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— Operational Framework for Integrating Risk Reduction —

for Aid Organisations Working in Human Settlement Development

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1. Introduction

Whilst the need to integrate risk reduction (RR) with development aid in order to achieve sustainable poverty reduction is acknowledged amongst donors, experts and practitioners, little work has been undertaken to identify *how* this could be achieved.[1] Related operational tools are urgently required.

The current operational framework is the result of research undertaken since 2003. It provides general guidance for all types of implementing development aid organisations, working in human settlements, for the integration of RR within their 'normal' work. It is usable within a variety of cultural and geographical contexts and it is relevant to all types of natural hazards and disasters.

In addition, the framework offers more specific and detailed guidance for organisations engaging in social housing and settlement planning by providing sector-specific guidelines and reference activities.[2]

2. Underlying ideas and premises

As previously stated, the present operational framework is based on research undertaken since 2003.[3] The research outcomes and consequential premises listed below formed the guiding principles for its elaboration:

Result N° 1: Disaster risk is a complex and long-term development problem.

⇒ ***Premise N° 1:*** There are no obvious 'ready-made' solutions to reduce disaster risk, and thus the answer cannot be based on a rigid and pre-determined 'menu' of RR activities.

Result N° 2: Currently, most of the active response to natural disaster risk is in the form of explicit and direct RR. In fact, organisations interested in RR usually only search for ways in which they can *directly* address the problem of existing disaster risk. Consequently, the following problems occur: 1) since many development aid organisations and their staff are currently not well suited to doing such RR work, it may be ineffective or even result in non-desirable outcomes; 2) taking on direct RR work may cause their core work to suffer if they do not have sufficient capacity to do both tasks; 3) even if the direct work on RR is carried out effectively, increased competition with other organisations and duplication of efforts is very likely to occur. Thus, whether or not organisations opt to ignore increasing disaster risks or carry out direct RR work, they fail to consider the basic strategy of responding indirectly. The outcome, therefore, is that the core tasks of the organisations involved do not address the problem – a fact which, can be harmful or, at best, represent a missed opportunity to indirectly contribute to RR.

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[1] The term 'integrating' RR or 'integration' of RR is used as an umbrella term which also includes the process of 'mainstreaming'. The different strategies of integrating RR in development aid organisations, including mainstreaming, are presented in chapter 3.

[2] This operational framework should be considered as a work in process which needs to be improved over time. Additional research will be carried out in El Salvador and Costa Rica at the beginning of 2006, and in Sri Lanka at the end of 2006, in order to analyse, firstly, the barriers to and limitations of the implementation of the present operational framework, secondly, the possibilities of financing the implementation process, and finally, its generalisation and applicability to different contexts.

[3] This document presents the research outcomes in form of a practical operational tool. It is based on four research papers which explain in detail the scientific and academic process which underlies the development of the presented tool. The afore-mentioned research undertaken since 2003 includes text reviews, interviews with more than 100 representatives of international, national and local aid organisations, and an in-depth study of seven projects in El Salvador which –to a certain extent– included social housing, urban planning and risk reduction. The field and case studies have been carried out in order to identify current RR practices and specific institutional and operational aspects of social housing organisations. Finally, existing tools for integrating RR (or other cross-cutting topics) in aid organisations at international and national levels were analysed in respect of their methodological approaches, formats, indicators used, and their usefulness for practical application.

⇒ ***Premise N°2:*** To achieve efficient and effective RR, development aid organisations need, in the first instance, guidance in terms of adopting the indirect approach of *mainstreaming RR in their project activities,* which should be the basic and initial strategy for integrating RR.

Result N°3: Since direct RR work is widely viewed as the only way of responding to disaster risk, in practice this further results in the implementation of stand-alone RR projects, or specific RR project components. These are 'added-on' projects/components and, therefore, not integrated in the core project activities of the organisations, and, consequently, are generally not backed up by organisational or institutional structures.[4] Thus, once the RR projects/components finish, the work in RR cannot be continued (if no further funds for RR can be accessed).

⇒ ***Premise N°3:*** To achieve sustainable RR, every organisation engaging in development work has not only the responsibility to mainstream RR in their project activities, but also to internalise and ultimately 'institutionalise' RR.

Result N°4: So far, development aid organisations, and especially social housing organisations, have little existing practical experience in RR to draw upon, learn from, and possibly emulate. This is unfortunate as social housing organisations are crucial for RR. Whilst they already work indirectly (and mainly un-intentionally) to increase physical disaster resilience, projects often result in actually increasing risk as existing non-physical vulnerabilities receive little attention.

⇒ ***Premise N°4:*** All the various and complex aspects of disaster vulnerability (i.e. physical, socio-economic, environmental and institutional/organisational) must be taken into consideration in project activities in order to avoid increasing vulnerabilities.

Result N°5: There is a fast increasing and obscure bulk of tools for monitoring and evaluating the progress in RR, mostly developed as a result of a top-down process created by national and international organisations. These address (partly implicitly) different levels and different stakeholders, and further confound the indicators used for assessing project activities, outputs and impacts (see *figure 1 and 2*). Paradoxically, whilst tools for assessing progress in RR are being created, there is still not sufficient knowledge on the ground as to how disaster risk can be reduced in concrete, practical terms and how a sustainable process of integrating RR could be achieved.

⇒ ***Premise N°5:*** Suitable tools for achieving progress in RR need to be generated in close co-operation with practitioners, in order to complement and fit the work that they are doing and the things that they are trying to achieve. With this in mind, in the first instance operational tools, which are based on praxis-oriented process indicators and related experience, have to be developed to initiate – in the following – a bottom-up development, which, in turn, can nourish the elaboration of adequate monitoring and evaluation tools at both national and international levels (see *figure 1*).

Result N°6: Compared to other cross-cutting issues such as gender or HIV/Aids, the idea of mainstreaming RR is widely underdeveloped and/or misunderstood. In fact, existing tools and ongoing discussions confuse the terms and concepts of 'mainstreaming' and 'integrating' RR, and are, consequently, often limited to a very restricted selection of possible RR activities.

[4] Such projects/project components are commonly the establishment of early warning systems and emergency committees, the elaboration of risk maps, or RR awareness training.

⇒ ***Premise N°6:*** There is not only one or two, but five complementary ways/strategies of integrating RR within development organisations, including social housing organisations: a) implementing direct stand-alone RR; b) implementing direct integrated RR; c) programmatic mainstreaming of RR; d) organisational mainstreaming of RR; and e) internal mainstreaming of RR (see following section).[5]

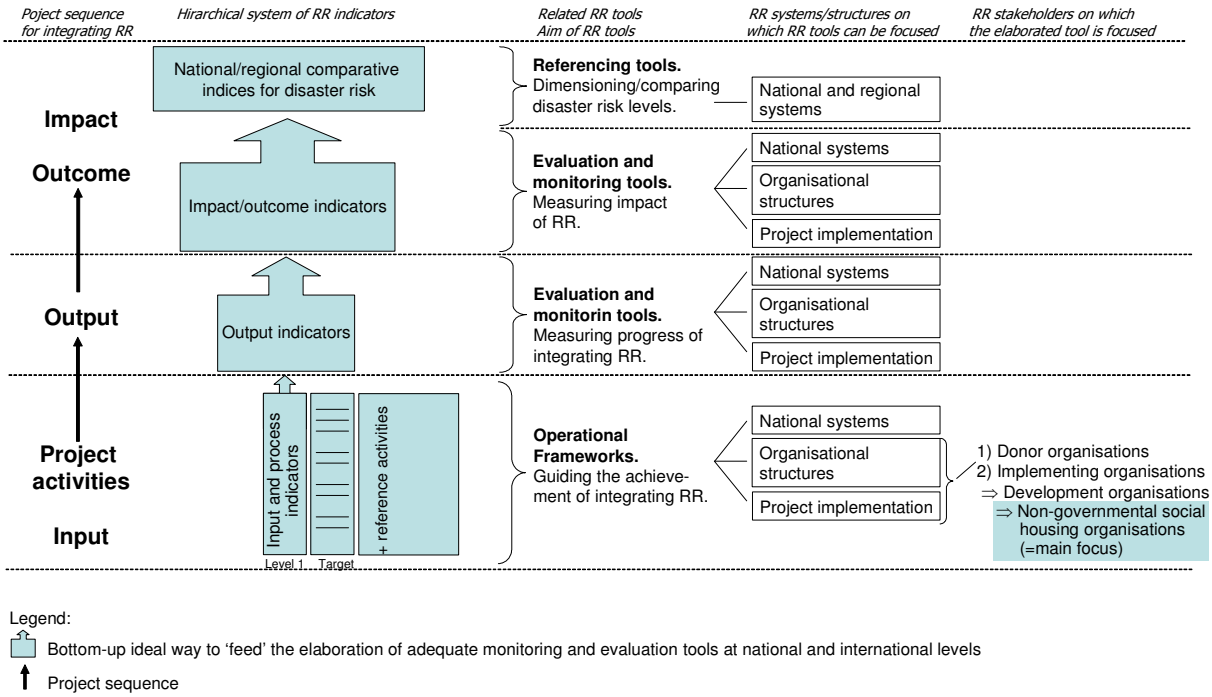

Figure 1: Placement of the present operational tool for integrating RR in the fast increasing and obscure bulk of tools for monitoring and evaluating RR.

3. Five strategies for RR integration

There are five different ways or strategies which, when combined, can achieve the comprehensive and sustainable integration of RR:

***1. Direct stand-alone RR*:** The implementation of specific RR projects which are explicitly and directly aimed at reducing disaster risk through prevention, mitigation and/or preparedness. These stand-alone interventions are distinct, and they are implemented separately from other existing project work. The objective is explicitly to reduce disaster risk, through, for instance, the establishment of early-warning systems or institutional structures for risk reduction (e.g. emergency committees), and physical disaster mitigation (e.g. embankments to prevent/mitigate flood, etc.).

[5] Whilst the terminology is not common within the context of the RR field, it is partly used by experts working in the field of integrating and mainstreaming other cross-cutting topics in development organisations, such as HIV/Aids. An example is the outstanding work of Sue Holden: 'Mainstreaming HIV/AIDS in Development and Humanitarian Programmes', from which the currently described operational framework has profited highly. See http://publications.oxfam.org.uk/oxfam/display.asp?isb=0855985305. Whilst there are broad similarities between RR and the reduction of HIV/Aids, there are also fundamental differences which made the adaptation and extension of the different concepts for integration necessary. Integration of RR is, in fact, more complex since, in comparison to HIV/Aids, one can tackle RR directly and indirectly with the same type of project work. This is due to the fact that disaster risk is already a complex concept comprised of a combination of disaster hazard and vulnerability factors.

2. Direct integrated RR: The implementation of specific RR activities which are put in place along with, and as part of other project work. The focus is still on direct and explicit RR through prevention, mitigation and/or preparedness, but with the difference that the work is conducted in conjunction with, and linked to, other project components. An example of this strategy would be the establishment of a local emergency committee within the framework of a self-help housing project.

3. Programmatic mainstreaming[6]***:*** The modification of existing or planned sector-specific project work in such a way as to reduce the likelihood of increasing vulnerability and to maximise its positive effects on reducing risks. The focus is on the development organisations' 'normal' project work, but taking into account the changing context created by the increasing frequency and severity of natural disasters. In other words, the objective of programmatic mainstreaming is to ensure that the ongoing work is relevant to the challenges presented by natural disasters. However, in contrast to the other previously described strategies of integrating RR, the project's objectives do not focus on RR as such. An example of such a strategy could be a settlement upgrading project which adjusted its loan/credit system to the needs of vulnerable households living in a disaster-prone area within the settlement.

