

Swiss NGO DRR Platform



DRR Indicator Toolbox

Table of Contents

1	Introduction	3
1.1	Rationale for this publication	3
2	Some considerations on measuring the effects of disaster risk reduction and climate change adaptation	4
2.1	Challenges	4
2.2	Direct and proxy indicators	4
2.3	Aspects to be considered for effective impact and outcome measuring	4
3	Process	5
3.1	Process 2013.....	5
3.2	Process 2014.....	6
4	DRR Indicator Toolbox CH NGO DRR Platform	7
4.1	Reference	7
4.2	Structure	7
4.3	Level of intervention	8
4.4	How to use it	9

Annexes:

Annex A: Toolbox Generic Indicators

Annex B: Risk basics: Risk knowledge and Risk Governance

Annex C: how to relate indicator toolbox to draft HFA2 and Risk Staircase

Annex D: Top 17 Characteristics of Resilience of CH NGO DRR Platform

Annex E: Literature

1 Introduction

The Swiss NGO DRR Platform is a network of Swiss based non-governmental organisations (NGOs) dedicated to increasing the resilience of women, men and children, communities and governments to all aspects of disaster risk reduction (DRR) and climate change adaptation (CCA).

Its main goal is to support people and institutions prepare for and adapt to climatic trends and shocks, to more effectively mitigate risks and to enhance risk prevention in the humanitarian and development sectors. The Platform operates through ad-hoc working groups composed by its members, by enabling and supporting policy debate among state and non state actors in Switzerland, advocating for DRR and CCA in national and international exchange and by capturing and sharing knowledge and experiences relating to DRR and CCA of Swiss NGOs and their partners.

A working group composed by Caritas Switzerland, Swiss Red Cross and a free lance consultant worked over two years on the mandate of the Swiss NGO DRR Platform to come up with a set of qualitative and quantitative indicators at impact, outcome and output level that can be used by NGO practitioners.

1.1 Rationale for this publication

It is widely recognised that the Millennium Development Goals (MDG) have shaped the global policy debate and resource allocations for development cooperation, through raising the profile of some key aspects of development. The MDGs have provided clear, concrete and measurable objectives, with a range of targets and indicators. Those targets and indicators have also influenced the log frames of NGO projects, by helping to setting priorities and streamline actions in line with the biggest development needs.

Analogous in the DRR-community, the Hyogo Framework of Action (HFA) was developed in 2005 with the aim to provide similar guidance under its 5 priority areas, but could not unfold a dynamic comparable to the MDGs, among other aspects due to missing clear and commonly accepted targets and indicators.

In 2015, a new architecture of development goals and frameworks will be concluded, to which already now hundreds of experts contribute by defining, calibrating and negotiating new targets and indicators. Starting from March 2015, the moment when nations and the global DRR community will endorse the Hyogo Framework for Action 2 (HFA2) a series of global frameworks will be negotiated, such as the Sustainable Development Goals (SDGs), the World Humanitarian Summit and the new Climate Agreement at the COP 21 in Paris.

Motivated by this processes at global level, the Swiss NGO DRR Platform decided to define a **set of quantitative and qualitative outcome indicators** to support NGO practitioners working in humanitarian and development projects to effectively measure the effects of risk reduction and adaptation measures. The proposed indicators are intended to provide a basic guidance but will need to be adapted to the respective context. The use of a common set of indicators is also aimed at further enhancing the exchange, common understanding and pooling of efforts among Swiss NGOs active in the field of DRR and ACC, as well as for benchmarking among different NGOs.

2 Some considerations on measuring the effects of disaster risk reduction and climate change adaptation

2.1 Challenges

In order to make the case for disaster risk reduction (DRR) and adaptation to climate change (ACC) its positive effects must be measurable and thus be reflected in project reports through clear targets and monitoring frameworks. More than other development sectors, the topic of DRR faces certain difficulties in measuring the impact.

First, the logic of DRR is reverse (Oxfam 2009): The reality check if DRR/ACC pays off is the reduction of human losses and damage caused by disasters; its impact is its contribution to resilience and growth. It is obvious that it is very difficult to measure an avoided disaster, an incident that did not occur. Second, the domain is governed by factors like probability and uncertainty, which makes formulating SMART¹ indicators very challenging. Third, the attribution gap is high, because of the underlying vulnerabilities and the complex environments in which disaster risks unfold.

2.2 Direct and proxy indicators

Basically, there are two approaches to measuring the effects of DRR and ACC: through **direct indicators** and through **proxy indicators**. As said, the direct effect of disasters can only be measured when the next disaster occurs by comparing its impact with an impact of disaster before the counter measures were introduced. Given that the return period of disasters is unpredictable and can vary, the use of direct indicators is not very practical, particularly not for larger scale events.

Much progress has been made in **calculating potential losses and damage** to certain known risks, even to the widespread effects of climate change. Cost-benefit and multi-criteria assessments are tools to provide information on the expected benefits of interventions and relate them to the cost involved. These approaches are heavily reliant on sound data sets and calculations, prerequisites that are rarely met in the context of developing countries.

In response to this, **indirect (proxy) indicators** provide an alternative to direct measurements of DRR and ACC effects. They are applied when objectives cannot be directly observed, their monitoring would be very cost-intensive or could only be measured way ahead in the future (Oxfam 2009). They are based on the hypothesis that DRR and ACC measures are considerably reducing loss and damage and can relate to all factors shaping disaster risk management in the respective context. e.g. indicators linked to environmental conservation, area of rehabilitated forest or coastline mangroves or existence of safe and accessible evacuation shelters.

2.3 Aspects to be considered for effective impact and outcome measuring

Difference between large and small scale events

Extreme events and complex/cascading disasters challenge the reliability of both types of indicators (direct and proxy indicators). This was experienced during the Tōhoku-earthquake in Japan in 2011, followed by a tsunami and nuclear accident in Fukushima, as well as during typhoon Haiyan in the Philippines in 2013. Despite very high (Japan) and good (Philippines) levels of DRR management avoidable losses and damage occurred because people did not follow evacuations signals or did not

¹ The Acronym SMART stands for **S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime-bound

understand the warnings or as in the case of Japan, the infrastructure was not prepared for this kind of worst case scenario.

