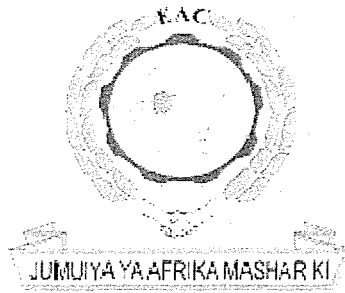


添付資料 3.

第 2 次現地調査：各国パブリック・コンサルテーション・

ミーティング議事録



EAST AFRICAN COMMUNITY

**NATIONAL CONSULTATIVE MEETING ON THE
DEVELOPMENT OF AN EAC DISASTER RISK REDUCTION
AND MANAGEMENT STRATEGY**

DAR-ES-SALAAM, TANZANIA

7th August 2012

REPORT OF THE MEETING

REF: EAC/TF/314/2012

**EAC SECRETARIAT
ARUSHA
AUGUST 2012**

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1.0 INTRODUCTION

The Consultative Meeting of the National stakeholders/Experts on the Development of an EAC Disaster Risk Reduction and Management Strategy for the United Republic of Tanzania was held on 7th August, 2012 in Dar-es-Salaam.

The meeting was held in accordance with the approved EAC Calendar of Activities for July to December 2012. The consultative stakeholders meeting follows the first taskforce meeting on DRR held in Bujumbura on 6th June 2012.

1.1 Objectives of the Meeting

The objectives of the meeting was to:


- i) Assess the progress made in the development of the DRRM Strategy; and
- ii) Enlist national contributions for inclusion into the DRRM Strategy

1.2 Participation

The meeting was attended by Experts drawn from the Office of the Prime Minister, Department of Disaster Management, Ministries of Water; Livestock and Fisheries Development; Defense and National Service; Transport (Tanzania Ports Authority); Home Affairs (Fire and Rescue Force); Health and Social welfare (Tanzania food and Nutrition Centre); East Africa Cooperation. The list of participants is hereto attached as **Annex I**.

The National consultative meeting was chaired by Stephen Mbundi, Assistant Director; Ministry of East African Cooperation and Agness Macha, Political Officer, Ministry of East African Cooperation was the Rapporteur.



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1.3 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II.**

2.0 OPENING REMARKS

The EAC Secretariat, the Chairperson and a representative from the Ministry of East African Cooperation addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agencies (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the stakeholders to be critical in their contributions so that we can develop a good disaster management tool for the region which is usually prone to both natural and manmade hazards.

2.2 Remarks by the Chair

The chairman welcomed the participants and thanked the EAC Secretariat for these initiatives. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRR Strategy. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 ASSESSMENT OF THE PROGRESS MADE IN THE DEVELOPMENT OF THE EAC DRRM STRATEGY

The EAC DRR advisor Mr. Julius Kabubi gave a presentation highlighting on the key elements for a good and user friendly strategy. He emphasized the need to have a holistic strategy that



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addresses all the disaster management cycle. It should be simple to implement in view of the poor communities in the region and should be community centered. The strategy should be a tool to accelerate socioeconomic growth in the region.

A presentation on the preliminaries of the development of the strategy was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment and the JICA Advisor to EAC Secretariat Dr. Yasui Noboyuki. The two presentations highlighted above are hereto attached as **annex III and IV respectively** for further reference. The meeting considered the presentations and made inputs to the process as follows;

4.0 NATIONAL CONTRIBUTIONS BY EXPERTS TO THE DRAFT EAC DRRM STRATEGY

The DRRM Strategy is intended to provide a comprehensive framework for management of and response to disasters in order to reduce their impacts and hence increase the resilience of communities to disasters in the region.

Observations:

The Meeting agreed that the draft strategy is not ready, and they have to make their input on National Priorities to be included into this strategy.

The following were the critical issues observed that should be considered in the development of the Disaster Risk Management Strategy;

- (1) there is need to adhere to the TORs including undertaking a SWOT analysis in each priority area of Hyogo Framework for Action and prioritize according to situation in each Partner State as it may differ from one another.
- (2) Include the issues of Search and Rescue as it is not featured
- (3) Work out the Country profiles on disasters for each partner state
- (4) Need to pay attention to social and other sectoral impacts which play an important role in development activities on the region.
- (5) Local Communities Traditional Knowledge on DRR should be considered in the development of this strategy as local

knowledge plays an important role in coping and management of localised disasters

- (6) Need to consider the issue of Compensation during and after disaster
- (7) Include the development of an evacuation plan during emergencies
- (8) The scope of the strategy should be expanded to include epidemics (human and livestock), accidents, forest fires, structural fires and new also new emerging development.
- (9) Legal framework to be considered for handling among others, people who uses disaster as an opportunity for damping and profit making
- (10) Regional Standard Operating Procedures for disaster management be developed
- (11) This Strategy is being developed without a prior regional policy and hence there is need to identify which areas for harmonization within Partner States existing policies
- (12) Monitoring and evaluation framework should be developed and explicitly elaborate activities to be monitored by Partner states and those by EAC secretariat
- (13) In addition to the HFA and the Africa DRR strategy, there is need to reflect other EAC instruments.
- (14) Disaster Risk Management Strategy to focus more on DRR rather than on response.
- (15) Identify and assign roles of actors in disaster management
- (16) Reference on disaster experience should cover all Partner States

Recommendations:

The meeting recommend to the EAC Secretariat and the JICA team of experts to consider the observations made when making the draft EAC Disaster Risk and Management Strategy.



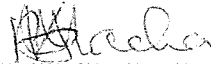
5.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 1.00pm on this the 7th day of August, 2012.

Signed on 7th day of August, 2012.



.....
Stephen Mbundi
Assistant Director, Ministry of East African
Cooperation
The United Republic of Tanzania



.....
Agness Macha
Political Officer, Ministry of East African
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The United Republic of Tanzania



EAST AFRICAN COMMUNITY REPUBLIC OF RWANDA

EAST AFRICAN COMMUNITY
NATIONAL CONSULTATIVE MEETING ON THE
DEVELOPMENT OF AN EAC DISASTER RISK REDUCTION
AND MANAGEMENT STRATEGY

KIGALI, RWANDA

8th August 2012

REPORT OF THE MEETING

REF: EAC/TF/317/2012

EAC SECRETARIAT
ARUSHA
AUGUST 2012

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1.0 INTRODUCTION

The Consultative Meeting of the National stakeholders/Experts on the Development of an EAC Disaster Risk Reduction and Management Strategy for the Republic of Rwanda was held on 8th August, 2012 in Kigali.

The meeting was held in accordance with the approved EAC Calendar of Activities for July to December 2012. The consultative stakeholders meeting follows the first taskforce meeting on DRR held in Bujumbura on 6th June 2012.

1.1 Objectives of the Meeting

The objectives of the meeting were to:

- i) Assess the progress made in the development of the DRRM Strategy; and
- ii) Enlist national contributions for inclusion into the DRRM Strategy

1.2 Participation

The meeting was attended by Experts drawn from the Ministries of Disaster management and Refugees Affairs , Water Resources; Defense ; East Africa Cooperation, Natural Resources; Local Government; Rwanda National Police; Rwanda Natural Resources Authority, Rwanda Environment Management Authority, Energy, Water and Sanitation Authority (EWSA) ; Rwanda Biomedical Centre, Rwanda Transport Development Agency and Medias. The list of participants is hereto attached as **Annex I**.

The National consultative meeting was chaired by Fred Daniel Nzasabimana, Environment and meteorology Expert, Ministry of East African Cooperation and Justin Kayira, Director of Disaster Management from the Ministry of Disaster Management and Refugee Affairs was the Rapporteur. Ministry of Disaster Management and Refugees Affairs was the Rapporteur.

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1.3 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II**.

2.0 OPENING REMARKS

The EAC Secretariat, the Chairperson and a representative from the Ministry of East African Cooperation addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agencies (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the stakeholders to be critical in their contributions so that we can develop a good disaster management tool for the region which is usually prone to both natural and manmade hazards.

2.2 Remarks by the Chair

The chairman welcomed the participants and thanked the EAC Secretariat for the initiatives. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRR Strategy. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 ASSESSMENT OF THE PROGRESS MADE IN THE DEVELOPMENT OF THE EAC DRRM STRATEGY

The EAC DRR advisor Mr. Julius Kabubi gave a presentation highlighting on the key elements for a good and user friendly strategy. He emphasized the need to have a holistic strategy that addresses all the disaster management cycle. It should be simple to implement in view of the poor communities in the region and should be community centered. The

strategy should be a tool to accelerate socioeconomic growth in the region.

A presentation on the preliminaries of the development of the strategy was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment and the JICA Advisor to EAC Secretariat Dr. Yasui Noboyuki. The two presentations highlighted above are hereto attached as **annex III and IV respectively** for further reference. The meeting considered the presentations and made inputs to the process as follows;

4.0 NATIONAL CONTRIBUTIONS BY EXPERTS TO THE DRAFT EAC DRRM STRATEGY

The DRRM Strategy is intended to provide a comprehensive framework for management of and response to disasters in order to reduce their impacts and hence increase the resilience of communities to disasters in the region.

Observations:

The following were the critical issues observed that should be considered in the development of the Disaster Risk Management Strategy;

- (1) Need to have a clear definition of what constitute a Disaster or an emergency situation within the EAC region,
- (2) Need to consider what exists in the region for example Rwanda has its DRR Strategy,
- (3) Floods affect mainly agriculture, Strategy to promote alternative livelihoods is essential,
- (4) Need to project on the Population growth dynamics in the region as it is a major concern in view of limited resources.
- (5) Need for a regional multi-sectoral contingency plan, a response plan and periodically updated if need be and harmonised on national and regional scale,
- (6) Identified critical disasters are: Floods , earthquake, landslide, fires, thunder storms , epidemics, drought, volcanic eruption, insects and pests, accidents and strong winds,
- (7) Response team for intervention that is ready and equipped (first aid kits, Organized communication gargets, ability),
- (8) Develop Search, Rescue and Evacuation plans,

- (9) Activate contingency plan with all components of communication systems; evacuation; First aid; Rapid assessments in place,
- (10) Having a disaster response fund which can be rapidly discharged to the affected areas,
- (11) Develop Regional and National Multi-sectoral contingency plan which should be periodically updated,
- (12) Develop a sound regional and national disaster response plan for common disasters,
- (13) Provide immediate assistance to affected people (livelihoods, health needs etc),
- (14) All partner states should plan for response activities for trans-boundary effects,
- (15) Have an effective coordination mechanism of all institutions involved in DRM,
- (16) Enhance the Coordination mechanisms and information sharing from central level to decentralized levels for DRR around the EAC Partner States,
- (17) Strengthening of disaster early warning through joint cooperation with Early Warning producing centres mainly the National Meteorological and hydrological centres,
- (18) Strengthening environmental and ecosystem based management strategies,
- (19) Risk assessment and mapping of the areas prone to Disasters,
- (20) Relocation of the communities living in Disaster prone areas and reinforce the settlement policies,
- (21) Prepositioning of disaster response items (food and non-food),
- (22) Strengthen the political federation in terms of DRR in partner states,
- (23) Strengthen the capacity development and raising awareness for DRR at all level, and
- (24) Need to develop an EAC DRR Policy to guide the EAC DRR strategy.



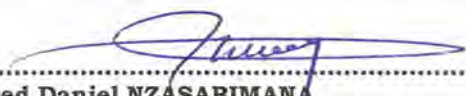
Recommendations:

The meeting recommended to the EAC Secretariat to ensure that the above observations are considered during the development of the Disaster Risk Management Strategy.

5.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 5.00pm on this the 8th day of August, 2012.

Signed on 8th day of August, 2012.


.....
Fred Daniel NZASABIMANA
Assistant Director, Ministry of East African
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Republic of Rwanda


.....
Justin KAYIRA
Director of Disaster Management
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EAST AFRICAN COMMUNITY



REPUBLIC OF BURUNDI

EAST AFRICAN COMMUNITY

**NATIONAL CONSULTATIVE MEETING ON THE
DEVELOPMENT OF AN EAC DISASTER RISK REDUCTION
AND MANAGEMENT STRATEGY**

**Royal Palace Hotel
BUJUMBURA, BURUNDI**

10th August 2012

REPORT OF THE MEETING

REF: EAC/TF/318/2012

**EAC SECRETARIAT
ARUSHA
AUGUST 2012**

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1.0 INTRODUCTION

The Consultative Meeting of the National stakeholders/Experts on the Development of an EAC Disaster Risk Reduction and Management Strategy for the Republic of Burundi was held on 10th August, 2012 in Bujumbura.

The meeting was held in accordance with the approved EAC Calendar of Activities for July to December 2012. The consultative stakeholders meeting follows the first taskforce meeting on DRR held in Bujumbura on 6th June 2012.

1.1 Objectives of the Meeting

The objectives of the meeting were to:

- i) Assess the progress made in the development of the DRRM Strategy; and
- ii) Enlist national contributions for inclusion into the DRRM Strategy

1.2 Participation

The meeting was attended by Experts drawn from the Ministries of East African Community Affairs; Foreign Affairs and International Cooperation; Water, Environment land management and Urban Planning; Public Security; Energy and Mines; Public Health; Agriculture and Livestock; Public Services, labor and Social Security; National Solidarity, Human Rights and Gender; Experts from the National Institute for Environment and Nature Conservation (INECN) ,the Burundi Geographic Institute (IGEBU). JICA and EAC Secretariat Staff were also in attendance. The list of participants is hereto attached as **Annex I.**

The Meeting was chaired by Mr. Bacinoni Dieudonne, from the Ministry of public Security , while Ms. Carine Hakizimana , from the Ministry of East African Community Affairs was the Rapporteur.

1.3 Adoption of the Agenda



The agenda was considered and adopted and is hereto attached as **Annex II.**

2.0 OPENING REMARKS

The EAC Secretariat, the Chairperson addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agencies (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the stakeholders to be critical in their contributions so that we can develop a good disaster management tool for the region which is usually prone to both natural and manmade hazards.

2.2 Remarks by the Chair

The chairman welcomed the participants and thanked the EAC Secretariat for the initiatives. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRR Strategy. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 ASSESSMENT OF THE PROGRESS MADE IN THE DEVELOPMENT OF THE EAC DRRM STRATEGY

The EAC DRR advisor Mr. Julius Kabubi gave a presentation highlighting on the key elements for a good and user friendly strategy. He emphasized the need to have a holistic strategy that addresses all the disaster management cycle. It should be simple to implement in view of the poor communities in the region and should be community centered. The strategy should be a tool to accelerate socioeconomic growth in the region.



A presentation on the preliminaries of the development of the strategy was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment and the JICA Advisor to EAC Secretariat Dr. Yasui Noboyuki. The two presentations highlighted above are hereto attached as **Annex III and IV respectively** for further reference.

4.0 NATIONAL CONTRIBUTIONS BY EXPERTS TO THE DRAFT EAC DRRM STRATEGY

The DRRM Strategy is intended to provide a comprehensive framework for management of and response to disasters in order to reduce their impacts and hence increase the resilience of communities to disasters in the region.

Observations:

The following were the critical issues observed that should be considered in the development of the Disaster Risk Reduction and Management Strategy;

1. The need to include Plant Diseases in potential disasters for the region
2. The need to Include Assistance for promotion for water resources Security as a priority
3. Establish an EAC DRR&M Fund
4. Establish and operationalize a Multisectoral multihazard EWS in the sub-region
5. Strengthening Early warning Generating Institutions/Centres for more accurate DRR information
6. Regional coordination mechanisms for enhance regional action
7. Earthquake to be considered as a Potential Disaster in the region
8. Need to identify and establish relocation Centres for victims of disasters
9. Capacity Building and sensitization at all levels
10. Need to conduct Environmental and Social Impact Assessment to all projects (ESIA) and provide mitigation measures.
11. Ecosystem management (Soil protection), Urban and land



Planning

12. Respect environmental Standards
13. Implementation of the National emergency Plan
14. Capacity Building for all sectors at all levels
15. Identify vulnerable sites for Disasters for urgent intervention
16. Government need to be strict in implementation of Laws
17. Improve sanitation in urban and rural areas
18. Strengthening Agriculture and Forestry research on improved crops resistant to Common disasters.

Recommendations:

- i. **The meeting recommended to the EAC Secretariat to ensure that the above observations are considered during the development of the Disaster Risk Management Strategy**
- ii. **For reasons of continuity in this process of development of the EAC DRR&M Strategy, the meeting further recommended that participants to the next activities are drawn from Experts who attended the Consultation meeting.**

5.0 ANY OTHER BUSINESS


There being no any other business, the meeting was adjourned at 5.00 pm on this the 10th day of August, 2012.

Signed on 10th day of August, 2012.

.....
BACINONI Dieudonne
Director of Rescue Operations
Ministry of Public Security
Republic of Burundi



.....
HAKIZIMANA Carine
Advisor
Ministry of EAC Affairs
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EAST AFRICAN COMMUNITY



REPUBLIC OF UGANDA

EAST AFRICAN COMMUNITY

**NATIONAL CONSULTATIVE MEETING ON THE
DEVELOPMENT OF AN EAC DISASTER RISK REDUCTION
AND MANAGEMENT STRATEGY**

**Hotel Africana
KAMPALA, UGANDA**

14th August 2012

REPORT OF THE MEETING

REF: EAC/TF/316/2012

**EAC SECRETARIAT
ARUSHA
AUGUST 2012**

1.0 INTRODUCTION

The Consultative Meeting of the National stakeholders/Experts on the Development of an EAC Disaster Risk Reduction and Management Strategy for the Republic of Uganda was held on 14th August, 2012 in Kampala.

The meeting was held in accordance with the approved EAC Calendar of Activities for July to December 2012. The consultative stakeholders meeting follows the first taskforce meeting on DRR held in Bujumbura on 6th June 2012.

1.1 Objectives of the Meeting

The objectives of the meeting were to:

- i) Assess the progress made in the development of the DRRM Strategy; and
- ii) To enlist national views on DRR & M strategy in order to strengthen its usability, applicability and acceptability across the partner States.

1.2 Participation

The meeting was attended by Experts drawn from the Office of Prime Minister; Ministries of East African Community Affairs, Gender, labour and social Development, Internal Affairs (Uganda Police Force), Agriculture Animal Industry and Fisheries, Water and Environment, Health, Education and Sports, Works and Transport, Experts from the National Environment Management Authority (NEMA), Uganda Red Cross, JICA and EAC Secretariat Staff were also in attendance. The list of participants is hereto attached as **Annex I**.

The Meeting was chaired by Mr. Edward Sebina, from the Ministry of EAC Affairs, while Mr. Moses Mafabi, from the Ministry of East African Community Affairs was the Rapporteur.



1.3 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II**.

2.0 OPENING REMARKS

The EAC Secretariat and the Chairperson addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agencies (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the stakeholders to be critical in their contributions so that we can develop a good disaster management tool for the region which is usually prone to both natural and manmade hazards.

2.2 Remarks by the Chair

The chairman welcomed the participants and thanked the EAC Secretariat for the initiatives and keeping up with the calendar of activities. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRR Strategy. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 ASSESSMENT OF THE PROGRESS MADE IN THE DEVELOPMENT OF THE EAC DRRM STRATEGY

The EAC DRR advisor Mr. Julius Kabubi gave a presentation highlighting on the key elements for a good and user friendly strategy. He emphasized the need to have a holistic strategy that addresses all the disaster management cycle. It should be simple to implement in view of the poor communities in the region and should be community



centered. The strategy should be a tool to accelerate socioeconomic growth in the region.

A presentation on the preliminaries of the development of the strategy was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment. He outlined the structure and content of the strategy borrowing from both the Hyogo frame work for action and the Africa regional DRR strategy. The two presentations highlighted above are hereto attached as **Annex III and IV respectively for** further reference.

4.0 NATIONAL CONTRIBUTIONS BY EXPERTS TO THE DRAFT EAC DRRM STRATEGY

The DRRM Strategy is intended to provide a comprehensive framework for management of and response to disasters in order to reduce their impacts and hence increase the resilience of communities to disasters in the region.

Observations:

The following were the critical issues observed that should be considered in the development of the Disaster Risk Reduction and Management Strategy;

1. Involvement of the CSO, CBOs, and NGO for example the Red Cross and the Red Crescent
2. Situational analysis should quantify disasters data to determine their real impacts for example in terms affected people, where and economic loses
3. Promote development of EAC hazard maps for Partner states
4. There is need to define what constitutes a Hazard/disaster in the region and other terminologies used in disaster risk management
5. There is need to capture small scale hazards like Inter-tribal conflicts, refugees, armed conflicts which cumulatively have significant impacts on the community
6. The strategy should capture both animal and human epidemics and pandemics
7. Need to synergize with other RECs for example IGAD which is implementing a conflict Early warning with several of aspects such poverty and natural resource management

8. The EAC should align its Institutional structure to accommodate DRM and avoid duplication across sectors
9. The need to consult Partner States on DRR curriculum development with clear guidelines as to how, who and when this is going to happen
10. Carry out a detailed situational analysis on existing and potential disaster threats in the region
11. Need to categorize risk into high, medium and low in terms of magnitude and impacts in order to prioritize actions
12. Carry out thorough assessment of financial, technological and human capacity and an inventory of existing response capacities in the region
13. The strategy should capture issues of food security as well as feed security for livestock
14. Should also have a focus on disasters from emerging developments opportunities such as gas, petroleum which may pose some potential disasters in the future
15. Should recognize the Natural habitats and ecosystems in terms of wildlife and other tourism attractions
16. Need to pay attention to preparedness levels in terms of stock piling, food strategic reserves and taking advantage of harvests
17. Analyse as much as possible the existing policies, legislation and DRM tools and practices within the Partner States
18. Promote harmonized cross border DRR initiatives through joint planning and coordination among Partner States
19. Promote adaptation and resilience including preparedness and response for example as it relates to, population growth, animal stock levels and climate change impacts among others
20. Consideration of gender and persons with special needs in response and preparedness
21. Promote development of contingency plans at national level
22. Need for a regional legal framework to implement the DRM strategy
23. Propose enforcement mechanism to support implementation of the strategy
24. Need to embrace new Communication technologies for example Mobile phones, social media networks and radio in hazard early warning
25. Communication plans in view of wide diversity of languages
26. Mainstreaming and strengthening DRR into Ministries, Departments and Agencies



27. Promote Knowledge sharing of good practices and information within partner States and other regions
28. Promote piloting of DRR projects and demonstrations in the region
29. Need to develop a robust M&E framework for implementation
30. Promote Research and Development in the region

Recommendations:

- i. The meeting recommended to the EAC Secretariat to ensure that the above observations are considered during the development of the Disaster Risk Management Strategy**
- ii. For reasons of continuity in this process of development of the EAC DRM Strategy, the meeting further recommended that participants to the next activities are drawn from Experts who attended the Consultative meeting.**


5.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 3.34 pm on this the 14th day of August, 2012.

Signed on 14th day of August, 2012.



.....
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EAST AFRICAN COMMUNITY



REPUBLIC OF KENYA

EAST AFRICAN COMMUNITY
NATIONAL CONSULTATIVE MEETING ON THE
DEVELOPMENT OF AN EAC DISASTER RISK REDUCTION
AND MANAGEMENT (DRRM) STRATEGY

Hotel Sixeighty
NAIROBI, KENYA

15th August 2012

REPORT OF THE MEETING

REF: EAC/TF/315/2012

EAC SECRETARIAT
ARUSHA
AUGUST 2012

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1.0 INTRODUCTION

The Consultative Meeting of the National stakeholders/Experts on the Development of an EAC Disaster Risk Reduction and Management Strategy for the Republic of Uganda was held on 15th August, 2012 in Kampala.

The meeting was held in accordance with the approved EAC Calendar of Activities for July to December 2012. The consultative stakeholders meeting follows the first taskforce meeting on DRR held in Bujumbura on 6th June 2012.

1.1 Objectives of the Meeting

The objectives of the meeting were to:

- i) Assess the progress made in the development of the DRRM Strategy; and
- ii) To enlist national views on DRR & M strategy in order to strengthen its usability, applicability and acceptability across the partner States.

1.2 Participation

The meeting was attended by Experts drawn from the Office of Prime Minister; State Ministry Special programmes, Ministries of Defence, East African Community Affairs, water and irrigation, Agriculture, Water and Environment and Mineral Resources, Health,, Works and Transport, Experts from the Kenya Meteorological Department, Nairobi University , Kenya Red Cross, JICA and EAC Secretariat Staff were also in attendance. The list of participants is hereto attached as **Annex I**.

The Meeting was chaired by Mr. Julius Mwabu, Deputy Director, Ministry of EAC Affairs, while Mr. Gordon Otieno Muga, Assistant secretary, Ministry of State for Special Programmes was the Rapporteur.

1.3 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II**.



2.0 OPENING REMARKS

The EAC Secretariat and the Chairperson addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

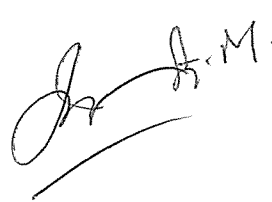
The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agencies (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the stakeholders to be critical in their contributions so that we can develop a good disaster management tool for the region which is usually prone to both natural and manmade hazards.

2.2 Remarks by the Chair

The chairman welcomed the participants to Nairobi and thanked the EAC Secretariat for the initiatives. He recalled the aim of the meeting is to discuss DRR Strategy which is coming timely because of frequent disasters the region is facing. He recalled that Kenya has his own challenges that need to be addressed by the Strategy and we need to be prepared for the disasters. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRR Strategy. Mr. Mwabu further recalled participants that the Community is moving towards political federation and we need to ensure prosperity but also safety and security and people are protected over disasters. He finally urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 ASSESSMENT OF THE PROGRESS MADE IN THE DEVELOPMENT OF THE EAC DRRM STRATEGY

The EAC DRR advisor Mr. Julius Kabubi gave a presentation highlighting on the key elements for a good and user friendly strategy. He emphasized the need to have a holistic strategy that addresses all the disaster management cycle. It should be simple to implement in view



of the poor communities in the region and should be community centered. The strategy should be a tool to accelerate socioeconomic growth in the region.

A presentation on the preliminaries of the development of the strategy was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment. He outlined the structure and content of the strategy borrowing from both the Hyogo Framework for Action (HFA) ,the Africa regional DRR strategy and the current status of DRRM in Partner States. The two presentations highlighted above are hereto attached as **Annex III and IV respectively for** further reference.

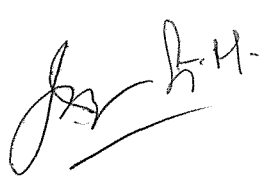
4.0 NATIONAL CONTRIBUTIONS BY EXPERTS TO THE DRAFT EAC DRRM STRATEGY

The DRRM Strategy is intended to provide a comprehensive framework for management of and response to disasters in order to reduce their impacts and hence increase the resilience of communities to disasters in the region.

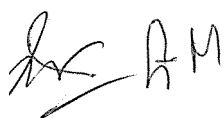
Observations:

The following were the critical issues observed that should be considered in the development of the Disaster Risk Reduction and Management Strategy;

1. The need for a legal framework for effective response in disaster with clear mandate.
2. Need to create a fund both at national and regional level for disaster management with clear responsibility
3. Need for a clear definition of what constitute a Disaster in the regional context to trigger mobilization of resources for response
4. Create a Disaster Management Unit at EAC Secretariat which is funded and can mobilize resources
5. Create a disaster database showing the human and institutional capabilities for response in the region
6. Develop adequate human capacity at EAC to manage the DRM unit



7. Procurement: Avoid bureaucracy in the procurement procedures for immediate response both food and non-food items
8. Assessment: The experts in the field to undertake capacity in terms of education/awareness needed to support the public to cope with disasters.
9. Need to develop curriculum and mainstream DRM programmes for schools
10. Develop common standardized operating procedures for response in various hazards
11. Build regional capacity for search and rescue
12. Enhance coordination and evacuation procedures and planning during disasters
13. Develop effective hazard Early Warning system
14. Communication is the nerve of the Co-ordination and hence the need for an elaborate communication strategy for hazard warnings
15. Strengthen participation of Public Private Partnership in disaster risk
16. Need to synergize climate change adaptation and DRR
17. Element of response need to establish Data Collection, Archiving and modeling to build adequate information for promotion of research
18. Promote interoperability in the EAC region
19. Need to mainstream disaster issues in all sectors of the EAC.
20. Explore the possibility of promoting and using indigenous Knowledge within the community to Adapt and cope with disasters
21. Need to Operationalize the strategy for the benefit of communities
22. Mainstream DRM in infrastructural development
23. Need to identify asses and monitor DRR and Early Warning
24. Establish Centres of Excellence for DRM
25. Engage education networks, media, social networks to support DRR programmes for creating awareness
26. Develop Curriculum and training materials including IEC material to implement the same
27. Promote Research activities in Disaster thematic areas.
28. Promote Food Security to areas prone to disasters.

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29. Livelihoods for communities affect and the challenges in the ecosystem
30. Vulnerability- for various communities in the EAC
31. Policy with insurance against Disasters: Motivate the insurance companies and people covered

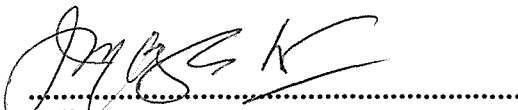
Recommendations:

- i. **The meeting recommended to the EAC Secretariat to ensure that the above observations are considered during the development of the Disaster Risk Management Strategy**
- ii. **For reasons of continuity in this process of development of the EAC DRM Strategy, the meeting further recommended that participants to the next activities are drawn from Experts who attended the Consultative meeting.**

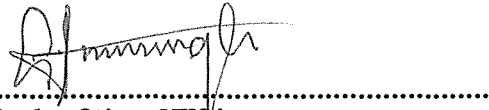
5.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 4.00 pm on this 15th day of August, 2012.

Signed on 15th day of August, 2012.



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A handwritten signature in black ink, appearing to be 'Dr. A. M.', is located in the bottom left corner of the page.

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添付資料 4.

第 2 次現地調査：第 2 回タスクフォース・ミーティング議
事録



EAST AFRICAN COMMUNITY

**SECOND TASK FORCE MEETING ON THE DEVELOPMENT
OF AN EAC DISASTER RISK REDUCTION AND
MANAGEMENT STRATEGY**

**Arusha Palace Hotel
20-22 August 2012**

REPORT OF THE MEETING

REF: EAC/TF/327/2012

**EAC SECRETARIAT
ARUSHA
AUGUST 2012**

A.M. # [Signature] [Signature]

1.0 INTRODUCTION

In accordance with the approved EAC Calendar of Activities for July to December 2012, the Second Task Force Meeting on the Development of an EAC Disaster Risk Reduction and Management Strategy was held from 20 to 22nd August 2012 in Arusha, Tanzania. The meeting follows consultative stakeholders meetings that were held in all the Partner States from 6th to 15th August, 2012.

1.1 Objectives of the Meeting

The objectives of the meeting were to:

- i) Review the combined report on the country consultation meetings;
- ii) Offer comments and guidance on the pertinent issues to be included into the DRR and Management Strategy; and
- iii) Review the content and structure of the draft Strategy.

1.2 Participation



The meeting was attended by DRR Focal Points and Experts from the Republic of Kenya, the Republic of Rwanda, the Republic of Burundi and the Republic of Uganda.

The United Republic of Tanzania was not able to attend for reasons to be yet established

The Meeting therefore proceeded as a consultative meeting with the understanding that the report would be submitted to the United Republic of Tanzania for comments

JICA Consultants, EAC JICA advisor and EAC Secretariat Staff were also in attendance. The list of participants is hereto attached as **Annex I**.

In accordance with the rules of procedures, the Meeting was chaired by Mr. Julius Mwabu, from the Ministry of EAC, Republic of Kenya while Mr. Fred Nzasabimana, from the Ministry of EAC, Republic of Rwanda was the Rapporteur.

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1.3 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II**.

2.0 OPENING REMARKS

The EAC Secretariat and the Chairperson addressed the participants at the meeting and below is a brief overview of their remarks.

2.1 Remarks by EAC Secretariat

The Principal Environment and Natural Resources Officer at the EAC Secretariat, Mrs. Wivine Ntamubano welcomed the participants to the meeting. She briefed the participants on the genesis and the steps already taken so far on the development of an EAC DRRM Strategy. She hailed the Government of Japan through Japan International Cooperation Agency (JICA) for supporting the Secretariat in this important venture. She concluded her remarks by reiterating the importance of the experts to be critical in their contributions so that we can develop a good disaster management tool for the region.

2.2 Remarks by the Chair

The chairman welcomed the participants and thanked the EAC Secretariat for the initiatives and keeping up with the calendar of activities. He also thanked JICA for the support. He emphasized the need to focus on national needs and priorities which need to be captured into the DRRM Strategy. He highlighted the recent occurrences of disasters in the EAC region which he pointed out is an indicator of the need for preparedness to manage and respond to hazards. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

3.0 PRESENTATION OF THE BACKGROUND PAPER

The EAC DRR advisor Mr. Julius Kabubi made a presentation of the Background Paper highlighting the objective of the meeting, the expected output. He took the delegates through common disasters in the

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region and the need to discuss them in the strategy so that proper interventions are enlisted.

He emphasized the need to have a holistic strategy that addresses all the disaster management cycle but reiterated the need to emphasis more on the most common hazards. He reminded the experts that the strategy should be simple to implement in view of the poor communities in the region but with high social economic impacts. Thus, the strategy should be a tool to accelerate socioeconomic growth in the region. The presentation is hereto attached as **Annex III**




4.0 PRESENTATION OF THE DRAFT EAC DRRM STRATEGY

A presentation on the draft strategy incorporating inputs from the country consultative meetings was made by Mr. Chuwa Fredrick, the local JICA consultant for this assignment. He outlined the structure and content of the strategy borrowing from both the Hyogo frame work for action and the Africa regional DRR strategy. The presentation is hereto attached as **Annex IV** further reference.

5.0. REVIEW OF THE DRAFT EAC DRRM STRATEGY

Experts considered the Draft EAC DRRM Strategy in both the Format and the Content and further observations:

- i) The document should include a chapter or a section describing the common hazards in the region stating their impacts, spatial extend and hot spots
- ii) The introduction should have reference to some existing EAC tools for Disaster risk management such as, Climate change policy, strategy and master plan, the protocol on environment and natural resources, the draft protocol on peace and security and EAC Treaty, the EAC 4th Development Strategy, the EAC food action plan among others
- iii) The strategy should also expound on the JICA trinity model by describing more on the working of KAIZEN and the benefit that this region can accrue by adopting this model
- iv) The strategy should also propose a regional project for each of the strategic priorities for which a proposal for funding can be initiated

H.M.   

- v) The need to improve on the implementation log frame and define the strategic interventions which can easily implemented at community level
- vi) The Implementation plan should include a column of estimated budgetary requirement for each proposed action
- vii) The strategy should in tabular form where applicable indicate how DRR can be mainstreamed in various development sectors (water resources, Environment, agriculture and food security, infrastructure, climate change, etc.)

The improved document is hereto attached as **Annex V**




The experts worked in two groups and further refined and improved the 1st draft DRRM Strategy for the EAC and came up with the following recommendations.

Recommendations:

- i) **The meeting recommended to the EAC Secretariat to ensure that the consultants include the above observations alongside the improved document during the development of the draft DRM for consideration by the wider stakeholder's workshop**
- ii) **The Secretariat to submit the improved draft Strategy to the United Republic of Tanzania for comments and feedbacks**

5.0. WAY FORWARD

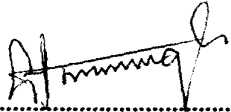
- i) **The consultants with support from EAC secretariat will finalize the document incorporating the inputs of this meeting by mid-September 2012**
- ii) **A Stakeholder meeting to validate the Final Draft DRRM Strategy will be held in the 1st half of October 2012**
- iii) **The final EAC DRRM will be presented to the Second Sectoral Council on Environment and Natural Resources for adoption**

A.M. #   

6.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 3.00pm on this the 22nd day of August, 2012.

Signed this 22nd day of August, 2012.



Gordon Muga

Assistant Secretary
Ministry of State for
Special Programmes

Republic of Kenya



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Director of Disaster
Management and
Programs
Coordination
MIDIMAR

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NIMENYA Heriméngilde

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Mukofah Titus

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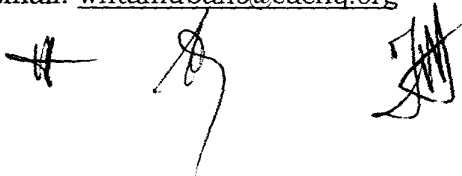
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添付資料 5.

第 3 次現地調査：ステークホルダー・バリデーション・
ミーティング議事録



EAST AFRICAN COMMUNITY

**STAKEHOLDERS VALIDATION WORKSHOP ON EAC
DISASTER RISK REDUCTION AND MANAGEMENT
STRATEGY**

**Arusha Palace Hotel
11-12 October 2012**

REPORT OF THE MEETING

REF: EAC/TF/351/2012

**EAC SECRETARIAT
ARUSHA
OCTOBER 2012**

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1.0 INTRODUCTION

In accordance with the approved EAC Calendar of Activities for July to December 2012, the stakeholder's validation workshop on the EAC Disaster Risk Reduction and Management Strategy was held from 11th to 12th October 2012 in Arusha, Tanzania. This workshop is the last meeting of experts which comes after a series of other meetings which started with the inception report in Bujumbura, June 4th to 6th, 2012; country consultative meetings held from 6th to 15th August, 2012; and the 2nd task force meeting held on 20th and 21st August 2012, in Arusha.

1.1 Objectives of the Meeting

The Stakeholders validation workshop examined each chapter of the draft DRRM Strategy. They enlisted their views and comments aimed at making the document a living document which can be put into practical use by the Partner States. The Stakeholders were to;

1. Validate the content of the DRRM Strategy;
2. Check for omissions and enlist further inputs into the document;
3. Adopt the amendments to the DRRM Strategy; and
4. Deliberate on any other related matter

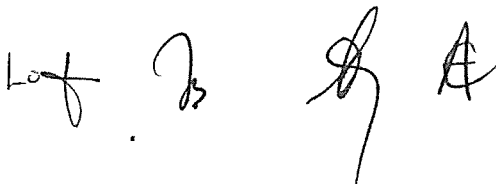
1.2 Participation

The meeting was attended by Experts from the Republic of Kenya, the Republic of Rwanda, the Republic of Burundi and the Republic of Uganda and United Republic of Tanzania representing the following sectors: Water Resources Management, Agriculture and Food Security; Environment and Natural Resources; Ministry of East Africa Community, local government, and EAC Disaster Risk Reduction Focal Point.

JICA Consultants, EAC JICA advisor, JICA Kenya office and EAC Secretariat Staff were also in attendance. The list of participants is hereto attached as **Annex I**.

