Disaster risk reduction / climate change adaptation

MAINSTREAMING GUIDANCE

Overview of key tools

SWISS NGO DRR PLATFORM

Swiss NGO DRR Platform (2019).
Disaster risk reduction / climate change adaptation mainstreaming guidance. Overview of key tools

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Working group:

HELVETAS Swiss Red Cross ZOÏ environment network

www.drrplatform.org

Cover photo: Swiss Red Cross, Remo Nägel

Contents

1. About this guide

1.1. Rationale for disaster risk reduction / climate change adaptation mainstreaming and this guide

Disaster risk reduction (DRR) and climate change adaptation (CCA) are often not the core objective of a project, but they should be included in the planning of any humanitarian or development intervention by mainstreaming DRR/CCA and considering them as cross-cutting topics. Many DRR/CCA mainstreaming tools have been developed to respond to the different needs of practitioners, specific project stages and sectors.

This guide focuses on mainstreaming DRR/CCA as a cross-cutting element in development and humanitarian aid projects and programmes. The intended target audiences are member organisations of the Swiss NGO DRR Platform, particularly DRR/CCA advisors, but also headquarters desk officers, country delegates and field officers.

The Platform members and their partners have developed, tested and applied many different mainstreaming tools. Therefore, this guide is **not a new tool**, nor does it promote one single tool in particular. It is an overview of the most frequently and successfully applied tools. This guide aims to **support NGO practitioners to mainstream DRR/CCA**, and provides:

- Key elements and principles for DRR/CCA mainstreaming
- Support in the identification of main tools according to selected criteria (search filters)
- Summaries of advantages and challenges of the main tools
- Overviews of additional tools and web resources for specific situations

The key product presented here is the Excel overview (see Annex), which helps make a first selection of tools to be further discussed based on the amount of information, time and resources of the team and project context.

Terminology: "Disaster" refers to natural phenomena (earthquakes, floods) and to human-made disasters (pollution, environmental degradation). "Tool" refers to guidance notes, toolboxes, instructions, checklists and how-to notes. Case studies and project descriptions may sometimes be part of the tools.

Methodology for developing the guide: Based on a mandate by the Swiss NGO DRR Platform, the working group – Helvetas, Zoï Environment Network, Swiss Red Cross – carried out desk research. The findings were summarised in the Excel format, then discussed and analysed through working group peer review. Subsequently a draft version of the guide – the present document – was shared with Platform member organisations by email for feedback and presented at a webinar in January 2019 for amendments.

Links to further Platform products: In order to keep this guide short, practical and focused, the guide does not explicitly cover a series of sub-topics. Some of these refer to current and planned Platform products, which will later be available online (https://drrplatform.org/publications.html) and shared through training and events such as:

- Indicator toolbox version 2.0 (list of key indicators)
- Cost-Benefit Analysis (guidance document)
- DRR/CCA training modules (5 modules finalised in 2017)
- Towards climate and disaster resilient development – A packing list for your advocacy journey (product of F2F 2018)

2. General considerations for mainstreaming

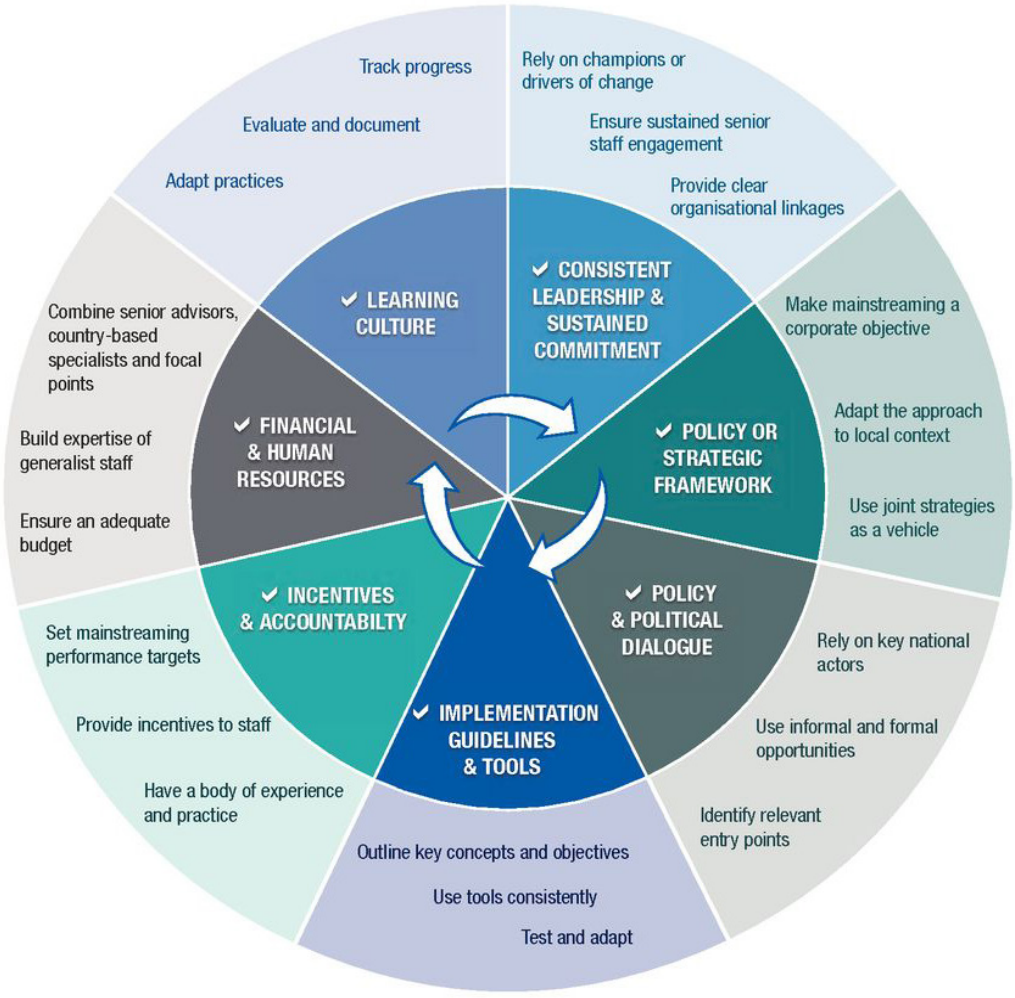
2.1. Fostering an enabling environment

The integration of DRR/CCA aspects into humanitarian or development actions requires the consideration of some preconditions for DRR/CCA mainstreaming. According to the IFRC DRR and CCA mainstreaming guidelines, mainstreaming requires thoughtful analysis, tools and measures at different levels:

- Including DRR/CCA in the policy and strategy **framework**
- Ensuring commitment and support of **leadership and management** staff
- Making the appropriate institutional arrangements and building the necessary **institutional capacity**
- Including DRR/CCA in **all stages of project** planning, budgeting, implementation, monitoring, evaluation and knowledge sharing
- **Advocating** DRR/CCA internally and externally

The OECD DAC peer review on mainstreaming cross-cutting issues (2014) includes very similar elements, and adds financial and human resources, learning culture, incentives and accountability, as illustrated in the figure.

DRR/CCA mainstreaming always relies on a **collaborative effort**, and involves a wide range of actors from high-level management to field practitioners within the organisation and through external partnerships. This **guide focuses on project and programme management tools and guidance** that are essential to build up the required human resources for DRR/CCA mainstreaming. All other elements of the enabling environment for mainstreaming should also be considered as equally important.



2.2. Added value and limitations of tools

Tools are essential supporting elements with the following **objectives**:

- To structure and guide interactions and discussions with project staff and partners
- To ensure a systematic problem analysis (hazard-vulnerability-coping capacities) and identification of solutions (DRR/CCA measures)
- To create awareness and a joint understanding of disaster risks through the participatory application of tools
- To make comparisons through multiple tool applications at different moments in time, between places, communities, etc.
- To guide non-DRR/CCA experts in an analysis and resolution of disaster-related questions

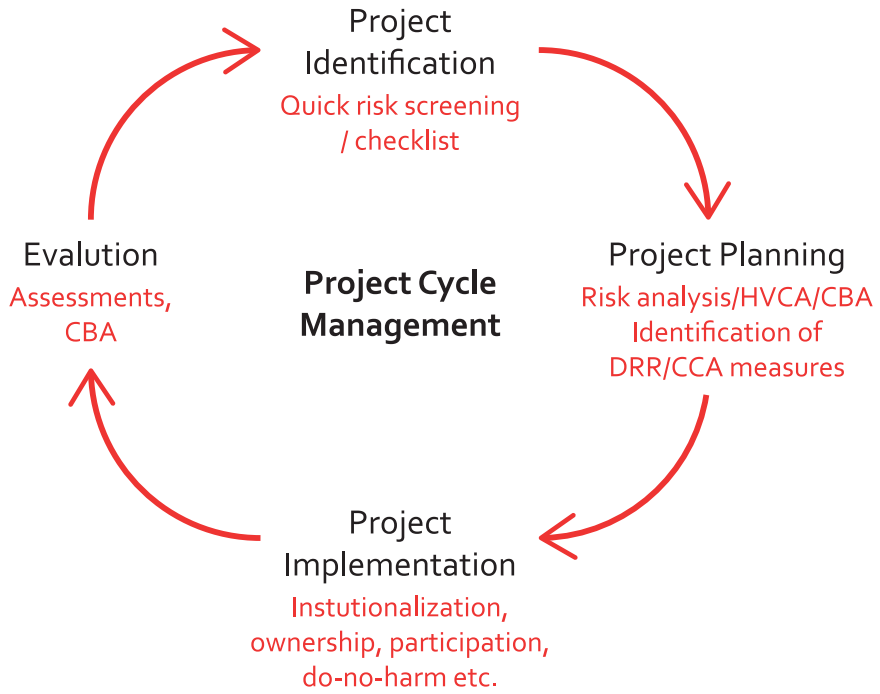
Nevertheless, tools also have **limitations** that should be kept in mind:

- There is no one-fits-all-solution > tools should be chosen based on the context (sector, geography, profile of field staff, project resources, etc.).
- Tools are guidance, not rigid script > where necessary tools should be adjusted to the field reality (reformulation of questions, timing, involvement of actors, etc.).
- Participation and inclusiveness are not guaranteed through a tool application > a good facilitation for the tool application is key to balance listeners and speakers, practical and technical/scientific inputs, etc.
- Tools remain instruments, not solutions > capacity building of staff on how to apply key tools and to implement the findings is crucial.
- A tool application is only one step in a process > good preparation, introduction and follow-up for action are crucial.