Formulating SMART indicators becomes easier for small scale disasters with a high recurrence. Reality checks can sometimes be done over less than a decade and the effect of concrete DRR and ACC measures prove to be more effective and easier to be measured.

Dynamic baseline information

Key factor for success in measuring outcomes at local level for extensive risk is baseline information. If baselines can be established retrospectively it can make measuring progress possible in relatively short time. Attention has to be given to the fact, that baseline information is not static but dynamic. Climate change has influenced recurrence and intensity of disasters. For example monsoon related events with a recurrence of three years in the past might now occur each year or change in rainfall patterns and fewer but more intensive rains might have increased in magnitude of floods.

Relative and absolute risk reduction

Last but not least in many places risks are built up much faster than they can be reduced by project interventions. Migration and population growth increase the exposure of people and their assets, and public and private investments create new risks many of them having inadequately incorporated risk management measures. Therefore, at the end of a project, exposure in one place to one hazard may have been reduced but other exposure in other places or to different hazards may have increased.

When designing the toolbox at hand, we were aware of all these constraints but are of the opinion that we addressed them by providing options for indicators (both proxy and direct indicators) that can be adapted to the respective requirements and are appropriate for local project interventions, accounting also for the different approaches to DRR and ACC.

3 Process

In 2013 the Swiss NGO DRR Platform commissioned a mandate to a working group to come up with a **set of quantitative and qualitative indicators**, which was renewed and extended in 2014. The process in 2013 was shaped in a bottom up way, (i.e. taking as a starting point the log frames of selected projects of platform members) while in 2014 the working groups started the other way round i.e. from top down (DRR impact hypothesis).

3.1 Process 2013

Distilling good indicators out of our project work and review them on the background of other systems

As a first step, the log frames of approximately 20 typical DRR projects of Swiss NGOs (Caritas, HEKS, HIS, Solidar, SRC) were scanned and a generic Log frame with exemplary indicators was drawn up. This Checklist Log frame includes indications for quality of indicators, as well as examples of outcome and output indicators for the different components of DRR: Prevention, Mitigation, Preparedness and Risk Transfer.

As a next step, interesting existing monitoring frames and indicator sets of national (SDC: Standard Log frame, DRR Effectiveness Report (2010) and CC/ DRR Mainstreaming tool CEDRIG; PCM tool of NADEL) and international key actors were identified (HFA 2005-15, IFRC, GNDP, DIFD, OXFAM and OSCE). HFA 2005-15 was acknowledged by the working group as the relevant reference framework at global level, however due to its well-known limitations/ disadvantages (community level, underlying

risk factors) its monitoring framework was not considered helpful for the typical projects of most of the platform members.

Finally the guidance note “**Characteristics of a Disaster resilient Community**”, published by John Twigg in 2009, a practical tool with a clear focus on resilience was deemed to be the most appropriate model for the Swiss NGO DRR Platform. 167 characteristics of a Disaster resilient Community are listed in the tool, grouped in accordance with the five Priority Actions of HFA 2005-15. Since the first edition in 2007, the guidance tool has been field-tested by various organizations and it includes an annex with case studies and secondary working instruments developed by these organizations, e.g. a shortlist of the 20 most important characteristics assembled by **Tearfund**. (*Tearfund’s Abbreviated Characteristics (‘top 20’)*). In addition, **OXFAM** published a practical guidance on how to translate a given characteristic into an indicator. (*Measuring the Impact of Disaster Risk Reduction, a Learning Companion*, 2009)

As a result of the process, the working group developed the tool: **Generic Indicators/ Top 17** of the CH NGO DRR Platform: DRR Characteristics and Indicators, including Gender. (See Annex D)

In November 2013, in the framework of F2F of CH DRR Platform, the tool was shared with the Focal Point of SDC’s Climate Change Network, who was in the middle of a similar process of defining indicators for CC with the support of Helvetas Swiss Intercooperation, as well as with representatives of Zürich-RE and IFRC.

3.2 Process 2014

Reviewing the global level indicator process of HFA, SDG and CC and deriving project indicators for DRR practitioners

In 2014 the question for CH NGO DRR Platform was posed on how to continue or bring to an end the process started in 2013 in a challenging context of transition, where HFA1 was expiring and the final version of HFA2 was not yet defined, thus creating a vacuum or uncertainty of reference framework.

In this situation the working group of the CH NGO DRR platform has decided not to suspend the process, but to bridge a possible vacuum in the monitoring framework for the projects of its members through a transitional tool, accepting that the latter might have to be adapted in 2016, once the process of HFA 2 has been settled. In any case, the basic structure of the Post 2015 HFA proposed by UNISDR after an extensive consultation process is not expected to undergo profound changes for the final version. Furthermore, the zero draft of Post 2015 HFA demonstrates clearly, that the document aims at providing a monitoring framework for the progress of a country, with a strong focus at policy level, while the projects of most of the platform members clearly strive for strengthening the resilience at community level.

The CH NGO DRR platform aims to ensure a link from policies to practical and measurable results on the ground and has therefore defined a toolbox with a **set of 30-40 common generic targets and indicators** related to the DRR resilience of communities and households (See Annex A and B), based on the structure of the “Swiss” concept of **risk staircase**, but with **reference** to the architecture of the UNISDR **Post 2015 HFA**. (See Annex C)

4 DRR Indicator Toolbox CH NGO DRR Platform

The Indicator Toolbox describes the core aspects of Swiss NGO DRR and ACC practices and provides generic objectives (at goal, outcome and output levels) and respective indicators. It defines one impact, four outcomes and a number of outputs in three DRR/ACC domains. It thus provides a **comprehensive frame** in which existing and future DRR and ACC practices of NGO's can be placed. Moreover the toolbox can be used as compendium of different DRR/ACC measures and reminds practitioners about important aspects to be considered.