1.3 Election of the Bureau

In accordance with the rules of procedures, the Meeting was chaired by Mr. Joseph Mungere, from the Ministry of EAC, Republic of Kenya while Mr. Fred Daniel Nzasabimana, from the Ministry of EAC, Republic of Rwanda was the Rapporteur.



1.4 Adoption of the Agenda

The agenda was considered and adopted and is hereto attached as **Annex II**.

2.0 OPENING REMARKS BY GUEST OF HONOR

The official opening of the workshop was done by the EAC Deputy Secretary General in charge of the Directorate of Productive and Social Sectors, Honorable Jesca Eriyo. In her speech, she informed participants that our region is becoming more and more predisposed to disasters and hence we can no longer burry our heads in the ground on matters of disaster risk management. She highlighted the key drivers of vulnerabilities to disasters in Africa and by extension the EAC region; as rural urban migration which increases urban disasters and environmental degradation as communities competes for resources. Others include climate change impacts, poverty and dependency on rain fed agriculture.

She informed delegates that, the secretariat takes the issues of Disaster management seriously and a number of instruments such as the climate change policy, strategy and master plan, the EAC food security action plan, the EAC livestock policy among others, have already been developed to address these problems. She noted that, the disaster Risk Reduction Strategy is therefore timely and we need to enrich it and make it comprehensive to address disaster risks in the region. She thanked the Government of Japan through JICA for supporting the EAC to develop this Strategy and the UNODR for providing technical support to integrate DRR into EAC plans and strategies. She wished the participants fruitful deliberations.

2.1 Remarks by EAC DRR Advisor

The EAC DRR Advisor gave the genesis of Disaster Risk Reduction and management process at the secretariat level. He informed delegates that, the process of developing the DRRM Strategy has been fairly consultative starting from the inception workshop (1st Task force meeting), country consultative meetings in all the five Partner States, 2nd task force meeting and now the validation workshop. He assured

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delegates, that the DRRM Strategy is a well thought of document with unique features as compared to other strategies.

2.2 Remarks by EAC JICA Advisor

The JICA Advisor to the EAC expressed satisfaction with the work already done on Disaster Risk management in the region. He emphasized the need to focus on national needs and priorities which need to be captured into the DRRM Strategy. He highlighted the recent occurrences of disasters in the EAC region which he pointed out is an indicator of the need for preparedness to manage and respond to hazards. He urged the participants to contribute positively and wished the meeting fruitful deliberations.

2.3 Remarks by EAC JICA Advisor

The JICA lead consultant also welcomed the participants to this validation workshop. He expressed his confidence that the document will be completed in time and wished the delegates fruitful deliberations.

3.0 PRESENTATION OF THE BACKGROUND PAPER

The EAC DRR advisor made a presentation of the Background Paper highlighting the objective of the meeting, the expected output. He took the delegates through the steps taken in the development of the DRRM Strategy. He emphasized on the desirable components that the delegates should pay attention to in order to improve on this document.

He reiterated the need to have a holistic strategy that addresses all the disaster management cycle and reminded the experts that the strategy should be simple to implement in view of the poor communities in the region, but with high social economic impacts. Thus, the strategy should be a tool to accelerate socioeconomic growth in the region. The presentation is hereto attached as **Annex III**

4.0 PRESENTATION OF THE DRAFT EAC DRRM STRATEGY

A presentation on the draft strategy incorporating inputs from the country consultative meetings and the second task force meeting was

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made by JICA lead Consultant Mr. Tomida. He presented the basic principle of the strategy, the objectives and rationale and the current disaster management status in the region. Mr. Chuwa Fredrick, the local JICA consultant for this assignment went further and presented the SWOT analysis, the Strategic options based on the HFA and the implementation plan.

The presentation is hereto attached as **Annex IV** further reference.

5.0. REVIEW OF THE DRAFT EAC DRRM STRATEGY

The Chairman outlined to the delegates what a validation workshop entails. He requested them to critically check on misinterpretations, inadequacies and correctness of the data captured by the document. He requested the delegates also to point out areas of improvement for value addition and the general flow of information.

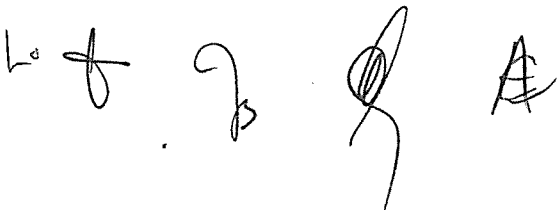
5.1 Observations

The Experts considered the Draft EAC DRRM Strategy in both the Format and the Content both at country level and at regional level and made the following observations;

- i) The document should improve on the logical flow of information for, readability, consistency
- ii) The need to check on typographical and grammatical errors.
- iii) The need to use scientific words in the right context
- iv) The need to use updated or current data and information on disasters
- v) The chapter on Monitoring and evaluation should be improved to include strategies and indicators
- vi) The document to improve on the area of awareness creation particularly on the implementation plan
- vii) Simplified application model for this strategy

Recommendations:

- i) **The meeting recommended to the EAC Secretariat to ensure that the consultants include the above observations**



before the strategy is presented to the Sectoral Council on environment and Natural Resources

- ii) There is need for the EAC to involve a technical expert to review the final draft and grammar expert to align the language


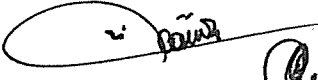
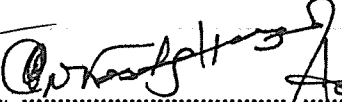
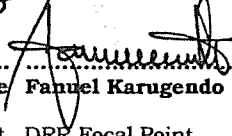

5.0. WAY FORWARD

- i) The consultants with support from EAC secretariat will finalize the document incorporating the inputs of this meeting by 20th October 2012
- ii) The final EAC DRRM Strategy will be presented to the Second Sectoral Council on Environment and Natural Resources for adoption

6.0 ANY OTHER BUSINESS

There being no any other business, the meeting was adjourned at 4.00pm on this the 12th day of October, 2012.

Signed this 12th day of October, 2012.

				
..... Leonard O. Orondo J.B. Nsengiyumva NIMENYA Hermenegilde Fanel Karugendo Ahimbisibwe Catherine
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東アフリカ共同体加盟国各国防災情報及び概要版

ブルンジの防災情報一覧

現状および課題	<p>1.災害の特徴</p> <p><干ばつ>*17</p> <ul style="list-style-type: none"> 1998年から干ばつが発生するようになった。特に北部では2000年以降、状況が悪化している。干ばつによる死者および飢饉難民数は国家災害レベルの域に達している。飢餓により人々はルワンダやタンザニアに難民として入国している。 <p><洪水>*17</p> <ul style="list-style-type: none"> ブルンジでは洪水は三番目に大きな災害として考えられている。最も甚大な被害をもたらした洪水はタンガニーカ湖(Lake Tanganyika)で1961年から1964年の間に起こった。1964年の5月から6月にタンガニーカ湖の水位は4m上がり、777.6mに達した。この湖の周りがあるブジュンブラ(Bujumbura)やその他の郡(municipalities)、ブジュンブラ港や周辺の道路が浸水した。この洪水の影響でこの湖周辺の経済は大きな打撃を付けた。1983年および1986年にはブジュンブラが大きな洪水の被害を受けている。この洪水は経済にも大きな被害をもたらし、その被害は10億ブルンジフランと言われている。1983年の起きた洪水の主な被害は家屋浸水、機械・機器の故障、工業地帯への被害、周辺株式会社の株価低下、ブジュンブラ港への被害である。 <p><地すべり>*17</p> <ul style="list-style-type: none"> 地すべりはここ数十年での自然災害として認知されており、社会経済に及ぼす影響は増加している。1996年にブジュンブラは地すべりによって発生した国道1、4、7号線断絶により孤立しかける事態が起こった。国道7号線で発生した地すべりにより2台の車が飲み込まれ、1名が犠牲となった。 <p><伝染病>*17</p> <ul style="list-style-type: none"> 1993年に800,000例報告のあったマラリアが2000年の流行時には3,000,000例と大幅に増加した。マラリアの治療費や蚊帳代は家計にとって大きな負担となっている。 成人のHIV感染率は5%を超えている。 2011年8月にはブルンジ西部でコレラが流行し、600名以上が感染し、12名が死亡した。 <p><地震>*17</p> <ul style="list-style-type: none"> 大地構帯の西部に位置しており、大地構帯や震源の影響が特にブジュンブラ(Bujumbura)地方において顕著にみられる。1960年9月22日に発生した地震は度重なる余震の後に発生し、震源がブジュンブラに近かったことから深刻な被害を受けた。 <p><都市火災>*17</p> <ul style="list-style-type: none"> 地方都市であるゴジ(Ngozi)およびギテガ(Gitega)が火災で全焼した。その火事では一台も火事から逃れた車はなく、全ての車両が焼失した。この事例は火災が都市において大きなハザードとなっていることを示す例となるであろう。ブジュンブラ市では電気を起因とする都市火災が増加している。 <p><全体></p> <ul style="list-style-type: none"> ブルンジで1978年から2012年までの35年間に発生し、大きな被害をもたらした自然災害は伝染病、干ばつ、地震、豪雨及び洪水である。この35年間に発生した主な災害は表1のとおりである。*1 ブルンジで1980年から2010年までの31年間に発生した自然災害数とその種類、死者数、被災者数を表2と図1に示す。*3 <p style="text-align: center;">表1 過去35年間(1978年～2012年)における主な自然災害*1</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>発生年</th> <th>災害の種類</th> <th>死者数</th> <th>影響人数</th> <th>被害総額 (x1000)</th> </tr> </thead> <tbody> <tr> <td>1978</td> <td>伝染病</td> <td>54</td> <td>1530</td> <td>-</td> </tr> <tr> <td>1989</td> <td>洪水</td> <td>12</td> <td>3,600</td> <td>-</td> </tr> <tr> <td>1992</td> <td>伝染病</td> <td>220</td> <td>2,068</td> <td>-</td> </tr> <tr> <td>1997</td> <td>伝染病</td> <td>21</td> <td>23,889</td> <td>-</td> </tr> <tr> <td>1999</td> <td>伝染病</td> <td>51</td> <td>616,034</td> <td>-</td> </tr> <tr> <td>1999</td> <td>豪雨</td> <td>-</td> <td>30,810</td> <td>-</td> </tr> <tr> <td>1999</td> <td>干ばつ</td> <td>6</td> <td>650,000</td> <td>-</td> </tr> <tr> <td>1999</td> <td>伝染病</td> <td>29</td> <td>400</td> <td>-</td> </tr> <tr> <td>2000</td> <td>伝染病</td> <td>308</td> <td>722,591</td> <td>-</td> </tr> </tbody> </table>	発生年	災害の種類	死者数	影響人数	被害総額 (x1000)	1978	伝染病	54	1530	-	1989	洪水	12	3,600	-	1992	伝染病	220	2,068	-	1997	伝染病	21	23,889	-	1999	伝染病	51	616,034	-	1999	豪雨	-	30,810	-	1999	干ばつ	6	650,000	-	1999	伝染病	29	400	-	2000	伝染病	308	722,591	-
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2002	伝染病	13	781	-
2002	伝染病	68	934	-
2004	豪雨	-	15,000	-
2004	地震	3	120	-
2005	干ばつ	120	2,150,000	-
2007	洪水	4	23,000	-
2008	干ばつ	-	82,500	-
2009	干ばつ	-	180,000	-

表 2 1980 年～2010 年の自然災害発生数と死者、被災者数*3

自然災害数	42
死者数	908
年平均死者数	29
被災者数	4,568,742
年平均被災者数	147,379

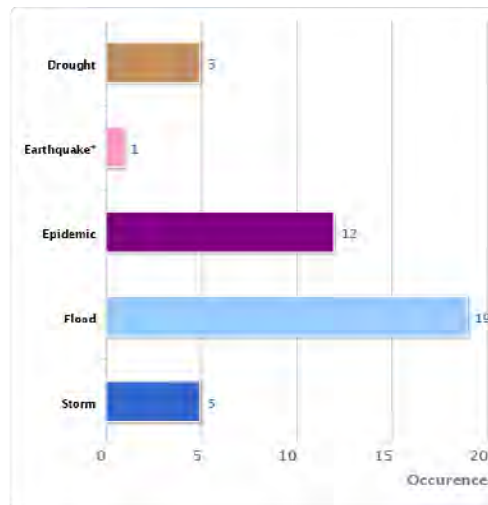


図 1 1980 年～2010 年の自然災害種別ごとの発生数*3

2.行政区分

ブルンジは 17 の県(intara)で構成される。*2

- 1.ブバンザ県 (Bubanza Province)
- 2.首都ブジュンブラ市 (Bujumbura Marine Province)
- 3.ブジュンブラ近郊県 (Bujumbura Rural Province)
- 4.ブルリ県 (Bururi Province)
- 5.カンクゾ県 (Cankuzo Province)
- 6.チビトケ県 (Cibitoke Province)
- 7.ギテガ県 (Gitega Province)
- 8.カルジ県 (Karuzi Province)
- 9.カヤンザ県 (Kayanza Province)
- 10.キルンド県 (Kirundo Province)
- 11.マカンバ県 (Makamba Province)
- 12.ムランヴィヤ県 (Muramvya Province)
- 13.ムインガ県 (Muyinga Province)
- 14.ムワロ県 (Mwaro Province)
- 15.ンゴジ県 (Ngozi Province)
- 16.ルタナ県 (Rutana Province)
- 17.ルイギ県 (Ruyigi Province)

県の下に 117 のコミューンが置かれている。

3. 災害予防(被害抑止/軽減)

- 災害リスクの把握 (HFA2) *4

【現状】

- 災害対応計画に基づき、いくつかの州で災害に対する脆弱性及びリスクに関する概要評価が行わ

【課題】

- リスクのマッピングに関して改善する必要がある

	<p>れ、現在も継続中である。*4</p> <ul style="list-style-type: none"> ブルンジでは複数のハザードにまたがるハザードリスクアセスメントを実施し、国内の10%の学校および病院がアセスメントの対象となった。一方で負傷者に対するアセスメントに関する国家基準はまだ確立されていない。*17 ハザードマップについては干ばつ、洪水、地震についてのハザードマップが存在する。*17 	<p>る。*4</p> <ul style="list-style-type: none"> 災害評価に関する国家基準が確立されていない。*4 部署の壁を越えた、全体的なリスク評価を可能にするような災害リスク軽減法制がない。*4 専門技術、経験が不足している。*4
<p>災害リスクの地域・コミュニティとの共有(HFA2) *4</p>	<ul style="list-style-type: none"> 定期的な災害啓発ワークショップが、国レベルから、県、コミュニティの各レベルにわたって組織された。*4 下記の、県レベルのプラットフォーム履行に関するワークショップを開催した。*4 Regional Excellency Centre (Centre d'Excellence Régionale)を通じた地域的な協力確立についての提案がなされている。*10 	
<p>法整備／政策方針／計画策定(HFA1) *4</p>	<p>法整備：</p> <ul style="list-style-type: none"> リスクおよび防災管理に関する国家政策(Politique Nationale de Prévention des Risques et de Gestion des Catastrophes, 英名：National Policy for Risk Prevention and Disaster Management): 2008年に内閣により承認されたが、国会では承認されていない。*17 防災および災害管理に関する国家戦略・アクションプラン：Stratégie Nationale de prévention des Risques et de Gestion des Catastrophes et un Plan d'Actionがある。*16 <p><国家防災戦略および災害マネジメントアクションプランで作成予定となっている防災関連法案></p> <ul style="list-style-type: none"> -A law on the National Policy on Risk Prevention and Disaster Management (Not Adopted yet) -A law on the creation of Risk Prevention Plans and to expropriation for major risks (Not Adopted yet) -A law on the Organization of Relief (Not Adopted yet) -A law on Compensation to insured property due to disasters (Not Adopted yet) 	<ul style="list-style-type: none"> 防災および災害管理に関する国家戦略が、すべて詳細にわたって履行されているわけではない。*10
<ul style="list-style-type: none"> 防災体制の確立・強化(HFA1) *3*4 	<p>組織体制</p> <p><中央レベル></p> <ul style="list-style-type: none"> ブルンジでは公安省市民擁護管理局(The directorate of civil protection in Ministry of Public Security)が防災に関する責任機関である。*17 災害リスク軽減に関する省庁間委員会(Commission Interministerielle de Gestion de Risques et Des Catastrophes)が防災に関する最高機関である。*16 ナショナルプラットフォーム設置は2007年に大統領令で発令された。*4 県レベルのプラットフォーム設置は2009年に大臣命令で発令された。*4 (国及び県プラットフォームの内規に関する大臣命令: Ordonnances Ministérielles portant Règlement d'Ordre Intérieur des Plates Formes Nationale et Provinciales) *4 2010年末までに自治体向けプラットフォーム設置が発令される予定である。*4 ナショナルプラットフォームも防災に関して中心 	<ul style="list-style-type: none"> 災害リスク軽減に関するプロジェクトとほかのセクターの開発計画を統合する仕組みがない。 全てのレベルでコミュニケーションチャンネルが確立しているわけではない。*10

		<p>的な役割を果たしている。*16</p> <ul style="list-style-type: none"> ● 気象データ観測はブルンジ地理院(IGEBU: Institut Géographique du Burundi)によって行われているが、災害リスクに関する情報は少ない。“IGAD Climate Prediction and Application Center” (ICPAC) 経由で情報を入手。*7 *10 ● 農業畜産省 (Ministère de l'Agriculture et de l'Élevage)による早期警戒システムと FAO と国連職員によって開発された食の安全モニタリングが行われており、毎月ニュースレターが発行されている。*7 ● 国レベルの侵食対策が農業畜産省を主体として行われている。*7 ● 河川マネージメントは公共事業省(Ministère des Travaux Publics et de l'Équipement)が担当している。*7 ● 国土計画環境省 (Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme)は環境保護や流域管理(土地利用・干ばつ対策等)を通じた災害マネージメントを行っている。*7 ● 災害管理においてブルンジでは国家委員会の他に、地方、コミュニティ委員会が存在している。*17 ● 洪水警戒地域や不安定な土地に住む住民を国家災害リスクマネジメントプラットフォームにおいてコントロールすることは容易ではない。彼らは土地所有に際して必要な手続きを取っていないためである。土地管理に関するマスタープランのが作成される予定である。*17 	
ハード対策／土地利用規制等による抑止力の向上(HFA4) *4		<p><構造物対策></p> <ul style="list-style-type: none"> ● 地すべり危険地域における、斜面安定対策工の実施。*4 ● 首都を流れる河川の河岸改修工事の実施。*4 <p><規制></p> <ul style="list-style-type: none"> ● 土地利用計画図有。*4 	<ul style="list-style-type: none"> ● 対策資金の不足。*4 ● 危険地域の建築規制や、建築基準順守に関する監視が必要である。*4
予警報／避難体制の整備(HFA2,3) *3*4		<p><防災意識啓発・防災教育・防災訓練></p> <ul style="list-style-type: none"> ● UNICEF と協力した防災教育が計画されている。*10 ● 政府は UNDP 及び国プラットフォームメンバーと協同して、ワークショップ及び情報収集・啓発キャンペーンのための現地視察を行った。*10 <p><気象・通信体制></p> <ul style="list-style-type: none"> ● ブルンジ地理院(IGEBU: Institut Géographique du Burundi)がラジオで季節的な気象情報提供を行っている。*7 ● 気象庁および水・環境・土地管理・都市計画省は干ばつ、洪水、降雨において早期警報システムを持っている。*17 ● 保健や環境といったいくつかのセクターでは早期警戒システムがあり、効果的に運営されている。*4 ● 各ステークホルダーの災害情報アクセスに関する研究が、ブルンジ大学、農業畜産省農学研究所 (ISABU: Institut des Sciences Agronomiques du Burundi, Ministère de l'Agriculture et de l'Élevage)、 	<ul style="list-style-type: none"> ● 防災教育推進に対する政治意思が欠如している。*10 ● 降雨の空間的・時間的分布、強度、降り始めの時間及び継続時間についての精度が悪い。*7 ● 災害リスク軽減に関する統合的(中央集権的)な早期警戒システムがない。*4 ● 情報を中央に集めるための国立情報・コミュニケーションセンター (Le Centre National d'Information et de Communication) は、まだ設立されていない。(2011 現在)*4

	<p>ブルンジ地理院(IGEBU:Institut Géographique du Burundi)、国土計画復旧省経済統計学研究所(ISTEEBU:Institut de Statistiques et d'Etudes Economiques du Burundi, Ministère du Plan et de la Reconstruction)によってなされ、情報コミュニケーションシステムが開発され、国立情報・コミュニケーションセンターの設立が提案された。*4</p> <ul style="list-style-type: none"> 災害情報ウェブサイトは現在設けられていないが、ウェブサイト推進チームはすでに設置されている。(2011 現在)*4 <p><食糧保障></p> <ul style="list-style-type: none"> 水・環境・土地・都市計画省および農業家畜省(農業家畜省は UN の支援により実施)は早期警報システムを持っている。*17 <p><地すべり></p> <ul style="list-style-type: none"> 水・環境・土地・都市計画省、鉱山・地質局は早期警報システムを持っている。*17 <p><伝染病></p> <ul style="list-style-type: none"> 国家環境・自然保護局(INECN)保健省は早期警報システムを持っている。*17 <p><環境></p> <ul style="list-style-type: none"> INECN は早期警報システムを持っている。*17 	
経済的な備え(HFA1)	<ul style="list-style-type: none"> 災害基金の設立が提唱されている。*16 	<ul style="list-style-type: none"> 災害リスク軽減に対する独自の財源はない。*4 緊急事態に対する保険基金もない。*4
4.応急対応(HFA5) 応急対応体制の確立	<ul style="list-style-type: none"> 情報コミュニケーションシステムが開発され、運用されている。*4 災害後の緊急評価に関する共通フォームが存在する。*4 国立救急活動センター(Un Centre National d'Opérations d'Urgences)の設立が計画されている。*4 	
人命救助 被災者支援		
5.コミュニティ防災 の位置づけ	資料なし	
6. 気 候 変 動 適 応 (HFA4)	<ul style="list-style-type: none"> 国連気候変動枠組条約、生物の多様性に関する条約及び砂漠化対処条約(Convention des NU sur les Changements Climatiques et les Conventions des NU de lutte contre la Désertification et la Diversité Biologique, le Burundi a:)への対応の一部として、気候変動適応プロジェクト及びプログラムが行われている。*4 環境問題を、国家戦略(貧困対策・平和構築に関する戦略的枠組み:Cadre Stratégique de Lutte contre la Pauvreté, Cadre Stratégique pour la Consolidation de la Paix, Burundi Horizon 2025)の中に統合的に盛り込んでいる。*4 NAPA Priority Projects に挙げられているブルンジ対象のプロジェクトは*12*13 参照のこと。 	

課題への支援	7.日本の支援実績	<開発調査> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <無償資金協力> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>気候変動による自然災害対処能力向上計画(外務省)*9</td> <td>2010</td> <td>3.00</td> </tr> </tbody> </table> <緊急無償資金協力> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>災害緊急援助(旱魃被害)(UNICEF 経由) *8</td> <td>1984</td> <td>2.50</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			プロジェクト名	開始年度	終了年度				プロジェクト名	実施年度	金額 (億円)	気候変動による自然災害対処能力向上計画(外務省)*9	2010	3.00	プロジェクト名	実施年度	金額 (億円)	災害緊急援助(旱魃被害)(UNICEF 経由) *8	1984	2.50						
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8.他ドナー、NGO、産官学団体の支援戦略と支援実績	< World Bank / GFDRR > *6 1. Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 2. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 450,000 3. Asia Leadership Development in Disaster Risk Management (Bangladesh, Bhutan, Burundi, Cambodia, Egypt, Arab Republic of, India, Indonesia, Kiribati, Korea, Democratic People's Republic of, Vanuatu, Vietnam) \$ 257,000 4. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 < UNOCHA > *10 1. Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC < UNISDR > *10 1. Strengthening National Platforms for DRR in Africa < UNDP > *10 1. Reinforcement of national capacities on prevention and risk management < WMO > *10 1. Climate observations and regional modeling in support of climate risk management and Sustainable Development *11 2. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC < AfDB > 1. EAC Backbone & Lake Victoria Maritime*15																											
9.既存ネットワーク(ADRC、ISDR等)の課題や連携・活用状況																												

- 出典： *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 18 January 2010)
- *2 Wikipedia ウェブサイト (<http://ja.wikipedia.org/wiki/ブルンジ>) (2012)
- *3 Prevention Web: Burundi (<http://www.preventionweb.net/english/countries/africa/bdi/>) (2012)
- *4 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2009-2011
- *5 JICA 提供プロジェクトリスト、
 JICA 「防災分野プロジェクトのあり方研究 (プロジェクト研究) 報告書」 (2005)、
 外務省 「政府開発援助 (ODA) 国別データブック 2008」 ウェブサイト
 (http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/05-36.pdf)
 JICA 「各プロジェクトの報告書」
- *6 GFDRR: Project Portfolio (http://gfdrr.org/index.cfm?Page=activity_list&itemID=13)
- *7 Burundi: National Report in preparation for WCDR (2004): Plan général de Soumission d'information et de rapports nationaux sur la Prévention des catastrophes
 (http://www.preventionweb.net/files/885_Burundi-report.pdf)
- *8 外務省 HP 1990年までのODA実績 ブルンジ

- (http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/jisseki/kuni/j_90sbefore/905-35.htm)
- *9 外務省 HP ODA 国別プロジェクト概要 ブルンジ
(http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/brundi/contents_01.html)
 - *10 UNISDR: Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa
(http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
 - *11 WCRP: Climate observations and regional modeling in support of climate risk management and Sustainable Development
(http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
 - *12 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
 - *13 UNFCCC: BURUNDI: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/05_burun_pp.pdf)
 - *14 COMPLETE VISION BURUNDI 2025
(http://unfccc.int/files/adaptation/napas/application/pdf/05_burun_pp.pdf)
 - *15 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
 - *16 Government of Burundi: National Strategy for Disaster Risk Prevention and Disaster Management and National Action Plan 2012-2015
 - *17 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

ケニアの防災情報一覧

現状および課題	1.災害の特徴	<p><洪水></p> <ul style="list-style-type: none"> 1997-1998 に発生した洪水はエルニーニョ現象と関係しており、大きな被害をもたらした。*21 この洪水は水運や交通機関にも影響を与え混乱を招いた。また、この洪水の後にリフトバレー熱が流行し、伝染病の拡大にも関連している。*22 世界銀行によるとこの洪水による被害総額は 700 億ケニアシリング(10 億米ドル)とされている。*25 <p><落雷>*25</p> <ul style="list-style-type: none"> ケニアのリフトバレー州では 2011 年の 7 月に草葺屋根の家屋に雷が落ち、一家のうち 8 名が犠牲となった。2012 年の 6 月末には 3 名が落雷により路上で死亡、同年 7 月初旬には裸足で歩いていた男性 1 名と女性 2 名が落雷により死亡し、他にも負傷者が出た。 <p><伝染病>*25</p> <ul style="list-style-type: none"> 成人の HIV 感染率は 5%を超えている。 ケニアでは 1971 年以来何度かコレラが流行している。1974 年から 1989 年の間は毎年の致死率が 3.57%にのぼったという報告がある。最大の流行は 1997 年に発生し、1999 年まで続いた。報告されたケースだけでも 33,400 例に上り、その数はその 3 年間にアフリカ全土で発生したコレラ患者数の実に 10%を占める。 <p><地震>*25</p> <ul style="list-style-type: none"> ケニアでは深刻な被害をもたらす地震は最近では発生していないが、大地溝帯の中に存在しているため、地震による被害の可能性はある。 大地溝帯に沿って火山活動も見られる。ケニアには複数火山が存在しているが、大半は活火山ではない。最も近年に発生した噴火は 1921 年にバリアー山(Mt. Barrier)で起こった。 タンザニアでは 2010 年国内で最も活発な火山の一つであり、噴火を繰り返しているオールドイニョ・レンガイ(Ol Doinyo Lengai)が噴火した。火山活動が活発になったきっかけとして、ケニアおよびタンザニアで 2007 年 7 月 12 日から連日発生した地震があげられる。この地震で最も大きなものはリッチャー(Richter)地方でマグニチュード 6.0 を記録し、直近のものは 2007 年 7 月 18 日の現地時間午後 8:30 にナイロビ市において発生した。 <p><紛争>*25</p> <ul style="list-style-type: none"> 紛争による被害として、2007/2008 年にケニアでは選挙後暴動とも呼ばれる最悪の国内での争いが起こった。1,300 人以上が殺害され、およそ 600,000 人がその土地を離れた。土地を離れた人は、難民キャンプにたどり着いた人もいれば生まれ故郷に戻る人もいた。その暴動により、7%と見込まれていた経済成長は 2%以下にとどまった。 <p><家畜の伝染性疾病></p> <ul style="list-style-type: none"> 東海岸熱はアフリカにおいて最も注意すべき家畜の伝染性疾病と言われている。1992 年時点ではこの病気がもとで年間 110 万頭の畜牛が死亡し、それにより 1 億 6,800 万ドルの損失が出ている。この伝染病はケニアを含む複数の国で発生している。*23 <p><火災>*25</p> <ul style="list-style-type: none"> ケニアでは火災は特に工場、森林、脆弱な構造の家屋、多くの人々が集まる場所、自然の中に一時的に建てられた建物などにおいて大きなハザードリスクとなっている。 <p><全体></p> <p>ケニアで 1991 年から 2011 年までの 21 年間に、大きな被害をもたらした自然災害は伝染病と干ばつで、洪水も発生している。この 21 年間に発生した災害は表 1 のとおりである。*1 *2</p> <p>2004 年の地震被害は、スマトラ地震によるインド洋大津波の被害であり、特殊なものといえる。</p> <p>ケニアで 1980 年から 2010 年までの 31 年間に発生した自然災害数とその種類、死者数、被害者数を表 2 と図 1 に示す。</p> <p>表 1 過去 21 年間 (1991 年～2011 年) における大きな自然災害*1*2</p> <table border="1"> <thead> <tr> <th>発生年</th> <th>災害の種類</th> <th>死者数</th> <th>影響人数</th> <th>被害総額 (x1000)</th> </tr> </thead> </table>	発生年	災害の種類	死者数	影響人数	被害総額 (x1000)
発生年	災害の種類	死者数	影響人数	被害総額 (x1000)			

1991	干ばつ		2,700,000	
1994	伝染病	1,000	6,500,000	
1994	干ばつ		1,200,000	
1997	干ばつ		1,600,000	
1997	洪水	86	900,000	\$ 11,800
1997	伝染病	555	17,200	
1997	伝染病	300		
1997	伝染病	237	13,500	
1997	伝染病	140	2,400	
1999	干ばつ	85	23,000,000	
1999	伝染病	1,237	22,400	
1999	伝染病	563	306,400	
2001	洪水	4		\$38
2004	干ばつ	80	2,300,000	
2004	地震 (津波)	1		\$ 100,000
2005	干ばつ	27	3,500,000	
2005	洪水	1	25,000	\$ 500
2006	洪水	114	723,000	
2006	伝染病	155	529	
2008	干ばつ	4	3,800,000	
2009	伝染病	201	10,048	
2010	洪水	94	141,164	
2010	地すべり	10		
2011	干ばつ		4,300,000	
2011	洪水	25	91692	

表 2 1980 年～2010 年の自然災害発生数と死者、被災者数*3

自然災害数	79
死者数	6,066
年平均死者数	196
被災者数	48,004,436
年平均被災者数	1,548,530

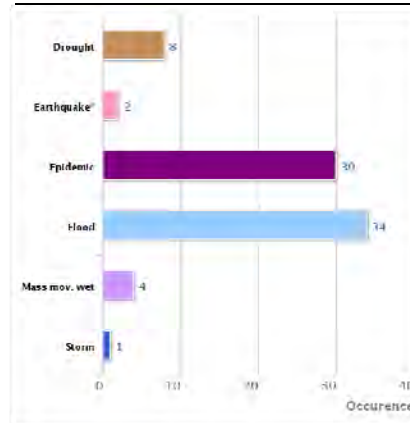


図 1 1980 年～2010 年の自然災害種別ごとの発生数*3

2.行政区分

ケニアは 8 つの州 (mikoa) で構成される。

1. リフトバレー州 (Bonde la Ufa)
2. 東部州 (Mashariki)
3. 北東州 (Kaskazini-Mashariki)
4. 西部州 (Magharibi)
5. ニヤンザ州 (Nyanza)
6. 中央州 (Kati)
7. 海岸州 (Pwani)
8. ナイロビ州 (Nairobi)

州は更に 2007 年時点で 71 の県 (wilaya'at) と 262 の郡/地区 (tarafa) で構成される。

	2010年の憲法制定によって州の廃止が決定され、47の県(County)に再編成されることが決まった。2012年に新制度が施行される予定である。	
3. 災害予防(被害抑止/軽減)	【現状】	【課題】
<ul style="list-style-type: none"> ● 災害リスクの把握(HFA2) 	<ul style="list-style-type: none"> ● 気象庁、ケニア食糧監視システム、地質調査所、ナイロビ大学では年2回、食糧状況の調査が行われている*3 *4 ● 22の乾燥地域で干ばつ対応計画があり、早期警報とリンクしている。*4 ● ハザードのデータや脆弱性の情報に基づいた、国及び地方のリスクアセスメントが利用可能となっており、主要なセクター向けのリスクアセスメントも含まれている。*5 	<p>セクター別リスクアセスメントが、様々なセクターに散在しているため、情報の共有が必要とされている。現在、政府は UNDP からの支援を得て、ケニアッタ大学に相談し、新たな課題も考慮して全国のリスクアセスメントと脆弱性マップの作成を検討中。*5</p>
災害リスクの地域・コミュニティとの共有(HFA2)	<ul style="list-style-type: none"> ● 28の乾燥地域で、コミュニティレベルの干ばつ早期警報システムがある。*4 ● ケニア赤十字が、その常駐ボランティアのネットワークを活かして、主要ハザードや脆弱性に関する情報の伝達に目覚ましい活躍をしている。*5 ● JICA が実施した「ニヤンド川流域総合管理計画調査」のパイロット事業でコミュニティ防災活動を実施した。その成果を他の流域でも広める計画がある。 	<p>遠隔地の中には、地形条件が悪く道路も未整備であるために、防災情報伝達の妨げとなっているところもある。*5</p>
法整備／政策方針／計画策定(HFA1)	<p>法整備：</p> <ul style="list-style-type: none"> ● ケニア国家災害管理政策(National Disaster Management Policy of Kenya :NDMP): 2011年2月に最新版が考案された。2012年時点ではまだ承認されていない。*24 ● 国家重点項目(National Focal Points)では災害リスク削減への予算計上を提言しているが実施されていない。*3 <p><その他関連法及び政策></p> <p>立ち退き住民の再定住に関する国家政策(National Policy for Resettlement of Internally Displaced Persons) (案) *10</p> <p>水資源管理法(Water Resources Management Act) *10</p> <p>国家環境管理政策・法(National Environmental Management Policy and Act) *10</p> <p>国家火災安全管理政策(Fire Safety Management Policy of Kenya) (案) *10</p> <p>国家土地利用政策(National Policy on Land Use) *10</p> <p><関連計画></p> <ul style="list-style-type: none"> ● 乾燥地帯資源管理計画(Arid Land Resource Management Plan) II *4 ● 災害リスク削減戦略(Disaster Risk Reduction Strategy) *4 ● HIV/AIDS 管理に関する国家戦略計画(Kenya National Strategic Plan for HIV and AIDS Management) *1 ● National Disaster Management Strategic Plan 2012-2017(草案 2012.4月現在) ● National Disaster response Plan 	<p>国家防災管理政策は新しい憲法に対する摺合せを行った後、ステークホルダーの検証ワークショップにかかるのを待っている。*5</p>
<ul style="list-style-type: none"> ● 防災体制の確立・強化(HFA1) 	<p>組織体制</p> <p><中央レベル></p>	

