Partnership arrangements
- **Resources allocation**
  - Human resources
    - Technical: graphic design, programming, webmaster
    - Content: management, update, validation
  - Website hosting options
  - Web content production & management
- **Activities**
  - Building national contact network
  - Learn about NBSAP priorities, targets & implementation
  - Information gathering & disseminating
  - Information architecture & web content preparation
  - Outreach & awareness activities

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Level 1 – CHM NFP Not Equipped

Provide basic infrastructure & communication facilities

- **Party's responsibility**
  - CHM NFP should be operational
  - Donors insist on sustainability
- **Prepare realistic project proposal**
  - First assess sustainability potential
  - Provide a detailed description/justification of needs
  - Project funding is temporary
- **Identify sustained resources**
  - At least small budget to maintain operations
  - Resources may be allocated if effectiveness is proven

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Level 2 – No National CHM Website

Establish web presence

- **Several options to establish web presence**
  - New or existing website
  - Hosted in-house or externally (commercial or partner)
  - Select a content management system (CMS)

- **Important decision**
  - Based on available resources and expertise
  - Each option has advantages and drawbacks
  - Big impact on maintenance
  - Political aspect
  - Choose the safest and easiest approach
  - Don't undertake a big project without adequate resources

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Level 2 – No National CHM Website

CMS-based website infrastructure

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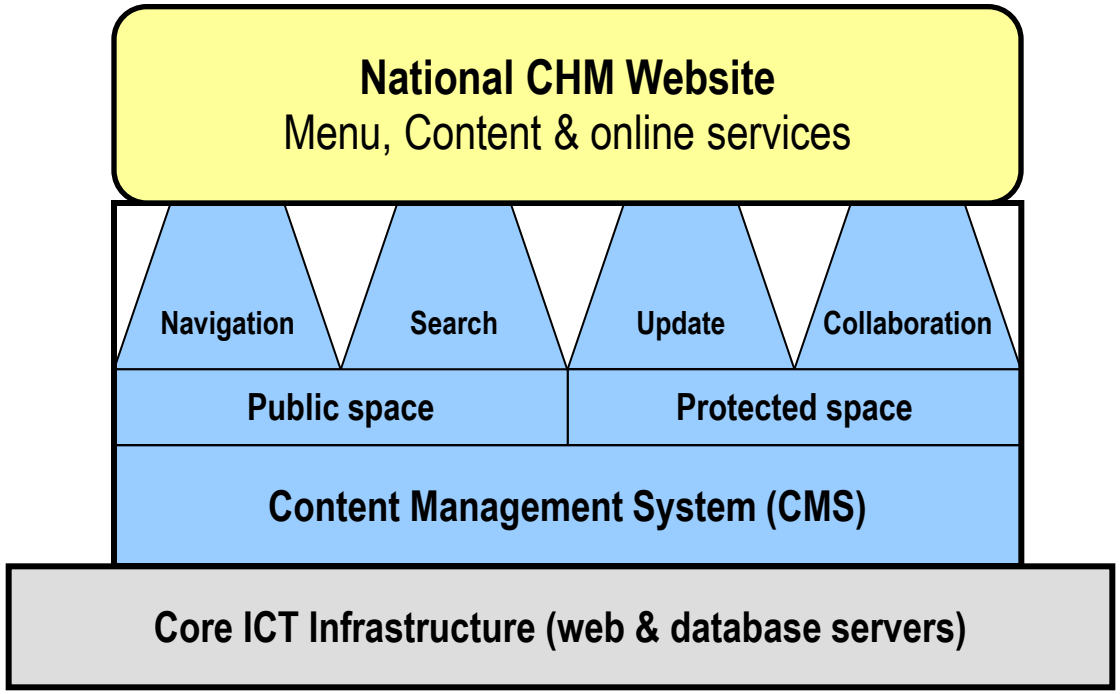

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Level 2 – No National CHM Website

Options to establish web presence

- **Hosting a website**
  - Requires a solid infrastructure:
    Web server + Firewall + High speed Internet + Support 24/7
  - Don't do it unless you have a special team
- **Obtaining space on existing website**
  - Agreement with a strong supporting partner
  - Many African Countries have their website hosted in Belgium
  - Many EU Countries have their website hosted by the EEA
- **Using a web hosting service on the cloud**
  - Many options
  - Price depending on usage
  - Can be combined with a CMS → Easy solution