In a future step, providing that a set of generic indicators are consistently used by different organisations, the Indicator Toolbox could furthermore enable a **benchmarking process** through comparing different approaches regarding their effectiveness and efficiency.

4.1 Reference

The Indicator Toolbox combines structural elements of the emerging **HFA2 framework** at impact and outcome level as well as the “**Swiss**” **risk staircase model** at the output level. In Annex C a synopsis of the two frameworks is provided. The logic of HFA2 is not followed at the output level as it relates to national policies and is not really suitable for the local project context of NGOs. In the opinion of the working group strengthening resilience is an overarching concept which relates to the impact level rather than to the output level, as proposed by the HFA2. The risk staircase provides a clear sequencing of DRR and ACC measures based on a “Swiss” understanding of integrated risk management, where preventive measures are the starting point to manage risk, followed by mitigation of impact of disasters, preparedness for response and risk sharing mechanisms (i.e. sharing the cost of losses and damage due to a disaster).

As a new element and in order to capture the new notion of “**risk prevention**” in the HFA2 framework, in light of new risks that are building up, the staircase was adapted including a new initial step, i.e. avoid the creation of unacceptable risks.

4.2 Structure

The rows of the toolbox indicate the different objective levels, according to the log-frame logic. The output level columns follow the logic of the risk staircase and progressively move from 1) avoid the creation of unacceptable risk (risk prevention) to 2) reduce existing risks (risk reduction) and 3) share and bear not transferrable risks (risk sharing):

Impact level: Increased resilience (= reduced poverty and link to SDG)

Outcome level: reduced losses and damage (= direct indicator)

Output level: Disaster Risk Reduction and Adaptation to Climate Change Measures (proxy indicators)

The left column addresses the new aspect of the HFA2 framework, moving towards risk-informed development as well as risk prevention measures are in the (**avoid the creation of unacceptable risk**). Risk-informed development is defined as conscious mainstreaming of DRR and ACC aspects in development plans (which is not new!) but reaches as well out to other financial flows such as foreign investments or remittances, i.e. to target areas where much more money is invested and can either

potentially contribute to creation of new “unacceptable” risks or add to reduction of potential new risks.²

In the middle column, outputs are related to **risk mitigation** and **preparedness for response**, i.e. to more “traditional” measures to reduce risks.

The right column is dedicated to outputs in the domain of **risk sharing and risk bearing** and describes mainly social and insurance mechanisms, strongly related as well to resilience building

At all levels, **generic indicators** are provided that need to be adapted to the context of the project and might be specified.

A summary of the **risk basics** such as **risk knowledge** and **risk governance** are described in the section **cross cutting topics** as they are preconditions for successful outputs.

The risk basics are described in more detail in Annex B, as key **inputs** for successful projects.

Table 1: Toolbox Swiss NGO DRR Platform structure (Annex A)

Impact	Reduced number of people entering poverty due to disasters		
Outcome	Reduced losses and damage		
Risk basics	Risk Knowledge: % of area covered by hazard vulnerability and capacity assessments		
	Risk Governance: Existing enabling framework and policies		
Outputs	Keep an acceptable risk level: % of area sustainably managed	Reduce existing risks % of people living in safe conditions	Share and bear the risk % of assets insured

4.3 Level of intervention

For standalone local level DRR NGO projects, the goals and targets at the impact level will be too ambitious. Obviously one project cannot cover too many aspects and the project team thus has to decide to which protection goals and significant changes to contribute. Depending on the gap analysis in some areas it may be appropriate to invest in risk basics, while in others it is mainly needed to enhance the risk sharing and social support opportunities for the most vulnerable. The working group therefore proposes to design projects “at one level lower” i.e. proposes to design projects that have at

² For further information on DRR financing please refer to Kellett et al. (2014): Financing Disaster Risk Reduction – Towards a coherent and comprehensive approach, <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9027.pdf>

impact level a contribution to reduced losses and damage (= outcome level of the toolbox) and to formulate **one** specific outcome in one of the toolbox output columns, which realistically can be achieved during the project and with its available budget.

4.4 How to use it

The framework is directed to DRR and ACC focal points as well as informed DRR project management staff at headquarter and field levels: The white boxes in the framework are describing objectives (impact, outcomes and outputs) or characteristics thereof, while the blue boxes are suggestions for the corresponding indicators.

DRR practitioners can, based on the gap analysis and protection goal, make use of the framework to get inspiration on which measures would be most appropriate by **making use of the white boxes** in annex A.

DRR practitioners knowing which measures they will implement can find appropriate indicators how to assess their outcomes and outputs by selecting a generic indicator and adapt it to the respective context by **making use of the coloured boxes of annex A**.

The working group proposes to use the toolbox during planning stage and hopes that it can contribute to better measurable DRR/ACC-projects. It provides by the toolbox as well a guiding framework for project design and concrete tools for endorsing it with SMART indicators.

For questions related to the toolbox, please do not hesitate to contact the head of the working group, Nicole Stolz (Caritas Switzerland): [nstolz\(at\)caritas.ch](mailto:nstolz(at)caritas.ch).