4. Organisational mainstreaming: The modification of organisational management, policy, and working structures for project implementation in order to back up and sustain project work in RR (direct and/or indirect), and further institutionalise RR. If integrating RR in project work is to become a standard part of what an organisation does, it needs to alter its organisational systems and procedures. The objective is to ensure that the implementing organisation is organised, managed, and structured in way, which will guarantee the sustainable integration of RR within their project work.

5. Internal mainstreaming: The modification of the organisations' functioning and internal policies in order to reduce its own vulnerability to impacts created by disasters. The focus is thus on the occurrence of disasters and their effect on the organisations themselves, including staff, head and field offices. The objective is to ensure that the organisation can continue to operate effectively, despite increased disaster frequency and intensity. In practice, internal mainstreaming has two elements: a) direct RR activities for staff and the physical location of the organisation's offices, such as setting up emergency plans and retrofitting; and b) modifying the ways in which the organisation is managed internally, for example, in terms of personnel planning and budgeting.

Whilst some project activities may be hard to categorise and might belong to different approaches, the described categorisation is essential for the planning and design of new project activities. *Table 1* provides an overview of the described possibilities for integrating RR in development aid organisations, including those engaged in social housing and settlement planning. Using a hypothetical example of a social housing organisation, the following Box no.1 illustrates how a development aid organisation could be triggered to implement, step-by-step, the five different strategies, which can be employed to effect the integration of RR.

[6] Generally, 'mainstreaming' signifies the modification of development work in order to take a new aspect/topic into account and to act indirectly upon it. Thus, the term 'mainstreaming' does not mean to completely change an organisation's core functions and responsibilities, but instead to view them from a different perspective, and carry out any necessary alterations as appropriate.

Table 1: Five complementary ways of integrating RR

Possibilities to integrate RR			Aim	Main field of activities	Alternative/complementary implementation strategies	Main questions to be answered in order to identify relevant and adequate RR activities
Direct stand-alone RR Direct integrated RR	Direct RR	External integration in project work	Direct reduction of disaster risks. Starting point: Problem of disaster risk in project areas.	Specific project work for RR.	Partial engagement in elements of direct RR, or full engagement in direct RR. Independent engagement (i.e. without forming cooperation/partnerships with other implementing organisations), or complementary technical and/or financial partnerships with more specialised RR experts/organisations.	How do disasters affect poor communities? More specifically, how do they hinder the communities' efforts to reduce/fight poverty?
Programmatic mainstreaming	Indirect RR		Adapting project activities in order to ensure that they are relevant to the challenges presented by natural disasters by, firstly, not increasing vulnerability and, secondly, taking disaster risks actively into account. Starting point: Impact of organisations' existing development work.	Core project work.	Independent engagement (i.e. without forming cooperation/partnerships with other implementing organisations) or complementary technical and/or financial partnerships with more specialised RR experts/organisations. Coordination with other organisations to share expertise and information. Support through the employment of external consultants for monitoring and assisting the process of integration.	How do disasters hinder the organisation's efforts to reduce/fight poverty of their project beneficiaries? How does the work of the organisation make them more vulnerable to disasters? How can the project work be more effective by taking disaster risk actively into account?
Organisational mainstreaming		Internal integration in organisational functioning/ management	Ensuring sustainable integration of RR in core projects and institutionalisation of RR. Starting point: Sustainability of programmatic mainstreaming activities and/or direct RR.	Organisational management, policy, and working structures.		What is needed to sustain and back-up project work in RR (direct and indirect) so that RR becomes fully institutionalised?
Internal mainstreaming	Direct and indirect RR		Reducing the organisation's own vulnerability. Starting point: Security of organisation, itself.	Organisation and its staff.		How do disasters affect the organisation and its ability to work effectively? How can the organisation, i.e. its offices and staff, become more disaster resilient?

Box 1: Example to illustrate the five different ways of integrating RR within one organisation

Triggered by the increase in funding for RR offered by international donors, UNAGI, a Mexican social housing organisation, decides to respond to increased disaster frequency and intensity. By employing a new staff member with expertise in RR, it designs and implements a pilot project on RR. The project aims to raise community awareness about disaster risk through the distribution of leaflets, and the establishment of local emergency committees. Thus, UNAGI becomes engaged in the ***stand-alone direct RR*** strategy. With the increasing experience gained from the pilot project, UNAGI also starts to include RR activities in their ongoing housing projects. For instance, it begins to raise risk awareness alongside their community training for self-help housing – and thus it is also involved in the ***direct integrated RR*** strategy.

Promotion of RR by the new staff member results, one year later, in a decision by the organisation's management that *all* projects should examine and consider disasters more thoroughly and maximise their positive effects on reducing risks. Thus, UNAGI carries out research in some project areas analysing the links between their social housing activities and disaster risk. In one project area, it finds that their housing credits based on income capacity, make it impossible for the most vulnerable, mostly single female-headed households, to qualify for their projects. Without doing any direct RR work, UNAGI responds by offering partial housing subsidies and smaller credits for physical mitigation measures to secure already existing houses. In another area, community research results provide evidence that beneficiaries are vulnerable to disasters due to their dependency on informal vegetable trading and that, moreover, past housing projects increased their socio-economic vulnerabilities. The latter was partly a result of the resettlement of some households far from their income activities, and the use of roof tiles, which proved to be of poor quality and, therefore, of low durability as well as being expensive. UNAGI responds by setting up a local material production workshop for micro concrete roofing tiles to provide a more (disaster-) resistant and cheaper construction material and, at the same time, to offer income diversification to some households. In addition, and in order to respond to identified deficiencies of some project houses, a counselling service on disaster-resistant construction techniques for beneficiaries and manual workers is provided in both areas. Over time, the strategy of ***programmatic mainstreaming of RR*** demonstrates successful outcomes, which can be proved by observing and measuring the decrease in the impacts of local hazards in the two project areas.

However, over time UNAGI is also to realise that all their different efforts in RR are not sustainable in the long term as they are not institutionalised and/or anchored within the organisation's general management and project planning cycle. It thus starts to engage in the strategy of ***organisational mainstreaming of RR***. As an initial step, the organisation revises its policy to formalise its commitment to integrating RR, and secondly, develops a financial strategy designed to sustain such integration in all project activities. In addition, risk, hazard and vulnerability assessments become routine tasks for the planning phase of all social housing projects.

Several months later, an earthquake occurs in Mexico. Unexpectedly, UNAGI is affected; its head office has been damaged, four staff members have been severely injured, and there are persistent communication problems with the field offices. Thus, the organisation is forced to finally also engage in the strategy of ***internal mainstreaming of RR***. A team is formed and given the task of predicting the likely impacts of disasters on the organisation's finances and human resources structures, analysing potential direct losses (e.g. costs for damaged constructions, vehicles, etc.) and indirect losses (e.g. reduced reputation, staff absences due to the occurrence of disasters, related sick leave, etc.). Based on the outcomes, UNAGI adapts its financial management by acquiring an organisational insurance and improving its working structure. The latter is achieved by means of installing an improved communication system, better information sharing, and the revision of its workplace policy. In addition, the head office is retrofitted to become more disaster resistant.

4. Implementation procedure for RR integration

The implementation of the operational framework is a process, not a single event. In order to pre-assess the relevance of RR for a specific development aid organisation, it can firstly ask itself the following questions:

Table 2: Relevance of RR for development aid organisations: a rapid assessment check list I

General importance/ relevance of integrating RR in the organisation	Are your project areas prone to natural hazards/disaster?	**Yes □ Partially □ No □**
	⇒ from flooding?	Yes □ Partially □ No □
	⇒ from earthquakes?	Yes □ Partially □ No □
	⇒ from volcanic eruptions?	Yes □ Partially □ No □
	⇒ from landslides?	Yes □ Partially □ No □
	⇒ from hurricanes?	Yes □ Partially □ No □
	⇒ from droughts?	Yes □ Partially □ No □
	⇒ from other hazards/disasters? Please note: _____	
	Do natural hazards/disasters affect your project beneficiaries?	**Yes □ Partially □ No □**
	⇒ affecting their assets generally and thus obstructing their efforts to 'escape' from poverty	Yes □ Partially □ No □
	⇒ affecting their income generation?	Yes □ Partially □ No □
	⇒ affecting their natural environment?	Yes □ Partially □ No □
	⇒ affecting their health?	Yes □ Partially □ No □
	⇒ damaging their houses and community infrastructure?	Yes □ Partially □ No □
	⇒ affecting other aspects? Please note: _____	
	Do your project beneficiaries live in spontaneous, precarious, informal, illegal and/or auto-constructed settlements?	**Yes □ Partially □ No □**
	Do your project beneficiaries live in settlements which lack vital formal services/structures in the case of emergencies? (E.g. information, communication, infrastructure support, etc.)?	Yes □ Partially □ No □
	Do settlements/communities within your project areas negatively affect their natural environment? (E.g. environmental degradation through erosion, deforestation, water, air and/or soil pollution, or other changes which create new hazards/risks). Please note some of these effects: _____	**Yes □ Partially □ No □**
	Have past disasters negativley affected your organisation's work by hindering its assistance in local development (i.e. improving the living standard and quality of life of the project beneficiaries), thus ultimately obstructing your organisation's efforts to reduce poverty?	**Yes □ Partially □ No □**
	Is there a lack of transparancy, lack of accountability, and/or corruption in sectors related to your organisation's core work which may negatively influence the beneficiaries' vulnerability to natural hazards/disasters? (E.g. corruption in the formal and/or informal construction sector, which is related to the work of social housing organisations.)	**Yes □ Partially □ No □**
	Do national or municipal codes, leys or programmes – based on adequate risk assessments – exist, which sufficiently protect your project areas from natural disasters?	**Yes □ Partially □ No □**
	Is there a need to improve or advance the knowledge and education of your organisation's personnel and/or the project beneficiaries about potential, alternative and compatible ways of RR?	**Yes □ Partially □ No □**

If the organisation's answers to this first check-list are mostly 'yes' or 'partially', the integration of RR should be seriously considered by the organisation's management. To initiate the process and to find an adequate integration strategy, i.e. an appropriate succession and combination of the different strategies for RR integation, each organisation should answer the questions listed in *table 3*.