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Level 2 – No National CHM Website

Use a Content Management System (CMS)

- **Highly recommended**
  - Avoid reinventing the wheel
  - Many features, including templates & multi-lingual capabilities
  - Adherence to modern web standards (XHTML, CSS)
  - Follow trends (e.g. responsive user interface for mobile devices)
  - Easier maintenance and evolution
  - Extensible

- **Selecting a CMS**
  - Several good open-source CMS
    WordPress, Drupal, Joomla, Typo3
  - European Portal Toolkit (PTK)
    Customized open-source CHM tool built on Zope
  - New Bioland Tool
    Customized open-source CHM tool built on Drupal
  - Commercial CMS or custom solution
    Depends on existing situation

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Level 2 – No National CHM Website

Some online references

- **Top 10 Site Builders**
  - Compares online services to build websites
  - http://www.top10websitebuilders.ca/
- **Built With - Technology behind the website**
  - Trends - http://builtwith.com/trends
  - CMS Usage statistics - http://trends.builtwith.com/cms
- **Amazon Web Services (AWS)**
  - Build low-cost scalable database-driven site
  - http://aws.amazon.com/
- **European CHM Toolkit (PTK)**
  - Provided by the EEA
  - http://biodiversity.europa.eu/chm-network/the-european-chm-toolkit
- **Bioland Tool**
  - New tool provided by the CBD Secretariat
  - http://demo.cbd-chm.net

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Level 3 – National CHM Web Presence

Join the CHM Network

- **Notification 2008-066**
  - Show CHM Logo
  - www.cbd.int/doc/notifications/2008/ntf-2008-066-chm-en.pdf

- **Common domain chm-cbd.net**
  - National URL can be maintained
  - To strengthen CHM networking
  - Each country/partner is encouraged to join
    cc.chm-cbd.net (where cc is the country code)
    www.cc.chm-cbd.net (alias)

- **How to join the domain**
  1. Configure the web server to accept the URL
  2. Give URL & IP address to Secretariat
  3. The Secretariat will activate the URL in their Domain Name System (DNS)

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Level 3 – National CHM Web Presence

Enhance web content

- **Information Architecture:**
  Structure of web navigation (menus, header, footer, search) to provide access to various website sections
- **User Experience:**
  Web content must be attractive, easy to find, up-to-date and relevant
- **Usability Testing:**
  Prepare test scenarios and involve users in testing the website
- **Requires a permanent effort**

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Level 3 – National CHM Web Presence

Enhance web content

- **Reasons of no-use**
  - Nobody knows that it exists → audiences
  - It is not useful / no demand → strategic vision (marketing)
  - Product that does not sell because nobody needs it
  - Badly organized; too much information; not up-to-date
  - Technical issues, bugs

- **Solutions**
  - Target audiences → For whom? What for?
  - User monitoring → Feedback, Statistics, "User Testing"
  - User experience (UX) → **"User-Centric"** Design
  - Information architecture (IA) → Home page & Navigation

Perfection is achieved not when there is nothing to add, but when there is nothing to remove

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Level 3 – Effective Websites

Who are the best designers of effective websites?

- **Web Programmers?**
- **Graphical Designers?**
- **Artists?**
- **Others?**

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Level 3 – Effective Websites

Who are the best designers of effective websites?

→ Good marketing experts

Because:

- **They know how to sell a product or service**
- **They know their clients and their behavior**
- **They know how to design attractive adds / brochures**

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Level 3 – Web Content

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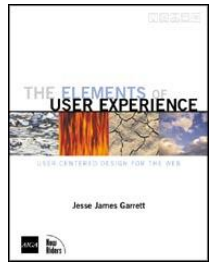
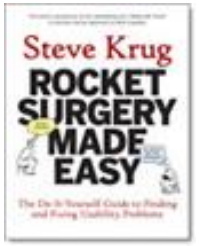
1. **Content strategy for the web** (2ª Ed.)
   - Kristina Halvorson & Melissa Rach
   - http://www.contentstrategy.com