Berne, 7.1.2015

Working group:

Caritas Switzerland: Nicole Stolz and Jana Junghardt,

Swiss Red Cross: Anton Joehr

Consultant: Barbara Rothenberger

ANNEX A

Toolbox Generic Indicators CH NGO DRR Platform	
Goal	<p>Overall Goal: DRR contributes to the strengthening of the resilience of individuals, households, communities and systems/ states</p> <p>Indicator:</p> <ul style="list-style-type: none"> Decrease of proportion (number) of people/ total population entering poverty due to (a) natural disaster as a result of strengthened absorptive, adaptive and transformative capacities
Outcomes	<p>Outcome(s): In the project area losses and damage due to natural disasters at individual, household, community and system/state level are reduced within a defined period of time (e.g. 20, 30, 35 years)</p> <p>Recommendation: Refer to report of the Informal Working Group on targets and indicators³ to the zero-draft of the post-2015 framework for DRR, dated 12 November 2014</p> <p>Indicators:</p> <ul style="list-style-type: none"> Reduced disaster mortality by (a given percentage in function of number of hazardous events) by 20 (30/35) (taking appropriately into account missing people/ reflect disaggregated data by age, gender and people with disability) Reduced number of affected people by (a given percentage in function of number of hazardous events) by 20 (30/35) (“affected people” to be defined, e.g. people injured, evacuated, relocated, with houses damaged/destroyed or loss of livelihood, livestock, crops) Reduced direct disaster economic loss by (a given percentage in function of number of hazardous events) in relation to the GDP by 20 (30/35) Reduced disaster damage/disruption to critical infrastructure and facilities by (a given percentage in function of number of hazardous events) by 20 (30/35) (health, education, power, transport, telecommunications, water and sanitation sectors)
<p>Cross-cutting issues: (Risk Knowledge and Risk Governance, details see Annex B)</p>	

³ http://www.wcdrr.org/uploads/Report-of-the-Facilitator-of-the-IWG-on-Targets-and-Indicators-to-Co-Chairs-151114_.pdf

Risk Basics	<ul style="list-style-type: none"> • Risk Knowledge: Quantitative environmental and risk assessment, in particular also taking into account new investments by public and private sector, including all major hazards/ vulnerabilities and capacities in the community, have been carried out in participatory way (with the involvement of women and men), fed into overarching risk and climate scenarios, are stored in a public database, are updated periodically and are accessible to all members of the community (<i>HFA 2: Understanding Disaster Risk</i>) <p>Indicators:</p> <ul style="list-style-type: none"> • Proportion of project area covered by comprehensive risk assessments • Proportion of decision makers at village, community, town, district level having access to hazard, vulnerability and capacity information • Proportion of persons (women and men disaggregated) and number interest groups (marginalized groups) involved in development and/or regular updating of risk assessments • Proportion of new investments having calculated associated creation of new risk through environmental/risk assessments 		
Risk Basics	<ul style="list-style-type: none"> • Risk governance: Risk informed relevant and enabling legislation, environmental policies, building codes, land use planning laws at local level have been developed through participatory processes, are up-dated periodically and put into practice. (<i>HFA2: Strengthening Governance to manage disaster risk</i>) <p>Indicators:</p> <ul style="list-style-type: none"> • Increased proportion of persons (women and men disaggregated) and number of interest groups, including marginalized groups aware of and capable to keep authorities accountable for decided provisions in the legislative framework at project start and at the end. • Increase of percentage of annual LGU budget allocated for DRR and CCA measures at project start and at the end • Number of cases decision makers at all levels capable to enforce provisions to keep acceptable risk levels (qualitative indicator) • Number of cases decision makers at all levels demonstrated understanding/taking into consideration in their daily work the particular needs of specific vulnerability groups such as women, small children, elderly, chronically ill and disabled persons 		
	<p>Avoid the building of (unacceptable) new risks</p> <ul style="list-style-type: none"> • Keeping an acceptable risk level • Application of polluters pay principle • Protection of ecosystems/ livelihood systems • Climate Change Adaptation 	<p>Reduce existing Risks</p> <ul style="list-style-type: none"> • Prevention of existing risks • Mitigation/ Alleviation/ softening of existing risks • Preparedness for response, recovery and reconstruction 	<p>Share and bear not transferable risks</p> <ul style="list-style-type: none"> • Risk transfer (insurance/ social networks) • Social coherence, solidarity

<p>Outputs</p>	<p>1) Awareness/ Level of community understanding of characteristics and functioning of physical environment and ecosystems and the potential risks associated with these spaces and human interventions that affect them</p> <p><i>Indicator: No. / % of community members that are able to describe at least x examples for sustainable environmental management practices for different types of human interventions</i></p> <p>2) Institutional structures and established processes at local level promote the integration/ mainstreaming of DRR and environmental protection in development plans of different sectors (Education, Health, Water, Economy)</p> <p><i>Indicator: No. of sector development plans that have DRR and environmental protection integrated and/or related increase in % in the annual budget set aside for DRR and environmental protection measures by the end of project.</i></p>	<p>1) The level of community understanding/ awareness of characteristics and functioning of potential local risks associated with natural hazards, vulnerability risk and risk reduction actions is sufficient for effective action by community (alone or/and in partnership with other organizations)</p> <p><i>Indicator: No. / % of community members (women and men) that are able to describe at least x measures to approach community needs and capacities re disaster risk reduction.</i></p> <p>2) Community organization & mobilization (e.g. through Community emergency committee, volunteer groups) capable to arrange disaster response for households, public service institutions and schools and manage crisis with special consideration for the most vulnerable with clearly defined roles and responsibilities</p> <p><i>Indicator: No. / % of emergency committee members / members of volunteer groups (women and men) in the project area showing skills in carrying relevant response tasks according to minimum standards in a coordinated manner.</i></p>	<p>1) Awareness/ Level of community understanding of the importance of common sharing of the impact of residual risk through informal risk transfer and social solidarity with the most vulnerable groups affected by a disaster</p> <p><i>Indicator: No. / % of the communities in the project area where formal or informal social protection schemes (including saving groups, insurance market or micro-finance institutions) are established and accessible for the most vulnerable groups.</i></p> <p>2) (Inclusion) Local community female and male representatives recognize the right of most vulnerable groups to appropriate assistance after disaster, protection from violence and participation in recovery planning/volunteer groups</p> <p><i>Indicator: Right of most vulnerable groups to appropriate assistance after disaster, protection from violence and participation in recovery planning included in community contingency plans and minimum standards of volunteer groups.</i></p>
----------------	---	---	---

