Evaluation

Natural Disasters, Climate Change and Poverty

Evaluation report 2009:8

MINISTRY FOR FOREIGN AFFAIRS OF FINLAND

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Evaluation

Natural Disasters and Climate Change in Finnish Aid from the Perspective of Poverty Reduction

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Natural Disasters and Climate Change in Finnish Aid from the Perspective of Poverty Reduction

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Arjunapermal Subbiah

With contributions from

Ana Paula Reis
Maria Kontro
Laura Niskanen

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MINISTRY FOR FOREIGN AFFAIRS OF FINLAND

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PREFACE

The frequency of weather born natural hazards which turn into natural catastrophies have increased during the last decades. These phenomena hit hardest the most vulnerable in the society. Thus, it was considered imperative to look at the natural disasters and climate change from the perspective of poverty reduction development goal, central to the Finnish development policy.

This evaluation looked at the contribution of Finland to the natural disaster prevention and mitigation, particularly from the perspective of the poor and the vulnerable. Even if the entry point to the topic was Finland`s meteorological cooperation during the last decade, the evaluation looked at a wide range of other relevant sectors, and how natural disasters and their consequences and preventive measures had been taken into account in the cooperation programmes. The end-to-end approach was employed, from early warning to the societal level.

The evaluation team was composed of senior experts in this field having cross-cutting nature. The core-team combined the knowledge and experience of Ramboll-Finnconsult Ltd and the Asian Disaster Preparedness Centre (ADPC). The core team was composed of Dr. Srinivasan from ADPC as the Team Leader, and of the team members, Ms. Teija Lehtonen, Managing director of Ramboll Finnconsult Ltd., Mr. Subbiah senior expert of ADPC, and Mr. Alex Munive from Ramboll-Finnconsult Ltd. Also the Quality Assurance team was composed of senior international experts, namely Mr. Ian Burton and Mr. Roger Few.

Helsinki, 18 December 2009

Aira Päivöke
Director
Development Evaluation

ACRONYMS

AWG-LCA	UNFCCC's Ad-hoc Working Group on Long-term Cooperative Action
AWS	Automatic Weather Station
BAP	Bali Action Plan
BBC	British Broadcasting Company
BCPR	UNDP's Bureau for Crisis Prevention and Recovery
CC	Climate Change
CCA	Climate Change Adaptation
CCRC	Climate Change Research Centre, University of the New South Wales
CDM	Clean Development Mechanism
COP 7	UNFCCC's 7th Conference of Parties held at Marrakesh in 2001
COP 15	UNFCCC's 15th Conference of Parties held at Copenhagen in 2009
CRED	Centre for Research on the Epidemiology of Disasters
DAC	Development Assistance Committee of the OECD
DFID	Department for International Development
DIPECHO	EU's Disaster Preparedness ECHO Programme
DRR	Disaster Risk Reduction
EC	European Commission
EMDAT	Emergency Events Database
ENVIRONET	Network on Environment and Development Co-operation
EU	European Union
EWS	Early Warning Systems
FAO	Food and Agriculture Organization of the United Nations
FEWSNET	Famine Early Warning Systems Network
FINAM	Post-Emergency Reconstruction Programme in the Field of Meteorology
FMI	Finnish Meteorological Institute
FOMEVIDAS	Rural Development Programme in Boaco and Chontales
FN	Förenta Nationerna
FRC	Finnish Red Cross
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GESI	Gender and Social Inclusion
GGCA	Global Gender and Climate Alliance
HFA	Hyogo Framework for Action
HIV/AIDS	Human Immunodeficiency Virus /Acquired Immune

HQ	Headquarters
IADB	Inter-American Development Bank
IATF/DR	Inter-Agency Task Force for Disaster Reduction
ICT	Information and communication technologies
IDNDR	International Decade for Natural Disaster Reduction
IFRC	International Federation of Red Cross and Red Crescent Societies
INAM	Mozambique National Institute of Meteorology
INGC	National Institute for Disaster Management of Mozambique (Instituto Nacional de Gestão de Calamidades)
IPCC	Intergovernmental Panel on Climate Change
ISDR	International Strategy for Disaster Risk Reduction
IUCN	International Union for Conservation of Nature
LDCF	Least Developed Countries Fund
LLDC	Landlocked Developing Countries
LRRD	Linking relief, rehabilitation and development
MDGs	Millennium Development Goals
MEA	Multilateral International Environmental Agreement
MEUR	Million euro (euro is the currency of the European Union)
MFA	Ministry for Foreign Affairs of Finland
NAPA	National Adaptation Programme of Action
NGO	Non-Governmental Organization
NMHS	National Meteorological and Hydrological Service
NWP	Nairobi Work Programme
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
PCD	Principle of Policy Coherence for Development
PROAGRI	Sectoral Programme for Rural Development in Mozambique
PRSP	Poverty Reduction Strategy Paper
SADC	Southern Africa Development Community
SCCF	GEF's Special Climate Change Fund
SEA	Strategic Environmental Assessment
SIDS	Small Island Developing States
SLA	Sustainable Livelihood Approach
SPA	Strategic Priority for Adaptation
ToR	Terms of References
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework

UNDP	United Nations Development Programme
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund
UNHCR	United Nations Refugee Agency
UNICEF	United Nations Children's Fund
UNFCCC	UN Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Risk Reduction
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
US	United States of America
USD	Currency United States of America dollar
WB	World Bank
WCDR	World Conference on Disaster Reduction held at Kobe, Japan 18-22.1.2005
WFP	World Food Programme
WHO	World Health Organization
WMO	World Meteorological Organization
WUC	Water User Committees
YK	Yhdistyneet Kansakunnat

Luonnonkatastrofit ja Ilmastonmuutos Suomen Kehitysyhteistyössä Köyhyyden Vähentämisen Näkökulmasta

Govindarajalu Srinivasan, Teija Lehtonen, Alex Munive ja Arjunapermal Subbiah sekä Ana Paula Reis, Maria Kontro ja Laura Niskanen

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TIIVISTELMÄ

Tässä evaluoinnissa tarkastellaan sitä, missä määrin Suomi on 2000-luvun kehityspolitiikallaan ja –avullaan kyennyt edistämään luonnonkatastrofeihin valmistautumista ja ennakkovaroitusjärjestelmien kehittämistä. Synergiaa luonnononnettomuuksien vaikutusten vähentämiseen myönnetyn meteorologia- ja hydrologia-avun ja köyhyyden vähentämiseen tarkoitetun avun välillä tarkastellaan käyttäen erityyppisiä analyysejä ja arvioita, jotka kattavat niin politiikkatason kuin ensisijaiset hyödynsaajat. Asiakokonaisuutta arvioidaan myös ilmastonmuutokseen sopeutumisen näkökulmasta. Aihe on tullut entistä ajankohtaisemmaksi, kun on käynyt selväksi, että ilmastonmuutos voi johtaa äärimmäisiin sää- ja ilmastoilmiöihin.

Suomi on tukenut ponnisteluja katastrofiriskien vähentämiseksi sekä kansainvälisellä tasolla (tuenilmaisuin kansainvälisissä poliittisissa yhteyksissä) että tukemalla taloudellisesti YK:n alajärjestöjä, jotka toimivat aktiivisesti katastrofiriskien vähentämiseksi. Kehitysyhteistyön kohdemaissa Suomi on tukenut ennakkovaroitusjärjestelmiin liittyvien valmiuksien kehittämistä niin suoraan kuin myös välillisesti erityyppisten kehityshankkeidensa kautta. Johdonmukaisen katastrofiriskien vähentämiseen suunnatun strategian puute on kuitenkin rajoittanut hankkeiden tehokkuutta, eikä katastrofivalmiuksien tasoa ole kyetty merkittävästi nostamaan.

Täten tarvitaan strategiaa, joka liittää Suomen kehitysavun eri alueilla toteutettavat katastrofiriskien vähentämisponnistelut hankkeiden kautta syntyviin hyötyihin, joilla voidaan edistää ilmastonmuutokseen sopeutumiseen liittyviä valmiuksia ja joilla ilmastonmuutoksesta aiheutuviin uhkiin voidaan varautua.

Avainsanat: Katastrofiriskien vähentäminen, ilmastonmuutokseen sopeutuminen, luonnonkatastrofit, Suomi, kehitysyhteistyö

Naturkatastrofer och Klimatförändringar i Finländsk Biståndsverksamhet sett ifrån Perspektivet av Reducering av Fattigdom

Govindarajalu Srinivasan, Teija Lehtonen, Alex Munive och Arjunapermal Subbiah samt Ana Paula Reis, Maria Kontro och Laura Niskanen

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ABSTRAKT

Denna utvärdering undersöker den finländska utvecklingspolitikens bidrag och bistånd till sådana områden, som är relevanta för beredskap mot och tidig varning för naturkatastrofer, från år 2000 till idag. Samverkan mellan ett målinriktat bistånd med speciellt fokus på meteorologi och hydrologi som en infallsvinkel för att minska sårbarheten mot naturkatastrofer, och det bistånd, som riktas mot bekämpning av fattigdom, har undersökts genom en mängd analyser och bedömningar, allt från allmänna linjedragningar till hur de primära hjälpmottagarna ser det. Hela frågan studeras även ifrån de synpunkter, som kommer utav anpassning till klimatförändringar, vilka har vuxit i relevans på grund av att en framtida klimatförändring kan komma att utlösa extrema väder- och klimatföreteelser.

Finland har stöttat de insatser, som hör samman med minskning av katastrofrisk, både på internationell nivå genom uttryckt stöd i globalpolitiska forum, och genom dess ekonomiska stöd till FN-organ, som aktivt medverkar i genomförandet av minskning av katastrofrisk. På landsnivå har man stöttat insatser för kompetensutveckling av system för tidig varning, både direkt, och indirekt genom olika utvecklingsprojekt. Avsaknaden av en koherent strategi för minskning av katastrofrisk har dock begränsat effektiviteten i dessa insatser, utan att kompetensen inom minskning av katastrofrisk har ändrats nämnvärt.

För att hålla processen flytande inför de hot, som kommande klimatförändringar medför, föreligger det ett stort behov av att utveckla en specifik strategi, som med indirekta fördelar i vidareutveckling av kompetenser inom anpassning till klimatförändringar, förenar de olikartade, men relevanta satsningarna inom Finlands portfölj för utvecklingshjälp, som har i syfte att stöda minskning av katastrofrisk,

Nyckelord: Minskning av katastrofrisk, anpassning till klimatförändringar, naturkatastrofer, Finland, utvecklingssamarbete

Natural Disasters and Climate Change in Finnish Aid from the Perspective of Poverty Reduction

Govindarajalu Srinivasan, Teija Lehtonen, Alex Munive and Arjunapermal Subbiah with contributions from Ana Paula Reis, Maria Kontro and Laura Niskanen

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ABSTRACT

This Evaluation looks at the contribution made by Finnish development policy and aid to the fields relevant to natural disaster preparedness and early warning from 2000- to-date. Synergies between the targeted aid with particular focus on meteorology and hydrology as an entry to decrease the vulnerability to natural hazard and aid directed towards poverty reduction are made through a range of analyses and assessments going from policy to primary beneficiaries. The whole issue is also looked at from the stand point of Climate Change Adaptation which has gained relevance due the possibility that future climate change could trigger extreme weather and climate events.

Finland has been supportive to the efforts related to Disaster Risk Reduction (DRR), both at the international level through expression of support in global policy fora and its financial support to UN agencies that are actively involved in implementation of DRR. At country level it has supported capacity building efforts of Early Warning Systems directly and indirectly through its range of development projects. Lack of a coherent strategy towards DRR has however constrained the effectiveness of these interventions, without significant shifts in DRR capacities.

There is a strong need to evolve a specific strategy that brings together the diverse but relevant efforts within Finland's development aid portfolio to support DRR with collateral benefits in furthering Climate Change Adaptation capacities to tide over the future climate change threats.

Key words: Disaster Risk Reduction, Climate change adaptation, natural hazards, Finland, development cooperation

YHTEENVETO

Tässä evaluoinnissa tarkastellaan sitä, missä määrin Suomi on kehityspolitiikallaan ja –avullaan kyennyt vähentämään haavoittuvuutta luonnonkatastrofeja kohtaan. Samalla arvioidaan, onko ilmastonmuutoksen mahdollisesti aiheuttamat lisähaitat otettu huomioon. Köyhyyden vähentäminen ja kestävä kehitys ovat perinteisesti olleet keskeisellä sijalla Suomen kehityspolitiikassa. Evaluoinnin tavoitteena on saada ulkopuolisten asiantuntijoiden arvio siitä, onko näillä linjauksilla kyetty aidosti parantamaan yhteisöjen ja valtioiden kykyä selviytyä luonnonkatastrofeista.

Katastrofit ovat entistä tavallisempia, mihin ovat syynä muun muassa kasvava köyhyys, sekä ilmaston muutokset ja vaihtelut. Toistuvat katastrofit lisäävät köyhyyttä ja tuhoavat ympäristöä ylläpitäen näin kierrettä, jonka käynnistää köyhyydestä aiheutuva haavoittuvuus luonnonuhkien vaikutuksille. Näiden yhteyksien tunnistaminen on avainasemassa, kun apu pyritään kohdistamaan kestävällä tavalla. Erityisen tärkeää se on silloin, kun on kyse ilmastonmuutoksista, joiden myötä haitalliset sääilmiöt lisääntyvät.

Köyhyyden, katastrofiriskien vähentämisen ja ilmastonmuutoksen välisten tietoisten yhteyksien ymmärtäminen ja rakentaminen on kansainvälisesti katsoen melko uutta. Suomi on jo useiden vuosikymmenien ajan voimakkaasti tukenut kestävää kehitystä. Kansainvälisellä poliittisella tasolla Suomi on aktiivisesti ponnistellut kaikkien merkittävien kansainvälisten sopimusten ja institutionaalisten järjestelyjen, kuten katastrofiriskien vähentämisen,tehokkaan toteuttamisen puolesta. Suomi on myös avustanut katastrofiriskien vähentämiseksi ponnistelevien järjestöjen (kuten UNISDR:in), sekä muiden monenkeskisten järjestöjen (kuten UNDP:in ja WMO:n) toimintaa.

Todellisten yhteyksien selvittäminen oli vaativa tehtävä. Evaluoinnissa on käytetty useita eri tasoja ja asiaa on tarkasteltu useilta eri näkökannoilta. Evaluoinnissa arvioidaan sitä tukea, jota Suomi on 2000-luvulla antanut luonnonkatastrofeihin valmistautumisen ja ennakkovaroitusjärjestelmien kehittämiseksi. Päähuomio on niissä hankkeissa, joissa meteorologia- ja hydrologiapalvelujen avulla pyritään vähentämään köyhyydestä johtuvaa haavoittuvuutta tukemalla ennakkovaroitusjärjestelmien ja katastrofivalmiuksien parantamista, sekä teknisten ja institutionaalisten valmiuksien kehittämistä. Evaluoinnissa käytetään menetelmää (end-to-end approach), jossa tarkastellaan ketjua luonnonuhkien kehittymisestä katastrofeiksi yhteisötasolla. Puutteita ja katkoksia ilmenee muun muassa tiedon tuottamisessa ja välittämisessä sekä yhteisö- ja kansallistason katastrofivalmiustoiminnassa. Lisäksi haavoittuvuuteen ja katastrofeista selviytymiskyvyn vahvistamiseen kiinnitettiin erityistä huomiota. Perusolettamuksena on, että kaikki kehityshankkeet joko vahvistavat toimintavalmiuksia tai vähentävät haavoittuvuutta.

Suomen tukemissa katastrofiriskien vähentämiseen liittyvissä ohjelmissa on keskitytty lähinnä meteorologisten palveluiden parantamiseen. Näissä ohjelmissa on kiinnitetty vain vähän huomiota tiedon käyttöön eri sektoreilla. Palveluista ei ole tehty

käyttäjäystävällisiä eivätkä ne ole tukeneet tehokkaasti katastrofivalmiuden parantamista. Huolimatta siitä, että kehitysohjelmissa on panostettu merkittävästi Suomen yhteistyömaiden meteorologisten palveluiden kehittämiseen, hankkeiden tehokkuutta rajoittaa edelleen huomattavasti myös se, että ne ovat paikkasidonnaisia eikä niiden avulla kyetä varoittamaan katastrofeista riittävän ajoissa. Lisäksi yhteiskunnallisen ja haavoittuvuutta koskevan tiedon väliset yhteydet ovat niissä rajalliset. Saattaa olla, että näitä yhteyksiä ollaan vasta luomassa; onhan katastrofiriskien vähentämisen maailmanlaajuinenkin integrointi vasta aluillaan. Tämä evaluointi voikin olla hieman edellä aikaansa ja saattaa kestää viidestä kymmeneen vuotta ennen kuin voimme tarkastella näitä yhteyksiä (end-to-end chain) katastrofiriskien hallinnassa.

Evaluoinnissa kävi ilmi, että kehitysavulla kyetään tehokkaasti vähentämään yhteisötason katastrofiriskejä vain, mikäli erityyppiset hankkeet yhdistetään strategisesti. Ei ole kuitenkaan tarkoituksenmukaista edellyttää, että jollain tietyllä ajanjaksolla toteutetut hankkeet tai yhden tahon (esim. Suomen) antama apu muuttaisi tilannetta kokonaisvaltaisesti. Toimien avulla tulisi yhdessä saavuttaa tilanne, jossa yhteisöt kykenevät selviytymään katastrofien haittavaikutuksista. Tähän päästään vain, jos yhteistyömaat ottavat vastuun asiasta ja kehittävät hankkeille ja rahoitukselle tarvittavat puitteet. Esimerkiksi Karibian alueella on käynnissä lupaavia hankkeita, joissa kehitetään alueellisia yhteistyöverkostoja katastrofiriskien vähentämiseksi ja joissa useat maat ovat laatimassa itselleen kansallisia sopeutumisohjelmia tai päivittämässä niitä.

Merkittävä haaste niin Suomelle kuin kehitysmaillekin on sopia siitä, mitkä avun muodot voivat tehokkaimmin vähentää katastrofiriskejä. Katastrofiriskien vähentäminen edellyttää useiden eri sektoreiden ministeriöiden yhteistyötä sekä aktiivisuutta yhteisötasolla. Kenttämatkoilla arvioitujen hankkeiden perusteella voidaan sanoa, että jotkut avun muodot sopivat tarkoitukseen muita paremmin. On kuitenkin syytä muistaa, että tämä riippuu eri maissa vallitsevasta tilanteesta. Lyhyellä tähtäimellä perinteiset hankkeet todennäköisesti soveltuvat valmiuksien kehittämiseen yksittäisissä instituutioissa. Budjettituki on luultavasti liian korkean tason keino tuottamaan konkreettisia tuloksia ruohonjuuritasolla ja merkittävistä asioista voi jäädä erilaisia näkemyksiä. Joissakin maissa, kuten Mosambikissa, on kuitenkin ollut positiivista kehitystä tässä suhteessa. Hajautetut sektoriohjelmat voisivat tarjota kaksi eri lähestymistapaa, sillä ne vahvistaisivat instituutioiden välistä yhteistyötä sekä voisivat edistää hyvää hallintoa ja kansalaisyhteiskunnan osallistumista.

Ilmastosta johtuvien katastrofien ja ilmastonmuutokseen sopeutumistarpeen välillä vallitseva läheinen yhteys on tunnustettu YK:n ilmastonmuutosta koskevassa puitesopimuksessa (UNFCCC). Ilmastonmuutos saattaa lisätä ja voimistaa äärimmäisiä sääilmiöitä, mikä voi johtaa yhä useimmin toistuviin katastrofeihin haavoittuvissa yhteisöissä. Sopeutuminen katastrofiriskien vähentämisen avulla tarjoaa tehokkaan puolustuskeinon. Tukemalla ja kehittämällä katastrofiriskien vähentämistä autetaan yhteisöjä kohtaamaan ilmastonmuutoksen uhat.

Selkeiden suuntaviivojen ja johdonmukaisen politiikan puuttuessa Suomen apu ja panostukset katastrofiriskien vähentämiseksi ovat olleet hajanaisia myös köyhyyden

näkökulmasta tarkasteltuina. Suomen olisikin laadittava politiikka- ja strategialinjaus, jossa se selostaa katastrofiriskien vähentämisaloitteiden tukeen liittyviä näkökantojaan ja painopisteitään. Näin voidaan tehokkaasti ja johdonmukaisesti kehittää haavoittuvien valtioiden ja yhteisöjen valmiuksia ja auttaa niitä sopeutumaan ilmastonmuutoksen haitallisiin vaikutuksiin nykyistä paremmin.

KATASTROFIVALMIUTEEN LIITTYVÄT POLITIIKAT JA STRATEGIAT		
Tulokset	**Johtopäätökset**	**Suositukset**
Kansainvälisellä tasolla Suomi on tukenut ponnisteluja katastrofiriskien vähentämiseksi. Suomi ei ole ottanut nimenomaisesti kantaa katastrofiriskien vähentämiseen tai siihen, että sen yhteys köyhyyden vähentämisen ja kestävän kehityksen kaltaisiin peruskysymyksiin tunnustetaan. Suomella on runsaasti kokemusta ennakkovaroitusvalmiuksien kehittämisestä, ja tätä kokemustaan se on myös hyödyntänyt.	Vaikka Suomi on esiintynyt näkyvästi kansainvälisillä foorumeilla katastrofiriskien vähentämiseksi ja tukenut toimintaa merkittävin taloudellisin panostuksin, ponnistelujen vaikutukset ovat jääneet rajallisiksi. Tämä saattaa johtua siitä, että panostukset ovat olleet hajanaisia, vaikka ne olisi kohdistettava oikein ja toteutettava johdonmukaisesti. Vaikka katastrofiriskien vähentämistä pidetäänkin tärkeänä, sitä ei erityisesti tueta poliittisesti tai taloudellisesti.	Suomen olisikin laadittava poliittinen linjaus, jossa se selostaa katastrofiriskien vähentämisaloitteiden tukeen liittyviä näkökantojaan ja painopisteitään. Päähuomio tulisi kohdistaa strategioihin, joilla katastrofiriskejä voidaan vähentää koordinoidusti ja tukea taloudellisesti. Toimet olisi kohdistettava EU:n strategioiden mukaisesti ja samalla olisi otettava huomioon Suomen korostamat kansalliset ja globaalit painopistealueet. Keskittyminen ennakkovaroitussektoriin myös tulevaisuudessa voisi tuottaa merkittäviä hyötyjä. Tätä suhteellista etua olisi vahvistettava omaksumalla integroitu lähestymistapa (end-to-end approach) useita uhkia sisältävässä toimintaympäristössä.
Vuonna 2007 hyväksymässään kehityspoliittisessa ohjelmassa Suomi korostaa entistä voimakkaammin kestävää kehitystä.	Tämä luo hyvän pohjan katastrofiriskien vähentämisen huomioimiselle. Tähän politiikkaan perustuva katastrofiriskien vähentäminen riippuu	Olisi luotava yhteyksiä nykyisten ja tulevien kehitysohjelmien ja -hankkeiden välille, jotka liittyvät katastrofiriskien vähentämistavoitteisiin. Yhteyksien tulisi olla EU:n

	kuitenkin siitä, kuinka se toiminnallistetaan.	katastrofiriskien vähentämisstrategian ja Hyogon toimintakehyksen mukaisia. Katastrofiriskien vähentämiseen liittyviä kysymyksiä olisi käsiteltävä keskusteltaessa uudesta kansalaisjärjestöpolitiikasta. Kansalaisjärjestöille tarkoitetuissa rahoitusinstrumenteissa olisi oltava joustavuutta, jotta niille voidaan myöntää varoja myös katastrofiriskien vähentämiseen.
KATASTROFIRISKIEN VÄHENTÄMINEN – YHTEYS OHJELMIEN TOTEUTUKSEEN		
Tulokset	**Johtopäätökset**	**Suositukset**
Katastrofeja on käsitelty kahdenvälisissä neuvotteluissa useimmiten vasta suuronnettomuuksien jälkeen. Viime vuosina keskusteluissa on kuitenkin käsitelty ilmastonmuutokseen sopeutumista ja ajoittain myös toimia katastrofiriskien vähentämiseksi.	Uusi kehityspolitiikka, joka korostaa voimakkaasti ympäristökysymyksiä, määrittää yhteistyömaiden kanssa käytävää vuoropuhelua.	Katastrofiriskien vähentäminen ja ilmastonmuutokseen sopeutuminen olisi edelleen sisällytettävä mandaatteihin ja poliittiseen vuoropuheluun katastrofeille alttiissa maissa. Nykyisiä vuoropuhelukanavia (kuten budjetti- ja sektoritukea) käyttämällä olisi nostettava esille haavoittuvuuteen ja katastrofiriskien vähentämiseen liittyviä kysymyksiä.
Suomen rahoittamissa meteorologisissa ohjelmissa pääpaino on	Kehitysavulla on vaikutusta yhteisötasolla vain, jos eri hankkeet	Kaikki meteorologisten palveluiden kehittämishankkeet olisi