2. **The elements of user experience** (2ª Ed.)
   - Jesse James Garrett
   - http://www.jjg.net/elements



3. **Don't make me think** (2ª Ed.)
   A common sense approach to web usability
   - Steve Krug
   - http://www.sensible.com/dmmt.html

4. **Rocket surgery made easy**
   The DIY Guide to Finding and Fixing Usability Problems
   - Steve Krug
   - http://www.sensible.com/rsme.html



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Level 3 – Web Content

Role of a national CHM

1. Entry point for country biodiversity

- Search result for "[Country] + Biodiversity"

2. Organized menu of available information

- Biodiversity
- NBSAP
- Activities / Actors / Cooperation
- References and services (per categories and/or audiences)
- Interactive area (participation / contribution / collaboration)
- About us

3. Home page

- Should answer 2 questions:
  - Where am I? (in the Internet shopping mall)
  - What can I do here? (What can I buy?)
- Promotion of what's recent or most important

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Level 3 – National CHM Web Presence

Enhance web content to disseminate information

- **Disseminate biodiversity-related information**
  - Biodiversity in the country
  - NBSAPs & national reports
  - Other national biodiversity-related documents
  - Information by programme areas relevant to the country

- **Support NBSAP implementation**
  - National targets and indicators
  - Build an inventory of projects/initiatives
  - Links to expertise (experts, centres of excellence)

Potential Menu for a National CHM Website

Biodiversity [Country]	Strategy & Implementation	Information Center	Participate & Contribute	About
Overview - Introduction - ... **Ecosystems** - ... **Species** - ... **Threats** - ... **Protected Areas** - ...	**NBSAP** - Vision - Priorities - Targets - Indicators **Actions** - Initiatives & Projects - Progress - Reports **Actors** - Government - Others **Cooperation** - National & Local - Regional - International	**References** - Events - Directories - Publications - Legislation - Databases - Maps - Videos - Links ...	**Your actions** - Suggestions - Join us - Your opinion **For members** - Forum - Share data - ...	**Us** - Who we are - Our mission **CBD** - Strategic Plan - Aichi Targets **CHM** - Information Exchange - Network

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Level 3 – National CHM Web Presence

Examples of national CHM

- **Canada**
  - http://www.biodivcanada.ca
  - Good federal structure
- **Europe - BISE**
  - http://biodiversity.europa.eu
  - Good information architecture
- **Switzerland**
  - http://ch.chm-cbd.net
  - Good integration of 3 treaties
- **Some African CHMs**
  - Burundi - http://bi.chm-cbd.net
  - Cameroon - http://cm.chm-cbd.net
  - Madagascar - http://mg.chm-cbd.net
  - Morocco - http://ma.chm-cbd.net

Level 3 – Canadian CHM

http://www.biodivcanada.ca

biodivcanada.ca - Home

www.biodivcanada.ca/default.asp?lang=En&n=DABC84B3-1

Home

- About Us
- Canadian Biodiversity Strategy
- Provinces and Territories
- Biodiversity Outcomes Framework
- Ecosystem Status and Trends 2010
- Caring for Canada's Biodiversity
- Valuing Nature
- United Nations Decade on Biodiversity
- Education and Awareness
- Access and Benefit-Sharing
- International Day for Biological Diversity
- Convention on Biological Diversity
- Biodiversity Events
- Biodiversity Publications

Welcome to biodivcanada.ca

Français

Helping protect Canada's biodiversity, while encouraging the sustainable use of our biological resources, is a responsibility that all Canadians can share. With our population of more than 34 million people, we can play a role in preserving the immense natural wealth and valuable ecosystems from which we draw significant social, economic and environmental benefits. Bordered by three oceans, the second-largest nation in the world, Canada is rich in biodiversity, and we depend on it for our survival.

We invite you to celebrate the UN Decade on Biodiversity (2011-2020) and to explore this website. Learn about our country's biodiversity and actions Canada is taking to conserve our biological resources.