<p>Outputs</p>	<p>3) Polluter pays principle: Public dialog on the inter-linkages between investments and building of new risks at local level, as well as liabilities and reserves for worst case scenarios established.</p> <p><i>Indicator: No. of social-environmental-risk audit/consultations of private and public investment assessing associated new risks and appropriate related preparedness measures taken.</i></p> <p>4) System boundaries negotiated among stakeholders in a participatory way</p> <p><i>Indicator: % of land used according to commonly negotiated and regulated bearing capacities of communal lands such as a) pasture, b) forests c) water bodies or spring catchment areas</i></p> <p>5) Level of adoption of sustainable environmental practices to avoid building of new risk (soil and water conservation, forest and biodiversity protection) that are in place and maintained properly by community/LGU</p> <p><i>Indicator: No. / % of women and men in project area adopting sustainable environmental management practices to avoid building of new risk (soil and water conservation, forest and biodiversity protection)</i></p> <p>6) Diversification/ adaptation of agricultural production to changing climate: e.g. drought tolerant crops</p> <p><i>Indicator: No. / % of women and men in project area engaged in multiple occupations/ with diversified income portfolio, keeping away from unsafe livelihood practices or hazard vulnerable activities.</i></p>	<p>3) Contingency planning: Community and family level contingency plans for all major risks have been developed through participatory process of women and men, co-ordinated with official emergency plans at higher-level and are updated and tested regularly, including in particular the Lessons Learnt of post-disaster assessments</p> <p><i>Indicator: No. / % of communities and households (women and men, elderly and youth) in the project area with commonly agreed contingency plans for all major risks by the end of project.</i></p> <p>4) Level of functioning of the communication / Early Warning System EWS for the transmission of alerts that permits information to reach women and men, elderly and youth in an appropriate and timely manner and linked to higher levels</p> <p><i>Indicator: No. / % of community members (women and men, elderly and youth) in the project area who receive early warning messages in a timely manner from at least one source.</i></p> <p>5) Women and men/ vulnerable groups (elderly, disabled people) and their livestock have access to emergency shelters (hazard-resistant constructions, situated in safe areas) and know safe evacuation routes</p> <p><i>Indicator: No. / % of women and men who reach the emergency shelter safely and in a timely manner in the event of a hazard of x strength or the respective exercise</i></p> <p>6) Skills training: Community members (women, men and youth) are regularly trained (and tested through drills) in live-saving skills (swimming/ climbing)</p> <p><i>Indicator: No. / % of community members (women and men) in the project area showing a sufficient level of competence in live saving skills (swimming/ climbing) for the case of a defined hazard.</i></p>	<p>3) In the project area all community members have equally access to services, critical public facilities and infra-structure (health, water, electricity, finances, weather data, hazard information)</p> <p><i>Indicator: increase of No. / % of community members (women and men) in the project area with access to services, critical public facilities and infra-structure at local/ more distant level, especially in area of high risk by the end of project.</i></p> <p>4) Equitable entitlement/ eligibility of all community members, including the most vulnerable groups (women-headed households, elderly, disabled) to access to formal social protection schemes (including insurance market or micro-finance institutions)</p> <p><i>Indicator: Guidelines of formal social protection schemes (including insurance market or micro-finance institutions) include equitable eligibility of all community members, including the most vulnerable groups (women-headed households, elderly, disabled) to access</i></p> <p>5) Key assets of households are covered by an insurance and essential equipment and supplies (food, water, grain banks, documents) are stockpiled to enable female and male community members to restore core functions within minimum time frame after a disaster</p> <p><i>Indicator: Level of insurance coverage / stockpiling of equipment and supplies (food, water, grain banks, documents) enabling female and male community members to restore core functions/key assets within a defined period after a disaster</i></p>
----------------	---	---	--

Outputs

7) **Safe locations:** Proportion of community members/facilities (homes, workplaces, public and social facilities) that are not exposed to hazards in high risk areas within locality

Indicator: No. / % of households (women and men) of most-at-risk families (workplaces, public and social facilities) within the project area that have moved to safer sites and/or strengthened their individual dwelling by the end of the project

8) **Multi-hazard resistant design of new construction** of critical infrastructure and shelters that ensures the survival and function in any likely hazard (earthquake, tropical cyclone etc.) in place

Indicator: No. / % of new homes and critical community infrastructure built with appropriate technologies for multi-hazard-resilient construction and maintained properly

9) **Public liabilities for collapsing physical infrastructure and damage to protective ecosystems:** Governments and business assumes liability for environmental damage as well as safety of physical infrastructure

Indicator: No. / % of designed liability rules for ecological damage based on clear definition of thresholds for damage

7) **Retrofitting of existing construction** of critical infrastructure and shelters that ensures the survival and function in any likely hazard (earthquake, tropical cyclone etc.) in place

Indicator: No. / % of existing homes and critical community infrastructure retrofitted with appropriate technologies for multi-hazard-resilient construction and maintained properly, including flood / landslide-resistant water systems, flood-resistant latrines etc.

8) **Structural protective measures** are planned and built in participatory way and apt to reduce existing risk (dams, embankments, riverbank protection, gabions, protection walls, retaining walls, river banks stabilized with bio-engineering techniques, reforestation)

Indicator: No. / % of community based and tailor-made structural protective measures functioning and managed and maintained properly by the community by the end of the project

9) **After extensive or intensive disasters** loss and damage assessments are carried out and **lessons learnt** included in the DRM of the community

Indicator: As a standard procedure the local DRM plan is updated after extensive or intensive disasters, integrating the lessons learnt of the post-disaster review (using an agreed methodology), such as causality, occurrence etc.