3. DRR/CCA mainstreaming in project cycle management

3.1. Project stages and relevance of DRR/CCA

It is important to consider DRR/CCA throughout all stages of project cycle management (PCM), as the following scheme illustrates.



3.2. Guidance related to project cycle management

Project identification

- Should be quick and simple!
- The earlier DRR/CCA aspects are considered, the better in order to design and budget the interventions accordingly
- Useful inputs:
  - Checklists for a quick but systematic risk screening
  - Web resources for risk screening and risk assessment:
    - PreventionWeb: Hazard maps and country risk profiles
    - GFDRR Climate Risk and Adaptation Country Profiles (88 countries)
    - GFDRR: think hazard
    - INFORM Index for Risk Management
    - Munich RE: Nathan light
    - Desinventar: Disaster information management system
    - GermanWatch: global climate risk index
    - IFRC: annual world disaster report (incl. country data), CRED/ EMDAT
    - WorldRiskReport: Annual report with a Risk Index
    - Missing Maps Project, mapping health care facilities in the world
    - SDC: Vademecum hazard maps
  - Impact chains, rough cost-benefit analysis (CBA) for the justification of the intervention through comparison of project costs with avoidable damages in case of non-intervention, e.g. Platform mandate CBA. These may also be used for project planning and evaluation.
  - Web resources for CBA (mainly relevant for project planning stage):
    - ISET: from risk to resilience, working papers related to CBA
    - Oxfam/Tearfund: applying cost benefit analysis at a community level – a review for community-based climate and disaster risk management
    - GTZ: CBA of Natural Disaster Risk Management in Developing Countries
    - IFRC: CBA of community-based disaster risk reduction

Project planning

- Should be participatory and action oriented!
- Most guides and tools focus on the planning stage
- Generic steps for participatory planning tools:
  1. Risk/problem analysis: Identification of hazards, vulnerabilities, coping capacities (often referred to as HVCA).
  2. Prioritisation: Definition of non-acceptable risks to prioritise risks or problems including cost-benefit analysis (CBA)
  3. Definition of solutions (DRR/CCA measures): Inventory, evaluation and selection of options
  4. Action: planning and implementation of DRR/CCA measures.
- Useful inputs for generic steps:
  - Hazard maps (which can range from simple community mapping to technical assessment with drones)
  - Web resources for hazard/risk assessment (see Project identification)
  - Risk matrix for risk prioritisation (see the example bellow)
  - Elaborate or adjust tools and instruments
  - Consider DRR/CCA in process, policies/procedures, standards, particularly related to local development planning
  - Develop a monitoring and evaluation (M&E) system with indicators for reporting, e.g. Platform indicators Toolbox[3]

Project evaluation

- Collect and assess quantitative and qualitative information!
- This stage refers to a comparison of inputs (investments) and outputs (results) and to the actors' satisfaction through appropriate indicators
- Useful inputs for these steps:
  - Impact chains, cost-benefit analysis of avoided damages, e.g. Platform mandate CBA, web resources (note that these may also be used during planning and implementation to compare and select options)
  - Participatory assessments: beneficiary assessments, peer review, outcome harvesting

Very frequent/likely	**Medium risk**	**High risk**	**High risk**
Frequent/likely	**Low risk**	**Medium risk**	**High risk**
Infrequent/unlikely	**Low risk**	**Low risk**	**Medium risk**
	Slightly harmful/ minor impacts/ consequences	Harmful/ some impacts/ consequences	Very harmful/ severe impacts/ consequences

Project implementation

- Ensure ownership and institutionalisation of DRR/CCA measures!
- Stages A and B are typically done with project staff. These could be repeated at the project implementation stage in a simplified version, typically together with communities and local partners (often referred to as CBDRR). This allows for gathering more in-depth information, for shaping the intervention according to local needs and for creating ownership with partners.
- Useful principles:
  - For each measure, estimate the risk for potential unintended negative side effects (consider "do no harm")
  - Ensure resources (financial and time) for capacity building and training

1 update expected for spring 2019 http://www.drrplatform.org/images/DRR_Indicator_Toolbox_incl_Annex.pdf

3.3. Main tools related to project cycle management

The selected tools in the table below are based on the profile and needs of NGO practitioners, particularly the members of the Swiss NGO DRR Platform. These tools are deemed to be the most appropriate because they were (co-) developed, used, or well known by Platform members. The advantages and limitations of all tools are described in section 5.1 and a separate Excel sheet in the Annex provides a further listing of tools for specific PCM stages. The tools are presented in the order of relevance for DRR/CCA mainstreaming at the project level, which is the most common application.

	Name of tool — institution	**Application context**	**Depth**	**Time requirement**	**Use by Platform members**
1	**Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG) Module Light** – SDC	Project Management (PM)	Main-streaming	Short	Applied
2	**Enhanced Vulnerability and Capacity Assessment (EVCA toolkit)** – IFRC	Community-based	Trend to targeted	Time intensive	Co-developed
3	**Participatory Assessment of Climate and Disaster Risks (PACDR)** Bread for all, HEKS, Brot für die Welt	Community-based	Trend to targeted	Time intensive	Co-developed
4	**Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL)** – Helvetas, IISD, SEI, IUCN	Community-based	Trend to targeted	Time intensive	Co-developed
5	**DRR Toolkit** – World Vision Asia Pacific	Community-based/PM	Trend to targeted	Time intensive	Applied
6	**CEDRIG (Modules Operational & Strategic)** – SDC	Project Management	Trend to targeted	Rather time intensive	Applied/ known
7	**Climate change and Environmental Degradation Risk and adaptation Assessment (CEDRA)** – Tearfund	Community-based	Trend to targeted	Time intensive	Applied/ known
8	**A guide to mainstreaming DRR and CCA** – IFRC	Community-based/PM	Main-streaming	Rather short	Applied/ known
9	**Mainstreaming DRR - a tool for development organisations** – Tearfund	Project Management/ institutional focus	Main-streaming	Rather short	Known

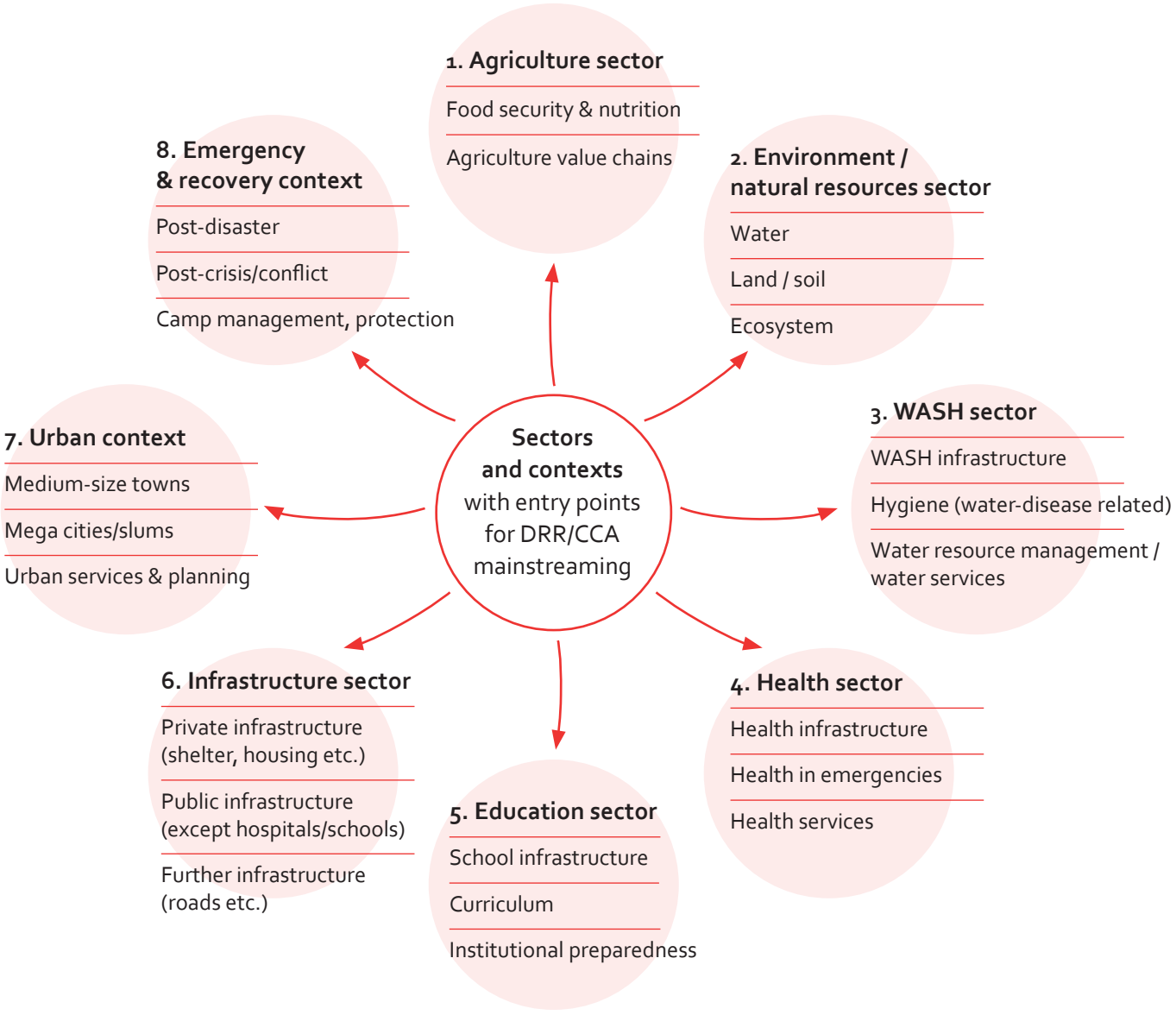
4. DRR/CCA mainstreaming in different sectors and contexts

4.1. Overview of sectors and contexts and relevance of DRR/CCA

It is important to link and embed DRR/CCA considerations (including risk analysis and measures) to the specific sector or context of each project or programme. This guide defines six sectors and two contexts, but there are overlaps between sectors and contexts (e.g. school infrastructure, health and water diseases, etc.). The figure below provides an overview of sectors and contexts with applicable sub-topics, and applies the logic used to structure this guide.

See in the Annex the separate Excel sheet with search filters to identify specific tools for sectors and contexts. For selected key tools the Excel sheet contains a short description with advantages and limitations.