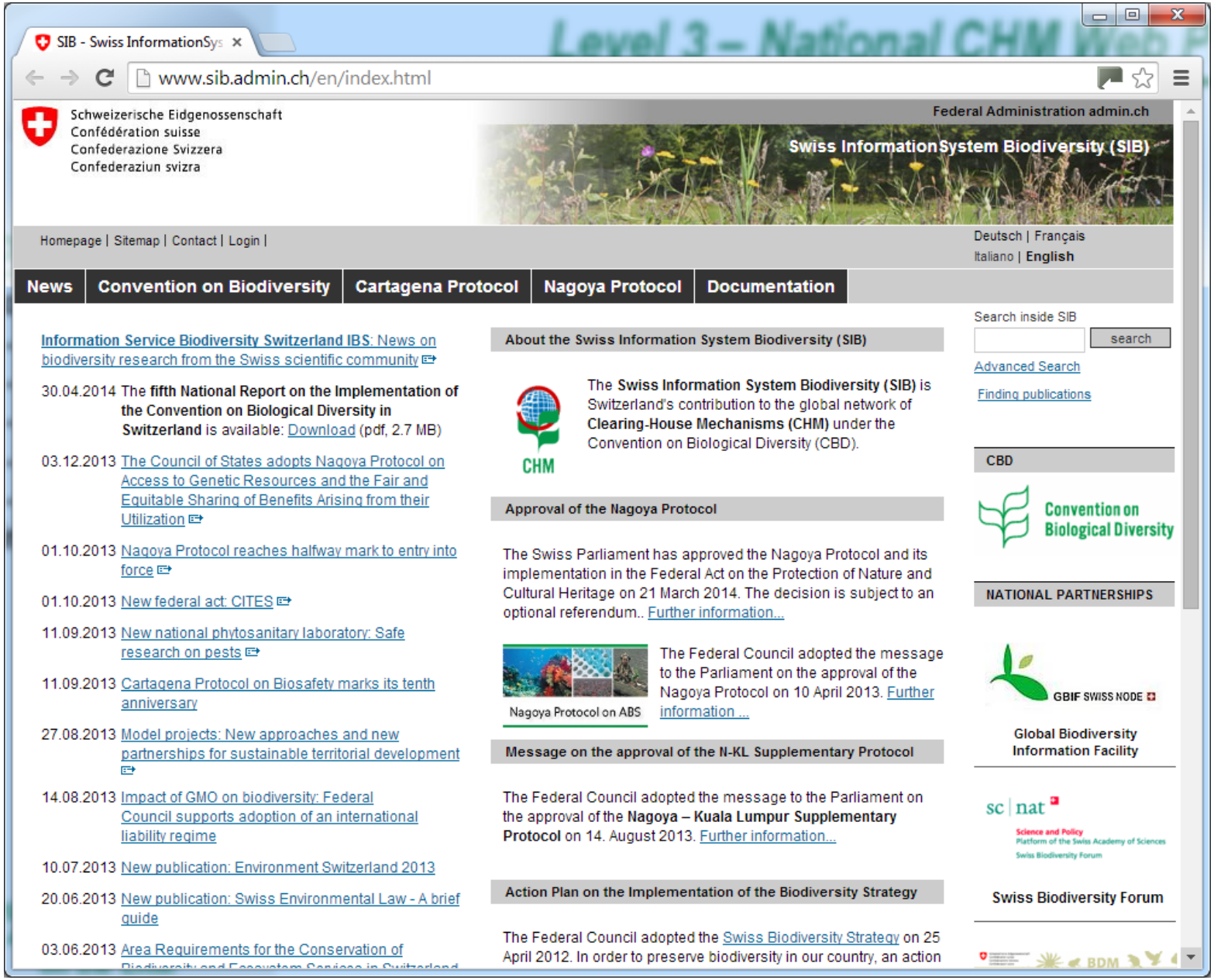
Partnering in biodiversity

This is the website of the federal, provincial and territorial working group on biodiversity. It profiles biodiversity information, news and events. This website reflects the shared responsibility for biodiversity in Canada and the commitment of federal, provincial and territorial governments to achieve the goals and objectives of the United Nations Convention on Biological Diversity through a collaborative approach. This site also serves as Canada's national biodiversity Clearing House Mechanism.