ollut sinänsä erittäin tärkeiden meteorologisten palveluiden vahvistamisessa. Nämä ohjelmat ovat kuitenkin olleet irrallaan eri alojen sektoreista ja loppukäyttäjien todellisista tarpeista.	yhdistetään strategisesti.	yhdistettävä katastrofiriskien vähentämiseen nykyistä kattavammin. Olisi rohkaistava horisontaalista yhteistyötä kohdemaissa sidosryhminä toimivien laitosten ja virastojen välillä.
Suomi on mukana useissa alueellisissa tukialoitteissa.	Katastrofiriskien vähentämisellä on vahva kansainvälinen ulottuvuus ja Suomen aktiivinen rooli alueellisen yhdentymisen edistäjänä tarjoaa hyvät mahdollisuudet.	Alueellisia katastrofiriskien vähentämisohjelmia olisi tuettava mahdollisuuksien mukaan. Tulosten varmistamiseksi näihin ohjelmiin olisi sisällytettävä vahva kansallinen komponentti jokaisessa osallistujamaassa.
Suurlähetystöt ja muut diplomaattiedustustot käyttävät strategisia suunnittelutyökaluja (esim. maasuunnitelmia ja riskianalyysejä).	Suuntaviivojen puuttuessa luonnonuhkia ja äärimmäistä yhteiskunnallista haavoittuvuutta koskevat riskianalyysit ovat erittäin heikolla pohjalla.	Ulkoasiainministeriön olisi huolehdittava laaturyhmissä, suurlähetystöissä ja alueyksiköissä siitä, että tehdään oikea tilanneanalyysi, joka kattaa sekä ympäristöriskit että yhteiskunnalliset riskit. Tarvitaan Suomalaisille kenttätyötekijöille ja sidosryhmille suunnattua katastrofiriskien vähentämiseen liittyvää koulutusta ja perehdyttämistä.
Sukupuoli- ja lapsikysymyksiä on	Tehokas katastrofiriskien	Suomi voisi pilotoida joitakin sukupuoliperustaisia

käsitelty vain ohimennen.	vähentäminen ja ilmastonmuutokseen sopeutuminen (mutta myös sen lieventäminen) edellyttävät, että sukupuolten osallistuminen ja yhteiskunnallinen osallistuminen käsitetään joka suhteessa kehityskysymyksiksi.	ohjelmia ja katastrofiriskien vähentämisohjelmia, jolloin niiden muutosvaikutus voitaisiin käytännössä osoittaa. Naiset ja tytöt voivat toimia voimakkaina muutosagentteina kun ilmastonmuutoksen vaikutuksia pyritään lieventämään ja niihin sopeutumaan.
YHTEYDET ILMASTONMUUTOKSEEN SOPEUTUMISEEN		
Tulokset	**Johtopäätökset**	**Suositukset**
Ilmastonmuutoksen odotetaan ilmenevän äärimmäisinä ilmastoilmiöinä useissa haavoittuvissa kehitysmaissa. Toimet, joilla haavoittuvuutta vähennetään, limittyvät merkittävästi niihin toimiin, joilla vahvistetaan yhteisöjen kykyä selviytyä luonnonuhkien aiheuttamista katastrofeista. YK:n ilmastonmuutosta koskevaan puitesopimukseen (UNFCCC) perustuvissa maailmanlaajuisissa toimissa ilmastonmuutokseen	On luotava synergioita katastrofiriskien vähentämisen ja ilmastonmuutokseen sopeutumisen välillä niin, että molemmilla alueilla toteutettavat hankkeet täydentävät toisiaan.	Suomen tulisi omaksua proaktiivinen rooli katastrofiriskien vähentämisestä ja ilmastonmuutoksesta käytävissä kahdenvälisissä neuvotteluissa. Katastrofiriskien vähentäminen ja ilmastonmuutokseen sopeutuminen olisi edelleen sisällytettävä mandaatteihin ja katastrofeille alttiissa maissa käytävään poliittiseen vuoropuheluun. Nykyisiä vuoropuhelukanavia (kuten budjetti- ja sektoritukea) käyttämällä olisi nostettava esille haavoittuvuuteen ja katastrofiriskien vähentämiseen liittyviä kysymyksiä. Tulevassa katastrofiriskien vähentämisessä olisi otettava

sopeutumiseksi harkitaan vakavasti katastrofiriskien vähentämisen käyttämistä.		huomioon uhkien pahentuminen ja muutokset, jotka johtuvat ilmastosidonnaisista luonnonuhkista. Ilmastonmuutokseen sopeutumiseen liittyvät hankkeet on yhdistettävä katastrofiriskien vähentämistavoitteisiin, jotta niiden merkitys korostuisi. Tämän näkökulman olisi heijastuttava niin ilmastonmuutosta kuin katastrofiriskien vähentämistä koskevissa poliitiikkalinjauksissa ja ne olisi toiminnallistettava ohjelmatasolla.
INSTITUTIONAALINEN ANALYYSI		
Tulokset	**Päätelmät**	**Suositukset**
Yhteydet humanitaarisen avun ja kehitysyhteistyön välillä ovat edelleen heikot.	Ponnisteluista huolimatta kehitysyhteistyöpolitiikan jatkumoa ei ole vielä toiminnallistettu.	On pidettävä kiinni ihmisarvoon, riippumattomuuteen, puolueettomuuteen ja tarveperustaiseen humanitaariseen apuun perustuvista periaatteista. Jyrkkä budjettijako humanitaarisen avun ja kehitysyhteistyön väliltä olisi kuitenkin poistettava. Olisi hyödynnettävä katastrofiriskien vähentämisen läpileikkaavaa luonnetta, jossa yhdistyvät katastrofiapu,

		jälleenrakennus ja kehitys. Samalla olisi tunnustettava sen itsenäiset ja kattavat yhteydet kestävien, omavaraisten ja turvallisten yhteisöjen rakentamiseen. Katastrofiriskien vähentäminen voidaan huomioida kaikilla kehitysavun osa-alueilla perustamalla työryhmä, jossa ovat mukana tärkeimmät sidosryhmät (Ulkoasiainministeriön eri osastot, kansalaisjärjestöt ja tärkeimmät instituutiot).

SAMMANFATTNING

Denna utvärdering ger en överblick av hur Finlands utvecklingspolitik och hjälpinsatser bidragit till minskningen av sårbarhet mot naturkatastrofer, inklusive eventuella ytterligare motgångar, som kan härledas från klimatförändringar. Att bekämpa fattigdom och befrämja en hållbar utveckling har haft en central ställning i Finlands utvecklingspolitik. Det övergripande syftet är att undersöka om fokus för denna politik har medfört sådana konkreta resultat, som har gett samhället och nationerna en bättre möjlighet att hantera katastrofer, sett ifrån ett perspektiv av extern expertis.

På grund av olika faktorer (t.ex. ökad fattigdom, växlande klimat och klimatförändringar) blir katastrofer alltmer vanliga. Ofta återkommande katastrofer sprider fattigdom och miljöförsämring, och bildar en ond cirkel, där sårbarheten mot naturkatastrofer ökar. Kopplingen mellan dessa, speciellt mot bakgrunden av olika i scenarion för klimatförändring, med en ökad förekomst av ogynnsamma väderföreteelser, utgör en central faktor för att uppnå en hållbar inverkan genom hjälpinsatser.

Internationellt sett är insikten och uppbyggnaden av medvetna kopplingar mellan fattigdom, minskning av katastrofrisker och klimatförändringar ett rätt nytt fenomen. Finland har redan i tiotals år varit en stark förespråkare för en hållbar utveckling. På den internationella politiska nivån har Finland aktivt försvarat alla stora internationella avtal, och de institutionella arrangemangen för att effektivt kunna genomföra dessa. Så är även fallet för minskning av katastrofrisker. Finland har förbundit sig att tillhandahålla resurser för både specifika organ för minskning av katastrofrisker, såsom UNISDR, samt andra multilaterala organisationer såsom UNDP och WMO.

Att bedöma de verkliga kopplingarna var en komplex uppgift. I utvärderingen används ett flertal olika lager och infallsvinklar. Den täcker finländskt bistånd till de relevanta områdena för beredskap mot naturkatastrofer och tidig varning från år 2000 till idag. Specifik fokus har lagts på meteorologi och hydrologi, som en huvudpunkt till att minska de fattigas sårbarhet mot naturkatastrofer, genom stöd till teknologin för tidig varning och beredskap mot naturkatastrofer, samt upprättande av teknisk och institutionell kompetensutveckling. Utvärderingen använder en kontinuerlig lösningsmodell, där man med katastrof avser ett naturfenomen, som övergår i katastrof på grund av luckor eller brister i att samla och sprida information, samt vidta åtgärder på alla nivåer, både nationellt och inom samhället. Utöver detta var frågorna om sårbarhet och ökad återhämtningsförmåga av största betydelse. Man har gjort antagandet, att alla utvecklingsinsatser har sin verkan genom att antingen öka eller minska sårbarheten.

De finländska program, som specifikt behandlar minskning av katastrofrisker, har fokuserats på att stärka de meteorologiska tjänsterna. Dessa program har inte nämnvärt uppmärksammat användare av information i olika sektorer, vilket har resulterat i en otillräcklig utveckling av sådana produkter, som effektivt kunde användas för katastrofberedskap. Trots fokus på meteorologiska tjänster för finländska samarbets-

länder, och betydande investeringar i dessa, utgör deras geografiska tillförlitlighet och aktualitet fortfarande ett hinder för att de skall vara användbara vid katastroflarm. Utöver detta finns det begränsade kopplingar mellan socioekonomisk information och sårbarhet. Kanske skapas dessa kopplingar som bäst, eftersom integreringen av frågor kring minskning av katastrofrisker idag håller på att genomföras även på global nivå. I den bemärkelsen verkar det som om denna utvärdering ligger litet före sin tid, och det kan dröja mellan fem och tio år innan vi kommer att kunna se sådana kopplingar i den kontinuerliga kedjan för hur man hanterar katastrofrisker.

Utvärderingen visade, att endast när de olika insatserna för utvecklingshjälp sammanfogas på ett strategiskt sätt, kan de effektivt utgöra en skillnad vid minskande av katastrofrisker på samhällsnivå. Man kan dock inte i praktiken förvänta sig att hjälpinsatserna under en bestämd tidsperiod eller av en enskild bidragsgivare (t.ex. Finland) skall kunna täcka samtliga behov av åtgärder så, att de kan spela en avgörande roll. Det önskvärda vore att alla åtgärder slogs ihop för att uppnå det ultimata målet, dvs. återhämtningsförmåga vid katastrofer. Detta är endast möjligt om samarbetsländerna tar ledningen och utvecklar system, där insatser och finansiering ingår. Det finns lovande försök, t.ex. i Karibien, där system för regionalt samarbete för minskning av katastrofriskhåller på att utvecklas, och där NAPAs utvecklas eller uppdateras i många länder på nationell nivå.

En stor utmaning för Finland, och även för utvecklingsländerna, är att komma överens om vilka utvecklingsformaliteter, som är mer effektiva för att klara av minskning av katastrofrisker. Minskning av katastrofrisker förutsätter att flera fackministerier bidrar, och att samhället aktivt engagerar sig. På basen av studerade fall och exempel kan man dra slutsatsen att vissa formaliteter kan vara mer lämpliga än andra. Dock är det viktigt att notera, att detta varierar enligt situationen i respektive land. På kort sikt verkar der som om traditionella projekt är effektiva vad gäller kompetensutveckling inom en institution. Ett budgetstöd verkar vara på en för hög nivå, för att verkligen kunna uppnå faktiska resultat på gräsrotsnivå, och åtgärder stöter på motstånd. Trots allt kan man se positiva trender i några länder, såsom Mosambik. Decentraliserade sektorprogram kunde erbjuda en dubbel infallsvinkel, eftersom insatserna kunde öka samarbete mellan olika institutioner, främja god styrning och deltagande från samhällets sida.

De nära kopplingarna mellan klimatbetingade katastrofer och behovet att anpassa sig till kommande klimatförändringar har erkänts vid FN:s klimatkonvention (UNFCCC). Klimatförändringar kan resultera i en ökad intensitet och frekvens av extrema väderfenomen, vilket kan leda till katastrofer i sårbara samhällen, och därigenom skulle en anpassning genom minskning av klimatrisk vara ett effektivt försvar. Följaktligen erbjuder en minskning av klimatrisker, och en ökning av satsningarna på dessa, kombinerade fördelar i form av att befolkningen får bättre möjligheten att möta de hot, som klimatförändringen medför.

Finlands insatser och bidrag för minskning av katastrofrisker har inte varit konsek

venta ens från fattigdomssynpunkt, på grund av avsaknaden av tydliga riktlinjer och policy. Det finns ett stort behov av att tydligt presentera Finlands syn och prioriteringar för stödjandet av initiativen för minskning av klimatrisker i en övergripande policy- och strategirapport. Detta kommer att göra det möjligt att vidta sådana effektiva och konsekventa åtgärder, som är avgörande för sårbara nationers och samhällens beredskap mot katastrofer, och gör det möjligt för dem att bättre anpassa sig till de negativa följderna av klimatförändring.

POLICY OCH STRATEGIER SAMMANKOPPLADE MED KATASTROFBEREDSKAP		
Forskningsresultat	**Slutledningar**	**Rekommendationer**
På internationell nivå har Finland stöttat satsningarna på minskning av katastrofrisker. Det finns ingen särskild programförklaring för Finlands syn på minskning av katastrofrisker, ej heller något erkännande av dess nära koppling till fundamentala frågor, såsom bekämpning av fattigdom och hållbar utveckling. Finland har en ansenlig erfarenhet av kompetensutveckling i system för tidig varning, vilka har lånefinansierats tidigare.	Trots betydande bidrag till minskning av katastrofrisker, både vad gäller internationellt engagemang och riktat ekonomiskt stöd, förblir effektiviteten i de verkliga resultat, som åstadkommits begränsad. Detta kan tillskrivas den diffusa karaktären i satsningarna, i motsats till fokus och erfordrad koherens. Även om minskning av katastrofrisker i dagsläget anses vara viktigt, får den inte en riktad policy eller budgetstöd.	Det finns ett stort behov att tydligt presentera Finlands syn och prioriteringar för stödjandet av initiativen för minskning av klimatrisker i en övergripande policy- och strategirapport. Tyngdpunkten bör ligga på sådana strategier, som möjliggör samordnade åtgärder för minskning av katastrofrisker genom budgetstöd. Företag en likriktning med EU:s strategier, och visa vilka tyngdpunkter Finland vill lägga på frågan på de nationell och global nivå. En fortsatt fokus på sektorn för tidiga varningssystem skulle kunna medföra stora resultat. Denna relativa fördel måste utvidgas genom att anta ett kontinuerligt synsätt i ett flerrisksystem.
Finlands utvecklingspolitiska program 2007 har erbjudit en uppfriskande poängtering av frågor kring hållbar utveckling.	Detta skapar en god bas för att införliva minskning av katastrofrisker. Dock kommer de åtgärder, som baseras på denna policy att vara beroende av hur de genomförs.	Kopplingar mellan utvecklingsprogram/projekt med koppling till målsättningen för minskning av katastrofrisker, vägledda av EU:s strategi för minskning av katastrofrisk och HFA, bör införlivas i pågående och kommande projekt.

		Innefatta frågor kring minskning av katastrofrisker i konsultationerna för den nya NGO-politiken. Tillåt flexibilitet i finansieringsinstrumenten för NGO för att tilldela medel för minskning av katastrofrisker.
MINSKNING AV KATASTROFRISKER – OPERATIVA KOPPLINGAR		
Forskningsresultat	**Slutledningar**	**Rekommendationer**
Katastrofer har för det mesta behandlats i bilaterala förhandlingar endast i kölvattnet av några större katastrofer. Dock har under de senaste åren frågor kring anpassning till klimatförändring och i viss mån minskning av katastrofrisker funnits på agendan.	Den nya utvecklingspolitiken, som starkt framhäver miljöfrågor, har genomsyrat den politiska dialogen med samarbetsländerna.	Fortsätt att inkludera frågor kring minskning av katastrofrisker och klimatanpassning i mandaten och den politiska dialogen i katastrofutsatta länder. Använd befintliga dialogkanaler, såsom budget och sektorstöd för att föra frågor kring sårbarhet och minskning av katastrofrisker på tal.
De meteorologiska program, som Finland finansierar, har mestadels fokuserat på att stärka de meteorologiska tjänsterna, vilket är mycket viktigt. Däremot har dessa program har inte varit anslutna till sektorerna och till slutanvändarens verkliga behov och krav.	Endast om de olika insatserna för utvecklingshjälp är sammankopplade på ett strategiskt sätt kan de vara effektiva på samhällsnivå.	Alla insatser, som är inriktade på kompetensutveckling inom meteorologiska tjänster bör sammankopplas med ett bredare system för minskning av katastrofrisker. Uppmuntra horisontellt samarbete mellan intresseavdelningar och organ i samarbetsländer.

Finland är engagerat i flera stödinitiativ på subregional nivå.	Minskning av katastrofrisker har en stark internationell dimension, och Finlands aktiva roll i främjandet av regional integrering erbjuder ett bra tillfälle.	Stöd program för minskning av katastrofrisker där det är möjligt. För att vara effektiva måste dessa program ha en stark nationell komponent i varje land som deltar.
Diplomatiska uppdrag använder verktyg för strategisk planering på ambassadnivå (t.ex. landsplaner, riskanalys).	På grund av avsaknaden på riktlinjer förblir analysen av risker mycket svag vad gäller naturrisker och extrem social sårbarhet.	Utrikesministeriet borde garantera att en ordentlig situationsanalys utförs i kvalitetsgrupperna, på ambassaderna och vid kontoren, innefattande element både avseende miljörisker, och sociala risker. Utbildning och inriktning på frågor kring minskning av katastrofrisker för områden och intressenter i Finland.
Könsfrågor och barn har bara diskuterats marginellt.	En effektiv minskning av katastrofrisker och en anpassning till klimatförändringar, och förmildrande åtgärder fordrar en djup förståelse av könsfrågor och socialt deltagande som en utvecklingsfråga.	Finland kan leda några program om könsfrågor och minskning av katastrofrisker för att praktiskt visa deras katalytiska effekt. Kvinnor och flickor kan vara kraftfulla agenter för förändring, när man beaktar satsningarna på förmildrande åtgärder och anpassning.

KOPPLINGAR TILL ANPASSNING TILL KLIMATFÖRÄNDRINGAR		
Forskningsresultat	**Slutledningar**	**Rekommendationer**
Klimatförändringarna förväntas visa sig tydligt i form av extrema klimatföreteelser i många av de sårbara utvecklingsländerna i världen. Åtgärderna för att minska sårbarheten mot kommande klimatförändringar har en stark koppling till åtgärderna för att skapa återhämtningsförmåga vid katastrofer. Globala åtgärder för anpassning till klimatförändringar enligt FN:s klimatkonvention (UNFCCC) beaktar aktivt minskning av katastrofrisker som en av åtgärderna.	Det finns ett behov av att skapa synergi mellan minskning av katastrofrisker och anpassning till klimatförändringar, så att insatserna i bägge dessa områden kompletterar varandra.	Finland bör ha en föregripande roll i bilaterala förhandlingar angående minskning av katastrofrisker och klimatförändringar Fortsätt att inkludera frågor kring minskning av katastrofrisker och klimatanpassning i mandaten och den politiska dialogen i katastrofutsatta länder. Använd befintliga dialogkanaler, såsom budget och sektorstöd för att föra frågor kring sårbarhet och minskning av katastrofrisker på tal. Framtida åtgärder för minskning av katastrofrisker bör beakta de ökade och föränderliga mönstren för hoten från klimatrelaterade naturkatastrofer. För att öka deras relevans, bör insatser relaterade till anpassning till klimatförändringar vara sammankopplade med målsättningen för minskning av katastrofrisker. Denna aspekt bör återspeglas både i policyn för klimatförändringar, och i minskning av katastrofrisker, och verkställas på programnivå.

INSTITUTIONELL ANALYS		
Forskningsresultat	**Slutledningar**	**Rekommendationer**
Kopplingarna mellan humanitär hjälp och utvecklingssamarbete är fortfarande svaga.	Trots genomförda satsningar har kontinuiteten i policyn för utvecklingssamarbete inte ännu verkställts.	De vägledande principerna om medmänsklighet, självständighet, opartiskhet, neutralitet och behovsbaserad humanitär hjälp bör bibehållas, men en strävan till att avlägsna den skarpa budgetindelningen mellan humanitär hjälp och utvecklingssamarbete rekommenderas. Dra nytta av de övergripande elementen i minskning av katastrofrisker, genom att koppla samman bistånd, återuppbyggande och utveckling, och erkänn samtidigt dess oberoende och genomträngande kopplingar till skapandet av hållbara, självförsörjande och säkra samhällen. Ett hänsynstagande till minskning av katastrofrisker genom utvecklingshjälp kan genomföras genom att man skapar en arbetsgrupp med relevanta intressenter (utrikesministeriets olika avdelningar, NGO, centrala institutioner).

SUMMARY

This Evaluation provides a view on the contribution made by Finland's development policy and aid interventions towards reduction of vulnerability to disasters triggered by natural hazards, including possible additional adversity attributable to climate change. Poverty alleviation and sustainable development have been central to Finland's development policy. The overall purpose is to examine from an expert external perspective, if this policy focus has had tangible impacts that have left communities and nations in a better position to cope with disasters.

Due to different factors (e.g. increased poverty, climate variability and change) disasters are becoming more common. Frequent disasters push poverty and environmental degradation further down to complete a vicious cycle that begins with poverty linked enhanced vulnerability to natural hazards. Recognition of these linkages is a key factor in making a sustained impact through aid interventions, particularly in the context of climate change scenarios of enhanced incidence of adverse weather events.

Understanding and building up conscious linkages between poverty, disaster risk reduction and climate change is rather new internationally. Finland has for several decades been a strong supporter of sustainable development. At the international policy level Finland has been an active defender of all major international treaties and the institutional arrangements for their effective implementation. This has also been the case with DRR. Finland has pledged resources for both DRR specific agencies such as UNISDR, as well as other multilateral agencies like the UNDP and WMO.

Assessing the actual linkages was a complex task. A number of different layers and entry points are used in the evaluation. It covers Finnish aid to the fields relevant to natural disaster preparedness and early warning from 2000-to-date, with particular focus on meteorology and hydrology as a principal entry to decrease the vulnerability of the poor to natural hazards through support to the early warning and natural disaster preparedness technology, and technical and institutional capacity building. The evaluation uses the end-to-end approach where disasters are understood as natural hazards getting transformed into disasters due to gaps or inadequacies in the information generation, dissemination and actions at national to community levels. In addition, the issue of vulnerability and enhanced resilience were of paramount importance. The assumption is that any development intervention has an effect in terms of enhanced or reduced vulnerability.

Finnish programmes specifically dealing with DRR have focused on the strengthening of the meteorological services. These programmes have paid little attention to sectoral users of information, resulting in their inadequate translation to products that can be effectively used for disaster preparedness. In spite of the focus and substantial investments on meteorological services of Finnish partner countries, a major constraint remains to be their location specific relevance with enough lead-times to be useful for disaster alerts. In addition, there are limited linkages between socio-

economic and vulnerability information. Perhaps these linkages are just being created, as even at global level the integration issues of DRR are recently being implemented. In that sense it seems that this evaluation is bit ahead of its times and it may take from five to ten years down the line before we will be able to see these linkages in the end-to-end chain for managing disaster risks.

The evaluation evidenced that only when the diverse interventions in development aid are connected in a strategic manner they can be effective in making a difference in DRR at a community level. It is however impractical to expect that aid interventions during a fixed time period or made by a single donor (e.g. Finland) to cover the whole matrix of actions needed to make a difference. What is desired is to see that the actions add up towards achieving the ultimate goal of resilience to disasters. This is possible only if the partner countries take the leadership and develop frameworks where interventions and funding can be included. There are promising attempts for example in the Caribbean where regional cooperation frameworks in DRR are being developed and where NAPAs are being formulated or updated in many countries at national levels.

A major challenge for Finland and also for the developing countries is to agree upon which development modalities are more efficient to tackle the issues of DRR. DRR requires the work of several line ministries as well as an active involvement of the community. Based on the sample and case studies, it can be said that some modalities may be more appropriate. However it is important to note that this will vary according to the situation in each country. In the short term it seems that traditional projects are efficient in building capacity in one institution. Budget support seems to be too high level to actually grasp tangible results on the ground and attribution issues remain contested. Though there are some positive trends in some countries in this respect (e.g. Mozambique). Decentralized sectoral programmes could offer dual entry points as the interventions could enhance inter-institutional cooperation, promote good governance and civil society participation.