DRR/CCA in sector and contexts: main sub-topics



4.2. Guidance related to sectors and contexts

For any sector or context, the following principles should be considered (see also section 2.1):

- Education and training of project staff, field partner, beneficiaries and communities
- Gender and social equity
- Good governance: do-no-harm check (of DRR/CCA measures), transparency and good communication
- Participation and inclusion of most vulnerable groups.

4.3. Main tool inventories

This guide lists a limited number of selected mainstreaming tools that are considered most useful for Swiss NGO DRR Platform practitioners. Nevertheless, there might be cases where some more in-depth information and tools are required. Other organisations have invested considerable time and resources in screening and describing tools. This section lists links, tool inventories and on-line libraries that allow a specific search for tools for DRR/CCA mainstreaming, referred to as tool compendia. The table below provides an overview of the main tool inventories, while their advantages and limitations are described in section 5.2.

Name of compendium - institution	**Filter options**	**Number of tools**	**Type of references**
Inventory of tools & methodologies to support ecosystem-based adaptation (IIED, IUCN, UNEP-WCMC)	Sectors/contexts PCM stages	222	Tools
Knowledge learning website (weADAPT)	Sectors/contexts PCM stages	Hundreds	All
Tools and Methods (UNFCCC)	Sectors/contexts PCM stages	311	Tools/ frameworks
World Overview of Conservation Approaches and Technologies (WOCAT) (CDE)	Soft/hard measures Environmental contexts	Approx. 1,800 practices	Instruction notes/ fact sheets

These compendia are to be used cautiously due to the easily overwhelming number of references, and many refer to targeted DRR/CCA projects (interventions with the main goal of adapting and reducing risks). Such compendia should only be consulted when the tools listed in this guide do not fit your purpose and/or for large projects (long duration, important financial resources, broad consortia, etc.) where technical experts can apply and follow up on these tools.

5. Descriptions of the main tools

5.1. Main tools for DRR/CCA mainstreaming in project cycle management

1. CLIMATE, ENVIRONMENT AND DISASTER RISK REDUCTION INTEGRATION GUIDANCE (CEDRIG)

Author: SDC (DRR and CC&E Networks) – 2009

Purpose: to help development and humanitarian actors reflect whether their strategies, programmes and projects are at risk from climate change, environmental degradation and natural hazards or whether they could exacerbate climate change, environment degradation or risks of natural hazards.

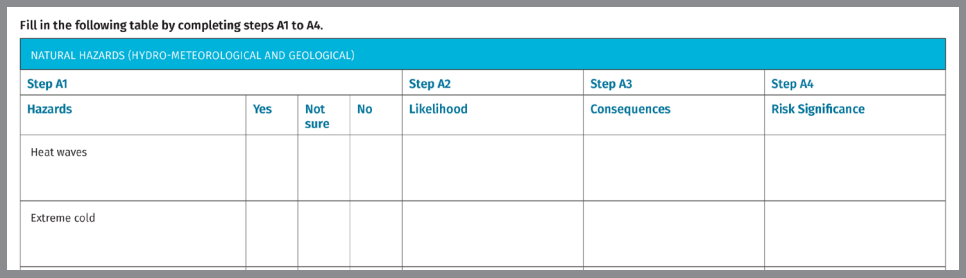
a) Structure and content

CEDRIG consists in three Modules: CEDRIG Light (rapid screening), CEDRIG operational (for operational projects), CEDRIG strategic (for strategic programmes).

All modules are divided into a risk perspective (external effects that might threaten your intervention) and an impact perspective (unintended negative effects of your intervention).

Module 1:
CEDRIG light:

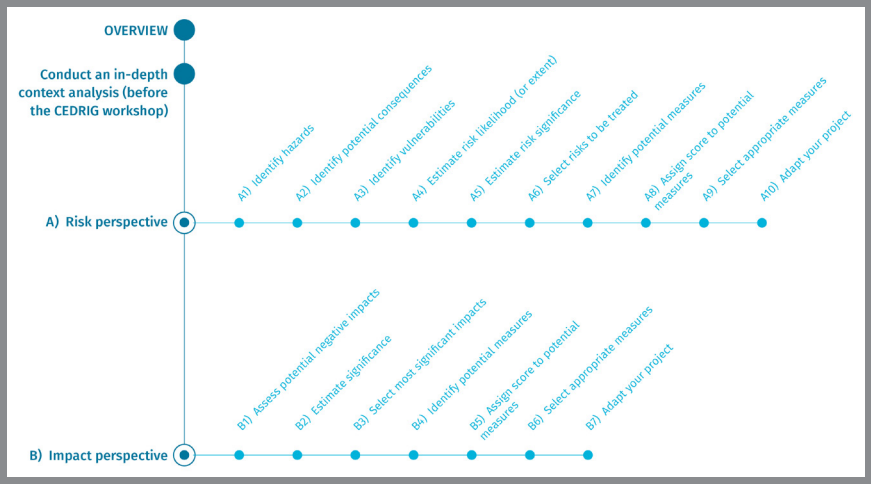
Check list to systematically analyze hazards



Fill in the following table by completing steps A1 to A4.

NATURAL HAZARDS (HYDRO-METEOROLOGICAL AND GEOLOGICAL)						
Step A1				**Step A2**	**Step A3**	**Step A4**
Hazards	**Yes**	**Not sure**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Heat waves						
Extreme cold						

Steps A1-A5 of the risk assessment
And Steps B1-B4 of the impact assessment



Risk matrix, to identify priority risks

	Slightly harmful	Harmful	Extremely harmful
Likely			
Unlikely			
Highly unlikely			

Low risk · Medium risk · High risk

Module 2:
CEDRIG operational:

reporting table

Step A1	Step A2	Step A3	Step A4	Step A5	Step A6
Hazards	Consequences	Vulnerabilities	Likelihood	Significance	Selected risks

Selected risks (from step A6)	Step A7	Step A8	Step A9	Comments
	Potential measures	Score for measures (optional)	Selected measures	

b) Advantages and limitations

ADVANTAGES

- **The reference tool for Swiss programmes** (SDC GC, GP, HA, SECO)
- Combines aspects related to the three fields of natural hazards, climate change and environmental degradation
- Combines the risk perspective (disasters that might threaten your intervention) and the impact perspective (unintended negative effects of your intervention)

CEDRIG light:
- Simple self-explanatory short instruction with a check-list, does not require in-depth background information
- Can be completed in 1–2 hours individually
- Provides first ideas of priority risks and gaps of information

CEDRIG operational/strategic
- Allows an in-depth participatory problem assessment, risk prioritisation and planning process
- The tool first tested in 2010, since then adjusted and updated in many countries
- The on-line version allows a nicely laid out documentation report

LIMITATIONS

- **For project staff, not enough detailed to work at community level**
- Terminology of risk/impact perspective might be confusing
- The impact perspective (unintended negative effects of your intervention) is often unnecessary for community-based projects, and makes the assessment unnecessarily long
- Only implicit guidance on how to promote gender and inclusiveness

CEDRIG light:
- No in-depth assessment, covers only problems and risks, not measures
- Its application usually concludes that a detailed risk assessment with CEDRIG operational is required
- Checklist includes potential confusion of hazards and consequences (e.g. desertification, pollution, degradation)

CEDRIG operational
- Time intensive application through preparation and a two- or three-day workshop
- No self-explanatory tool, requires a good workshop facilitator, experienced with the tool and moderating skills
- Constant (re-) focus on priority risks and measures by the moderator is required
- Requires a wrap-up or report of the workshop results to be confirmed and followed up by project management and financial resources

CEDRIG strategic:
- Not oriented to (NGO) practitioners, rather for broad strategic interventions to be applied by management staff

GENERAL COMMENTS

- The application of CEDRIG operational/strategic leads to the identification of rather important DRR/CCA measures. Before the application of CEDRIG in a participatory workshop, organisers should ensure that there is a budget for DRR/CCA measures and that all relevant partners participate in the workshop.
- CEDRIG refers to the PCM stage of project identification or early implementation. On-line case studies of CEDRIG applications in specific sectors (WASH, agriculture, value chains, etc.) provide useful insights.
- Suggested time frames for likelihood or frequency (80-100, 20-30, <10 years) should be adjusted to project context in order to identify priority risks.
- In a nutshell, all Swiss NGO practitioners should be familiar with CEDRIG light. CEDRIG operational should only be applied under given conditions of a DRR/CCA budget, good facilitator, sufficient time for a participatory discussion.

c) Download and further information

Manuals, case study examples, on-line application https://www.cedrig.org/

2. ENHANCED VULNERABILITY AND CAPACITY ASSESSMENT (EVCA TOOLKIT)

Author: IFRC – 2007, with an updated and digitalised version 2018

Purpose: Vulnerability and Capacity Assessment (VCA) for communities to become more resilient through the identification, assessment and analysis of their risks.

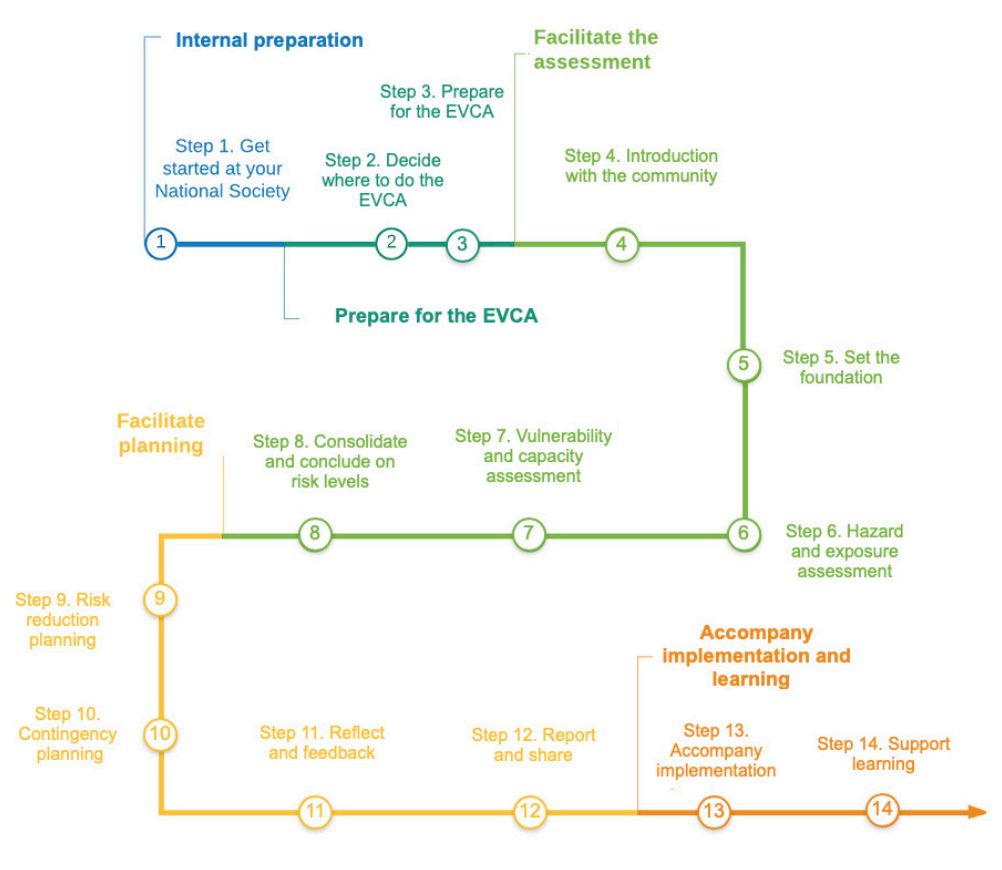
a) Structure and content

The EVCA on-line platform provides easily accessible guidance, tools, a repository and other resources.