Table 3: Relevant strategies to integrate RR into an organisation: a rapid assessment check list II

Implementing direct RR (stand-alone and integrated)	Despite existing disaster risk in your project areas and the inhabitants' vulnerability, there is no extreme and acute need to directly reduce disaster risk.	**True □ Partially true □ Not true □**
	Are experienced organisations already carrying out direct RR in your project areas?	**Yes □ Partially □ No □**
	Are there a) sufficient human resources and knowledge available, or b) possibilities to form complementary partnerships, to enable your organisation to engage in direct RR without negatively influencing its core work?	**Yes □ Partially □ No □**
	Has your organisation access to existing specialised funds for RR or other financial sources designed for direct RR so that it can engage in direct RR without negatively influencing its core work?	**Yes □ Partially □ No □**
Programmatic mainstreaming	Have assessments been carried out on how your organisation's core work relates to disaster risks (inter-connection/ reciprocal influences), or were evaluations carried out on how past project activities helped/hindered the beneficiaries to reduce their disaster vulnerabilities?	**Yes □ Partially □ No □**
	Past disasters have <u>not</u> negatively affected your project activities – and, consequently, they have <u>not</u> negatively affected the effectiveness of your projects.	**True □ Partially true □ Not true □**
	⇒ Your project efforts to reduce poverty were <u>not</u> 'set back' by the occurrence of hazards/disasters.	True □ Partially true □ Not true □
	⇒ Physical constructions (e.g. project houses) carried out in the framework of your projects were <u>not</u> destroyed/damaged by natural hazards/disasters.	True □ Partially true □ Not true □
	Your project activities did <u>not</u> negatively affect existing disaster risks through the creation of additional vulnerabilities or hazards. E.g. decreased income opportunities, increased erosion and deforestation, or others. Please note:_____	**True □ Partially true □ Not true □ Not known□**
	Do project activities actively take into account existing disaster risk of the project areas?	**Yes □ Partially □ No □**
	⇒ through the analysis of existing hazards? (carried out by experts and in combination with participative analyses with beneficiaries and other stakeholders)	Yes □ Partially □ No □
	⇒ through the analysis of physical, socio-economic, environmental and institutional/organisational vulnerabilities?	Yes □ Partially □ No □
	⇒ through the consideration of existing national/municipal/local risk analyses?	Yes □ Partially □ No □
	⇒ through the elaboration of inventories to identify/classify the physical vulnerability of residential and public constructions (services, infrastructure, and equipments)?	Yes □ Partially □ No □
	⇒ through other means? Please note: _____	
Organisational mainstreaming	Did your organisation carry out an estimation/calculation of past disaster losses related to its project activities which includes direct and indirect losses (e.g. repairs of project houses, loss of reputation, etc.)?	**Yes □ Partially □ No □**
	Is the integration of RR in project planning, implementation and evaluation a standard procedure and part of the 'daily work' of your organisation?	**Yes □ Partially □ No □**
	⇒ Has your organisation critera and tools to analyse risks in project areas and to integrate RR within the organisation's work?	Yes □ Partially □ No □
	Are there organisational/institutional structures and mechanisms to sustain and backup project work in RR?	**Yes □ Partially □ No □**
	⇒ Are there, for instance, sufficient human resources a) to support the integration of RR in project planning and implementation, and b) to control its quality?	Yes □ Partially □ No □
	⇒ Has the organisation a financial mechanism to finance RR (direct and/or indirect)?	Yes □ Partially □ No □
	Has your organisation a formalised organisational strategy and policy to back up project work in RR?	**Yes □ Partially □ No □**
	⇒ Is RR /RR integration included in your organisations values, aims, working descriptions, etc.?	Yes □ Partially □ No □
Internal mainstreaming	Have past disasters affected your organisation itself, i.e. its staff and/or its functioning, and thus its ability to work effectively?	**Yes □ Partially □ No □**
	⇒ directly, as a result of damages to head or field offices, or other capital infrastructure?	Yes □ Partially □ No □
	⇒ indirectly, through staff sick leave and/or reduced person power?	Yes □ Partially □ No □
	⇒ through organisational problems or any other aspects? Please note: _____	Yes □ Partially □ No □
	Did your organisation recently carry out an assessment on how disasters affect the organisation's functioning which includes an estimation/calculation of potential disaster losses which incorporates direct and indirect losses?	**Yes □ Partially □ No □**
	Has your organisation a financial system and strategy capable of covering anticipated costs through direct and indirect losses caused by disasters?	**Yes □ Partially □ No □**
	Has your organisation a formalised organisational strategy/policy for protecting their staff from the impact of disasters? (e.g. adequate workplace policies and working structures)	**Yes □ Partially □ No □**

The following table can be used to summarise the answers to table 3. Each of the four sections of table 3 (i.e. Implementing direct RR, Programmatic mainstreaming, Organisational mainstreaming and Internal mainstreaming) are comprised of four main questions, the answers to which are written in bold type. The sub-questions should be used in order to check the correct answer to the main question, i.e. if the answers to the sub-questions are in the category 'partially/partially true' or 'no/not true', the answer to the main question cannot be 'yes'. Based on the number of negative answers for each section, including 'no/not true' and 'partially/partially true', an organisation can immediately obtain an indication of which integration strategy would probably be the most appropriate and/or the most urgent one for it.

Table 4: Summary of the answers to Check-list II (table 3)

TOTAL	Implementing direct RR (stand-alone and integrated)	Yes/True=	Partially/Partially true=	No/Not true=
	Programmatic mainstreaming	Yes/True=	Partially/Partially true=	No/Not true=
	Organisational mainstreaming	Yes/True=	Partially/Partially true=	No/Not true=
	Internal mainstreaming of RR	Yes/True=	Partially/Partially true=	No/Not true=

Whilst all five strategies of integrating RR complement each other, development aid organisations should generally first engage in programmatic mainstreaming, i.e. adapt and/or improve their core work, rather than beginning with direct RR. This is important so as to: ensure that the organisation does not increase the vulnerabilities of the poor; avoid competition with other organisations engaged in RR; and not place undue strain on the organisation's capacities.[7] Direct RR should –as far as possible– always be carried out through the utilisation of complementary partnerships with specialized disaster/RR organisations or experts. Complementary partnerships can encompass purely technical cooperation (with different funding sources) or be purely financial co-operations (with one main implementing organisation and a subcontracted one). Both types of direct RR can consider partial engagement in a few, selected elements of RR, or a fuller and more extensive engagement. Nevertheless, in practice, specialized organisations may not exist, or, if they do, they may not cover all aspects of RR, or they may be unable to extend themselves to form meaningful partnerships.

Compared to direct RR, programmatic mainstreaming is absolutely necessary for *all* development aid organisations, including social housing organisations, working in disaster-prone countries.[8] Whilst all three mainstreaming strategies could be carried out independently, i.e. only by the organisation's own staff, complementary partnerships are absolutely vital. Development aid organisations should – if possible – always link together to prevent competition, create synergies, and thus become more effective. Coordination with other organisations also supports the exchange of information on disaster research, disaster statistics, experiences gained and lessons learned. In addition, mainstreaming RR is likely to require the services of external consultants to guide the integration process, e.g. for carrying out training or feasibility studies on particular project modifications, predicting future disaster impacts, advising on sector-specific aspects related to RR, or establishing outcome indicators for monitoring the process of mainstreaming. *Table 1* indicates the alternative and complementary implementation strategies depending on the type of RR integration pursued by the organisation. In addition, it includes the main questions which have to be answered to guide the process of finding the relevant and adequate RR activities.

[7] Case studies in El Salvador showed that in reality, after the occurrence of hurricane Mitch in 1998 and the 2001 earthquakes, most organisations started immediately to implement/employ the direct RR strategy. This can be understood by the extreme need at the time, but also by the limited knowledge of the concept of mainstreaming.

[8] The process can be scaled down or focused on a few specific issues, where there is a relatively low level of disaster risk.

To introduce and promote the process of integration, 'champions' within the organisations are vital. 'Champions' are staff members interested in RR who are starting to learn about the concept and the underlying processes, and who inspire others. Once the idea of integration is formalised, specially trained staff and/or focal points can further promote the process from within the organisation itself.

5. Design and use of the operational framework

This framework is an operational tool, which is designed to support development aid organisations to define and implement those changes and actions required for RR integration. It is – for the most part – presented in the form of tables (see pages 17-45). The first column on the left provides *input and process indicators* to get the RR integration process started. The second column indicates *input and process indicators* in the form of benchmarks, i.e. the operational state which an organisation should aim to achieve with the integration of RR. *Input indicators* refer to the necessary human and financial resources needed to integrate RR, whilst *process indicators* indicate related operational aspects (see *figure 2*).[9] All the listed indicators within one table should be considered simultaneously, not consecutively.

Each of the five strategies for the integration of RR consists of different steps presented in different sections (see page 14). Whichever strategy is considered the most appropriate for a particular organisation, each one initially requires capacity building and research carried out in order to identify existing risks and their relation to the organisation's work and functioning (see pages 17/18; 27/28; 34/35; and 40/41). The steps within each integration strategy, which follow the capacity building and risk identification, can be carried out concurrently.

The third column from the left contains guidelines in the form of reference activities and recommendations as regards the practical implementation of the listed benchmarks. These are particularly aimed at providing guidance for implementing social housing organisations. Certainly, the reference activities are only exemplary and meant to be an illustrative set of practical ideas without being exhaustive. At present, implementing social housing organisations have not experimented with the idea of integrating RR (for a sufficient period of time) to have developed a body of good practice. Thus, with increasing experience, training and education in the practical application of the different integration strategies and the gradual 'institutionalisation' of RR into organisations, the reference activities will require updating.

In addition to this framework, a complementary component will have to be developed in order to be able to monitor and evaluate progress in the process of RR integration. However, in the second row of the tables on pages 17-45 indicators are already included to specify the *output* at which the implementation of the input and process indicators is aimed. These *output indicators* can form an initial basis for monitoring and evaluating the progress in the process of RR integration.[10] The means of verification would have to be defined for each organisation and its sector specific activities.

[9] Thus, these indicators do not indicate project outputs, outcomes or impacts.

[10] Monitoring and evaluation tools for controlling RR integration are important since, despite the testing of the framework and analysis of related challenges for its implementation, the operational framework may lead to the development of policies and good ideas, which may then be ignored or misapplied. Also, proposed project activities and related methods may not always lead to the expected outcomes, and, therefore, may need to be revised.

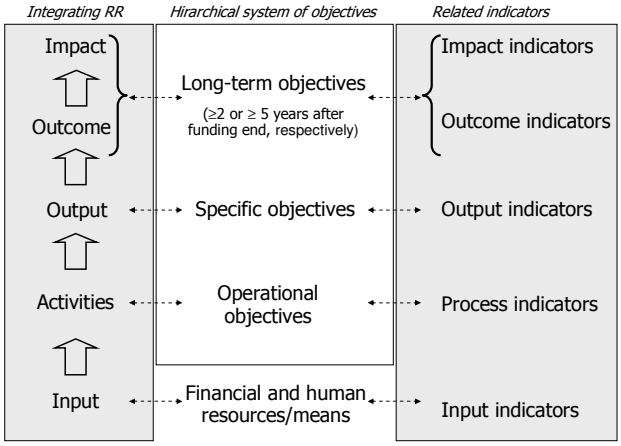

Figure 2: Overview of existing types of indicators. The presented tool is mainly based on input and process indicators.

6. Support of RR integration by international organisations

The present operational framework provides technical input needed by implementing development aid organisations for RR integration. In order to achieve its implementation, further questions remain to be answered:

- How can international organisations support and encourage the implementation of this framework through their local partner organisations?
- How can national implementing organisations financially sustain the application of this framework?

With reference to the above questions, there are essentially three approaches. Within each of these approaches, there are three alternatives included, which gives a sum total of nine options, which can be pursued by international donor organisations:

Approach 1: To offer partner organisations training, technical support, links to specialists, and funding for the proposed strategies of:
a) direct RR,
b) mainstreaming RR, or
c) comprehensive RR integration (i.e. the combined implementation of a) and b)),
but leave the partner organisations to decide whether or not, how, and to what extent, to engage in RR.[11]

Approach 2: Enforcing implementation by imposing funding conditions as a donor policy (e.g. through programme review, budgeting, and funding processes) of:
a) direct RR,
b) mainstreaming RR, or
c) comprehensive integration of RR (i.e. the combined implementation of a) and b).