The close linkage of disasters related to climate and the need to adapt to future climate change, has been recognized under the UN Framework Convention on Climate Change (UNFCCC). Climate Change may result in increased intensity and frequency of extreme weather events which could lead to disasters in vulnerable communities, and adaptation through DRR will be an effective defence. So, supporting DRR, and enhancing DRR efforts offer combined benefits of enabling populations to face the threats of climate change.

Finland's interventions and contributions to DRR even from the poverty perspective have been not coherent due to the lack of clear guidelines and policy. There is a strong need to articulate Finland's views and priorities in supporting DDR initiatives in an exclusive policy and strategy paper on the issue. This will enable to take effective and coherent steps towards both making a difference in terms of building capacities of vulnerable nations and communities to disasters, as well as enabling them to adapt better to the adverse effects of climate change.

POLICIES AND STRATEGIES LINKED TO DISASTER PREPAREDNESS		
Findings	**Conclusions**	**Recommendations**
In the international level Finland has been supportive to the efforts related to Disaster Risk Reduction (DRR). There is no explicit position paper on Finland's views on DRR, or recognition of its close linkages to fundamental issues like poverty alleviation and sustainable development. Finland has considerable experience toward capacity building of EWS, which has been leveraged in the past.	Despite significant contributions to DRR, both in terms of the international engagement and implicit financial support, the effectiveness in terms of actual difference made remains limited. This could be attributed to the diffused nature of the efforts as opposed to the focus and coherence required. At present, although DRR is considered important, it does not get explicit policy or budget support.	There is a strong need to articulate Finland's views and priorities in supporting DDR initiatives in an exclusive policy paper on the issue. Emphasis should be on strategies that enable coordinated action for DRR with budget support. Herein alignment to EU's strategies as well as the emphasis that Finland would like on the issue at the national and global levels. Continuing the focus on EWS sector could bring rich dividends. This comparative advantage has to be expanded by adopting End-End integrated approach in a Multi-hazard framework.
The 2007 Finnish Development Policy has offered invigorated emphasis on issues of sustainable development.	This creates a good ground for incorporating DRR. However, DRR actions based on these policies will depend on manner in which they get operationalized.	Inter-linkages between development programmes/projects with relevance to DRR objectives, guided by the EU strategy on DRR and the HFA, should be built into to ongoing and future projects. Include issues of DRR in the consultations for the new NGO policy. Allow flexibility in the financing instruments for NGOs to allocate funds for DRR.

REDUCTION OF DISASTER RISKS – OPERATIONAL LINKAGE		
Findings	**Conclusions**	**Recommendations**
Disasters figured in the bilateral discussions mostly in the wake of some major disaster. However, during the last couple of years climate adaptation issues and to some extent DRR have been in the agenda.	The new development policy which emphasises strongly environmental issues has permeated the political dialogue with the partner countries.	Continue including issues of DRR and Climate Adaptation in the mandates and political dialogue in disaster prone countries. Use existing dialogue channels such as budget and sectoral support to raise issues of vulnerability and DRR.
The meteorological programmes financed by Finland have concentrated mostly on strengthening the meteorological services, which is very important. But, these programmes have been disconnected to sectors and to the actual needs and requirements of end users.	Only if the diverse interventions in development aid are connected in a strategic manner can they be effective in making a difference at community level.	All interventions aimed at building capacities of the meteorological services should be linked with broader framework for disaster risk reduction. Encourage horizontal cooperation between stakeholder departments and agencies in partner countries.
Finland is engaged in several sub-regional level support initiatives.	DRR has a strong international dimension and Finland's active role in promoting regional integration offers a good opportunity.	Support DRR regional programmes where feasible. To be efficient, these programmes need to have a strong national component in each of the countries participating.
Embassy level, diplomatic missions are using strategic planning tools	Due to the lack of guidelines the analysis of risks remains very	The MFA should guarantee in the Quality Groups, the Embassies and the Desks that

(e.g. country plans, risk analysis).	weak in terms of natural risks and extreme social vulnerability.	a proper situational analysis is conducted with elements of environmental risks as well as social. Training and orientation on disaster risk reduction issues for field and stakeholders in Finland.
Gender and children issues have been touched marginally.	Efficient DRR and climate adaptation (but also mitigation) require a thorough understanding of gender and social participation as a development issue.	Finland can pilot some gender and DRR programmes to show in practical terms the catalytic effect. Women and girls can be powerful agents of change, when considering the mitigation and adaptation efforts.
LINKAGES WITH CLIMATE CHANGE ADAPTATION		
Findings	**Conclusions**	**Recommendations**
Climate Change is expected to manifest in form of extreme climate events in many of the vulnerable developing countries of the world. Actions for reducing vulnerabilities to future climate change have a strong overlap with the steps required to build resilience to disasters due to natural hazards. Global actions under the UN Framework Convention on Climate Change (UNFCCC) for climate change adaptation are actively	There is a need to bring synergy between DRR and CCA, so that interventions in both areas compliment each other.	Finland should have a proactive role in DRR and CC issues in bilateral negotiations. Continue including issues of DRR and Climate Adaptation in the mandates and political dialogue in disaster prone countries. Use existing dialogue channels such as budget and sectoral support to raise issues of vulnerability and DRR. Future DRR actions should consider the enhanced and changing patterns in threats due to climate linked natural

considering DRR as one of the measures.		hazards. Interventions related to climate change adaptation must link with DRR objectives to enhance their relevance. This aspect should be reflected in both climate change and DRR policies and get operationalized at the programme level.
INSTITUTIONAL ANALYSIS		
Findings	**Conclusions**	**Recommendations**
Linkages between the humanitarian assistance and development cooperation are still weak.	Despite efforts the continuum in development cooperation policy is still not operationalized.	The guiding principles of humanity, independence, impartiality, neutrality and needs-based humanitarian aid should be maintained, but removing sharp budgetary division between the humanitarian aid and development cooperation should be encouraged. Take advantage of the cross-cutting nature of DRR in linking relief, rehabilitation and development, while recognizng its independent and pervasive links to buidling sustainable, self-reliant and secure communities Consideration of disaster risk reduction across development aid can be implemented by creation of a Working Group with relevant stakeholders (MFA's different departments, NGOs, key institutions).

1 INTRODUCTION

1.1 The Purpose, Objective and Scope

Disasters - threat to poverty alleviation and sustainable development
Impacts on people's lives and livelihoods by disasters resulting from natural hazards display an alarming increase. Recent episodes, even during the short course of this evaluation, bring this reality closer to us (Box 1). Factors like the increasing size of the population living in hazard prone area; poverty, social setting and demographic pressures have significantly contributed to the reported increase in disaster related losses. Added to this, is the possible increase in the intensity or frequency of natural hazards due to climate change.

Migration for economic and other reasons has led to large numbers of people to live in precarious settlements, often on unsafe land and in makeshift shelters, both in urban and rural settings. In such altered social conditions, traditional relationships and values have eroded causing disruption of mutual support structures and information flow in communities - making them more vulnerable. Acute environmental degradation, poor access to basic services and deteriorated health conditions further aggravate the situation to transform extreme weather events into disasters.

Frequent disasters exacerbate poverty and environmental degradation to complete a vicious cycle that begins with poverty-linked vulnerability to natural hazards. Recognition of these linkages is a key factor in making a sustained impact through aid interventions, particularly in the context of climate change scenarios of enhanced incidence of adverse weather events.

Development aid has an immense potential to break the vicious cycle of poverty-environmental degradation and disasters. It can influence the definition of priorities and enable the implementation of actions at various governance levels. However, the potential of development to make a difference on the ground can be constrained or enhanced by policies and institutional processes operating at various levels. Evaluations, such as this one, can contribute towards understanding the extent to which development aid is being sensitive to these processes.

Box 1 Disasters due to natural hazards in 2009.

Philippines Typhoons – Parma (3rd October) - 470 lives and 223 Million USD losses; Ketsana (26-28th, September) – 391 lives and 234 Million USD losses; Maring (8th September) – 15 lives, 6.3 Million USD losses, Feria (23rd July) – 16 lives, 4.2 Million USD losses.
Nepal Floods – and landslides triggered by incessant rain on 4-8th October killed 46 people in western parts of the country.
El Salvador Floods and landslides – heavy rains on 6-9th November killed 192 people.
Vietnam Storm – revived Tropical Cyclone Ketsana on 28th September resulted in the loss of 174 lives.
Kenya Drought – deficient rainfall during consecutive three years have resulted in prolonged drought culminating in the failure of the 2009 long rains in significant areas, An estimated 3.8 million rural people are classified as highly and extremely food insecure requiring urgent food and non-food interventions.

Source: BBC News 2009; EMDAT 2009; FEWSNET 2009.

Among the initial studies that examined the scope of Disaster Risk Reduction (DRR) as a development concerns, is the one sponsored by the Department for International Development (DFID) (White, Pelling, Sen, Seddon, Russell & Few 2004) which notes that Country Reports on Millennium Development Goals (MDGs) state that their progress on this agenda was being hampered by disasters. When read in conjunction with Finland's Development Policy 2007's (MFA 2007a) main goal "to eradicate poverty and to promote sustainable development in accordance with the UN Millennium Development Goals" this evaluation becomes very important in Finland's development aid context.

The Present Evaluation

This evaluation looks into the whole range of Finland's development aid policy, programmes and projects, including the focussed aid to meteorology, owing to its superior global leadership in this area, to ascertain contributions made to disaster preparedness, particularly at the community level for the poorest/disadvantaged.

Following the International Strategy for Disaster Risk Reduction (ISDR) definition, DRR is "the conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development" (ISDR 2006).

Box 2 Early warning for Disaster Risk Reduction.

Communities can be protected from the adverse impacts of natural hazards by reducing social and economic vulnerability, and improving preparedness for response by effective monitoring and early warning systems. In May, 2008 cyclone Nargis struck Myanmar, with a disproportionatly high toll of human lives of over 138 thousand people. Such mega-disasters cause huge setbacks to development achived through several decades of work. Role of disaster preparedness initiatives could potentially alleviate some of these setbacks. To illustrate we take Bangladesh, where a 48-hour early warning system in place, coupled with robust programs for community-based disaster preparedness, evacuation and mitigation is implemented. This system has drastically reduced the number of death from Tropical cyclone Bola in 1970 through Sidr in 2007, from 300 000 to 3000, respectively.

Source: CRED 2009.

"Natural hazards by themselves do not cause disasters; it is the combination of an exposed, vulnerable and ill-prepared population or community with a hazard event that results in a disaster" (ISDR 2008a). Human activity, such as land use changes, environmental exploitation and unplanned settlement, often exacerbates the level of disaster risk. In this context it can be well appreciated that, although in one hand reducing disaster risks seems to involve a large range of actions, in the other hand almost every development activity directly or indirectly contributes to it. Activities, however, must be properly orchestrated to achieve this end (Box 2). With the possibility of climate change induced increase in extreme hydro-meteorological events, these actions must be further reinforced and integrated with climate change adaptation strategies to face added adversity.

The purpose of the "Evaluation of Natural Disasters and Climate Change in Finnish Aid from the perspective of Poverty Reduction" is to obtain an expert external opinion on how Finland's development policy focus on poverty has contributed to reducing vulnerability to natural hazards, and adaptation to future climate change. The purpose is to identify concrete results, successes, and failures and answer a simple question: what is the difference made?

According to the Terms of Reference (ToR) for the evaluation (Annex 1), the major objectives were to:

- Extract lessons from the last nearly ten years of aid to the building of early warning capacities and preparedness and reducing the vulnerability and impacts to natural hazards.
- To assess the efficiency of different levels - from policy to practice - in the promotion of disaster preparedness.
- Bring out special viewpoint on the cross cutting nature of the disaster risk reduction.

Scope of the present Evaluation

A number of different layers and entry points are used in the evaluation. It covers Finnish aid to the fields relevant to natural disaster preparedness and early warning from 2000-to-date, with particular focus on meteorology and hydrology as a principal entry to decrease the vulnerability of the poor to natural hazards through support to the early warning and natural disaster preparedness technology, and technical and institutional capacity building. In terms of funding bilateral, multi-bilateral and multilateral channels and aid delivery mechanisms from the policy and policy dialogue level to practical programmes, projects and activities in the field are included. Connection between poverty and disaster preparedness is examined. Linkages with other sectors such as forestry, land use and management, watershed management and agriculture were also studied.

On a policy level synergies between Finland's policies and international actions in the area of disaster risk reduction and climate change adaptation were examined within the context of the evaluation.

1.2 Status of DRR Issue

Action to reduce risk has grown in importance on the international agenda and is seen by many as essential to safeguard sustainable development efforts and for achieving the MDGs. The Hyogo Framework of Action (HFA) (ISDR 2005a), adopted by Governments in 2005, monitors and reports progress in reducing disaster risks. As mandated by the Hyogo Framework, the ISDR System has undertaken a first, comprehensive, biennial review of the status of Hyogo Framework implementation for the period 2007-09. The ISDR released in July 2009 the first Global Assessment Report on Disaster Risk Reduction, that analyzes the progress and challenges faced in the implementation of the Hyogo Framework's five priorities for action (ISDR 2009b). The Global Assessment Report was a result of coordinated action by the United Nations International Strategy for Disaster Risk Reduction (UNISDR) Secretariat with support from the United Nations Development Programme (UNDP), World Bank (WB), Kingdom of Bahrain, and a range of system partners at all levels. The report very candidly brings out that disaster risk still remains concentrated on the poor living in rural areas and slums. Small Island Developing States (SIDS), Landlocked Developing Countries (LLDCs) with small and vulnerable economies are more susceptible. Inadequacy of the current levels of action to achieve the targets set by HFA for 2015 and the MDGs are clear. Climate change poses additional adversity to this grim status. The positive side of the assessment is that disaster risk reduction is brought out as an effective means to sustain development and reduce poverty which are the basic tenets of Finland's development policy through the past decades.

The close linkage of disasters related to climate and the need to adapt to future climate change, has been recognized under the UN Framework Convention on Climate Change (UNFCCC) as early as 2002 by the Conference of Parties (COP 7) at

Marrakesh (UNFCCC 2002). The decisions note that capacity building of developing country parties "including institutional capacity, for preventive measures, planning, preparedness of disasters relating to climate change, including contingency planning, in particular, for droughts and floods in areas prone to extreme weather events;" would be supported by funding from the Global Environmental Facility (GEF). Such steps gathered greater momentum, particularly due to the efforts of ISDR, with the Bali Action Plan (BAP) (UN FCCC 2007) calling for "Disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change" as enhanced action on Adaptation. This is being operationalized in the current run up to Conference of Parties (COP 15) at Copenhagen under the Ad-hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA). The results of the negotiations at Copenhagen are expected to further mobilise the actions for DRR at both global and national levels.

1.3 The Methodology and Analytical Framework

The task of evaluating the impact of Finnish policies, programmes and projects at different levels, and assessing the ultimate difference made in communities in terms of preparedness to disasters caused by natural hazards, has been quite challenging. DRR is as yet an evolving area; with international action gathering momentum and national activities getting organized.

Issues of Evaluation

The issues were examined at policy, program and project activity levels within the different modes of Finnish development cooperation from the policy implementation to the operational level. In addition, the different modes of the Finnish cooperation such as bilateral and regional, multilateral, new cooperation modalities, and private sector, were also looked into. Although all the aspects as defined in the scope of work were examined, in order to structure the analysis, a range of main evaluation issues are presented here along with their relationship to the evaluation criteria.

Policy and Strategic Level

The Finnish cooperation comprises a wide range of policy documents and strategies that range from the rural development promotion to good governance development. These policies, strategies and guidelines were assessed in terms of their relevance, complementarity, coherence and connectedness within the context of the Finnish Government's commitment to the different international obligations and agreements. In the multilateral level, the evaluation was based on how Finland has promoted the issue of DRR in the policies and operations of the multilateral agencies in the United Nations (UN) context and its operative agencies (especially ISDR). How these issues were supported at the European Union (EU) level, was also ascertained. The evaluation reviewed the relevance of the specific initiatives, statements promoting integration of poverty and DRR, and emphasis for specific resource allocation etc.

Assessing Linkages between Development and Disaster Preparedness

Disaster risk is a function of the hazard characteristic (intensity/severity) and the extent of community's vulnerability. If the capacity of the society to manage risk is high, then the risk is reduced. Management consists of disaster prevention, mitigation, preparedness, emergency response, disaster relief, disaster recovery and rehabilitation (ISDR 2009c). The text book representation of which is

$$\text{Disaster Risk} = \frac{\text{Hazard x Vulnerability}}{\text{Management}}$$

In practical terms, a disaster event is triggered by natural hazards but its underlying cause is the existence of a vulnerable society and poor management of risks.

To see these linkages a sample of development policies/projects/activities were analyzed using the following categories:

1. Development policies/projects/activities in agriculture, water, forestry, good governance etc. that contributed to reducing people's vulnerability to disasters (e.g. projects that enhanced protection to hazard prone zo nes, projects that allow people to diversify livelihood options etc.) The key questions posed to these interventions were:

    - To what extent and in what way did projects reduce people's vulnerability to natural hazards?
    - To what extent interventions took disaster risk reduction into account?
    - Was the possibility of further enhancement of extreme weather or climate events factored in as an explicit consideration?
    - How did the projects enhance capacities of stakeholders to cope and adapt to extreme events?

2. In policies/projects/activities directly aimed at increasing people's capacity to manage hazards, the sub-categories considered were:

    - Early warning;
    - Disaster mitigation;
    - Disaster preparedness;
    - Emergency response and humanitarian aid (excluded in the ToR);
    - Disaster recovery and rehabilitation.

In particular, the sample of projects enhancing meteorological services were examined from the point of view of issues such as sustainability, effectiveness, efficiency and value added. The point of departure for the analysis of these interventions was the use of an end-to-end approach. In term of sustainability the evaluation will look at the extent to which the results and achievements of specific interventions are still being used. Also the capacity building of both institutions and people was taken as

an indicator of sustainability of activities. In terms of the benefits, comparison with the cost of the interventions was subjectively evaluated. In terms of effectiveness, the linkages between poverty reduction and reduced vulnerability were examined from the complementarity point of view using the end-to-end framework. Value added and appropriateness of the technologies introduced was analysed principally assessing the appropriateness of the Finnish technologies and technical assistance provided by Finnish expertise.

Linkage with Adaptation to Future Climate Change

Based on the findings of both regional and global assessments of climate change, the growing consensus emerging is that climate change would manifest as enhanced variability in the short term (IPCC 2007). These finds are being strengthened by more recent studies reporting both increases in heavy precipitation and increases in drought (Allison, Bindoff, Bindschadler, Cox, de Noblet, England, Francis, Gruber, Haywood, Karoly, Kaser, Le Quéré, Lenton, Mann, McNeil, Pitman, Rahmstorf, Rignot, Schellnhuber, Schneider, Sherwood, Somerville, Steffen, Steig, Visbeck & Weaver 2009). This impact of climate change will be of greatest practical significance to communities and their livelihoods in the span of the next five to ten years that are relevant to adaptation plans within the planning horizons of national governments. Effective management of the extreme weather and climate, so as to avert them from becoming either disasters or threats to livelihoods, can be achieved only through systems that can generate and use climate information to its full potential. The contribution of Finnish aid policy, programmes and projects in creating systemic linkages between climate information producers and users and towards facilitation of this process were assessed. The criteria used for evaluation were coordination, complementarity, coherence and connectedness.

Other Issues Examined

In view of the cross-cutting nature of the subject, the evaluation included consideration of views on DRR as a cross-cutting issue. The evaluation also attempts to look at the organizational set-up and division of responsibilities in the Ministry for Foreign Affairs of Finland (MFA) to assess how DRR is promoted. Whether the institutional set-up ensures that relief aid, disaster prevention initiatives and development are coherent and complement each other is commented on. Best practices emerging out of the whole evaluation are also identified. The diversity of the issues considered and the short time availability, however, did not allow a very comprehensive examination of these issues.

Methodology and Analytical Framework

Natural hazards get transformed into disasters due to gaps or inadequacies in the information generation, dissemination and actions at the national to community levels. The chain that starts with monitoring of extreme weather and climate events, leading up to community level response can be functionally disintegrated into steps wherein developmental interventions can contribute to preparedness and reduction in disaster risks at the community level. This concept is illustrated by the figure 1.

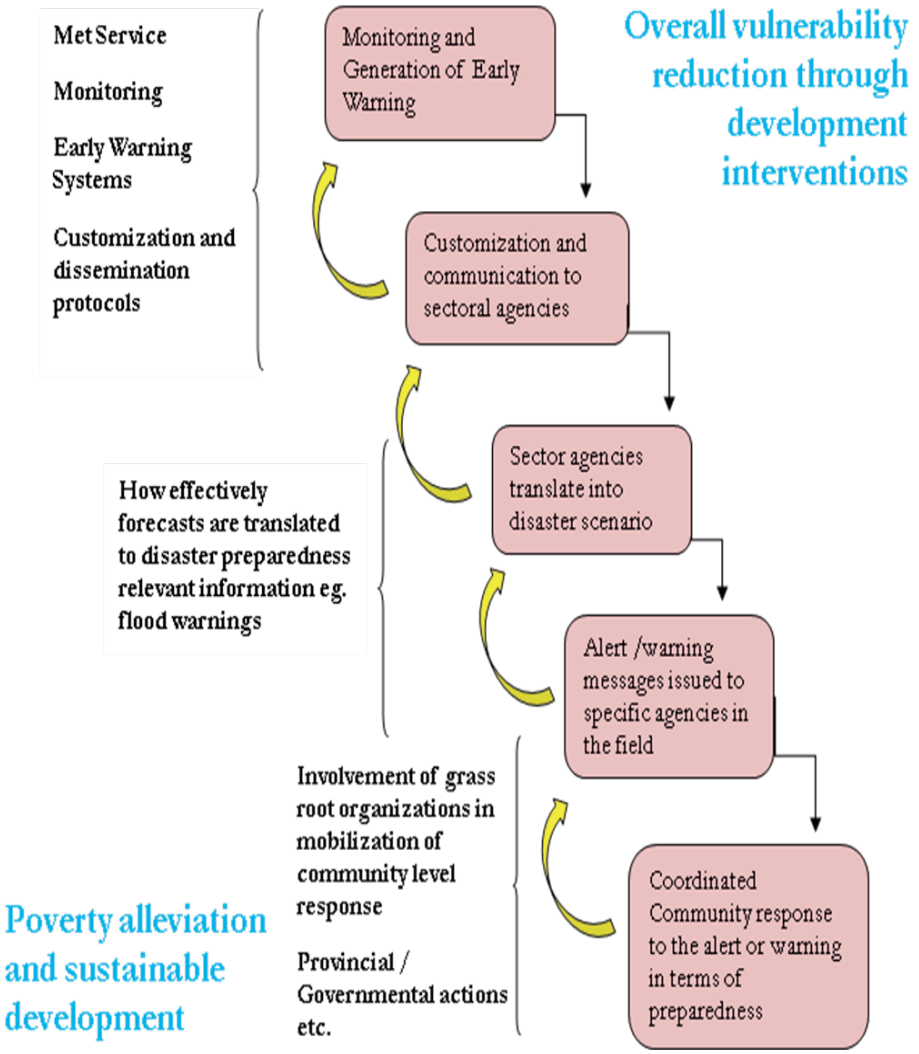

Figure 1 Linkages for an end-to-end disaster preparedness system.

The evaluation approach was based on how the implementation of a particular project or program made a difference in this end-to-end chain and resulted in benefits to the community in terms of their capacity to respond to extreme weather events. Specific questions on how development projects on poverty alleviation or sustainable development contributed to addressing disaster risk reduction at any of the levels (Figure 1) were considered. Country case studies were taken up to examine how development projects have contributed to building resilience to natural hazards. A comprehensive table for the assessment was evolved with sample of questions as shown in Annex 3.

To evaluate some of the community based projects with poverty reduction perspective, the evaluation also used the concept of vulnerability as defined by ISDR - "A set of conditions and processes resulting from physical, social, economic, and envi-

ronmental factors, which increase the susceptibility of a community to the impact of hazards. Positive factors, which increase the ability of people and the society they live in, to cope effectively with hazards and can reduce their susceptibility, are often designated as capacities." In order to reduce vulnerability and enhance resilience, there are usually two entry points:
1. Strengthen people´s asset base (capitals) to make them more resilient (production, social and human assets, planning etc.); or
2. Transform the institutional and policy context (transforming structures and processes) to support disaster prevention (e.g. land use planning, building codes regulations).
All development interventions have some incremental effect on vulnerability.

1.4 Evaluation Process and Information Sources

The evaluation was carried out as a document review and analysis, and through interviews. A list of interviewees is attached as Annex 2. The Inception meeting was held at MFA on 20th July 2009 and the Inception Report was submitted on 25th August 2009. A Desk Review based on MFA documents was presented to MFA on 24th September 2009. This presentation included preliminary results from the field visit to the Caribbean, as well as additional details on the methodology outlined in the Inception report. Extensive interviews with MFA officials and other stakeholders in Finland were conducted during October and November. Results from the Mozambique field visit were presented through a teleconference on 19th of October 2009.