	<ul style="list-style-type: none"> ● 内閣府の下に置かれている防災執行委員会 (NDMEC: National Disaster Management Executive Committee、メンバーは各閣僚)が、防災プログラムに関する最高機関である。*14*15 ● NDMEC の次に、国家災害調整委員会(NDCC: National Disaster Coordination Committee)が設置されており、委員長は特別プログラム省の行政官が務めている。*14*15 ● 大統領府特別プログラム省 (Ministry of State for Special programmes in Office of the President)が防災担当省となっており*25、防災局 (Department of Disaster Risk Reduction, DRR) を設置した。*3 *4 ● DRR の下に、国家災害活動センター (NDOC: National Disaster Operation Center)を設置し、NDCC の決定に従って緊急対応を担当している。*4 ● 国家計画開発省 (Ministry of Planning and National Development)、厚生省 (Ministry of Health)、水資源省 (Ministry of Water)、農業省 (Ministry of Agriculture) がそれぞれの防災の実施機関である。*7 ● ケニア食安全委員会 (Kenya Food Security Committee)が組織されている。農業省、Arid and Semi Arid Resource Management Project、WFP、FEWSNET、USAID が共同して KFSCS(Kenya Food Security Coordination System)へのレポート作成のキーとなる農業、気象等の指標を毎月収集している。*14 ● 国、県、郡、地域レベルにおいて災害委員会が存在する <p><組織間調整機関></p> <ul style="list-style-type: none"> ● NDMEC、NDCC、NDOC が調整を行っている。 ● 防災に関する省庁間諮問委員会として、National Platform for Disaster Risk Reduction が 2004 年 8 月に発足した。メンバーは関係省庁、国連職員、NGO、学識経験者及びその他の利害関係者である。*19 <p><地方レベル></p> <ul style="list-style-type: none"> ● 8 州レベルに防災委員会(PDC: Provincial Disaster (Management) Committee)がある。*14 ● 71 県レベルに防災委員会(DDC: District Disaster (Management) Committee)がある。メンバーには県レベルの技術者も含まれる。*14 ● 2011 年に草案が作られた国家防災管理政策*12 (National Policy for Disaster Management) 内で明らかになっている、新たな防災組織体制は以下の通りである。*12 ● 防災執行委員会(NE: National Executive)が設立され、防災に関する最高意思決定機関となる予定である(内閣レベル/委員長は大統領)。*12 ● 国家委員会(NE: National Executive)は防災関連事項の決定権を持っている。NE は内閣レベルで存在しており、大統領が指揮を執っている。NE の主要な機能は国家の戦略についての方針を示すことにある。NE 国家の防災関連事項 (特に緊急時)の決定を行っている。*12 	<p>自然災害の防災に関する政策は承認されていない。*4 新設省であり、人材が十分でない。*3 地方レベルのリソース不足。*11 新憲法により、行政は新たに制定された 47 県(county)が基本となるため、これら 47 県に新たに防災部局を置き、指導者の研修を行うことが必要となり、委員会は多くの人的・物的資源を必要とするようになる。*5</p>
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	<ul style="list-style-type: none"> Ministry Responsible for Disaster Management が設立され、6 つの部ができる予定である。(Disaster Risk Reduction, Mitigation and Resettlement, Disaster Response, Relief and Recovery, Information Management and Communication, Finance and Human Resource Management, Monitoring and Evaluation) *12 各カウンティに County Disaster Management Committee (CDMC) が設置される予定である。*12 	
<p>ハード対策／土地利用規制等による抑止力の向上(HFA4)</p>	<p><構造物対策></p> <ul style="list-style-type: none"> 洪水多発地域では、堤防の増強、上流域のダム建設等の投資が行われている。*5 <p><規制></p> <ul style="list-style-type: none"> スラム地区生活環境向上のための住宅供給プログラムのように、居住計画・管理に防災が組み込まれている。*5 	<p>建築基準の適用については、この分野の専門家が欠けているため困難であり、スラム地区生活環境向上プログラムは資金の欠如のため進捗が遅い。*5</p>
<p>予警報／避難体制の整備(HFA2,3)</p>	<p><防災意識啓発・防災教育・防災訓練></p> <ul style="list-style-type: none"> 洪水教育のニーズ調査が行われた。*4 ケニアでは行政により啓蒙活動が行われており、メディアも啓蒙活動に協力している。多くの国際 NGO や国内 NGO もコミュニティレベルの啓蒙活動に協力している*4。洪水に関する教育の需要についても調査が行われた*5。教育について、第三者機関によって修士コースが導入され、それよりも下のレベルの段階でも防災教育が行われている。 ケニアではマシндеムリロ(Masinde Muliro)大学、ケンヤッタ(kenyatta)大学、ジモケンヤッタ農業技術(Jomo Kenyatta University of Agriculture and Technology)大学などの国内大学で学士課程および修士課程の防災コースが存在する。*25 他の高等教育の例として、ペリペリ大学と呼ばれるネットワークが存在する。ペリペリ大学とは the Partners Enhancing Resilience to People Exposed to Risks : Partners (パートナー) Enhancing (発揚) Resilience (回復力) People (人々) Exposed to Risks (危機にさらされた)の頭文字を取ってつけられ、災害教育、研修、研究のための国をまたいだネットワークである。複数のアフリカ諸国が参加しており、EAC 加盟国ではケニア、タンザニア、ウガンダがこのネットワークに含まれている。*25 <p><気象・通信体制></p> <ul style="list-style-type: none"> ケニア気象庁は非常に活動的であり、タイムリーに情報を提供している。国家災害活動センターが設置されてからは、国内の非常事態に関する情報を監視し、伝達するシステムが出来ている。また、活力のあるメディアがあって、早期警報を伝えている。*5 政府は、特にケニア西部の洪水多発地域において、早期警戒システムの一環として、ローカル言語によるコミュニティ・ラジオプログラムを開始した。*5 北部ケニア・乾燥地域担当省、特別プログラム省、水資源省、農業省、気象庁は干ばつに関する早期警戒システムを持っている。*25 特別プログラム省、水資源省、気象庁は洪水に関 	<p>防災に関する意識啓発や防災教育は主に治安維持の観点から行われている。*4 本来の防災教育を行うカリキュラムの余地がない。*3 地方ラジオで早期警戒情報を放送するための資金の欠如。*11 コミュニティレベルのインフラが貧弱なため、すべての市民が情報にアクセスできない。*11 差し迫った洪水の警報を受け取っても、ケニア西部の住民は先祖伝来の土地に執着し、標高の高いところに進んで移ろうとはしない。*5</p>

	<p>しての早期警報システムを持っている。*25</p> <ul style="list-style-type: none"> 農業省、食糧保障早期警報室、気象庁は降雨に関する早期警報システムを持っている。*25 <p><津波> スマトラ津波の後に5つの県で教育関係者を対象にワークショップが開催された。*4</p> <p><食糧保障></p> <ul style="list-style-type: none"> 農業省、特別プログラム省、食糧保障管理委員会、気象庁、DRSRS は早期警報システムを持っている。*25 <p><地すべり></p> <ul style="list-style-type: none"> 鉱山・地質局が早期警報システムを持っている。*25 <p><伝染病></p> <ul style="list-style-type: none"> 公衆衛生省が早期警報システムを持っている。*25 <p><環境></p> <ul style="list-style-type: none"> 環境管理局(NEMA) が早期警報システムを持っている。*25 	
経済的な備え(HFA1)	<ul style="list-style-type: none"> Disaster Relief Trust Fund の設立が提案されている。*12 政策の枠組みができていないため、全体的な防災活動予算の資金手当てがされていないが、農業、運輸、道路、水、保健、住宅等のセクター別の計画や開発のための資金は手当てされている。*5 	HIV/AIDS や伝染病を Disaster の中心的なものにとらえ、自然災害には利用されていない。*4
4.応急対応(HFA5) 応急対応体制の確立 人命救助 被災者支援	<p>【現状】</p> <ul style="list-style-type: none"> 関係各省庁は、自然災害対応体制ではなく、日常の食糧と飲料水の確保に関する資金の調達と分配を行っている。*4 災害活動センターが緊急対応活動を実施し、減災、住民啓発、訓練、コミュニティ形成を任務としている。*4 しかし、予算と資源配分のための政策枠組みがないため、National Disaster Operation Center (NDOC)の能力強化プログラムは限られたものとなっている。 	<p>【課題】</p> <p>災害活動センターは設立したばかりで、実績はない。*4</p>
5.コミュニティ防災の位置づけ	<ul style="list-style-type: none"> コミュニティレベルにおいては、行政が住民意識の高揚を図っており、メディアもこれを支援している。また、国の内外から多くの NGO が意識高揚活動に参加している。*5 国家防災管理政策が承認されれば、新憲法及び政策案で記述・提案されたように、コミュニティの参加及び分権化ならびに地方レベルの人的・物的資源が保障されることになる。*5 JICA が実施した「ニヤンド川流域総合管理計画調査」のパイロット事業でコミュニティ防災活動を実施した。その成果を他の流域でも広める計画がある。 	地域コミュニティを巻き込んだ防災活動をする必要がある。*11
6.気候変動適応	<ul style="list-style-type: none"> 2010年4月に"National Climate Change Response Strategy" *9 が発表された。主管は環境・鉱物資源省(Ministry of Environment and Mineral Resources)である。 気候変動の影響として、乾燥地・半乾燥地の拡大、生物多様性への脅威、干ばつ、農業生産性の低下などが懸念されている。 	

課題への支援	7.日本による支援実績	<p>～防災課題への直接的な支援～</p> <p><開発調査></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>ニヤンド川流域総合管理計画調査 (JICA)</td> <td>2005</td> <td>2008</td> </tr> <tr> <td>北部ケニア干ばつレジリエンス向上のための総合開発及び緊急支援計画策定 (JICA)</td> <td>2012</td> <td>2015</td> </tr> </tbody> </table> <p><技術協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>洪水に脆弱な地域における効果的な洪水管理のための能力開発 (JICA)</td> <td>2011</td> <td>2014</td> </tr> </tbody> </table> <p><無償資金協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>気候変動適応のためのニヤンド川流域コミュニティ洪水対策計画 (JICA)</td> <td>2008</td> <td>4.83</td> </tr> <tr> <td>気候変動による自然災害対処能力向上計画 (外務省)</td> <td>2009</td> <td>5.00</td> </tr> </tbody> </table> <p><緊急無償資金協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>緊急無償洪水被害</td> <td>1997</td> <td>0.27</td> </tr> <tr> <td>国内早魃被災民向け食糧援助</td> <td>1999</td> <td>8.61</td> </tr> <tr> <td>国内干ばつ被災民向け食糧援助</td> <td>2000</td> <td>8.00</td> </tr> <tr> <td>緊急無償(洪水被害)</td> <td>2003</td> <td>0.12</td> </tr> </tbody> </table> <p>～防災課題への間接的な支援～</p> <p><開発調査></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>全国水資源マスタープラン 2030 策定 (JICA) (背景に気候変動による干ばつ、洪水含む)</td> <td>2010</td> <td>2013</td> </tr> </tbody> </table> <p><技術協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>ロイトキトック県小規模給水計画 (JICA) (背景に干ばつ含む)</td> <td>2009</td> <td>2012</td> </tr> <tr> <td>ソマリア難民キャンプホストコミュニティの水・衛生改善 (JICA) (背景に干ばつ含む)</td> <td>2010</td> <td>2012</td> </tr> <tr> <td>カジアド県地域住民に対するキャパシティービルディングを基盤とした有機農業技術と貯水池建設事業 (JICA) (背景に干ばつ含む)</td> <td>2006</td> <td>2009</td> </tr> <tr> <td>第三国研修「社会林業を通じた気候変動対策」</td> <td>2010</td> <td>2014</td> </tr> </tbody> </table>	プロジェクト名	開始年度	終了年度	ニヤンド川流域総合管理計画調査 (JICA)	2005	2008	北部ケニア干ばつレジリエンス向上のための総合開発及び緊急支援計画策定 (JICA)	2012	2015	プロジェクト名	開始年度	終了年度	洪水に脆弱な地域における効果的な洪水管理のための能力開発 (JICA)	2011	2014	プロジェクト名	実施年度	金額 (億円)	気候変動適応のためのニヤンド川流域コミュニティ洪水対策計画 (JICA)	2008	4.83	気候変動による自然災害対処能力向上計画 (外務省)	2009	5.00	プロジェクト名	実施年度	金額 (億円)	緊急無償洪水被害	1997	0.27	国内早魃被災民向け食糧援助	1999	8.61	国内干ばつ被災民向け食糧援助	2000	8.00	緊急無償(洪水被害)	2003	0.12	プロジェクト名	開始年度	終了年度	全国水資源マスタープラン 2030 策定 (JICA) (背景に気候変動による干ばつ、洪水含む)	2010	2013	プロジェクト名	開始年度	終了年度	ロイトキトック県小規模給水計画 (JICA) (背景に干ばつ含む)	2009	2012	ソマリア難民キャンプホストコミュニティの水・衛生改善 (JICA) (背景に干ばつ含む)	2010	2012	カジアド県地域住民に対するキャパシティービルディングを基盤とした有機農業技術と貯水池建設事業 (JICA) (背景に干ばつ含む)	2006	2009	第三国研修「社会林業を通じた気候変動対策」	2010	2014
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8.他ドナー、NGO、産官学団体の支援戦略と支援実績	<p>< World Bank / GFDRR > *8</p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 945,000 Disaster Risk Management in the Sub-Saharan Africa Region (Burkina Faso, Comoros, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Seychelles, Swaziland, Region) \$ 300,000 Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 Feasibility Study for Pan African Drought Risk Pool (Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Senegal, Zambia, Zimbabwe) \$ 220,000 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 																																																													

		<p>8. Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473</p> <p>< UNDP > *11</p> <ol style="list-style-type: none"> 1. Northern Uganda Drought Support 2. Floods Emergency Project; Formation of water and sanitation coordination teams in the various regions <p>< UNISDR > *11</p> <ol style="list-style-type: none"> 1. Strengthening National Platforms for Disaster Risk Reduction in Africa <p>< UNOCHA Kenya > *11</p> <ol style="list-style-type: none"> 1. Drafting and review of National Disaster Response Plan; District Disaster Preparedness and Response planning ; Contingency Planning for Flood Management <p>< WMO > *11</p> <ol style="list-style-type: none"> 1. Strategy for Flood management 2. Climate observations and regional modeling in support of climate risk management*13 3. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC 4. Tropical Cyclone Advisories for the Southwest Indian Ocean Countries; Enhanced availability of guidance information for the issue of tropical cyclone warnings by NMHS's at national level 5. Preparedness to climate variability and change, natural disaster preparedness and enhanced food security in cooperation with SADC DMC and ICPAC <p>< ProVention Consortium > *11</p> <ol style="list-style-type: none"> 1. Partners for Humanitarian and Risk Education Expansion (PHREE-Way) established regional platforms to facilitate, enable and mediate the learning and research 2. Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction 3. African Urban Risk Analysis Network (AURAN). <p>< African Development Bank ></p> <ol style="list-style-type: none"> 1. Emergency Assistance for Drought Crisis in Kenya <p>< AfDB ></p> <ol style="list-style-type: none"> 1. EAC Backbone & Lake Victoria Maritime *20
9. 既存ネットワーク (ADRC、ISDR 等)の課題や連携・活用状況		ケニア政府は、防災及び越境問題の取り扱いにおいて、広域レベルではアフリカ連合(AU)と、準広域レベルでは政府間開発機構(IGAD)と密接に連携している。*5

- 出典： *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 11 November 2011)
- *2 Wikipedia ウェブサイト (<http://en.wikipedia.org/wiki/ケニア>) (2011)
- *3 Prevention Web: Kenia (<http://www.preventionweb.net/english/countryies/africa/ken/>) (2012)
- *4 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2007-2009
- *5 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2009-2011
- *6 Kenya: National Report on the implementation of the HFA (2007)
- *7 JICA 提供プロジェクトリスト、
JICA「防災分野プロジェクトのあり方研究(プロジェクト研究)報告書」(2005)、
外務省「政府開発援助(OA)国別データブック2008」ウェブサイト
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf)、
JICA「各プロジェクトの報告書」
- *8 GFDRR: ウェブサイト (http://gfdr.org/index.cfm?Page=activity_list&itemID=13) (accessed on 9 February 2010)
- *9 "National Climate Change Response Strategy" April 2010, Government of Kenya
- *10 JICA アフリカ防災セミナー(2011年10月17日~27日)で提出されたカントリーレポート
- *11 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (ISDR, 2010) (http://www.unisdr.org/files/18926_africadrinventoryfinal.pdf)
- *12 NATIONAL POLICY FOR DISASTER MANAGEMENT IN KENYA(草案, ケニア政府, 2011)
- *13 WCRP: Climate observations and regional modeling in support of climate risk management and Sustainable Development (http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
- *14 Roles and Responsibility National Disaster Operations Centre (ケニア政府, 2007) (<http://www.docstoc.com/docs/91729461/Roles-and-Responsibility-National-Disaster-Operations-Centre>)

- *15 Kenya's experience in management of natural disasters (ケニア政府, 1999)
(<http://cidbimena.desastres.hn/docum/crid/Agosto2004/pdf/eng/doc15154/doc15154-contenido.pdf>)
- *16 Emergency Assistance for Drought Crisis (ADB, 2011)
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-ke-aaz-008/>)
- *17 Kenya Natural Disaster Profile (UNDP)
(<http://mirror.undp.org/kenya/KenyaDisasterProfile.pdf>)
- *18 LAND USE IN KENYA (Kenya Land Alliance)
(<http://www.oceandocs.org/bitstream/1834/713/1/Pages%20from%20kafull.pdf>)
- *19 ケニア特別プログラム省 HP
(http://www.sprogrammes.go.ke/index.php?option=com_content&task=view&id=505&Itemid=210)
- *20 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
- *21 Kenya's Draft National Disaster Risk management Strategic Plan 2012-2015
- *22 The Economic Impacts of Climate Change in Kenya: Riparian Flood Impacts and Cost of Adaptation, 2009
- *23 Wikipedia the Free Encyclopedia East Coast Fever
(http://en.wikipedia.org/wiki/East_Coast_fever)
- *24 National Disaster Management Policy of Kenya (Draft, Kenya Government, Feb, 2012)
- *25 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

ルワンダの防災情報一覧

現状および課題	1.災害の特徴	<p><干ばつ>*24</p> <ul style="list-style-type: none"> ルワンダでは過去何十年にもわたり周期的に干ばつが起こっている。2002年から2005年の間は毎年干ばつが起こっており、食糧保障に影響を及ぼしている。これに加えて、2004年には長引く干ばつの影響による北部にある湖の水位低下が原因でルワンダで最初となる大きな電力問題を引き起こした。また、関係主要セクターにも影響を及ぼした。干ばつは製造業、教育、国家安全保障、テロリズム、健康、水、衛生、農業、家畜、環境、森林、電力等の主要セクターに影響をもたらすため、これらのセクターにおいては干ばつによる経済への影響などを考慮すべきである。 <p><洪水>*24</p> <ul style="list-style-type: none"> 洪水はルワンダでも頻繁に起こっており、近年その回数は増加している。2005年および2007年に起こった洪水は多くの犠牲者や住民移転、インフラ・農業・環境への被害をもたらした。 <p><伝染病>*24</p> <ul style="list-style-type: none"> 成人のHIV感染率は3%である。 ルワンダでは2007年にコレラが3地域において流行し、918の感染例が報告された。そのうち17名が死亡した(致死率1.85%) <p><地震>*24</p> <ul style="list-style-type: none"> ルワンダでは西部が地震に脆弱であるとされている。2008年にルワンダ西部のルシジ(Rusizi)およびニャマセキ(Nyasheke)でマグニチュード5.9の地震が発生し、39名が死亡、600人以上が負傷し、2,000名以上が家を失った。 <p><火山>*24</p> <ul style="list-style-type: none"> ルワンダ西部には活火山および死火山が連なって存在している。2002年にはコンゴ民主共和国東部のニーラゴンゴ(Nyirangongo)山が噴火し、コンゴの都市ゴマ(Goma)と接しているリヴァイブ(Ruvavu)に400,000人にもものぼるコンゴ民が避難してきた。コンゴでの火山噴火はルワンダのみならずウガンダやブルンジにおいてもハザードとなっている。 <p><火災>*24</p> <ul style="list-style-type: none"> ルワンダでは火災の発生件数は少ないものの、大きな被害が出ることもある。2009年に発生した森林を含む火災では国立火山公園にあるムハブラ(Muhabura)山山頂まで火の手がまわり、150ヘクタールが焼失した。最近ではヤガタラ(Nyagatare)地方で起こった火災で森林と農場計30ヘクタールが焼失した。 <p><全体></p> <ul style="list-style-type: none"> ルワンダで1974年から2012年までの39年間に発生し、大きな被害をもたらした自然災害は伝染病、干ばつ、洪水、地震及び地すべりである。この39年間に発生した主な災害は表1のとおりである。*1 ルワンダで1980年から2010年までの31年間に発生した自然災害数とその種類、死者数、被災者数を表2と図1に示す。*3 <p style="text-align: center;">表1 過去39年間(1974年～2012年)における主な自然災害*1</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>発生年</th> <th>災害の種類</th> <th>死者数</th> <th>影響人数</th> <th>被害総額 (x1000)</th> </tr> </thead> <tbody> <tr><td>1974</td><td>洪水</td><td>-</td><td>1,900,000</td><td></td></tr> <tr><td>1976</td><td>干ばつ</td><td>-</td><td>1,700,000</td><td></td></tr> <tr><td>1984</td><td>干ばつ</td><td>-</td><td>420,000</td><td></td></tr> <tr><td>1988</td><td>洪水</td><td>48</td><td>21,678</td><td></td></tr> <tr><td>1989</td><td>干ばつ</td><td>237</td><td>60,000</td><td></td></tr> <tr><td>1991</td><td>伝染病</td><td>32</td><td>214</td><td></td></tr> <tr><td>1996</td><td>干ばつ</td><td>-</td><td>82,000</td><td></td></tr> <tr><td>1998</td><td>伝染病</td><td>55</td><td>2,951</td><td></td></tr> <tr><td>1999</td><td>伝染病</td><td>44</td><td>29</td><td></td></tr> <tr><td>1999</td><td>干ばつ</td><td>-</td><td>894,545</td><td></td></tr> <tr><td>2002</td><td>地震</td><td>45</td><td>1,643</td><td></td></tr> <tr><td>2002</td><td>洪水</td><td>69</td><td>20,000</td><td></td></tr> <tr><td>2002</td><td>伝染病</td><td>83</td><td>636</td><td></td></tr> <tr><td>2003</td><td>干ばつ</td><td>-</td><td>1,000,000</td><td></td></tr> <tr><td>2006</td><td>伝染病</td><td>35</td><td>300</td><td></td></tr> </tbody> </table>	発生年	災害の種類	死者数	影響人数	被害総額 (x1000)	1974	洪水	-	1,900,000		1976	干ばつ	-	1,700,000		1984	干ばつ	-	420,000		1988	洪水	48	21,678		1989	干ばつ	237	60,000		1991	伝染病	32	214		1996	干ばつ	-	82,000		1998	伝染病	55	2,951		1999	伝染病	44	29		1999	干ばつ	-	894,545		2002	地震	45	1,643		2002	洪水	69	20,000		2002	伝染病	83	636		2003	干ばつ	-	1,000,000		2006	伝染病	35	300	
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2008	地震	36	643	
2008	洪水	-	11,346	
2010	地すべり	14	5,937	

表 2 1980年～2010年の自然災害発生数と死者、被災者数*3

自然災害数	28
死者数	827
年平均死者数	27
被災者数	2,539,707
年平均被災者数	81,926

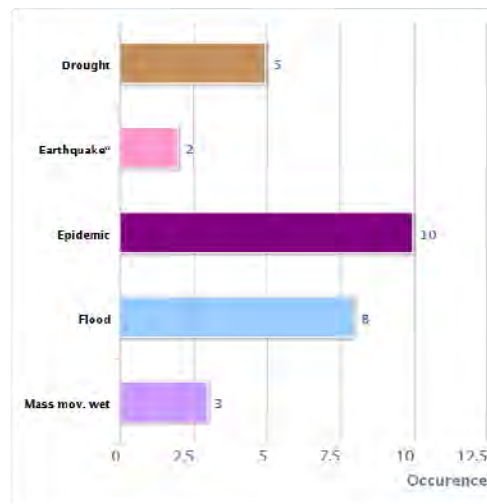


図 1 1980年～2010年の自然災害種別ごとの発生数*3

2.行政区分

ルワンダは5つの州 (intara) で構成される。
 1.北部州 (Province du Nora)
 2.南部州 (Province du Sud)
 3.東部州 (Province de l'Est)
 4.西部州 (Province de l'Ouest)
 5.キガリ州 (Kigali)
 州は更に 30 の郡(akarere)に分かれている。*2

3. 災害予防(被害抑止/軽減)

● 災害リスクの把握 (HFA2)

- 【現状】
- 洪水と地すべりの危険性が高い地域の抽出を、2011年12月を目処に政府アクションプラン内で行っている。*9
 - 災害危険地域において、ハザードマップの作成を、2012年3月を目処に政府アクションプラン内で行っている。*9
 - その他の政府アクションプランは*9参照のこと。
 - GIS マッピング作業が行われている。また、GIS データ管理のための、情報コミュニケーション技術 information and communications technology (ICT) を用いた spatial data infrastructures (SDI)の創設が始まっている。*11

【課題】

災害リスクの地域・コミュニティとの共有(HFA2)

- 地域災害マネジメント委員会(DDMC: District Disaster Management Committees)が設けられ、政府によるトレーニング等が行われている。*9

<p>法整備／政策方針／ 計画策定(HFA1)</p>	<p>法整備： <関連政策></p> <ul style="list-style-type: none"> ● 国家災害リスクマネジメント政策(National Policy on Disaster Risk Reduction and Prevention in Rwanda)は 2002 年に作成され、2003 年 6 月に内閣に承認された。*4 ● その後、新たな国家政策 (National Disaster Management Policy)が 2009 年に承認され、その改訂作業が 2012 年現在進められている。*22 ● 国及び地域災害に対して、災害マネジメント戦略計画(The Strategic Plan of Action of the National Policy on Disaster Management)がたてられた。*4 ● 上記の災害リスクマネジメント戦略(Disaster Risk Management Strategy)は、防災・難民省 (MIDIMAR: Ministry of Disaster Management and Refugee Affairs)が担当している。*11 ● 2008 年から社会保障プログラム: The Vision 2020 Umurenge Program (VUP)が履行されている。ルワンダ政府は、社会保障と災害リスクマネジメント戦略、気候変動対応戦略、食の安全戦略の統合的な運営を模索している。*11 <p><関連法・計画></p> <ul style="list-style-type: none"> ● 防災法(Disaster Management Law) ● MIDIMAR 5 Year Strategic Plan ● Strategic Orientation Paper ● National Contingency Plan ● National Disaster Risk Management Plan ● Cross-cutting issues guidelines 	
<ul style="list-style-type: none"> ● 防災体制の確立・強化(HFA1) 	<p>組織体制</p> <p><中央レベル></p> <ul style="list-style-type: none"> ● 2010 年 3 月に防災・難民省(MIDIMAR: Ministry of Disaster Management and Refugee Affairs)が設立され*11、防災担当省となっている。*24 ● MIDIMAR の元に設けられた国立災害マネジメントセンター (NDMC: National Disaster Management Center)*16 は、歴史的に大統領府や総理府とつながりが強い。*11 <p><組織間調整機関／意志決定機関></p> <ul style="list-style-type: none"> ● MIDIMAR を議長とし、各省をメンバーとした災害委員会 (NDSC: National Disaster Steering Committee)があり、災害対策を行う。当機関は、災害マネジメントに関する政策と調整に関する最高責任機関である。*17*18 ● NDSC の機能を強化する目的で、災害技術委員会 (DSTC: Disaster Steering Technical Committee)が 2012 年 5 月に発足した。*18 ● 国家プラットフォームは、改訂版防災政策のもと、機能強化が図られる。*23 <p>改訂版防災政策では、以下の機関が提案されている。</p> <ul style="list-style-type: none"> ● 国の最高防災意思決定機関として National 	

	<p>Disaster Management Executive Committee (NDMEC) の設置が提案されている。議長は首相、副議長は MIDIMAR である。*23</p> <ul style="list-style-type: none"> • NDMEC の諮問機関として、National Disaster Management Technical Committee (NDMTC) の設置が提案されている。*23 • 国連と MIDIMAR の協力調整機関として、MIDIMAR/UN Joint Intervention Management Committee (JIMC) が提案されている。*23 <p><地方レベル></p> <ul style="list-style-type: none"> • 地域レベルでは、地方災害管理委員会(DDMC: District Disaster Management Committees)が設けられている。*9*23 • セクター災害マネージメント委員会(SDMC: Sector Disaster Management Committee)が改訂版防災指針で提案されている。*23 	
<p>ハード対策／土地利用規制等による抑止力の向上(HFA4)</p>	<p><規制></p> <ul style="list-style-type: none"> • National Land Use and Development Master Plan が、国家土地委員会(the National Land Commission: NLC)によって作成され、2010 年 8 月にその草稿が政府によって提出された。*11*19 • 自然資源省 (MINIRENA: Ministry of Natural Resources)が、土地利用対策の担当である。*24 	
<p>予警報／避難体制の整備(HFA2,3)</p>	<p><気象・通信体制></p> <ul style="list-style-type: none"> • ルワンダ気象庁(National Meteorological Service of Rwanda)が気象観測を行っている。*13 • 緊急災害コミュニケーションシステムの開発が、2011 年 12 月を目標に政府アクションプラン内で行われている。*9 • 2010 年 7 月に早期警戒システム立ち上げに関する UNDP/UNEP プロジェクト(Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas)が始動した。*10 • その他の、被災者への支援計画等については、*9 参照のこと。 • 農業家畜省は干ばつについての早期警報システムを持っている。*24 <p>気象庁(UNDP/UNEP の支援により実施)、</p> <ul style="list-style-type: none"> • ルワンダ環境管理局(REMA)、ルワンダ自然資源局(RNRA) (水資源部) は洪水に関する早期警報システムを持っている。*24 • RNRA (土地部)、REMA は地すべりに関する早期警報システムを持っている。 <p><防災意識啓発・防災教育・防災訓練></p> <ul style="list-style-type: none"> • 初等教育で防災啓発教育を行っている。*24 • 高校レベルには衛生科がある。また、自然環境科学は多くの高等教育プログラムに含まれている。*4 <p><食糧保障></p> <ul style="list-style-type: none"> • 食糧飢饉早期警戒システムネットワーク (FEWSNET)、農業家畜省が食糧保障についての早期警報システムを持っている。*24 	

	<p><伝染病></p> <ul style="list-style-type: none"> ルワンダ生体医学センター(RBC) が担当機関となっている。*24 <p><環境></p> <ul style="list-style-type: none"> REMA、RBC が早期警報システムを持っている。*24 <p>体制整備として、防災・難民省 (MIDMAR)では社会保障に関連するセクターに 400 以上の携帯電話を配布し、発生可能性のある災害や災害発生時の報告に使用されている。*24</p>																									
経済的な備え(HFA1)	<ul style="list-style-type: none"> 主要な災害対応財源は、被害を受けた各地方自治体予算である。*23 2011～2012年の MIDIMAR アクションプランと予算は*9 参照のこと。 																									
4.応急対応(HFA5) 応急対応体制の確立 人命救助 被災者支援	<ul style="list-style-type: none"> 災害時指令システム (National Disaster Command System)の立ち上げに関する訓練がケニア災害対応センター協力の元行われ、MIDIMAR、災害委員会(Disaster Management Steering Committee)、災害管理特別委員会 DMTF (Disaster Management Task Force)、地方災害管理委員会 DDMC (District Disaster Management Committees)が参加した。*14 防災体制の確立・強化の項参照のこと 																									
5.コミュニティ防災の位置づけ	資料なし																									
6.気候変動適応	<ul style="list-style-type: none"> 気候変動対応戦略(Climate Change Adaption strategy)を、環境庁(REMA: Rwanda Environment Management Authority)が担当している。*11 NAPA Priority Projects に挙げられているルワンダ対象のプロジェクトは*20*21 参照のこと。 																									
課題への支援	<p>7.日本の支援実績</p> <p><開発調査></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><無償資金協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><緊急無償資金協力></p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>災害緊急援助(地滑り)*7</td> <td>1988</td> <td>0.13</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	プロジェクト名	開始年度	終了年度				プロジェクト名	実施年度	金額 (億円)				プロジェクト名	実施年度	金額 (億円)	災害緊急援助(地滑り)*7	1988	0.13							
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8.他ドナー、NGO、産官学団体の支援戦略と支援実績	<p>< World Bank / GFDRR > *6</p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 495,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$ 450,000 																									

	<p>4. Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000</p> <p>5. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi , Djibouti , Eritrea , Ethiopia , Rwanda , Somalia , Tanzania , Uganda , Global) \$ 100,000</p> <p>6. Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473</p> <p>7. Phase 1 of an Activity to Support National Red Cross and Red Crescent Societies (Albania , Armenia , Ecuador , Malawi , Pakistan , Philippines , Rwanda , Solomon Islands) \$200,000</p> <p><UNOCHA>*12</p> <p>2. Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC</p> <p><WMO>*12</p> <p>3. Climate observations and regional modeling in support of climate risk management and Sustainable Development *13</p> <p>4. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC</p> <p><UNDP/UNEP>*10</p> <p>1. Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas</p> <p><AfDB></p> <p>1. EAC Backbone & Lake Victoria Maritime *22</p>	
9. 既存ネットワーク (ADRC、ISDR 等)の課題や連携・活用状況	資料なし	

- 出典： *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 18 January 2010)
- *2 Wikipedia ウェブサイト (<http://en.wikipedia.org/wiki/Rwanda>) (2012)
- *3 Prevention Web: Rwanda (<http://www.preventionweb.net/english/countries/africa/rwa/>) (2012)
- *4 Prevention Web: Rwanda: National Report in preparation for WCDR (2004)
- *5 JICA 提供プロジェクトリスト、
JICA「防災分野プロジェクトのあり方研究（プロジェクト研究）報告書」（2005）、
外務省「政府開発援助（ODA）国別データブック 2008」ウェブサイト
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/05-47.pdf)、
JICA「各プロジェクトの報告書」
- *6 GFDRR: Project Portfolio (http://gfdr.org/index.cfm?Page=activity_list&itemID=13)
- *7 外務省 HP 1990年までのODA実績 ルワンダ
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/jisseki/kuni/j_90sbefore/905-46.htm)
- *8 外務省 HP ODA国別プロジェクト概要 ルワンダ
(http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/rwanda/contents_01.html)
- *9 ルワンダ政府アクションプラン 2011-2012
(http://www.nurdigitaltechnologies.com/migeprof/IMG/pdf/GOVERNMENT_ACTION_PLAN_2011-2012_MIGEPROF_Pages_174-195_.pdf)
- *10 Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas
(<http://www.adaptationlearning.net/project/reducing-vulnerability-climate-change-establishing-early-warning-and-disaster-preparedness-s>)
- *11 ルワンダ政府, WB: Adaptive Social Protection in Rwanda: A No-Regrets Approach to Increased Resilience in a Territorial Planning Context (2011)
(<http://www.ids.ac.uk/files/dmfile/Siegeletal2011AdaptiveSocialProtectioninRwanda02CSPconferencedraft.pdf>)
- *12 UNISDR: Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa
(http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
- *13 WMO: Climate observations and regional modeling in support of climate risk management and Sustainable Development
(http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
- *14 ルワンダ政府: National Disaster Command System Rwanda
(http://www.gov.rw/news.php?id_article=148)
- *15 The Rwanda: Focus: Smartphones to the rescue in disaster management
(<http://focus.rw/wp/2012/05/smartphones-to-the-rescue-in-disaster-management/>)

- *16 Rwanda: MIDIMAR 組織図
(<http://www.midimar.gov.rw/index.php/about-usmidimar/midimar-new-structure>)
- *17 The New Times Rwanda : New disaster committee set up
(<http://www.newtimes.co.rw/news/index.php?i=14992&a=53593>)
- *18 BAHONEZA.com: Rwanda | Government consolidates disaster management measures as heavy rains continue to cause havoc in some parts of the country
(<http://bahoneza.com/rwanda-disaster/>)
- *19 MINELA: MINELA SURPPORT TO SUSTAINABLE LAND MANAGEMENT
(http://www.fao.org/fileadmin/templates/nr/kagera/Documents/Regional_workshop_11march2011/MINELA_safari_reg_work.pdf)
- *20 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
- *21 UNFCCC: RWANDA: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/28_rwan_pp.pdf)
- *22 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
- *23 ルワンダ政府: The National Disaster Management Policy (Draft, 2012)
- *24 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

タンザニアの防災情報一覧

現状
および
課題

1.災害の特徴

<干ばつ>*24

- タンザニアでは干ばつはおよそ4年毎に起こっており、360万人以上に景影響を及ぼしている。特に北部から中部にかけては頻発に干ばつが発生している。

<洪水>*24

- タンザニアでは1980年代から15回洪水が起こっている。54名が犠牲となり、800,271名が被災した。

<地すべり>*24

- タンザニアでは地すべりは地盤のゆるい傾斜の高い丘で頻発に起きており、全ての災害の0.9%を占めている。

<感染症>*24

- 成人のHIV感染率は5%を超えている。
- タンザニアでは広い地域でコレラが発生している。コレラが最初に大流行したのは1992年であり、18,526名が感染、うち2,173名が死亡した(致死率11.7%)。1997年1月末にダルエスサラームで流行し始めたコレラでは40,249名が感染し2,231名が命を落とした(致死率5.54%)。

<火山>*24

- タンザニアでは2010年国内で最も活発な火山の一つであり、噴火を繰り返しているオールドイニョ・レンガイ(Ol Doinyo Lengai)が噴火した。火山活動が活発になったきっかけとして、ケニアおよびタンザニアで2007年7月12日から毎日発生した地震があげられる。この地震では最も大きなものではリッチャー(Richter)地方でマグニチュード6.0を記録し、直近のものは2007年7月18日の現地時間午後8:30にナイロビ市において発生した。

<家畜の伝染性疾病>*24

- 東海岸熱はアフリカにおいては最も注意すべき家畜の伝染性疾病とも言われており、1992年時点ではこの病気がもとで年間110万頭の畜牛が死亡し、それにより1億6,800万ドルの損失が出ている。この伝染病はタンザニアにおいても発生している。*21
- タンザニアで多くの家畜にとって脅威となる伝染病としては牛疫、脚や口の炭疽病、急性序幕肺炎(CBPP)などがある。

<全体>

- タンザニアで1980年から2011年までの32年間で大きな被害をもたらした自然災害は、干ばつ、伝染病、洪水がほとんどである。表1にこの19年間に発生し、記録に残っている災害をまとめる。*1*3
- タンザニアで1980年から2010年までの31年間に発生した自然災害数とその種類、死者数、被害者数を表2と図1に示す。

表1 過去19年間(1980年~2011年)における大きな自然災害*1,*3

発生年	災害の種類	死者数	影響人数	被害総額 (x1000)
1980	伝染病	12		
1982	洪水		40,000	
1983	伝染病	163		
1984	干ばつ		3,000,000	
1985	伝染病	10	118	
1986	洪水		6,000	
1987	伝染病	90	500	
1988	干ばつ		110,000	
1989	洪水	10	141,000	
1990	洪水	183	162,000	\$ 280
1990	伝染病	200		
1991	干ばつ		800,000	
1991	伝染病	290		
1991	伝染病	284	1,733	
1993	洪水	54	202,000	\$ 3,510
1996	干ばつ		3,000,000	
1997	伝染病	2,025	35,600	
1997	伝染病	304	6,800	
1998	伝染病	1,871	35,800	

1998	伝染病	590	4,900
2003	干ばつ		1,900,000
2004	干ばつ		254,000
2007	伝染病	109	264
2008	洪水	72	7,957
2009	洪水	18	50,000
2011	干ばつ		1,000,000
2011	洪水	20	50,200

表 2 1980年～2010年の自然災害発生数と死者、被災者数*3

自然災害数	73
死者数	6,798
年平均死者数	219
被災者数	12,465,341
年平均被災者数	402,108

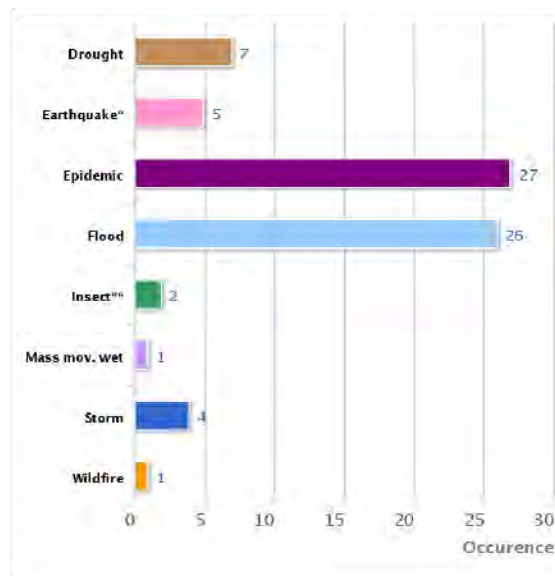


図 1 1980年～2010年の自然災害種別ごとの発生数*3

2.行政区分

- タンザニアの地方行政区分は、26 のミコア (Mkoa) と呼ばれる州で構成される。括弧内は州都。

<タンガニーカ (Tanganyika)地域>

アルーシャ州 (アルーシャ)、ダルエスサラーム州 (ダルエスサラーム)
ドドマ州 (ドドマ)、イリンガ州 (イリンガ)、カゲラ州 (ブコバ)
キゴマ州 (キゴマ)、キリマンジャロ州 (モシ)、リンディ州 (リンディ)
マニャラ州 (ババティ)、マラ州 (ムソマ)、ムベヤ州 (ムベヤ)
モロゴロ州 (モロゴロ)、ムトワラ州 (ムトワラ)、ムワンザ州 (ムワンザ)
プワニ州 (キバハ)、ルクワ州 (スンバワンガ)、ルヴマ州 (ソンゲア)
シニャンガ州 (シニャンガ)、シンギダ州 (シンギダ)、タボーラ州 (タボラ)
タンガ州 (タンガ)