Overview of the process:

Overview of Tools:

1. Hazard mapping
2. Seasonal calendar
3. Historical profile
4. Venn diagram
5. Transect walk
6. Semi-structured interview
7. Focus group discussion
8. Household vulnerability assessment
9. Livelihoods analysis



b) Advantages and limitations

ADVANTAGES

- Well known and applied in many countries for more than a decade
- Allows an in-depth participatory assessment and planning process (strong community interaction, gender aspects)
- Community-based tool; developed and field tested together with field practitioners and communities
- Manual in English, French, Spanish, Arabic

LIMITATIONS

- Requires a good facilitator, with experience in the tool, which needs good preparation and follow-up on the results
- Time-intensive application; requires several days of interaction with communities
- Too community-oriented for application at project management level

GENERAL COMMENTS

- The EVCA refers to a general approach for community-based assessment and planning through supportive methods and processes. Its application can be adjusted according to available time and resources.
- It is one of the first and most widely known tools for planning DRR/CCA activities at the local level, typical for targeted community-based DRR. Since its application is rather comprehensive, it is of limited value for DRR/CCA mainstreaming into other sectors or in local development planning.
- The tool refers mainly to the implementation stage – during a community-based DRR planning process. It requires a good understanding of community dynamics, e.g. key informants and leader for ownership, support and implementation.

c) Download and further information

Manual: https://www.ifrcvca.org/

3. PARTICIPATORY ASSESSMENT OF CLIMATE AND DISASTER RISKS (PACDR)

Author: Bread for all, HEKS, Brot für die Welt – 2017

Purpose: Integrating Climate and Disaster Risks into Community-level Development Projects

a) Structure and content

Six modules (M1-M6) with various exercises (E) per module

M1: Project and Context Description of the existing or planned project to be analysed	• M1/E1: Project and Context - Description of the existing or planned project to be analysed
M2: Participatory Climate change and Hazard Analysis Combination of literature-based climate change and hazard informations and local community knowledge	• M2/E1: Climate Change and Hazards in Literature • M2/E2: Political National Aspects • M2/E3: Hazard Map • M2/E4: Seasonal Calendar • M2/E5: Atlernative Exercise to Identify Hazards
M3: Participatory Vulnerability and Capacity Analysis Participiatory analysis of vulnerable livelihood resources, hazard impact and existing coping strategies	• M3/E1: Vulnerability Matrix • M3/E2: Hazard-Impact-Coping Strategies
M4: Participatory Identification of Adaptation Strategies to strengthen capacities and resilience	• M4/E1: Adaptation Strategies
M5: Projects Mitigation Capacities Assessment of project impacts on greenhouse gas emissions and identification of mitigation strategies	• M5/E1: Project mitigation Capacities
M6: Project Revision Identification of recommendations for project revision	• M6/E1: Compilation of assessment results • M6/E2: Project Revision

b) Advantages and limitations

ADVANTAGES

- Allows an in-depth participatory assessment and planning process
- Community-based tool; developed and field tested together with field practitioners and communities
- Covers both risks related to disasters and the effect of climate change
- Includes climate change adaptation and mitigation measures
- Considers principles of gender and participation
- Manual available in English, French, Spanish, Portuguese, Khmer, Cebuano, Bahasa Indonesia

LIMITATIONS

- Time-intensive application; requires typically a three- or four-day workshop.
- Requires a good facilitator with experience in the tool (no self-study application)
- The tool application leads to rather important DRR/CCA measures or even a stand-alone DRR/CCA project/component so it is not appropriate where financial or human resources for DRR/CCA mainstreaming are low
- Too detailed and community-oriented for application at the project management level

GENERAL COMMENTS

- The tool refers mainly to the implementation stage – during a community-based planning process – based on the assumption that DRR/climate change is project-relevant. The earlier the tool is introduced, the better for planning. It requires a good understanding of community dynamics, e.g. key informants and leader for ownership, support and implementation.
- PACDR is based on the structure of CRiSTAL and CVCA tools.

c) Download and further information

Manuals, Case Studies: https://pacdr.net/

4. COMMUNITY-BASED RISK SCREENING TOOL – ADAPTATION AND LIVELIHOODS (CRISTAL)

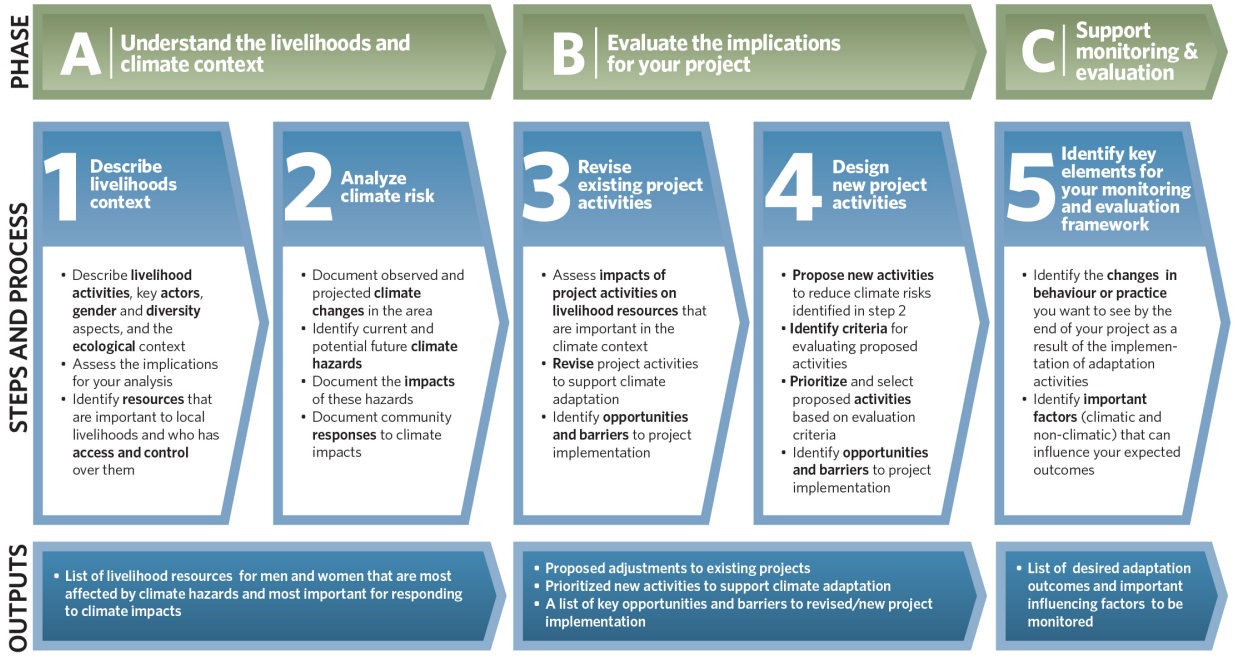
Author: Helvetas, IISD, SEI, IUCN – 2007 to 2015

Purpose: Project planning tool to design activities that support climate adaptation at the community level.

a) Structure and content

The CRiSTAL-tool guides the user through analytical steps with specific outputs.

Figure 2: The CRiSTAL framework.



b) Advantages and limitations

ADVANTAGES

- Allows an in-depth participatory assessment and planning process
- Three thematically adjusted versions: food security, forests, and parks
- First developed in 2007, since then adjusted and updated in over 30 countries, based on a broad community of users and experts
- Desktop version allows collection of results in electronic version
- Recognised tool by IPCC, part of other toolkits from CARE, Provia, World Bank, etc.
- Manual in English, French, Spanish

LIMITATIONS

- Time intensive application; requires typically a two- or three-day workshop
- Requires a good facilitator with experience in the tool (no self-study application)
- Focus on CCA (more than DRR), specific for community-based planning
- Tool application leads to rather important DRR/CCA measures or even stand-alone DRR/CCA components so is not appropriate where financial or human resources for DRR/CCA mainstreaming are low

GENERAL COMMENTS REGARDING SECTORS AND PCM STAGES

- The tool refers mainly to the implementation stage – during a community-based planning process – based on the assumption that DRR/climate change is project-relevant. The earlier the tool is introduced, the better for planning. It requires a good understanding of community dynamics, e.g. key informants and leader for ownership, support and implementation.
- The structure of CRiSTAL was the basis for developing other tools such as CEDRIG (SDC) and PACDR (BfA/HEKS/BfdW).

c) Download and further information

Different versions of the manual, brochure, etc. https://www.iisd.org/cristaltool/download.aspx#cristal-version-5