Semi-structured Interviews
Noting the experience with the limited results of questionnaires in other comparable evaluations, the intention was not to send out questionnaires for stakeholders. Semi-structured interviews were conducted and questions tailored to different stakeholders.

Field Visits
The evaluation team undertook field visits to the Caribbean during 31st August to 11th September, 2009 (Jamaica, Trinidad & Tobago, Barbados and Grenada) and Mozambique during 28th September to 2nd October, 2009. The team had also planned to visit Nicaragua, but this visit could not be accomplished because the local key persons were preoccupied with other commitments. Meetings with UN agencies (World Meteorological Organization (WMO), UNISDR, World Health Organization (WHO)), International Federation of Red Cross and Red Crescent Societies (IFRC) and the Finland's Permanent Mission in Geneva were held during the Team's visit to Geneva, undertaken in two segments during 22-24th July and 12-13 October 2009.

Documents reviewed
The main document categories available from MFA for studying were:

- overall development policy/strategy documents;
- key sectoral strategy documents;
- key operational guidelines;
- documents related to policy consultations with the case study countries;
- documents related to the selected development interventions studied in the case study countries (ToRs, appraisals, basic documents for implementation, mid term reviews, monitoring reports etc.);
- latest peer reviews of the Organisation for Economic Cooperation and Development/Development Assistance Committee (OECD/DAC) on Finland's development cooperation;
- key evaluations of earlier projects implemented.

In addition to these, a large number of publications from UN agencies like UNISDR, UNFCCC, the EU, other donor agencies and academic journals were referred to.

2 POLICIES AND STRATEGIES LINKING DEVELOPMENT AND DISASTER RISK REDUCTION

2.1 Conceptual Framework

The basic elements for disaster risk reduction are illustrated in the schematic below. Since the whole framework is embedded in communities, the basic developmental status of the communities themselves, in terms of poverty, access to basic amenities and level of degradation of the physical environment around them determine their capability to respond to adversities.

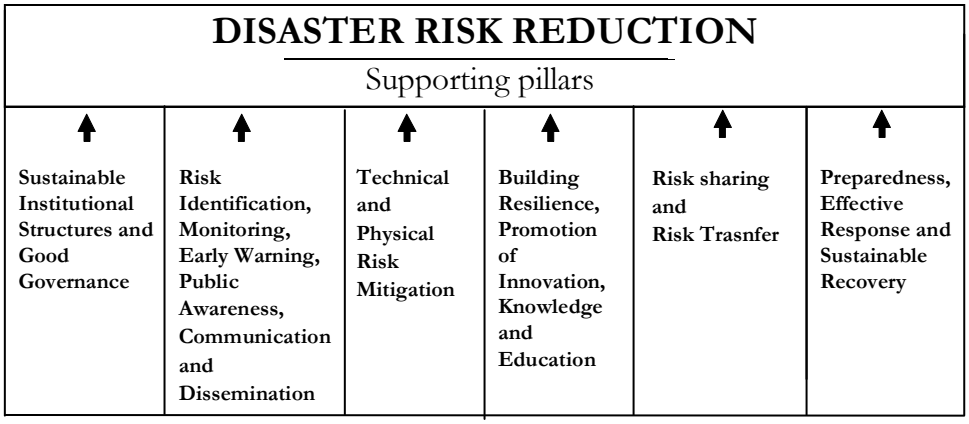

Figure 2 Components of Disaster Risk Reduction that are critical.
Source: DFID 2006.

Improved capacities to respond to natural hazards, combined with reduced social and economic vulnerability, significantly reduce disaster risks. While technology plays an important role in the former, the latter is achieved through a wide-range of development initiatives including those aimed at preserving the natural environment. What needs to be also recognized is the need to maintain a balance and coordination between these two streams of initiatives to achieve significant reduction of disaster losses.

2.2 International Framework

Evolving Global Actions for DRR

International agenda on DRR was set on course with the decision of the UN General Assembly (UN 1989) in 1989 to declare the 1990s as the International Decade for Natural Disaster Reduction (IDNDR). This decision itself was motivated by the increase in human casualties and property damage in the 1980s. The aim of the IDNDR was to address disaster prevention in the context of a range of hazards.

The Yokohama Strategy for a Safer World, adopted in 1994 at the World Conference on Natural Disaster Reduction held in Yokohama, Japan along with its Plan of Action was one of the main outcomes of the IDNDR (ISDR 1994). The Yokohama Strategy set guidelines for action on prevention, preparedness and mitigation of disaster risk. These guidelines were based on a set of principles that stress the importance of risk assessment, disaster prevention and preparedness, the capacity to prevent, reduce and mitigate disasters, and early warning. The principles also stated that the international community should share technology to prevent, reduce and mitigate disasters, and demonstrate a strong political determination in the field of disaster reduction. The International Strategy for Disaster Reduction (ISDR) establised in 1999 by the United Nations General Assembly in its resolution 54/219, as a successor arrangement to the IDNDR (UN 1999).

The World Conference on Disaster Reduction (WCDR) was held from 18-22 January 2005 in Kobe, Japan (ISDR 2005b). The aim of the conference was to increase the international profile of DRR, promote its integration into development planning and practice, and strengthen local and national capacities to address the causes of disasters that hamper development. The 168 States attending the conference adopted the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) and the Hyogo Declaration (ISDR 2005a).

The HFA was endorsed by the General Assembly in Resolution 60/195 (UN 2006), and committed governments to five priorities for action to: ensure that DRR is a national and local priority, with a strong institutional basis for implementation; identify, assess and monitor disaster risks and enhance early warning; use knowledge, innovation and education to build a culture of safety and resilience at all levels; reduce the underlying risk factors; and strengthen disaster preparedness for effective response at all levels.

In 2006, the Under-Secretary-General for Humanitarian Affairs launched a consultative process to consider practical ways of strengthening the ISDR system to support governments in meeting their commitments to implement the HFA. The main aim was to encourage participation of governments and organizations, raise the profile of disaster reduction, and construct a more coherent international effort to support national disaster reduction activities. A result of the consultations was the proposal to convene the Global Platform for DRR as an expanded and reformed successor to the Inter-Agency Task Force for Disaster Reduction (IATF/DR). The Global Platform was envisaged as serving as the primary multi-stakeholder forum for all parties involved in DRR in order to raise awareness on reducing disaster risk, share experience and guide the ISDR system (ISDR 2007). The Second session of the Global Platform for DRR was convened very recently in June 2009 at Geneva, Switzerland with an overwhelming participation from the diverse groups involved in disaster preparedness. Significantly, the gathering called for urgent actions for not only DRR, but also to maintain momentum in achieving MDGs, poverty reduction, climate change adaptation and health (Global Platform 2009).

International Policy Framework

The Hyogo Framework provides an overarching structure for bringing together diverse actions to ultimately reduce disaster risk. It is now the internationally accepted policy framework for all efforts related to DRR at both global and national levels, supported by the UN system and major donors like the World Bank and the EU (EC 2009).

HFA calls upon the United Nations system and other international organizations to systematically incorporate disaster risk considerations in their own strategies, programmes, advocacy, budgets and internal organization and to participate in ISDR initiatives. Strengthening of the United Nations system to assist disaster-prone developing countries with disaster risk reduction initiatives and to support States' own efforts with technical assistance and capacity development is also emphasized. Responding to this call, since 2005, most UN agencies and UN coordination mechanisms, the Chief Executives Board for Coordination, the United Nations Development Group and the Inter-Agency Standing Committee, have taken action on disaster risk reduction and made links with climate change adaptation. The progress is reported to be promising both internationally and regionally (ISDR 2009a).

Finland supported HFA and the ISDR system at the First Global Platform for DRR. The need for identifying gaps and overlaps in the implementation of HFA was also stated. In the intervention made by Finland, the need for sustaining the efforts of ISDR for reducing disaster risks was emphasized and it was suggested that modes for creation of core UN funding be explored. Finland has been providing funding to the secretariat since its creation.

A recent review (ISDR 2009b) of progress on the implementation of the Hyogo Framework for Action indicate that national efforts remain focused on strengthening

policy, legislation, institutional frameworks and capacities for disaster preparedness, response, risk assessments, and early warning (HFA Priorities 1, 2 and 5). In contrast, much more effort needs to be made in using knowledge, education and innovative outreach programmes to stimulate a culture of disaster resilience, and to address the underlying drivers that configure disaster risk in social, economic and infrastructure development across rural and urban contexts (HFA Priorities 3 and 4).

Our field level assessment reveals further weaknesses of HFA framework. Even at the national level, in the key services like early warning (HFA Priorities 2), some improvements are noticed in observation and forecast capacities at the Meteorological services level. There is insignificant improvement in transforming these improved forecast products into effective application to reduce disaster risks. Consequently, there are only limited improvements towards enhanced preparedness and emergency response at sub-national, local and community level. Hence ISDR framework has a limited impact at the Sub-national level beyond. The workshops and meeting approach used is not effective in transforming HFA Concept into practical action at community level. Hence there is a need to evolve alternative arrangements that meet the demands and needs at the local level where disaster impact is most significant.

In June this year the Global Network of Civil Society Organizations for Disaster Reduction (Global Network of Civil Society Organizations for Disaster Reduction 2009), published the results of a global pilot survey of community level disaster reduction measures implemented in the five Hyogo priority areas. The results have shown that there has been very limited action at the local government and community levels across all the five priority areas. Although the results in the pilot project report are "preliminary", the gap that exists between global policies and "at-risk community" level actions is significant. The continued losses reported across the globe, as a result of many recent disasters (Box 1), underline the existence of this gap and call for an increase in the community level participation.

EU DRR Policies

In February 2009, EU released its strategy to support DRR (EC 2009) in developing countries through both development cooperation and humanitarian aid. This was aimed to help in supporting the 2005 Hyogo Framework for Action and achieve the MDGs. The objective of the EU strategy is to "contribute to sustainable development and poverty eradication" through improved DRR. While addressing all the five HFA priority areas, the strategy specifically mentions the need to upgrade data monitoring stations and reliability of early warning systems, and also places emphasis on community based programs. Priorities for action include taking up DRR in the political dialogue, preparation of Regional Action Plans for DRR and trying to integrate DRR into the national agenda for development. The strategy also recognizes the additional threat due to climate change and the need to bring together climate change adaptation concerns and DRR issues wherever required.

The Disaster Preparedness ECHO (DIPECHO) Programme too, contributes to the

implementation of the Hyogo Framework for Action 2005 – 2015 (HFA). It specifically stresses that all the proposed disaster preparedness actions should look at supporting the ongoing implementation measures of the HFA at the regional level.

Role of UN agencies

Finland emphasizes the importance of the UN role as a key player and creator of a framework for international development policy work. In view of the fact that Finland allocates most of it's funding for UN organizations to four key actors: UNDP, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA) and the World Food Programme (WFP), they can be examined more in detail. Table 1 below gives an idea of the funds allocated to each of the UN agencies, incuding the direct funding to UN ISDR system. UNDP has been very closely involved in operational activities for mitigation, prevention and preparedness of natural hazards since a decision of the UN General Assembly in 1998 transferring the responsibilities of Emergency Relief Coordination. UNDP, through its Bureau for Crisis Prevention and Recovery (BCPR), supports disaster-prone countries to develop legislative frameworks, operational systems and coordination mechanisms to ensure the integration of risk reduction into human development. Strong linkages between sustainable development, poverty reduction and disasters were the foundations for creation of the BCPR within UNDP in 2001. UNDP, through its programmes, is implementing and furthering all the five priority areas of the HFA (ISDR 2009a).

Table 1 MFA funding for selected UN organizations in 2008-2009.
All figures are presented as percentage of MFA's total annual funding of actual development cooperation. In 2008 the total funding was 600,3 MEUR and for 2009 the figure in the budget proposal is 731 MEUR. For 2009 the total figure of the funding is that of the budget proposal.

UN Organisation	% for 2008	% for 2009
UNDP	2,8	2,6
UNFPA	2,7	2,9
UNICEF	2,5	2,3
WFP	1,0	0,8
UNISDR	0,05	0,04

Source: MFA 2009d and MFA2009e.

The UNICEF is involved in hazard proofing of educational institutions and ensures that the specific needs of women and children are integrally addressed. WFP, with a new Strategic Plan, aims at preventing acute hunger by investing in disaster preparedness and migration measures. Their evolving approach includes the need for disaster prevention, preparedness, contingency planning and response to be integral parts of the United Nations Development Assistance Framework (UNDAF). UNFPA is actively engaged in emergency preparedness through its efforts to collect, analyze and monitor basic population data and linkages between the population and environment.

OECD/DAC Policy Recommendations

The OECD recognizes the growing impacts of natural hazards on its member and non-member economies. The rise in direct and indirect costs of disasters is attributed to increased vulnerability and exposure of people and assets to hazards, due to population concentration in environmentally degraded and risk prone areas. Potential contribution of informed decision making, at both governmental and societal levels, to reduce disasters is emphasized as an issue to be supported. The OECD and in particular DAC Network on Environment and Development Co-operation (ENVIRONET) have been promoting the use of Strategic Environmental Assessment (SEA) (OECD 2008). In some countries it is gradually coming into use but its broad adoption remains to be seen. The OECD, however, has remained active in promoting different tools and has recently published the advisory note on SEA and DRR. It has been endorsed by the members of ENVIRONET, including Finland.

Costs and Benefits of DRR and Private Sector Involvement

Hydro-meteorological disasters can cause significant economic losses, for example in 2008 Hurricane Ike, that hit the Caribbean and the Northern American region in September resulted in an estimated loss of about 30.0 billion USD to the US (CRED 2009). In the worst case the impact can even be double of the GDP of a country (Figure 3).

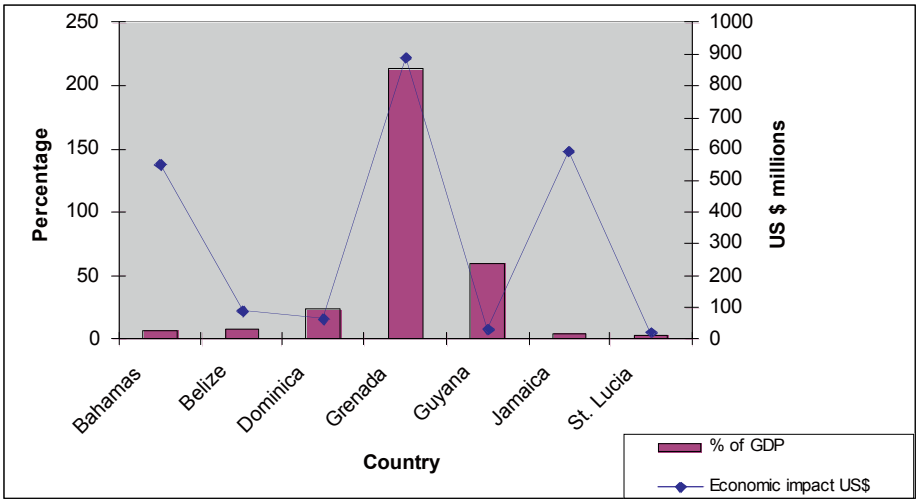

Figure 3 Impacts of hurricanes in selected Caribbean Countries 2004-2008.
Source: Kambon 2009.

Risk financing instruments for managing disaster risks have been hitherto serving the wealthier segments of the society and businesses. ISDR (2009a) reports that the lack of risk transfer mechanisms in developing countries constitutes a significant factor in translation of disaster loss into increased poverty. Micro-insurance, particularly in the agriculture sector is emerging as a viable tool in situations of droughts operated through weather based indices. There is indeed a substantial scope for private sector involvement as well as international support for demonstrating its efficacy. Other pos-

sible opportunities could be public- private sector partnership based national insurance companies with reinsurance back up arrangements as institutional mechanisms, particularly sectors like agriculture, that are being implemented in countries such as India to transfer risks.

2.3 Finnish Policy Position

Changes in the Development Policy

During the last decade Finland has had four different development policies: 1998, 2001, 2004 and 2007 (MFA 1998a, MFA 2001, MFA 2004a and MFA 2007a). Although the policies have maintained great coherence and have focussed on achieving the three main goals: alleviation of widespread poverty, sustainable development, and promotion of equality, democracy and human rights, there is a growing emphasis on the environmental issues. The current policy supports actions to mitigate the impacts of climate change and sees it as an additional threat to basic issues like sustainable development.

Under the new Development Policy (MFA 2007a) the emphasis on sectors like forestry, natural resources, rural development, information technology and environment allow flexibility to support disaster risk reduction initiatives. The Finnish legislation requires strategic environmental impact assessments to be carried out for all projects. This could also be used to provide entry to additional screening from the DRR perspective.

Historically Finnish development policies have dealt only marginally with Disaster Risk Reduction. It was only in the 2004 Development Policy (MFA 2004a) that Finland affirms its commitment to support early warning systems, in particular the reinforcement of meteorological services. The 2004 policy lacked a process-oriented understanding and interconnected approach to effective DRR. Even the 2007 policy (MFA 2007a), which as said is oriented to the sustainable development discourse, does not makes direct reference to DRR. DRR is therefore not viewed as an explicit development issue. Climate Change and the need to foster resilience of the developing countries to face the adversities of climate change are, however, well recognized and evidenced by the funding support to vertical funds like the GEF, which acts as financial supporting mechanism for the UNFCCC and other Multilateral Environmental Agreements (MEAs).

Linkages with EU Policies

The Finnish Development Policy lends strong support to EU's policies in-line with the Principle of Policy Coherence for Development (PCD). In this context, the policy decisions contained in the "EU Strategy for Supporting DRR in Developing Countries" is of direct relevance. In addition, the Lisbon Treaty states that "the Union's development cooperation policy and that of the Member States complement and reinforce each other." With its ratification, EU's DRR policy become more relevant to Finland and it reinforces Finland's traditional goals.

2.4 Operational and Sectoral Strategies

The Finnish Development Cooperation is guided and operationalized by thematic sectoral policies and specific guidelines. The evaluation team reviewed the following policy documents: environment, water, forest, rural development, health, education, information and communication technologies (ICT), humanitarian assistance, multilateral cooperation, UN strategy and Non-Governmental Organization (NGO) development cooperation (MFA 2009b, MFA 2009c, MFA 2009a, MFA 2004b, MFA 2007b, MFA 2006a, MFA 2005, MFA 2007c, MFA 2008a, MFA 2008b & MFA 2006b). Unlike countries like Sweden or the United Kindom, Finland does not have an explicit DRR policy. Most of these policy papers have not dealt explicitly with issues of DRR, vulnerability and resilience to natural hazards. However, the policies that have been launched during the last two years have more appreciation of the environmental issues.

Environmental Policy

The environmental policy (MFA 2009b) links together sustainable water resources, forests, energy and rural development bringing coherence to the sectoral development policies. The policy supports the MEAs and commits support to long-term partner countries in their efforts to implement these agreements. Climate change adaptation and mitigation initiatives are also supported through different channels. Within the EU, Finland acts proactively to ensure the implementation of agreements and pursues co-financed projects that support this policy with like-minded partners. Climate is identified in the environmental policy as among the "the most important fields of activity". The policy states that "Adaptation activities will aim at strengthening the resilience of the poorest and most vulnerable regions, countries and groups of people. Adaptation is closely linked to maintaining the functioning and productive capacity of ecosystems, the sustainable use and protection of biodiversity and preventing desertification." This has a direct relevance to activities related to better preparedness to extreme climate events and natural hazards. The policy recognizes that "eradication of poverty and climate change mitigation and adaptation are complementary issues in developing countries and cannot be viewed as separate issues". The policy also recognizes that climate change could influence the water cycle leading to extreme drought, floods and rise in sea-levels leading to coastal vulnerability. The environmental policy is the only one that specifically deals with the issue of "prevention of natural disasters" with specific emphasis on "disaster preparedness" and "early warning systems" within the overall context of climate change leading to increasing vulnerability to natural disasters.

Linkages to Climate Change

Water policy (MFA 2009c) emphasizes a holistic, needs-based approach and linkages with several other sectors and areas in cross-cutting ways. This approach supports reduction of people's vulnerabilities and increases their capacities to cope with disasters. The key role played by water in development is seen to form the foundation of the water strategy as follows "Water, as a natural resource and factor maintaining the functioning of ecosystems, and as drinking water, is of critical importance in promoting ecologically sustainable development. Water and its many uses are closely linked to

various global changes, such as food security, health, energy production and environmental sustainability. In this way, water also plays a critical, overarching role in reducing poverty". The water policy clearly demonstrates the complex linkages between water and climate change. Adapting to climate change is one of the key issues in the policy. The policy recognizes that "climate change will have significant, and mainly negative, impacts on water systems throughout the world. Adapting to climate change is primarily a question of understanding the water cycle and the changes taking place within it".

In forest policy (MFA 2009a), there is an explicit linkage to climate change, biodiversity, sustainable land-use and combating desertification. The thrust is on fostering national policy framework in a way that incorporates mitigation and adaptation of climate change objectives in the forest policy. Biodiversity objectives, sustainable land management and prevention of land degradation and desertification can be addressed within such national frameworks. The policy affirms that poverty, in rural areas, can be reduced only by sustainably managing natural resources both for the income they generate and for the environmental services they provide. Emphasis is placed on implementing the agreed Global Objectives of the United Nations Forum on Forests (UNFF), including increased allocation of the Official Development Assistance (ODA) available for sustaining forest management projects. The forestry policy supports UNFCCC (afforestation/reforestation initiatives under Clean Development Mechanism (CDM)), United Nations Convention to Combat Desertification (UNCCD), desertification and GEF. All these could directly be linked to the climate change adaptation as well as DRR community level resilience building. For example, Finland extended partial support to a Food and Agriculture Organization of the United Nations (FAO) project to protect natural mangrove in coastal areas of Vietnam which has a direct link to preparedness to tropical cyclone induced storm surge hazards.

The energy policy emphasizes the importance of integration of energy issues into other sectors, such as rural development and environmental cooperation. It also refers to the CDM of the Kyoto Protocol. DRR is not directly mentioned in the policy. While acknowledging the importance of tackling poverty in a multi-dimensional way, the rural development policy (MFA2004b) does not recognize natural hazards as a potential threat to development. It does give very much importance to the environmental conservation and sustainable development, linking them to enhanced environmental resilience. The health and education policies (MFA 2006a; 2007b) do not refer to the possible effect of disasters nor disaster preparedness. The ICT policy, (MFA 2005) on the contrary, sets forth DRR in the framework of promoting advanced ICT Finnish solutions in the area of early warning.

DRR in Humanitarian Assistance, Multilateral, UN and NGO Policies

Disaster risk reduction and climate change issues are widely mentioned in the Humanitarian Assistance Guidelines (MFA 2007c). In fact this is the only sectoral policy that explicitly deals with DRR issues. Disaster preparedness and the transition from the relief to development receive a specific focus in the document. A baseline study on coordinating humanitarian assistance, reconstruction and development cooperation was made by

the Department for Development Policy of the MFA in May 2009. Issues related to the continuum in Finland's development policy are discussed more in detail in chapter 4.1.

The multilateral policy (MFA2008a) does promote sustainable development as conceived by the international community. The three main dimensions in principle promote tackling the issues of vulnerability and capacity of societies to deal with external shocks. Much attention is paid to the issues of environment and climate change. In this policy DRR still is seen as a humanitarian issue. The UN strategy (MFA 2008b) refers to natural resources, climate and environmental issues in relation to conflict prevention and crisis management activities. A holistic approach and linkages between different cooperation themes and partners are also emphasized. Thematic funding through UN agencies covers sustainable development, environment, climate, forest and prevention of health epidemics.

In the NGO Development Cooperation Guidelines (MFA 2006b) there is no reference to DRR. The NGO policy is currently being reviewed. DRR may arise as one of the issues to be included into this policy, as a response to the fact that the NGO Unit of the Ministry for Foreign Affairs has actively promoted the notion of linking relief, rehabilitation, development and DRR in different partnership framework funding (e.g. Fida International, Finnish Red Cross, Finn Church Aid and Plan Finland).

Table 2 Analysis of sector specific development policies.

Policy Document	DRR explicit	Reference to other sectoral policies	Comments
Environment	X	Water, Forestry, Energy, Agriculture and Rural Development	Climate change mitigation and adaptation issues addressed in the policy. Linkages to sustainable energy, forestry, water resources and rural development also emphasized. Direct reference to DRR by support to Hyogo Framework for Action.
Water	X	Environment Health Energy Forest Agriculture and Rural Development	Clear linkages to DRR and climate change. The policy also emphasizes a holistic, needs-based approach and linkages to other sectors, such as environment, health, agriculture, forestry and energy. This approach supports reduction of people's vulnerabilities and increases their capacities to cope with disasters.