10) **Post disaster recovery and reconstruction:** Integrate **build-back-better measures** into reconstruction projects

Indicator: As a standard procedure the post disaster recovery and reconstruction plans of the community include practicable build-back-better measures

11) **Sectors** with critical public facilities and infrastructure in the community (Education/ schools, Health/ hospital/health centers, Water, Economy) have **improved their disaster safety and preparedness** in case of natural disaster

Indicator: Proportion of sectors that have contingency plans in place and where preparedness measures are trained on a regular basis

6) Amount of **money that is available at LGU and community level** to implement preparatory, responsive or recovery activity after disaster to start livelihood

Indicator: No. /% of affected female and male community members that have access to common savings and credit schemes, micro-finance services and/or a community disaster fund to re-start livelihoods after disaster.

7) Proportion of access of household and community members to **money transfers and remittances** from relatives working in other regions or countries, after a disaster

Indicator: No. /% of affected female and male community members able to re-start livelihoods after disaster through availability of remittances or access to other money transfer

ANNEX B: Relevant factors for *Understanding Disaster Risk and Strengthening Governance to Manage Disaster Risk*

Inputs	Risk Knowledge (PA 2+ 3)
	<ol style="list-style-type: none"> 1) <i>As a standard procedure Disaster loss and damage assessment are carried out after extensive and intensive disasters and the respective Lessons Learnt of post-disaster assessments are integrated in the disaster risk management DRM</i> 2) <i>Access and apply knowledge, methods and assets from re/insurance and catastrophe risk sectors to support disaster risk awareness and action</i> 3) Participatory hazard/risk, vulnerability and capacity assessments complemented by other scientific, data-based assessment methods and considering potential changes in climate patterns, which provide a comprehensive picture of all major hazards/risks, vulnerabilities and capacities in the community, are comparable with neighbouring communities and plug in national assessments, are carried out and updated periodically. (T20) 4) Data and information management: <i>All relevant DRR actors/ community members have unrestricted access to information centres/ database/ networks (websites, platforms) with reliable DRR and CCA data relevant for local/community DRM (risk maps etc.)</i> 5) Culture of risk awareness: <i>Proportion of community members that have taken part in public awareness campaigns on disaster risks and risk reduction, which are geared to community needs and capacities. (Twigg)</i> 6) Capacity building: <i>Coverage of appropriate education and training programmes in DRR/DRM for different groups are designed and implemented at local level. (Twigg+)</i> <ul style="list-style-type: none"> • e.g. technical staff of LGUs • field practitioners • Forest police etc. 7) <i>Integrate disaster risk into general business education, professional development and training, as fundamental commercial responsibility and duty of care to employees, customers and wider stakeholders</i> 8) Disaster risk management research and education: <i>proportion of children and youth in community that have been sensitized for DRR/CC through curriculum and where appropriate extra- curriculum activities (16), including indigenous technical knowledge and coping mechanism.</i>
	Risk Governance (PA 1)

Inputs	<ol style="list-style-type: none"> 1) Relevant policy and legislative framework for DRR and environmental protection (including land use planning laws and construction codes) facilitating the Integration of risk information in development plans of different sectors have been developed through participatory processes, is up-dated periodically at local level 2) Incorporation of disaster risk and resilience into public, private and mutual accounts, financial regulation, investment processes and transactions. 3) Institutional arrangement: Institutional mandates and responsibilities for DRR with clearly designated responsibilities at local level are defined, including horizontal and vertical inter-institutional or coordinating mechanisms (6) 4) Budgeting and planning: Adequate budgets for DRR included and institutionalized as part of DRR planning at local level (7)/ or Increase of percentage of annual LGU budget allocated for DRR and CCA measures. 5) Implementation, enforcement of laws on DRM and NRM, including business accountability and Land use regulations that do not permit constructions in hazard-prone area. 6) Clearly defined mechanisms for participation of all sectors of Civil Society in dialogue on DRR and Environment and accountability of local authorities and private investors 7) Degree of social equity of female and male community members, including the most vulnerable groups (women-headed households, elderly, disabled) 8) Equitable economic development: Strong economy in which benefits are shared throughout the society/ distribution of inequality and income poverty (defined in terms of GDP per capita and limited non-monetary assets e.g. house ownership) (2)
--------	--

ANNEX C

HFA2- Zero draft – Swiss NGO Risk staircase- Toolbox

1) Zero Draft HFA2

Three expected Outcomes/ seven targets/ four Priorities for Action:

Expected Outcomes			
Prevention (risk informed growth and development measures, <i>i.e. Mainstreaming?</i>)	Reduction (inc. Preparedness for Response)	Resilience	
Target 1, 2, 3, 4, 5, 6, 7			
Priorities for Action			
Understanding Disaster Risk	Strengthening Governance to Manage disaster Risk	Preparedness for Response, Recovery and Reconstruction	Investing in Social, Economic and Environmental Resilience
Local and National	Local and National	Local and National	Local and National
Regional and Global	Regional and Global	Regional and Global	Regional and Global

2) Risk Staircase (adapted by Caritas Switzerland, based on SDC impact assessment DRR)

The **risk staircase** provides a clear sequencing of DRR and ACC measures based on a Swiss understanding of integrated risk management, where preventive measures are the starting point to manage risk, followed to mitigation of impact of disasters, to preparedness for response and risk sharing mechanisms (i.e. sharing the cost of losses and damage due to a disaster).

Minimize creation of unbearable risk						Keep/ reach acceptable risk level	
Total existing Risk	Avoid hazards + emissions						
	Unavoidable Risk	Mitigate impact/ adverse effects				Reduce existing risks	
		Remaining risk	Respond and adapt to adverse effects				
			Risk out of reach of	Share and transfer risk			

			response	Risk that cannot be transferred	Individual residual risk	Bear the risk
--	--	--	----------	---------------------------------	--------------------------	----------------------

3) Toolbox CH NGO DRR Platform

The structure of the Indicator Toolbox combines structural elements of the emerging **HFA2** at impact and outcome level as well as the **risk staircase** at the output level. The logic of HFA2 is not followed at the output level as it relates to national policies and is not suitable for the local project context of NGOs.