Approach 3: Offering programmes, including technical assistance and seed grants, for the purpose of guiding the process of:
a) integrating direct RR,
b) mainstreaming RR, or
c) comprehensive integration of RR (i.e. the combined implementation of a) and b)).
for which interested NGOs can apply.

[11] Please note that full external funding of direct RR might discourage a sense of ownership among staff.

Unfortunately, to date the first choice of international organisations seems to be alternative 1a). This leads to non-sustainable RR which –once donor funding ceases– results in project work on RR coming to an end. International funding organisations urgently need to recognise the importance of mainstreaming, and need to be willing to financially support related costs. Consequently, the strategy of mainstreaming RR should become an integrated and vital part of all their funding and related evaluation processes.

The few organisations which already provide money for mainstreaming RR mainly look at the project work of organisations, i.e. they support only programmatic mainstreaming of their partner organisations. However, without the allocation of funding for organisational and internal mainstreaming, the donor money provided will deflagrate without any positive long-term effects. Donors have to recognize that partners may need more technical support in programmatic mainstreaming than in direct RR, particularly in terms of understanding the indirect links between their work and RR, and in terms of devising the appropriate modifications of their projects. Thus, donor organisations could provide support beyond funding, such as capacity building, and assisting partners in their community research and in their process of defining and experimenting with various project modifications and alterations.

The third approach is demonstrated in *figure 3*. Here, the idea is that the international donor organisation accompanies the whole RR integration process of selected partner organisations, starting with capacity building, from offering the possibility of applying for seed grants for RR integration, to mentoring and following-up its implementation. Such approach has already been successfully tested in respect of the integration of HIV/Aids.[12]

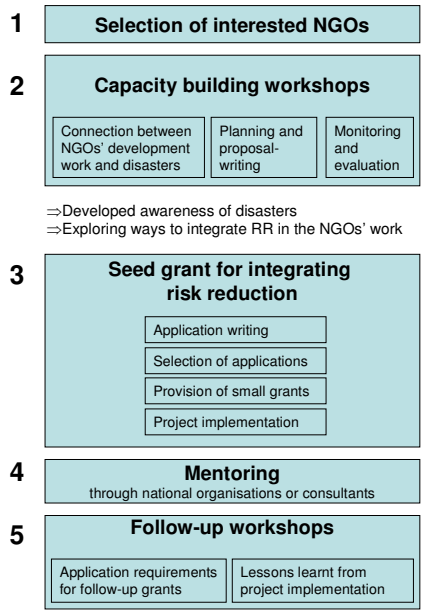

Figure 3: Programs for guiding the process of integrating RR.

It is important to emphasise that those international organisations which wish to promote –in whatever way– the integration of RR through their partner organisations, must, themselves, be committed to RR and its integration if they are to prove effective in supporting their partners to do the same. In fact, they may use the operational tool in the form of tables and check-lists not only to assess the viability of proposed projects and promote RR integration, but also to assess themselves.

[12] One example comes from South Africa, see http://www.policyproject.com/pubs/NGOBooklet/SA_NGO_Booklet.pdf

Once the process of integration is initiated, personnel training undertaken, the required structures in place, and the necessary tools adapted or developed, little recurrent costs should remain. Nevertheless, answers are needed on how national implementing organisations can financially sustain the implementation of the presented framework – both, in terms of initiating it without donor funding and sustaining it in the longer term. The following options exist:

- To counterbalance higher core costs, generated through the integration of RR, with reduced disaster losses, related improved reputation, and access to additional funding sources from international organisations which support RR.
- To convince governmental agencies to allocate additional subsidies for organisations which offer programmatic mainstreaming of RR, by arguing the point in relation to post-disaster costs, which had to be covered by the state in the past, and which hereby could be reduced considerably.
- To convince governmental agencies that all subsidies offered for project implementation should include the criterion/condition that the projects in question do not create additional vulnerabilities and that they maximise the positive effects on reducing risks.
- If project activities include the offer of credits for housing or other factors, the additional core costs for sustaining RR integration could partially be included in the beneficiaries' credit payments.
- To stimulate household/community saving systems as part of the organisation's project activities in order to enable beneficiaries to cover partially additional recurrent costs.

Ideally, the different options should be combined so that the additional costs can be distributed between international donor organisations, the state government, the implementing organisation and the beneficiaries (e.g. through matching funds).

7. The challenges and main obstacles to RR integration

The following aspects may act as obstructions to the implementation of the presented framework:

a) The advocacy and funding of RR (both through direct RR and mainstreaming RR) is challenging since the outcomes or results are not, by the very nature of the work, very visible. In addition, there is a current lack of experience in RR, and thus an absence of hard evidence that supporters of the RR integration can offer in support of their arguments.

b) RR is not a high priority for donors, mainly because it does not fall within the categories of existing budget lines (for development or emergency assistance).

c) Mainstreaming RR is a difficult concept to promote, particularly when compared to the task of advocating for direct RR work. To begin with, mainstreaming is not an obvious strategy; it requires people to think in a new way, and the arguments behind it are rather complex.[13] Thus, donors are more willing to support the direct RR strategy rather than that of the RR mainstreaming strategy.

d) Donor-dependent implementing development aid organisations may similarly prioritise direct RR and other immediate issues, such as their own survival, in the sense of simply being forced to fast obtain another grant – at the expense of long-term planning. This is because only a few donor agencies are willing to commit their resources to long-term partnerships.

e) Donors may wrongly ascribe higher core costs, which result from integrating/mainstreaming RR, to bad management, and may, therefore, choose to support those development aid organisations, which appear to offer projects with 'better value'.

[13] This can also be confirmed by the fact that the mainstreaming of other cross-cutting topics, such as HIV-AIDS and gender, was also difficult initially.

OPERATIONAL FRAMEWORK

1) Programmatic Mainstreaming of RR

2) Organisational mainstreaming of RR

3) Internal Mainstreaming of RR

4) Implementing Direct RR (integrated and stand-alone)

1) Programmatic Mainstreaming of RR

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
The organisation's management does not show resentment towards the concept of RR, is open for new ideas, and supports staff members interested in the idea of RR who are starting to learn about this concept and its underlying processes, and who inspire others.	Selection and designation of one or more employees with adequate skills to formally take the responsibility for mainstreaming RR in the organisation's core project work. Provision by the organisation of the selected, designated personnel with time, resources and a degree of influence/authority to do this work.
Recognition by the organisation's management that their project work should take RR into account.	Ongoing training for personnel on disaster risk, the concept of RR, and the different existing strategies of RR integration in development organisations.
First awareness raising and basic training on disaster risk and RR for personnel.	
Specific training for project leaders on the links between development, low-income settlements and disasters.	

⇒Expected results (output indicators)

⇒ Sufficient person power for mainstreaming RR in selected project work.

⇒ Adequate knowledge and understanding of personnel (involved in programmatic mainstreaming) about the links between their work and disasters.

⇒ Motivation of personnel (involved in programmatic mainstreaming) to address disaster occurrence indirectly through modifying and permanently revising their core project work.

⇒ Understanding and awareness of personnel (involved in programmatic mainstreaming) as regards the importance of including urban/territorial planning in social housing projects (as a consequence of programmatic mainstreaming).

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

1.1.1 With the increasing interest in RR, many organisations have started to present seminars on related subjects. However, they are generally only one-off events foccusing on the topic of direct RR. Thus, the organisation must ensure that attention is given to the issue of RR training regularly, and with the focus on a more integral approach. The most basic awareness training workshops should include the facts and misunderstandings regarding the occurrence of disasters, disaster statistics, and RR measures used to prevent or minimise disaster impacts (i.e. measures of prevention, mitigation and preparedness). These have to be completed with ongoing capacity building on the different strategies for RR integration in the organisation (programmatic mainstreaming, organisational mainstreaming, internal mainstreaming, and implementing direct RR (integrated or stand-alone)).

1.1.2 It is important to assess the knowledge and attitudes of the participants before and after the training workshops (e.g. through the use of questionnaires) in order to adapt their content to the participants' knowledge and ability, and thus monitor the impact of the capacity building on RR.

1.1.3 Capacity building can be carried out in two different ways: 1) internally through the training of personnel by external consultants, or 2) staff members can participate in RR courses offered by other organisations. The latter is suitable for general RR awareness training and knowledge building. However, the RR approach promoted by other organisations must be checked carefully in order to be sure that it includes programmatic mainstreaming of RR. When it comes to the specific work on analysing the interplay between their own work and RR work, and the analysis of different ways and measures of integrating RR, then external consultants will probably have to be hired.

1.1.4 For the training, the use of active and participatory methods is probably more appropriate than lecturing. Project visits could be carried out to explore the difference between direct RR and mainstreaming RR. Case studies could be carried out in some of the project areas, in order to reveal the complex causes of vulnerability and their interplay with a) low-income settlements, and b) the organisation's project work. Thus, the combination of capacity building of the personnel with community research (see next table) is recommended.

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Preparation and initiation of research in areas of ongoing or potential project work with the aim to: a) understand how disasters affect the specific communities involved; b) understand how the communities cope with disasters; and c) increase knowledge on how the project work is/will be helping or hindering the beneficiaries from reducing their vulnerability. Compilation and analysis of data bases on existing hazards and vulnerabilities at national, municipal and local levels. Analysis of different tools for risk identification and risk presentation at national, municipal and local levels (e.g. use of risk indices).	Elaboration of participative and easy to understand vulnerability and risk maps at proyect level to summarise the research outcomes. Regular updating. Elaboration of technical inventories for RR, i.e. vulnerability analyses of public and residential buildings. Regular updating. Ongoing participative process with communities/municipalities in project areas to discuss research outcomes. Based on ongoing community research, permanent evaluation/monitoring of the project activities as regards their impact on the level of disaster risk. Establishment of mechanisms and tools for systematic collection and monitoring of: a) disaster risk in project areas, and b) risk perspectives of local communities, municipalities and other project stakeholders.

⇒Expected results (output indicators)

⇒ Good understanding of personnel (involved in programmatic mainstreaming) as to how disasters affect the communities/municipalities of the project areas and their relevance as regards the design of the project activities to help and not hinder the reduction of vulnerabilities.

⇒ Highly vulnerable and hazard-prone groups, settlements and facilities within selected project areas identified.

⇒ Existing organisational risk database to follow-up relevance/efficiency of project modifications.

⇒ Local governments/communities in the selected project areas have access to adequate risk information (which is easy to understand and –in the case of maps– is portrayed in the appropriate scale).

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

1.2.1 There is a range of different tools for risk identification. Therefore, to analyse in an appropriate way the relevant local risk factors in the project areas and to allow a coordinated information exchange between stakeholders at international, national and local levels, it is important to check the status of the ongoing discussions and the most common tools used at regional, national and municipal levels. In general, the most basic data which has to be selected over a certain period of time (also retrospective and anticipatory) to quantify and qualify risk levels and existing RR activities are: the impact of disasters on the communities, trends in the impact of disasters, households affected, changes in attitudes towards RR, ways of responding to disasters so far, household coping behaviour and strategies, existing beliefs about the causes of disasters and existing protective measures. Eventually, external consultants will be needed for the collection of risk factors and the calculation of risk indices.