<ザンジバル (Zanzibar) 地域>

ペンバ北部州 (ウエテ)、ペンバ南部州 (ムコアニ)
ザンジバル中部・南部州 (コアニ)、ザンジバル北部州 (ムココトニ)
ザンジバル都市部・西部州 (ザンジバル)
*ペンバ島とザンジバル島にある 5 州はザンジバル自治政府を構成する。

- 政令行政区として、州の下に県 (District)、郡 (Division)、区 (Ward)、村 (Village/Street) が定められている。その他、県と郡の間に選挙区(Constituency)、村の下に隣組 (Sub-Village) が存在する。また、行政系統が Regional Administration と Local Government に分かれており、連合共和国政府レベルの行政系統として

	Regional Administration (州、県、郡)、地方政府の行政系統として Local Government (県、区、村) となっている。*3	
3. 災害予防(被害抑止/軽減)	【現状】	【課題】
<ul style="list-style-type: none"> 災害リスクの把握(HFA2) 	<ul style="list-style-type: none"> 首相府 (Prime Minister Office, PMO) の災害管理局 (Disaster Management Department, DMD) は、2008年にタンザニアの災害リスク評価と災害発生時の対応能力を評価した。 評価は、さまざまな行政レベルの防災担当組織について、人為災害、気候変動による災害、地質による災害、生物学的災害について実施した。 首相府災害管理局は、農業省 (Ministry of Agriculture) の国家食糧安全保障チーム (National Food Security Team) と協同で毎年「早期食糧不足危険度調査」 (Rapid Vulnerability Assessment, RVA) を実施している。 これらの調査により、国家、あるいはドナーからの援助が実施される。 国家土地利用基本計画 (National Land Use Framework Plan 2008-2028) ではハザード、リスクマッピングを計画している。(計画中) 	<ul style="list-style-type: none"> 災害の発生や被害の状況を把握し、中央で集計するシステムがない。 わずかにタンザニア統計局が定期的に被害を集計しているだけである。 財政的資源が不十分であるため、リスクアセスメントの結果が計画等に十分活用されていない。*5 災害影響や脆弱性の全範囲にわたり評価する能力、特に2次的影響、比較経済分析及び非金銭的成本評価に関わる能力が課題*5
災害リスクの地域・コミュニティとの共有(HFA2)	<ul style="list-style-type: none"> 現在、中央政府、地方自治体、NGO は、新型インフルエンザのリスクに対する知識を住民に浸透させることに力を注いでいる。 UN の組織、メディア、NGO、タンザニア赤十字社 (TRCS) が災害管理フォーラムを形成し、コミュニティレベルへのリスク情報伝達を実施している。 ザンジバルでは、区防災委員会を通じて区毎に開かれる協議会により、地方のコミュニティが減災政策の整備に参加してきた。同じメカニズムが、ザンジバル非常事態準備・対応計画(ZEPRP)の策定に用いられている。*5 ザンジバルについては、災害リスクと必要とされる対処能力のアセスメント (Disaster Risks and Capacity Need Assessment) が 2008 年に実施され、災害のリスクマップと脆弱性マップが得られるようになっている。また、これまで参加型の必要性と対処能力のアセスメントが 85 の区で実施され、2010 年 10 月時点では他の 50 区でアセスメントを実施中である。*5 食糧安全保障・栄養アセスメントの地方分権化が進められており、2010 年 6 月に 2 州において試行され、研修を受けた。こうした研修は他の州・県でも続いて行われる予定である。*5 様々な機関が、様々な手段で、ハザードやリスクについてコミュニティやステークホルダーと連絡をとっている。現在、様々なステークホルダーや一般大衆が防災情報を伝えたり、アクセスしたりできる連結したデータベースやウェブサイトはなく、通常、災害情報は公式な通信手段、災害プラットフォーム、新聞発表、ラジオ、テレビ番組等を通じて、ステークホルダーやコミュニティと共有されている。*5 	<ul style="list-style-type: none"> 実際にはドナー、NGO 頼みでシステムはできていない。 全コミュニティに対するさらなる防災教育が必要であり、草の根レベルにおける災害の発生と課題を明確にするために災害プロフィール地図の作成が重要である。*5 資源 (資金、技術的ノウハウ、IT 機器) が主な弱点。災害予防と対策の年報、データベース、ウェブ情報等の他の情報共有を開発する必要がある。それと同時に、様々な防災情報に注意を払うことの大切さについて、一般大衆を教育していく必要がある。*5

	<ul style="list-style-type: none"> 2010年10月の国際防災の日を記念して、ザンジバルのDMDが、ザンジバルの高等教育機関の学生を対象に、防災問題の知識・情報の交換のベースとして、2日間のワークショップを開催した。6項目が提示され、議論されたが、DMDはラジオとテレビの生放送番組を企画・参加し、電話越しに今年のテーマ（回復力のある都市に—我が市は準備をしている）がパネリストと視聴者の間で議論された。*5 UNDAP2011-2015及び成長と貧困削減のためのザンジバル戦略2010-2015を通じて、ザンジバルDMDは減災の概念を初等・中等教育のカリキュラムに組み込む（主流化する）ことを計画している。*5 ザンジバルDMDは、メディアや都市計画要員に対する減災関連研修を施した。*5 	
<p>法整備／政策方針／計画策定(HFA1)</p>	<p>法整備</p> <ul style="list-style-type: none"> 国家災害管理政策（National Disaster Management Policy 2004）が策定され、国家災害管理運用ガイドライン（National Operational Guidelines for Disaster Management 2003）とともに、すべての行政レベルにおける防災政策の枠組みを規定しており、現在改訂中である*22,*23*24。 国家土地政策（National Land Policy, 1995）、国家居住開発政策（National Human Settlements Development policy, 2000）、環境管理政策（Environmental Management Policy）は、災害管理に関連する部分を含んでいる。 環境管理法（Environmental Management Act of 2004）は気候変動による食糧不足の予警報についてのガイドラインを定めている。 ザンジバルの災害管理局(DMD)が、現在、三つの国家ガイドライン(案)を策定・提出し、上位機関の検討下にある。*5 <ul style="list-style-type: none"> (i) ザンジバル減災政策 (ii) ザンジバル非常事態準備・対応計画(ZEPRP) (iii) ザンジバル災害通信戦略(ZDCS) 財務経済省により、ザンジバル成長と貧困削減戦略(MKUZA II)2010-2015は、以下の減災パッケージを組み込んでいる。これらはすべて行動目標「2015年までに増強すべき備えと対応」に含まれている。*5 <ul style="list-style-type: none"> (i) 災害関連の法規及び政策の見直しと調和 (ii) 災害に対処し、非常事態への備えを強化するためのインフラ及び能力の改善 (iii) 機器や必要となる技能・知識の面について、組織や個々人の能力強化 (iv) ハザードや災害を防止・対応するために、コミュニティメンバー（特に女性と子供）への権限の付与 <p><関連計画></p> <ul style="list-style-type: none"> 国土住宅開発省（Ministry of Lands, Housing and Human Settlements Development）の土地利用計画委員会（National Land Use Planning Commission, NLUPC）は、国家土地利用枠組計画（National Land 	<ul style="list-style-type: none"> 政策はあるが、災害対策法がないことや主要省庁のトップが政策にかかわっていないことが、防災政策の発展を阻害している。*5。 地方レベルの防災に関する部局がないため、防災活動が広がらない。 災害救助法（Act no 9, 1990）、国家災害管理運用ガイドライン（NOG, 2003）の見直しが必要となっている。*8 非常事態への準備・対応計画の展開が必要*8

<p>• 防災体制の確立・強化(HFA1)</p>	<p>use frame work plan of 2008) を策定し、気候変動に対応した防災力を高めることを計画している。</p> <ul style="list-style-type: none"> • 国家鳥インフルエンザ対策計画 (National Avian Influenza Strategic Plan) は首相府、各省、関係機関が流行に対応するため、知識の普及啓発を図り、防災力を高めるとしている。 <p><関連基準></p> <ul style="list-style-type: none"> • 情報なし <p>組織体制</p> <p><中央レベル></p> <ul style="list-style-type: none"> • 内閣府防災局(Disaster Management Department, the Prime Minister's Office)が防災に関する責任機関である。*24 • 中央レベルの災害準備、緊急対応、復興は、総理府の災害管理局が行う。*24 • 政策決定は、総理府官房が運営する国家災害対策委員会 (Tanzania Disaster Relief Committee, TANDREC)が行う。 • 国家災害対策委員会は、1990年に定められた災害救助法により規定されているおり、各省の次官と、早期予警報を担当するタンザニア気象庁 (Tanzania Meteorological Agency, TMA)、食糧安全保障庁 (Food Security Department)、消防庁 (Fire and Rescue Department) の長で構成され、災害管理局が行うあらゆるレベルの行動を決定する。 • 国レベルに防災委員会が設置されている。 <p><組織間調整機関></p> <ul style="list-style-type: none"> • TANDREC は関係機関の長で構成されており、これが調整機関といえる。 • 国家防災プラットフォームが 2006年に設置され、現在機能している。これまでに4回の会合を持ち、中央・地方政府、政府系・民間機関、国連機関、国際・国内開発組織、メディア、NGO、宗教団体等が参加した。*5 • 国家多分野特別委員会、防災技術専門家グループ及び防災作業部会グループがあって、首相府のコーディネートのもとで特定の災害 (例えば、鳥インフルエンザやリフトバレー熱) に対処している。 <p><地方レベル></p> <ul style="list-style-type: none"> • 州・県・区・村の各レベルに防災委員会が設置されている。*13 • ザンジバルの災害管理局(DMD)は、災害管理委員会を州、県、郡レベルに設立し、研修を行った。これらの機関は、それぞれのレベルで災害関連のすべての活動を調整する責任を有する。*5 <p>以下、新国家災害管理政策*14 内で設置がうたわれている組織について記述する。詳細は*14 参照のこと。</p> <p><中央レベル></p> <ul style="list-style-type: none"> • 提案されている防災組織構成の頂点は首相であり、その下に国家防災協議会(NADMAC: National Disaster Management Committee)が設置される。NADMAC は総理府の事務次官が議長を務め、メ 	<ul style="list-style-type: none"> • 国家防災基金 (National Disaster Relief Fund) の下で、中央レベルの防災体制はある程度できているが、地方レベルでは財源がなく、防災行政は実施されていない。 • 災害管理局から災害管理庁への組織見直しが課題である。*8 • 緊急オペレーションセンターの創設*8 • リスク管理の知識と資金供給が主な問題*5 • 州、県及びコミュニティの各レベルにおける強力な災害管理委員会がないことが、これらのレベルにおける組織の潜在能力を減じてきた。*5 • 防災プラットフォームを進める上で、高コストであることと調整機能が不十分なことが問題である。*5
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		<p>ンバーは関連省庁である。NADMAC は防災に関する調整や、防災問題の各セクター開発プランとの統合及び国家災害管理政策の実施状況の監督を行うとともに、首相に対して提言を行う。年2回の開催に加えて、早期警戒システムにより災害リスクの増大が確認された時および災害発生時にも開催する。*14</p> <ul style="list-style-type: none"> ● 防災委員会(Disaster Management Commission)は、省庁間にまたがる防災プログラムに関する調整を行う機関であり、NADMAC の事務局としてその下に設けられる。国連機関等への対応も同委員会が行う。*14 <p><地方レベル></p> <ul style="list-style-type: none"> ● 州・県・村のそれぞれに防災委員会(REDMAC/DIDMAC/VIDMAC: Regional / District / Village Disaster Management Committee)が設けられる。同委員会には行政側のみならず NGO 等も参加し、災害リスクの継続監視等を行う。特に、区/村レベルの防災委員会は最前線の防災機関となるため、人命救助や効果的な災害対応のキーとなる組織である。*14 ● 各々のセクターの下に技術委員会(TC: Technical Committee)が設けられ、サポートを行う。*14 ● 緊急時対応のため、各レベルに災害対応チーム(Disaster Response Team)が組織される。*14 	
ハード対策／土地利用規制等による抑止力の向上(HFA4)		<p><構造物対策></p> <ul style="list-style-type: none"> ● 情報なし <p><規制></p> <ul style="list-style-type: none"> ● 国家土地政策（1995）では安全な土地の供給に関する政策を策定している。 ● 村落法（The village Act No. 5 of 199）では村役所が村落土地利用計画を策定することを定めている。 ● 住居開発政策 2000 の村落開発計画の項でも、村落土地利用計画に従うように定めている。 ● 2007年に土地利用計画法 Land use planning Act No. 6 of 2007）が制定され、土地利用規制が中央から地方自治体まで、一元的に実施できるようになっている。 	<ul style="list-style-type: none"> ● 1995年の土地政策は国家レベルから、州レベル、ディストリクトレベル、村レベル、農地レベルまでをカバーするが、各レベルに適用できるかどうか未確認の部分が多い。
予警報／避難体制の整備(HFA2,3)*24		<p><予警報システム></p> <ul style="list-style-type: none"> ● タンザニアには、様々なハザードを監視するため様々な早期警戒システムがある。政府内のシステムには、タンザニア気象省（TMA）、エネルギー資源省（Ministry of Energy and Minerals）の地震課（Seismology Unit）、保健福祉省緊急対応室（Ministry of Health and Social Welfare, Emergence Preparedness and Response Unit, EPRU）、農業・食糧安全保障省の植物保護課（Plant Protection Unit）及び食糧安全保障局（Food Security Department）がある。非政府のシステムには、飢餓警報ネット（Famine Early Warning System Network, FEWS NET）がある。*24 ● 干ばつ、洪水、虫害、地震、疫病のような災害に関する情報は、メディア上の政府発表、メディアによる情報、地方コミュニティとそのリーダーとの会合を通じて、コミュニティに渡る。*5 	<ul style="list-style-type: none"> ● 災害に関するすべての情報が中央に集積するシステムがない。 ● 国家災害対策センター（National Emergency Operation Centre）は計画中であり、早期予警報に必要な情報を包括的に集積して住民に伝達する組織がない。 ● 将来起こりうる災害に対して、適切な警報システム及び対応の手はずを整えるため、国家災害対策センターを如何に立ち上げるかが課題。早

	<ul style="list-style-type: none"> • タンザニア気象省(TMA)は、干ばつ、洪水等の早期警報として天気や気候に関する情報を提供する。*5 • 農業・食糧安全保障省は、早期警戒課を通じて、降雨量、作柄、害虫、食糧安全保障に影響する他の外部条件に関する情報・データを提供する。*5 • 保健・社会福祉省 (Ministry of Health and Social Welfare) 及び畜産開発・漁業省 (Ministry of Livestock Development and Fisheries) は人間や家畜の伝染病を監視するシステムを所持している。これらの警報はメディアを通じて国民に伝達される。*5 • タンザニアの国連関連機関は緊急対応グループを構成しており、あらゆるハザードや災害に関する情報を受け次第、関係政府機関、特に首相府と連絡を取る責任がある。*5 • ザンジバルの災害管理局(DMD)は、UNDP による設備及び人材開発の支援を受けて、国中に警報を発するに当たって、すべてのセクターの中心となるべく、非常事態室(ESR: Emergency Situation Room)の設置を計画している。また、ザンジバル DMD は、災害関連情報の総合的データベースの構築も構想中である。*5 • 食糧飢饉早期警戒システムネットワーク (FEWSNET)、早期警報室、農業・食糧保障省が食糧保障に関する早期警戒システムを持っている。*24 • タンザニア気象省(TMA)が干ばつ、洪水、降雨についての早期警戒システムを持っている。*24 • 資源・エネルギー省、が地すべりについての早期警戒システムを持っている。*24 • 厚生・保健省(緊急対応室)、国家環境管理委員会 (NEMC)、家畜・畜産省が伝染病についての早期警戒システムを持っている。*24 • NEMC、副大統領室環境局が環境についての早期警戒システムを持っている。*24 <p><防災意識啓発・防災教育・防災訓練></p> <ul style="list-style-type: none"> • アメリカ疾病予防管理センター (US Centers for Disease Control and Prevention, CDC) は USAID と共に中東部アフリカで公衆衛生学校を運営し、児童生徒に伝染病予防、感染対応の教育を行っている。また、地方政府の感染対応プランの作成を援助している。 • USAID の財政的支援の下、Strengthening Tanzania Disaster Response Project (STDRP)が実行され、2002年に Disaster Management Training Centre(DMTC)が設立された。*12 • タンザニアにはこれらの能力が不足しているため、東アフリカ共同体 (East African Community, EAC)、南部アフリカ開発共同体 (South Africa Development Community, SADC)、アフリカ連合 (African Union, AU)に加盟して、支援を受けている。 • 首相府防災局は教育研究所 (Tanzania Institute of Education, TIE)、土木建築工科大 (University College 	<ul style="list-style-type: none"> • 期警戒情報を効果的に伝達・利用するために、国と地方の双方のレベルにおける公教育プログラムに重点を置く必要がある。*5 • 従来の予測メカニズムが、信頼できる情報を提供するには整備されていない。総合的な警戒システムがない。あらゆる災害に対して、タイムリーな情報伝達を効率的かつ確実に行うため、警戒システムの開発・強化が課題。*5 • 各予警報システムも、予算、人員が不足しており、十分に機能していない。 • 予警報の根拠も科学的でない場合も多く、正確さに欠けている。 • 調整及びデータ共有の手順とメカニズムの開発について改善が必要*5
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	<p>of Land and Architectural Studies, UCLUS)と共に防災に関するカリキュラムを開発し、関連職員の訓練の実施とマニュアルの作成を行っている。</p> <ul style="list-style-type: none"> • 高等教育について、タンザニアではドドマ大学(University of Dodoma)では防災についての学士号を、アーディ大学(Ardhi University)では防災の修士号を取得することができる*5。 • 他の高等教育の例として、ペリペリ大学と呼ばれるネットワークが存在する。ペリペリ大学とは the Partners Enhancing Resilience to People Exposed to Risks : Partners (パートナー) Enhancing (発揚) Resilience (回復力) People (人々) Exposed to Risks (危機にさらされた)の頭文字を取ってつけられ、災害教育、研修、研究のための国をまたいだネットワークである。複数のアフリカ諸国が参加しており、EAC加盟国ではタンザニア、ケニア、ウガンダがこのネットワークに含まれている。*24 <p><気象・通信体制></p> <ul style="list-style-type: none"> • ザンジバルでは現在、毎日、気象庁ザンジバル支局が作成した天気予報のテレビ・ラジオ放送を通じて、早期警戒システムを利用できる。*5 <p><地震></p> <ul style="list-style-type: none"> • 資料なし 	
<p>経済的な備え(HFA1)</p>	<ul style="list-style-type: none"> • 国家防災基金は首相府の下に常時準備されており、緊急時に国庫から支出される。 • 緊急あるいは長期の財政的援助は UNICEF の「子供の命を助け災害から守るプログラム」(life-saving assistance and assured protection for children in emergencies) から提供されている。このプログラムには保健衛生、子供の教育、HIV/AIDS に関する援助が含まれている。 • 防災分野の予算は、全体予算に比例して増加している。*5 	<ul style="list-style-type: none"> • 国家防災基金により国家レベルの防災能力は開発されたが、人的・物的資源の不足により、災害への第一対応者である地方政府やコミュニティの能力開発が十分でなく、効率的・効果的な災害対応能力の実現に結びついていない。国家より下位のレベルの行政やコミュニティの能力強化が依然として必要。*5 • 地方政府当局レベルの防災活動に専ら割り当てられる資金がない。*5
<p>4.応急対応(HFA5) 応急対応体制の確立 人命救助 被災者支援</p>	<ul style="list-style-type: none"> • タンザニアは国連との協同プログラムで国家の防災対策能力強化を実施している。 • このプログラムでは首相府とタンザニア赤十字が協同で救助用資機材を地方に配備しており、コミュニティレベルでの緊急対応活動ができるようになった。 • 現在 50,000 人の被災者に対応できる資機材が準備されている 	<p>【課題】</p> <ul style="list-style-type: none"> • 国家防災法では中央政府以外の緊急対応活動について定められておらず、地方での緊急対応に関する枠組みができていない。 • 早期対応態勢が十分ではなく、救援物資の事前配置やロジスティック・配布計画がない。*5
<p>5.コミュニティ防災の位置づけ</p>	<p>資料なし</p>	<ul style="list-style-type: none"> • 個々のレベルでは、市民の多くは防災問題に対する意識が低い。*5

	6.気候変動適応	<ul style="list-style-type: none"> UNDP の資金援助により、副大統領府環境部の下でタンザニア国家政策への気候変動適応の主流化 (Mainstreaming Climate Change Adaptation into National Policies in Tanzania (2010-2011)) プロジェクトが進行中である。*5 NAPA Priority Projects に挙げられているタンザニア対象のプロジェクトは*10*11 参照のこと。 										
課題への支援	7.日本の支援実績	～防災課題への直接的な支援～ ＜緊急無償資金協力＞*6										
			<table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>災害緊急援助 (洪水被害) *7</td> <td>1990</td> <td>0.20</td> </tr> <tr> <td>災害緊急援助 (洪水災害) (JICA より緊急援助物資)</td> <td>1992</td> <td></td> </tr> </tbody> </table>	プロジェクト名	実施年度	金額 (億円)	災害緊急援助 (洪水被害) *7	1990	0.20	災害緊急援助 (洪水災害) (JICA より緊急援助物資)	1992	
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	8.他ドナー、NGO、産官学団体の支援戦略と支援実績 *5	<p>＜World Bank / GFDRR＞ *6</p> <ol style="list-style-type: none"> Climate modeling and risk management Program in Africa: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda \$ 439,780 実施中 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$450,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi , Djibouti , Eritrea , Ethiopia , Rwanda , Somalia , Tanzania , Uganda , Global) \$ 100,000 Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473 <p>＜UNISDR＞*9</p> <ol style="list-style-type: none"> Strengthening National Platforms for Disaster Risk Reduction in Africa <p>＜UNDP＞*9</p> <ol style="list-style-type: none"> Disaster Risk Management in Tanzania. Strengthen capacity in DRM within the Government <p>＜WMO＞*9</p> <ol style="list-style-type: none"> Strengthen NHS's capacity to provide useful information to support integrated water resources management and flood forecasting in cooperation with SADC Severe weather forecasting demonstration project; enhanced use of outputs for Numerical Weather Prediction Systems in cooperation with SADC. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC Tropical Cyclone Advisories for the Southwest Indian Ocean Countries; Enhanced availability of guidance information for the issue of tropical cyclone warnings by NMHS's at national level Preparedness to climate variability and change, natural disaster preparedness and enhanced food security in cooperation with SADC DMC and ICPAC <p>＜ProVention Consortium＞*9</p> <ol style="list-style-type: none"> Partners for Humanitarian and Risk Education Expansion (PHREE-Way) established regional platforms to facilitate, enable and mediate the learning and research Research & Action Grants for Disaster Risk Reduction; provide financial support to young 										

		<p>researchers to undertake projects related to disaster risk reduction</p> <p>6. African Urban Risk Analysis Network (AURAN).</p> <p>< USAID ></p> <p>1. Strengthening Tanzania Disaster Response Project (STDRP)</p> <p>< AfDB ></p> <p>1. EAC Backbone & Lake Victoria Maritime *20</p> <p>< 他ドナー ></p> <p>Other strategies include the one UN Joint Programme: strengthening National Disaster preparedness and response capacity</p>	
9. 既存ネットワーク (ADRC、ISDR 等)の課題や連携・活用状況		<ul style="list-style-type: none"> タンザニア気象省(TMA)は、データの加工・共有。伝達について、南アフリカ開発協力 SADC や EAC のような広域機関と密接に連携している。*5 国家鳥インフルエンザ非常事態準備・対応戦略計画 (National Avian Influenza Emergency Preparedness and Response Strategic Plan) 及びリフトバレー熱非常事態準備・対応戦略計画 (2010/11-2012/13) は、SADC、EAC、アフリカ連合の動物資源国際事務局 (AU-IBAR: African Union Inter-Bureau for Animal Resources) のような広域機関が策定した準備計画との調和を図っている。*5 	

- 出典： *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 11 November 2011)
- *2 Wikipedia ウェブサイト (<http://en.wikipedia.org/wiki/タンザニア>) (2011)
- *3 Prevention Web: Tanzania (<http://www.preventionweb.net/english/countryies/africa/tza/>) (2009)
- *4 Prevention Web: Tanzania, United Rep of : National progress report on the implementation of the Hyogo Framework of Action 2007-2009
- *5 Prevention Web: Tanzania, United Rep of : National progress report on the implementation of the Hyogo Framework of Action 2009-2011
- *6 JICA 提供プロジェクトリスト、
JICA「防災分野プロジェクトのあり方研究 (プロジェクト研究) 報告書」(2005)、
外務省「政府開発援助 (ODA) 国別データブック 2008」ウェブサイト
(http://www.mofa.go.jp/mofai/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf)、
JICA「各プロジェクトの報告書」
- *7 GFDRR: ウェブサイト (http://gfdr.org/index.cfm?Page=activity_list&itemID=2&ctry=ET&pf=1&map=yes)
- *8 JICA アフリカ防災セミナー (2011年10月17日~27日) で提出されたカントリーレポート
- *9 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (2010) (http://www.unisdr.org/files/18926_aficadrinventoryfinal.pdf)
- *10 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
- *11 UNFCCC: TANZANIA: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/34_tanz_pp.pdf)
- *12 Disaster Management Training Centre (DMTC)
(<http://www.itc.nl/PDF/Organisation/UNU%20DGIM/item%201839/mlenge.pdf>)
- *13 Disaster Management Department (DMD)
(<http://www.tanzania.go.tz/government/disaster.htm>)
- *14 National Disaster Management Policy (Draft, タンザニア政府, 2009)
(<http://www.pmo.go.tz/documents.php?search1=2&type=Policy>)
- *15 National Land Policy 1995 (タンザニア政府)
(<http://www.tzonline.org/pdf/nationallandpolicy.pdf>)
- *16 Land Use Planning Act No.6 of 2007 (タンザニア政府)
(<http://www.tzonline.org/pdf/nationallandpolicy.pdf>)
- *17 National Land Use Framework Plan 2008-2028, Workshop Report (タンザニア政府)
(http://www.nlupc.org/images/uploads/NLUP_workshop_report_2008_2028.pdf)
- *18 Tanzania Land Policy and Genesis of Land Reform Sub - Component Of Private Sector Competitiveness (タンザニア政府)
(http://www.nlupc.org/images/uploads/Tanzania_Land_Policy.pdf)
- *19 TANZANIA 2nd Regional Dialogue, Developing Legal Capacity for Climate Adaptation in Eastern & Southern Africa
Presentation of Findings (IUCN)
(http://www.adaptationlow.org/pesa/nationallaw/Meeting Documents/Tanzania CCA Policy and Legal Study_DK+DP.ppt)
- *20 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
- *21 Wikipedia the Free Encyclopedia East Coast Fever

(http://en.wikipedia.org/wiki/East_Coast_fever)

- *22 The National Disaster Management Policy (Government of Tanzania, 2004)
- *23 The National Disaster Management Policy (Draft, Government of Tanzania, 2009)
- *24 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

ウガンダの防災情報一覧

<p>現状および課題</p>	<p>1.災害の特徴</p>	<p><干ばつ>*19</p> <ul style="list-style-type: none"> ウガンダでは2011年6-7月に乾期と猛暑の影響による猛烈な干ばつがカラモジ地方(Karamoja region)、ウガンダの北部および東部において発生している。カラモジ地方では5年おきに深刻な不作に悩まされている。サハラ砂漠が現状よりも南に拡大することでウガンダがこれまでよりも災害の影響を受けやすくなるのではないかと危惧されている。1993/1994年の干ばつによる不作は16の地域の180万人に影響を及ぼした。 <p><洪水>*19</p> <ul style="list-style-type: none"> ウガンダ北部および東部は洪水に弱いとされる。 <p><地すべり>*19</p> <ul style="list-style-type: none"> ウガンダでは地すべりは重大な被害をもたらす災害の一つである、特にエルゴン山(Mt. Elgon)地域は地すべりに対して脆弱である。2012年6月25日、地すべりが発生し、18人の犠牲者をだし、100以上の人が行方不明となった。最悪のケースは2010年に起こり、激しい降雨がもたらした地すべりで300名以上の人々が命を落とした。 <p><伝染病>*19</p> <ul style="list-style-type: none"> 成人のHIV感染率は5%を超えている。 エボラの流行はウガンダのキバーレ(Kibaale)地方で2012年の9月3日に発生している。同年9月3日時点で感染の疑いを含めて24例報告されており、そのうち17名が死亡した。 <p><害虫・害獣>*19</p> <ul style="list-style-type: none"> 害虫・害獣による被害として、ウガンダではキャッサバモザイク病ウイルスが1997年に流行し、深刻な被害をもたらした。 <p><紛争>*19</p> <ul style="list-style-type: none"> ウガンダでは1979年イディ・アミン政権を失脚に導いた争いが大きな争いとしてあげられる。1980-1986にはウガンダ中央部で、1986-2007には北部および東部で紛争が発生した。他の形態の争いではカラモジヤ(Karamoja)地方での畜牛盗難が例としてあげられる。 <p><家畜の伝染性疾病>*19</p> <ul style="list-style-type: none"> 東海岸熱はアフリカにおいては最も注意すべき家畜の伝染性疾病とも言われており、1992年時点ではこの病気がもとで年間110万頭の畜牛が死亡し、それにより1億6,800万ドルの損失が出ている。この伝染病はウガンダにおいても発生している。*16 <p><環境破壊>*19</p> <ul style="list-style-type: none"> 環境破壊として、ウガンダでは乾燥、過剰耕作、レンガ造り、酪農などにより湿地の破壊が起こっている。生育地の破壊や動物相・植物相の減少による蚕食も起こっている。ビクトリア湖の水深深くではナイルパーチという魚の出現により植物プランクトンが減少し、貧酸素化している。ウガンダにおいても人間が持ち込んだ外来種であるホテイアオイが原因で漁業に悪影響をもたらしている。 <p><全体></p> <ul style="list-style-type: none"> ウガンダで1901年から2011年までの111年間に発生し、大きな被害をもたらした自然災害は、洪水、干ばつ、伝染病、地震、土砂災害である。*1 表1にこの111年間に発生した大災害をまとめる。ウガンダで1980年から2010年までの31年間に発生した自然災害数とその種類、死者数、被害者数を表2と図1に示す。 <p style="text-align: center;">表1 過去111年間(1901年～2011年)における大きな自然災害*1</p>
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発生年	災害の種類	死者数	影響人数	被害総額 (x1000)
1901	伝染病	200,000	-	-
1935	伝染病	2,000	-	\$ 50
1966	地震	104	5,510	1,500
1967	干ばつ	-	25,000	\$ 200
1979	干ばつ	-	500,000	-
1987	干ばつ	-	600,000	-
1989	干ばつ	156	961	-
1990	伝染病	197	1170	-
1991	伝染病	100	-	-
1994	地震	7	50,000	70,000
1997	洪水	100	153,500	1,000
1998	干ばつ	-	126,000	1,600
1999	干ばつ	115	700,000	-
2000	伝染病	224	423	-
2002	干ばつ	79	655,000	-
2005	干ばつ	-	600,000	-
2007	洪水	29	718,045	\$ 71
2008	干ばつ	-	1,100,000	-
2010	地すべり	388	12,795	-
2011	干ばつ	-	669,000-	-

表 2 1980年～2010年の自然災害発生数と死者、被災者数*9

自然災害数	61
死者数	2,280
年平均死者数	74
被災者数	4,938,644
年平均被災者数	159,311

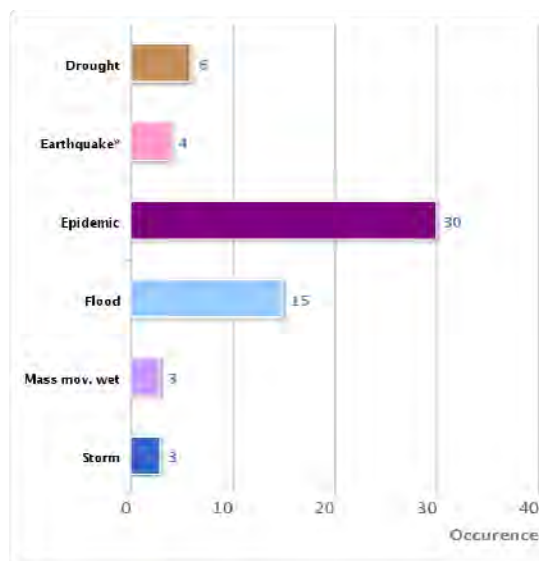


図 1 自然災害種別ごとの発生数*9

2.行政区分

ウガンダには2010年7月以降、行政区ではない以下の4つの地方に111の県が置かれている。*2

1. 中央地域
2. 東部地域
3. 北部地域
4. 西部地域

3. 災害予防(被害抑止/軽減)

【現状】

【課題】

- 災害リスクの把握 (HFA2)

- 湿地帯、環境、森林、地震、土砂災害、干ばつ、洪水に関するハザードマップが作成されている。地震ハザードマップは1994年、湿地1997-2000年、

	<p>環境 1999 年、森林 1999-2001 年、土砂災害 2002 年にそれぞれ作成され、干ばつ/洪水は作成中である*3。しかしながら、上記ハザードマップについて定期的なアップデートはされていない。地すべりハザードマップについて、マウント・エルゴン地方(Mount Elgon region)については現在アップデートされている。*19</p> <ul style="list-style-type: none"> ● 国家防災管理政策(National Policy for Disaster Preparedness and Management)によると災害プロファイル及びマップは 3 年ごとに更新される予定である。*10 ● ウガンダでは、リスクアセスメントはセクター別に行われている。農業省(Ministry of agriculture)では食糧保障や農業に関するリスクアセスメントが行われており、水環境省(Ministry of Water and Environment)では干ばつおよび洪水分野、地すべり省(Ministry of lands landslides)では地すべり分野、エネルギー資源開発省(Ministry of energy and Mineral Development)では地震波、厚生省(ministry of Health Disease and Epidemics)は病気と伝染病など、それぞれの分野における報告書を国家防災プラットフォームに行動案を添付して報告する。*19 	
<ul style="list-style-type: none"> ● 災害リスクの地域・コミュニティとの共有(HFA2) 	資料なし	
<ul style="list-style-type: none"> ● 法整備/政策方針/計画策定(HFA1) 	<p>法整備：</p> <ul style="list-style-type: none"> ● 国家防災管理政策(National Policy for Disaster Preparedness and Management)*17: 2010 年に考案され、2011 年 5 月に承認された*18 ● 「国家防災政策及び組織」が 1999 年に議会で承認され、2003 年に改訂された。*5 ● 上記政策に関連して、防災法(National Disaster Preparedness and Management Act)の制定が発議されている。*10 ● 同様に、防災基金法(National Disaster Preparedness and Management Fund Bill)の制定が発議されている。 ● 水に関する国家政策(National Water policy) ● 都市一地域計画法(1960 年代)*5 ● 環境法 153 条*5 ● 公衆衛生法*5 ● 水法(2003 年)*5 ● 森林法(2003 年)*5 ● 国家薬物機関法*5 	
<ul style="list-style-type: none"> ● 防災体制の確立・強化(HFA1) 	<p>組織体制</p> <p><中央レベル></p> <ul style="list-style-type: none"> ● 内閣府防災救済難民局 (The Directorate for Relief, Disaster Preparedness and Refuges in Prime Minister's Office) が防災に関する責任機関である。*19 ● 上記の防災に関する国家政策*10 には、各種災害に対する対応指針や、大統領を頂点とした組織図及び各災害に対する責任官庁が明記されている。代表的な災害の主責任官庁は以下の通り。 干ばつ及び洪水:水環境省(Ministry of Water and Environment) 	

地すべり・土砂崩れ・環境破壊:環境管理局(NEMA: National Environment Management Authority)

人の伝染病:厚生省(Ministry of Health)

地震:エネルギー資源開発省(Ministry of Energy and Mineral Development)

- 防災に関する国家政策*10 内に設置が定められている機関の概略を以下に挙げる。詳細は*10 参照のこと。
- 憲法 110 条により、大統領は災害発生時には非常事態宣言を発令することができる。*10
- 内閣は、政策作成機関の長であると共に、大統領に災害に関する助言を行う。*10
- 国家防災委員会 (NDPMC: National Disaster Preparedness and Management Commission)は、憲法 249 条に規定された委員会で、他機関の防災活動に関する各種提言、監視等を行う。委員会は 5 名で構成され、防災難民大臣(Minister of Relief, Disaster Preparedness and Refugees)が高い専門性を持った市民の中から指名する。*10
- 常設の委員会であり、内閣の下に設けられる政府政策委員会(MPC: Ministerial Policy Committee)は、災害に関する省庁間にまたがった問題を処理する。委員会は、防災救援難民大臣が議長を務め、政策作成等を行う。*10
- 防災マネジメントに関する国家プラットフォーム: 機関間技術委員会(National Platform for Disaster Management, IATC: Inter-Agency technical committee)は、各省庁と国連機関等を参加者とする委員会で、総理府(OPM: Office of the Prime Minister)事務次官が議長である。災害リスク、災害傾向等の監視・解析などを業務とする。*10
- 国緊急連携運営センター (NECOC: National Emergency Coordination and Operation Centre)は、大きな地すべりや洪水等の緊急事態に対処するための組織である。NECOC の職責は、消防・警察・病院等各機関の効果的な連携推進とネットワーク化である。NECOC は総理府防災救援難民局の下に設置される。*10
- ウガンダでは国家災害管理委員会、区災害管理委員会、準地域・区・村災害管理委員会が存在している。*18
- ウガンダではセクター別の能力強化が厚生、水、環境、エネルギーと鉱山の分野で図られているほか、国家防災技術職員能力強化研修が政府間開発機構 (Intergovernmental Authority on Development: IGAD)、国連交際防災戦略 (United Nations International Strategy for Disaster Reduction: UNISDR)、国連研修・研究運営サテライトプログラム (the United Nations Institute for Training and Research Operational Satellite Applications Programme: UNOSAT)、United States African Command (US AFRICOM)の協力によって行われている。
- また、防災局によって能力強化研修が定期的に行われている。