The rows of the toolbox indicate the different levels of DRR-objectives according to the log-frame logic:

- Impact level: Increased resilience (= reduced poverty)
- Outcome level: reduced losses and damage
- Output level: Disaster Risk Reduction and Adaptation to Climate Change Measures:

The columns follow the logic of the “Swiss” risk staircase model and progressively move from 1) risk prevention to 2) risk reduction, including preparedness and response and 3) risk sharing and bearing:

Impact	Reduced number of people entering poverty due to disasters		
Outcome	Reduced losses and damage <ul style="list-style-type: none"> • Target HFA2 1, 2, 3, 4 		
Risk basics	Risk Knowledge <ul style="list-style-type: none"> • % of area covered by hazard vulnerability and capacity assessments 		
	Risk Governance <ul style="list-style-type: none"> • Existing enabling framework and policies 		
Outputs	Keep an acceptable risk level <ul style="list-style-type: none"> • % of area sustainably managed 	Reduce existing risks <ul style="list-style-type: none"> • % of people living in safe conditions 	Share and bear the risk <ul style="list-style-type: none"> • % of assets insured

Inputs	Risk Knowledge
	Risk Governance

A summary of the **risk basics** such as **risk knowledge** and **risk governance** are described in the section **cross cutting topics** as they are preconditions for successful outputs.

ANNEX D

Core characteristics of disaster-resilient communities and generic indicators of Swiss NGO DRR Platform

Reference (full list of Characteristics)	Thematic Area 1: Governance	Potential generic Indicator
• 1.5 & 1.6	<ul style="list-style-type: none"> Committed, effective and accountable community leadership of DRR planning and implementation, as an ongoing and participatory process. (1) 	No of communities (% of project area) where local government DRR policies, strategies and implementation plans have been developed through participatory processes, are up-dated periodically and put into practice.(Outcome)
• 7.4	<ul style="list-style-type: none"> Capacity of community to challenge and lobby authorities at higher administrative level and external agencies on DRR plans, priorities and actions that may have an impact upon local risks. (2) 	No of community representatives (male and female) who know their rights and are actively participating in discussion and decision making at higher administrative level with a potential impact on local risks. (Outcome) <u>Alternatives:</u> b) <i>No of contributions of communities to discussions and ...or</i> c) <i>Social audit/ consultation mechanism in place and made use of</i> d) <i>% responsiveness of budget versus top down allocations/decision.</i> e) <i>% increase of budget allocated for DRR at local level</i>
• 3.1 & 4.1 & 7.2 (from Area 4)	<ul style="list-style-type: none"> Evidence that disaster risk reduction is given priority over short term economical gains during planning and budgeting at local level and is integrated into (local) government development and land use planning. (3) 	% of community and other local-level actors (female and male) in sustainable development and DRR engage in joint planning with community and local-level emergency teams and structures. (Outcome) <u>Alternatives:</u> b) <i>No of development plans and land use planning that have integrated DRR; % of annual budget set aside for DRR measures)</i> c) <i>Positive trend for public spending for DRR prevention</i> d) <i>Trend of private sector compensation and contributions to strengthen resilience</i> e) <i>% of households (f/m) situated in highly disaster prone areas (red zone on risk map) that were able to relocate their houses to safer areas with the support by the local government</i>
• 6.7/ TA 5	<ul style="list-style-type: none"> Ability of community to organize self-help and mutual support focusing on most vulnerable (elderly, disabled, young children and their mothers) before and during response and recovery. (4) 	No of women and men of most vulnerable groups that participate actively in volunteer groups and recovery planning and implementation. (Outcome) <u>Alternatives:</u> b) <i>Local community female and male representatives recognize importance of social solidarity and the right of most vulnerable groups to appropriate assistance after disaster, protection from violence and participation in recovery planning/volunteer groups</i> c) <i>access of most vulnerable women and men to response and recovery is ensured</i> d) <i>Number of contingency and DRM plans use a diversity (gender) sensitive language and/or have special chapters about specific risks of people with special needs.</i>

Thematic Area 2: Risk Assessment		
• 1.1 & 1.2 & 2.1 & 2.2	<ul style="list-style-type: none"> Participatory hazard/risk, vulnerability and capacity assessments carried out and updated, which provide a comprehensive picture of all major hazards/risks, vulnerabilities and capacities in the community, are comparable with neighbouring communities and plug in national/regional assessments. (5) 	<p>No of communities that carry out and periodically update comprehensive diversity sensitive risk assessments, including VCA method, ,coordinate with neighboring communities and manage to feed their findings in national/regional assessments (Outcome)</p> <p><u>Alternative:</u> a) % of area covered in one country by comprehensive and updated risk assessments (Outcome).</p>
• 3.2	<ul style="list-style-type: none"> Community uses indigenous knowledge and local perceptions of risk, as well as other scientific, data-based assessment methods, considering potential changes in climate patterns. (6) 	<p>% of community disaster and development plans considering potential changes in climate patterns that include both ancestral knowledge of women and men and cross-checking through scientific methods (Output)</p>
Thematic Area 3: Knowledge and Education		
• 1.4	<ul style="list-style-type: none"> Possession of appropriate technical and organizational knowledge and skills for risk reduction and disaster response for small scale and high frequency events at local level (e.g. indigenous technical knowledge, coping mechanisms and livelihood strategies). (7) 	<p>% of women and men in a community who are able to describe and apply in a test exercise at least x relevant risk reduction and disaster response measures for small scale/ high frequency events at local level (Output)</p>
• 3.1	<ul style="list-style-type: none"> DRR knowledge is being passed on formally through local schools and informally via oral tradition from one generation to the next. (8) 	<p>% of girls and boys at the age of x that are able to represent (eg. through drawings/songs) at least x relevant elements of risk reduction, including indigenous technical knowledge and coping mechanisms(Output)</p> <p><u>Alternative:</u> b) DRR formally included in school curricula</p>
Thematic Area 4: Risk Management and Vulnerability Reduction		
• 3.3 & 3.4	<ul style="list-style-type: none"> Livelihood diversification at household and community level, including on-farm and off-farm in rural areas, with few people engaged in unsafe livelihood practices or hazard vulnerable activities. (9) 	<p>% Increase of women and men in rural area engaged in multiple occupation/ with diversified income portfolio, keeping away from unsafe livelihood practices or hazard vulnerable activities (Output)</p>
• 1.2 & 3.5	<ul style="list-style-type: none"> Adoption of hazard-resistant agricultural practices and sustainable environmental management (e.g. soil and water conservation, flexible cropping patterns, hazard-tolerant crops, forest management). (10) 	<p>(Oxfam, 1.2) Level of adoption of sustainable environmental management practices that reduce hazard risk by women and men. (Output)</p> <p><u>Alternatives:</u> b) No of soil and water management measures/ community c) % of women and men in the community who introduced cultivation of hazard-tolerant crops</p>