Level 3 – European CHM http://biodiversity.europa.eu

Level 3 – Swiss CHM

http://ch.chm-cbd.net



Level 3 – Burundian CHM

http://bi.chm-cbd.net

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Level 3 – Website Wireframes

- **What are wireframes?**
  - http://en.wikipedia.org/wiki/Website_wireframe
  - Represents the skeletal framework of a web pages.
  - Created for arranging elements to best accomplish a particular purpose.
  - Depicts page layouts, including interface & navigation elements and how they work together.
  - Usually lacks typographic style, color, or graphics, since the main focus lies in functionality, behavior, and priority of content.

    → Focuses on what a screen does, not what it looks like.

- **Wireframing tools**
  - Paper & pen / Whiteboard
  - PowerPoint
  - Balsamiq (http://balsamiq.com)
  - Pencil (http://pencil.evolus.vn)
  - Many other tools

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Level 3 – Website Wireframes

- **Videos**
  - http://www.youtube.com/watch?v=T0vt3nLZKks (Introduction)
  - http://www.youtube.com/watch?v=xruQjGyD4fo (Pencil)
  - http://www.youtube.com/watch?v=NWO2vlBHPvI (GoMockingBird)

- **Articles**
  - http://webdesign.tutsplus.com/articles/a-beginners-guide-to-wireframing--webdesign-7399

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Level 3 – Web Design References

Some references

1. **Learning web design**
   - http://www.w3schools.com → Online tutorials
   - http://www.sitepoint.com → Specialized in learning for websites

2. **Graphics**
   - http://www.getpaint.net → Simple graphic software (Paint.Net)
   - http://www.gimp.org → Photoshop of the poor (GIMP)
   - http://kuler.adobe.com → To match colors

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Level 4 – Good National CHM Website

- **Expand information services**
  - Typical services
  - Specialized services contributing to the Strategic Plan
- **Establish information exchange mechanisms**
  - Interface specification
  - Interoperability
- **Support other national CHMs**
  - Advice and support
  - Cooperation

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Level 4 – Information Services

Typical CHM information services

- **Information search**
- **Databases (species, experts, calendars)**
- **Directories**
- **Videos**
- **Maps**
- **Forums**
- **Social networking**

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Level 4 – Information Services

Specialized information services contributing to the Strategic Plan

	Aichi Strategic Goal	Information Services
A	Underlying causes & mainstreaming	Knowledge of biodiversity and of ecosystemic services
B	Reduce pressures	Information on invasive species, threatened species, vulnerable ecosystems
C	Safeguard biodiversity	Information on protected areas, ecosystems, species
D	Increase benefits	Information on sustainable use
E	Enhance implementation	NBSAP Indicators Cooperation Funding sources