<地方レベル>

	<ul style="list-style-type: none"> ● 県及び市レベルに、県または市防災政策委員会 (DDPC/CDPC: District / City Disaster Policy Committee) 及び技術委員会 (DDMTC/CDMTC: District / City Disaster Management Technical Committee)が設置される。政策委員会の業務は、政策意思の技術委員会への伝達や地方議会への報告、NDPMC 等との連絡などであり、議長は県議長や市長である。技術委員会はリスクマッピングや災害レポートの作成等を行い、各関係行政職員や NGO によって構成される。*10 ● 上記と同様の政策委員会及び技術委員会が町レベル(Municipal/Town)にも設置される。*10 ● さらに下のレベルには亜郡または村防災委員会 (SDMC/VDMC: Sub-County / Village Disaster Management Committee)が設置される。*10 ● 県緊急連携運営センター (DECOC: District Emergency Coordination and Operations Centre)は、県警察本部長がトップを務める組織で、県警察署に設置される。24 時間体制で県内の災害及び緊急事態に関する報告を受信、解析し、関係機関との連携をはかる。その他の業務としては、救急災害対策チームを組織し連携をはかることや、早期警戒情報のコミュニティや下部自治体への伝搬などがある。*10 	
<p>ハード対策／土地利用規制等による抑止力の向上(HFA4)</p>	<p><構造物対策></p> <ul style="list-style-type: none"> ● ウガンダの湿地は米作のために排水されている。湿地の縮小は、一部雨季の洪水の増加や、乾季の水不足の原因となっている。洪水と干ばつの危険の特定のためのプログラムは、陸稲の生産に適応するための米生産者の奨励による湿地の再生を含んでいる。*3 ● 国家では国所有農業地を建設中である。 	
<p>予警報／避難体制の整備(HFA2,3)</p>	<p><防災意識啓発・防災教育・防災訓練></p> <ul style="list-style-type: none"> ● 教育プログラムは、気候変動、環境汚染、干ばつ及び洪水のような災害を包括している。これらのプログラムは、災害に対処する方針の見直しを含んでいない。*3 ● 土砂災害、洪水、侵食等の原因となる環境悪化の管理のような、いくつかの災害分野については、学校で教えられている。段々畑はこれらの教育プログラムの結果として、ウガンダの丘陵地帯で実施されている。*3 ● ウガンダでは啓蒙活動は日常的に研修や教育、ワークショップ、行政機関を通して行われており、メディアも啓蒙活動に加わっている。*19 ● 地すべり危険地帯 (Mt. Elgon region) および洪水危険地帯 (Teso sub-region) の住民に対するハザードリスク管理ワークショップが行われた。*19 <p><気象・通信体制></p> <ul style="list-style-type: none"> ● 干ばつ、洪水、土砂災害、伝染病、特にコレラ、髄膜炎、エボラ出血熱のような危険については、早期警戒システムは開発されている。主たる機関は、「災害準備及び避難者省」、農業省、厚生省、水、国土及び環境省、地方自治体である。*3 ● 食糧飢饉早期警戒システムネットワーク (FEWSNET)/海外農業局 (FAS)、農業・家畜・水産 	

	<p>省、食糧・農業関連機関が食糧保障に関しての早期警報システムを持っている。*19</p> <p><干ばつ></p> <ul style="list-style-type: none"> 技術協力・開発機関 (ACTED)、気象庁、水・環境省、農業・家畜・水産省が早期警報システムを持っている。*19 <p><洪水></p> <ul style="list-style-type: none"> 気象庁、水・環境省が早期警報システムを持っている。*19 <p><降雨></p> <ul style="list-style-type: none"> 水省、気象庁が早期警報システムを持っている。*19 <p><地すべり></p> <ul style="list-style-type: none"> 環境管理局(NEMA)、建設・都市開発省、水・環境省、土地管理・都市計画省が早期警報システムを持っている。*19 <p><伝染病></p> <ul style="list-style-type: none"> 保健省、農業・家畜・水産省、世界保健機関(WHO)が早期警報システムを持っている。*19 <p><環境></p> <ul style="list-style-type: none"> NEMA が早期警報システムを持っている。*19 								
経済的な備え(HFA1)	<ul style="list-style-type: none"> 北東ウガンダのような、災害が発生しやすい地域では、政府はコミュニティの復旧活動を支援するマイクロファイナンスクレジットのスキームを創設した。*3 新防災に関する国家政策*10 の中で、年間予算の1.5%を防災に充てるよう定める防災財源法案(National Disaster Preparedness and Management Fund Bill)の提出が明記されている。 								
4.応急対応(HFA5) 応急対応体制の確立 人命救助 被災者支援	<p>【現状】</p> <ul style="list-style-type: none"> 56 の災害危険地域のうち 30 地域については、緊急計画が準備されている。この計画は、リスクと、影響を及ぼす可能性のある災害を示している。また、災害対応の準備のできた対策についても示している。*3 防災体制の項参照のこと。*10 ウガンダの場合、内閣府にある国家緊急調整・運営センター(National Emergency Coordination and Operations Centre: NECOC)が政府系の緊急対応機関の調整やネットワーキングを担っている。しかし NECOC はまだ完全に活動しているわけではない。60 の区においては区緊急調整・運営センターが存在する*17。 	【課題】							
5.コミュニティ防災の位置づけ	資料なし								
6.気候変動適応	<ul style="list-style-type: none"> NAPA Priority Projects に挙げられているウガンダ対象のプロジェクトは*12 参照のこと。 								
課題へ	7.日本の支援実績	<p>～防災課題への直接的な支援～</p> <p><準備調査>*4</p> <table border="1"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>気象サービス強化プログラム準備調査(JICA)</td> <td>2011</td> <td>2011</td> </tr> </tbody> </table>		プロジェクト名	開始年度	終了年度	気象サービス強化プログラム準備調査(JICA)	2011	2011
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8.他ドナー、NGO、産官学団体の支援戦略と支援実績	<p>< World Bank / GFDRR > *8</p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 Uganda: Capacity Building in Damage and Loss Assessment (Uganda) \$ 28,617 Uganda: Round-2 Capacity Building in Damage and Loss Assessment (Uganda) \$72,000 <p>< UNDP ></p> <ol style="list-style-type: none"> Northern Uganda Drought Support*11 <p>< ProVention Consortium ></p> <ol style="list-style-type: none"> Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction*11 <p>< WMO ></p> <ol style="list-style-type: none"> Climate observations and regional modeling in support of climate risk management*13 Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC*11 <p>< AfDB ></p> <ol style="list-style-type: none"> EAC Backbone & Lake Victoria Maritime *15 											
9.既存ネットワーク(ADRC、ISDR等)の課題や連携・活用状況												

出典： *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 22 July 2011)

*2 Wikipedia ウェブサイト (<http://en.wikipedia.org/wiki/ウガンダ>) (2010)

*3 Uganda National Report and Information on Disaster Risk Reduction Efforts for the World Conference on Disaster Reduction, Kobe-Hyogo, Japan 18-22 January, 2005

*4 JICA 提供プロジェクトリスト、
JICA「防災分野プロジェクトのあり方研究(プロジェクト研究)報告書」(2005)、
外務省「政府開発援助(O DA)国別データブック2008」ウェブサイト
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf)、
JICA「各プロジェクトの報告書」

*5 Country Report, 2011

- *6 外務省 HP ODA 国別プロジェクト概要 ウガンダ
(http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/uganda/contents_01.html)
- *7 外務省 HP 援助政策全般 ウガンダ
(<http://www.mofa.go.jp/mofaj/gaiko/oda/seisaku/pdfs/uganda.pdf>)
- *8 GFDRR: ウェブサイト (http://gfdr.org/index.cfm?Page=activity_list&itemID=2&ctry=ET&pf=1&map=yes)
- *9 Prevention Web: Uganda(<http://www.preventionweb.net/english/countries/africa/uga/>) (2012)
- *10 ウガンダ政府: National policy for disaster preparedness and management
(<http://www.preventionweb.net/english/policies/v.php?id=21032&cid=180>)(2010)
- *11 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (2010) (http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
- *12 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
- *13 ウガンダ政府: Uganda Humanitarian Profile -2012
(http://reliefweb.int/sites/reliefweb.int/files/resources/uganda_humanitarian_profile_2012.pdf)
- *14 Ministry of Local Government, Government of Uganda HP “List of Local Government Districts”
(<http://www.molg.go.ug/local-governments>)
- *15 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
- *16 Wikipedia the Free Encyclopedia East Coast Fever
(http://en.wikipedia.org/wiki/East_Coast_fever)
- *17 National policy for disaster preparedness and management (Government of Uganda, 2010)
(<http://www.preventionweb.net/english/policies/v.php?id=21032&cid=180>)
- *18 Government of Uganda: Uganda Humanitarian Profile -2012
(http://reliefweb.int/sites/reliefweb.int/files/resources/uganda_humanitarian_profile_2012.pdf)
- *19 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

Disaster Risk Reduction (DRR) Information in Burundi

The Current Situation and Issue	1. Characteristics of disasters	<p><Drought>*17</p> <ul style="list-style-type: none"> In Burundi, drought is a hazard that Burundi has faced since 1998. Especially, in the northern part, the situation has worsened from 2000. Drought reached the threshold of national disaster level based on the number of deaths and refugees of famine. And people went into exile in Rwanda and Tanzania due to starvation. <p><Flood>*17</p> <ul style="list-style-type: none"> In Burundi, flood is ranked third in the inventory of hazards and disasters. The largest one occurred around Lake Tanganyika from 1961 to 1964. The water level of Lake Tanganyika rose 4 meters to 777.6 meters in May – June 1964. Bujumbura and other municipalities around Lake Tanganyika, the port of Bujumbura, and roads around Lake Tanganyika were flooded. This flood severely disturbed the economic activities around Lake Tanganyika. In 1983 and 1986, Bujumbura experienced a severe flood. The flood caused huge economic losses and the losses were estimated over 1 billion Burundian francs. The damage by the flood in 1983 was destruction of houses, deterioration of machinery and equipment in industrial areas, destruction of stocks of companies, and the port of Bujumbura. <p><Landslides>*17</p> <ul style="list-style-type: none"> In Burundi, landslides fall into the background of natural hazards and disasters in recent decades, and socio-economic impacts have been increasing. In 1996, Bujumbura was almost cut off from the rest of the country because landslides blocked the National Highways 1, 4 and 7. The landslide that occurred along National Highway 7 damaged 2 vehicles and killed a passenger. <p><Epidemics>*17</p> <ul style="list-style-type: none"> In Burundi, evolution of malaria has always been progressive from 800,000 cases in 1993 to 3,000,000 in 2000 with recurring epidemics even today. The cost of medicines and mosquito nets significantly affect household incomes. Adult HIV prevalence exceeds 5% in Burundi In August 2011, cholera killed 12 people in an outbreak in western Burundi, where more than 600 people are infected. <p><Earthquake>*17</p> <ul style="list-style-type: none"> In Burundi, the country is indeed on the line of the western Great Rift Valley. And there is a clear correlation between centers of earthquakes and the layout of the Rift Valley particularly in the area of Bujumbura. The earthquake of 22 September 1960 caused extensive damage. It was preceded by many premonitory quakes and its epicenter was near Bujumbura. <p><Urban fire>*17</p> <ul style="list-style-type: none"> In Burundi, markets Ngozi and Gitega, the capital cities of the provinces, were totally devastated by fires can be talked as examples. No vehicle was remained at the end of the fires in the entire province. This explains how urban fire is a major risk. In Bujumbura city, urban fires of electrical origin are increasing. <p><Comprehensive></p> <ul style="list-style-type: none"> Major natural disasters in Burundi from 1978 to 2012 were epidemics, droughts, earthquakes, floods and storms (Table 1).*1 Numbers of natural disaster occurrences, killed and affected peoples in Burundi from 1980 to 2010 are shown in Table 2. Occurrence numbers of each kind of disaster are also shown Figure 1. *3 <p style="text-align: center;">Table 1 Major natural disasters from 1978 to 2012 (35years)*1</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Year</th> <th>Disaster</th> <th>Total Killed</th> <th>Total Affected</th> <th>Total amount of loss (x1000)</th> </tr> </thead> <tbody> <tr> <td>1978</td> <td>Epidemic</td> <td>54</td> <td>1530</td> <td>-</td> </tr> <tr> <td>1989</td> <td>Flood</td> <td>12</td> <td>3,600</td> <td>-</td> </tr> <tr> <td>1992</td> <td>Epidemic</td> <td>220</td> <td>2,068</td> <td>-</td> </tr> <tr> <td>1997</td> <td>Epidemic</td> <td>21</td> <td>23,889</td> <td>-</td> </tr> <tr> <td>1999</td> <td>Epidemic</td> <td>51</td> <td>616,034</td> <td>-</td> </tr> <tr> <td>1999</td> <td>Storm</td> <td>-</td> <td>30,810</td> <td>-</td> </tr> <tr> <td>1999</td> <td>Drought</td> <td>6</td> <td>650,000</td> <td>-</td> </tr> <tr> <td>1999</td> <td>Epidemic</td> <td>29</td> <td>400</td> <td>-</td> </tr> <tr> <td>2000</td> <td>Epidemic</td> <td>308</td> <td>722,591</td> <td>-</td> </tr> <tr> <td>2002</td> <td>Epidemic</td> <td>13</td> <td>781</td> <td>-</td> </tr> </tbody> </table>	Year	Disaster	Total Killed	Total Affected	Total amount of loss (x1000)	1978	Epidemic	54	1530	-	1989	Flood	12	3,600	-	1992	Epidemic	220	2,068	-	1997	Epidemic	21	23,889	-	1999	Epidemic	51	616,034	-	1999	Storm	-	30,810	-	1999	Drought	6	650,000	-	1999	Epidemic	29	400	-	2000	Epidemic	308	722,591	-	2002	Epidemic	13	781	-
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2004	Storm	-	15,000	-
2004	Earthquake	3	120	-
2005	Drought	120	2,150,000	-
2007	Flood	4	23,000	-
2008	Drought	-	82,500	-
2009	Drought	-	180,000	-

Table 2 Numbers of natural disaster occurrences, killed and affected peoples in Burundi from 1980 to 2010. *3

Natural Disaster	42
Killed	908
Mean Annual Killed	29
Affected	4,568,742
Mean Annual Affected	147,379

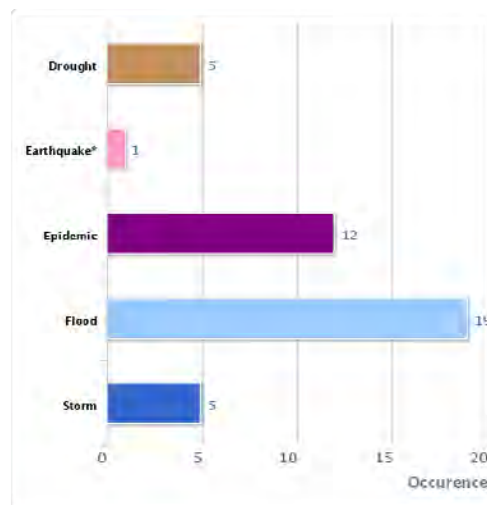


Figure 1 Occurrence numbers of each kind of disasters in Burundi from 1980 to 2010. *3

2. Administrative Structure

There are 17 provinces (intara) in Burundi. *2

1. Bubanza Province
2. Bujumbura Marine Province
3. Bujumbura Rural Province
4. Bururi Province
5. Cankuzo Province
6. Cibitoke Province
7. Gitega Province
8. Karuzi Province
9. Kayanza Province
10. Kirundo Province
11. Makamba Province
12. Muramvya Province
13. Muyinga Province
14. Mwaro Province
15. Ngozi Province
16. Rutana Province
17. Ruyigi Province

There are 117 communes under the provinces.

3. Disaster Prevention (preventing damage/damage mitigation)

【Current Situation】

【Issue】

Understanding disaster risk (HFA2) *4

- Summary assessment of vulnerability and risk in some provinces with Contingency Plans (action

- Burundi needs to update its risk mapping to better

	<p>continue)*4</p> <ul style="list-style-type: none"> In Burundi, multi-hazard risk assessment was conducted, and 10% of schools and hospitals have been assessed. On the other hand, national standards for casualty assessment have not yet established. In Burundi, maps are available for drought, floods and earthquakes. 	<p>evaluate *4</p> <ul style="list-style-type: none"> National standards for disaster assessment have not yet established. *4 Lack of DRR legislation allowing training in all sectors for risk assessment throughout. *4 Lack of expertise for thorough assessment can identify statistical. *4
<p>Sharing disaster risk with region and community (HFA2) *4</p>	<ul style="list-style-type: none"> Awareness workshops on DRR are regularly organized from the national to the community through the Provincial level. *4 Workshops for establishment of Provincial Platforms are organized. *4 Initiatives to establish regional cooperation through the Centre d'Excellence Régionale (Regional Excellency Centre) have been put in place.*10 	
<p>Legislation/policy principle/plan development (HFA1) *4</p>	<p>Legislation :</p> <ul style="list-style-type: none"> National Policy for Risk Prevention and Disaster Management: Policy formulated and approved by Cabinet 2008 but not approved by Parliament.*17 National Strategy for Disaster Risk Prevention and Disaster Management and Action Plan: Stratégie Nationale de prévention des Risques et de Gestion des Catastrophes et un Plan d'Action exists.*16 <p>-A law on the National Policy on Risk Prevention and Disaster Management (Not Adopted yet) -A law on the creation of Risk Prevention Plans and to expropriation for major risks (Not Adopted yet) -A law on the Organization of Relief (Not Adopted yet) -A law on Compensation to insured property due to disasters (Not Adopted yet)</p>	<ul style="list-style-type: none"> The National Strategy for DRR not implemented in all details. *10
<p>Establishment and reinforcement of disaster reduction system (HFA1) *3*4</p>	<p>System of Organization <Central level></p> <ul style="list-style-type: none"> The directorate of civil protection in the Ministry of Public Security is responsible for disaster management.*17 Commission Interministerielle de Gestion de Risques et Des Catastrophes is the supreme authority for disaster management*16 National Platform set up since 2007 by a presidential decree.*4 Provincial Platform implemented since 2009 by Ministerial Orders *4 (Ministerial orders concerning Internal Rules of National and Provincial Platforms: Ordonnances Ministérielles portant Règlement d'Ordre Intérieur des Plates Formes Nationale et Provinciales) *4 Communal Platform will be implemented before the end of 2010.*4 National Platform has a main role for disaster risk reduction.*16 Geographic Institute of Burundi (IGEBU: Institut Géographique du Burundi) observes climate information. However, risk identification is not advanced. Information is received via “ IGAD Climate Prediction and Application Center” (ICPAC). *7 *10 There is the Ministry of Agriculture (Ministère de 	<ul style="list-style-type: none"> Lack of mechanisms for integration of DRR in CCA-sector projects and programs of development. Communication channels not available at all levels, government can make more use of key stakeholders. *10

		<p>l'Agriculture et de l'Élevage) early warning system and monitoring of food security developed by FAO in collaboration with agencies of the United Nations system. It publishes a monthly newsletter that aims to prevent severe food crises and to relate the assessment of food security. *7</p> <ul style="list-style-type: none"> • The Ministry of Agriculture and Livestock has already put in place the means to fight against erosion at the national level. *7 • Ministry of Public Works and Equipment (Ministère des Travaux Publics et de l'Équipement) has already studied management of rivers and ravines in the city of Bujumbura. *7 • Ministry of Water, Environment, Spatial Planning and Urban Development (Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme), which coordinates watershed management (rational use of land, mitigating efforts of drought), is involved in disaster management by protecting the natural environment. *7 • In Burundi, a National Committee, provincial and communal committees are in place to follow-up disaster management.*17 • Land use plan is managed by Ministry responsible for Land and Urban planning. Human settlement in flood prone area or area with questionable stability is hard to control from DRR National Platform because they have no mandate to interfere with Land acquisition. A master plan for land management is under preparation *17 	
	<p>Improvement on prevention by structural measurement/land-use control (HFA4) *4</p>	<p>< Structural measurement ></p> <ul style="list-style-type: none"> • Slope stabilization in landslide prone areas*4 • The Government is making efforts in stabilizing the banks of rivers flowing through the capital and the tracing of the beds of these rivers. *4 <p>< Regulation ></p> <ul style="list-style-type: none"> • Diagrams of land use planning are in place *4 	<ul style="list-style-type: none"> • Lack of funds*4 • Office of Civil Protection has not yet been allowed to issue certificates of construction, thus denying the buildings in areas at risk and construction standards monitoring are required.*4
	<p>Development on warning system/evacuation system (HFA2,3) *3*4</p>	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> • Cooperation between UNICEF and Ministry of Education to integrate DRR into education is planned. *10 • The Government with UNDP and members of the national Platform are organizing workshops and field trips for information and sensitization campaigns. *10 <p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> • Seasonal weather information from IGEBU is made by a radio announcement. *7 • Meteorology Department and Ministry of Water, Environment, Land Management, Urban Planning have early warning system*17 • Early warning systems exist in some sectors such as Health and Environment and are effectively operated. *4 • The perspectives of future are to establish the organs that the System of Information and Communication validated by the National Platform of Risk Prevention and Management of the Disasters recommends (Système d'Information et de Communication validé 	<ul style="list-style-type: none"> • Lack of political will to integrate DRR into the education system. *10 • The weather information shows gaps because no details of the onset, duration, intensity and distribution in time and space of rainfall.*7 • Centralized early warning system in relation to DRR is absent.*4 • National Centre of Information and Communication (Le Centre National d'Information et de Communication) has not been established yet. *4 <p>**As of 2011</p>

	<p>par la Plate Forme Nationale de Prévention des Risques et de Gestion des Catastrophes) *4 **As of 2011</p> <ul style="list-style-type: none"> • Research is carried out by specialized institutes: University of Burundi, Institute of the Agronomic Sciences of Burundi (ISABU:Institut des Sciences Agronomiques du Burundi, Ministère de l'Agriculture et de l'Élevage), IGEBU and Institute of Statistics and Economic Studies of Burundi, Ministry of Planning and Reconstruction (ISTEEBU:Institut de Statistiques et d'Etudes Economiques du Burundi, Ministère du Plan et de la Reconstruction), and System of Information and Communication has been developed. This system proposes the establishment of a National Centre of Information and Communication (Le Centre National d'Information et de Communication). *4 • Website for DRR information and communication has not been established yet, although the promoter team of the site has been formed. *4 **As of 2011 <p>< Food Security ></p> <ul style="list-style-type: none"> • Ministry of Water, Environment, Land Management, Urban Planning, Agriculture and Livestock (the UN) have early warning systems*17 <p>< Landslides ></p> <ul style="list-style-type: none"> • Ministry of Water, Environment, Land Management and Urban Planning, Mines and Geological Department have early warning systems*17 <p>< Epidemic ></p> <ul style="list-style-type: none"> • National Institute for Nature Conservation and the Environment (INECN) and Ministry of Health have early warning systems*17 <p>< Environment ></p> <ul style="list-style-type: none"> • INECN has an early warning system*17 	
Economical preparation (HFA1)	<ul style="list-style-type: none"> • Special Fund PRGC is proposed. *16 	<ul style="list-style-type: none"> • Lack of own financial resources to DRR. *4 • No insurance fund for emergencies. *4
4. Emergency Correspondence (HFA5)	<ul style="list-style-type: none"> • Information and Communication Systems have been developed and validated. *4 • Common form of Rapid Assessment Post-disaster exists. *4 • National Emergency Operation Centre (Un Centre National d'Opérations d'Urgences) is planned. *4 	
Establishment of emergency correspondence system		
Lifesaving		
Support sufferers		
5. Community-based disaster risk reduction		
6. Climate change adaptation (HFA4)	<ul style="list-style-type: none"> • CCA projects and programs began as a part of the implementation of the UN Framework Convention on Climate Change, UN Convention on Biological Diversity and UN Convention to Combat Desertification. *4 • Integration of environment into national strategies: Strategic Framework for the Fight against Poverty, Strategic Framework for Peace building, Burundi 2025 (Cadre Stratégique de Lutte contre la Pauvreté, Cadre Stratégique pour la Consolidation de la Paix, Burundi Horizon 2025) is initiated. *4 • Please refer to *12*13 about NAPA Priority Projects. 	

Aid to Issue	7. Record of Japanese aid	< Grant Aid >							
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Projects	Year	Amount (10 ⁸ yen)							
Emergency disaster aid (drought) (via UNICEF) *8	1984	2.50							
	8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank / GFDRR > *6</p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$ 450,000 Asia Leadership Development in Disaster Risk Management (Bangladesh , Bhutan , Burundi , Cambodia , Egypt, Arab Republic of , India , Indonesia , Kiribati , Korea, Democratic People's Republic of , Vanuatu , Vietnam) \$ 257,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi , Djibouti , Eritrea , Ethiopia , Rwanda , Somalia , Tanzania , Uganda , Global) \$ 100,000 <p>< UNOCHA > *10</p> <ol style="list-style-type: none"> Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC <p>< UNISDR > *10</p> <ol style="list-style-type: none"> Strengthening National Platforms for DRR in Africa <p>< UNDP > *10</p> <ol style="list-style-type: none"> Reinforcement of national capacities on prevention and risk management <p>< WMO > *10</p> <ol style="list-style-type: none"> Climate observations and regional modeling in support of climate risk management and Sustainable Development *11 Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <p>< AfDB ></p> <ol style="list-style-type: none"> EAC Backbone & Lake Victoria Maritime*15 							
	9. Issue and collaboration use of existing network (ADRC, ISDR and so on)								

- Sources : *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 18 January 2010)
- *2 Wikipedia HP (<http://en.wikipedia.org/wiki/Burundi>) (2012)
- *3 Prevention Web: Burundi (<http://www.preventionweb.net/english/countries/africa/bdi/>) (2012)
- *4 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2009-2011
- *5 Project list provided by JICA
JICA 「Report: research for disaster prevention sector project」 (2005) 、
Ministry of Foreign Affairs of Japan HP 「ODA data book 2008」
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/05-36.pdf)
Related JICA reports
- *6 GFDRR: Project Portfolio (http://gfdrr.org/index.cfm?Page=activity_list&itemID=13)
- *7 Burundi: National Report in preparation for WCDR (2004): Plan général de Soumission d'information et de rapports nationaux sur la Prévention des catastrophes
(http://www.preventionweb.net/files/885_Burundi-report.pdf)
- *8 Ministry of Foreign Affairs of Japan HP Past records of ODA Project for Rwanda before 1990
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/jisseki/kuni/j_90sbefore/905-35.htm)
- *9 Ministry of Foreign Affairs of Japan HP Outline of ODA Project for Rwanda

- (http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/brundi/contents_01.html)
- *10 UNISDR: Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa
(http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
 - *11 WCRP: Climate observations and regional modeling in support of climate risk management and Sustainable Development
(http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
 - *12 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
 - *13 UNFCCC: BURUNDI: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/05_burun_pp.pdf)
 - *14 COMPLETE VISION BURUNDI 2025
(http://unfccc.int/files/adaptation/napas/application/pdf/05_burun_pp.pdf)
 - *15 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
 - *16 Government of Burundi: National Strategy for Disaster Risk Prevention and Disaster Management and National Action Plan 2012-2015
 - *17 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

Disaster Risk Reduction (DRR) Information in Kenya

The Current Situation and Issue	1. Characteristics of disasters	<p><Flood> The floods of 1997/1998 in Kenya associated with El Niño caused widespread damage across the country.*21 Furthermore, the 1997/1998 floods seriously damaged the water infrastructure and transport networks. Related to the floods, rift valley fever came after the floods.*22 The total costs arising from the 1997/1998 floods have been estimated at Ksh 70 billion (~USD 1.0 billion) by the World Bank.*25</p> <p><Lighting>*25</p> <ul style="list-style-type: none"> • In Kenya, in the beginning of July, 2011, eight (8) members of one family died after lightning struck their grass-thatched house in the Rift Valley Province. In the end of June, 2012, three students were killed on a street, and in the beginning of July, a man and two women were killed while walking barefoot on a road and several people got injured. In Tanzania, in the beginning of June, 2012, six (6) family members were killed by lightning in their house. A heavy downpour started in the night accompanied by strong winds. An ensuing lightning struck the grass-thatched house in which six people were taking shelter. In Rwanda, at the end of September 2011, heavy rain fell and a flood occurred. The flood destroyed 12 houses and 27 houses were submerged. At the same time, with the heavy downpour, lightning struck one student and killed him and 16 people were critically injured. In Burundi, in the middle of February 2011, 12 students and a teacher were killed and others were seriously injured by lightning. And in October 2010, one priest and three of his church members were killed in a church during Mass. Moreover, a few days later, 3 people died following another lightning incident which destroyed at least 37 houses. <p><Epidemics>*25</p> <ul style="list-style-type: none"> • Adult HIV prevalence exceeds 5% in Kenya. • Since 1971, Kenya has suffered several waves of cholera occurrence. From 1974 to 1989, Kenya reported cases every year with an average case fatality rate of 3.57%. Its largest epidemic started in 1997 and lasted until 1999, with more than 33,400 notified cases, representing 10% of all cholera cases reported from the African continent in the same 3 years. <p><Earthquake>*25</p> <ul style="list-style-type: none"> • Kenya has not experienced a serious earthquake in the recent past. However its location within the Great Rift Valley makes the country susceptible to earthquakes. <p><Volcano>*25</p> <ul style="list-style-type: none"> • Kenya has several volcanic mountains, mostly extinct. The latest eruption was in 1921, and occurred in Mt. Barrier. • In Tanzania, Ol Doinyo Lengai erupted in 2010. This is one of the most active volcanos in Tanzania, and there are many records of eruption. Volcanic activity in the mountain caused daily earth tremors in Kenya and Tanzania beginning on July 12, 2007. The latest to hit parts of Nairobi city was recorded on July 18, 2007 at 8:30pm (Kenyan time). The strongest tremor measured 6.0 on the Richter scale. <p><Conflict>*25</p> <ul style="list-style-type: none"> • As damage from a conflict, 2007/8, Kenya suffered its worst internal conflict famously referred to as the Post-Election Violence (PEV). Over 1,300 people were killed in the conflict and some 600,000 displaced. Some of the displaced persons ended up in camps while others escaped to begin livelihood activities elsewhere. The violence saw the country's economic growth rate revised from the projected 7% to below 2%. <p><Urban fires>*25</p> <ul style="list-style-type: none"> • In Kenya, fires are a major risk especially in industries, forests, poorly planned buildings and settlements, overcrowded areas and, where most houses are temporary in nature. <p><Comprehensive>*25</p> <ul style="list-style-type: none"> • Major natural disasters in Kenya from 1991 to 2011 were epidemics, droughts, floods, earthquakes and landslides (Table 1).*1 *2 • Earth quake damage in 2004 was caused by Tsunami, which was generated by Northern Sumatra Earth quake. This was special case. • Numbers of natural disaster occurrences, killed and affected peoples in Kenya from 1980 to 2010 are shown in Table 2. Occurrence numbers of each kind of disaster are also shown Figure 1.
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Table 1 Major natural disasters from 1991 to 2011 (21 years)*1*2

Year	Disaster	Total Killed	Total Affected	Total amount of loss (x1000)
1991	Drought		2,700,000	
1994	Epidemic	1,000	6,500,000	
1994	Drought		1,200,000	
1997	Drought		1,600,000	
1997	Flood	86	900,000	\$ 11,800
1997	Epidemic	555	17,200	
1997	Epidemic	300		
1997	Epidemic	237	13,500	
1997	Epidemic	140	2,400	
1999	Drought	85	23,000,000	
1999	Epidemic	1,237	22,400	
1999	Epidemic	563	306,400	
2001	Flood	4		\$38
2004	Drought	80	2,300,000	
2004	Earth quake (Tsunami)	1		\$ 100,000
2005	Drought	27	3,500,000	
2005	Flood	1	25,000	\$ 500
2006	Flood	114	723,000	
2006	Epidemic	155	529	
2008	Drought	4	3,800,000	
2009	Epidemic	201	10,048	
2010	Flood	94	141,164	
2010	Landslide	10		
2011	Drought		4,300,000	
2011	Flood	25	91692	

Table 2 Numbers of natural disaster occurrences, killed and affected peoples in Kenya from 1980 to 2010. *3

Natural Disaster	79
Killed	6,066
Mean Annual Killed	196
Affected	48,004,436
Mean Annual Affected	1,548,530

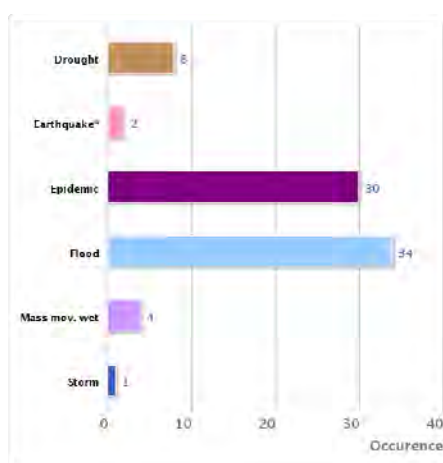


Figure 1 Occurrence numbers of each kind of disasters in Kenya from 1980 to 2010. *3

2. Administrative Structure

Kenya is consisted from following eight (8) provinces (mikoa)
 1. Rift Valley Province (Bonde la Ufa)
 2. Eastern Province (Mashariki)

	<p>3. North Eastern Province (Kaskazini-Mashariki) 4. Western Province (Magharibi) 5. Nyanza Province (Nyanza) 6. Central Province (Kati) 7. Coast Province (Pwani) 8. Nairobi (Nairobi)</p> <p>States are divided into 46 districts (wilaya'at) and 262 divisions (tarafa) as of 2007. The constitution which was established in 2010 decided to abolish province it will be reorganized into 47 counties. The new system will be put into force in 2012.</p>	
3. Disaster Prevention (preventing damage/damage mitigation)	【Current Situation】	【Issue】
Understanding disaster risk (HFA2)	<ul style="list-style-type: none"> • The Kenya Meteorological Department, Kenya Food Security Monitoring System, Geology Department and University of Nairobi conduct a survey about food supply and demand twice annually*3 *4 • There is a drought correspondence plan at 22 dry areas and it links with the early warning system*4 • National and local risk assessments based on hazard data and vulnerability information are available and include risk assessment for key sectors. *5 	<p>The risk assessments are scattered in different sectors and institutions. Therefore, these institutions need to be coordinated to share their information with other stakeholders. Currently the government has received an assistance from UNDP and has consulted Kenyatta university to come up with a national risk assessment and vulnerability maps for Kenya. *5</p>
Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> • Kenya has a community level drought early warning system at 28 dry areas*4 • The Kenya Red Cross and the volunteers have always assisted and have done well in information telling about hazard data and vulnerability. *5 • JICA implemented “The Study on Integrated Flood Management for Nyando River Basin in the Republic of Kenya” and a community disaster activity was conducted as a pilot project. There is a plan to enlarge the output to other basins. 	<p>The Key constraint here is accessibility to some of the remotest parts of the country due to bad terrain and poor roadwork. *5</p>
Legislation/policy principle/plan development (HFA1)	<p>Legislation :</p> <ul style="list-style-type: none"> • National Disaster Management Policy of Kenya (NDMP):the latest version was formulated in February 2011 but not approved as of 2012*24 • National Focal Points are advocating budget inclusion about disaster risk reduction, but it is not implemented *3 <p>< Other related regulation and policy ></p> <ul style="list-style-type: none"> -National policy for resettlement -National Policy for Resettlement of Internally Displaced Persons) (draft) *10 -Water Resources Management Act *10 -National Environmental Management Policy and Act *10 -Fire Safety Management Policy of Kenya (draft) *10 -National Policy on Land Use *10 <p>< Related plans ></p> <ul style="list-style-type: none"> • Arid Land Resource Management Plan II *4 • Disaster Risk Reduction Strategy *4 • Kenya National Strategic Plan for HIV and AIDS Management *1 • National Disaster Management Strategic Plan 	<p>The National Disaster management policy was to align it to the Kenya’s new constitution. This exercise has now been carried out and is awaiting a stakeholders’ validation workshop. *5</p>

	<p>Establishment and reinforcement of disaster reduction system (HFA1)</p>	<p>2012-2017 (Draft as of April 2012)</p> <ul style="list-style-type: none"> National Disaster response Plan <p>System of Organization <Central level></p> <ul style="list-style-type: none"> National Disaster Management Executive Committee (NDMEC) established to design programmes for disaster intervention. It is the highest institution in disaster systems and falls under the Cabinet Office. It is chaired by a Cabinet Minister and has members drawn from Government ministries. *14*15 National Disaster Coordination Committee (NDCC) is next top level organ in disaster management. The National Disaster Coordination Committee is chaired by the Permanent Secretary, Special Programmes. *14*15 Ministry of State for Special Programmes in Office of the President is the responsible organization for disaster management and Department of Disaster Risk Reduction, DRR was established. *3 *4 NDOC: National Disaster Operation Center is established under DRR. It is in charge of emergency response according to decision of NDCC *4 Ministry of Planning and National Development, Ministry of Health, Ministry of Water, Ministry of Agriculture are the implementation agencies of disaster risk reduction*7 Kenya Food Security Committee is organized. Ministry of Agriculture, Arid and Semi Arid Resource Management Project, WFP, FEWSNET and USAID work together to collect key information such as agriculture and meteorology for writing a document to Kenya Food Security Coordination System (KFSCS) *14 There are disaster management committees at national level, county level district level and community level <p><Coordinating body></p> <ul style="list-style-type: none"> NDMEC , NDCC , NDOC are in charge of coordinating. National Platform for Disaster Risk Reduction, an inter-agency advisory committee, was established in August, 2004 as an advisory committee about disaster risk reduction. Member is related ministry, United Nation staff, NGO, academic institutions and other stakeholders. *19 <p><Local level></p> <ul style="list-style-type: none"> Provincial Disaster (Management) Committees (PDC) exist at 8 provinces level *14 District Disaster (Management) Committees (DDC) exist at district level. Technical representatives at the district level and the security teams are included into the members.*14 New organizations described in National Policy for Disaster Management *12, which was formulated in 2011.*12 National Executive (NE) is the highest Disaster Management decision-making body. It is at the Cabinet level and is chaired by the President. Its core function is to provide policy guidance in 	<p>Policies related to natural disaster is not approved *4 Lack of resource due to new ministry *3 Resources at the local level have not been forthcoming *11 Kenya administration will be through counties. It needs to put in place county disaster management officers for the 47 counties. Therefore, there is a need to train trainer of trainers for those counties and also the committees these will require a lot of resources. *5</p>
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		<p>relation to National aspirations. NE makes decisions on national disaster Management issues especially during emergencies. *12</p> <ul style="list-style-type: none"> • National Disaster Executive Committee (NDCC) is the executive arm of the NE. NDCC is at the Permanent Secretary level and its Chair is the Permanent Secretary of MoSSP. Its core function is to execute policy. *12 • Ministry Responsible for Disaster Management (MRDM) will have the following five Directorates: Disaster Risk Reduction, Mitigation and Resettlement, Disaster Response, Relief and Recovery, Information Management and Communication, Finance and Human Resource Management, Monitoring and Evaluation. *12 • Each county will establish a County Disaster Management Committee to coordinate and monitor disaster management activities. *12 	
	<p>Improvement on prevention by structural measurement/land-use control (HFA4)</p>	<p><Structural measurement> There has been investment in flood prone areas by strengthening the dykes, the construction of dams to contain water upstream. *5</p> <p><Regulation> Concept of Disaster risk reduction is included in settlement plan and management like as housing supply programme at slum areas for improvement on living environment.*5</p>	<p>It is difficult to apply building code due to lack of experts. Programme on living condition improvement ue to lack of budget*5</p>
	<p>Development on warning system/evacuation system (HFA2,3)</p>	<p><Awareness about disaster risk reduction, disaster education, evacuation drill></p> <ul style="list-style-type: none"> • A survey on needs about flood education was conducted *4 • In Kenya, public awareness rising is being done through the administrative units, and the media is also helping out in the awareness raising programme. A survey on needs on flood education was conducted*4. A number of NGOs both international and local are also involved in the awareness in awareness rising at community level*5. • Postgraduate courses introduced at tertiary institutions and DRR integration into the lower level education system is being conducted.*25 • In Kenya, there are courses offered at undergraduate and post graduate level in local universities such as Masinde Muliro University, Kenyatta University and Jomo Kenyatta University of Agriculture and Technology. *25 • Another form of higher education is a network called Periperi Universities. Periperi U which stands for the Partners Enhancing Resilience to People Exposed to Risks Universities. The universities are a continent-wide network for education, training and research in disaster risk reduction. Some universities in Kenya, Tanzania, Uganda and some other African countries are included in the network. *25 <p><Meteorology/communication system></p> <ul style="list-style-type: none"> • Kenya meteorological department is very active and provides timely information. A system to monitor and tell the information about emergency of the country has been developed since the establishment 	<p>Awareness about disaster risk reduction and disaster education are conducted from the perspective of maintaining society.*4</p> <p>There is not enough space of curriculum to conduct disaster education. *3</p> <p>Luck of fund to install early warning system through local radio *11</p> <p>Infrastructure at community level is not well developed. Therefore, not the all citizens can have access to the information *11</p> <p>Even after receiving warning on impending floods, the people of the western Kenya are so attached to their ancestral land and do not willing to move to higher grounds. *5</p>