• 5.3 & 5.4 & 5.5	• Existence of and access to community savings and credit schemes, and/or a community disaster fund to implement preparatory, responsive or recovery activity. (11)	Amount of money available at community level (savings and credit schemes, and/or a community disaster fund) to implement preparatory, responsive or recovery activity after disaster to start livelihood (Output)
• 6.4	• Structural mitigation measures in place (e.g. water-harvesting tanks, embankments, flood diversion channels) and maintained (12)	In at least x high-risk zones per community the existing risk is reduced through structural mitigation measures, built, managed and maintained with the participation of women and men at local level.(Output)
6.11	• Resilient and accessible critical facilities (e.g. health centres, hospitals, police and fire stations, back-up systems etc). (13)	Critical public facilities and infrastructure (e.g. health centres, hospitals, police and fire stations, back-up systems etc)are located in safe areas, constructed according to hazard-resistant standards and/or protected through retrofitting or additional structural measures and accessible for % of women and men in the case of a disaster. (Output)
Thematic Area 5: Disaster Preparedness and Response		
• 2.1 & 2.3 & 2.5 & 2.7	• Community capable of accessing, interpreting and understanding Early Warning signals and indicators and knows actions to be taken when warnings are issued. (14)	% of women and men at community level, who receive EW signals and are able to take appropriate action when warnings are issued. (Output)
• 3.2, 3.3 & 3.7 & 3.9	• Community and family level contingency plans for all major risks developed through participatory process, supported by the community, co-ordinated with official emergency plans at higher-level) and updated and tested regularly. (15)	% of communities and households (women and men, elderly and youth) with contingency plans for all major risks (Output)
• 5.1 & 6.4	• Community has the capacity to provide effective and timely emergency response services, including training and deployment of volunteers with appropriate skills (e.g. search and rescue, first aid, managing emergency shelters, fire-fighting). (16)	% of community committees showing skills in carrying out effective emergency response tasks according to minimum standards in coordinated manner (Output)
• 2.3 & 2.4 (from Area 4)	• Food and water supply secure in times of crisis (e.g. through community managed stocks of grain and other staple foods; protected or stored water supplies). (17)	Community warehouse contains x quantity of food (equivalent to x calories) and x liter of water to cover the needs of female and male, elderly and youth in community during x days in times of crisis (Output)

Gender Indicators

- 1) No of women and men better prepared = involved and access to risk assessment, risk awareness, preparedness trainings, DRM plans, early warning systems, covered by contingency plans, having access to shelters, micro-insurances, savings for early recovery
- 2) No of women and men involved into Disaster Risk prevention and adaptation to climate change activities (soil and water conservation, terracing, increasing infiltration, improved cultivation).

(update 23.11.2013)

3) No of women and men better protected through disaster risk mitigation structures and safe havens (dams, river bank protection, shelters, multi-hazard resilient buildings and public infrastructure).

Annex E: Literature / Reference documents, Websites

International DRR framework

- ODI: *The future framework for DRR Framework- A guide for decision-makers*, June 2014
- *Switzerland's Position on the Post 2015 framework for Disaster Risk Reduction*, July 2014
- UNISDR 2005: *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*. World Conference on Disaster Reduction, 18–22 January 2005, Kobe, Hyogo, Japan. Geneva: United Nations, Inter-Agency Secretariat of the International Strategy for Disaster Reduction.
- UNISDR: *Post 2015 framework for DRR: a proposal for monitoring progress*, June 2014
- UNISDR, *Zero Draft Post 2015 framework for Disaster Risk Reduction*, November 2014
- UNISDR, Informal working group on Targets and Indicators. *Report to the Co-Chairs...*, November 2014

Monitoring frames and indicator sets

- DIFD: *Guidance on using the revised Logical Framework*, 2011
- DIFD: *DFID's result Framework; Managing and reporting DFID results*, 2013
- GNDR: *Views from the Frontline: Beyond 2015- Recommendations for a post 2015 DRR framework to strengthen the resilience of communities to all hazards*, 2013
- IFRC: *Project/Programme M&E Guide*, 2011
- NADEL: *Results-based Management of Projects and Programmes in International Cooperation*, 2010
- OSCE: *Project Management in the OSCE- A Manual for Programme and Project Managers*, Vienna 2010
- SDC: *Checklist for Project/Programme Documentation (ProDoc)*, June 2011

DRR Financing

- Kellett et al: *Financing Disaster Risk Reduction – Towards a coherent and comprehensive approach*. ODI and UNDP, 2014

Mainstreaming

- SDC: *CEDRIG- Climate, Environment and Disaster Risk Reduction Integration Guidance*, Bern 2012

Resilience

- OXFAM, 2009: *Measuring the Impact of Disaster Risk Reduction, a Learning Companion*
- Twigg, John 2009: *Characteristics of a disaster resilient community- a guidance note*, London November 2009

Web-sites

- PreventionWeb: www.preventionweb.net
- UNISDR: www.unisdr.org