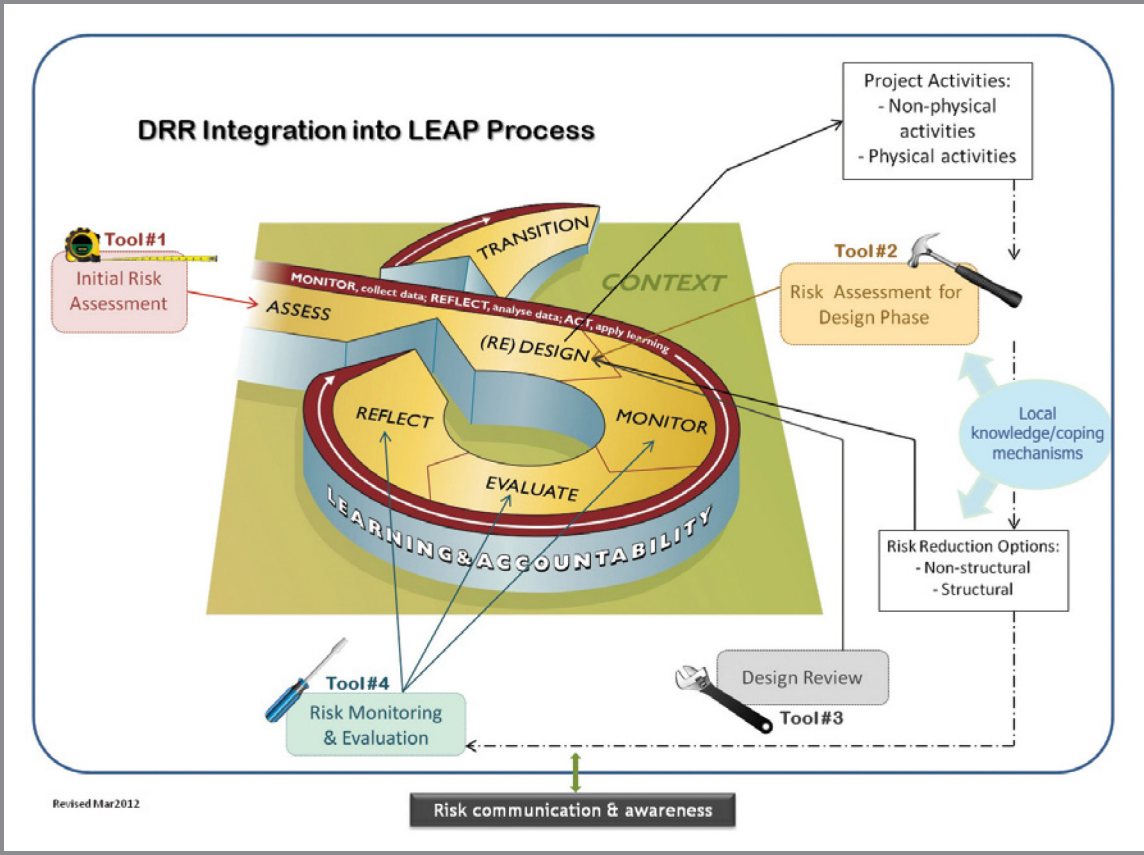
5. DRR TOOLKIT

Author: World Vision Asia Pacific – 2012

Purpose: User-friendly DRR toolkit to assist field staff in undertaking the integration of DRR/CCA into field programmes more effectively, particularly for area development programming.

a) Structure and content

Toolkit consisting of four tools with reference annexes and worksheets



b) Advantages and limitations

ADVANTAGES

- Allows an in-depth participatory assessment and planning process
- Good guidance for community-based village development planning
- Covers both risks related to disasters and the effects of climate change
- Considers integration of women and children
- Includes useful annexes with sector-specific measures and reference indicators

LIMITATIONS

- Aims to consider local data and statistical/technical data, therefore time-intensive application (multiple days)
- Tool 2 (design) concludes with recommendations but evaluation/prioritisation of options
- Requires a good facilitator, with experience in the tool (no self-study application)
- The time-consuming tool application is not appropriate where financial or human resources for DRR/CCA measures or mainstreaming are low

GENERAL COMMENTS

- The tool refers mainly to the planning and implementation stages. Tools 1 and 2 (assessment and design) require interaction with community. Tool 3 (reporting) is for project staff.
- All tools require good preparation for data collection.
- A separate section on monitoring and evaluation has useful guiding questions for a review.
- The tool kit is similar to the structure of PACDR, CRiSTAL and CVCA tools, but separated into tools 1–4.

c) Download and further information

Tools and annexes: https://resourcecentre.savethechildren.net/search/site/World%20Vision%20Disaster%20Risk%20Reduction%20Toolkit (need to request a login)

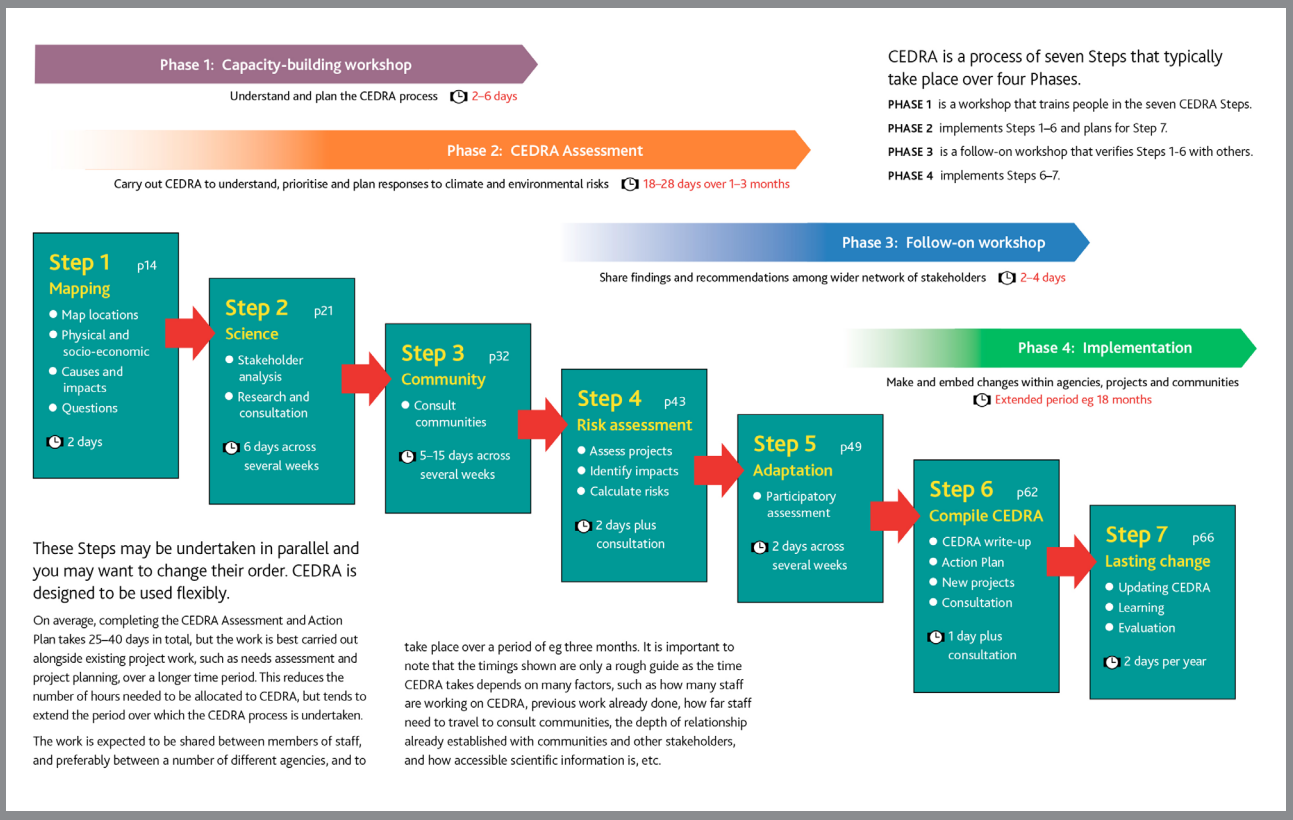
6. CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION RISK AND ADAPTATION ASSESSMENT (CEDRA)

Author: Tearfund -2012 (First edition 2009)

Purpose: Strategic-level environmental and climate risk assessment for NGOs working in developing countries.

a) Structure and content

Diagram of the typical CEDRA phases and steps



b) Advantages and limitations

ADVANTAGES

- Covers DRR, climate change and environmental aspects equally
- Step-by-step guidance
- Practical overview of key aspects with checklists, key questions
- Background information on key terms and case studies
- Self-explanatory
- Available in English, French, Portuguese and Spanish

LIMITATIONS

- Rather long guide
- Time-intensive application; requires several days of interaction with communities
- Mainly for project managers/staff during identification and planning stage, not sufficiently practical for field workers
- Focus on community-based projects

GENERAL COMMENTS

- Refers more to guidance for community-based analysis and action planning in a project setting than to main-streaming DRR/CCA and environment into different sectors.

c) Download and further information

Guide, forms, learning, workshop material: https://learn.tearfund.org/themes/environment_and_climate/cedra/

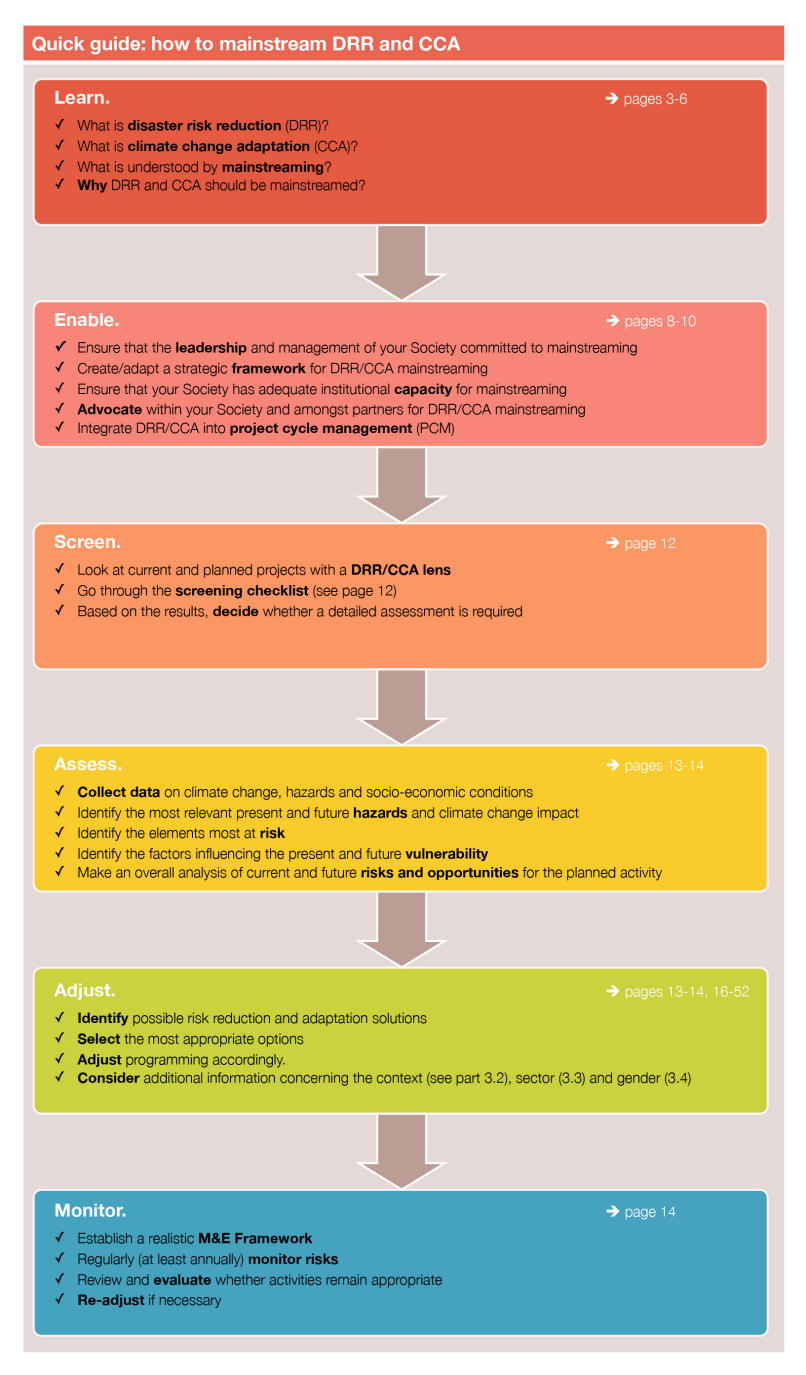
7. A GUIDE FOR MAINSTREAMING DRR AND CCA