1.2.2 For the data collection, participative, qualitative and quantitative methods have to be used. Guided discussions and single interviews are crucial as well as the work with peer groups (e.g. forming separate groups of younger and older people, or men and women). In fact, workshops focussing on the question: 'Is the project reducing or increasing vulnerability?' should be conducted separately for different peer groups. 'Walk-through' mapping exercises with the communities are recommended to identify in a participative way hazards and vulnerabilities.

1.2.3 Collected empirical data can be used not only for adapting project measures and comparing the level of disaster risk of different project areas, but also for advocating RR.

1.2.4 The identified risk level of different settlements could be publically displayed with 'risk traffic lights'. This increases awareness, commitment and public comparability between communities.

1.2.5 Community research and risk identification are important capacity building tools. In fact, they can be best carried out in parallel or immediately following the capacity building activities for personnel.

1.2.6 The organisation should use existing standards for hazard, vulnerability and risk mapping as regards scales, content and methods for their elaboration. If such standards are not existent, efforts should be made to informally co-ordinate these aspects with other stakeholders.

PROGRAMMATIC MAINSTREAMING of RR
1.3 Project components (general)

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of information obtained through community research and capacity building (see tables 1.1 and 1.2) to discuss and develop, in a participatory way, the required modifications to improve the organisation's core work.	Modification of the project work in such a way as to: a) reduce the likelihood of increasing vulnerability; and b) maximise the core work's positive effects on reducing risks. Establishment of cooperation with other sector-specific organisations and/or more specialised RR organisations for the cooperative implementation of the modified project components/projects. (Co-operative partnerships.)

⇒Expected results (output indicators)

⇒ All implemented projects take disaster risks actively into account, thus do not increase vulnerability and –where possible– have positive effects on reducing risks.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

1.3.1 In order to reduce the likelihood of increasing vulnerability and to maximise positive effects on reducing risks, the project activities should:

- build up beneficiaries' protective assets,

- build on beneficiaries' own risk reduction strategies (pre-emptive coping strategies) through fostering personal safety nets,

- strengthen beneficiaries' reactive coping strategies through building up community safety-nets, which –in the case of a disaster– can avoid the use of their productive assets,

- only make use of physical project measures which are disaster resilient,

- improve their accessibility so that the most vulnerable households are reached,

- replace assets which are lost/destroyed through the activities of the project, and/or

- support legal control of future resilient developments.

- include additional measures to protect/secure the project's activities from natural hazards.

1.3.2 The aim of the projects will not change through the process of programmatic mainstreaming. If the aim is, for instance, 'improved living conditions (quality of life) and sustainable livelihoods through social housing and settlement planning', it will stay the same. Eventually, minor aspects can be re-formulated (e.g. "improved living conditions and sustainable livelihoods through resilient social housing and settlement planning").

1.3.3 The design of new project proposals, being based on the outcomes of the community research, could probably be best done through a project group (comprised of personnel, stakeholders and community leaders), and with consultation and revision at community level, in order to make sure that the existing disaster risks are adequately taken into account.

PROGRAMMATIC MAINSTREAMING of RR
1.4 Physical project components (structural and non-structural)

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of: a) the existing physical protective assets of the project beneficiaries and their communities; and b) the influence of ongoing/ planned physical project activities on their vulnerability.*	Modification of the project work in such a way as to ensure that the physical project activities (structural and non-structural) do not destroy (but rather build up) protective assets and are disaster-resistant.
Technical revision of the constructive project elements as regards their resilience and safety (e.g. project houses, infrastructure and basic services).	Active use of additional physical measures to protect the project against natural hazards.
Adherence of all physical project activities to relevant legal documents (e.g. building and territorial land use codes).	Support of legal control systems which influence future physical developments in the project areas.
Capacity building of personnel on adequate physical mitigation measures (e.g. disaster-resistant construction designs/ techniques).	Establishment and implementation of adequate mechanisms for quality control of all physical project components (i.e. specific tools, adequate structures, specialised personnel, etc.).
Public promotion and training in project areas on project-related, appropriate physical mitigation measures.	

⇒Expected results (output indicators)

⇒ Project constructions are of higher resistance.

⇒ Technical personnel are familiar with and observe the laws of construction and land use, and use additional complementary mechanisms for quality control (i.e. adequate structures and tools).

⇒ Municipalities/community leaders provide their members with adequate information which helps to direct appropriate settlement developments.

⇒ Project beneficiaries and/or municipalities analyse critically the constructive standards of new construction and upgrading projects.

⇒ Decreasing housing in hazard-prone areas.

⇒ Improved building use in project area.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

STRUCTURAL TECHNICAL ACTIVITIES

1.4.1 The use of disaster resistant construction materials, construction techniques and building procedures which also do not progress environmental deterioration (for example avoidance of the use of non adequate wood trusses leading to deforestation; or the use of non adequate latrines leading to erosion and contamination of the ground water).

1.4.2 Selection of appropriate locations, design and structure of housing and infrastructure based on elaborated local and municipal risk assessment, vulnerability and hazard mapping, codes and land use plans, which incorporate multi-hazard vulnerability reduction measures.

1.4.3 Inclusion of urban/territorial planning in project design to reduce physical vulnerabilities.

1.4.4 Inclusion of physical structures to protect project activities (e.g. contention walls to protect project houses from destruction as a result of landslides).

1.4.5 Special attention to the resilience capacity of hospitals and school in the project areas.

NON-STRUCTURAL TECHNICAL ACTIVITIES: KNOWLEDGE AND INFORMATION

1.4.6 Conduction of information campaigns to demonstrate construction code and land use plan benefits (e.g. effected by the distribution of layman summaries of code requirements).

1.4.7 Provision of information (e.g. public displays, flyers) and training of beneficiaries on: a) building code and land use plans compliance; b) disaster resistant construction designs/techniques.

1.4.8 Provision of information and further educational training courses for manual workers and municipal technical staff on: a) building code and land use plan compliance; b) disaster resistant construction designs/techniques, and/or c) elaboration of hazard, vulnerability and risk maps and its relation to land use planning.

*Note: The data collection and analyses should be (partly) already conducted during the 'risk identification – community research' (see above under 1.2).

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
CONTINUATION See above	CONTINUATION See above

⇒Expected results (output indicators)

CONTINUATION
See above

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

1.4.9 Development of links to educational, research and private bodies, which are specialised in engineering or in disaster resistant construction, in order to assess constructive aspects, enhance knowledge and capability of personnel, manual workers, municipal technical staff, and the project beneficiaries, and to build up sustainable structures.

1.4.10 Elaboration of technical inventories of physically vulnerable facilities (i.e. buildings, infrastructure and basic services).

1.4.11 Establishment of construction advisory services to provide information on materials and techniques which protect from disasters.

NON-STRUCTURAL TECHNICAL ACTIVITIES: CONTROL MECHANISMS

1.4.12 Support of municipal policies and laws in the fields of construction, relocation and urban territorial (land use) planning (e.g. support of design, procedures, documentation, dissemination and implementation).

1.4.13 If no adequate national standards/codes are existent, the organisation has to develop its own quality standards.

1.4.14 Institutional support of municipalities to create a building control department/group with appropriate knowledge, capacity and powers to review and control housing/construction project activities.

1.4.15 Support of construction firms to improve the quality (disaster resistance) of the materials produced and techniques used.

1.4.16 In terms of disaster impact and vulnerability creation, one of the main risks in housing projects seems to be the potential for corruption. Therefore, awareness raising, and the increased involvement of beneficiaries (e.g. vigilance with appropriate incentives to compensate their time) are important. In addition, the use of appropriate mechanisms for reporting and dealing with complaints is crucial.

1.4.17 Legalisation of properties and/or land which is important to motivate beneficiaries to work on reducing risks they face.

1.4.18 Support actions to reduce desplacement to urban disaster-prone areas (e.g. promotion of the development of middle-size cities).

1.4.19 Signposting of high-risk areas to prevent the construction of new residencial housing.

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of the project beneficiaries' and related communities' socio-economic: - protective assets, - personal safety nets, - community safety nets, and - possibilities to have access to the project's activities/services.*	Modification of the project work in such a way as not to diminish (but rather foster) protective socio-economic assets of beneficiaries.
Analysis of the influence of ongoing/planned project activities' on the socio-economic assets of beneficiaries.*	Modification of existing project work and design of new projects in such a way as not to diminish (but rather foster) socio-economic personal and community safety nets of the beneficiaries.
Training of beneficiaries on the relation between the project activities and RR.	Modification of the project activities so that they are accessible to the most vulnerable.
	Modification of the project activities to replace socio-economic assets, which were lost/destroyed as a result of project activities.
	Inclusion of socio-economic measures required for the sustainable implementation of the physical project activities.

⇒Expected results (output indicators)

⇒ Project-related socio-economic assets of project beneficiaries are protected or even fostered.

⇒ Project activities are accessible to vulnerable households/communities.

⇒ The project beneficiaries are clear about the fact that physical improvements alone do not solve their vulnerability.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

PROTECTIVE ASSETS OR PERSONAL SAFETY NETS

1.5.1 Maintenance and/or improvement of income through:

- the creation of economic activities or employment opportunities as a result of the way in which the project activities are designed/carried out. The choice of a more labour intensive way of construction can, for example, help to reduce (at least temporarily) socio-economic vulnerabilities. A more sustainable method would be to use local materials for the construction of project houses and to build up local and permanent material production centres. Another possibility is, for example, to provide the manual workers, who will construct the project houses, with some practical and theoretical training, which is formally recognised and thus can be certified. In turn, such certified training would support them to become better qualified, raise their confidence, productiveness and quality of work, and thus, enabing them to find easier and/or a better work in the longer term.

- the diversification of existing economic activities; e.g. training of laymen/other professionals (e.g. informal vendor) to also become (certified) manual worker.

- securing economic project related activities. Examples are the support for the development of co-operatives for manual workers, and the inclusion of insurance schemes in the project house credit system.

- the change to low-risk income-generating activities. An example could be the training of unemployed professionals to become (certified) manual workers.

KNOWLEDGE – INFORMATION

1.5.2 Capacity building of project beneficiaries in order to ensure that they understand the complex concept of vulnerability and are clear about the fact that: a) vulnerability is mainly a social construct, and b) physical improvements alone do not solve their vulnerability.

COMMUNITY SAFETY NETS

1.5.3 Improvement in the organisational coherence of the beneficiaries' community. This training could be included in the organisational training of the beneficiaries on self-help housing.

1.5.4 Community insurance for project houses (taking into account standards and independent reviews of compliance).

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 1.2).

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
CONTINUATION See above	CONTINUATION See above

⇒Expected results (output indicators)

CONTINUATION
See above

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

REPLACING LOST ASSETS

1.5.5 If socio-economic assets are reduced through the project activities, they should be replaced as far as possible (e.g. resettlement projects which include the development of socio-economic activities at the new location where not all the inhabitants can continue their former work).

1.5.6 House ownership contracts which guarantee that owners do not run the risk of increased socio-economic vulnerability (e.g. due to the house's utility bills/extra charges for electricity etc., or loss of the woman's ownership because the male head of the family and house owner is deceased).

REACHING THE MOST VULNERABLE

1.5.7 Expansion of the use of housing credits so that the most vulnerable can use them to reduce their vulnerabilities through, for example, house repairs or single physical mitigation structures such as roof repairs or the construction of necessary contention walls.