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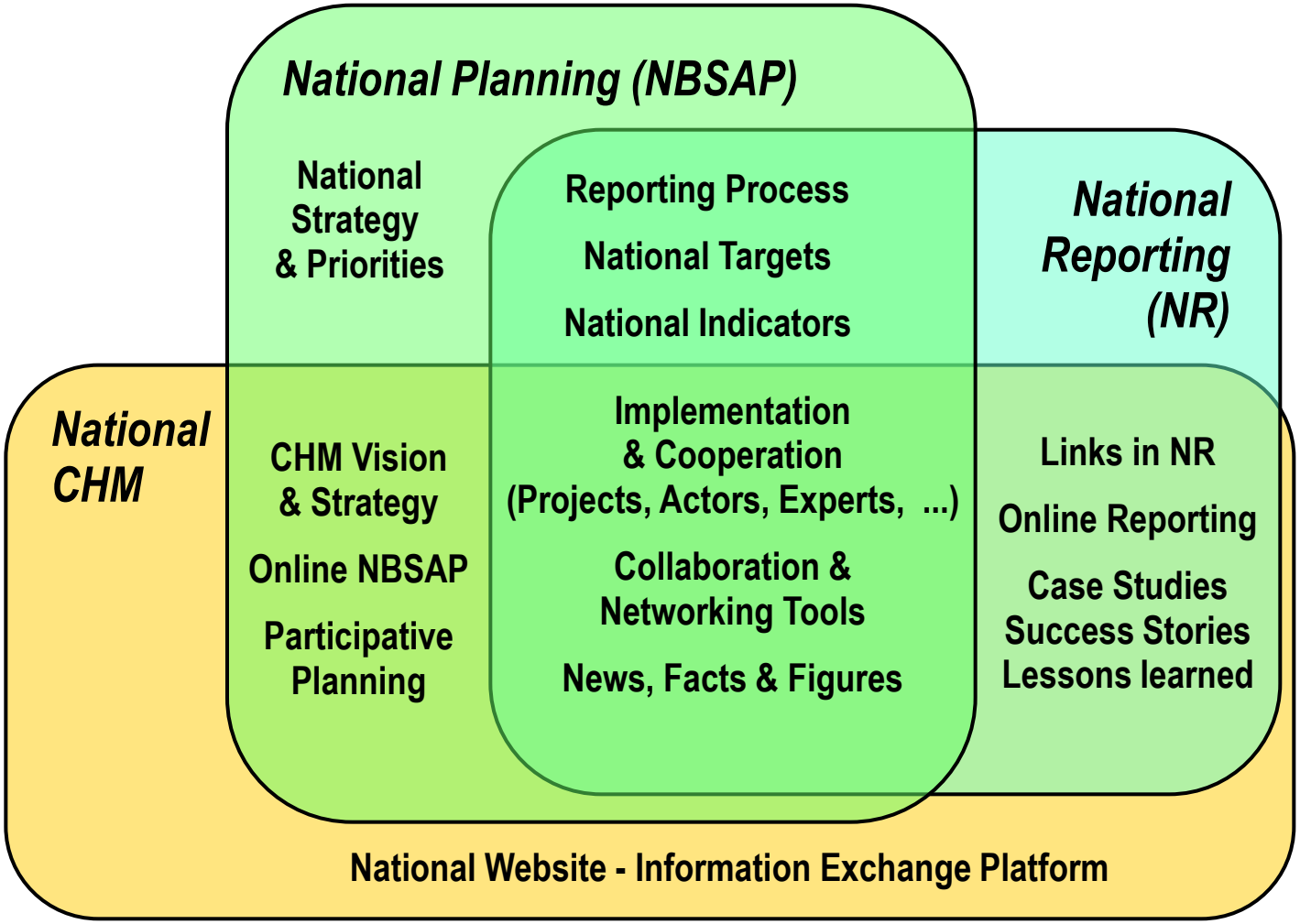
Level 4 – Information Services

Information services to support planning and reporting



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Level 4 – Good National CHM Website

Establish exchange mechanisms with other networks

- **Define information exchange interface**
  - Basis for data exchange & aggregation
  - Important to define good formats and classifications
  - Agree on single update point

- **Interoperability**
  - Automated information exchange between computer systems
  - Various technologies based on standards (REST, RSS/Atom, Open Data Protocol, …)
  - Requires some IT expertise

- **Examples**
  - European Portal Toolkit (RSS/RDF News & Events)
  - InforMEA using Open Data Protocol www.informea.org
  - GFIS RSS formats (News, Events, Publications) www.gfis.net

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Level 4 – Information exchange mechanism