	<p>of national disaster activity center. Media informs on early warning to emergencies*5</p> <ul style="list-style-type: none"> The government has also started a programme on community radios on local dialect especially for flood prone areas of the western part of Kenta *5 Ministry of State for Northern Kenya and arid land, State for Special Program, Water, Livestock, Agriculture and MET Dept. have early warning systems on drought. *25 Ministry of State for Special Program, Water and MET Dept. have early warning systems on flood. *25 Ministry of Agriculture, Food Security through Early Warning Unit and MET Dept. have early warning systems on rainfall. *25 <p><Tsunami> A workshop to educators at five (5) counties after Sumatran tsunami. *4</p>	
<p>Economical preparation (HFA1)</p>	<ul style="list-style-type: none"> Establishment of National Relief Trust Fund is proposed.*12 Due to lack of policy frame work no funds has been provided for in the budget for the overall implementation of DRR activities. Bet in the sectoral budgets funds have been provided for sectoral planning and development purposes for example in agriculture, transport, roads, water, health and housing. *5 <p><Food Security></p> <ul style="list-style-type: none"> Ministry of Agriculture, Ministry of Special Programme, Food Security Steering group, Meteorology Department (MET Dept.),DRSRS have early warning systems*25 <p><Landslides>*25</p> <ul style="list-style-type: none"> Mines and Geological Department have early warning systems <p><Epidemic>*25</p> <ul style="list-style-type: none"> Ministry of Public Health has early warning system <p><Environment>*25</p> <ul style="list-style-type: none"> NEMA has early warning system 	<p>HIV/AIDS and epidemic are considered as main matters of disaster, thus less amount of budget is utilized for natural disaster. *4</p>
<p>4.Emergency Correspondence (HFA5) Establishment of emergency correspondence system Lifesaving Support sufferers</p>	<p>【Current situation】</p> <ul style="list-style-type: none"> Related ministries raise and distribute fund about regular food and drinking water security, not natural disaster correspondence system *4 NDOC implements emergency correspondence system. The center is in charge of disaster reduction, awareness of community people, evacuation drill, community development *4 <p>However, the NDOC has a limited capacity building program because of lack of a policy framework to allow allocation of budget and resources.</p>	<p>【Issue】</p>
<p>5. Community-based disaster risk reduction</p>	<ul style="list-style-type: none"> Through the administrative units public awareness raising is being done, the media is also helping out. A number of NGOs both international and local are also involved in the awareness in awareness rising at community level. *5 For Kenya once The National Disaster management policy will be in plan the community participation and decentralization through delegation of authority and resources at the local level will be guaranteed as this is spelt in the new constitution and is proposed in the draft policy. *5 	<p>There is a need to implement a disaster activity involving community *11</p>

		<ul style="list-style-type: none"> JICA implemented “The Study on Integrated Flood Management for Nyando River Basin in the Republic of Kenya” and a community disaster activity was conducted as a pilot project. There is a plan to enlarge the output to other basins. 																																								
	6. Climate change adaptation (CCA) (HFA4)	<ul style="list-style-type: none"> “National Climate Change Response Strategy” was declared in April, 2009. *9 The superintendence is Ministry of Environment and Mineral Resources. As effects from climate change, elongation of dry area and sub-dry area, biodiversity, drought, lowering agricultural productivity are concerned. 																																								
Aid to Issue	7. Record of Japanese aid	<p>～Direct aid for disaster challenges～</p> <p>< Development Survey ></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>The Study on Integrated Flood Management for Nyando River Basin in the Republic of Kenya (JICA)</td> <td>2005</td> <td>2008</td> </tr> <tr> <td>The Project for Enhancing Community Resilience against Drought in Northern Kenya (JICA)</td> <td>2012</td> <td>2015</td> </tr> </tbody> </table> <p>< Technical Cooperation ></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>Capacity Development for Effective Flood Management in Flood Prone Area (JICA)</td> <td>2011</td> <td>2014</td> </tr> </tbody> </table> <p>< Grant Aid ></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>Year</th> <th>Amount (10⁸yen)</th> </tr> </thead> <tbody> <tr> <td>The Programme for Community-based Flood Disaster Management to Adapt to Climate Change in the Nyando River Basin (JICA)</td> <td>2008</td> <td>4.83</td> </tr> <tr> <td>The Programme for the Improvement of Capabilities to cope with Natural Disasters Caused by Climate Change (Ministry of Foreign Affairs of Japan)</td> <td>2009</td> <td>5.00</td> </tr> </tbody> </table> <p>< Emergency Grant Aid ></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>Year</th> <th>Amount (10⁸yen)</th> </tr> </thead> <tbody> <tr> <td>Emergency Grant Aid for flood</td> <td>1997</td> <td>0.27</td> </tr> <tr> <td>Food aid for drought victims</td> <td>1999</td> <td>8.61</td> </tr> <tr> <td>Food aid for drought victims</td> <td>2000</td> <td>8.00</td> </tr> <tr> <td>Emergency Grant Aid for flood</td> <td>2003</td> <td>0.12</td> </tr> </tbody> </table>	Projects	From	To	The Study on Integrated Flood Management for Nyando River Basin in the Republic of Kenya (JICA)	2005	2008	The Project for Enhancing Community Resilience against Drought in Northern Kenya (JICA)	2012	2015	Projects	From	To	Capacity Development for Effective Flood Management in Flood Prone Area (JICA)	2011	2014	Projects	Year	Amount (10 ⁸ yen)	The Programme for Community-based Flood Disaster Management to Adapt to Climate Change in the Nyando River Basin (JICA)	2008	4.83	The Programme for the Improvement of Capabilities to cope with Natural Disasters Caused by Climate Change (Ministry of Foreign Affairs of Japan)	2009	5.00	Projects	Year	Amount (10 ⁸ yen)	Emergency Grant Aid for flood	1997	0.27	Food aid for drought victims	1999	8.61	Food aid for drought victims	2000	8.00	Emergency Grant Aid for flood	2003	0.12	
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	8. Record of aid by other donors, NGO and industry-academic-	<p>< World Bank / GFDRR > *8</p> <p>1. Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780</p>																																								

<p>government complexes and support strategy</p>	<ol style="list-style-type: none"> 2. Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 945,000 3. Disaster Risk Management in the Sub-Saharan Africa Region (Burkina Faso, Comoros, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Seychelles, Swaziland, Region) \$ 300,000 4. Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 5. Feasibility Study for Pan African Drought Risk Pool (Burkina Faso , Ethiopia , Ghana , Kenya , Malawi , Mali , Mozambique , Senegal , Zambia , Zimbabwe) \$ 220,000 6. Horn of Africa Drought Response (Ethiopia , Kenya , Somalia , Uganda) \$ 1,000,000 7. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$450,000 8. Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473 <p>< UNDP > *11</p> <ol style="list-style-type: none"> 1. Northern Uganda Drought Support 2. Floods Emergency Project; Formation of water and sanitation coordination teams in the various regions <p>< UNISDR > *11</p> <ol style="list-style-type: none"> 1. Strengthening National Platforms for Disaster Risk Reduction in Africa <p>< UNOCHA Kenya > *11</p> <ol style="list-style-type: none"> 1. Drafting and review of National Disaster Response Plan; District Disaster Preparedness and Response planning ; Contingency Planning for Flood Management <p>< WMO > *11</p> <ol style="list-style-type: none"> 1. Strategy for Flood management 2. Climate observations and regional modeling in support of climate risk management*13 3. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC 4. Tropical Cyclone Advisories for the Southwest Indian Ocean Countries; Enhanced availability of guidance information for the issue of tropical cyclone warnings by NMHS's at national level 5. Preparedness to climate variability and change, natural disaster preparedness and enhanced food security in cooperation with SADC DMC and ICPAC <p>< ProVention Consortium > *11</p> <ol style="list-style-type: none"> 1. Partners for Humanitarian and Risk Education Expansion (PHREE-Way) established regional platfrms to facilitate, enable and mediate the learning and research 2. Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction 3. African Urban Risk Analysis Network (AURAN). <p>< African Development Bank ></p> <ol style="list-style-type: none"> 1. Emergency Assistance for Drought Crisis in Kenya <p>< AfDB ></p> <ol style="list-style-type: none"> 1. EAC Backbone & Lake Victoria Maritime *20 	
<p>9.Issue and collaboration use of existing network (ADRC, ISDR and so on)</p>	<p>The government is working very closely with African Union (AU) at the regional and with Intergovernmental Authority on Development (IGAD) at sub-regional level in addressing disaster risk reduction and trans boundary</p>	

- Sources :
- *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels
(<http://www.emdat.be>) (accessed on 11 November 2011)
 - *2 Wikipedia (<http://en.wikipedia.org/wiki/Kenya>) (2011)
 - *3 Prevention Web: Kenia (<http://www.preventionweb.net/english/countryies/africa/ken/>) (2012)
 - *4 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2007-2009
 - *5 Prevention Web: National Progress Report on the Implementation of the Hyogo Framework of Action 2009-2011
 - *6 Kenya: National Report on the implementation of the HFA (2007)
 - *7 Project list provided by JICA
JICA 「Report: research for disaster prevention sector project」 (2005)、
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(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf)、
Related JICA reports
 - *8 GFDRR: HP (http://gfdrr.org/index.cfm?Page=activity_list&itemID=13) (accessed on 9 February 2010)
 - *9 "National Climate Change Response Strategy" April 2010, Government of Kenya
 - *10 Country report prepared for JICA Seminar, disaster risk reduction in Africa, (2011/10/17~27)
 - *11 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (ISDR, 2010) (http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
 - *12 NATIONAL POLICY FOR DISASTER MANAGEMENT IN KENYA(Draft, Kenya Government, 2011)
 - *13 WCRP: Climate observations and regional modeling in support of climate risk management and Sustainable Development
(http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
 - *14 Roles and Responsibility National Disaster Operations Centre (Kenya Government, 2007)
(<http://www.docstoc.com/docs/91729461/Roles-and-Responsibility-National-Disaster-Operations-Centre>)
 - *15 Kenya's experience in management of natural disasters (Kenya Government, 1999)
(<http://cidbimena.desastres.hn/docum/crid/Agosto2004/pdf/eng/doc15154/doc15154-contenido.pdf>)
 - *16 Emergency Assistance for Drought Crisis (ADB, 2011)
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-ke-aaz-008/>)
 - *17 Kenya Natural Disaster Profile (UNDP)
(<http://mirror.undp.org/kenya/KenyaDisasterProfile.pdf>)
 - *18 LAND USE IN KENYA (Kenya Land Alliance)
(<http://www.oceandocs.org/bitstream/1834/713/1/Pages%20from%20klafull.pdf>)
 - *19 Ministry of State for Special Programme, The Government of Kenya HP
(http://www.sprogrammes.go.ke/index.php?option=com_content&task=view&id=505&Itemid=210)
 - *20 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
 - *21 Kenya's Draft National Disaster Risk management Strategic Plan 2012-2015
 - *22 The Economic Impacts of Climate Change in Kenya: Riparian Flood Impacts and Cost of Adaptation, 2009
 - *23 Wikipedia the Free Encyclopedia East Coast Fever
(http://en.wikipedia.org/wiki/East_Coast_fever)
 - *24 National Disaster Management Policy of Kenya (Draft, Kenya Government, Feb, 2012)
 - *25 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

Disaster Risk Reduction (DRR) Information in Rwanda

The Current Situation and Issue	1. Characteristics of disasters	<p><Drought></p> <ul style="list-style-type: none"> In Rwanda, recurrent drought incidences over the past decades, between 1998 and 2000 and annually from 2002 to 2005, have caused a serious deterioration in food security. Moreover, in 2004, when water levels in the northern lakes ebbed due partly to prolonged drought, the reduced hydropower supply caused the first major electricity crisis in the country. Thus drought has an adversely impact on key sectors. *24 <p><Flood></p> <ul style="list-style-type: none"> Floods are also common in Rwanda, and they have increased in frequency over the past decade. Occurrences in 2005 and 2007 resulted in the damage of infrastructure, agricultural losses, led to environmental degradation, population displacement and fatalities. *24 <p><Epidemics></p> <ul style="list-style-type: none"> Adult HIV prevalence is 3%. In Rwanda, in 2007, a cholera epidemic affected 3 regions and 918 cases were reported, including 17 deaths (case fatality rate: 1.85%). *24 <p><Earthquake></p> <ul style="list-style-type: none"> In Rwanda, western parts are prone to seismic activities. In 2008, Rusizi and Nyabiheka (both in the western province) were severely hit by a 5.9 earthquake causing 39 deaths, more than 600 injuries and more than 2,000 people were left homeless. *24 <p><Volcano></p> <ul style="list-style-type: none"> The western part of Rwanda has a chain of both inactive and active volcanos. In 2002, Nyirangongo volcano erupted in Eastern DRC and caused damage, 400,000 of the Congolese population fled to Ruvavu District bordering Goma. Thus eruptions in DRC are threats to not only Rwanda but also Uganda and Burundi. *24 <p><Fire></p> <ul style="list-style-type: none"> In Rwanda, fires incidents are few but have caused considerable damage during their occurrence. Notable incidents include a forest fire in 2009 that spread to the top of the mount Muhabura in the Volcanoes National Park, consuming 150 hectares of the park. Another more recent incident was the outbreak in Nyagatare District that consumed 30 hectares of forest and farms. *24 <p><Comprehensive></p> <ul style="list-style-type: none"> Major natural disasters in Rwanda from 1974 to 2012 were epidemics, droughts, floods, earthquakes and landslides (Table 1). *1 Numbers of natural disaster occurrences, killed and affected peoples in Rwanda from 1980 to 2010 are shown in Table 2. Occurrence numbers of each kind of disaster are also shown Figure 1. *3 																																																																																																								
		<p style="text-align: center;">Table 1 Major natural disasters from 1974 to 2012 (39 years) *1</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Disaster</th> <th>Total Killed</th> <th>Total Affected</th> <th>Total amount of loss (x1000)</th> </tr> </thead> <tbody> <tr><td>1974</td><td>Flood</td><td>-</td><td>1,900,000</td><td></td></tr> <tr><td>1976</td><td>Drought</td><td>-</td><td>1,700,000</td><td></td></tr> <tr><td>1984</td><td>Drought</td><td>-</td><td>420,000</td><td></td></tr> <tr><td>1988</td><td>Flood</td><td>48</td><td>21,678</td><td></td></tr> <tr><td>1989</td><td>Drought</td><td>237</td><td>60,000</td><td></td></tr> <tr><td>1991</td><td>Epidemic</td><td>32</td><td>214</td><td></td></tr> <tr><td>1996</td><td>Drought</td><td>-</td><td>82,000</td><td></td></tr> <tr><td>1998</td><td>Epidemic</td><td>55</td><td>2,951</td><td></td></tr> <tr><td>1999</td><td>Epidemic</td><td>44</td><td>29</td><td></td></tr> <tr><td>1999</td><td>Drought</td><td>-</td><td>894,545</td><td></td></tr> <tr><td>2002</td><td>Earthquake</td><td>45</td><td>1,643</td><td></td></tr> <tr><td>2002</td><td>Flood</td><td>69</td><td>20,000</td><td></td></tr> <tr><td>2002</td><td>Epidemic</td><td>83</td><td>636</td><td></td></tr> <tr><td>2003</td><td>Drought</td><td>-</td><td>1,000,000</td><td></td></tr> <tr><td>2006</td><td>Epidemic</td><td>35</td><td>300</td><td></td></tr> <tr><td>2006</td><td>Landslide</td><td>24</td><td>2000</td><td></td></tr> <tr><td>2007</td><td>Flood</td><td>10</td><td>500</td><td>\$ 9</td></tr> <tr><td>2008</td><td>Earthquake</td><td>36</td><td>643</td><td></td></tr> <tr><td>2008</td><td>Flood</td><td>-</td><td>11,346</td><td></td></tr> <tr><td>2010</td><td>Landslide</td><td>14</td><td>5,937</td><td></td></tr> </tbody> </table>	Year	Disaster	Total Killed	Total Affected	Total amount of loss (x1000)	1974	Flood	-	1,900,000		1976	Drought	-	1,700,000		1984	Drought	-	420,000		1988	Flood	48	21,678		1989	Drought	237	60,000		1991	Epidemic	32	214		1996	Drought	-	82,000		1998	Epidemic	55	2,951		1999	Epidemic	44	29		1999	Drought	-	894,545		2002	Earthquake	45	1,643		2002	Flood	69	20,000		2002	Epidemic	83	636		2003	Drought	-	1,000,000		2006	Epidemic	35	300		2006	Landslide	24	2000		2007	Flood	10	500	\$ 9	2008	Earthquake	36	643		2008	Flood	-	11,346		2010	Landslide	14	5,937
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Table 2 Numbers of natural disaster occurrences, killed and affected peoples in Rwanda from 1980 to 2010. *3

Natural Disaster	28
Killed	827
Mean Annual Killed	27
Affected	2,539,707
Mean Annual Affected	81,926

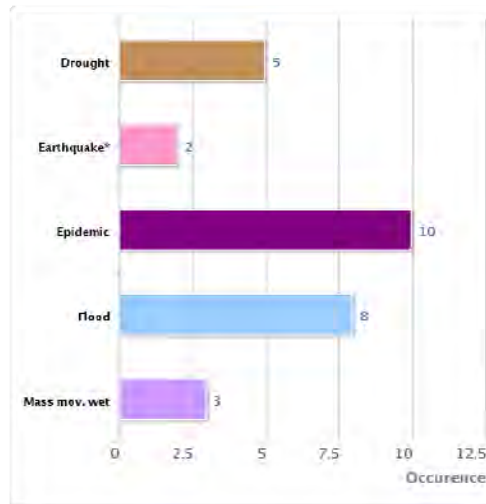


Figure 1 Occurrence numbers of each kind of disasters in Rwanda from 1980 to 2010. *3

2. Administrative Structure

There are 5 provinces (intara) in Rwanda.

1. Province du Nora
2. Province du Sud
3. Province de l'Est
4. Province de l'Ouest
5. Kigali

These provinces consist of 30 districts. *2

3. Disaster Prevention (preventing damage/damage mitigation)

【Current Situation】

【Issue】

Understanding disaster risk (HFA2)

- Identifying disaster high risks zones on flood and landslides were carried out in Government Action Plan 2011-2012 by Dec. 2011.*9
- Mapping of vulnerability and hazard in disaster prone areas were carried out in Government Action Plan 2011-2012 by Mar. 2012.*9
- Please refer to “Government Action Plan 2011-2012” *9 about other plans.
- Rwanda has been making considerable progress with mapping, geographic information systems (GIS), and is beginning to establish spatial data infrastructures (SDI) using different information and communications technology (ICT) to help manage the GIS data. *11

Sharing disaster risk with region and community (HFA2)

- District Disaster Management Committees (DDMC) was established, and the Ministry of Disaster Management and Refugee Affairs (MIDIMAR)

		<p>trained members of DDMC *9</p>	
	<p>Legislation/policy principle/plan development (HFA1)</p>	<p>Legislation :</p> <p>< Related Policies ></p> <ul style="list-style-type: none"> • A national policy on disaster risk reduction and prevention in Rwanda was formulated in 2002 and approved by the Cabinet in July 2003. *4 • The new National Disaster Management Policy, National Disaster Management Policy, was approved in 2009. The Policy was revised and proposed, as of 2012. • The Strategic Plan of Action of the National Policy on Disaster Management was established.*4 • MIDIMAR is in charge of DRM Strategy. 11 • The Vision 2020 Umurenge Program (VUP), which began in 2008, is a social protection (SP) program in Rwanda managed and implemented by the Ministry of Local Government (MINALOC). The Government of Rwanda recognizes the links between Disaster Risk Management (DRM), Climate Change Adaption (CCA), food security, and SP, and the need to link and integrate the respective national strategies and implementation plans. *11 <p>< Related Laws and Plans ></p> <ul style="list-style-type: none"> • Disaster Management Law • MIDIMAR 5 Year Strategic Plan • Strategic Orientation Paper • National Contingency Plan • National Disaster Risk Management Plan • Cross-cutting issues guidelines 	
	<p>Establishment and reinforcement of disaster reduction system (HFA1)</p>	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> • Ministry of Disaster Management and Refugee Affairs (MIDIMAR) in Rwanda is the responsible ministry of Disaster Risk Reduction • The Ministry of Disaster Management and Refugee Affairs (MIDIMAR) is a new Ministry (established March 2010) *11, and MIDIMAR is the responsible organization for disaster management.*24 • National Disaster Management Center (NDMC), which is under MIDIMAR *16, has been historically linked to the Office of the President (and the Prime Minister's Office). *11 <p>< Organization for inter-agency Coordination / Decision making body ></p> <ul style="list-style-type: none"> • National Disaster Steering Committee (NDSC) chaired by MIDIMAR is an organ responsible for policy and coordination of disaster management at the highest level made up of heads of eight institutions. *17*18 • Disaster Steering Technical Committee (DSTC) was created in May 2012 to support NDSC. *18 • National Platform for Disaster Risk Reduction is evaluated under the National Disaster Management Policy.*23 	

		<p>The National Disaster Management Policy proposed following organizations.</p> <ul style="list-style-type: none"> • The National Disaster Management Executive Committee (NDMEC) is proposed. NDMEC chaired by the Prime Minister is the highest DM decision-making body.*23 • National Disaster Management Technical Committee (NDMTC), which is responsible for advising the NDMEC, is proposed.*23 • As a joint coordination mechanism, the MIDIMAR / UN Joint Intervention Management Committee is proposed.*23 <p>< District level ></p> <ul style="list-style-type: none"> • District Disaster Management Committees (DDMC) was established. *9*23 • Sector Disaster Management Committee (SDMC) is proposed in the National Disaster Management Policy.*23 	
	<p>Improvement on prevention by structural measurement/land-use control (HFA4)</p>	<p>< Regulation ></p> <ul style="list-style-type: none"> • There has been a major effort to generate a National Land Use and Development Master Plan, led by the National Land Commission (NLC). A draft from August 2010 was presented to Government. *11*19 • Ministry of Natural Resources (MINIRENA) is in charge of land use. *24 	
	<p>Development on warning system/evacuation system (HFA2,3)</p>	<p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> • National Meteorological Service of Rwanda observe meteorological condition. *13 • Development of a disaster communication system for emergency was carried out in Government Action Plan 2011-2012 by Sep. 2011. *9 • UNDP/UNEP Project (Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas) was begun in Jul. 2010. *10 • Please refer to “Government Action Plan 2011-2012” *9 about victims support plan and other information. • Ministry of Agriculture and Livestock has an early warning system on drought, MET Dept. (the UNDP/the UNEP), Rwanda Natural Resources Authority (REMA), Rwanda Natural Resources Authority (RNRA) (Water Dept.) have early warning systems on flood*24 • Rwanda Meteorological Center and MET Dept. have early warning systems on rainfall*24 <p>< Disaster prevention public awareness • Education for disaster prevention • Disaster prevention practice ></p> <ul style="list-style-type: none"> • Education programmes include sensitization about disaster risk management in primary schools (Elementary Science and Technology). *24 • At the secondary (high) school level, there is a department on Hygiene and Sanitation, and ecology and environmental sciences courses are included in programmes of many secondary school departments. *4 	

	Economical preparation (HFA1)	<ul style="list-style-type: none"> The primary source of funding for disaster responses shall come from the local administrations (Districts) in affected areas. *23 Please refer to “Government Action Plan 2011-2012” *9 about action plans and budget of MIDIMAR. <p><Landslides></p> <ul style="list-style-type: none"> RNRA (Land Department) and REMA have early warning systems on landslides*24 <p><Epidemic></p> <ul style="list-style-type: none"> Rwanda Biomedical Center (RBC) has an early warning system on epidemic*24 <p><Environment></p> <p>REMA and RBC have early warning systems on environment*24</p> <p>As an example of system Rwanda has, the Ministry of Disaster Management and Refugee Affairs (MIDMAR) has distributed more than 400 cell phones to sectors in charge of social affairs for the reporting of potential disaster and for disaster occurrence. *24</p>							
	4. Emergency Correspondence (HFA5) Establishment of emergency correspondence system Lifesaving Support sufferers	<ul style="list-style-type: none"> Training on the establishment of a national disaster command system for MIDIMAR, Disaster Management Steering Committee, DMTF (Disaster Management Task Force), DDMC (District Disaster Management Committees) was completed with the assistance of the Kenya National Disaster Operations Centre. *14 Please refer to Establishment and reinforcement of disaster reduction section. 							
	5. Community-based disaster risk reduction								
	6. Climate change adaptation (HFA4)	<ul style="list-style-type: none"> REMA (Rwanda Environment Management Authority) is the agency directly responsible to Climate Change Adaption strategy. *11 Please refer to *20*21 about NAPA Priority Projects. 							
Aid to Issue	7. Record of Japanese aid	<p>< Emergency Grant Aid ></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>Year</th> <th>Amount (10⁸yen)</th> </tr> </thead> <tbody> <tr> <td>Emergency disaster aid (landslide)*7</td> <td>1988</td> <td>0.13</td> </tr> </tbody> </table>		Projects	Year	Amount (10 ⁸ yen)	Emergency disaster aid (landslide)*7	1988	0.13
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		<p>(Albania , Armenia , Ecuador , Malawi , Pakistan , Philippines , Rwanda , Solomon Islands) \$200,000</p> <p>< UNOCHA > *12</p> <p>2. Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC</p> <p>< WMO > *12</p> <p>3. Climate observations and regional modeling in support of climate risk management and Sustainable Development *13</p> <p>4. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC</p> <p>< UNDP/UNEP > *10</p> <p>1. Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas</p> <p>< AfDB ></p> <p>1. EAC Backbone & Lake Victoria Maritime *22</p>
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- Sources :
- *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 18 January 2010)
 - *2 Wikipedia (<http://en.wikipedia.org/wiki/Rwanda>) (2012)
 - *3 Prevention Web: Rwanda (<http://www.preventionweb.net/english/countries/africa/rwa/>) (2012)
 - *4 Prevention Web: Rwanda: National Report in preparation for WCDR (2004)
 - *5 Project list provided by JICA
JICA 「Report: research for disaster prevention sector project」 (2005)、
Ministry of Foreign Affairs of Japan HP 「ODA data book 2008」
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/05-47.pdf)、
Related JICA reports
 - *6 GFDRR: Project Portfolio (http://gfdrr.org/index.cfm?Page=activity_list&itemID=13)
 - *7 Ministry of Foreign Affairs of Japan HP Past records of ODA Project for Rwanda before 1990
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/jisseki/kuni/j_90sbefore/905-46.htm)
 - *8 Ministry of Foreign Affairs of Japan HP Outline of ODA Project for Rwanda
(http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/rwanda/contents_01.html)
 - *9 Republic of Rwanda, Government Action Plan 2011-2012
(http://www.nurdigitaltechnologies.com/migeprof/IMG/pdf/GOVERNMENT_ACTION_PLAN_2011-2012_MIGEPROF_Pages_174-195_.pdf)
 - *10 Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas
(<http://www.adaptationlearning.net/project/reducing-vulnerability-climate-change-establishing-early-warning-and-disaster-preparedness-s>)
 - *11 Government of Rwanda, WB: Adaptive Social Protection in Rwanda: A No-Regrets Approach to Increased Resilience in a Territorial Planning Context (2011)
(<http://www.ids.ac.uk/files/dmfile/Siegeletal2011AdaptiveSocialProtectioninRwanda02CSPconferencedraft.pdf>)
 - *12 UNISDR: Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa
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 - *13 WMO: Climate observations and regional modeling in support of climate risk management and Sustainable Development
(http://www.wmo.int/pages/prog/gcos/SCXVIII/WB_GFDRR_Wshop1.pdf)
 - *14 Government of Rwanda: National Disaster Command System Rwanda
(http://www.gov.rw/news.php?id_article=148)
 - *15 The Rwanda: Focus: Smartphones to the rescue in disaster management
(<http://focus.rw/wp/2012/05/smartphones-to-the-rescue-in-disaster-management/>)
 - *16 Rwanda: MIDIMAR Organogram
(<http://www.midimar.gov.rw/index.php/about-usmidimar/midimar-new-structure>)
 - *17 The New Times Rwanda : New disaster committee set up
(<http://www.newtimes.co.rw/news/index.php?i=14992&a=53593>)
 - *18 BAHONEZA.com: Rwanda | Government consolidates disaster management measures as heavy rains continue to cause havoc in some parts of the country
(<http://bahoneza.com/rwanda-disaster/>)
 - *19 MINELA: MINELA SURPपोर्ट TO SUSTAINABLE LAND MANAGEMENT
(http://www.fao.org/fileadmin/templates/nr/kagera/Documents/Regional_workshop_11march2011/MINELA_safari_reg_work.pdf)
 - *20 UNFCCC: Index of NAPA Projects by Country

- (http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
- *21 UNFCCC: RWANDA: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/28_rwan_pp.pdf)
 - *22 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
 - *23 Government of Rwanda: The National Disaster Management Policy (Draft, 2012)
 - *24 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

Disaster Risk Reduction (DRR) Information in Tanzania

The Current Situation and Issue	1. Characteristics of disasters	<p><Drought></p> <ul style="list-style-type: none"> In Tanzania, drought occurs roughly every four years, and affects more than 3.6 million people. The most frequently hit regions are mainly from the north to central areas. *24 <p><Flood></p> <ul style="list-style-type: none"> In Tanzania, floods occurred 15 times from the 1980's. The number of deaths is 54 persons and 800,271 people were affected. *24 <p><Landslides></p> <ul style="list-style-type: none"> In Tanzania, landslides are common in loose steep hilly lands and account for 0.9 % of all disaster occurrences in the country. *24 <p><Epidemic></p> <ul style="list-style-type: none"> Adult HIV prevalence exceeds 5% in Tanzania. *24 In Tanzania, cholera is a regular visitor to many communities in the country. The first major outbreak occurred in 1992 when 18,526 cases including 2,173 deaths were recorded. (CFR 11.7%) In 1997, an epidemic which started at the end of January in Dar es Salaam accounted for 40,249 cases and 2,231 deaths (CFR 5.54%) in Tanzania. *24 <p><Volcano></p> <ul style="list-style-type: none"> In Tanzania, Ol Doinyo Lengai erupted in 2010. This is one of the most active volcanos in Tanzania, and there are many records of eruption. Volcanic activity in the mountain caused daily earth tremors in Kenya and Tanzania beginning on July 12, 2007. The latest to hit parts of Nairobi city was recorded on July 18, 2007 at 8:30pm (Kenyan time). The strongest tremor measured 6.0 on the Richter scale. *24 <p><Livestock diseases></p> <ul style="list-style-type: none"> East Coast fever is probably the most important livestock diseases in Africa, causing an annual loss of 1.1 million cattle and \$168 million, as of 1992. It is found in some countries including Tanzania *21 In Tanzania, common livestock diseases that decimate animals in the country are rinderpest, foot and mouth, anthrax, Contagious Bovine Pleural Pneumonia (CBPP) and others. *24 <p><Comprehensive></p> <ul style="list-style-type: none"> Major natural disasters in Tanzania from 1980 to 2011 were epidemics, droughts and floods (Table 1). *1 Numbers of natural disaster occurrences, killed and affected peoples in Tanzania from 1980 to 2010 are shown in Table 2. Occurrence numbers of each kind of disaster are also shown Figure 1. *3 <p style="text-align: center;">Table 1 Major natural disasters from 1980 to 2011 (32years)*1</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Disaster</th> <th>Total Killed</th> <th>Total Affected</th> <th>Total amount of loss (x1000)</th> </tr> </thead> <tbody> <tr><td>1980</td><td>Epidemic</td><td>12</td><td></td><td></td></tr> <tr><td>1982</td><td>Flood</td><td></td><td>40,000</td><td></td></tr> <tr><td>1983</td><td>Epidemic</td><td>163</td><td></td><td></td></tr> <tr><td>1984</td><td>Drought</td><td></td><td>3,000,000</td><td></td></tr> <tr><td>1985</td><td>Epidemic</td><td>10</td><td>118</td><td></td></tr> <tr><td>1986</td><td>Flood</td><td></td><td>6,000</td><td></td></tr> <tr><td>1987</td><td>Epidemic</td><td>90</td><td>500</td><td></td></tr> <tr><td>1988</td><td>Drought</td><td></td><td>110,000</td><td></td></tr> <tr><td>1989</td><td>Flood</td><td>10</td><td>141,000</td><td></td></tr> <tr><td>1990</td><td>Flood</td><td>183</td><td>162,000</td><td>\$ 280</td></tr> <tr><td>1990</td><td>Epidemic</td><td>200</td><td></td><td></td></tr> <tr><td>1991</td><td>Drought</td><td></td><td>800,000</td><td></td></tr> <tr><td>1991</td><td>Epidemic</td><td>290</td><td></td><td></td></tr> <tr><td>1991</td><td>Epidemic</td><td>284</td><td>1,733</td><td></td></tr> <tr><td>1993</td><td>Flood</td><td>54</td><td>202,000</td><td>\$ 3,510</td></tr> <tr><td>1996</td><td>Drought</td><td></td><td>3,000,000</td><td></td></tr> <tr><td>1997</td><td>Epidemic</td><td>2,025</td><td>35,600</td><td></td></tr> <tr><td>1997</td><td>Epidemic</td><td>304</td><td>6,800</td><td></td></tr> <tr><td>1998</td><td>Epidemic</td><td>1,871</td><td>35,800</td><td></td></tr> <tr><td>1998</td><td>Epidemic</td><td>590</td><td>4,900</td><td></td></tr> <tr><td>2003</td><td>Drought</td><td></td><td>1,900,000</td><td></td></tr> <tr><td>2004</td><td>Drought</td><td></td><td>254,000</td><td></td></tr> <tr><td>2007</td><td>Epidemic</td><td>109</td><td>264</td><td></td></tr> </tbody> </table>	Year	Disaster	Total Killed	Total Affected	Total amount of loss (x1000)	1980	Epidemic	12			1982	Flood		40,000		1983	Epidemic	163			1984	Drought		3,000,000		1985	Epidemic	10	118		1986	Flood		6,000		1987	Epidemic	90	500		1988	Drought		110,000		1989	Flood	10	141,000		1990	Flood	183	162,000	\$ 280	1990	Epidemic	200			1991	Drought		800,000		1991	Epidemic	290			1991	Epidemic	284	1,733		1993	Flood	54	202,000	\$ 3,510	1996	Drought		3,000,000		1997	Epidemic	2,025	35,600		1997	Epidemic	304	6,800		1998	Epidemic	1,871	35,800		1998	Epidemic	590	4,900		2003	Drought		1,900,000		2004	Drought		254,000		2007	Epidemic	109	264	
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2009	Flood	18	50,000
2011	Drought		1,000,000
2011	Flood	20	50,200

Table 2 Numbers of natural disaster occurrences, killed and affected peoples in Tanzania from 1980 to 2010. *3

Natural Disaster	73
Killed	6,798
Mean Annual Killed	219
Affected	12,465,341
Mean Annual Affected	402,108

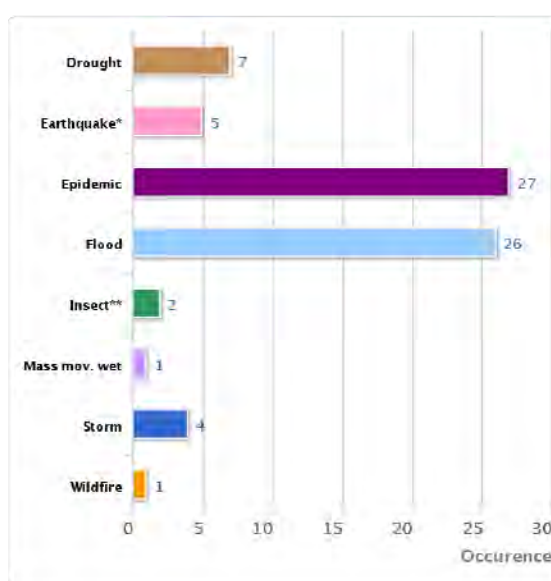


Figure 1 Occurrence numbers of each kind of disasters in Tanzania from 1980 to 2010. *3