1.5.8 Improved access to the projects' activities/services through the offer of smaller credits, partial loans and/or adequate rules for accessing credits (e.g. rules as regards repayment, house location), etc.

1.5.9 Support of community saving schemes (e.g. of a simple community bank) so that people who are excluded from the housing credit schemes –because they are too economically vulnerable– can save money and, in time, gain access to them).

SUSTAINABLE PHYSICAL MEASURES

1.5.10 Involvement of national training institutions in capacity building. This permits the certification of capacity building and the continuation of training courses when projects come to an end.

1.5.11 Training of beneficiaries on maintenance and community responsibility for infrastructure to guarantee its proper functioning (e.g. organised regular maintenance and cleaning of sanitation systems for flood mitigation).

1.5.12 Establishment of local material production centres to guarantee the sustainable availability of appropriate building materials and the sustainable use of disaster resistant construction materials.

1.5.13 Introducing rules to protect house ownership and/or related savings of married female members which may otherwise be acquired by their husbands' relatives if they are widowed

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Analysis of: a) the project beneficiaries' and related communities' natural protective assets; and b) the impact of ongoing/planned project activities on the natural assets of communities.*	Modification of the project work in such a way as not to diminish (but rather foster) protective natural assets, and active use of natural assets to protect the project activities against hazards.
Compliance with environmental standards (e.g. tree cover preservation, land use, and agricultural and water quality standards, etc.).	Modification of the project activities to replace natural assets which were lost through the project activities.
Analysis of the potential impacts of the environment on the project activities (e.g. impact of the occurrence of disasters).	Inclusion of environmental activities/measures needed for the sustainable implementation of physical project activities.

⇒Expected results (output indicators)

⇒ The project activities take project-related environmental aspects, which influence beneficiaries' vulnerability, actively into account.

⇒ The project beneficiaries are clear about the inter-connection between their vulnerability and environmental deterioration.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

PROTECTIVE NATURAL ASSETS

1.6.1 The destruction of protective natural assets through the project activities has to be avoided through careful project design, community research and environmental impact assessment. The latter is an instrument which can help to forecast negative impacts of the project activities on the environment. An example of the destruction of protective natural asstets could be environmental deterioration through deforestation due to the use of local wood as construction material, the non-adequate use of latrines, etc. This may even lead to additional hazards (e.g. to erosion and landslides). In these examples, vegetation and compact/stable soil are the natural protective assets.

KNOWLEDGE – INFORMATION

1.6.2 Inclusion of environmental aspects in capacity building of project beneficiaries, manual workers, and municipal technical staff to demonstrate, for instance, the inter-connection between their disaster vulnerability and environmental deterioration.

SUSTAINABLE PHYSICAL MEASURES

1.6.3 An example would be to combine the construction of basic sanitation with training on environmental practice (e.g., prevention of garbage dumping in gullies, etc.) and the implementation of an improved waste management system.

1.6.4 Another example could be the conversion of a re-settled high-risk area to an eco-park, enabled by the vigilance and maintenance provided by the inhabitants of the neighbouring areas.

1.6.5 Vegetation is an natural asset which can be actively used as a wind break, and to prevent soil erosion and landslides. Such measures improve and can even protect other project activities.

REPLACING LOST ASSETS

1.6.6 If, for example, trees have to be cut and/or water sources are contaminated as a result of project activities, measures such as reforestation and appropriate water management should be implemented to reduce the harm done.

PROTECTING PROJECT ACTIVITIES

1.6.7 Hazard assessments can be used to assess the impact of the natural environment (natural hazards) on the project. This is important as environmental impact assessment is only a one-way analysis, i.e. the analysis of the. impact of the project activities on the environment, but not vice versa.

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 1.2).

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Search for possible cooperation and coordination partners at national, municipal and local levels (including governmental and non-governmental agencies).	Modification of the project work in such a way as to not diminish (but rather foster) protective institutional assets.
Where possible, alliance with the municipalities as implementation partners.	Inclusion of institutional measures needed for the sustainable implementation of physical project activities.
Analysis of: a) the project beneficiaries' and related communities' institutional protective assets and structures; b) the impact of ongoing/planned project activities on existing institutional structures relevant for RR; and c) organisational implementing structures of other organisations working in social housing, urban planning and/or RR.*	Establishment and work through a coordinated implementing structure.
	Support of organisational/institutional structures needed to control or influence future resilient settlement developments.

⇒Expected results (output indicators)

⇒ The project activities take project-related institutional aspects, which influence project beneficiaries' vulnerability, actively into account.

⇒ The projects' implementing structures positively influence vulnerability reduction.

⇒ Municipal technical staff are aware of the inter-connection between the vulnerability of communities and institutional structures, and assume their related responsibilities.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

1.7.1 Stakeholder analysis is a tool to help identify all project relevant stakeholders.

PROTECTIVE ASSETS - SUSTAINABLE PHYSICAL MEASURES

1.7.2 Revision and amendment of municipal ordinances/laws/codes/standards for settlement planning and construction in order to include RR as a cross-cutting aspect.

1.7.3 Establishment of institutional partnerships with organisations working in RR and other social housing NGOs at national, municipal and local levels, in order to reduce institutional vulnerabilities and potentialise efforts of the various organisations (as regards project implementation and information exchange (e.g. risk data bases)).

1.7.4 The building up of cooperatives of manual workers or the creation of partnerships with universities and capacity building institutions can help to sustain the project activities.

1.7.5 The project activities should promote an improved linkage between local, municipal and national stakeholders. For example, work in community organisation with beneficiaries can result in their representation in the district board of their municipality, involvimg them in: the discussion of the city's problems, the legalization of their individual tenure, and development of new infrastructure projects.

1.7.6 Co-operation with private/academic sector agencies can be used for project implementation to advance:

- insurance premium reductions available for the use of hazard-resistant building and retrofitting techniques,

- the inclusion of RR aspects in university curricula and technical training institutions curricula, and

- building code compliance of construction industry.

KNOWLEDGE – INFORMATION

1.7.7 Institutional capacity building is crucial. Important topics for the training of municipal technical staff are: project management and budgeting for housing and settlement planning

IMPLEMENTING STRUCTURE

1.7.8 The modified core work should be coordinated, for instance, with the municipal committees for local development planning and –if existing– their sub-committees for risk reduction. The work could then be carried out through sub-committees for project implementation.

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 1.2).

2) Organisational Mainstreaming of RR

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
The organisation's management does not show resentment towards the concept of RR, is open for new ideas, and supports staff members interested in the idea of RR who are starting to learn about this concept and its underlying processes, and who inspire others.	Selection and designation of one or a number of employees with adequate skills to formally take responsibility for encouraging and supporting the process of mainstreaming RR into the organisational management system, policy, and working structures. The organisation is providing the selected staff with time, resources and some level of influence/authority to do their work.
Recognition by the organisation's management for the need to adapt their organisational management system, policy and working structures to back up, formalise and make sustainable their process of integrating RR in their project work.	Modification of all relevant job descriptions, terms and conditions of employment, and related appraisal mechanisms to include the responsibility of the personnel to consider the issue of disaster risk and RR within the context of their daily work.
Active involvement of the personnel in the discussions on and planning of the process of 'organisational mainstreaming' of RR.	Ongoing training on disaster risk and RR for personnel.
Initial awareness raising and basic training on disaster risk and RR for all project personnel.	Ongoing capacity building in respect of the different strategies used for the integration of RR in development organisations.

⇒Expected results (output indicators)

⇒ Sufficient person power for mainstreaming RR in the organisational management system, policy, and working structures.

⇒ Adequate knowledge and understanding of personnel in respect of the links between disasters, their core work, and their organisational management, policy and working structures.

⇒ Each staff member considers disaster risk and RR within the framework of their normal working day.

⇒ Among senior and influential staff, there is commitment and 'political will' –which is based on adequate knowledge– to promote and actively advance the comprehensive integration of RR.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

See notes under 1.1.1 – 1.1.4

2.1.1 In the job descriptions, the responsibility of the personnel to consider disaster risk and RR within the framework of their daily work could be formulated as: "… have to be alert to, and act upon, the ways in which the project activities can increase or decrease vulnerabilities".

ORGANISATIONAL M. of RR
2.2 Risk identification

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Revision of information obtained through the 'risk identification – community research' undertaken as part of programmatic and/or internal mainstreaming (see tables 1.2 and 3.2).	Complementation of existing data bases and research to obtain information needed for the process of organisational mainstreaming. Establishment of mechanisms and tools for systematic collection of experiences in organisational mainstreaming.

⇒Expected results (output indicators)

⇒ The organisational management has sufficient information on 'organisational mainstreaming' in order to prepare and plan adequate modifications of their own organisational management, policy, and working structures.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

Apart from the gained knowledge of the "risk identification" undertaken as part of programmatic and/or internal mainstreaming, it would be useful to compile information on existing experiences of other organisations that have already begun the organisational mainstreaming of RR. In the case that no such experience exists, related theory (eg., organisation theory), or experiences of other organisations with organisational mainstreaming of other cross-cutting topics such as gender, environment, etc., could be analysed.

ORGANISATIONAL M. of RR
2.3 Working structure and procedures

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Recognition by the organisation's management of the need to consider and reduce disaster risk within every step and aspect of the project cycle management (as opposed to ad hoc decision-making). Selection of staff members to revise the organisation's working structures and procedures for carrying out projects (planning, implementation, monitoring and evaluation) as well as the related technical tools in order to assess their relevance for: a) protecting projects from disaster impact; b) ensuring that the projects do not augment disaster risk; and c) fostering the projects' positive effects on reducing risks.	Development/adaptation and use of standards and tools related to RR in respect of: a) hazard, vulnerability and risk analysis/ mapping; b) disaster resistant construction (construction techniques, building materials, etc.); c) appropriate project planning for reducing risks; d) monitoring of the process of integrating RR within specific projects; e) monitoring of the process of organisational mainstreaming. Linking of direct RR work –if carried out– to the organisation's core development projects. Establishment of a department or specialised group for construction quality control.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

PROJECT CYCLE

2.3.1 Current and likely future disaster impacts and related vulnerabilities have to be considered during the needs assessment and feasibility studies, and thus they should include a category/section on risk assessment.

2.3.2 Environmental impact assessments that include special attention to natural hazards should be used for feasibility studies.

2.3.3 Whilst designing project activities, possible effects and outcomes of the planned activities have to be explored in a participative way in order to anticipate and prevent problems which might increase vulnerability of project beneficiaries.

2.3.4 The projects' operational objectives should refer to features of the design which are intended, amongst other things, to enhance the way in which the project works to reduce risks.

2.3.5 Adequate project monitoring and evaluation measures have to be defined which take RR into account. As there is little experience with integrating RR, monitoring and evaluation are crucial. Recommendations arising from monitoring and evaluation inform project cycle processes and are valuable for advocating RR.

⇒Expected results (output indicators)

⇒ Routine consideration and incorporation of RR in all steps and related tools of the project cycle.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

CONTINUATION

2.3.6 Apart from monitoring/evaluating project work, the integration process of RR in the organisation (including mainstreaming RR and implementation of direct RR) should be assessed. An adequate monitoring/evaluation system should be set up.

2.3.7 Control of risk augmentation or reduction should be included in the projects' reporting, monitoring and evaluation processes.