Policy Document	DRR explicit	Reference to other sectoral policies	Comments
Forest		Rural Development	Trust is on fostering national policy frameworks in a way that incorporates mitigation and adaptation of climate change objectives in the forest policy. Biodiversity objectives, sustainable land management and prevention of land degradation and desertification also supported.
Energy		Environment Rural Development	Emphasis on integration of energy issues into other sectors, such as rural development and environmental cooperation. Reference to Clean Development Mechanism (CDM) of the Kyoto Protocol. DRR not directly mentioned.
Rural Development		Environment, Health Education, Water and Energy	Strong link to environmental protection nothing concerning DRR and adaptation. Poverty seen as multi-layered.
Health		Education, ICT, Environment	No direct references to disaster risk reduction or climate change. The guidelines refer to grass-roots level and community based approach, but there is no mention of reducing vulnerabilities as such
Education		Health, ICT	While the policy acknowledges the importance of education to development, no mention is made to DRR or possible risks that should be taken in education sector.
ICT	X	Education, Rural Development	Recognizes the potential of ICT for development and in particular for disaster prevention and early warning systems.
Humani-tarian Assistance	X	No reference to sectoral policies	Disaster Risk Reduction and Climate Change are widely mentioned in the guidelines. Linkages between disaster preparedness, humanitarian assistance, recovery, rehabilitation and development are also emphasized.

Policy Document	DRR explicit	Reference to other sectoral policies	Comments
Multilateral	X	Majority of policies	This policy promotes sustainable development. The three main dimensions in principle promote tackling issues of vulnerability and capacity of societies to deal with external shocks. Much attention is given to the issues of environment and climate change. In explicit terms DRR still is seen as a humanitarian issue. Hyogo Framework is advance apparently by the humanitarian aid department.
UN Strategy		Environment Forest Health ICT	Refers to natural resources, climate and environmental issues in relation to conflict prevention and crisis management activities. Holistic approach and linkages between different cooperation modalities emphasized. No direct reference to DRR.
NGO Development		No reference to sectoral policy	Although Sustainable Development and MDGs are mentioned, there is no reference to Disaster Risk Reduction.

2.5 Key Findings and Conclusion

- In the international level Finland has been supportive to the efforts rela ted to Disaster Risk Reduction (DRR). This is reinforced by the financial contributions made by Finland to the International Strategy for Disaster Reduction (ISDR) system as well as its strongly supportive statements in he global fora.
- Finland also contributes a significant proportion of its development aid to the UN system, particularly to agencies that play key roles in implementing internationally agreed Hyogo Framework for DRR. It has partnered with t he UN's World Meteorological Organization (WMO) to support improve ments in meteorological Early Warning Systems (EWS), leading to sustained improvement in capacities of National Meteorological and Hydrological Services (NMHSs). Of late this kind of support is listed under Climate Change related initiatives.
- Despite significant contributions to DRR, both in terms of the international engagement and implicit financial support, the effectiveness in terms of actual difference made remains limited. This could be attributed to the diffused

nature of the efforts as opposed to the focus and coherence required. This situation is likely to change for the better, because the whole issue is relatively new and just getting more systemic at both global and national levels. Work of the international agencies actively contributes too, for example through Finland's adherence to the EU policies.

- There is no explicit position paper on Finland's views on DRR, or recognition of its close linkages to fundamental issues like poverty alleviation and sustainable development, strongly supported in the Development Aid policies. The 2007 Finnish Development Policy has offered invigorated emphasis on issues of sustainable development. The Sectoral Policies, particularly the more recently drafted ones, offer many points of connectedness to actions related to DRR. Also, the average time taken for a Sector Policy to get drafted and realised at the national level negotiations is about two years. The 2007 policy framework creates a good ground for incorporating DRR systematically. However, DRR actions based on these policies will depend on the manner in which they get operationalized.
- Major donors like the EU have only recently developed a DRR strategy. Other organizations, like the OECD, have published working tools for practitioners on Strategic Environmental Assessment and Disaster Risk Reduction. The EU policy offers good opportunities to harmonize Finnish Development policy with the EU in this sector.
- Finland does not have an explicit DRR policy. In spite of this, many of its operational sectoral policies do indirectly deal with the issues of DRR. Finland's policy has supported the strengthening of meteorological services and the first segment of the DRR chain. In part this reflects Finland's concern with disaster prevention but with a limited understanding on the implications of addressing DRR holistically.
- Finland has considerable experience toward capacity building of EWS, which has been leveraged in the past and has been recognized by several policy papers.

3 REDUCTION OF DISASTER RISKS –OPERATIONAL LINKAGES

The fundamental building blocks for reducing disaster risk include: risk assessment, early warning systems and sector specific risk reduction plans. These also represent immediate and cost-effective measures where action can be taken to advance adaptation to climate change through disaster risk reduction. The majority of the people perished in disasters are the poorest. Therefore, development interventions targeted at these groups could have direct and indirect relevance to the overall DRR framework. However, it is very crucial to examine if the linkages are operationalized and with what degree of effectiveness. In this Chapter we will examine some of the programs and projects using the methodology described in Chapter 1 with an objective to evaluate them in terms of their contribution to DRR.

3.1 Operational Planning

Bilateral Negotiations

The Finnish Development Cooperation is operationalized in different ways. At the bilateral country level bilateral negotiations are a good instrument to guide and jointly agree with the partner countries upon the intervention scopes and areas of cooperation. In the year 2001, with the decision in principle to operationalize the Finnish Development Cooperation, the main driver was to improve the efficiency and avoid fragmentation of aid.

Bilateral consultations normally serve not only to discuss the development cooperation issues but also to deal with other important spheres such as trade, culture and regional integration. In most of the disaster prone country-cases taken up in this evaluation, disasters figured in the discussions only in the wake of some major disaster experienced. For example, Hurricanes Mitch and Felix in Nicaragua, and the year 2000 floods in Mozambique. However, in case of Nepal (Box 3), where all of the projects considered are still ongoing, climate change and disasters figured in the discussions whenever relevant. This in some ways signifies the raise in the priority of DRR and Climate Change (CC) in the bilateral agenda.

Based on the immediate needs and the request of the partner countries, Finland has reacted and engaged in a constructive dialogue to tailor its cooperation. In some occasions the dialogues on vulnerability to natural disaster have translated into actual interventions (e.g. Meteorological services support programmes in Nicaragua and Mozambique). In Mozambique, Finland emphasised in negotiations the importance to invest in prevention rather than divert available resources solely to immediate needs for reconstruction. In spite of this good signs in identification of common entry points, once there is a period of relative lull in disasters, issues of vulnerability and DRR seem to have been relegated and do not figure in the development cooperation agenda.

Climate Change in Bilateral Negotiations Agenda

In the recent years and due to the new emphasis in the environmental issues and the ongoing climate regime negotiations, climate has become a recurrent point on the agenda. For instance in early 2009, in the Mozambique-Finland bilateral consultations, the issue was raised by the Finnish delegation indicating coherence between the policy and the political dialogue. These discussions, however, do not significantly link to larger frameworks such as the National Adaptation Programmes of Action (NAPAs) and/or Poverty Reduction Strategy Papers (PRSPs), but rather circumspect in their reference. For instance the regional meteorological programme that will be financed by Finland in the Southern Africa Development Community (SADC), is often cited as the Finnish response to climate adaptation. Although meteorological interventions do contribute to basic climate information for adaptation, it is important to establish firm linkages to demonstrate the use of climate information in sectoral applications. Such linkages have to be operationalized in the project structure by involving sectors

like forestry or rural development.

Box 3 Nepal– Bilateral negotiations include the climate change issues.

Nepal is one of Finland's long-term partner countries and in early 2000 the development cooperation included various programme sectors, such as education, water supply, environment, energy, land reform, human rights, democracy and good governance. Bilateral consultations between Finland and Nepal have taken place in 2000, 2003 and 2007. Implementation of most of the ongoing programs continued throughout the conflict in Nepal. However, identification and planning of new programs were frozen in February 2005.

Finland has emphasized the importance of integration of the climate and environmental issues in Nepal since 2007 when the new Development Cooperation Policy was launched. Reference has also been made to disaster risk reduction, early warning systems and disaster preparedness. Since then the expansion and increased emphasis of the development cooperation into the fields of climate, forestry and other natural resources sectors has gained strenghth.
Lead time from the planning phase to the implementation has been approximately two years.

At the field level the Embassy is involved in identifying and facilitating the exchange of good practices between different programs. Disaster risk reduction is already included systematically in policy documents and considered widely as a cross-cutting theme in programming.

Country and Regional Level Implementation
Once Finland has agreed in broader terms the areas of cooperation, each Embassy in cooperation with the Headquarters (HQ) prepare a country plan. This document allows Embassies to operationalize the agreed interventions with the partner countries in a more systematic way. Such an approach renders itself amenable to mainstreaming DRR considerations. Earlier on, country plans had a rather comprehensive risk analysis included, mainly focussed on political and economic risks. In some countries (such as Mozambique) natural hazard risks are identified and a complete section is dedicated to their analysis. However, how these risks will be addressed is not included in the action plan of the Embassies. It is important to note that there are no guidelines or tools provided by the HQ on how to manage identified risks. Recently the country plan content and structure has been changed and made shorter and simple. This current version, however, does not provide a very detailed analysis of the strategic choices made by Finland on its country portfolio or a detailed country analysis.

Based on this, each project or programme is designed by the Embassies jointly with the developing country partners in line with the project management

cycle. This is usually outsourced to private consultants that may work jointly with the national civil servants. In none of the Term of References reviewed were issues of DRR included as an area to be taken into account. Most lately, however, issues of climate change adaptation and mitigation have been included. In addition currently many of the programmes have inception phase to update the programme documents. This offer good opportunities to include and assess more coherently risks and the potential actions to mitigate them. In the case of sectoral programmes, different donors may support planning with the Technical Assistance. This is usually conducted as a joint effort and Finland's position to influence is limited. As to General Budget Support, two of the countries tackled by this study have included in the PRSP a cross cutting issue of DRR. No evidence was there that this had an effect on the budget allocation. The agency responsible for the disaster management in Mozambique (Instituto Nacional de Gestão de Calamidades – INGC) for instance receive a fragment of the national budget. In Nicaragua, there are no financial mechanisms for preparedness activities, nor is it evident that this has been mainstreamed in the actual operative plans of the line ministries.

Finland is also working at the regional level. It has cooperation activities in Central America, and the Mekong Region, the Andean Community, Southern Africa, the Horn of Africa, the Western Balkans, the Southern Caucasus, Central Asia and the Mediterranean regions. A document corresponding to the country plan is prepared for some of the regions. The evaluation studied the strategy for Central America. This strategy/plan's main focus related to climate change is on mitigation but it does include elements of adaptation.

3.2 Connecting Project Results to Vulnerability Reduction

Direct Improvements to Meteorological Early Warning

Reliable weather, climate and water information generated by the National Meteorological and Hydrological Services is considered crucial for early warning which is important for preparedness to weather/climate related disasters. In the Caribbean region, the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (SIDS) identified this as the critical gap in facing natural hazards and supporting sustainable development. This is particularly relevant considering the high frequency of hurricanes crossing the Caribbean area resulting in acute societal vulnerability and ecological damage to sensitive environment of the region. Effectiveness of any intervention to improve the capacities of the early warning systems in meteorology was therefore considerable beneficial to the region. Therefore, Finland undertook this strategic support for installation and upgrade of meteorological equipment and staff training through the SIDS-Caribbean Project – Preparedness to Climate Variability and Global Change in Small Islands De-

veloping States, Caribbean Region, in partnership with the WMO. The Finnish Meteorological Institute (FMI) was the agency involved in the implementation from the Finnish side.

The project was officially launched in the year 2000 and completed in the year 2005. It has made a significant contribution to the meteorological observational system and telecommunications – for communication of critical weather information between the Island nations, particularly under situations of adverse weather conditions. The project however was not able to advance strong institutional linkages to translate weather warnings for disaster preparedness (Box 4). The project objectives were focussed on the following: i) Improving the telecommunication system at the national and regional levels; ii) Rehabilitating and upgrading the observing network; iii) Renovating the regional laboratory for the calibration and maintenance of instruments; iv) Upgrading the database management systems; v) Implementing data rescue programmes; vi) Providing training activities; and vii) awareness-building campaigns.

The project was followed up by a smaller intervention called the Preparedness to Climate Variability and Global Change in Small Island Developing States of the Caribbean Region Phase II (SIDS Caribbean phase II: 2006-07), which involved provision of a software platform for compilation of forecasts using information from global forecast products and local forecaster's skills. This software platform was developed by FMI and customized for two countries – Jamaica and Trinidad and Tobago. The meteorological services are using this technology very effectively in their day to day work and are keen to evolve it further to the sate-of-the-art level. Many other countries in the region have also expressed interest in this technology.

In Mozambique the project Post-Emergency Reconstruction Programme in the Field of Meteorology, Phase II (FINAM) was implemented during almost 4 years. The FINAM programme addressed serious gaps that were exposed by the severe floods in year 2000. Mozambique has made great advances in terms of the capacity to generate climate related information. In particular the short term forecasting has improved, as well as some improvements in the modelling capacity. This programme contributed to the Early Warning Component of the

Box 4 Caribbean example – Need to build linkages for effective Disaster Risk Reduction.

The SIDS projects – Phase I and II, contributed to critical improvements in capabilities of the Caribbean to generate weather warnings of extreme events. However, institutional linkages to translate weather warnings for disaster preparedness remain weak, resulting in a low degree of effectiveness in terms of community level risk avoidance. Translation of weather forecasts into products that can be useful for the agencies representing the different sectors is also lacking. For example, user agencies expressed the need for more specific rainfall information in terms of both location and time. Although this specific kind of information in the tropical context may be a scientific challenge, it is possible to tailor the information to user requirements to some extent by having better institutional linkages. Down the line of the end-to-end system, for example at the community level, the linkages are almost non-existent.

Disaster Risk Reduction Chain. The technical capacity of the Mozambique National Institute of Meteorology (INAM) was improved thorough the improvements in the weather observational network and forecast technology. Considerable investments were made in equipment: weather radar in Xai-Xai, a AWS and improved telecommunications for INAM's operations. In addition, a Weather Service Production System was installed at INAM HQ. The investments were complementary to Spanish equipment fnancing and EU budget support financing.

The programme also supported the re-structuring and management processess organisational structure and capacities of INAM were developed by management, marketing and language training. The weather prediction capacity was not developed to its full potential due to the fact that training and capacity building was not carried out in a satisfactory way. For example some of the training was missing which was critical for warning services like floods.

Improvements and Short-comings in Sectoral Applications

Climate information is essential to prepare strategies for adaptation and preparedness. Climate information alone is not useful. It has to be tailored to the different needs of sectors. Communities can be protected from the adverse impacts of natural hazards by reducing social and economic vulnerability, and improving preparedness for response by effective monitoring and early warning systems. Thus Early Warning Systems play an important role, but they require to be connected by effective mechanisms that can translate them into sector-level information that can be used for warning – for example quantity of rainfall that is likely at a basin, so that this information is further used by relevant agencies to make warnings in locations where floods risks would be high.

In Mozambique, FINAM programme was not successful in strengthening INAM capacity to produce information that was relevant and can be useful to sectoral agencies in translating them into warnings for disasters. For example, the Water Authority

uses information from international sources to run their flood models rather than depending on the tailored products from INAM. However, global products require to be augmented by the local data and must be validated extensively before the use, particularly in crisis situations. There have been, however, some examples of locations where the services have been successfully used for reducing disaster risks, as shown by the Red Cross project in Buzi province that shows the potential of better warnings and better DRR efforts. The main problem (common to many developing country met services) was, however, that it is disconnected with the institutions and the actual needs at the sectoral ministries. More importantly, even with the external support from Finland, the network of observation is very deficient in coverage, not allowing appropriate scale information to be produced. Some of the information users expressed to the evaluation team their dissatisfaction with the quality and in particular the resolution of the information received from INAM.

In the area of agriculture, for instance, cash crops such as cotton (heavily dependent on the climate information) do not receive information relevant to production estimation. The cotton sector would require periodic updates on the seasonal forecasts during the cotton growing season, with short term weather forecasts at the regional scale to issue advisories for agronomic decisions at the field level. This is not available at the moment. Another area experiencing the same challenges is food production and in particular the food security. The information required to prepare contingency plans for slow onset disasters such as severe droughts is provided by INAM but on a very large scale. This was confirmed by the national agency in charge of food security and World Food Programme in charge of preparing contingency plans, both requiring more detailed information. In summary, FINAM programme contributed to expanding the capacity of the institution, however, the actual use of the information remains in the present rather limited. The information is not provided in a way facilitating decision-making processes and prioritization. Reasons, as mentioned before, are the sparse observational network, deficient training, under-utilization of existing tools and equipment.

In a similar way the SIDS programme did not strengthen the capacity of meteorological services to produce very detailed and customised information to sectoral ministries. In Jamaica, for instance, the Office for Disaster Preparedness indicated the difficulty in interpreting the information provided by the met services. Similar challenges were evident in Grenada and Trinidad and Tobago. A possible reason for this is the rather limited use of the display and forecast equipment provided by FMI.

Community level improvements in preparedness and resilience

Finnish meteorological programmes analysed in this evaluation have been very weak in reaching the community level. Mainly this is caused by the concentration on one end of the end-to-end chain. In addition, issues of communication are often ignored or not systematically included in the programme design. In spite of these limitations, some countries like Mozambique with international support has invested and worked hard since the 2000 floods to develop early warning systems and in particular early action at the community level. The work has been done at the community level in

the most vulnerable areas. It is well documented that during the 2007 floods, even though they were as strong as the 2000 floods the death toll was much less (30 in 2007 compared to 700 in 2000). Most of this success is attributed to the strengthening of the national and regional offices of the disaster management agency, as well as to the systematic involvement of communities (IFRC 2009). Communication has been the key. The FINAM programme had an indirect effect with the partial improvement of forecast capacity of FINAM and some awareness-raising through the public media.

During the last years (post-Tsunami) Finland has financed DRR specific programmes that aim at enhancing resilience. For example, the multi-country forestry programme for early rehabilitation in Asian tsunami affected countries is a good example. It aimed to support the recovery of forest for protection of Coastal zones and was managed by FAO. Another regional programme that is still in its phase of consolidation is the Climate Change and Development Project implemented by the International Union for Conservation of Nature (IUCN). It aims to influence national policies and strategies in Mozambique, Zambia and Tanzania to include actions in terms of climate adaptation. These two programmes are an exception rather than a rule.

Box 5 Mozambique – Challenges faced by development cooperation projects.

In Mozambique, bilateral programmes use dual strategies. They work both on improving assets at the community level, as well as transforming the institutional and policy context. Almost in all the cases, Finnish supported programmes promote the involvement and participation of the communities.

Forest Resource Management Project in Zambezia and Inhambane Provinces
The forestry programme in Zambezia province worked both to build social capital of rural communities (e.g. Supporting local community based organizations, income generation), as well as develop planning instruments for natural resource management (e.g. land use plans). However, four years after the project ended, there is not much evidence of sustained enhanced resilience. Many of the organizations supported during the implementation are not operational any more. Only one of the income generating activities is still functional. On the other hand, the land use plan was not appropriately distributed to all stakeholders, and in fact has not been implemented. It seems that the programme was too short in time to achieve substantive results.

Centre for Sustainable Development in Chimoio
A similar problem was evident in another initiative in Mozambique, the Centre for Sustainable Development. Issues of running costs and the financial burden caused by the infrastructure were not considered when defining the size and technologies promoted. One of the main assumptions (Mozambiquean commitment after ending the programme) has not completely materialized. As a positive result, during the implementation of the programme forest fires were reduced. Due to the lack of resources many of these activities have been discontinued after termination of the Finnish support.

Even though the majority of the programmes supported by Finland through its development cooperation do not tackle explicitly the issues of DRR, many could have indirect contributions in terms of resilience in the community level. This expectation is, however , not very clearly borne out in terms of actual results in some of the intervention objectives of this study (Box 5). Finland uses different modalities to advance the overall objective of reducing the levels of poverty. Finland usually has a mixed portfolio in its long term partner countries including Sectoral Programmes, bilateral projects and programmes and NGO projects. Finland's contribution through other cooperation modalities such as budget support, is more difficult to assess. The issue of attribution is a major challenge. Due to the time limitations of the present evaluvation, it was not possible assess any impact in this regard. Notwithstanding, it is well documented that in some countries that receive Budget Support like Mozambique, there have been improvements in terms of increasing the coverage for basic services such as education and health. More importantly, in Mozambique poverty levels have decreased during the past two decades. It is broadly argued that the budget support has been instrumental in financing these interventions. In addition, one could argue, for instance, that by supporting a PRSP that includes elements of DRR (e.g. Nicaragua, Mozambique) Finland is indirectly contributing to mainstream it in the partner countries. Yet, specific budget allocation to DRR responsible institutions remains very low (e.g. in Mozambique less than 0.2 % of the total budget).

Box 6 Mozambique - Identifying sectoral entry points for Disaster Risk Reduction in agriculture.

Sectoral Programme for Rural Development in Mozambique (PROAGRI) has been supported by Finland for several years. The Finnish Embassy has been instrumental on keeping environmental issues on the agenda of the Programme. PROAGRI has made attempts to provide training to agricultural extension workers in conservation agriculture which promotes sustainable agricultural practices. To enhance resilience, this training should be scaled-up during the next phase of PROAGRI. Currently the promotion of new varieties (e.g. drought resistant varieties) is carried out on a very limited scale. This is an area where considerable impacts in food security could be realised. Another area where PROAGRI has been active is the construction and mainly rehabilitation of irrigation systems. These irrigation systems should in the future serve to build community level resilience to extreme droughts. The land use planning is recognized by the Ministry of Agriculture as an important area. However, due to the limited resources, the areal zonation scale is very coarse (1:1 000 000). In this aspect there is a considerable scope for improvements. Despite efforts made by the government, the productivity levels continue to be low. As we can see, there are many practical entry points to include DRR in a rural sector development programme. There is scope for improved early warning systems for crop conditions, including water stress, based on better weather networks combined with satellite based information. Financial instruments for protecting the livelihoods of small farmers using weather indices, also provide viable entry points for DRR at the community levels.

On the other hand, sectoral support programmes in the area of agriculture/rural development can be assessed. Sectoral support programmes have more potential to influence the policy and structural issues in terms of DRR. Finland has promoted very intensively rural sector support programmes in Mozambique (Sectoral Programme for Rural Development PROAGRI). The PROAGRI is sector support for agriculture. It aims to have a better balance between the private and public sector, mobilisation of development forces at all levels (central, provincial and district), and a focus on the small-scale farmers. In Mozambique, rural development has been seen very much as one ministry issue. This perspective has been problematic in the case of DRR, which by nature are cross-sectoral. In Mozambique, inter-institutional work remains a challenge and is very limited. While the ownership and leadership of agricultural ministries is high, budget re-allocations to other ministries remain low. In Mozambique, for example, even within the same ministry departments there seems to be friction and not sufficient cooperation. For example issues of drought and food security are perceived solely as a production issue.

In Nicaragua, Finland is supporting both programmes with a regional coverage, as well as programmes focused at the central government. At the regional level, the focus has been to strengthen the local democratic structures both in terms of the capacity to govern a territory, as well as to enable the communities to be active at their localities and to exercise their rights. Finland has been present in the same region for over a period of 20 years. There is, indeed, some direct resilience built in the communities due to project interventions and the methods employed (Box 7). These programmes have been very efficient in improving the capacity of the municipalities to plan and guide development on their territories. For instance, tax revenue has increased in many of the municipalities that have been supported by Finland. This has provided local governments with additional resources to invest in service provision and basic infrastructure. In addition, with Finnish support, municipal environmental plans in many municipalities include elements of risk prevention and management. On the other hand, the Programmes have not been as successful in changing production models at the regional level and enforcing land use plans.

In the rural development sector support of Nicaragua a more holistic approach has been tried by involving several line ministries into the rural development sectoral programme but coordination remains a challenge. In particular the integration of the Ministry of the Environment has not been effective. Ministries tend to think that environment issues (e.g. climate change) are not under their jurisdiction and mandate so inaction is a rule rather than an exception.

Box 7 Nicaragua – Building community resilience.

Some projects have been very effective in understanding and tackling vulnerability issues at the community level. FOMEVIDAS - Rural Development Programme in Boaco and Chontales in Nicaragua is a good example. It uses the Sustainable Livelihood Approach (SLA) and works with the poorest of the poor: landless, single women, families with only limited areas of land (0,37-1,5 hectares) or who occasionally rent or borrow land plots. The FOMEVIDAS programme tries to reduce vulnerability by strengthening people´s asset base to make them more resilient. In the programme area disasters and risks are mainly linked to droughts, and lack of access to potable water is one of the most urgent problems expressed by the communities. Thus, as a result of the priorities that people identify in participatory rural appraisals, most projects aim at improved access to water and sanitation. These include wells, water retention and storage systems, mini-aqueducts, small scale irrigation systems (mainly drip irrigation), latrines, laundry and bathing facilities. These micro-projects have made a significant contribution to improving human capital and the health situation of their target population, as well as enhancing agricultural production. In addition it can be pointed that the projects supported use improved seeds (drought and pest resistant varieties). Based on the experience of FOMEVIDAS, even though it does not explicitly deal with DRR, it can be concluded that SLA offers powerful tools to analyse vulnerability issues at the community level. It links very well issues of vulnerability, resilience and risks.