2. Administrative Structure

- Administrative structure of Tanzania is consisted from 26 regions (Mkoa). The capitals of the regions are indicated in parentheses.
 - <Tanganyika Region>
 - Arusha (Arusha), Dar es Salaam (Dar es Salaam)
 - Dodoma (Dodoma), Iringa (Iringa), Kagera (Bukoba), Kigoma (Kigoma), Kilimanjaro (Moshi), Lindi (Lindi),
 - Manyara (Babati), Mara (Musoma), Mbeya (Mbeya),
 - Morogoro (Morogoro), Mtwara (Mtwara), Mwanza (Mwanza), Pwani (Kibaha),
 - Rukwa (Sumbawanga), Ruvuma (Songea),
 - Shinyanga (Shinyanga), Singida (Singida), Tabora (Tabora), Tanga (Tanga)
 - <Zanzibar region>
 - Pemba North (Wete), Pemba South (Mkoani)
 - Zanzibar Central/ South (Koani), Zanzibar North (Mkokotoni), Zanzibar Urban/ West (Zanzibar)
- *five (5) regions in Pemba island and Zanzibar island consist Zanzibar self-government.
- District, Division, Ward, Village/Street exist under region as the official administrative levels. There is constituency between district and division and sub-village under village exist. Administration system is divided into regional administration and local government. Regional administration is under the central government (region, district

	and division) and local government is under the local government (district, ward and village). *3	
3. Disaster Prevention (preventing damage/damage mitigation)	【Current situation】	【Issue】
<ul style="list-style-type: none"> Understanding disaster risk (HFA2) 	<ul style="list-style-type: none"> Disaster Management Department (DMD) under Prime Minister Office (PMO) showed a positive feedback to disaster risk evaluation and correspondence ability to disasters in 2008. Evaluation was conducted on multi-level administrative disaster management organizations, man-made disaster, disaster due to climate change, damage from geologic condition, ecological disaster. DMD under POM conducts Rapid Vulnerability Assessment (RVA) with National Food Security Team under Ministry of Agriculture. Aid from the nation or donors implement from these surveys. National Land Use Frame work Plan 2008-2028 is planning to implement hazard/risk mapping (planning stage). 	<ul style="list-style-type: none"> Lack of system to know disaster occurrence and its damage and put them together at the central level. Only National Bureau of statistics Tanzania collects the information about damage regularly. Risk assessment results are not fully utilized for intervention and planning purpose due to inadequate financial resources. *5 Ability to assess the full range of consequences and vulnerabilities, especially secondary impacts, comparative economic analysis and assessing non-monetary costs. *5
Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> The central government, local government and NGO are currently working hard to impregnate the knowledge about new strains of influenza to community people. UN organizations, mass media, NGO and Tanzania Red Cross Society (TRCS) organize a disaster management forum and disseminate of disaster risk information at community level. Zanzibar local communities were involved in the sharpening of the Disaster Risk Reduction Policy via consultative meetings which met every Shehia, through Shehia Disaster Management Committees the same mechanism is used in the formulation of ZEPRP. Their roles and responsibilities are articulated clearly in the policy and Disaster Management Act. *5 In Zanzibar, Disaster Risk and capacity Needs Assessment was done in 2008 which gives the risk and vulnerability map of Zanzibar on disaster issues. The participatory needs and capacity assessment have been done in 85 Shehias while currently (as of October 2010) the assessment is carried out to other 50 Shehias of Zanzibar. *5 Decentralization of food security and nutrition assessment is in place. In June 2010 two regions (Lindi and Mtwara) have been piloted and have conducted assessment and produced on their own Food Security and Nutrition Report. *5 Different institutes have various means to communicate hazards and risks to community and stakeholders. Currently there is no consolidated database or website where, various stakeholders and the general public can disseminate and access data and information on disaster risk management. Normally information on disaster are shared to stakeholders, 	<ul style="list-style-type: none"> The actual work relies on donor and Ngo. Therefore no system is established. Further Disaster education to all communities is necessary. There is also a need to prepare disaster profile map to get the figure of occurrence of disaster at grass root level and the challenge. *5 Resources (fund, technical knowhow and IT equipment) are major drawbacks. There is need to develop other means for information sharing like Annual Government Report on Disaster Prevention and Response, Database, Web based information on disaster and so on. This should go parallel with educating the public on the importance of making follow up on various kinds of disaster information. *5

		<p>community at risk and the general public through formal communication, disaster platform, press release, radio and television programs and so on. *5</p> <ul style="list-style-type: none"> • In the commemoration of International Day for Disaster reduction, October 2010, DMD Zanzibar conducted a 2-day workshop for students of higher learning institutions of Zanzibar as a base of exchanging knowledge and information on Disaster Risk Reduction issues. Six topics/issues were presented and discussed. DMD also organized and participated on live broadcasted radio and TV programmes where that year's theme (Making cities resilient- My city is getting ready) was discussed among panelists and viewers through phone calls. *5 • Through UNDAP 2011-2015 and the Zanzibar Strategy for Growth and Reduction of Poverty 2010-2015, DMD of Zanzibar plans to integrate/mainstream disaster risk reduction concepts in the primary and secondary school curricula. *5 • DMD Zanzibar has conducted Disaster Risk Reduction related training to Media and town planners' personnel. *5 	
	<p>Legislation/policy principle/plan development (HFA1)</p>	<p>Legislation</p> <ul style="list-style-type: none"> • National Disaster Management Policy 2004 was formulated. The policy and National Operational Guidelines for Disaster Management 2003 regulate the outline of disaster risk reduction policy at the all administrative level. National Disaster Management Policy is reviewed *22, *23 • National Land Policy, 1995, National Human Settlements Development policy, 2000, Environmental Management Policy include information about disaster management. • Environmental Management Act of 2004 mentions about prediction and warning about food shortage due to climate change • Disaster Management Department (DMD) of Zanzibar is currently in the process of developing three National guidelines*5 <ul style="list-style-type: none"> (i) Zanzibar Disaster Risk Reduction Policy (ii) Zanzibar Emergent Preparedness and Response Plan (ZEPRP) (iii) Zanzibar Disaster Communication Strategy (ZDCS) • The Zanzibar Strategy for Growth and Reduction of Poverty (MKUZA II) 2010-2015 through Ministry of Finance and Economic Affairs has incorporated the following disaster risk reduction intervention package. All these are encompassed on the operational target "Preparedness and response to disasters enhanced by 2015" *5 <ul style="list-style-type: none"> (i) Review and harmonize disaster related laws and policies (ii) Improve infrastructure and capacity to deal with disasters and strengthen emergency preparedness system (iii) Build capacity of institutions and individuals in terms of equipment and necessary skills and knowledge (iv) Empower community members especially women and children to prevent and respond to hazards 	<ul style="list-style-type: none"> • Disaster Management Policy exists, but the lack of Disaster management Act and participation by senior policy makers from the Sector ministries undermine the progress. *5 • No expansion of disaster risk reduction activities due to lack of department of disaster risk reduction at the local level. • Review "The disaster Relief Coordination Act, No.9 of 1990" (Act no 9, 1990) and "National Operation Guidance (2003)" (NOG, 2003). *8 • Development of Emergency Preparedness and Response Plan. *8

	<p>and disasters</p> <p><Related plans></p> <ul style="list-style-type: none"> • National Land Use Planning Commission (NLUPC) in Ministry of Lands, Housing and Human Settlements Development formulated National Land use frame work plan of 2008 and it plans to strengthen the disaster risk reduction ability which is corresponding to climate change. • National Avian Influenza Strategic Plan mentions about improvement of disaster risk reduction ability of Prime Minister’s Office, each ministry and related organizations to correspond by enlightenment. <p><Related standards></p> <ul style="list-style-type: none"> • No information 	
<ul style="list-style-type: none"> • Establishment and reinforcement of disaster reduction system (HFA1) 	<p>System of Organization</p> <p><Central level></p> <ul style="list-style-type: none"> • The Disaster Management Department in the Prime Minister’s Office is the responsible organization for disaster prevention.*24 • Disaster Management Office (DMD) under Prime Minister’s Office conducts disaster preparing, emergency response and renaissance. *24 • Tanzania Disaster Relief Committee (TANDREC) is in charge of policy making. • The Disaster Relief Act of 1990 No.9 mentions about TANDREC. TANDREC is consisted from the vice-ministers of each ministry and the chairmen of Tanzania Meteorological Agency (TMA), Food Security Department, and Fire and Rescue Department. They decide various kinds of actions which TANDREC conducts. • Disaster Management committee exists at the national level <p><Coordinating body></p> <ul style="list-style-type: none"> • TANDREC is consisted from the chairmen of related organizations, and TANDREC is an organization of coordination. • National Platform for Disaster Risk Reduction was established in 2006. The National Platform is operational and has met four times with participants from the central and local government, government and private institutions, UN agencies, international and national development organizations, media, NGOs, religion/Faith group and so on. *5 • National multi sectional special committee, disaster technical engineer and disaster risk reduction work group exist and these organizations correspond to particular disasters (such as avian influenza and rift-valley fever) under a coordination from Prime Minister’s office <p><Local level></p> <ul style="list-style-type: none"> • Disaster management committees exist at Region, district, ward and village level. *13 • DMD of Zanzibar has established and trained Disaster Management Committees at regional, District and Shehia level. They are responsible in coordinating all disaster related activities at their respective levels. 	<ul style="list-style-type: none"> • Disaster management system at the central level is developed at a certain degree under National Disaster Relief Fund. However disaster management is not implemented at the local level due to lack to finance. • Change from Disaster Management Department to Disaster Management Agency. *8 • Establishment of Emergency Operation Centre *8 • Risk management knowledge and funding are main challenge. *5 • The absence of strong Disaster management Committees at the Regional, District and Community levels diminished the potential for organizational roles at these levels. *5 • The main challenge is high cost and coordinating function has not been strong enough to facilitate National Platform meetings. *5

		<p>*5</p> <ul style="list-style-type: none"> Organizations mentioned under Draft of National Disaster management Policy (*14) are explained as followed. Please refer to the draft of the policy (*14) for the detail. <p><Central Level></p> <ul style="list-style-type: none"> The top of the proposed disaster risk reduction is prime minister. National Disaster Management Committee (NADMAC) will be established under the prime minister. The permanent secretary in the Office of Prime Minister. The members will be from the related ministries. The role of the NADAMAC will be as followed: to coordinate disaster management in its broader sense including an all hazards approach to mitigation, prevention, preparedness response and recovery, to oversee the integration of disaster management issues into the sector development plans, to oversee the implementation of the National Disaster Management Policy through the commission and to make recommendations and advise the prime minister. The NADMAC will meet twice a year, when early warning thresholds indicate need and when a disaster strikes. *14 Disaster Management Commission is the organization to coordinate disaster management activities among ministries. The commission will be the secretariat to the NADMAC. It will also coordinate international collaborations such as United Naiton (UN). *14 <p><Local level></p> <ul style="list-style-type: none"> Regional/ District/ Village Disaster Management Committee (REDMAC/DIDMAC/VIDMAC) exist. Not only administrative bodies but also NGO participate to the committee for continuous observation of disaster risks. Especially, DIDMAC and VIDMAC will be the priority disaster management organization. They will be the key organization for the relief activity and effective disaster correspondence. *14 Technical committees (TC) will be under respective sector and shall be responsible for providing technical expertise to a sector specific disaster. *14 There shall be Disaster Response Teams established at all levels to counter react to disaster and emergencies. *14 	
	<p>Improvement on prevention by structural measurement/land-use control (HFA4)</p>	<p><Structural measurement> No information</p> <p><Regulation></p> <ul style="list-style-type: none"> National Land Policy (1995) formulates a policy about safe land supply. The village Act No. 5 of 199 determines about a formulation of village land use plan by village office. National Human Settlements Development Policy, 2000 mentions to obey to the village land use plan in the section of village development plan. Land use planning Act No. 6 of 2007 was formulated in 2007, and land use regulation can be implemented in an integrated way from the central level to the local governmental level. 	<ul style="list-style-type: none"> National Land Policy (1995) covers national level, regional level, district level, village level and agricultural land level. However, there are many sections which does not clearly consider whether it can apply to each level or not.
	<p>Development on</p>	<p><Prediction and warning system></p>	

warning system/evacuation system (HFA2,3)

- There are various kinds of early warning systems to monitor various kinds of hazard. Systems in the government include Tanzania Meteorological Agency (TMA), Seismology Unit in Ministry of Energy and Minerals, Emergency Preparedness and Response Unit (EPRU) in Ministry of Health and Social Welfare, Plant Protection Unit in Ministry of Agriculture and food Security and Food Security Department. Non-governmental systems include Famine Early Warning System Network (FEWS NET). *24
- Information on hazards/disasters such as drought, floods, pests, earthquake and diseases are passed on to the community through government publication on media, information through media and meeting between local community and their leaders. *5
- The Tanzania Meteorological Agency (TMA) provides information on weather and climate as part of early warning on drought, floods and other weather related risks. *5
- Ministry of Agriculture and Food Security through Early Warning Unit provides information and data on pests, rainfall for crop production, crop status and other externalities that might affect food security. *5
- Ministry of Health and Social Welfare and Ministry of Livestock Development and Fisheries has surveillance systems to monitor human and animal epidemics. These warnings will be informed to the people via mass media. *5
- The UN agencies in Tanzania have formed an emergency coordination group which receives and disseminate disaster information. Emergency Coordination Group Focal Point is responsible to communicate with relevant government organs, specifically PMO soon after receiving ant information on hazard and disasters. *5
- Disaster Management Department (DMD) of Zanzibar plans to have Emergency Situation Room (ESR) to be equipped and capacitated by UNDP of which one of its functions is to be a central point of all sectors for issuing early warning in the country. DMD of Zanzibar is further planning to have a comprehensive data base of disaster related information. *5
- Famine Early Warning System Network (FEWSNET), Early Warning Unit, Ministry of Agriculture and Food Security have early warning systems on food security*24
- Tanzania Meteoro-logical Agency (TMA) has early warning system on drought, flood and rainfall*24
- Ministry of Mineral and Energy has early warning system on landslides*24
- Ministry of Health and Social Welfare (EPR Unit) and Ministry of Livestock Department and Fisheries have early warning systems on epidemic*24
- NEMC, Environment Dept. at the Vice President's Office have early warning systems on environment*24

- There is no system to collect and accumulate the all information about disaster at central level.
- Establishment of National Emergency Operation Centre is under planning level, and there is no organization which collects and accumulates the necessary information of early warning comprehensively and tells the information to community people.
- Challenge is how to establishing a National Emergency Operation Centre for appropriate warnings systems and response arrangements for future disasters. For effective dissemination and use of early warning information it is necessary to emphasis on public education programs at both the national and local level. *5
- Traditional prediction mechanisms have not been developed to provide reliable information. In general there is no comprehensive warning system in the country. Therefore, main challenge is to have developed and strengthened of warning systems for all disasters to be efficient and ensure timely dissemination of information. *5
- Lack of finance and human resource regarding each warning system. Therefore, they are not functioning sufficiently.
- Evidence of prediction and warning is not accurate enough. There are some cases that they are not based on scientific evidence
- There is a need to improve procedure of coordination and data sharing methods and the mechanisms *5

<Awareness about disaster risk reduction, disaster

		<p>education, evacuation drill></p> <ul style="list-style-type: none"> • US Centers for Disease Control and Prevention (CDC) and USAID together run a public health school in the Middle East Africa. They educate the students about communicable disease control and correspondence to communicable disease. They also support the preparation of plan for correspond to communicable disease for the local government *24 • Under the financial support from USAID, Strengthening Tanzania Disaster Response Project (STDRP) was implemented, and Disaster Management Training Centre (DMTC) was established. *12 • In higher education, the University of Dodoma and Ardhi University in Tanzania Provide Bachelor and Master courses on DRR respectively*5. • As another higher education, there is a network called Periperi Universities. Periperi U which stands for the Partners Enhancing Resilience to People Exposed to Risks Universities. The universities are continent-wide network for education, Training and research in disaster risk reduction. Some universities in Tanzania, Uganda, Kenya and some other African countries are included in the network. *24 • These abilities are not sufficient in Tanzania, Tanzania join to East African Community, EAC), South Africa Development Community (SADC) and African Union (AU) and Tanzania receives the support from them. • Disaster Management Department (DMD) under Prime Minister's office, Tanzania Institute of Education (TIE), University College of Land and Architectural Studies (UCLUS) together develop the curriculum about disaster risk reduction. They also prepare training and implementation manuals for related staff. *24 <p><Meteorology/communication system></p> <ul style="list-style-type: none"> • The existing Early Warning System Zanzibar is available through daily TV and Radio broadcasted weather focus produced by Tanzania Meteorology Agency Zanzibar Zone. *5 <p><Earthquake> No information</p>	
	<p>Economical preparation (HFA1)</p>	<ul style="list-style-type: none"> • National disaster fund is always ready under Prime Minister's office, and the fund is used from the national treasury when it is an emergency • Emergent and long-term financial support is provided from "life-saving assistance and assured protection for children in emergencies". This program includes assistance related to sanitation, education of children and HIV/AIDS. • Budget of disaster risk reduction is increasing proportional to the whole budget. *5 	<ul style="list-style-type: none"> • Disaster risk reduction ability at the national level is developed by the national disaster risk reduction fund. The ability of the local government and community which are the primary responders to a disaster is insufficient due to lack of human and physical resources. Therefore, disaster correspondence ability is inefficient and not effective. Ability

			<p>building of administrative level below national level and communities are necessary. *5</p> <ul style="list-style-type: none"> There is no fund which can be used for disaster risk reduction activities at the local government level. *5 															
	<p>4. Emergency Correspondence (HFA5)</p> <p>Establishment of emergency correspondence system</p> <p>Lifesaving</p> <p>Support sufferers</p>	<ul style="list-style-type: none"> Tanzania and UN together implement a capacity development program for national disaster correspondence. This program enable communities to conduct emergency correspondence activities by distributing equipment for rescue because of financial support from Prime Minister's office and Tanzania red cross. Equipment for 50,000 damaged people is currently ready. 	<p>【課題】</p> <ul style="list-style-type: none"> There is no framework for emergency correspondence at the local areas since National disaster risk reduction policy do not mention about emergency correspondence except national level. Insufficient early correspondence system, and distribution, logistics and distribution plan for relief goods. *5 															
	5. Community-based disaster risk reduction	No information	<ul style="list-style-type: none"> Awareness about problems related to disaster is low at the individual level. *5 															
	6. Climate change adaptation (CCA) (HFA4)	<ul style="list-style-type: none"> There is ongoing project on "Mainstreaming Climate Change Adaptation into National Policies in Tanzania (2010-2011)" under the Vice President's Office-Division of Environment financed by UNDP. *5 Please refer to*10*11 for projects in Tanzania which are in NAPA Priority Projects. 																
Aid to Issue	7. Record of Japanese aid	<p>~Direct aid for disaster challenges~</p> <p><Emergency Grant Aid>*6</p> <table border="1"> <thead> <tr> <th>Projects</th> <th>Year</th> <th>Amount(10⁸yen)</th> </tr> </thead> <tbody> <tr> <td>Disaster Emergency Disaster Aid (Flood) *7</td> <td>1990</td> <td>0.20</td> </tr> <tr> <td>Emergency Disaster Aid (Flood) (JICA Emergency humanitarian support goods procurement)</td> <td>1992</td> <td></td> </tr> </tbody> </table> <p>~ Indirec</p> <p>t aid for disaster challenges~</p> <p><Development planning></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>The Study on Water Supply Improvement in Coast Region and Dar es Salaam Reri-Urban (This project includes drought correspondence as a background)</td> <td>2003</td> <td>2005</td> </tr> </tbody> </table>		Projects	Year	Amount(10 ⁸ yen)	Disaster Emergency Disaster Aid (Flood) *7	1990	0.20	Emergency Disaster Aid (Flood) (JICA Emergency humanitarian support goods procurement)	1992		Projects	From	To	The Study on Water Supply Improvement in Coast Region and Dar es Salaam Reri-Urban (This project includes drought correspondence as a background)	2003	2005
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8. Record of aid by other donors, NGO and industry-academic-complexes and support strategy *5	<p>< World Bank / GFDRR > *6</p> <ol style="list-style-type: none"> Climate modeling and risk management Program in Africa: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda \$ 439,780 (on-going) South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$450,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi , Djibouti , Eritrea , Ethiopia , Rwanda , Somalia , Tanzania , Uganda , Global) \$ 100,000 Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473 <p><UNISDR>*9</p> <ol style="list-style-type: none"> Strengthening National Platforms for Disaster Risk Reduction in Africa 																	

		<p><UNDP>*9</p> <ol style="list-style-type: none"> 3. Disaster Risk Management in Tanzania. Strengthen capacity in DRM within the Government <p><WMO>*9</p> <ol style="list-style-type: none"> 6. Strengthen NHS's capacity to provide useful information to support integrated water resources management and flood forecasting in cooperation with SADC 7. Severe weather forecasting demonstration project; enhanced use of outputs for Numerical Weather Prediction Systems in cooperation with SADC. 8. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC 9. Tropical Cyclone Advisories for the Southwest Indian Ocean Countries; Enhanced availability of guidance information for the issue of tropical cyclone warnings by NMHS's at national level 10. Preparedness to climate variability and change, natural disaster preparedness and enhanced food security in cooperation with SADC DMC and ICPAC <p><ProVention Consortium>*9</p> <ol style="list-style-type: none"> 4. Partners for Humanitarian and Risk Education Expansion (PHREE-Way) established regional platforms to facilitate, enable and mediate the learning and research 5. Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction 6. African Urban Risk Analysis Network (AURAN). <p><USAID></p> <ol style="list-style-type: none"> 1. Strengthening Tanzania Disaster Response Project (STDRP) <p><AfDB></p> <ol style="list-style-type: none"> 1. EAC Backbone & Lake Victoria Maritime *20 <p><Other donors></p> <p>Other strategies include the one UN Joint Programme: strengthening National Disaster preparedness and response capacity</p>
9.	Issue and collaboration use of existing network (ADRC, ISDR and so on)	<ul style="list-style-type: none"> • TMA works closely with regional bodies like Southern Africa Development Cooperation (SADC) and EAC on data process, sharing and dissemination. *5 • National Avian Influenza Emergency Preparedness and Response Strategic Plan and RVF EPRP both for 2010/11-2012/13 has also been harmonized with the regional preparedness plan such as the Southern Africa Development Cooperation, EAC and African Union Inter-Bureau for Animal Resources. *5

- 出典 : *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 11 November 2011)
- *2 Wikipedia: (<http://en.wikipedia.org/wiki/Tanzania>) (2011)
- *3 Prevention Web: Tanzania (<http://www.preventionweb.net/english/countryies/africa/tza/>) (2009)
- *4 Prevention Web: Tanzania, United Rep of : National progress report on the implementation of the Hyogo Framework of Action 2007-2009
- *5 Prevention Web: Tanzania, United Rep of : National progress report on the implementation of the Hyogo Framework of Action 2009-2011
- *6 Project list provided by JICA
JICA 「Report: research for disaster prevention sector project」 (2005)、
Ministry of Foreign Affairs of Japan HP 「ODA data book 2008」
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf)、
Related JICA reports
- *7 GFDRR: HP (http://gfdr.org/index.cfm?Page=activity_list&itemID=2&ctry=ET&pf=1&map=yes)
- *8 Country report prepared for JICA Seminar, disaster risk reduction in Africa, (2011/10/17~27)
- *9 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (2010) (http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)

- *10 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
- *11 UNFCCC: TANZANIA: NAPA PROJECT PROFILE
(http://unfccc.int/files/adaptation/napas/application/pdf/34_tanz_pp.pdf)
- *12 Disaster Management Training Centre (DMTC)
(<http://www.itc.nl/PDF/Organisation/UNU%20DGIM/item%201839/mlenge.pdf>)
- *13 Disaster Management Department (DMD)
(<http://www.tanzania.go.tz/government/disaster.htm>)
- *14 National Disaster Management Policy (Draft, Government of Tanzania, 2009)
(<http://www.pmo.go.tz/documents.php?search1=2&type=Policy>)
- *15 National Land Policy 1995 (Government of Tanzania)
(<http://www.tzonline.org/pdf/nationallandpolicy.pdf>)
- *16 Land Use Planning Act No.6 of 2007 (Government of Tanzania)
(<http://www.tzonline.org/pdf/nationallandpolicy.pdf>)
- *17 National Land Use Framework Plan 2008-2028, Workshop Report (Government of Tanzania)
(http://www.nlupc.org/images/uploads/NLUP_workshop_report_2008_2028.pdf)
- *18 Tanzania Land Policy and Genesis of Land Reform Sub - Component Of Private Sector Competitiveness (Government of Tanzania)
(http://www.nlupc.org/images/uploads/Tanzania_Land_Policy.pdf)
- *19 TANZANIA 2nd Regional Dialogue, Developing Legal Capacity for Climate Adaptation in Eastern & Southern Africa
Presentation of Findings (IUCN)
(http://www.adaptationlow.org/pesa/nationalaw/Meeting Documents/Tanzania CCA Policy and Legal Study_DK+DP.ppt)
- *20 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
- *21 Wikipedia the Free Encyclopedia East Coast Fever
(http://en.wikipedia.org/wiki/East_Coast_fever)
- *22 The National Disaster Management Policy (Government of Tanzania, 2004)
- *23 The National Disaster Management Policy (Draft, Government of Tanzania, 2009)
- *24 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

Disaster Risk Reduction (DRR) Information in Uganda

The Current Situation and Issue	1. Characteristics of disasters	<p><Drought>*19</p> <ul style="list-style-type: none"> In Uganda, severe droughts have occurred in the Karamoja region, northern and eastern area of Uganda, due to a combination of dry spells and high temperatures in June-July 2011, Karamoja experiences serious crop failures every five years. It is anticipated that the extension of the Sahara Desert further south will make Uganda more prone to drought. The 1993/1994 famine in Uganda caused mainly by drought affected over 1.8 million people in the 16 districts. <p><Flood>*19</p> <ul style="list-style-type: none"> Northern and eastern parts of Uganda are prone to floods. <p><landslides>*19</p> <ul style="list-style-type: none"> In Uganda, landslides are one of the most significant hazards, especially the area around the Mt. Elgon area is prone to landslides. Even this year, 25 June, 2012, a landslide occurred and 18 people were killed and more than 100 people were missing. The worst event occurred in 2010, when heavy rainfall triggered a landslide that killed over 300 people. In Kenya, the situation around the Mt. Elgon area is almost the same. <p><Epidemic>*19</p> <p>Adult HIV prevalence exceeds 5% in Uganda.</p> <ul style="list-style-type: none"> The latest outbreak of Ebola in the EAC Partner States occurred in Kibaale district, Uganda, on 3 August 2012. A total of 24 probable and confirmed cases including 17 deaths were reported since the beginning of the outbreak as of 3 September 2012. <p><Pest infestation>*19</p> <ul style="list-style-type: none"> As damage from pest infestation, in Uganda, there was an outbreak of cassava mosaic virus in 1997, and it resulted in serious infestation. <p><Conflicts>*19</p> <ul style="list-style-type: none"> In Uganda, the major conflicts have included the war in 1979 that ousted the government of Idi Amin, the 1980-1986 armed struggles that took place mainly in the central parts of Uganda, and the 1986-2007 armed conflicts in northern and eastern parts of the country. Other forms of unrest have taken place in form of cattle rustling in the Karamoja area. <p><Livestock diseases>*19</p> <ul style="list-style-type: none"> East Coast fever is probably the most important livestock diseases in Africa, causing an annual loss of 1.1 million cattle and \$168 million, as of 1992. It is found in some countries including Tanzania^{*16} <p><Environmental degradation>*19</p> <ul style="list-style-type: none"> In Uganda, wetland degradation occurs as a result of drainage, over-harvesting and burning for brick making, dairy farming, and crop cultivation. Encroachment on protected areas has resulted in destruction of habitats and loss of fauna and flora. The deep waters of Lake Victoria are de-oxygenated partly due to the depletion of the phytoplanktivorous haplochromine grazers by introduced Nile perch, indicating a need for exhaustive studies before the introduction of foreign species. Fish production in Uganda is also suffering from effects of the water hyacinth which was probably introduced by humans. <p><Comprehensive></p> <ul style="list-style-type: none"> Major natural disasters in Uganda from 1901 to 2011 were epidemics, droughts, floods, earthquakes and landslides (Table 1). *1 Numbers of natural disaster occurrences, killed and affected peoples in Kenya from 1980 to 2010 are shown in Table 2. Occurrence numbers of each kind of disaster are also shown Figure 1.
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Table 1 Major natural disasters from 1901 to 2011 (111 years)*1

Year	Disaster	Total Killed	Total Affected	Total amount of loss (x1000)
1901	Epidemic	200,000	-	-
1935	Epidemic	2,000	-	\$ 50
1966	Earth quake	104	5,510	1,500
1967	Drought	-	25,000	\$ 200
1979	Drought	-	500,000	-
1987	Drought	-	600,000	-
1989	Drought	156	961	-
1990	Epidemic	197	1170	-
1991	Epidemic	100	-	-
1994	Earth quake	7	50,000	70,000
1997	Flood	100	153,500	1,000
1998	Drought	-	126,000	1,600
1999	Drought	115	700,000	-
2000	Epidemic	224	423	-
2002	Drought	79	655,000	-
2005	Drought	-	600,000	-
2007	Flood	29	718,045	\$ 71
2008	Drought	-	1,100,000	-
2010	Landslide	388	12,795	-
2011	Drought	-	669,000-	-

Table 2 Numbers of natural disaster occurrences, killed and affected peoples in Kenya from 1980 to 2010. *9

Natural Disaster	61
Killed	2,280
Mean Annual Killed	74
Affected	4,938,644
Mean Annual Affected	159,311

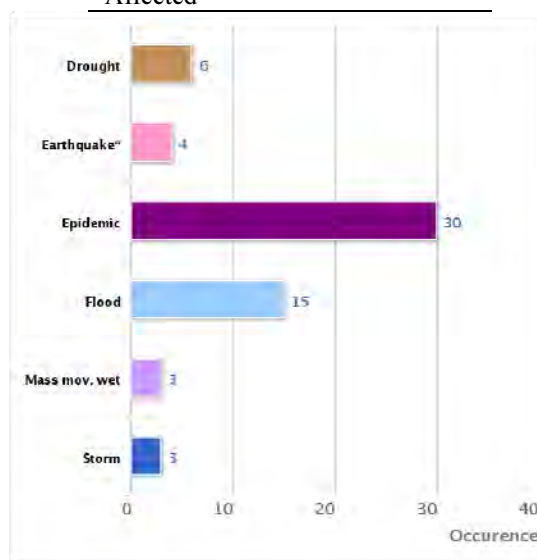


Figure 1 Occurrence numbers of each kind of disasters in Uganda from 1980 to 2010. *9

2. Administrative Structure

Uganda is divided into 111 districts and one city (the capital city of Kampala) across four administrative regions. *14

1. Central Region
2. Eastern Region
3. Northern Region
4. Western Region

3. Disaster Prevention (preventing

【Current Situation】

【Issue】

<p>damage/damage mitigation)</p> <p>Understanding disaster risk (HFA2)</p>	<ul style="list-style-type: none"> • Government of Uganda has hazard maps for Wetlands, Environment, Forests, Earthquakes, Landslides, Drought and Floods. The Earthquake hazard maps were developed in 1994, Wetlands in 1997-2000, Environment 1999, Forest 1999-2001, landslides in 2002 and drought/ floods are being developed.*3 however, those hazard maps are not updated regularly. About a hazard map on landslides, it is updated for the Mount Elgon region.*19 • According to National Policy for Disaster Preparedness and Management, the disaster profiles and maps will be updated at least once every 3 years. *10 • In Uganda risk assessment is sector based, the Ministry of Agriculture conducts food security and agriculture related risk assessment, the Ministry of Water and Environment handles weather, floods and drought, the Ministry of Lands deal with landslides, the Ministry of Energy deals with seismic waves, and the Ministry of Health deals with disease and epidemics. Reports on those matters are submitted to the National DRR platform with recommendations of possible actions.*19 	
<p>Sharing disaster risk with region and community (HFA2)</p>		
<p>Legislation/policy principle/plan development (HFA1)</p>	<p>Legislation :</p> <ul style="list-style-type: none"> • National Policy for Disaster Preparedness and Management*17: Formulated in 2010 and approved in May 2011*18 • Uganda also has in place a National Disaster Preparedness Policy and Institutional Framework approved by Cabinet in 1999 and revised in 2003. *3 • National Disaster Preparedness and Management Act is proposed. *10 • National Disaster Preparedness and Management Fund Bill is proposed. *10 • Town and Country planning Act – 1960s *5 • The Environment Act Cap 153 *5 • Public Health Act *5 • Water Act 2003 *5 • Forest Act 2003 *5 • National drug Authority Act *5 • National Water policy 	
<p>Establishment and reinforcement of disaster reduction system (HFA1)</p>	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> • The Directorate for Relief, Disaster Preparedness and Refuges In the Prime Minister’s Office is the organization for disaster prevention*19 • Policy actions for each disaster, organogram, responsible institutions and etc. are mentioned in the National Policy for Disaster Preparedness and Management. Lead responsible institutions for major disasters are followings. *10 <ul style="list-style-type: none"> • Drought and Flood: Ministry of Water and Environment • Landslide, Mudslide and Environmental Degradation: NEMA(National Environment Management Authority) 	

- Human Epidemics: Ministry of Health
- Earthquakes: Ministry of Energy and Mineral Development

- Outline of organs for disasters mentioned in the National Policy for Disaster Preparedness and Management *10 is following. Please refer to *10 about details.
- Article 110 of the 1995 Constitution gives the President the mandate to declare a state of emergency in any part of the country in the event of a disaster. *10
- The cabinet is the chief policy making body of government and will advise the President on disaster related matters. *10
- Directorate of Disaster Preparedness, Management and Refugees, Office of the Prime Minister (OPM) is the lead agency responsible for disaster preparedness and management. *10
- Implementation of Article 249 of the 1995 of the Constitution requires the minister responsible for disaster preparedness and management to present a proposal to Parliament for establishment of structures, composition, functions and procedures for operations of a National Disaster Preparedness and Management Commission (NDPMC). The members of the commission appointed by the Minister responsible for Relief, Disaster Preparedness and Refugees will be distinguished Ugandan citizens of high integrity with sufficient technical background in areas relevant to disaster management. The NDPMC will be responsible for monitoring, supervising and evaluating activities of sectoral lead institutions, national and international humanitarian agencies. *10
- Ministerial Policy Committee (MPC) is a standing committee of Cabinet that shall handle cross sectorial matters relating to disaster preparedness and management. The committee shall be chaired by the minister responsible for relief, disaster preparedness and refugees. It shall be responsible for policy formulation and overseeing disaster preparedness and management in the country. Membership shall be composed of ministers concerned. *10
- National Platform for Disaster Management: Inter-Agency technical committee (IATC) is comprised of focal point technical officers from line ministries, UN agencies, NGOs and relevant stakeholders. The IATC is chaired by the Permanent Secretary of the Office of the Prime Minister. The functions of the IATC are monitoring and analysis of hazard, risk and disaster trends in the country and so on. *10
- National Emergency Coordination and Operation Centre (NECOC) shall deal with sudden-on-set emergencies such as mass casualty transport accidents, massive landslides and floods and collapsed buildings. The NECOC is responsible for the effective coordination and networking of the various emergency response institutions of government such as the fire brigade, Police Rapid Response Units, UPDF Emergency Support Units, Uganda Red Cross Society, hospitals emergency units and the private emergency firms. The NECOC is established under the Office of the Prime Minister - Directorate of Relief, Disaster Preparedness and Refugees. *10

	<ul style="list-style-type: none"> • In case of Uganda, there are national disaster management committees, district disaster management committees, and sub-county/ward/village committees*18 • In Uganda, sector based capacity building programs exist in health, water and environment, energy and minerals. Capacity building training for national DRR technical staff is being conducted in collaboration with international and regional bodies like Intergovernmental Authority on Development (IGAD), the United Nations Office for Disaster Risk Reduction (UNISDR), the United Nations Institute for Training and Research Operational Satellite Applications Programme (UNOSAT) and United States African Command (US AFRICOM). • Capacity building training for districts is being regularly conducted by the department of disaster preparedness. <p>< District level ></p> <ul style="list-style-type: none"> • There shall be District / City Disaster Policy Committee (DDPC / CDPC) and District / City Disaster Management Technical Committee (DDMTC / CDMTS) in districts or cities. The functions of DDPC / CDPC will be to give policy direction to the District Disaster Preparedness and Management Technical Committee, to inform council about the nature and effects of disasters, etc. DDPC / CDPC shall be chaired by the District Chairman / City Mayor. The functions of DDMTC / CDMTC will be to carry out vulnerability assessment, hazard and risk mapping and update the data annually, to publish an annual disaster report, etc. The DDMTC / CDMTC will comprise of district / city heads of department, the DPC, the army representative and representatives of other relevant government agencies and Partners within the district / city including Uganda Red Cross Society and relevant NGOs. *10 • Similar Policy Committee / Management Technical Committee will be established at municipal / town levels. *10 • At lower administrative levels, Sub-County / Village Disaster Management Committee (SDMC / VDMC) will be established. *10 • District Emergency Coordination and Operations Centre (DECOC) shall be headed by the District Police Commander and shall operate from the district police station. It shall report to the National Emergency Coordination and Operations Centre (NECOC) and to the Chief Administrative Officer. The DPC shall assign four police officers at operational level to manage the district emergency centre on 24 hour rotation basis during normal times. *10 	
Improvement on prevention by structural measurement/land-use control (HFA4)	<p>< Structural measurement ></p> <ul style="list-style-type: none"> • Uganda's wetlands have been drained for rice production. The degradation of the wetlands is partly responsible for increased flooding during rainy seasons and extreme water shortages during dry seasons. Programmes to address flood and drought hazards include wetlands regeneration by encouraging rice growers to adapt upland rice production.*3 • National food silos are being constructed in some parts of the country. 	