2.3.8 Important project outcomes/products are local/municipal development and land use plans, related municipal laws and policies, as well as local maps/analyses of hazards, vulnerabilities and risks and maps/analyses for land use of the respective project areas. It is crucial that their elaboration is coordinated with other organisations, is based on the standardisation of the concept of risk and RR between different organisations, and based on specified and unified/standardised methods, scales and contents. This is important to coordinate existing efforts and to achieve that the different plans, laws and maps are compatible and complementary. Therfore, aleady existing plans, laws and maps have to be considered. The enactment of municipal legal frameworks based on local/municipal development and land use plans/maps is of special importance to achieve sustainability of the projects. (check model Wamsler, 2005)

2.3.9 The developed and adapted tools have to be sufficiently flexible to recognise that local hazard conditions, cultural norms and administration patterns are variable, requiring localised adaptations.

2.3.10 All gained experiences in RR, whether through the implementation of direct RR or mainstreaming RR should be used to learn from (through an internal system of lessons learnt).

STRUCUTRES/CONSTRUCTION QUALITY CONTROL

2.3.11 Establishment of a specialised department/group for construction quality control. In addition, during the absence of adequate building codes, the organisation should elaborate their own check-lists and/or "safer building seal of approvals".

2..3.12 A formal organisational working structure of the organisation is needed(reflected in the organigramme) in order to ensure that RR becomes a standard procedure of what the organisation is doing (e.g. focal points to promote and monitor RR integration in the organisation)

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Recognition by the organisation's management of the need to adapt their organisational policy and strategy to back up, formalise and make sustainable their RR integration process (as opposed to ad hoc decision-making).	Inclusion of the commitment to respond to disaster risks as a programmatic mainstream issue (and eventually also as an issue requiring direct RR) in key documents, outlining the organisation's policy, vision, mission, purpose, approach, values and priorities.
Selection of staff members to revise the organisation's strategy and policy in order to assess their relevance for: a) protecting projects from disaster impact; b) ensuring that the projects do not augment disaster risk; and c) fostering the positive effects of projects on reducing risks.	Development and implementation of a participative organisational strategy with realistic and achievable goals for RR integration.

⇒Expected results (output indicators)

⇒ Formalised commitment of the organisation to integrate RR in a sustainable way in their core project work.

⇒ The" public face" of the organisation reflects its engagement in RR.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

2.4.1 Based on the new organisational strategy, a system for its monitoring should be set up.

2.4.2 During the last years, a range of organisations included RR in their mission statements or extended mandates of certain departments. However, as this process was often carried out in a top-down manner, and seen more as a strategic than a required change, in practice little has changed. Thus, changes as regards the organisation's policies and strategies have to be developed in a participatory way and require an adequate knowledge base in RR.

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Search for donor organisation which fund activities related to RR (RR mainstreaming and direct RR). Selection of staff members to revise the organisation's financial management in order to: a) assess costs related to: protecting projects from disaster impact, ensuring that the projects do not increase disaster risk, and fostering the projects' positive effects on reducing risks; b) assess if the organisation's current financial management or the funding sources impede work in RR (e.g. through their budget lines, earmarking, etc.); and c) identify additional funding means within the organisation.	Design and implementation of a financial strategy for the RR integration process. Regular training of staff for proposal writing and fund acquisition for project work and organisational changes related to RR.

⇒Expected results (output indicators)

⇒ The organisation/personnel has the capacity to make funding for RR available (internally and externally).

⇒ Sufficient financial resources/budget available for proper and sustainable integration of RR.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

2.5.1 In order to identify an adequate financial management system, relatively extensive financial analyses should be conducted. Please also see the analyses mentioned under 'financial management' of the 'internal mainstreaming' strategy (see table 3.5).

2.5.2 The financial strategy aims to cover additional costs, which arise from integrating RR and finding solutions, and to reduce barriers to implementing RR. Resultant measures could include, for instance, increased/additional budgeting for RR through additional financial project partners or the alteration of internal budget lines.

2.5.3 To search for complementary financial partnerships, a stakeholder analysis is a useful tool for identifying collaborating bodies (e.g., other agencies, NGOs, the private sector and academic bodies).

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Recognition of the organisation's management that it cannot act alone to reduce effectively disaster risk. Search for other NGOs working in the same sector which also want to engage (or are already engaging) in integrating RR. Search for complementary partnerships for RR with organisations/experts which are specialised in RR.	Establishment of linkages and cooperation with key stakeholders at international, national and local levels, as well as relevant regional coordinating or networking bodies, in order to develop cooperative work, to exchange information and lessons learnt, and eventually to develop shared strategies for RR.

⇒Expected results (output indicators)

⇒ Complementary partnerships are established to improve the organisation's work in RR and prevent competition with other organisations.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

2.6.1 In order to search for complementary technical partnerships, a stakeholder analysis is a useful tool, identifying implementing partners and collaborating bodies (e.g., other agencies, NGOs, private sectors and academic bodies).

2.6.2 Consultation with experts is indispensable, especially when it comes to mainstreaming RR within an organisation's core work and functioning.

3) Internal Mainstreaming of RR

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
The organisation's management does not show resentment towards the concept of RR, is open for new ideas, and supports staff members interested in the idea of RR who are starting to learn about this concept and its underlying processes, and who inspire others. Recognition by the organisation's management that they have to protect their own organisation (i.e. offices and staff) from the impact of disasters in order to be able to guarantee sustainable RR. Initiation of training/workshops for the employees to discuss how disasters relate to them personally, i.e. in their private and professional life. Assessment of further needed capacity building for reducing the organisation's own vulnerability.	Based on the outcomes of the 'risk identification – Staff research' (see following table 3.2), regular information and training on personnel safety. The selected personnel for supporting the process of integrating RR (selected within the strategies of programmatic or organisational mainstreaming) also include internal mainstreaming in his/her/their fields of duty (see also 'human ressources – capacity building' under programmatic and organisational mainstreaming, tables 1.1. and 2.1).

⇒Expected results (output indicators)

⇒ Sufficient person power and knowledge to support internal mainstreaming of RR.

⇒ All personnel is aware of the internal mainstreaming activities and makes use of them.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.1.1 Training modules for personnel should include: general RR awareness, simulations of disaster situations in head and field offices, and on other preparedness measures (e.g. improvement of communication procedures and structures and the knowledge on how to behave during disasters), etc.

INTERNAL MAINSTREAMING. of RR
3.2 Risk identification – Staff research

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Initiation of research to analyse how disasters are directly affecting the organisation, and how they are likely to affect the organisation in the future. Analysis of risks which the personnel faces through the work at the organisation (e.g. working in different disaster-prone areas; risks on the way to project areas, vulnerable areas/places within the office buildings, etc.) See also under 'financial management'.	Establishment and permanent updating of a data base to track and analyse over time the disaster impacts and risks faced by the organisation and its staff.

⇒Expected results (output indicators)

⇒ The organisation has adequate information for advocating RR internally.

⇒ The current/future impacts of disasters on the organisation are assessed/predicted.

⇒ A monitoring system is in place to follow up changes of the impacts disasters have on the organisation. Where problems exist, ways of addressing them are researched.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.2.1 To assess the current impact of disasters on the organisation, firstly the following has to be considered:

- existing personnel data (e.g. sick leave, work interruptions, treatments for injured/affected employees, etc.),

- technical stability/performance of the organisation's office buildings.

Secondly, interviews with personnel should be carried out, especially in respect of their views of and attitudes towards risks faced over recent years.

3.2.2 External expertise is eventually required to predict future disaster impacts.

Note: please see also table 3.5 under section 'financial management'.

INTERNAL M. of RR
3.3 Working structures and procedures

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Designation of personnel to analyse the existing working structure and procedures as regards their relation to the vulnerability of the organisation itself, i.e. its internal functioning, offices and staff.	Participative development or adaptation of working structures and procedures so that the organisation itself, i.e. its internal functioning, offices and staff, becomes less vulnerable and/or is better prepared for potential disaster occurrence.

⇒Expected results (output indicators)

⇒ Reduced impact of disasters on staff.

⇒ Sufficient person power for carrying out their project work, also after the impact of major disasters.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.3.1 In order to reduce the vulnerability of staff, the following measures could be carried out:

- improvement of communication/information structures and equipment to improve the ability of personnel to respond effectively in the case of a disaster (e.g. walky-talkies);

- in high-risk areas work in teams (as opposed to working alone in the field);

- better information on how to behave during disasters, including signposting of emergency exits (see also under 'human resources', table 3.1.1)

3.3.2 In order to reduce the vulnerability of the organisation itself, the following could be done:

- improved share of RR responsibilities (e.g. have at least two people as RR focal point)

- improved share of RR knowledge (e.g., knowledge on RR not only held by project leader, careful documentation of RR activities, etc.).

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Designation of personnel to analyse the existing internal policies and strategies as regards their relation to the vulnerability of the organisation itself, i.e. its internal functioning, offices and staff.	Participative development or adaptation of internal policies and strategies to reduce the vulnerability of the organisation itself, i.e. its internal functioning, offices and staff. In this context, workplace policies are of special importance; Inclusion of the commitment to respond to disaster risk as an internal mainstream issue in key documents, outlining the organisation's internal policy, approach, values and priorities.

⇒Expected results (output indicators)

⇒ Formalised commitment of the organisation to internally integrate RR.

⇒ Workplace policies have – amongst other things – the explicit objective to reduce the risks faced by the personnel.

⇒ The organisation's management and employees know the contents of the adapted or created policies and strategies and – when needed – utilise them.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.4.1 Workplace policies have to be adapted to:

a) formalise the organisation's responsibilities to its employees in case of disasters (e.g. post-disaster benefits and treatments for injured/affected employees).; and

b) reduce the vulnerability of personnel by defining preventive actions (e.g. workplace equipemt, etc.)

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Designation of personnel or employment of external consultants in order to estimate and analyse the organisation's costs of likely disaster impacts (e.g. for repairs, lost material (vehicles, etc.), reduced reputation, sick leave, work interruptions, etc.). Initiation of research to identify potential risk transfer and/or loss sharing schemes.	Development and implementation of a financial strategy which: a) prevents or 'buffers' financial loss incurred by the organisation and its staff, which is evoked by the occurrence of disasters. b) provides a financial back-up system for the inevitable limitations of project activities and/or for the accepted risk levels.

⇒Expected results (output indicators)

⇒ The organisation has the capacity to deal with (increasing) financial impacts of natural disasters on the organisation and its staff.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.5.1 The financial strategy can include different risk transfer and loss sharing mechanisms. Examples are:

- health insurance for personnel;

- disaster (re-)insurances for the organisation itself;

- disaster insurances for the project activities/houses;

- inclusion of disaster insurance within the offered housing credits schemes;

- increased budget for RR;

- development of a special fund for coping with disaster impacts (e.g. allocation of contingency disaster funds in the organisation's annual budget, based on actuarial probabilities);

- inclusion of a budget self insurance in the project designs: offer of disaster resistant home improvement programmes with revolving loan financing that includes vulnerability reduction (e.g. criteria for obtaining loan);

- offer of disaster insurance mechanisms for residential and commercial properties to actual value as part of the project activities;

- support of legislation mandating insurance for properties valued above certain thresholds – which cover low-income households free of charge when achieveing a certain coverage of the inhabitants.