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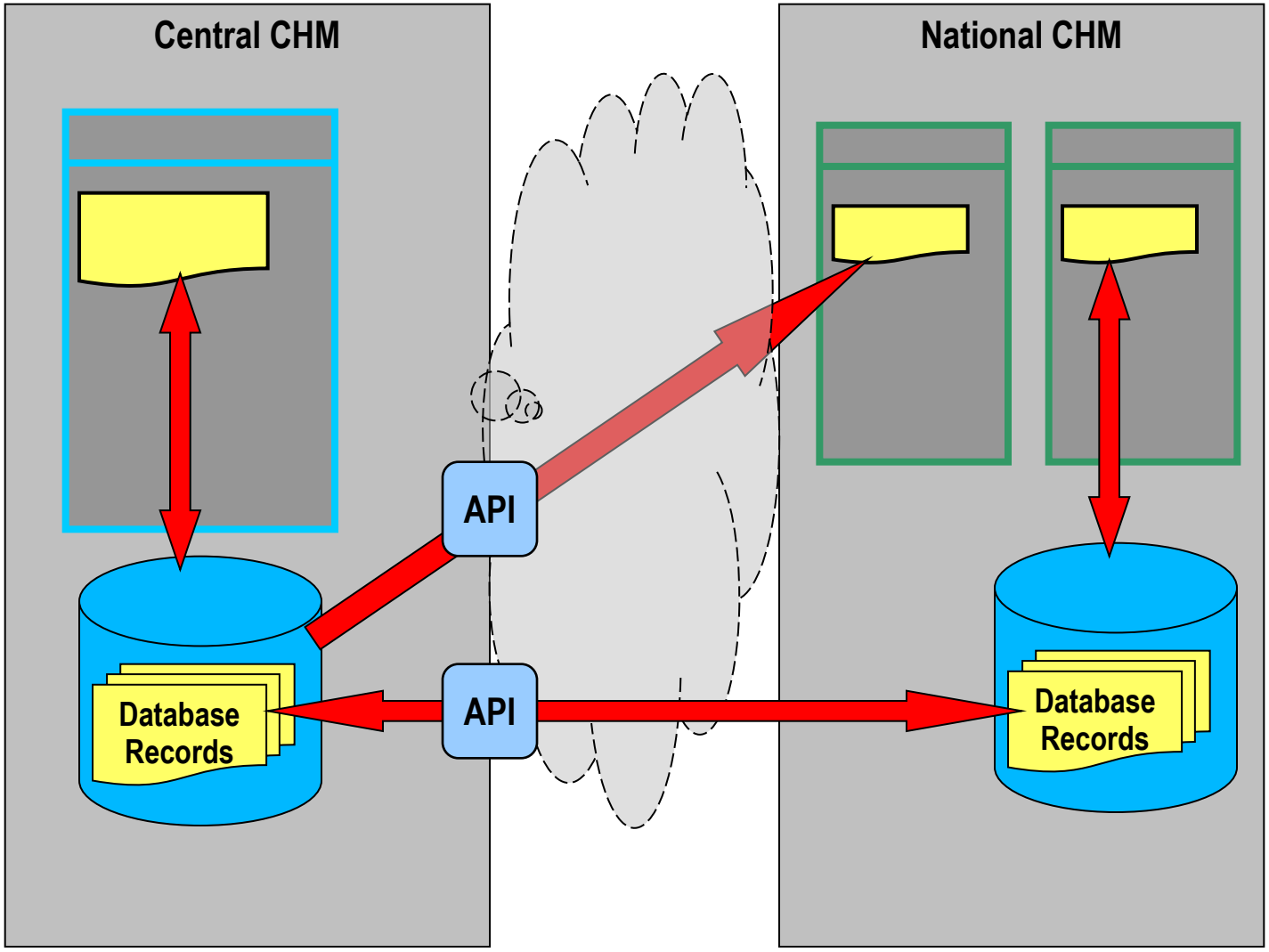
Interconnection & Interoperability



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Level 4 - Good National CHM Website

Encourage sharing of expertise to support other national CHMs

- **But do not neglect your own National CHM**
  - Make sure information is kept up-to-date
  - Ensure sustainability
  - Be ready to adapt to new situations
- **Support other National CHM**
  - in the same region / speaking the same language
  - Share expertise & data
  - Provide advice and technical support
- **Facilitate technical & scientific cooperation**
  - Meet national actors and facilitate technical and scientific cooperation
  - Link to all cooperation agencies in the country (UN, EU, Bilateral Cooperation, NGOs, ...)
  - Promote transfer of technology

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Final comments

- **General guidance (No one-size-fit-all)**
- **Importance of**
  - High-level commitment → CHM in NBSAP
  - Planning & thinking → Roadmap & wireframes
  - Regular work → Good content
- **Often possible to do something even with limited support**
  - External hosting, CMS and/or specialized tool
  - A few pages can be very useful
  - Links to other sites / sources → National biodiversity portal
- **Do not hesitate to contact the CBD Secretariat**
  - olivier.demunck@cbd.int
  - sandra.meehan@cbd.int
  - chm@cbd.int
  - secretariat@cbd.int
- **Questions or comments**

Thank you

Regional Workshop for the Pacific
on the Clearing-House Mechanism (CHM)

13-17 June 2016 Nadi, Fiji

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Olivier de Munck
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Government of Fiji
Ministry of Local Government,
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