Author: IFRC – 2013

Purpose: To support RCRC/IFRC staff to integrate risk reduction measures more systematically into their planning.

a) Structure and content

1. **Understanding the mainstreaming of DRR and CCA**
   - Background on DRR and CCA and mainstreaming DRR and CCA
2. **Enabling environment for mainstreaming DRR and CCA**
   - Policy and strategic framework
   - Leadership and management commitment and support
   - Institutional arrangement and capacity
   - Project/Programme Planning (PCM)
   - Advocacy
3. **Practical guide to mainstreaming DRR/CCA**
   - General steps and principles
   - **Key contexts:** conflict, urban, reducing vulnerability and strengthening resilience, disaster preparedness, disaster response, recovery
   - **Key sectors:** health care, WASH, migration, shelter and settlement, livelihood and food security, natural resource management
   - Gender in DRR and CCA



b) Advantages and limitations

ADVANTAGES

- Good conceptual overview of key aspects with check-lists and key questions
- Useful background information on why, how, and when to promote DRR/CCA mainstreaming
- Self-explanatory, user-friendly
- Strong focus on principles of gender, participation, do no harm
- Includes simple instructions for assessment, dos and don'ts and advocacy

LIMITATIONS

- Guidance, but does not contain tools
- Rather long (62 pages)
- Sector-specific instructions might not be detailed enough
- Focused on project design (not for evaluation)
- Focus on community-based projects
- Specific for IFRC/RCRC staff/projects (community-based, volunteers, etc.)

GENERAL COMMENTS

- The guidance mainly refers to the identification and planning stage; it provides project managers a good understanding and conceptual overview on what to think of and do when engaging with communities in hazard-prone contexts.

c) Download and further information

http://www.ifrc.org/PageFiles/40786/DRR%20and%20CCA%20Mainstreaming%20Guide_final_26%20Mar_low%20res.pdf

8. MAINSTREAMING DRR – A TOOL FOR DEVELOPMENT ORGANISATIONS

Author: Tearfund – 2005

Purpose: A practical tool to help development organisations mainstream DRR into their relief and development planning and programming.

a) Structure and content

Four Levels of attainment in DRR mainstreaming (performance targets and indicators):

Level 1 'Little or no progress'

Level 2 'Awareness of needs'

Level 3 'Development of solutions'

Level 4 'Full integration'

All with characteristic reference examples for each of the six areas

Six areas to assess the levels of mainstreaming:

1) Policy
2) Strategy
3) Geographical planning
4) Project cycle management
5) External relations
6) Institutional capacity

Example for Area 1: Policy with reference indicators of levels 1-4 for mainstreaming

Level 1	Level 2	Level 3	Level 4
● The organisation has little or no understanding of the relevance and importance of disaster risk reduction for its relief and development policy and practice.[12]	**A** There is general awareness within the organisation of the significance of disasters for its relief and development work, including the extent of the threat that disasters pose to the organisation's long-term development goals and objectives. **B** The organisation recognises the need for relief and development to be linked in a coordinated approach to reducing disaster risks.	**A** The organisation has a conceptual framework for disaster management[13] which recognises vulnerability as contributing to the risk of disasters. **B** A wide cross-section of staff are engaged in a consultative process to EITHER: • inform the development of a policy which commits the organisation to mainstreaming disaster risk reduction within the organisation's relief and development operations OR • incorporate risk reduction mainstreaming into the organisation's existing policy structure.	A The organisation has a 'policy'[14] on disaster risk reduction with realistic, achievable goals for mainstreaming. This is understood and accepted across the organisation. **B** The organisation's risk reduction 'policy' commits it to addressing three critical issues: • ensuring that development programmes/ projects[15] supported by the organisation are protected through disaster risk reduction elements • ensuring that disaster relief and rehabilitation programmes/ projects are managed in a developmental manner • ensuring that development, relief and rehabilitation programmes/ projects do not increase people's vulnerability to disasters.

b) Advantages and limitations

ADVANTAGES

- In the context of evaluation of institutions level of mainstreaming and integration of DRR, an excellent tool
- One of the few tools at the PCM stage of evaluation, well recognised and used (e.g. SDC DRR effectiveness report 2010)
- Strong focus on strategic aspects or factors of success related to institutions, policy framework

LIMITATIONS

- Developed in 2005, no further updates (related to Sendai Framework for DRR)
- Evaluation of organisations not of projects
- An expert evaluation tool, not explicitly participatory, which can limit ownership and acceptance of its results.
- Levels of mainstreaming are evaluated absolutely (current situation), which may undermine relative progress (between intervention start and evaluation)
- Focus on DRR, climate change, environmental aspects are not explicitly addressed

GENERAL COMMENTS

- Evaluator-focused process with information based on document review, consultation interview with individuals and focus groups within and outside the organisation. Time requirement may therefore vary substantially.
- An application for local, community-based (short-term) is not appropriate or would require a substantial adjustment of the tool.
- Indicators could be reformulated to cover CCA aspects.

c) Download and further information

Different versions of the tool, brochure etc. https://www.unisdr.org/2005/HFdialogue/download/tp2-Tearfund-Mainstreaming-drr.pdf

1. INVENTORY OF TOOLS & METHODOLOGIES TO SUPPORT ECOSYSTEM-BASED ADAPTATION (DRAFT VERSION)

Author: IIED, IUCN, UNEP-WCMC

a) Content and structure

The Excel-based list of tools with search filters to relevant PCM stages (called EbA Stage), namely: Planning, Assessment, Design, Implementation, Monitoring and Evaluation, Mainstreaming

EbA/PCM Stage						Name	Weblink	Description	Objectives
Planning	Assessment	Design	Implementation	M & E	Mainstreaming				
1	1	1	1	1	1	World Bank's Resilient Cities Program, CityStrength	http://www.worldbank.org/en/topic/urbandevelopment/brief/citystrength	CityStrength is a rapid diagnostic for resilience to a variety of shocks including climate change. It is a 5 stage process book-ended by leadership commitment for resilience on the front-end and a longer-term engagement with development partners through financing or technical assistance at the back-end.	To help cities enhanc
1	1	0	0	0	0	Urban Ecosystem Analysis: Identifying Tools and Methods	http://collections.unu.edu/eserv/UNU:3110/UNUIAS_UrbanReport2_1.pdf	This **report** focuses on the emerging urban ecosystems analysis (UEA) to highlight its merits and to point out new tools and methods in which UEA can be applied to provide useful information to decision makers.	To introduce the user Analysis and the vario
1	1	1	1	1	0	Coastal resilience	http://maps.coastalresilience.org/network/	A **global network** and associated **online mapping portal** on resilience, restoration and adaptation planning providing access to peer	To provide users with i restoration and adapt

Short description of each tool, web links, tool objectives, requirements for application etc.

Primary ecosystem	*Agriculture; Drylands and Deserts; Forests and Woodlands; Inland Waters; Marine and Coastal; Mountains; Rangeland and Grassland; Urban*
Target audience	*Decision-makers; Policy-makers; Project planners and managers*
Operating scale	*Global; Regional; National; Provincial; Local; Community; Site-level*
Resources/Time required	*Additional equipment needed; manpower; length of time to apply*
Skills/Training required	*Specialist skills needed; training needed or offered*
Accessibility	*Open or restricted access*
Language	*Language options available*

b) Advantages and limitations

ADVANTAGES

- Multiple entry points, handy research filters
- Many tools, particularly under the section of main-streaming, go beyond ecosystems focus
- Covers DRR, CCA and environmental aspects
- Excel-based, can be used off line

LIMITATIONS

- Generally Eco-DRR focus, or related topics (agriculture, natural resources, etc.)

c) Web link:

https://www.iied.org/call-for-feedback-inventory-tools-support-ecosystem-based-adaptation

2. WEADAPT LEARNING PLATFORM

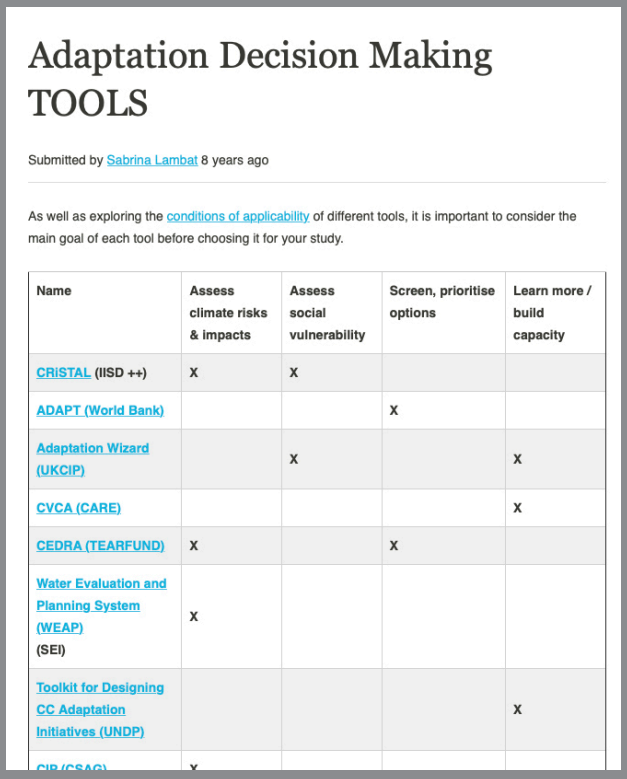
Author: weADAPT

a) Content and structure

weADAPT is a collaborative platform on climate adaptation issues, with an interesting learning section. This includes an option for research:

i) By subject, e.g. tools, agriculture, health, etc.

ii) By themes e.g. vulnerability, ecosystem-based adaptation, etc.