3.5.2 To assess the current financial impact of disasters on the organisation, fistly the following have to be considered::

- existing personnel data,

- technical stability/performance of the organisation's office buildings.

3.5.3 External expertise is eventually required to predict future financial disaster impacts, such as health costs (e.g. sick leave, treatments for injuries), indirect costs to the organisation (e.g., absence from work, loss of reputation, quality of work), etc.

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of the data obtained through the research carried out in order to assess potential measures of directly reducing the organisation's vulnerability (i.e. offices and staff).	Implementation of RR measures to directly reduce the organisation's vulnerability (offices and staff).

⇒Expected results (output indicators)

⇒ The organisation can continue to operate effectively, despite increased disaster frequency and intensity.

⇒ The risk faced by the personnel is considerably reduced.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

3.6.1 Internal mainstreaming has two elements: a) direct RR activities for staff and the physical location of the organisation's offices and b) modifying the ways in which the organisation is managed internally, for example, in terms of personnel planning and budgeting. The latter was demonstrated in the foregoing sections. In respect of the former, the following could be put in place:

a) setting up emergency plans;

b) carrying out simulations;

c) improving communication and information structures;

c) retrofitting/upgrading of head and field offices.

4) Implementing direct RR (integrated and stand-alone)

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
The organisation's management does not show resentment towards the concept of RR, is open for new ideas, and supports staff members interested in the idea of RR who are starting to learn about this concept and its underlying processes, and who inspire others. First awareness raising and basic training on disaster risk and RR for personnel. Analysis of the organisation's capacity to carry out direct RR (in respect of human resources).	Selection, designation and eventually employment of employees with adequate skills to formally take the responsibility for integrating direct RR (both stand-alone projects and integrated components within other types of projects). The organisation provides the selected staff with time, resources and some level of influence/authority to do their work. Regular training on disaster risk and RR for personnel.

⇒Expected results (output indicators)

⇒ Sufficient person power, existing knowledge and cooperative partnerships for carrying out direct RR work.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.1.1 As direct RR is not directly related to the organisation's core work, it may be important to employ additional staff for implementing and effecting the new field of work. However, if possible, it is recommended that the direct RR work is carried out by means of co-operative partnerships, without getting the organisation itself directly involved in direct RR.

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Preparation and initiation of research in selected high-risk areas (areas of ongoing or potential project work) with the aim to: a) understand how disasters affect specific communities; b) understand how communities cope with disasters; and c) find measures to directly reduce the existing risks. Compilation and analysis of data bases on existing hazards and vulnerabilities at national, municipal and local levels. Analysis of different tools for risk identification and risk presentation at national, municipal and local levels (e.g. use of risk indices). Analysis of existing local needs in order to analyse the relevance of carrying out direct *integrated* RR. Analysis of existing local needs in order to analyse the relevance of carrying out direct *stand-alone* RR.	In selected project areas: - Elaboration of participative and easy to understand local and/or municipal hazard, vulnerability and risk maps to summarise the research outcomes. Regular updating. - Elaboration of technical inventories for RR, e.g. analysis of vulnerability of public and residential buildings. Regular updating. - Ongoing participative process with communities/municipalities to discuss research outcomes. Establishment of mechanisms and tools for systematic collection and monitoring of: a) disaster risk in project areas, and b) risk perceptions of local communities, municipalities and other project stakeholders.

⇒Expected results (output indicators)

⇒ Good understanding of personnel (involved in direct RR) as to how disasters affect communities/municipalities by hindering their efforts to reduce vulnerabilities.

⇒ Highly vulnerable and hazard-prone groups, settlements and facilities are identified within the project areas.

⇒ Existing organisational risk database to follow-up relevance/efficiency of direct RR work.

⇒ Local governments/communities have access to adequate risk information (easy to understand and –in the case of maps– at the appropriate scale).

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.2.1 Vulnerability and hazard maps are here mainly used as a tool for:

a) risk awareness;

b) establishing committees for emergency and/or RR; and

c) the identification of measures for direct RR work.

Please see also 1.2.1 – 1.2.6 under 'programmatic mainstreaming", section "community research – risk identification".

4. IMPLEMENTING DIRECT RR
4.3 Project components (general)

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of information obtained through the community research and capacity building (see table 4.1 and 4.2) to discuss and develop in a participatory way projects/project components for direct RR.	Design and implementation of stand-alone projects or integrated project components to directly reduce disaster risk. Establishment of cooperation with more specialised RR organisations for the cooperative implementation of the RR projects/project components (Cooperative partnerships.)

⇒Expected results (output indicators)

⇒ Implemented projects directly and explicitely reduce risks.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.3.1 The aim of projects, which include direct RR work, is generally reflected explicitly in the stated aims, objectives and/or purposes of the project.

4.3.2 Both integrated and stand-alone projects of direct RR should –if possible– be undertaken by means of cooperative partnerships together with more specialised RR organisations.

4.3.3 All direct RR activities could be carried out in an integrated way (i.e. along with other sector specific activities), or in combination with other direct RR activities (i.e. as stand-alone RR projects). If the latter is not related to the specific sector of the organisaion, it should be avoided and can only be justified in a situation where an area faces immense existing risks and at the same time an absence of organisations specialised in RR.

4. IMPLEMENTING DIRECT RR
4.4 Physical project components

Input and process indicators for integrating RR	
First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of existing physical protective assets of communities.* Adherence of all physical project components to relevant legal documents. Capacity building of personnel on adequate physical mitigation measures (e.g. disaster-resistant construction designs/ techniques). Public promotion and training in project areas of appropriate physical mitigation measures.	Implementation of physical mitigation measures for RR.

⇒Expected results (output indicators)

⇒ Municipalities/community leaders provide community members with adequate information to guide settlement development.

⇒ Decreasing housing in hazard-prone areas.

⇒ Improved building use in project area.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.4.1 Physical/constructive mitigation aims at controlling natural events through physical measures. Examples are: watergates or protective barriers (embankments) for flood control; securement of slopes and retaining walls against landslides; resettlement of people living in high-risk zones; and physical improvement of constructions and infrastrcture to become disaster-resistant. Special attention has to be given to schools and hospitals.

4.4.2 Physical/constructive preparedness aims at improving the capacity of reaction during a disaster event. Examples are emergency houses.

4.4.3 Physical non-structural mitigation includes for instance:

- Support of legal control systems which influence future physical developments (i.e. laws and codes for constructions and land use);

- Elaboration of digitalised risk, hazard or vulnerability maps for RR;

- Territorial land use planning for RR

- Integration of RR in development plans

- Support actions to reduce migration to disaster prone urban areas.

Note: 1) if the mentioned mitigation/prevention measures were included in projects (which do not work explicitly in RR) to protect and/or sustain the project activities, they would be classified as a programmatic mainstreaming activity. 2) Please check also the measures listed under 'physical project components' in section 'programmatic mainstreaming'.

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 4.2).

Input and process indicators for integrating RR

First Steps — Getting started —	**Benchmarks — Where to go —**
Analysis of existing local socio-economic vulnerabilities, socio-economic protective assets (e.g. personal/community safety nets for RR.)*	Development of new socio-economic systems for RR.
Analysis of potential socio-economic measures for direct RR.	Implementation of measures to support households' and communities' socio-economic protective assets, and personal/community safety nets for RR.
Dissemination of RR information.	Regular dissemination and training of beneficiaries on RR.
Carrying out of risk awareness activities, and training on disaster risk and RR for selected local groups, and/or municipalities.	

⇒Expected results (output indicators)

⇒ Local groups and municipal staff are trained to recognize indicators of local hazards and vulnerabilities.

⇒ Easy available risk information.

⇒ Population of project area is aware of local hazards and their own vulnerability.

⇒ The project beneficiaries are clear about the fact that physical improvements alone do not solve their vulnerability.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.5.1 Possible direct RR activities include for instance:

- *establishment of disaster insurance mechanisms for households or communities;*
- *establishment of specific household or community saving schemes for RR;*
- *support for the establishment of community contingency funds;*
- *offer of specific credits for RR;*
- *disaster simulations and risk awareness campaigns in appropriate media and accessible language;*
- *community organisation training for RR; and*
- *creation of economic incentives for RR.*

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 4.2).

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Analysis of existing environmental vulnerabilities, natural hazards, as well as the communities' natural protective assets.*	Implementation of measures to reduce environmental vulnerabilities and foster natural protective assets.
Analysis of potential environmental protection measures for direct RR.	Regular training on how to reduce environmental vulnerabilities.
Compliance with environmental standards (e.g. tree cover preservation, land use, and agricultural and water quality standards, etc.).	
Dissemination of information and training on how to reduce environmental vulnerabilities.	

⇒Expected results (output indicators)

⇒ The project beneficiaries are clear about the inter-connection between vulnerability and environmental deterioration.

⇒ Local groups are trained to identify and protect environmental systems that stabilize hazards or buffer potential hazard effects.

⇒ Local groups understand the role of environmental management practices in the increase of vulnerability and risk, and know how to assess the causes of environmental decline (soil erosion, deforestation, beach erosion, loss of mangroves, etc.).

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.6.1 Environmental disaster mitigation/prevention aims at conserving eco-systems (e.g. forests and coral reefs) to buffer the impacts of weather-borne disasters. Examples of measures are for instance:

- proper watershed management to minimize landslides and floods;

- mangrove protection to reduce flooding;

- forestation for landslide and flood control; and

- soil treatment, securing of slopes and planting for erosion and landslide control.

*Note: The data collection and analyses should already be (partly) conducted during the 'risk identification – community research' (see above under 4.2).

Input and process indicators for integrating RR

First Steps — Getting started —	Benchmarks — Where to go —
Analysis of the existence of other organisations carrying out direct RR in the (potential) project areas.	Establishment of specific institutional structures for RR.
Search for possible cooperation and coordination partners at national, municipal and local levels (including governmental and non-governmental agencies).	Establishment and work through a coordinated RR implementing structure.
Analysis of: a) existing institutional vulnerabilities; b) peoples' and communities' institutional protective assets and structures; and c) institutional implementing structures of other organisations working in RR.*	Fostering of peoples' and communities' institutional protective assets and structures.
Analysis of potential institutional measures for direct RR.	
Dissemination of information and training on how to reduce institutional vulnerabilities.	

⇒Expected results (output indicators)

⇒ Local risk information is transmitted upwards to municipal and national institutions.

⇒ Existing and active local committees for RR with adequate knowledge, as well as access to risk maps at local/municipal level and technical skills to identify risks and plan RR activities.

⇒ Municipal technical staff are aware of the inter-connection between the vulnerabilities of communities and the functioning/existence of institutional structures, and therefore assume their related responsibilities.

Notes and reference activities for practical implementation (with particular focus on social housing organisations)

4.7.1 Examples of institutional/organisational RR measures are for instance:

- establishment of local and municipal RR committees;
- decentralisation of control, coordination and information structures for RR;
- institutional capacity building for RR;
- support of a municipal/national policy for RR;
- support of municipal action/development plans for RR;
- establishment of early warning systems;
- improvement of disaster risk information systems (e.g. improved information flow between national-regional-local levels);
- support for the creation of legal structures for RR (e.g. related laws);
- support for the establishment of organisations specialised in aspects related with RR (e.g. organisations for monitoring and modelling hazard and vulnerability development).

*Note: The data collection and analyses should be already (partly) conducted during the 'risk identification – community research' (see above under 4.2).

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