Many community level projects, with focus on a particular sector like Water and Sanitation offer opportunities for addressing vulnerabilities linked to disasters. Two rural water projects being implemented in Nepal are good examples (Box 8).

DRR and vulnerability issues have not been explicitly dealt with by most of the Finnish supported interventions. To a great extent it is ignored that climate change related disasters have differential effects on people within the communities. The children, minorities and persons with disabilities may be especially vulnerable to the consequences. These issues have also a significant gender aspect. As has been documented, disasters tend to exacerbate the already existing gender differences thus creating backwash difficulties for the future development (IADB 1999). The SIDS programme, for example, limited its gender activities to organizing a couple of international conferences to train female meteorologists. This was a good step forward as women are still often excluded from the decision-making regarding disaster management as most disaster practitioners are men (Nandi-Ndaitwah 2009). Nevertheless, it suggests a limited understanding of the full implications of gender for vulnerability and DRR.

Box 8 Nepal water project connects to vulnerabilities.

The water programmes in Nepal have several aspects that address people's vulnerabilities. These include water quantity and quality improvement, sanitation, soil conservation and renewable energy activities. Projects also increase productivity and income of the poorest and excluded. People are better prepared to cope with natural hazards when their hygienic conditions have improved and they have knowledge and skills to survive during disasters.

In Far West, the water project is networking with humanitarian agencies and disaster response activities have been carried out after floods and cholera/ diarrhoea epidemics. In the Western Nepal water project document disaster prevention and mitigation are mentioned as cross-cutting issues. Environmental protection issues are also widely taken into account, but climate change or extreme weather events are not referred to as such. Both projects aim to enhance stakeholders' capacity at the central and local level institutions and communities. In Western Nepal, the water project has a holistic, multi-sectoral approach involving several other sectors such as health, education, women development, agriculture, irrigation, cooperatives etc. This is a key element for sustainable development and reducing overall vulnerabilities of the people to disasters.

In most of the tropical regions, climate change is likely to manifest in form of longer dry-spells interspersed with heavy rainfall events. Better water quality, its efficient use and sanitation will also build community capacities to adapt to future climate extremes.

In Nepal on the other hand, in both on-going water projects gender and social inclusion (GESI) is considered as a cross-cutting theme. The socio-economic and gender/ social analysis studies carried out by the projects have documented that discriminatory practices are inherent and deep-rooted between different caste groups (marginalized, referred as untouchables – Dalits) and across gender. These discriminations have resulted in systematic exclusion of women and marginalized communities from their access and control over resources (like water, forestry, education and physical infrastructure) and representation in community social institutions, mobility and employment and opportunities for their active and meaningful participation in decision making in their own societies. The two water projects in Nepal have aimed to ensure active and meaningful participation and representation of women, Dalits, indigenous communities and other vulnerable groups that have been excluded in the past. The projects ensure inclusiveness of these groups from the inception, design, implementation and post construction phases of the projects. There is a mandatory provision for employment of local people in skilled and unskilled labor. Capacity building is a strong component to enhance technical, institutional and organizational skills of the Water User Committees (WUCs). Orientation about environmentally friendly schemes with awareness on preventive and curative measure for the DRR is provided for WUCs. As both men and women, and excluded groups participate equally in WUCs, they become responsible for mitigation and disaster risk reduction activities.

Recently Finland has taken an internationally pro-active role in promoting gender and climate change issues. This has had the support and leadership of the President of Finland, Tarja Halonen.

3.3 Key Findings and Conclusions

- DRR issues have seldom been discussed with partner countries during the bilateral negotiations. Disasters figured in the discussions mostly in the wake of some major disasters experienced. However, due to the adoption of a new policy which strongly emphasises environmental issues and the global interest in climate issues, during the last couple of years climate adaptation issues, and to some extent DRR, have been on the agenda. Policy dialogues with partner countries could be used more effectively to leverage DRR actions and bring synergy within deveoplemt projects for DRR and CCA.
- At the Embassy level, diplomatic missions are using strategic planning tools (e.g. country plans, risk analysis). However, the analysis of risks remains very weak in terms of natural risks and extreme social vulnerability. Even when risks are identified, no concrete action is presented on how to tackle them. It is important to note that Embassies do not get any guidance or guidelines from HQ on how to deal with the risks.
- Due to challenging working environment (e.g. corruption) and Finland's own change of priorities, some bilateral interventions financed by Finland have been very short-term making it difficult to generate sustainable outcomes (e.g. Forestry/Met services in Mozambique, environment in Nicaragua). It seems that in some cases there was not sufficient time for phasing-out.
- Sectoral rural development programmes supported by Finland tend to concentrate on one ministry only. This is part of the governance culture prevalent in highly centralized and hierarchic governments. Water sector and decentralization programs have a more holistic and multi-sectoral approach and involve other ministries like health, education, women's development, energy, and rural development.

  Finnish Development Cooperation has seldom tackled the issues of DRR explicitly. The only exceptions are meteorological programmes and climate adaptation programmes. However, the approach to reduce poverty has in some cases contributed to enhanced resilience.
- Finland has not prioritized including coordination mechanisms into its interventions that are working with the DRR specifically. With the exception of Nicaragua (support to the NAPA), most of the initiatives have centred exclusively on strengthening meteorological services. While this is valid on its own, it would be important to link any intervention to a broader view/framework. It is clear that only if the diverse interventions in development cooperation are connected and coherent in a strategic manner they can be effective in making a difference in DRR at community level.

- The meteorological programmes financed by Finland have concentrated mostly on strengthening the meteorological services. These programmes have been disconnected to other sectors and the actual needs and requirements of end users. The scale and resolution of the information provided by the meteorological services remain weak and does not help the institutions to plan and guide their interventions both before as well as during the events. This is exposed particularly in slow-onset disasters such as droughts. These programmes seem to have been very weak in using communication as a tool for development.
- Finland has financed and is financing different regional DRR programmes. These initiatives focus very much on physical hazard risks. On the contrary social aspects of risk are not so well analysed or unpacked. In many cases rigorous situational analyses are not conducted. This is perhaps due to the short term of the design missions and the erratic consultation process.
- Even though Finland has supported the use of SEA in development cooperation, it seems that this has not materialized in practice. SEA is seldom carried out in the programmes or interventions. Even when SEA is carried out the actual implementation of the recommendations remain weak.
- Finnish contribution to work at the regional and municipal level has been very effective in enhancing comprehensive and broad approaches to development that have the potential to link poverty, resilience and disaster risk reduction.
- Finland's engagement at the sub-regional level (e.g. SADC, Central America) offers opportunities to include transnational issues (DRR, Climate Adaptation) in the portfolio. A clear example is flood monitoring in southern Africa.
- Finland supported interventions have generally not tackled social differentiation of vulnerability. Gender and children issues have been touched on only marginally. Most recently Finland has become a pioneering country in raising issues of gender and climate change into the international political agenda, mostly by promoting women's active participation in the climate negotiations.
- From the discussions in the chapters above as well as the examples presented in this chapter, it is very clear that only if the diverse interventions in development aid are connected in a strategic manner can they be effective in making a difference in DRR at community level. It is however impractical to expect that aid interventions during a fixed time period or by a single donor can cover the whole matrix of actions required. What is desired is to see that the actions add up towards achieving the ultimate goal of resilience to disasters. The end-to-end matrix described in the methodology was applied to the case study countries examined.

4 INSTITUTIONAL ANALYSIS - A DRR PERSPECTIVE

4.1 Continuum in Development Policy

The humanitarian aid, as response to natural or man-made disasters, was outside the scope of this evaluation. However, the budgetary division of funding to prevention and preparedness on the one hand and relief on the other hand, was included in the assessment. Finland's Development Policy supports the notion of linking relief, rehabilitation and development (LRRD), which is also referred to as a continuum concept standing for rational and mutually supportive coordination of various humanitarian relief, rehabilitation and development phases.

Finnish Red Cross, Finn Church Aid and Fida International are the few organizations in Finland with a long experience both in humanitarian aid, disaster preparedness and mitigation activities. Most of these NGOs have their own DRR policies and strategies. Disaster relief and rehabilitation activities are funded from the Unit for Humanitarian Assistance budget. NGO Unit funding within the Ministry covers activities in disaster risk reduction, mitigation, preparedness and other long term development activities in this field. A few examples of the Finnish Red Cross and Finn Church Aid projects in Nepal are illustrated in Box 9.

Compared to the approach of the Finnish Red Cross and Finn Church Aid, the linkages between the Finnish funded bilateral development programs and the humanitarian assistance are still weak. The Ministry's regional departments, technical advisors and the Unit for Humanitarian Assistance are also not cooperating very closely. The continuum in development policy is not yet, therefore, operationalized.

The Mozambique example reflects very clearly how dependence, and to put it bluntly, reliability of humanitarian aid continues to divert and keep funding for preparedness in very low levels. There is a pervasive phenomenon: donors fully react to crisis in the majority of the cases when a disaster has unfolded completely, not when there are signs that a disaster is underway. This is particularly the case for slow-onset disasters such us droughts. Governments know that in case a major crisis hits, funds will be available to confront the unexpected situation. Due to this some countries seem to prefer to invest in other areas, rather than prevention and preparedness. In Mozambique donors in discussions with the government have during the last years stressed the importance on prevention and some programmes have been financed. However, funding levels remain limited. On the other hand, the Finnish Embassy has requested that the humanitarian aid would be used to finance the contingency fund for the National Disaster Preparedness Agency. However, due to the regulations this has not been possible. Other donors in the country argue that it is the responsibility of the government to allocate sufficient funds, as it is already receiving considerable amount in budget support.

As we can see, although Finland's support to humanitarian assistance and bilateral development cooperation are funded from the different budgetary lines, in practice different funding instruments are used simultaneously.

Box 9 Empowering communities and strengthening local organizations.

The Finnish Red Cross supports disaster preparedness and school-based disaster management programs, and Finn Church Aid supports sustainable livelihood improvement and disaster risk programs in Nepal. Key activities of these programs include capacity strengthening and empowerment of communities, awareness raising campaigns and training at various levels. The Finnish Red Cross school-based disaster risk reduction initiative involves school teachers, children and communities in vulnerability and capacity mapping, simulation drills and mitigation activities. Finn Church Aid sustainable livelihoods project addresses people's rights to resources and aims at increasing their access and control over means of sustainable livelihoods. These programs have a clear focus on empowering communities and reducing people's vulnerabilities to natural disasters.

The Finnish Red Cross support is implemented by the Nepal Red Cross, and the Finn Church Aid works in cooperation with the Lutheran World Federation Nepal. An integral part of the programming is capacity building of these local organizations. They are present before, during and after disasters and the linkages between the humanitarian assistance and development cooperation are evident. Improved local early warning systems using indigenous practices and local tools in addition to community level preparedness have saved lives in disaster-prone areas. Coping capacities at family level and local resource mobilization have also increased. Consequently, the necessity of external assistance for emergency relief and recovery reduced.

In Nepal, a good example of addressing a comprehensive disaster risk management concept is DP-Net. Established in 1997, it is a network of various stakeholders including government, UN, NGOs, academia and community people. This forum has been effective in advocating disaster risk reduction and climate change related issues in the country.

In countries which are prone to natural disasters or recovering from conflict, the support often includes both development aid and humanitarian aid at the same time. The development programming in Finnish Development Cooperation is currently viewed in a rather narrow and not so comprehensive way, and not taking into full account the perspective of disadvantaged people and communities.

During a transition period after a conflict or recovery phase from a major disaster, such as Asian tsunami, when national infrastructure has been largely destroyed or existing planning mechanisms are not properly functioning special focus should be on developing suitable assessment and planning processes. The expertise of both huma-

nitarian aid and development cooperation specialists should be combined.

Major UN organizations receiving humanitarian aid from Finland are FAO, UNFPA, United Nations Refugee Agency (UNHCR), UNICEF, United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), WFP, WHO, United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and UNISDR. Continuum can also be achieved through these organizations as most of them are important partners in the development cooperation.

4.2 DRR as a Cross-cutting Issue

Present cross-cutting themes, according to Finland's Development Policy, are promotion of the rights and the status of women and girls, promotion of the rights of groups that are easily excluded, and combating HIV/AIDS as a health problem and as a social problem. In addition, there are other already existing basic principles, like inclusion of rights based approach and environmental perspective, in all development cooperation.

Policy development at the MFA is coordinated by the Department for Development Policy. Relevant Units related to DRR issues under this department include Unit for Sectoral Policy, Unit for International Environment Policy, Unit for Humanitarian Assistance and Unit for Non-governmental Organizations. At the policy level, the DRR is currently falling between these different units and there is no focal point at the Ministry fully responsible for promotion, mainstreaming and follow-up of the DRR activities Regional Departments are responsible for the implementation of the programmes.

A Tearfund research project was conducted in collaboration with UNISDR on "Institutional donor progress with mainstreaming disaster risk reduction" (Venton & La Trobe 2007). This project developed a mainstreaming tool for self-assessment and 11 organizations submitted their reviews. Finland was not among these donors, but similar methodologies can be adopted for the assessment of Finland's policy, strategy, country programming, project cycle management, external relations and institutional capacity in reviewing the progress made with mainstreaming DRR issues.

This evaluation did not make a full assessment using the similar mainstreaming tool, but our analyses from the previous chapters can be summarized under the same headings as follows:

Policy
MFA in Finland does not have a specific policy on DRR supporting the mainstreaming in the organization. The present Development Policy, however, provides good framework for building DRR into the work already underway as it focuses on ecologically sustainable development. DRR can also be considered as part of the environ-

mental mainstreaming.

Strategy
DRR is reflected in recent sectoral policies (especially environment, water and forestry) but it is not fully integrated in a strategic way into Finland's development and relief processes. New sectoral priritiesof the programming include environment, forestry, rural development, energy and ICT sectors and DRR aspects can be supported through these programmes.

Country Programming
DRR elements are not systematically included in the development programming. However, there are some good examples like bilateral negotiations in Nepal, and Mozambique. There is need to explicitly considerhazards, vulnerabilities, capacities and risk reduction strategies while evolving new country strategies and programmes.

Project Cycle Management
DRR is not yet systematically integrated into project planning, implementation, evaluation and re-design processes. Good examples are rural development programs and water supply and sanitation programs which have included participatory tools in programme planning and implementation. DRR is not generally included in the ToRs of the planning, monitoring and evaluation missions.

External Relations
The perspectives and experience of local communities, NGOs and other stakeholders are not fully taken into account. Support for capacity development of the implementing partners in risk reduction is limited.

Institutional Capacity
MFA in Finland has a growing level of awareness and understanding of the DRR. However, disaster management is often seen as a humanitarian assistance issue only. Basic concepts related to vulnerability and risk mapping, disaster mitigation, response preparedness and capacity building are not always well understood by the staff working at the HQ or in the field.

4.3 Key Findings and Conclusions

- A detailed position paper on continuum in development cooperation has not yet been approved by the MFA. This continuum policy has the potential to tackle three key elements which are fundamental for mainstreaming DRR: i) ensuring that development programmes/projects supported by the organisation are protected through disaster risk reduction elements; ii) ensuring that disaster relief and rehabilitation programmes/projects are managed in a developmental manner; iii) ensuring that development, relief and rehabilitation programmes/projects do not increase people's vulnerability to disasters (Venton & La Trobe 2007).

- The 2007 Policy is comprehensive but it does not include DRR explicitly. This has resulted in limited attention to DRR outside the humanitarian department.
- There is no training being conducted on DRR and development. The staff of the MFA has different levels understanding of the links between development and DRR.
- Due to the productivity programme of the Ministry of Finance, the MFA is most likely not able to allocate additional Human Resources to DRR specific activities in the Ministries nor the Embassies. The MFA has to solve this impasse with very practical solutions (e.g. increased cooperation with like minded donors, more resources to multilateral channels etc.). It seems that in order for the MFA to promote quality development cooperation (e.g. Mainstreaming DRR), it will need to decrease the number of interventions and make them perhaps larger.
- Humanitarian aid diverts funding for preparedness.
- NGOs which are present before, during and after disasters have in-built understanding of the continuum in development cooperation. This is also the case for some of the multilateral organizations (e.g. WFP) which increasingly consider development and humanitarian aid from a strategic point of view.

5 FUTURE CONSIDERATIONS

5.1 An Approach to Climate Change Adaptation

Climate-related disasters account for 59% of the disasters recorded by the Emergency Events Database (EMDAT) from 1900 to present. With a changing climate, the frequency and intensity of climate-related hazards are expected to increase, the mean state of climate may be altered, and climate surprises may emerge. Low-intensity but high-frequency events that currently do not figure in disaster databases need to be considered with the expected increase in intensity from a changed climate. The countries' institutional capacity to deal with the challenges brought about by these climate trends have to be built through a climate risk management approach.

In view of the considerable overlap in actions required to reduce vulnerabilities to climate change and disaster risks, there is a need bring convergence in these actions. Managing risks from current climate extremes and a changing climate would enable reduction of natural disasters, help protect livelihoods and assets, and protect development gains, thereby contributing towards the achievement of development goals.

Few *et al* (Few, Osbahr, Bouwer, Viner & Sperling 2006) succinctly summarize the approach required to bring convergence between DRR and CCA in their statement that "Holistic management of disaster risk requires action to reduce impacts of extreme events before, during and after they occur, including technical preventive measures

and aspects of socio economic development designed to reduce human vulnerability to hazards. Approaches towards the management of climate change impacts also have to consider the reduction of human vulnerability under changing levels of risk. A key challenge and opportunity therefore lies in building a bridge between the current disaster risk management efforts aimed at reducing vulnerabilities to extreme events and efforts to promote climate change adaptation. There is a need to understand better the extent to which current disaster management practices reflect future adaptation needs and to assess what changes may be required if such practices are to address future risks".

The UNFCCC has also recognized the requirement for synergy in actions linked to DRR and CCA and has reiterated it in implementation efforts. The Nairobi Work Programme (NWP) is a five year action plan set up by the UNFCCC to assist developing countries in taking informed decisions on practical adaptation steps to adverse impacts of climate change. This programme has also encouraged adaptation actions by promoting integrating practices, tools and systems for climate risk assessment and management and for disaster risk reduction strategies. Therefore, at the global level there is a strong link established between the CCA actions and DRR.

The UNFCCC's Bali Action Plan, calls for international cooperation to support the urgent implementation of adaptation actions, including through various ways to enable climate-resilient development and reduce vulnerability of all Parties. It specially notes the urgent and immediate needs of developing countries particularly vulnerable to the adverse effects of climate change. Disaster risk reduction strategies and risk management are approaches that also seek to build resilience and reduce vulnerability, and therefore, they offer capacities to support adaptation, in respect of coping with the extreme events such as drought, floods and storms as well as addressing longer term issues such as ecosystem degradation that increase vulnerability to these events. Underlining this, the internationally agreed agenda for reducing disaster risks and disaster losses, the Hyogo Framework for Action 2005-2015, is subtitled "Building the Resilience of Nations and Communities to Disasters" and considers inter alia the integration of risk considerations into sustainable development and the development of institutions, mechanisms and capacities at all levels to systematically build resilience to hazards. The implementation of the Hyogo Framework therefore provides a powerful tool to support adaptation, through building resilience and reducing vulnerability to climate-related hazards. It will also directly strengthen the catalytic role of the UNFCCC as envisioned in the Bali Action Plan.

The two financing mechanisms set up under the UNFCCC and managed by GEF Environment Facility – Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), already consider DRR in their directives. Besides these CCA is also supported by the Strategic Priority for Adaptation (SPA), established by GEF under its Trust Fund and the Adaptation Fund. The complicated design and implementation, multiplicity of the funding sources have resulted in difficulties in accessing these resources among partner countries. Support to facilitate easier access,

particularly with newer mechanisms that are expected to be created as follow-up from Copenhagen (CoP-15) to address DRR and climate risks in the programme evolution at country level will be very useful.

Finland's development policy places emphasis on poverty alleviation, sustainable development and actions required to face the threats of climate change. In view of the fact that recurrent disasters can severely hamper development, it would be prudent to bring synergy in these actions.

For adaptation to future climate change on a longee term, DRR may need to be designed for stonger events which may mean higher building quality, and codes and standards. DRR may also have to be expanded into places where disasters have not occurred before, which nneds to be considered in the longer time dimension.

DRR actions are also very closely tied to the implementation of the Conventions of Biodiversity, Desertification and Sustainable Development. Thus, supporting DRR actions would have common benefits towards implementation of these environmental agreements.

6 CONCLUSIONS AND LESSONS LEARNT

6.1 Conceptual Framework, Policy and Strategy Context

Policies and institutional processes operating at different levels, that regulate and prioritize development aid interventions, can be of immense benefit from building disaster preparedness of vulnerable communities. The concept of Disaster Risk Reduction is not new to human communities who have survived since pre-historic times the vagaries of harsh inhospitable environments offered by mother earth. Rapid changes in land use practices and spread into hazard prone zones, combined with changes in climate patterns with possible shifts towards higher frequency of extreme events have rendered populations even more exposed to natural hazards that may trigger disasters. Hence, there is an overwhelming need to adopt DRR not only to face the current natural hazards, but also to be well prepared to cope with future climate change impacts. During the last few decades, the increase in the number of people affected by natural disasters has made necessary the need to have a holistic framework and preparedness approach for DRR that is relevant to the current context of vulnerable societies and institutional structures.

Global actions for DRR call for urgent actions for not only building capacities of communities to address disaster risks, but also to maintain momentum in achieving MDGs, poverty reduction, climate change adaptation and health. Finland's consistent support to UN agencies working towards the goals of the HFA can be interpreted as a significant contribution towards DRR. However, this can at best be regarded as

"passive" support. Considering Finland's very strong focus on poverty alleviation and the 2007 Development Policy's strong support for sustainable development, and the clear linkages between these issues and disaster preparedness brought forward by this evaluation, it is important to build further; and play a lead role in integrating these actions. The main reason for this low profile seems to be the absence of a specific DRR policy or strategy. As the EU has recently published its strategy paper on DRR, there is great potential to harmonize actions and build-upon this strategy.

Although the Hyogo Framework for Action provides a very good policy framework at a global level, its effectiveness at national and sub-national levels has been limited and efforts are being made for its better implementation. Finland has been supportive of these actions taken at global level; however, it is necessary to ensure that policies result in making a difference at community level. So far there is little evidence that this would have been the case.

6.2 Operational Linkages

The new development policy which emphasises strongly the environmental issues has permeated the political dialogue with the partner countries. Strong emphasis is given to climate change (both mitigation and adaptation) which offers a good opportunity to mainstream DRR issues in other sectors. Acknowledging that it normally takes around two years for a MFA policy to result in actual changes on the field currently the actual integration to activities in a comprehensive way has been more modest. It seems that one reason for this is that there is not a thorough understanding of the linkages between DRR and development by Finland and many of its partners. This is exacerbated by the lack of guidelines and tools for the embassies for instance to translate information of risks and vulnerability into issues to be discussed and programmed with the partner countries. Even where there are clear instructions, such as the decision to use and promote SEA, follow up is not so systematic. SEA for instance is seldom carried out in the programmes or interventions and even when is carried out, the actual implementation of the recommendations remains weak.

In spite of this Finland has for several years supported Early Warning Systems and in particular meteorological services around the world. In part this reflects Finland's concern about disaster prevention, but it represents only a limited application in the area of DRR, as it forms only a small component of the steps required for effective preparedness to face disaster that has an impact at local level (Figure 1).

Finnish programmes specifically dealing with DRR have focused on strengthening meteorological services. In spite of the focus and substantial investments on meteorological services of Finnish partner countries, a major constraint remains to be the coverage of climate information in terms of space and time. These programmes have largely ignored sectoral users of information and limited linkages have been made between socio-economic and vulnerability information. Perhaps these linkages

are just being created, as even at global level the integration issues of DRR are recently being implemented. In that sense it seems that this evaluation is bit ahead of its times and it may take from five to ten years down the line before we will be able to see these linkages in the end-to-end chain for managing disaster risks.

From the discussions in the chapters above, it is very clear that only if the diverse interventions in development aid are connected in a strategic manner can they be effective in making a difference in DRR at community level. It is however impractical to expect that aid interventions during a fixed time period or made by a single donor (e.g. Finland) can cover the whole matrix of actions required to make a difference. What is desired is to see that the actions add up towards achieving the ultimate goal of resilience to disasters. This is possible only if the partner countries take the leadership and develop frameworks where interventions and funding can be included. There are promising attempts for example in the Caribbean where regional cooperation frameworks in DRR are being developed, as well at the national level in many countries where NAPAs are being formulated or updated.