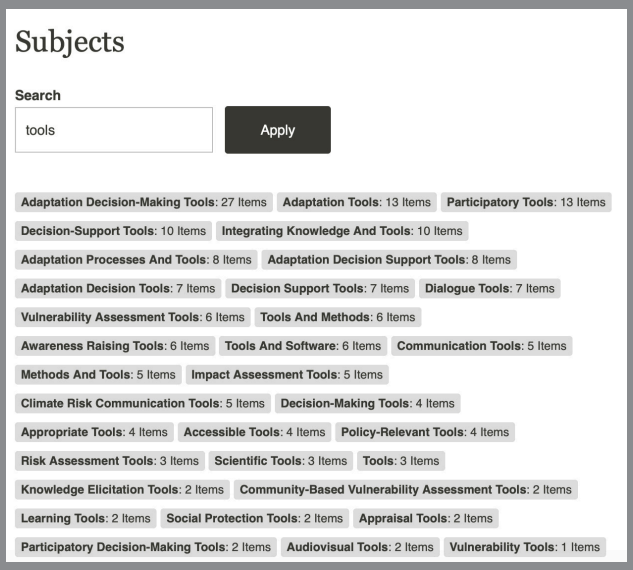


Adaptation Decision Making TOOLS

Submitted by Sabrina Lambat 8 years ago

As well as exploring the conditions of applicability of different tools, it is important to consider the main goal of each tool before choosing it for your study.

Name	Assess climate risks & impacts	Assess social vulnerability	Screen, prioritise options	Learn more / build capacity
CRiSTAL (IISD ++)	X	X		
ADAPT (World Bank)			X	
Adaptation Wizard (UKCIP)		X		X
CVCA (CARE)				X
CEDRA (TEARFUND)	X		X	
Water Evaluation and Planning System (WEAP) (SEI)	X			
Toolkit for Designing CC Adaptation Initiatives (UNDP)				X
CIP (CSAG)	X			



Subjects

Search

tools

Apply

Adaptation Decision-Making Tools: 27 Items | Adaptation Tools: 13 Items | Participatory Tools: 13 Items | Decision-Support Tools: 10 Items | Integrating Knowledge And Tools: 10 Items | Adaptation Processes And Tools: 8 Items | Adaptation Decision Support Tools: 8 Items | Adaptation Decision Tools: 7 Items | Decision Support Tools: 7 Items | Dialogue Tools: 7 Items | Vulnerability Assessment Tools: 6 Items | Tools And Methods: 6 Items | Awareness Raising Tools: 6 Items | Tools And Software: 6 Items | Communication Tools: 5 Items | Methods And Tools: 5 Items | Impact Assessment Tools: 5 Items | Climate Risk Communication Tools: 5 Items | Decision-Making Tools: 4 Items | Appropriate Tools: 4 Items | Accessible Tools: 4 Items | Policy-Relevant Tools: 4 Items | Risk Assessment Tools: 3 Items | Scientific Tools: 3 Items | Tools: 3 Items | Knowledge Elicitation Tools: 2 Items | Community-Based Vulnerability Assessment Tools: 2 Items | Learning Tools: 2 Items | Social Protection Tools: 2 Items | Appraisal Tools: 2 Items | Participatory Decision-Making Tools: 2 Items | Audiovisual Tools: 2 Items | Vulnerability Tools: 1 Items

The subsection "Adaptation Decision Making TOOLS" provides an overview of 14 tools with conditions for application and web links.

b) Advantages and limitations

ADVANTAGES

- Multiple entry points, handy research filters
- Broad and active contributing community of practitioners for updates

LIMITATIONS

- Focus on CCA rather than DRR
- Too many references, many refer to articles, references, etc. and not to tools

c) Web link:

Key word search by subjects (e.g. Tools) https://www.weadapt.org/subjects?name=tools
Key word search by clustered topics https://www.weadapt.org/knowledge-base/themes
Subsection on Adaptation Decision Making TOOLS https://www.weadapt.org/knowledge-base/adaptation-decision-making/tools

3. ADAPTATION KNOWLEDGE PORTAL ON TOOLS AND METHODS

Author: UNFCCC

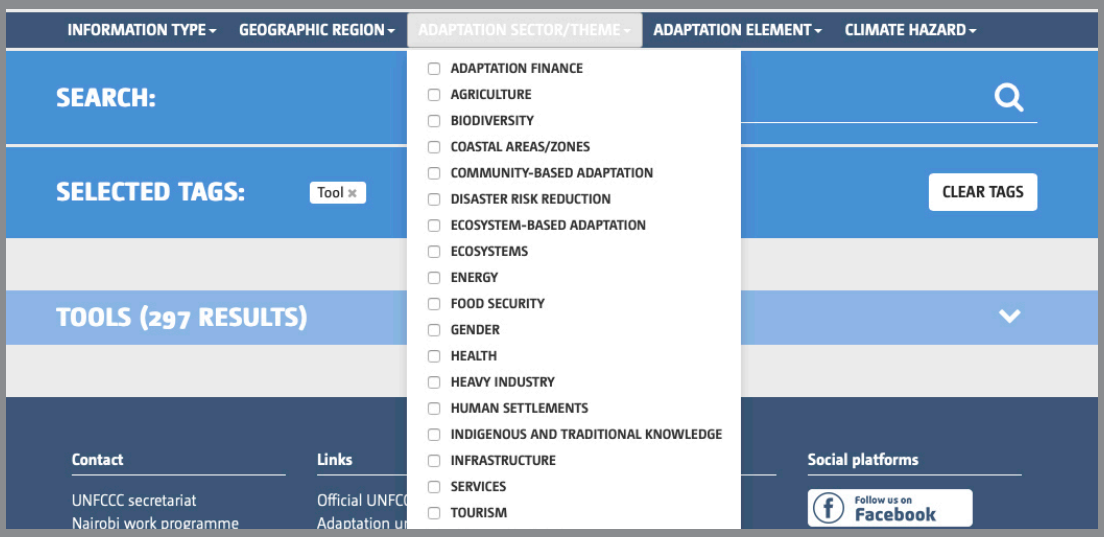
a) Content and structure

Main section on tools and methods, classified by PCM stages, namely:

- Vulnerability and impact assessments
- Planning and implementation
- Monitoring and evaluation

Search section with filters on:

- Information type, e.g. tool
- Geographic region, e.g. Africa
- Adaptation sector/theme, e.g. health, agriculture, infrastructure
- Adaptation element, e.g. training, impact assessment
- Climate hazard, e.g. drought



The research results show the following parameters: Tool description, web link, theme, etc.

Further, there is an off-line version (final draft report 2005, 155p): Compendium of methods and tools to evaluate impacts of, and vulnerability and adaptation to, climate change. See section 3: Cross-Cutting Issues and Multisector Approaches.

b) Advantages and limitations

ADVANTAGES

- Multiple entry points, handy research filters
- Off-line version

LIMITATIONS

- Focus on CCA rather than DRR
- Too many references, many refer to frameworks rather than tools

c) Web link:

Tools per PCM stage http://www4.unfccc.int/sites/NWP/Pages/Tools.aspx;
Main site on tools http://www4.unfccc.int/sites/NWP/Pages/Search.aspx?tags={%22information-type%22:%22tool%22}
Compendium on methods and tools (2005, off-line version) https://unfccc.int/files/adaptation/methodologies_for/vulnerability_and_adaptation/application/pdf/consolidated_version_updated_021204.pdf

4. WORLD OVERVIEW OF CONSERVATION APPROACHES AND TECHNOLOGIES (WOCAT)

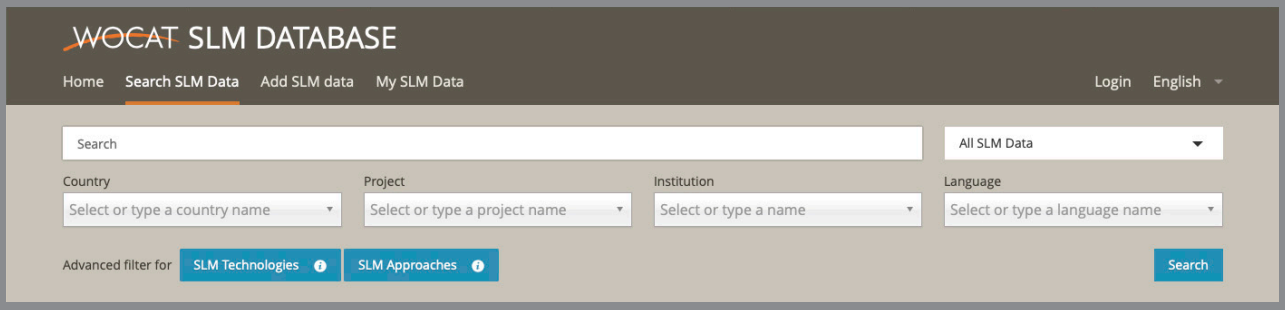
Author: CDE/University of Bern

a) Content and structure

Global Database on Sustainable Land Management (SLM) includes a search section with

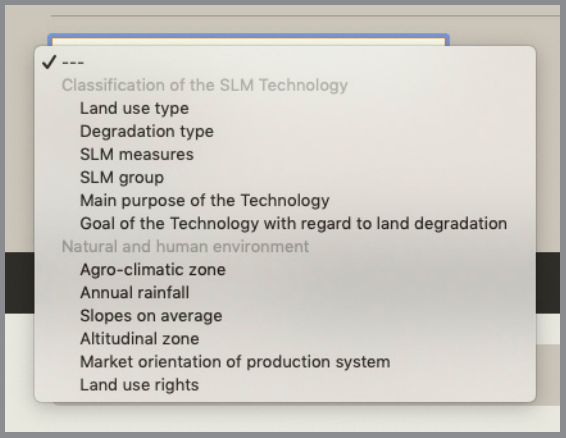
i) Basic filters on key words, country, language

ii) Additional filters on technology type and environment



The research results describe the technologies (hard measures) and approaches (soft measures) in a systematic manner:

- General information and description
- Classification of measure
- Technical specifications, implementation activities, inputs, costs
- Natural and human environment
- Impacts and concluding statements
- References and links



b) Advantages and limitations

ADVANTAGES

- Documentation can be downloaded in pdf format (4-8 pages per measure)
- Practitioner-oriented, for NGO staff, field workers
- Links DRR/CCA measures to sustainable land and water management, agriculture

LIMITATIONS

- No tools, but factsheets or instruction notes of systematically documented case studies
- Focus on implementation stage of measures at activity level; not appropriate for project design or evaluation

c) Web link:

Global SLM Database https://qcat.wocat.net/en/wocat/
WOCAT publications and movies https://www.wocat.net/en/wocat-media-library
Swiss NGO DRR Platform publication linking SLM and DRR (Compendium of Good Practices in DRR)
https://www.wocat.net/library/media/122/

ANNEX Excel tool with search filters

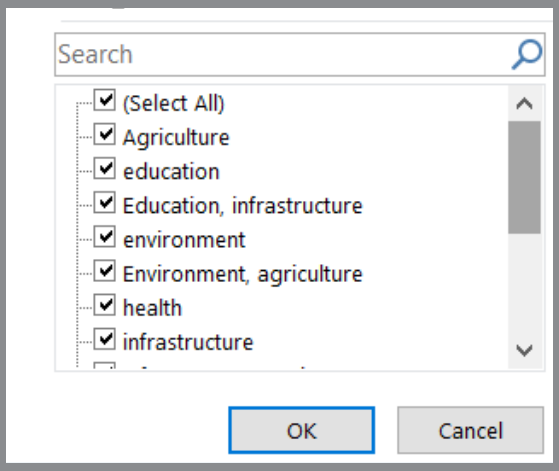
Instructions on how to use the annexed Excel file and its search filters:

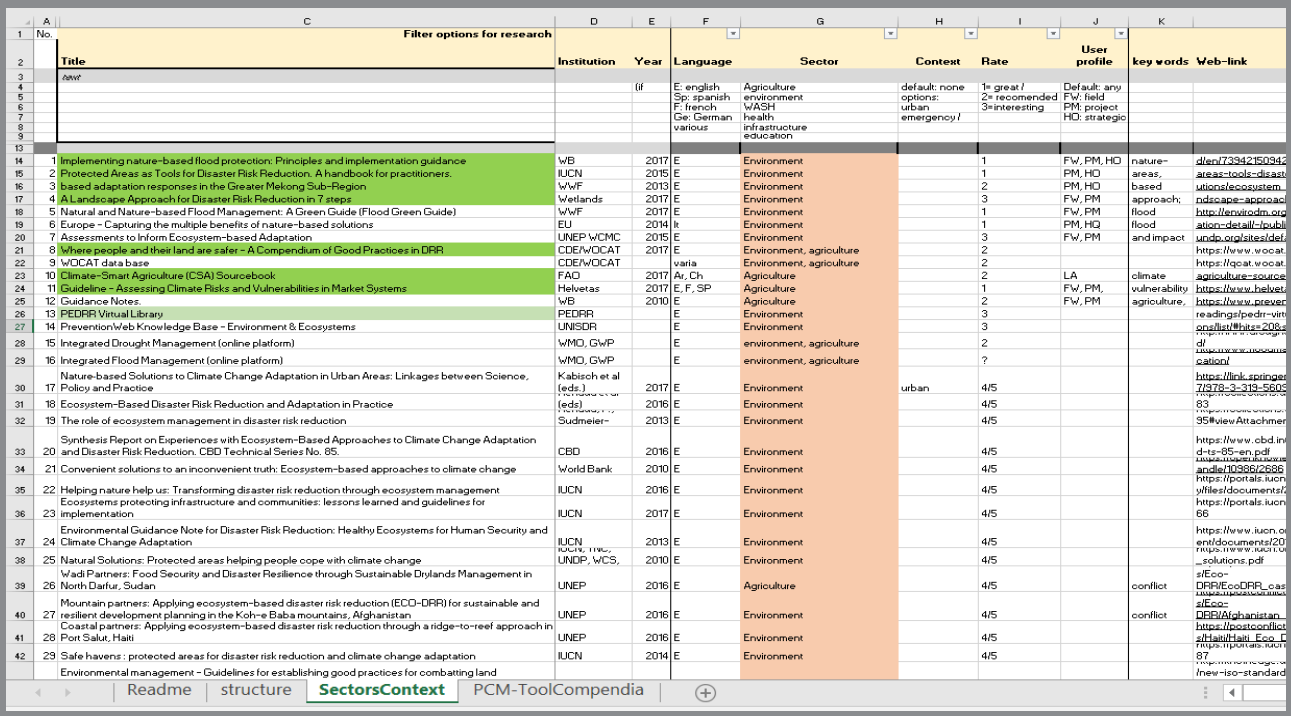
The Excel file contains four sheets:

1) Readme instruction note (same as in this chapter)
2) Structure: Mind map overview of the entry points to select tools: PCM stages or sectors/contexts
3) SectorsContexts: An overview of tools that are specific for sectors or contexts, including applicable search filter
4) PCM-ToolCompendia: An overview of tools that are specific to PCM stages and tool compendia for in-depth analysis

The figure below illustrates the tool overview with search filters on languages, sectors, context, rating, user profile.

Sample of the filter options for sectors:





No.	Filter options for research Title	Institution	Year	Language	Sector	Context	Rate	User profile	key words	Web-link
	/ww/									
			(if	E: english Sp: spanish F: french Ge: German various	Agriculture environment WASH health infrastructure education	default: none options: urban emergency /	1= great / 2= recomended 3=interesting	Default: any FW: field PM: project HO: strategic		
1	Implementing nature-based flood protection: Principles and implementation guidance	WB	2017	E	Environment		1	FW, PM, HO	nature-	d/en/733421509
2	Protected Areas as Tools for Disaster Risk Reduction. A handbook for practitioners.	IUCN	2015	E	Environment		1	PM, HO	areas,	areas-tools-disast
3	based adaptation responses in the Greater Mekong Sub-Region	WWF	2013	E	Environment		2	PM, HO	based	utions/ecosystem
4	A Landscape Approach for Disaster Risk Reduction in 7 steps	Wetlands	2017	E	Environment		3	FW, PM	approach;	ndscape-approac
5	Natural and Nature-based Flood Management: A Green Guide (Flood Green Guide)	WWF	2017	E	Environment		1	FW, PM	flood	http://enviromdm.org
6	Europe - Capturing the multiple benefits of nature-based solutions	EU	2014	It	Environment		1	PM, HQ	flood	ation-detail/-/publi
7	Assessments to Inform Ecosystem-based Adaptation	UNEP WCMC	2015	E	Environment		3	FW, PM	and impact	undp.org/sites/def
8	Where people and their land are safer - A Compendium of Good Practices in DRR	CDE/WOCAT	2017	E	Environment, agriculture		2			https://www.wocat.
9	WOCAT data base	CDE/WOCAT		varia	Environment, agriculture		2			https://qcat.wocat.
10	Climate-Smart Agriculture (CSA) Sourcebook	FAO	2017	Ar, Ch	Agriculture		2	LA	climate	agriculture-source
11	Guideline - Assessing Climate Risks and Vulnerabilities in Market Systems	Helvetas	2017	E, F, SP	Agriculture		1	FW, PM,	vulnerability	https://www.helvet
12	Guidance Notes	WB	2010	E	Agriculture		2	FW, PM	agriculture,	https://www.prever
13	PEDRR Virtual Library	PEDRR		E	Environment		3			readings/pedrr-virt
14	PreventionWeb Knowledge Base - Environment & Ecosystems	UNISDR		E	Environment		3			on/list/#/hits/208
15	Integrated Drought Management (online platform)	WMO, GWP		E	environment, agriculture		2			d/
16	Integrated Flood Management (online platform)	WMO, GWP		E	environment, agriculture		?			cation/
17	Nature-based Solutions to Climate Change Adaptation in Urban Areas: Linkages between Science, Policy and Practice	Kabisch et al (eds.)	2017	E	Environment	urban	4/5			https://link.springer 7/978-3-319-5605
18	Ecosystem-Based Disaster Risk Reduction and Adaptation in Practice	[illegible] (eds)	2016	E	Environment		4/5			83
19	The role of ecosystem management in disaster risk reduction	Sudmeier-	2013	E	Environment		4/5			95#view Attachmer
20	Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction. CBD Technical Series No. 85.	CBD	2016	E	Environment		4/5			https://www.cbd.in d-ts-85-en.pdf
21	Convenient solutions to an inconvenient truth: Ecosystem-based approaches to climate change	World Bank	2010	E	Environment		4/5			andle/10986/2686
22	Helping nature help us: Transforming disaster risk reduction through ecosystem management	IUCN	2016	E	Environment		4/5			https://portals.iucn y/files/documents/2
23	Ecosystems protecting infrastructure and communities: lessons learned and guidelines for implementation	IUCN	2017	E	Environment		4/5			https://portals.iucn 66
24	Environmental Guidance Note for Disaster Risk Reduction: Healthy Ecosystems for Human Security and Climate Change Adaptation	IUCN	2013	E	Environment		4/5			https://www.iucn.o ent/documents/201
25	Natural Solutions: Protected areas helping people cope with climate change	UNDP, WCS,	2010	E	Environment		4/5			_solutions.pdf
26	Wadi Partners: Food Security and Disaster Resilience through Sustainable Drylands Management in North Darfur, Sudan	UNEP	2016	E	Agriculture		4/5		conflict	s/Eco-DRR/EcoDRR_cas
27	Mountain partners: Applying ecosystem-based disaster risk reduction (ECO-DRR) for sustainable and resilient development planning in the Koh-e Baba mountains, Afghanistan	UNEP	2016	E	Environment		4/5		conflict	s/Eco-DRR/Afghanistan
28	Coastal partners: Applying ecosystem-based disaster risk reduction through a ridge-to-reef approach in Port Salut, Haiti	UNEP	2016	E	Environment		4/5			https://postconflict s/Haiti/Haiti_Eco_D
29	Safe havens : protected areas for disaster risk reduction and climate change adaptation	IUCN	2014	E	Environment		4/5			87
	Environmental management - Guidelines for establishing good practices for combatting land									/new-iso-standard

Readme | structure | SectorsContext | PCM-ToolCompendia

Excel file is available also at https://drrplatform.org/publications.html