The sparseness of the projects covering the wide spectrum of issues linked to DRR (as indicatively listed in the matrix Annex 3), and the fact that they had very little connectedness built in the original project design, rendered the analysis difficult. However, qualitatively it can be inferred that except for the interventions made in the early warning systems (SIDS – Caribbean and FINAM where two stages of improvements can be marked), the other sector projects made only some shifts in terms of their contributions to DRR. In Nicaragua and Mozambique development programmes with not such a clear DRR focus have to a certain extent improved the situation of vulnerable communities and contributed partially to the modernization of government structures. There are clear connections between enhanced resilience and DRR. In the case of Nepal perhaps there could be a better assessment possible when many of the ongoing projects are further implemented.

As in any development field, actual transformation, empowerment and behavioral change require a systematic and long-term presence. This has often been the case of Finland with building a long-term partnerships and focusing aid to some selected areas. For instance in Ethiopia Finland's long-term work in the water sector (more than 15 years) has now tangible benefits. The same is true for the long-term territorial support of Finland in Nicaragua. This long-term commitment is not uniform. In Mozambique and Nicaragua for example there is evidence of a very short phasing out in some sectors and the failing capacity of governments to guarantee sustainability. In terms of DRR the challenge remains the same, it is important to have long-term commitments and plans to achieve at least the desired outcomes.

The framework presented has a potential to be developed into a practical tool for connecting development aid interventions to DRR, particularly in terms of end-results at community level, in future efforts for mainstreaming.

A major challenge for Finland and also for the developing countries is to agree upon which development modalities are more efficient to tackle the issues of DRR. As has been extensively discussed, DRR requires the work of several line ministries, as well as an active involvement of the community. Based on the sample and case studies, it can be said that some modalities maybe more appropriate. However it is important to note that this will vary according to the situation in each country. The traditional projects were rather efficient in providing capacity building. This has been possible both by using public institutions (e.g. FMI) and private (e.g. FORECA). The challenge with these projects has been that they have been very focalized and have not been able to mobilize other agencies or line ministries. Other modalities as sectoral support have proven even more complicated to achieve inter-institutional cooperation. For example in the area of rural development that also by nature is cross-sectoral, there have been major challenges. In both of the countries analysed (Mozambique/Nicaragua), the sectoral support by Finland tend to concentrate on one ministry only and inter-ministerial cooperation is limited. Rural sector support programmes function under the governance culture prevalent in highly centralized and hierarchic governments. This doesn't mean DRR cannot be integrated into these programmes but would require higher efforts. Water sector and decentralization programmes have a more holistic and multi-sectoral approach and involve different line ministries. There seems to be more potential for advancing DRR in these type of programmes. Finally, budget support is a good modality to be engaged at high level political dialogue. However, specific themes may not receive as much attention as required. There is an infinity of issues that are discussed in the frame of budget support and DRR if not actively taken by a government or a group of donors tends to be relegated to other priorities (e.g. financial mechanisms, macro-economic balance etc).

6.3 Institutional Analysis

Finland is making great efforts to incorporate elements of the continuum thinking in all its development cooperation. However a detailed position paper on this has not yet been approved by the MFA. This continuum policy has the potential to incorporate the key elements which are fundamental for mainstreaming DRR: in development projects.

While the 2007 Policy is comprehensive, the absence of a specific DRR policy has made it almost invisible on the MFA agenda. With the exception of the humanitarian aid department, the staff of the MFA has different levels understanding of the links between development and DRR. These linkages are complex and would require both sensitization, as well as more practical tools to help to conceptualize how to deal with them in practice. The lack of policy has caused actions to be carried out on ad hoc basis and there is little recognition of the need for a strategic approach to reducing risks. However, there is a wide recognition that disaster and risks are of importance for development but currently no attempt is underway to adjust planning and monitoring mechanisms to make them DRR friendly.

The MFA is part of the rationalization of the Finnish public institutions. Its main objective is to improve the productivity and efficiency of the public sector. In brief the work has to be done with less human resources to allow that the private sector would have a major share of the work-force. This is seen as an issue of survival of the welfare state in Finland. In this context the MFA is under very heavy stress as resources to administer grow and the quality requirement increase. It is clear that in the MFA nor in the HQ or the Embassies would be able to increase staff. In this context DRR inclusion remains a challenge. Currently DRR issues are handled by the humanitarian department with not so much coordination with the other departments. Besides improving the communication and coordination with other departments, it will be necessary that the MFA develops appropriate capacity including sufficient resources to support the process of mainstreaming risk reduction. This could be achieved by making better use of the available resources but most importantly it seems that Finland would need to continue its process of focalizing aid and avoid fragmentation. It seems that in order for the MFA to promote quality development cooperation (e.g. mainstreaming DRR), it will need to decrease the number of interventions and make them perhaps larger.

Humanitarian aid continues to divert funding for preparedness. There is a pervasive phenomenon where donors react to crisis only when they have unfold completely. Governments know that in case a major crisis hits, funds will be available to confront the un-expected situation. Some countries prefer to invest in other areas, rather than prevention.

Some NGOs which are present before, during and after disasters have in-built understanding of the continuum in development cooperation. Their experience clearly shows that investments in disaster risk reduction have increased communities' capacities to cope with disasters and at the same time, reduced the dependence on external relief assistance.

6.4 Future Considerations

DRR is being recognized as an important component of actions required for CCA, particularly in regions projected to face the adversities of climate change. In the next few decades the adverse manifestations of climate change will result in increased frequency of extreme weather events which could lead to disasters in vulnerable communities, and adaptation through DRR will be the first line of defence. So, supporting DRR also offers combined benefits of enabling populations to face the threats of climate change. This underlines the need for having a DRR strategy in development aid and also keeping it connected to the actions on enabling CCA.

7 RECOMMENDATIONS

Policies and Strategies linking Development and Disaster Preparedness

1. There is a strong need to articulate Finland's views and priorities in supporting DDR initiatives in an exclusive policy paper on the issue. Herein alignment to EU's strategies as well as the emphasis that Finland would like on the issue at the national and global levels could be clearly highlighted for both guidance in evolving programmes and projects and for the multilateral support.
2. Finland's support to the UN agencies working in the area of DRR, particularly the FAO, UNICEF, WFP, WHO and WMO, is perceived as an important contribution to the DRR initiatives by nations as well as international agencies. This practice could be strengthened further and made effective, through a strategic thrust.
3. Finland has considerable experience toward capacity building of EWS, which has been leveraged in the past. Considering the critical role of early warning in DRR , continuing this focus on EWS sector could bring rich dividends. This comparative advantage could be expanded by adopting End-End integrated approach in a Multi-hazard framework and including critical components like communications and outreach.
4. Inter-linkages between development programmes/projects with relevance to DRR objectives, guided by the EU strategy on DRR and the HFA, can be built into to ongoing and future projects.
5. Include issues of DRR in the consultations for the new NGO policy. Allow flexibility in the financing instruments for NGOs to allocate funds for DRR.

Reduction of Disaster Risks – Operational Linkage

1. Continue including issues of DRR and Climate Adaptation in the mandates and political dialogue in disaster prone countries. Use existing dialogue channels such as budget and sectoral support to raise issues of vulnerability and DRR. In the ongoing negotiations on CCA, the recognition of DRR as an effective approach may be supported in consultations with negotiating partners.
2. The MFA should guarantee in the Quality Groups, the Embassies and the Desks that a proper situational analysis is conducted with elements of environmental risks as well as social.
3. All interventions aimed at building capacities of the meteorological services should be linked with at least one of the stakeholder agencies involved in DRR. Wherever possible, community level components involving grass-root level agencies must be encouraged, right from the project design stage.
4. Training component on meteorological applications, particularly on warnings of extreme events could be emphasized and strengthened.
5. Support DRR regional programmes where feasible. To be efficient, these programmes have to have a strong national component in each of the countries participating.

6. Finland can pilot some gender and DRR programmes to show in practical terms the catalytic effect. Women and girls can be powerful agents of change, when considering the mitigation and adaptation efforts. It is important not to view women and girls only as instruments of development; but any intervention should contribute to equality and changing gender roles.
7. ICT/communication strategy should be included in the sectoral programming especially related to EWS sector.
8. While the scientific and technical investment is vital, a marginal investment on ensuring institutional and community involvement in early warning will go a long way in ensuring further saving of lives and property and thus economic benefits; while there is no doubt that this societal investment has direct economic benefits, the linkages can be fostered and the tangible benefits elaborated further
9. Horizontal cooperation and communication between different Ministries and stakeholders in partner countries should be encouraged.

Institutional Analysis

1. The guiding principles of humanity, independence, impartiality, neutrality and needs-based humanitarian aid should be maintained, but abolishing budgetary division between the humanitarian aid and development cooperation should be encouraged.
2. Long-term support to disaster risk reduction and disaster preparedness should be funded simultaneously with humanitarian assistance in complex emergency situations, such as currently prevailing in Afghanistan, Liberia or Sudan.
   3. Interventions related to climate change adaptation must link with DRR objectives to enhance their relevance. This aspect should be reflected in both climate change and DRR policies and get operationalized at the programme level.
4. For a comprehensive approach to continuum in development policy a working group including staff from the MFA regional departments, relevant technical advisers, unit for humanitarian assistance, NGOs and other stakeholders should be established.
5. Training in basic concepts of DRR is recommended for different stakeholders both at the field level and in Finland. Training should be organized and the use of SEA and DRR guidelines promoted systematically.
6. Considering limited resources it is better to target resources to well focused areas in select countries. Based on available analysis of HFA implementation, natural hazard profiles of nations, NAPA's and Finland's earlier experience in development cooperation, a priority list could be drawn up. Interventions should be larger.

Climate Change Adaptation

1. Investment in early warning system could greatly contribute to CCA, and is a practical way in demonstrating the integration of CCA and DRR. Linking DRR and CCA is an opportunity that is often lost due to insufficient institutional coordination at all levels (including international agencies). Due to the high visibility of disaster management it could also be an entry point to address climate change hazards.

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ANNEX 1 TERMS OF REFERENCE

Terms of Reference

Evaluation of Natural Disasters and Climate Change in Finnish Aid from the perspective of Poverty Reduction (89855901)

BACKGROUND

Natural Disasters, including extreme weather conditions, earthquakes, volcanic eruptions and similar always were there. During the last couple of decades the frequency and intensity of natural calamities has been on the rise and subsequently also the economic losses in infrastructure, livelihoods, losses of human lives, and overall achievements of development efforts. There is undeniable evidence available today that climate change and climate variation bring about additional risks for extreme weather conditions and related natural disasters.

Some 10 years has elapsed since the previous comprehensive evaluation of Finnish aid to the environment sector. The evaluation was composed of a number of specific topical sub-evaluations, one of which was focused on aid to meteorology. Disaster preparedness and meteorology and hydrology have a logical and systematic linkage and thus, aid to this sector inevitably also contributes to the early warning and preparedness dimensions. However, it has been acknowledged that disaster preparedness is a much wider issue than building of capacity in this particular area, though an extremely important one. In many international arena and final documents of the majority of international thematic conferences, poverty and its consequences have been acknowledged to rest in the centre, when addressing the questions of endurance to natural hazards, and early warning, mitigation, prevention. Natural hazards will always occur but much can be done to prevent them from turning into natural disasters. Also other issues, including mitigation, adaptation and prevention of climate change, in particular, are interlinked to the natural disaster preparedness and prevention.

The tidings being as they are today, it was regarded as important and timely to look at the Finnish development aid to natural disaster preparedness and the synergies between the targeted aid and aid directed towards poverty reduction overall and the different facets of abatement of climate change and its impact on the most vulnerable. It has indisputably been shown that the poorest are the most vulnerable to natural disasters. Also the effects of natural disasters on the poorest societies last longest and have the most profound impact at the level of the entire society and its individual families and members. Women, children, the elderly, and other vulnerable members of the society, face the consequences of natural hazards most severely and irreversibly.

For a frame of reference and as background information package, an account of the topic of the natural disasters and preparedness in the international agenda has been compiled in Annex 1 to this Terms of Reference (ToR). This Annex also contains a

summary of Finland`s past aid to meteorology and hydrology during the new Millennium, as well as an account of initiatives currently being prepared or having been made known.

THE EVALUATION

1 Scope

The evaluation will look at the bilateral, multi-bilateral and multilateral channels and aid delivery mechanisms from the policy and policy dialogue level to practical programmes, projects and activities in the field. The dimension of Finland utilizing the EU and its policies and channels is also included.
The evaluation shall cover Finnish aid to the fields relevant to natural disaster preparedness and early warning from 2000- to-date, with particular focus on meteorology and hydrology as an entry to decrease the vulnerability of the poor to natural hazards.

The major umbrella issue is the connection between poverty and disaster preparedness or rather the relationship of poverty and vulnerability to natural disasters and its consequences, and what can be done to lessen these consequences, let alone prevent them from happening. One of the entry points to the question is support to the early warning and natural disaster preparedness technology, and technical and institutional capacity building through aid to meteorology and hydrology.

The building of "a culture of preparedness" entails earnest inclusion of the societies down to the grass-roots level, which will be one of the dimensions of this evaluation. Aid to many sectors, such as forestry, land use and management, watershed management, agriculture and rural development, shelter programmes, population programmes, overall poverty alleviation programmes, NGO-programmes and alike are all contributing strategically towards improved preparedness and natural disaster prevention and endurance capacity of the societies. A sample of these programmes shall be looked at to complement the picture.

The work includes an in depth study of documentation and also field visits. In addition to aid to meteorology and hydrology, the study of documents and interviews at the Ministry, shall include a number of other projects and programmes (such as forestry, land use and management, agriculture and rural development) to asses the (potential) contributions of these programmes.

Field visits are foreseen to Geneva (f.ex. WMO, UNEP, UNISDR, OCHA), to the region of Central America and Nicaragua, and Mozambique. The field visits shall look at the Finnish aid to building the early warning and observation capacity towards weather and climate -related natural phenomenon through aid to meteorology and hydrology. And likewise, look at other types of programmes (i.e. forestry and land use management an others), which are geared towards poverty reduction and stabilization

of environment, and hence also towards mitigation and prevention of the impacts of natural disasters, including floods, land-slides and alike. The results and documentation of the on-going evaluation on Finnish aid to agriculture and rural development shall be utilized to the extent possible.

The humanitarian relief aid as response to a natural disaster situations is outside the scope of this evaluation, although the budgetary division of funding to prevention and preparedness on the one hand and relief on the other hand, shall be included in the assessments.

At the policy level, the role of Finland shall be assessed in the international arena relevant to the successor arrangement of IDNDR, the UNISDR, OCHA, UN General Assembly which represent policy dialogue opportunities to impact at the high political level. The policy level assessment will also include the views expressed / supported by Finland in the relevant major UN conventions, such as the convention of climate change, biodiversity, and desertification, in relation to the disaster prevention and preparedness.

The range of analyses and assessments in this evaluation goes from policy to primary beneficiaries.

2 Purpose

The purpose of the Evaluation is to obtain an expert external opinion on, how Finland´s development policy focus on poverty has been materialized in the context of reducing vulnerability toward natural disasters, phenomena brought about or accelerated by climate variation and change. The purpose is to identify concrete results, successes, and failures and answer a simple question: have we or are we making a difference?

3 Objective

The major objective is to extract lessons from the last nearly ten years of aid to the building of early warning capacities and preparedness and reducing the vulnerability and impacts to natural disasters. Secondly, the objective is to assess the efficiency of different levels, from policy to practice, in the promotion of disaster preparedness. The cross-cutting nature of natural disaster preparedness shall be a special viewpoint in approaching the topic.

A number of different layers and entry points will be included in this evaluation, and the gathered information will be aggregated into an overall synthesis. A preliminary graphic illustration of the evaluation concept to reach the objectives of this evaluation is presented in Annex 2 to this Terms of Reference.

4 Wider Questions

The wider questions of this evaluation include:

- Has Finland`s aid policy and the respective aid contributions addressed adequately and been relevant, effective, and efficient, and accomplished concrete results to improve disaster preparedness and decrease the vulnerability of the poor?
- Have the development interventions been conducive to reducing the impacts of natural disasters?
- Have Finland`s contributions designed to alleviate poverty, simultaneously enhanced preparedness, promoted the culture of preparedness, and hence reduced vulnerability to natural disasters?
- Have the policies on climate change and variation and poverty reduction been coherent with the aim of natural disaster preparedness and lessened vulnerability?
- Are there any best practices discernible which could benefit future aid programmes?

5 Criteria of Evaluation

The evaluation will utilize the OECE/DAC development evaluation criteria, relevance, efficiency, effectiveness, sustainability and impact, and include also those used by the European Union, namely, coordination, complementarity, and value added. Risk assessment and management shall also be looked at. Coherence and connectedness combined is a special dimension due to the multi-dimensional task dealing with poverty, disaster preparedness, early warning and vulnerability, and climate change and variability.

5.1 Specific Questions relevant to the Criteria

In the following a preliminary set of criteria-specific questions are presented. The evaluation team should, however, use their expert knowledge and deeper understanding of the issues, and add to these questions as they deem necessary.

Relevance in Finland

- Have the subsequent Development policies of Finland (1998, 2001, 2004, and 2007) been conducive to the understanding that natural disaster preparedness is a theme cutting across the overall goal of poverty reduction?
- Sectoral and thematic guidelines, do they reflect natural disaster preparedness in connection with the sector specific issues?
- Has there been any actual policy on natural disaster prevention and preparedness *per se* or has it been one issue in the humanitarian portfolio? Does it appear at all in other multilateral context, and in guidelines, policy outlines or alike?
- Relevance of projects and programmes to development know-how and technical capacity Finland?

International Relevance

- International policy level: major fora and means (UN, specialized agencies and organisations, INGOs, international conventions, and the EU) addressed by Finland?
- The origin of natural disaster -related projects and programmes - are they based on actual needs assessments, requests from international organizations, requests by partner countries or what?
- Usefulness of the activities from the partner organizations` and end-beneficiary`s point of view?
- Any particular aid programmes addressing the needs of the most vulnerable?

Efficiency

- Have the policy decisions on natural disaster prevention produced expected results? What kind? In which context?
- Have the development interventions resulted in concrete results? Major beneficiaries?
- Have good practices emerged? Success factors? Factors conducive to failures?
- Costs of activities and interventions - can they be justified with concrete achievements?
- Governance and management of the relevant development interventions? Has it been organized in an efficient way?
- Inclusion of good governance in the interventions - is it there explicitly?

Effectiveness

- How do the choices made and the intervention portfolio assessed fulfil the overall goal of poverty reduction, and hence reduction of vulnerability to natural disasters? Has the vulnerability to natural calamities been specifically pointed out in the poverty-relevant development interventions or has it been "a silent plus"?
- Any improved preparedness to natural disasters as a result of Finnish aid interventions? How does the enhanced preparedness express itself? Any cases to report?
- Is there any synergy seeking discernible between policies and measures on climate change and variability, and considerations of natural disaster preparedness and reduced vulnerability?
- Synergies build between natural disaster preparedness and other relevant sectors (forestry, land management, water shed management, agriculture, food security and rural development, shelter programmes and alike)?
- Adequacy of monitoring and follow-up mechanisms?

Sustainability

- Overall sustainability in terms of technical capacity, technology, institutional capacity, knowledge, information sharing, and skills development?
- Sustainability of benefits? Major beneficiaries? Concrete examples?
- Involvement of local level authorities and communities? Any gender disaggre-

gated activities and training, monitoring and data?
- Financial sustainability of interventions?

Involvement of local communities? Skills transfer mechanisms and their sustainability?
- Does HIV/AIDS feature in the programme plans of natural disaster preparedness? How has it been interconnected to the interventions?

Impact
- Any concrete long-term impacts (positive, negative, direct, indirect) attributable to the Finnish aid? The likelihood of continued benefits? Disaggregation of flow of benefits according to gender, the vulnerable groups, ethnic minorities, or other?
- Lessons learned to improve impact?

Coordination and Complementarity
- What are the major coordination mechanisms in the processing of new initiatives? Is there any holistic view on the overall involvement of other donors and international organizations in the disaster preparedness?
- Are decision to contribute to disaster preparedness and early warning through different dimensions of it, informed decisions in terms of what others do in the same fields?
- Compliance in terms of partner countries` own plans?

Coherence and Connectedness
- Connectedness to the implementation of the wide international policies, such as Millennium Development Goals, Paris Declaration and alike?
- How does policy coherence in terms of natural disaster preparedness and other relevant sectors express itself concretely?
- Points of connectedness of disaster preparedness and prevention, poverty and climate change and variability at the policy level, country level, institutional level, and at the society level?

Value added
- What is the specific value added of Finnish involvement in the sector of disaster preparedness?
- Have we chosen portfolios relevant to our know-how and skills?

Risks and risk management
- How do risks sit in the overall planning of interventions in this sector? Is the management been built-in in the plans? Any mechanism to monitor the occurrence of risks and how they were overcome?
- Technical, technological and institutional risks involved?
- Risks of occurrence of corrupt behaviour, how has it been taken into account? In cased of improper behaviour (if any), how has the situation been dealt with?

- Risks involving HIV/AIDS?
- Risks of uneven flow of benefits, including exclusion of the poor and most vulnerable, minority groups etc.
- Sustainability risks?

6 Methodology

Due to the multilayered nature of the required assessments, the methodology needs to be designed so that the analysis at different levels, policies and interventions, can be drawn together for the final analyses at the aggregate level. The evaluators should draw an evaluation matrix to link the different parameters, levels, and questions together and to include indicators against which the analysis can be performed. The final methodology of the evaluation will be defined in the work plan of the evaluation team (inception report). A number of different methods of analysis need to be deployed.

7 Expertise Required

Major focus area in this evaluation is natural disaster preparedness, its relation to poverty reduction, and the major means to connect between these aims. One of the entry points is aid to meteorology and hydrology, and the linkage to the building of early warning networks and disaster preparedness capacities and skills. On the other hand, a sample of other projects related to, for example, forestry, land use planning, management and environment, development and development economics, infrastructure, population and human settlements, and alike, are also included in the study, due to the significance of these sectors in terms of disaster preparedness of communities. The evaluation task requires good analytical skills to draw common conclusions at aggregate level on a number of cases and sources.

The core-team of a maximum of four (4) persons, needs to be complementary in experiences and competences to be able to cover the major topical areas relevant to this evaluation. It is also essential that there is, in addition to good understanding of Finnish development policies, also good knowledge and experience at the international policy and practical level on relevant fields to this evaluation. At least one senior member of the team must be fluent in oral and written Finnish. Because the field trips are made to Spanish and Portuguese speaking regions and country, the team must include competence in these languages. Local experts can be added to the team for country level work.

The exact requirements of the team are listed in the Instructions to the Tenderer document (Annex A to the Invitation to Tender)

8 Budget

The total budget available to this evaluation is 185.000 euro (VAT not included), which cannot be exceeded.

9 Time Schedule and Phasing of the Evaluation Reporting

The contract between the performer of this evaluation shall be concluded before the end of June 2009. The evaluation should start soon thereafter and proceed promptly so that the final report shall be available not later than at the end of November 2009.

The following time tables are tentative, and subject to final agreement in the contract.

Work Plan: The first phase of the evaluation shall be the preliminary desk study to gather adequate information to a comprehensive work-plan of the Evaluation. The work-plan is called the Inception Report. It will include a refined approach to the evaluation task, elaboration of the critical issues, the actual activities to be performed, time-tables, and a detailed distribution of tasks between the team members. Due to the complexity of the issue to be evaluated, an evaluation matrix is required on the key issues and respective indicators, to ensure coherence and connectedness at the aggregate level of analysis of the data gathered from different levels and sources.

The work plan shall be prepared so as to take into account the holiday season. The inception report will be available not later than mid-August 2009 for the approval by the Development Evaluation of the Ministry for Foreign Affairs of Finland (EVA-11).

Inventory Desk Study: A comprehensive study of documentation, complemented by interviews of key informants in Finland will be performed to be ready not later than the end of August 2009- early September. During the intensive desk study the questions, interlinkages, and major lines of study shall be prepared for the field visit. A discussion with EVA-11 shall be organized at the end of the Inventory Desk Study, if deemed necessary by the evaluators or EVA-11.

Field visit: The field visit is expected to take place between September to mid-October 2009 (about 5 weeks). The team should divide itself into groups of suitable size and combination of skills, to cover both the Geneva loop and the field visits to the Central-American region (including the Caribbean, Nicaragua) and Mozambique. In each of the areas visited, the team members may, if deemed necessary and desirable, at the end of their mission, give an oral presentation to key stakeholders and/or the Embassy of Finland`s staff on their major findings. Upon return from the field study, a conference call (or video conference or an oral presentation in a meeting) shall be organized in which the team shall present their preliminary findings to EVA-11. Concomittantly to this evaluation, the evaluation of Finnish Aid to Agriculture is ongoing. To the extent possible, this evaluation should utilize the relevant information available through that evaluation, in regard of Mozambique and Nicaragua.

Reporting on the results:

The evaluation Team shall prepare a Draft Final Report after return from the field.

The Draft Final Report shall be in the actual format of the final report and follow the separate instructions to the authors of the Ministry. The draft final report should follow already the editorial layout of the Evaluation Report series of the ministry, and use the Evaluation Guidelines (2007): *Between past and future*, to guide in the sectioning of the report. The final draft should be ready within four weeks after returning from the field visit.

The draft final report is submitted to EVA-11, who will send it to a wider round of comments in the Ministry, embassies, and other stakeholders as may deem necessary. The comments shall be returned to the Evaluation Team within two weeks, after which the team is expected to finalize their work promptly. The Final Report is expected to be ready by the end of November-early December 2009.

The Final Report shall include the aggregated analysis of the evaluation team. It must be written in clear and concise manner, in the English language, so that even laypersons can understand it. The report shall be an aggregated analysis, using the desk studies and the case visits as material to the final coherent analysis. The final report shall not be a mere account of individual interventions studied. The report shall include the major results of the evaluation analysis and indicate in clear terms concrete qualitative and quantitative results, achievements and failures, and issues to be improved in the Finnish aid in the field of this evaluation. There shall be separate sections on findings, conclusions and recommendations. All the sections of the report shall use explicit language; vague expressions and blurred language, conclusions or recommendations are unacceptable. A separate section on lessons learned shall also be included in the final report.

The Final Report shall be submitted to EVA-11 in both Word and PDF-formats. Also four hard copies of the final version of the Evaluation Team report shall be sent to EVA-11 under a covering letter by the Evaluation service provider.

In the compilation of the report the Evaluation Team should also consult the OECD/DAC Aid Evaluation Quality Standards (http:www.oecd.org) and make a self assessment of their final report against the EU Evaluation Quality standards (http://ec.europa.eu/europeaid/evaluation/methodology/guidelines/qui_qal_flr_en.htm

Features of the Final Report: The main body of the final report text should not exceed 50 pages. Additional Annexes can be used. It should be noted that Annex 1 is always the Terms of Reference, and Annex 2 the people interviewed or met. No separate field visit reports are necessary to be prepared as annexes to the main report. Should a short account of the field visits be desirable by the evaluation team, it should be in the form of a brief numbered annex. The final report, printed in the Evaluation report series of the Ministry, shall include only Annex 1 in the printed version, and the rest of the Annexes are contained in a CD attached to the printed report.

The authors are requested to consult the editorial layout of a recent Evaluation Report of the Ministry and follow scrupulously the instructions to authors provided by EVA-11. The references cited in the text must follow the patterns used in the printed reports, including the list of references, which is part of the body of the text. The final report submitted by the evaluation team must be ready-to-print, edited to perfection, and the English language properly checked. The report may contain graphs and line drawings (in the electronic form), tables and boxes. Only in exceptional cases colour photos can be included.

In the beginning of the report, outside the 50 requirement, there should be an abstract, which does not exceed 250 words. The abstract must be submitted in fluent Finnish, Swedish and English (with the Swedish language EVA-11 can help if needed). The abstract should include the purpose and objective, short account of methods, major findings, and recommendations. Also 3-5 key words must be provided. Summaries, written in the mentioned three languages, follows the abstracts. A summary should be crisp and include the main points, not exceeding 3-4 pages. An English language summative table is added, which contains the findings, conclusions and recommendations. The text must be brief, crisp, and easily comprehensible. A recent evaluation report may serve as a guide.

A final seminar will be held in Finland to present the results of this evaluation. The Evaluation Team is required to prepare a power point presentation and be available (at least the key members of the team) for discussion and questions. The timing of this seminar is subject to being agreed later on.

10 Mandate

The Evaluation team is expected to consult and contact stakeholders and institutions relevant to this evaluation. Yet, the Evaluation team is not allowed to make any commitment on behalf of the Government of Finland or any other party to this evaluation. The Evaluation task should be performed in a manner which is respectful and sensitive to the local customs and culture.

Helsinki 28 April 2009

Aira Päivöke
Director
Evaluation of Development Cooperation

ANNEX 1 TO THE ToR

BACKGROUND TO THE EVALUATION

1 Chronology: Natural Disaster Prevention and Preparedness in the International Agenda

1.1 Decade of Natural Disaster Prevention

In 1987, the 42nd General Assembly of the United Nations adopted resolution 42/169, which decided to nominate the 1990s as the decade to reduce vulnerability to natural hazards and to enhance preparedness and early warning capacities, particularly in poor countries. The Decade for Natural Disaster Prevention (IDNDR) became a culmination point in the acknowledgement of the fact that natural calamities mostly affect the most vulnerable in the society and among countries.

The objectives set to the Decade included

- the improvement of the capacities of communities to mitigate the effects of natural disasters and to improve early warning systems;
- devising appropriate guidelines and strategies, and collecting existing knowledge; fostering of scientific and engineering means to cover any critical gaps in knowledge;
- effective dissemination of information on prediction, prevention and mitigation of natural disasters;
- devising of technical assistance and technology, pilot projects, education and training.

1.2 Yokohama Conference and Plan of Action: mid-term review of the IDNDR

The World Conference on Natural Disaster Reduction, organized in Yokohama, Japan 23-27 May 1994, served as a mid-term stock-taking of the implementation of the Decade. The principles of the final documents, *The Yokohama Declaration and the Action Plan*, recognized the necessity of risk assessment as a step towards the adoption of successful disaster reduction policies and measures. In early warning systems and dissemination of subsequent information working telecommunication and weather broadcasting services are key to successful preparedness. Involvement of vulnerable communities is important. Environmental protection and sustainable development are key constituents conducive to natural disaster prevention. The Plan of Action underlined the importance of work at the field level, both local, country-based and regionally.
The Decade (IDNDR) came to an end in 1999. The final event was the IDNDR International Programme Forum in Geneva 5-9 July 1999. The adopted Geneva Man-

date on Disaster Reduction was a declaration of intent to continue efforts towards better response preparedness of the world community towards natural hazards. It acknowledged that the frequency of extreme weather born natural calamities had increased significantly during the last decade. It was also recognized that a multi-sectoral, interdisciplinary and cross-cutting approaches were necessary. The Geneva Mandate emphasized the importance of world-wide cooperation and partnerships in addressing issues of response and early warning. The Geneva Forum adopted a strategy entitled "*A Safer World in the twenty-first Century: Risk and Disaster reduction*".

1.3 IDNDR evolves to ISDR - Culture of Prevention

On the follow-up a successor arrangement to IDNDR was adopted by the 54th General Assembly of the United Nations in December 1999 (resolution 54/219). Severe concern was reiterated at the increasing number and scale of natural disasters which had caused significant economic losses and losses of life, and the overall development was retarded for long periods of time. The proposal made by the Secretary General of the United Nations on the successor arrangement to IDNDR, the International Strategy for Disaster Reduction (ISDR) was endorsed. Subsequently, an inter-agency task force and inter-agency secretariat for disaster reduction were established under the direct authority of the Under-Secretary General for Humanitarian Affairs (OCHA), for a period of 2000-2001. A review was foreseen to look at this arrangement. The ISDR represented a clear shift from emergency response to emergency prevention. The strategy recognizes the fact that natural hazards do not necessarily lead to a disaster, but disasters result from the impact of natural hazards on vulnerable social systems. Disasters are to a certain extent preventable through targeted activity designed to reduce the vulnerability to natural hazards.
In its current status, since 2001, of the ISDR (UNISDR), the secretariat is a recognized leader in international efforts of natural disaster prevention. ISDR reports to the Under-Secretary General for Humanitarian Affairs, who in turn reports to the Secretary General. The agenda item of ISDR is under the 2nd committee (Sustainable Development) of the General Assembly. The funding of ISDR, meaning to disaster risk reduction, is mainly coming from the humanitarian funding sources. Unfortunately, disaster management and preparedness is still considered more of a humanitarian than a development issue. On the other hand, the Secretary General of the United Nations has taken the reduction of disaster as one of his priority areas. Consequently, in November 2008, an Assistant Secretary General for Disaster Risk Reduction as the Secretary General`s Special Representative for the Implementation of the Hyogo Framework for Action was appointed to the Secretariat for the International Strategy for Disaster Reduction (ISDR). A core element of the strengthened ISDR system is the organization of the Global Platform for Disaster Risk Reduction events, the first of which was held in 2007 and the second one is planned for June 2009. - The secretariat has various levels of support groups.

1.4 Kobe, Hyogo Conference and Plan of Action

The World Conference on Disaster Reduction, was arranged in Kobe, Hyogo, Japan 18-22 January 2005. The conference reviewed progress made in the implementation of the Yokohama Strategy *(Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention and Mitigation and its Plan of Action*) adopted in 1994. The review identified significant gaps in such major areas as

- Governance: organizational, legal and policy levels;
- Risk management overall and identification of underlying risk factors;
- Knowledge management and education;
- Preparedness for effective response and recovery.

The Kobe, Hyogo Conference adopted the Hyogo Declaration and the Hyogo Framework for Action 2005-2015: "*Building the Resilience of Nations and Communities to Disaster*". The Framework of Action was strongly building on the Yokohama Strategy`s review and lessons learned. It also included concrete priorities to address the issues at different levels, local, national, regional, and international. National and local risk assessment and management, the development of early warning systems and building of capacities were pointed as significant priority development areas. The 10-year Hyogo Framework for Action is a holistic approach to the issue and puts into action complex multidisciplinary risk reduction measures. The Kobe, Hyogo Declaration and the Framework of Action were agreed upon by all parties present, including the World Bank.

1.5 Global Facility for Disaster Reduction and Recovery

As a follow up, a Global Facility for Disaster Reduction and Recovery (GFDRR) was established under the umbrella of the World Bank to support the implementation of the Hyogo Framework for Action. The goal of GFDRR is to integrate disaster risk management in a coherent manner to sustainable development in order to achieve the Millennium Development Goals. GFDRR is a partnership between donors, the World Bank, and the UNISDR (successor of IDNDR). The approach of GFDRR includes climate change, urbanisation and population dynamics and growth as potential high risks to natural disasters.

1.6 Natural Disasters are Cross-cutting the Society

A major resolution on the International Strategy for Disaster Reduction (60/195) of December 2005 emphasized that the international community needed to look beyond emergency relief. Support to medium- and long-term rehabilitation, reconstruction, and risk reduction efforts was needed, and simultaneously also intensive implementation of poverty reduction, sustainable development in those regions of the world which are particularly prone to natural disasters. It was noted that disaster management had already been linked to regional frameworks, such as the African Regional

Strategy for Disaster Reduction, developed within the New Partnership for Africa`s Development framework, which link together natural disaster management and preparedness with poverty reduction. of to effectively integrate, in a coherent manner, disaster risk considerations int

The subsequent resolution of the 61st General Assembly (61/200) in 2007 stressed the need to address the underlying risk factors identified in the Hyogo Framework for Action - factors that exacerbate the vulnerability of societies to natural calamities. Gender-related vulnerability risk was also brought up. Development of culture of prevention was stressed. Moreover, in the reduction of vulnerability to natural hazards, including geological, hydro-meteorological, and other natural disasters, systematic cooperation and information-sharing between all parties, including the climate and other relevant conventions, would yield better disaster preparedness. The first Global Platform for Disaster Risk Reduction was held in Geneva 5-7 June 2007. The meeting discussed in particular the interlinkage and connection of the climate change, development and the humanitarian dimension.

At the request of the Secretary General of the United Nations a Survey of Early Warning Systems was undertaken (A/C.2/61/CRP.1; March 2008). The report recommended the development of a globally comprehensive early warning system. The necessity of national, people-centred systems and capacities was stressed. The 63rd General Assembly discussed progress (A/63/351,10 September 2008) made on the Implementation of the *International Strategy for Disaster Reduction* over the three years since Hyogo Framework for Action 2005-2015 was adopted. Progress had been made on a variety of directions, but the world had not, however, managed to get on tract to achieve the Hyogo Framework`s goal of significant reduction in disaster losses by 2015.

The fact that natural disasters are affecting societies in a cross-cutting manner has been recognized also in a number of outcomes of United Nations and other organizations´ high-level meetings including the World Summit on Sustainable Development (2002) World Summit (2005), International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (2005), the meeting of G8 ministers in Gleneagles (2005), and many others. In 2008 the Disaster Risk Reduction (DRR) theme was included in the follow-up process of the Bali Climate conference. The ODA eligibility of an open DRR-support is being discussed.

Albeit about 80-90% of natural disasters relate climate and weather, there are also an array of non-climate factors which cause natural hazards, such as land use patterns (land slides, mud slides), urbanization, squatter and illegal settlements of human habitations, population dynamics, migration, agricultural patterns, deforestation, trade, and many others. As stated above, disaster preparedness has several facets, one of them is addressing poverty, thus indirectly lowering the vulnerability and touching the root causes of many of the natural calamities. The role meteorology and hydrology are directly linked to the building up of weather, climate and ocean -related observation networks, early warning systems, and data collection and transfer capacities. Meteorology and hydrology are mentioned, including in the United Nations

conventions on climate change, desertification, and ozone depletion. Thus one entry point to contribute towards the global disaster preparedness is through investment in cooperation in the field of meteorology and hydrology.

2 Finnish Aid to Disaster Preparedness and Early Warning Capacity-building

2.1. Programmes Evaluated in 1999

Finland has a long history of cooperation in the field of meteorology and hydrology, which are some of the key areas in the building of global networks for data collection and communication and preparation of tailor-made climate related products, such as weather forecasts, warning systems for extreme weather conditions and alike. Finland has supported the World Weather Watch (WWW) and the Voluntary Contributions (VCP) Programmes of the World Meteorological organization (WMO) since the late 1960s. The 1999 evaluation of Meteorological support of Finland within the wider context of the environment, noted that since 1958 Finland had improved by 1% the meteorological and hydrological observation networks in terms of monitoring capacity of the physical and chemical properties of the atmosphere. Regional meteorological programmes in the SADC-region in Africa and in the Central American Isthmus region (CEMET) were started in late 1880s and early 1990s. The goal of the CEMET programme was particularly to improve the inter-country data transfer systems, the Central American Region being one prone to cyclones and El Nino-Southern Oscillation (ENSO) and their consequences, which frequently reach natural disaster dimension. The implementation of both of these sizable programmes was through cooperation between the Finnish Meteorological Institute (FMI) and WMO. In 1989 also an institution building programme of the Sudan Meteorological Institute with an aim also to develop the capacities to produce and transfer synoptic weather data and to develop services in support of the FAO/Early Warning System for agriculture, including crickets, droughts etc.

A major result of the evaluation of meteorological cooperation of Finland of 1999 was that all of the implemented programmes had enabled the National Meteorological Institutions involved to assist their national governments to prepare environmental laws and to participate in the efforts to combat environmental threats. The national meteorological institutions had been able to serve as advisors in the national coordination processes dealing with the International environmental conventions. The aid programmes had clearly raised the understanding of the value of meteorological and hydrological services and products at the highest political levels in the host countries: the link between meteorological development and sustainable development had been very strong. Finnish support was noted to have been timely and been a true turning point for the national meteorological and hydrological institutions to acquire capacity and technology necessary. However, the evaluation noted that the ownership of the programmes and the distribution of responsibilities were not always clear. The assessment of progress was also difficult due to lacking or poorly defined indicators at the outset of the programmes. Some aspects of the findings of the earlier evaluation may be understood in the light of the recession that hit Finland very hard in 1994.

Consequently, funding was either curtailed significantly or completely cut off leaving the programmes prematurely.

2.2 Summary of Support to the Meteorological and Hydrological Services and to the Disaster

Preparedness since 1999 and Emerging New Initiatives

MOCAMBIQUE

Severe floods struck Mozambique in 2000. In the international conference for the reconstruction of Mozambique in Rome, Finland pledged 25 million Finnish Markka (about 3.6 million US dollars) which, according to the wishes of the Government of Mozambique was used for the reconstruction of the meteorological capacity. The pilot phase, phase I of the *"Finnish Assistance to the Reconstruction of Meteorological Services in Mozambique",* was implemented in 2000-2001. Simultaneously the second phase, Post-Emergency Reconstruction Programme in the Field of Meteorology: Phase II, 2002-2005 was planned in cooperation with the Meteorological Institute of Mozambique (INAM). The overall objective of the programme was to decrease the vulnerability of the Mozambican society towards adverse weather, climate variability and phenomenon caused by global climate change. The total budget of the programme was 3,98 M€, of which Finland covered 3.73 M€. - The Programme was coordinated with those of the EU, Portugal and Spain. - In 2005 it was agreed that a non-cost extension would follow Phase II project and part of the activities yet to be completed were transferred to the European Union. Additional support was granted, a total of 202.000 euro, to extend the project until 31.12.2005, and later implementation period was extended to 30.9.2007.

Three results were defined to be achieved through technical capacity development:

1) improved weather observation capacity;
2) improved telecommunications; and
3) establishment of a modern Weather Service Production system.

The organizational development component included:

1) Institutional development;
2) Public awareness campaigns and marketing; and
3) Communication/exchange: visits and meetings.

Concrete results on each of the components are contained in the Programme completion report, 9.5.2007. Lessons learned list among others:

- project personnel`s physical presence is important to run an efficient project;
- financial resources must be available on the local bank account;
- the bureaucracy in Mozambique and Europe lead at times to conflicts;
- networking is very important to work problems out;
- the quality and the reputation of the supplier is important; institutional development requires a longer time-span than four years for sustainable results;
- the project has to be anchored in the local culture. Introduction to the radar to the local village with traditional ceremonies was a success and secured sustainability

(=== cultural sensitivity even if there are highly technical issues and equipment in question).
- the importance of end user and customer approach in the planning of support to weather services from the service angle.

NICARAGUA Hydrological Equipment to Instituto Nicaraguense de Estudios Territories (INETER). 1999.The purpose of the proposal was to repair the damages of the hurricane Mitch in Nicaragua. Funding of 816.000 USD to build national capacity.

NICARAGUA Training, Spareparts, Weather and Climate Observation Systems, 2000. 734.000 USD

CHINA Quinghai Province Disaster Weathers Observation System (73010801). Concessional Credit to China. 5,32 M FIM. (2000-2010). The purpose is to improve disaster preparedness by enhanced weather observation capacity and in this way reduce the losses caused by natural disasters.

CARIBBEAN The objective of the project of Preparedness to Climate Variability and Global Change in Small Island Developing States, Caribbean Region (SIDS-CARIBBEAN), 2001-2005, was to provide tools for better planning of sustainable development in the Caribbean region, by means of strengthening the National Meteorological Services (NMSs). The strengthened institutions would better be able to provide the necessary and accurate information to the national planning and also to contribute to the global weather and climate information systems. The countries of the region would also be better equipped to fulfil their duties towards international conventions and agreements relevant to the chemical and physical qualities and behavioural patterns of weather and climate. The objective was planned to be reached by developing enhanced meteorological and climatological knowledge and skills in the participating countries by improving their individual capacities and thus also the capacities of the entire Caribbean region. The programme was implemented through WMO as the executing agency in cooperation with the Caribbean countries` weather services and the Finnish Meteorological Institute (FMI). The coordinating organization in the region was The Caribbean Meteorological Organization (CMO).

The components of the project included:

- Improvement of the telecommunication systems at national and regional levels.
- Rehabilitation and upgrading of the observation networks.
- Renovation of the regional technical laboratory for the calibration and maintenance of instruments.
- Upgrading of the database management systems.
- Implementation of data rescue programmes.
- Training and awareness building.

Technical aid, equipment and capacity-building were modalities of implementation.

TRINIDAD AND TOBAGO, AND JAMAICA A pilot project to develop automatic weather forecasting ability (SmartMet equipment), software to weather observation programmes, services to the media and public. Improvement of the regional natural disaster preparedness by developing products that can regionally be applied. 2006-. 350.000 euro.

INDIA Mukteshvari Brown Cloud -project in the Himalayas. 2006-2009, 220.000 euro.

2.4 Support to ISDR

Finland has supported directly the ISDR`s programme from the humanitarian aid budge:

2001: 67.275 EUR; 2002: 70.000 EUR; 2003: 100.000 EUR; 2004: 100.000 EUR

2005: 1.200.000 EUR (Central-Asia early warning); 2006; 200.000 EUR; 2007: 300.000 EUR;

2008: 300.000 EUR; 2009: 300.000 EUR.

ISDR has recently held discussions with Finland concerning cooperation in the field of forests, and the use of relevant Finnish expertise, as well as provision by Finland of an additional Junior Professional Officers. One Junior Professional Officer is currently employed in UNISDR office in New York.

2.5 Projects in Preparation and other Recent Initiatives

The following list is tentative. There may be also other interventions in preparation and initiatives. The source of funding is mainly the budgets of the regional departments, which are separate from humanitarian aid.

PERU Hydro-meteorological Project. Concessional Credit. In preparation. Probably starting in 2010. Credit component around 4 MUSD.

PERU A memo on institutional cooperation (ICI) between the meteorological institutions of Finland (FMI) and Peru (SENAHMI). Decision made 14.10.2008. Project at its initial stage, the project document has been prepared. Budget 498.000 euro.

SOUTHERN AFRICA SADC-COUNTRIES Preparing of the Inception Phase of a Regional Meteorological Project for 1-1.5 years. 11.12.2008, authorization to start the preparation together with the Meteorological Association of Southern Africa (MASA).

CARIBBEAN REGION Request for SmartMet equipment received, 2009. 100.000 euro.

OCEANIA REGION Capacity-building support to the respective national meteorological institutions. ICI instrument. 498.322 euro. Project document received 2/2009.

SUDAN Capacity Building Program between Sudan Meteorological Authority (SMA) and the Finnish Meteorological Institution. A decision on institutional cooperation (ICI) has recently been made, but the cooperation is only at its initial stage.

NEPAL Support to the Department of Hydrology and Meteorology, DHM of Nepal. ICI-support. Decision 11.1.2009 to submit the preparatory task to ICI-consultant for the preparation of the Project Document, 2009. About 500.000 euro.

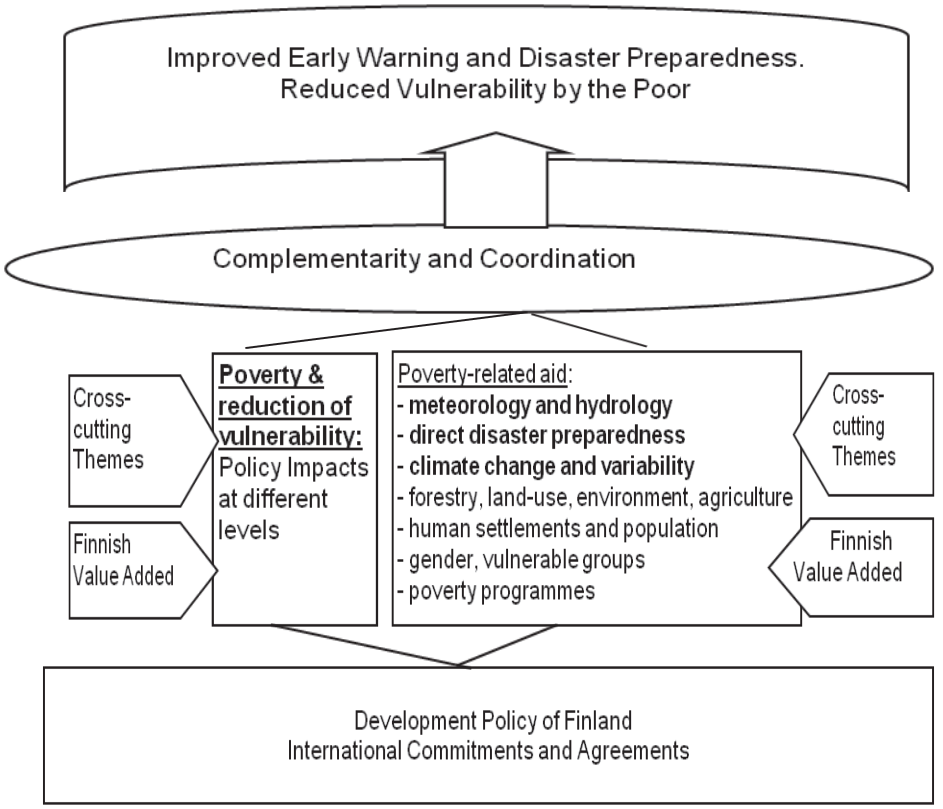
INDIA ICI Instrument; capacity-building in aerosol techniques with the Indian Meteorological Institute. Preliminary project initiative, 2009. About 500.000 euro.

INDONESIA Institutional cooperation with the local meteorological institute, ICI-Instrument. Preliminary discussions held 2009.

CENTRAL-ASIA Preliminary feasibility study 2009. 50.000 euro foreseen.

ANNEX 2 TO THE ToR

Evaluation framework: Early Warning, Disaster Preparedness and reduced Vulnerability by the Poor



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