<p>Development on warning system/evacuation system (HFA2,3)</p>	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> • The educational programmes in place cover hazard studies such as climate change, environment degradation, and drought and flood patterns. These programmes have not been re-oriented to address disaster risk reduction related to the hazards.*3 • Some disaster risk areas such as control of environment degradation leading to landslides, floods and soil degradation is taught in schools. Terracing is practiced in the hilly parts of Uganda as a result of these training programmes.*3 • In Uganda, public awareness rising is being done routinely through training and education workshops, administrative units, and the media is also helping out with awareness raising programmes.*19 • Hazard risk management workshops conducted for the communities living in landslide prone districts in the Mt. Elgon region, flood prone areas in the Teso region were conducted. *19 <p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> • Hazards such as Drought, Floods, Landslides and Epidemic diseases especially cholera, meningitis and ebola have well developed early warning systems. The main institutions are the Department of Disaster Preparedness and Refugees, the Department of Meteorology, Ministry of Agriculture, Ministry of Health, Ministry of Water, Lands and Environment and the Local Governments. *3 • Agency for Technical Cooperation and Development (ACTED), Meteorology Department (MET Dept.), Ministries of Water and Environment, Ministries of Agriculture, Animal Industry and Fisheries have early warning systems on drought*19 • MET Dept. and Ministry of Water, Environment have early warning systems on flood*19 • Ministry of Water, Environment and MET Dept. have early warning systems on rainfall*19 <p>< Food Security ></p> <ul style="list-style-type: none"> • Famine Early Warning System Network (FEWSNET), / Foreign Agricultural Service (FAS), Ministry of Agriculture, Animal Industry and Fisheries and Food and agricultural Organization have early warning systems*19 <p><Landslides ></p> <ul style="list-style-type: none"> • National Environment Management Authority (NEMA), Ministry of Land Housing and Urban Development, Ministry of Water, Environment, Land Management and Urban Planning have early warning systems on landslides*19 <p><Epidemic ></p> <ul style="list-style-type: none"> • Ministry of Health, Ministry of Agriculture, Animal Industry and Fisheries, World Health Organization (WHO) have early warning systems*19 <p><Environment ></p> <ul style="list-style-type: none"> • NEMA has early warning system on environment*19 	
<p>Economical preparation (HFA1)</p>	<ul style="list-style-type: none"> • In areas emerging from disasters such as North-Eastern Uganda, Government established micro-finance credit scheme to support recovery efforts of the communities.*3 • The National Policy for Disaster Preparedness and management urges the Ministry of Finance Planning 	

		and Economic Development in liaison with the Office of the Prime Minister to develop and present to cabinet and Parliament; a National Disaster Preparedness and Management Fund Bill. The bill should amongst others provide for annual allocation of a minimum of 1.5 % of the annual approved budget to the National Disaster Preparedness and Management Fund. *19																									
	4. Emergency Correspondence (HFA5) Establishment of emergency correspondence system Lifesaving Support sufferers	<p>【Current situation】</p> <ul style="list-style-type: none"> The disaster prone districts numbering 30 out of 56 have contingency plans in place. The plans show the risks and likelihood of related disasters occurring with potential effects. It also shows measures in place to respond to the disaster.*3 Please refer to “Establishment and reinforcement of disaster reduction system” section. *10 In case of Uganda, the National Emergency Coordination and Operations Centre (NECOC), which is established under the OPM, is responsible for the effective coordination and networking of the various emergency response institutions of the government. But this NECOC is yet to be fully operationalized. District Emergency Coordination and Operation centers exist in 60 Districts *17. 	【Issue】																								
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Projects	From	To																									
National Wetlands Management Project (JICA) (Background of the project includes flood)	2012	2016																									
8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank / GFDRR > *8</p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 																										

		<p>5. Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473</p> <p>6. Uganda: Capacity Building in Damage and Loss Assessment (Uganda) \$ 28,617</p> <p>7. Uganda: Round-2 Capacity Building in Damage and Loss Assessment (Uganda) \$72,000</p> <p>< UNDP > *11</p> <p>1. Northern Uganda Drought Support</p> <p>< ProVention Consortium > *11</p> <p>1. Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction</p> <p>< WMO > *11</p> <p>11. Climate observations and regional modeling in support of climate risk management*13</p> <p>12. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC</p> <p>< AfDB ></p> <p>1. EAC Backbone & Lake Victoria Maritime *15</p>	
	<p>9. Issue and collaboration use of existing network (ADRC, ISDR and so on)</p>		

- Source :
- *1 EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain – Brussels (<http://www.emdat.be>) (accessed on 22 July 2011)
 - *2 Wikipedia (<http://en.wikipedia.org/wiki/Uganda>) (2010)
 - *3 Uganda National Report and Information on Disaster Risk Reduction Efforts for the World Conference on Disaster Reduction, Kobe-Hyogo, Japan 18-22 January, 2005
 - *4 Project list provided by JICA
JICA 「Report: research for disaster prevention sector project」 (2005) 、
Ministry of Foreign Affairs of Japan HP 「ODA data book 2008」
(http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/08_databook/pdfs/04-02.pdf) 、
Related JICA reports
 - *5 Country Report, 2011
 - *6 Ministry of Foreign Affairs of Japan HP Outline of ODA Project for Uganda
(http://www.mofa.go.jp/mofaj/gaiko/oda/data/gaiyou/odaproject/africa/uganda/contents_01.html)
 - *7 Ministry of Foreign Affairs of Japan HP Outline of national aid policy for Uganda
(<http://www.mofa.go.jp/mofaj/gaiko/oda/seisaku/pdfs/uganda.pdf>)
 - *8 GFDRR: HP (http://gfdr.org/index.cfm?Page=activity_list&itemID=2&ctry=ET&pf=1&map=yes)
 - *9 Prevention Web: Uganda(<http://www.preventionweb.net/english/countries/africa/uga/>) (2012)
 - *10 Government of Uganda: National policy for disaster preparedness and management
(<http://www.preventionweb.net/english/policies/v.php?id=21032&cid=180>)(2010)
 - *11 Inventory of National Coordination Mechanisms, Legal Frameworks and National Plans for Disaster Risk Reduction in Africa (2010) (http://www.unisdr.org/files/18926_africadrrinventoryfinal.pdf)
 - *12 UNFCCC: Index of NAPA Projects by Country
(http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_country.pdf)
 - *13 Government of Uganda: Uganda Humanitarian Profile -2012
(http://reliefweb.int/sites/reliefweb.int/files/resources/uganda_humanitarian_profile_2012.pdf)
 - *14 Ministry of Local Government, Government of Uganda HP “List of Local Government Districts”
<http://www.molg.go.ug/local-governments>
 - *15 AfDB: Project Portfolio, EAC Backbone & Lake Victoria Maritime
(<http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-z1-gb0-019/>)
 - *16 Wikipedia the Free Encyclopedia East Coast Fever
(http://en.wikipedia.org/wiki/East_Coast_fever)
 - *17 National policy for disaster preparedness and management (Government of Uganda, 2010)
(<http://www.preventionweb.net/english/policies/v.php?id=21032&cid=180>)
 - *18 Government of Uganda: Uganda Humanitarian Profile -2012
(http://reliefweb.int/sites/reliefweb.int/files/resources/uganda_humanitarian_profile_2012.pdf)
 - *19 East African Community Disaster Risk Reduction and Management Strategy (2012-2016) Final Draft

ブルンジの防災情報一覧(概要版)

現状および課題	1.災害の特徴	・ブルンジで1978年から2012年までの35年間に、大きな被害をもたらした自然災害は豪雨、洪水、干ばつ、伝染病、地震である。	
	2.行政区分	ブルンジは17の県(intara)で構成される。県の下に117のコミューンが置かれている。	
	3.災害予防	【現状】 ・災害対応計画に基づき、いくつかの州で災害に対する脆弱性及びリスクに関する概要評価が行われ、現在も継続中である。 ・定期的な災害啓発ワークショップが、国レベルから、県、コミュニティの各レベルにわたって組織された。	【課題】 専門技術、経験が不足している。
	・災害リスクの把握(HFA2)		
	・災害リスクのコミュニティとの共有(HFA2)		
	・法整備/政策方針/計画策定(HFA1)	法整備 ・リスクおよび防災管理に関する国家政策(National Policy for Risk Prevention and Disaster Management): 2008年に内閣により承認されたが、国会では承認されていない。 ・防災および災害管理に関する国家戦略・アクションプラン: Stratégie Nationale de prévention des Risques et de Gestion des Catastrophes et un Plan d'Action が存在する ・ナショナルプラットフォーム設置は2007年に大統領令で発令された。 ・県レベルのプラットフォーム設置は2009年に大臣命令で発令された。 ・2010年末までに自治体向けプラットフォーム設置が発令される予定である。 ・災害リスクマネジメント及び防止についての国家指針(Politique Nationale de Prévention des Risques et de Gestion des Catastrophes)に関する法が作られる予定である。	災害リスク軽減のための国家戦略が、すべて詳細にわたって履行されているわけではない。
・防災体制の確立・強化(HFA1)	組織体制 <中央> ・ブルンジでは公安省市民擁護管理局(The directorate of civil protection in Ministry of Public Security)が防災に関する責任機関である。 ・公安大臣(Ministre de la Sécurité Publique)が災害リスク軽減に関する省横断委員会を主催。 ・ナショナルプラットフォームが防災に関して中心的な役割を果たしている。 ・気象データ観測はブルンジ地理院(IGEBU: Institut Géographique du Burundi)によって行われているが、災害リスクに関する情報は少ない。“IGAD Climate Prediction and Application Center”(ICPAC)経由で情報を入手。 ・農業畜産省(Ministère de l'Agriculture et de l'Élevage)による早期警戒システムとFAOと国連職員によって開発された食の安全モニタリングが行われており、毎月ニューズレターが発行されている。 ・国レベルの侵食対策が農業畜産省を主体として行われている。 ・河川マネージメントは公共事業省(Ministère des Travaux Publics et de l'Équipement)が担当している。 ・国土計画環境省(Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme)は環境保護や流域管理(土地利用・干ばつ対策等)を通じた災害マネジメントを行っている。	災害リスク軽減に関するプロジェクトとほかのセクターの開発計画を統合する仕組みがない。	
・ハード対策/規制等による抑止力の向上(HFA4)	<構造物対策> ・地すべり危険地域における、斜面安定対策工の実施。 ・首都を流れる河川の河岸改修工事の実施。 <規制> ・土地利用計画図有。	対策資金の不足。	
・予警報/避難体制の整備(HFA2,3)	<意識啓発・教育・訓練> ・UNICEFと協力した防災教育が計画されている。 ・Civil Protection Unit(Protection Civile)がUNDP及び国プラットフォームメンバーと協同して、ワークショップ及び情報収集・啓発キャンペーンのための現地視察を行った。 <気象・通信体制> ・ブルンジ地理院(IGEBU: Institut Géographique du Burundi)がラジオで季節的な気象情報提供を行っている。 ・保健や環境といったいくつかのセクターでは早期警戒システムがあり、効果的に運営されている。 ・将来的には、「国家プラットフォーム情報・コミュニケーションシステム」(Système d'Information et de Communication validé par la Plate Forme Nationale de Prévention des Risques et de Gestion des Catastrophes)において勧告されている機関を設立する予定である。(2011現在) ・災害情報ウェブサイトは現在設けられていないが、ウェブサイト推進チームはすでに設置されている。(2011現在)	情報を中央に集めるための国立情報・コミュニケーションセンター(Le Centre National d'Information et de Communication)は、まだ設立されていない。(2011現在)	
・経済的な備え(HFA1)	・災害基金の設立が提唱されている。*16	災害リスク軽減に対する独自の財源はない。	
	4.応急対応(HFA5)	・情報コミュニケーションシステムが開発され、運用されている。 ・国立救急活動センター(Un Centre National d'Opérations d'Urgences)の設立が計画されている。	
	5.コミュニティ防災の位置づけ		
	6.気候変動適応	・国連気候変動枠組条約、生物の多様性に関する条約及び砂漠化対処条約(Convention des NU sur les Changements Climatiques et les Conventions des NU de lutte contre la Désertification et la Diversité Biologique, le Burundi a)への対応の一部として、気候変動適応プロジェクト及びプログラムが行われている。	
課題への支援	7.日本による支援実績	<無償資金協力> ・気候変動による自然災害対処能力向上計画 (2010) <緊急無償> ・災害緊急援助(旱魃被害) (1984)	
	8.他ドナー、NGO、産官学団体の支援実績	<World Bank / GFDRR> 1. Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 2. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 450,000 3. Asia Leadership Development in Disaster Risk Management (Bangladesh, Bhutan, Burundi, Cambodia, Egypt, Arab Republic of, India, Indonesia, Kiribati, Korea, Democratic People's Republic of, Vanuatu, Vietnam) \$ 257,000 4. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 <UNOCHA> 1. Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC <UNISDR> 1. Strengthening National Platforms for DRR in Africa <UNDP> 1. Reinforcement of national capacities on prevention and risk management <WMO> 1. Climate observations and regional modeling in support of climate risk management and Sustainable Development 2. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <AfDB> 1. EAC Backbone & Lake Victoria Maritime	
	9.既存ネットワークの課題や連携・活用状況		

ケニアの防災情報一覧(概要版)

現状および課題	1.災害の特徴	<ul style="list-style-type: none"> ケニアで1991年から2011年までの21年間に、大きな被害をもたらした自然災害は伝染病と干ばつで、洪水も発生している。 2004年の地震被害は、スマトラ地震による津波の被害であり、特殊なものといえる。 ケニアでは、現状では、HIV/AIDS対策を災害(Disaster)対策の中心と考え、干ばつ、洪水にはあまり注目していないようである。 	
	2.行政区分	ケニアは8つの州(mikoa)からなる。州は更に2007年時点で71の県(wilaya'at)と262の郡/地区(tarafa)に分割される。2010年の憲法制定によって州の廃止が決定され、47の県(County)に再編成されることが決まった。2012年に新制度が施行される予定である。	
	3. 災害予防	<p>【現状】</p> <ul style="list-style-type: none"> 気象庁、ケニア食糧監視システム、地質調査所、ナイロビ大学では年2度、食糧状況の調査が行われている 22の乾燥地域で干ばつ対応計画があり、早期警報とリンクしている。 28の乾燥地域で、コミュニティーレベルの干ばつ早期警報システムがある。 <p>【課題】</p>	
	・ 災害リスクの把握(HFA2)		
	・ 災害リスクのコミュニティとの共有(HFA2)		
	・ 法整備/政策方針/計画策定(HFA1)	<p>法整備</p> <ul style="list-style-type: none"> ケニア国家災害管理政策(National Disaster Management Policy of Kenya :NDMP): 2011年2月に最新版が考案された。2012年時点ではまだ承認されていない。 国家重点項目(National Focal Points)では災害リスク削減への予算計上を提言しているが実施されていない。 <p><関連計画></p> <ul style="list-style-type: none"> National Disaster Management Strategic Plan 2012-2017(草案) National Disaster response Plan 乾燥地帯管理プロジェクト(Arid Land Resource Management Plan) II 災害リスク削減戦略(Disaster Risk Reduction Strategy) <p><関連基準></p> <ul style="list-style-type: none"> 情報なし 	
	・ 防災体制の確立・強化(HFA1)	<p>組織体制</p> <p><中央></p> <ul style="list-style-type: none"> 大統領府特別プログラム省(Ministry of State for Special programmes in Office of the President)が防災担当省となっている。 内閣府の下に置かれている防災執行委員会(NDMEC: National Disaster Management Executive Committee、メンバーは各閣僚)が、防災プログラムに関する最高機関である。 NDMECの次に、防災調整委員会(NDCC: National Disaster Coordination Committee)が設置されており、委員長は特別プログラム省の行政官が務めている。 大統領府の特別チーム(Office of President, Special Programmes)が防災政策を担当していたが、2007年に特別プログラム省(Ministry of State for Special Programme)を設立し、防災局(Department of Disaster Risk Reduction, DRR)を設置した。 DRRの下に、災害活動センター(NDOC: National Disaster Operation Center)を設置し、緊急対応を担当させている。 国家計画開発省(Ministry of Planning and National Development)、厚生省(Ministry of Health)、水資源省(Ministry of Water)、農業省(Ministry of Agriculture)がそれぞれの防災の実施機関である。 <p><組織間調整機関></p> <ul style="list-style-type: none"> NDMEC、NDCC、NDOCが調整を行っている。 <p><地方></p> <ul style="list-style-type: none"> 8州レベルに防災委員会(PDC: Provincial Disaster (Management) Committee)がある。 71県レベルに防災委員会(DDC: District Disaster (Management) Committee)がある。メンバーには県レベルの技術者も含まれる。 <p>2009年に提出された国家防災管理政策(National Policy for Disaster Management)が実行されたかどうかは不明で、NOCのHPには、当政策のドラフトが掲載されたままになっている(2012年5月現在)。</p>	<ul style="list-style-type: none"> 自然災害の防災に関する政策は承認されていない。 新設省であり、人材が十分でない。
・ ハード対策/規制等による抑止力の向上(HFA4)	<p><構造物対策></p> <ul style="list-style-type: none"> 洪水多発地域では、堤防の増強、上流域のダム建設等の投資が行われている。 <p><規制></p> <ul style="list-style-type: none"> スラム地区生活環境向上のための住宅供給プログラムのように、居住計画・管理に防災が組み込まれている。 		
・ 予警報/避難体制の整備(HFA2,3)	<p><意識啓発・教育・訓練></p> <ul style="list-style-type: none"> 洪水教育のニーズ調査が行われた。 <p><津波></p> <ul style="list-style-type: none"> スマトラ津波の後に5つの県で教育関係者を対象に研修ワークショップが開催された。 	<ul style="list-style-type: none"> 防災に関する意識啓発、教育は主に治安維持の観点から行われている。 本来の防災教育を行うカリキュラムの余地がない。 	
・ 経済的な備え(HFA1)	<ul style="list-style-type: none"> Disaster Relief Trust Fundの設立が提案されている。 	<ul style="list-style-type: none"> HIV/AIDSや伝染病をDisasterの中心的なものにとらえ、自然災害には利用されていない。 災害活動センターは設立したばかりで、実績はない。 	
4.応急対応(HFA5)	<p>【現状】</p> <ul style="list-style-type: none"> 関係各省庁は、自然災害対応体制ではなく、日常の食糧と飲料水の確保に関する資金の調達と分配を行っている。 		
5.コミュニティ防災の位置づけ	<ul style="list-style-type: none"> 災害活動センターが緊急対応活動を実施し、減災対応準備、住民啓発、訓練、コミュニティ形成を任務としている。 		
6.気候変動適応	<ul style="list-style-type: none"> 2010年4月に"National Climate Change Response Strategy"が発表された。主管は環境・鉱物資源省(Ministry of Environment and Mineral Resources)である。 		
課題への支援	7.日本による支援実績	<p><技プロ/個別専門家></p> <ul style="list-style-type: none"> 洪水に脆弱な地域における効果的な洪水管理のための能力開発(2011) <p><調査・計画・設計></p> <ul style="list-style-type: none"> ニヤンド川流域総合管理計画調査(2008) ニヤンド川流域気候変動に適応したコミュニティ洪水対策計画(2008) 北部ケニア干ばつレジリエンス向上のための総合開発及び緊急支援計画策定(2012) <p><無償></p> <ul style="list-style-type: none"> 気候変動による自然災害対処能力向上計画(2009) <p><緊急無償></p> <ul style="list-style-type: none"> 緊急無償洪水被害(1997) 国内早魃被災民向け食糧援助(1999) 国内干ばつ被災民向け食糧援助(2000) 緊急無償(洪水被害)(2003) 	
	8.他ドナー、NGO、産官学団体の支援実績	<p><World Bank></p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 945,000 Disaster Risk Management in the Sub-Saharan Africa Region (Burkina Faso, Comoros, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Seychelles, Swaziland, Region) \$ 300,000 Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 Feasibility Study for Pan African Drought Risk Pool (Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Senegal, Zambia, Zimbabwe) \$ 220,000 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 <p><UNDP></p> <ol style="list-style-type: none"> Northern Uganda Drought Support Floods Emergency Project: Formation of water and sanitation coordination teams in the various regions <p><UNISDR></p> <ol style="list-style-type: none"> Strengthening National Platforms for Disaster Risk Reduction in Africa <p><UNOCHA Kenya></p> <ol style="list-style-type: none"> Drafting and review of National Disaster Response Plan; District Disaster Preparedness and Response planning ; Contingency Planning for Flood Management <p><African Development Bank></p> <ol style="list-style-type: none"> Emergency Assistance for Drought Crisis in Kenya EAC Backbone & Lake Victoria Maritime 	
9.既存ネットワークの課題や連携・活用状況	<ul style="list-style-type: none"> ケニア政府は、防災及び越境問題の取り扱いにおいて、広域レベルではアフリカ連合(AU)と、準広域レベルでは政府間開発機構(IGAD)と密接に連携している。 		

ルワンダの防災情報一覧(概要版)

現状および課題	1.災害の特徴	ルワンダで1974年から2012年までの39年間に、大きな被害をもたらした自然災害は洪水、干ばつ、伝染病、地震、地すべりである。
	2.行政区分	ルワンダは5つの州(intara)で構成される。州は更に30の郡(akarere)に分かれている。
	3.災害予防	【現状】 洪水と地すべりの危険性が高い地域の抽出を、2011年12月を目処に政府アクションプラン内で行っている。災害危険地域において、ハザードマップの作成を、2012年3月を目処に政府アクションプラン内で行っている。 地域災害マネジメント委員会(DDMC: District Disaster Management Committees)が設けられ、政府によるトレーニング等が行われている。
	・災害リスクの把握(HFA2)	
	・災害リスクのコミュニティとの共有(HFA2)	
	・法整備/政策方針/計画策定(HFA1)	法整備 国家防災政策(National Disaster Management Policy)が2009年に認証された。 その後、新たな国家政策(National Disaster Management Policy)が2009年に承認され、その改訂作業が2012年現在進められている。 災害リスク軽減・防止に関する国家指針(national policy on disaster risk reduction and prevention in Rwanda)は2002年に作成され、2003年6月に内閣に承認された。 国及び地域災害に対して、災害マネジメント戦略計画(The Strategic Plan of Action of the National Policy on Disaster Management)がたてられた。 2008年から社会保障プログラム:The Vision 2020 Umurenge Program (VUP)が履行されている。ルワンダ政府は、社会保障と災害リスクマネジメント戦略、気候変動対応戦略、食の安全戦略の統合的な運営を模索している。 Disaster Management Law MIDIMAR 5 Year Strategic Plan Strategic Orientation Paper National Contingency Plan National Disaster Risk Management Plan Cross-cutting issues guidelines
	・防災体制の確立・強化(HFA1)	組織体制 <中央> 2010年3月に防災・難民省(MIDIMAR: Ministry of Disaster Management and Refugee Affairs)が設立され、防災担当省として機能している。 MIDIMARの元に設けられた国立災害マネジメントセンター(NDMC: National Disaster Management Center)は、歴史的に大統領府や総理府とつながりが強い。 <組織間調整機関> MIDIMARを議長とし、各省をメンバーとした災害委員会(NDSC: National Disaster Steering Committee)があり、災害対策を行う。当機関は、災害マネジメントに関する政策と調整に関する最高責任機関である。 NDSCの機能を強化する目的で、災害技術委員会(DSTC: Disaster Steering Technical Committee)が2012年5月に発足した。 改訂版防災政策では、以下の機関が提案されている。 国の最高防災意思決定機関としてNational Disaster Management Executive Committee (NDMEC)の設置が提案されている。議長は首相、副議長はMIDIMARである。 NDMECの諮問機関として、National Disaster Management Technical Committee (NDMTC)の設置が提案されている。 国連とMIDIMARの協力調整機関として、MIDIMAR/UN Joint Intervention Management Committee (JIMC)が提案されている。 <地方> 地域レベルでは、地域災害マネジメント委員会(DDMC: District Disaster Management Committees)が設けられている。 セクター災害マネジメント委員会(SDMC: Sector Disaster Management Committee)が改訂版防災指針で提案されている。
	・ハード対策/規制等による抑止力の向上(HFA4)	<規制> National Land Use and Development Master Planが、the National Land Commission (NLC)によって作成され、2010年8月にその草稿が政府によって提出された。
	・予警報/避難体制の整備(HFA2,3)	<意識啓発・教育・訓練> 初等教育で防災啓発教育を行っている。 <気象・通信体制> ルワンダ気象庁(National Meteorological Service of Rwanda)が気象観測を行っている。 緊急災害コミュニケーションシステムの開発が、2011年12月を目標に政府アクションプラン内で行われている。 2010年7月に早期警戒システム立ち上げに関するUNDP/UNEPプロジェクト(Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas)が始動した。
・経済的な備え(HFA1)		
4.応急対応(HFA5)		
5.コミュニティ防災の位置づけ		
6.気候変動適応	気候変動対応戦略(Climate Change Adaption strategy)を、環境庁(REMA: Rwanda Environment Management Authority)が担当している。	
7.日本による支援実績	<緊急無償> 災害緊急援助(地滑り) (1988)	
課題への支援	8.他ドナー、NGO、産官学団体の支援実績	<World Bank> 3. Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 4. Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 495,000 5. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 450,000 6. Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 7. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 8. Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 9. Phase 1 of an Activity to Support National Red Cross and Red Crescent Societies (Albania, Armenia, Ecuador, Malawi, Pakistan, Philippines, Rwanda, Solomon Islands) \$200,000 <UNOCHA> 2. Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC <WMO> 3. Climate observations and regional modeling in support of climate risk management and Sustainable Development *13 4. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <UNDP/UNEP> 1. Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas <AfDB> 1. EAC Backbone & Lake Victoria Maritime
	9.既存ネットワークの課題や連携・活用状況	

タンザニアの防災情報一覧(概要版)

現状および課題	1.災害の特徴	・タンザニアで1980年から2008年までの19年間で大きな被害をもたらした自然災害は、干ばつ、伝染病、洪水がほとんどである。*1 *3																
	2.行政区分	・タンザニアの地方行政区分は、26のミコア (Mkoa) と呼ばれる州で構成される。 ・政令行政区として、州の下に県 (District)、郡 (Division)、区 (Ward)、村 (Village/Street) が定められている。その他、県と郡の間に選挙区(Constituency)、村の下に隣組 (Sub-Village) が存在する。また、行政系統が Regional Administration と Local Government に分かれており、連合共和国政府レベルの行政系統として Regional Administration (州、県、郡)、地方政府の行政系統として Local Government (県、区、村) となっている。*3																
	3. 災害予防	【現状】 ・首相府災害管理局は、農業省 (Ministry of Agriculture) の国家食糧安全保障チーム (National Food Security Team) と協同で毎年「早期食糧不足危険度調査」(Rapid Vulnerability Assessment, RVA)を実施している。 ・国家土地利用基本計画 (National Land Use Framework Plan 2008-2028) ではハザード、リスクマッピングを計画している。(計画中) UN の組織、メディア、NGO、タンザニア赤十字社 (TRCS) が災害管理フォーラムを形成し、コミュニティレベルへのリスク情報伝達を実施している。 ・ザンジバルについては、災害リスクと必要とされる対処能力のアセスメント (Disaster Risks and Capacity Need Assessment) が2008年に実施され、災害のリスクマップと脆弱性マップが得られるようになっている。また、これまで参加型の必要性と対処能力のアセスメントが85の区で実施され、2010年10月時点では他の50区でアセスメントを実施中である。*5 ・様々な機関が、様々な手段で、ハザードやリスクについてコミュニティやステークホルダーと連絡をとっている。現在、様々なステークホルダーや一般大衆が防災情報を伝えたり、アクセスしたりできる連結したデータベースやウェブサイトはなく、通常、災害情報は公式な通信手段、災害プラットフォーム、新聞発表、ラジオ、テレビ番組等を通じて、ステークホルダーやコミュニティと共有されている。*5	【課題】 ・災害の発生や被害の状況を把握し、中央で集計するシステムがない。 ・災害影響や脆弱性の全範囲にわたり評価する能力*5															
	・災害リスクの把握 (HFA2)		・資源 (資金、技術的ノウハウ、IT 機器) が主な弱点。災害予防と対策の年報、データベース、ウェブ情報等の他の情報共有を開発する必要がある。それと同時に、様々な防災情報に注意を払うことの大切さについて、一般大衆を教育していく必要がある。*5															
	・災害リスクのコミュニティとの共有 (HFA2)																	
	・法整備/政策方針/計画策定(HFA1)	・国家災害管理政策 (National Disaster Management Policy 2004)が策定され、国家災害管理運用ガイドライン (National Operational Guidelines for Disaster Management 2003)とともに、すべての行政レベルにおける防災政策の枠組みを規定している。国家災害管理政策は現在改訂中である。 ・国家土地政策 (National Land Policy, 1995)、国家居住開発政策 (National Human Settlements Development policy, 2000)、環境管理政策 (Environmental Management Policy) は、災害管理に関連する部分を含んでいる。 ・1990年に策定された災害救助法 (The Disaster Relief Act no 9) は、国家の救助活動全般を規定しているが、2004年の政策を反映して改定する必要がある。 ・<関連計画> ・国土住宅開発省 (Ministry of Lands, Housing and Human Settlements Development) の土地利用計画委員会 (National Land Use Planning Commission, NLUPC)は、国家土地利用枠組計画 (National Land use framework plan of 2008) を策定し、気候変動に対応した防災力を高めることを計画している。	・政策はあるが、災害対策法がないことや主要省庁のトップが政策にかかわっていないことが、防災政策の発展を阻害している。*5。 ・地方レベルの防災に関する部局がないため、防災活動が広がらない。															
	・防災体制の確立・強化(HFA1)	<中央レベル> ・内閣府防災局(Disaster Management Department, the Prime Minister's Office)が防災に関する責任機関である。 ・中央レベルの災害準備、緊急対応、復興は、総理府の災害管理局が行う。 ・政策決定は、総理府官房が運営する国家災害対策委員会 (Tanzania Disaster Relief Committee, TANDREC)が行う。 <組織間調整機関> ・国家防災プラットフォームが2006年に設置され、現在機能している。これまでに4回の会合を持ち、中央・地方政府、政府系・民間機関、国連機関、国際・国内開発組織、メディア、NGO、宗教団体等が参加した。 <地方レベル> ・ザンジバルの災害管理局(DMD)は災害管理委員会を州/県/郡レベルに設立し研修を行った。*5	・リスク管理の知識と資金供給が主な問題 *5 ・州、県及びコミュニティの各レベルにおける強力な災害管理委員会がないことが、これらのレベルにおける組織の潜在能力を減じてきた。*5 ・防災プラットフォームを進める上で、高コストであることと調整機能が不十分なことが問題である。*5															
・ハード対策/規制等による抑止力の向上(HFA4)	・国家土地政策 (1995) では安全な土地の供給に関する政策を策定している。 ・村落法(The village Act No. 5 of 199)では村役所が村落土地利用計画を策定することを定めている。	・1995年の土地政策は広範囲なレベルをカバーするが、各レベルに適用できるかどうか未確認の部分が多い。 ・国家災害対策センター (National Emergency Operation Centre) は計画中であり、早期予警報に必要な情報を包括的に集積して住民に伝達する組織がない。																
・予警報/避難体制の整備(HFA2,3)	<予警報システム> ・タンザニアには、様々なハザードを監視するため様々な早期警戒システムがある。政府内のシステムには、タンザニア気象庁 (TMA)、エネルギー資源省 (Ministry of Energy and Minerals) の地震課 (Seismology Unit)、保健・社会福祉省の緊急対策室 (Emergency Preparedness and Response Unit, EPRU)、農業・食糧安全保障省の植物保護課 (Plant Protection Unit) 及び食糧安全保障局 (Food Security Department) がある。非政府のシステムには、飢餓警報ネット (Famine Early Warning System Network, FEWS NET)がある。 <防災意識啓発・防災教育・防災訓練> ・USAID の財政的支援の下、Strengthening Tanzania Disaster Response Project (STDRP)が実行され、2002年に Disaster Management Training Centre(DMTC)が設立された。*12 ・緊急あるいは長期の財政的援助は UNICEF の「子供の命を助け災害から守るプログラム」から提供されている。																	
・経済的な備え (HFA1)		・地方政府当局レベルの防災活動に専ら割り当てられる資金がない。*5																
4.応急対応(HFA5)	・現在 50,000 人の被災者に対応できる資機材が準備されている。	早期対応態勢が十分ではなく、救援物資の事前配置やロジスティック・配布計画がない。*5																
5.コミュニティ防災の位置づけ	・情報なし	・個々のレベルでは、市民の多くは防災問題に対する意識が低い。*5																
6.気候変動適応	・UNDP の資金援助により、副大統領府環境部の下でタンザニア国家政策への気候変動適応の主流化 (Mainstreaming Climate Change Adaptation into National Policies in Tanzania (2010-2011)) プロジェクトが進行中である。*5																	
課題への支援	7.日本による支援実績	～防災課題への直接的な支援～ <緊急無償資金協力>*6 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>プロジェクト名</th> <th>実施年度</th> <th>金額 (億円)</th> </tr> </thead> <tbody> <tr> <td>災害緊急援助 (洪水被害) *7</td> <td>1990</td> <td>0.20</td> </tr> <tr> <td>災害緊急援助 (洪水災害) (JICA より緊急援助物資)</td> <td>1992</td> <td></td> </tr> </tbody> </table>	プロジェクト名	実施年度	金額 (億円)	災害緊急援助 (洪水被害) *7	1990	0.20	災害緊急援助 (洪水災害) (JICA より緊急援助物資)	1992		～防災課題への間接的な支援～ <開発調査> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>プロジェクト名</th> <th>開始年度</th> <th>終了年度</th> </tr> </thead> <tbody> <tr> <td>首都圏周辺地域水供給計画(JICA) (背景に干ばつ対策含む)</td> <td>2003</td> <td>2005</td> </tr> </tbody> </table>	プロジェクト名	開始年度	終了年度	首都圏周辺地域水供給計画(JICA) (背景に干ばつ対策含む)	2003	2005
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8.他ドナー、NGO、産官学団体の支援実績	<World Bank / GFDRR> *6 1. Climate modeling and risk management Program in Africa: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda \$ 439,780 実施中 2. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi , Djibouti , Eritrea , Ethiopia , Kenya , Rwanda , Somalia , Sudan , Tanzania , Uganda) \$450,000 3. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi , Djibouti , Eritrea , Ethiopia , Rwanda , Somalia , Tanzania , Uganda , Global) \$ 100,000 4. Capacity Building for Disaster Resilient Leadership (Ethiopia , Ghana , Haiti , Kenya , Madagascar , Mozambique , Rwanda , Senegal , South Africa , Tanzania , Uganda) \$ 669,473 <UNISDR>*9 1. Strengthening National Platforms for Disaster Risk Reduction in Africa <UNDP>*9 1. Disaster Risk Management in Tanzania. Strengthen capacity in DRM within the Government 2. Forums, Horn of Africa (GHCOF) seasonal forecasts in cooperation with ICPAC <USAID> 1. Strengthening Tanzania Disaster Response Project (STDRP)																	
9.既存ネットワークの課題や連携・活用状況	・TMA は、データの加工・共有。伝達について、南アフリカ開発協力 SADC や EAC のような広域機関と密接に連携している。*5																	

ウガンダの防災情報一覧(概要版)

現状および課題	1.災害の特徴	ウガンダで1901年から2011年までの111年間に、大きな被害をもたらした自然災害は伝染病、干ばつ、洪水、地震、地すべりである。
	2.行政区分	ウガンダには2010年7月以降、行政区ではない以下の4つの地方に111の県が置かれている。
	3.災害予防	【現状】 ・湿地帯、環境、森林、地震、土砂災害、干ばつ、洪水に関するハザードマップが作成されている。地震ハザードマップは1994年、湿地1997-2000年、環境1999年、森林1999-2001年、土砂災害2002年にそれぞれ作成され、干ばつ/洪水は作成中である
	・災害リスクの把握(HFA2)	【課題】
	・災害リスクのコミュニティとの共有(HFA2)	
	・法整備/政策方針/計画策定(HFA1)	法整備 ・国家防災管理政策(National Policy for Disaster Preparedness and Management)*17: 2010年に考案され、2011年5月に承認された。 ・「国家防災政策及び組織」が1999年に議会で承認され、2003年に改訂された。 ・2010年に防災に関する国家政策(The National Policy for Disaster Preparedness and Management)が作成され、2011年に承認された。
・防災体制の確立・強化(HFA1)	組織体制 <中央> ・内閣府防災救済難民局 (the Directorate For Relief, Disaster Preparedness And Refugees In Prime minister's office) が防災に関する責任機関である。 ・防災に関する国家政策には、各種災害に対する対応指針や、大統領を頂点とした組織図及び各災害に対する責任官庁が明記されている。代表的な災害の主責任官庁は以下の通り。 ・ 干ばつ及び洪水:水環境省(Ministry of Water and Environment) ・ 地すべり・土砂崩れ・環境破壊:環境管理局(NEMA: National Environment Management Authority) ・ 人の伝染病:厚生省(Ministry of Health) ・ 地震:エネルギー資源開発省(Ministry of Energy and Mineral Development) ・ 防災に関する国家政策内に設置が定められている機関の概略を以下に挙げる。 ・ 憲法110条により、大統領は災害発生時には非常事態宣言を発令することができる。 ・ 内閣は、政策作成機関の長であると共に、大統領に災害に関する助言を行う。 ・ 総理府防災救済難民局(Directorate of Disaster Preparedness, Management and Refugees, Office of the Prime Minister)は、防災に関する主責任局である。 ・ 国家防災委員会(NDPMC: National Disaster Preparedness and Management Commission)は、憲法249条に規定された委員会で、他機関の防災活動に関する各種提言、監視等を行う。委員会は5名で構成され、防災難民大臣(Minister of Relief, Disaster Preparedness and Refugees)が高い専門性を持った市民の中から指名する。 ・ 常設の委員会であり、内閣の下に設けられる政府政策委員会(MPC: Ministerial Policy Committee)は、災害に関する省庁間にまたがった問題を処理する。委員会は、防災救済難民大臣が議長を務め、政策作成等を行う。 ・ 防災マネージメントに関する国家プラットフォーム: 機関間技術委員会(National Platform for Disaster Management, IATC: Inter-Agency technical committee)は、各省庁と国連機関等を参加者とする委員会で、総理府(OPM: Office of the Prime Minister)事務次官が議長である。災害リスク、災害傾向等の監視・解析などを業務とする。 ・ 国緊急連携運営センター(NECOC: National Emergency Coordination and Operation Centre)は、大きな地すべりや洪水等の緊急事態に対処するための組織である。NECOCの職責は、消防・警察・病院等各機関の効果的な連携推進とネットワーク化である。NECOCは総理府防災救済難民局の下に設置される。 ・ 2008年に災害リスク軽減のための国家プラットフォーム(National Platform for Disaster Risk Reduction)が設立され、省庁の技官のみならず学術セクターやビジネスセクターのコミュニティも参加している。 <地方> ・ 県及び市レベルに、県または市防災政策委員会(DDPC/CDPC: District / City Disaster Policy Committee)及び技術委員会(DDMTC/CDMTC: District / City Disaster Management Technical Committee)が設置される。政策委員会の業務は、政策意思の技術委員会への伝達や地方議会への報告、NDPMC等との連絡などであり、議長は県議長や市長である。技術委員会はリスクマッピングや災害レポートの作成等を行い、各関係行政職員やNGOによって構成される。 ・ 上記と同様の政策委員会及び技術委員会が町レベル(Municipal/Town)にも設置される。 ・ さらに下のレベルには亜郡または村防災委員会(SDMC/VDMC: Sub-County / Village Disaster Management Committee)が設置される。 ・ 県緊急連携運営センター(DECOC: District Emergency Coordination and Operations Centre)は、県警察本部長がトップを務める組織で、県警察署に設置される。24時間体制で県内の災害及び緊急事態に関する報告を受信、解析し、関係機関との連携をはかる。その他の業務としては、救急災害対策チームを組織し連携をはかることや、早期警戒情報のコミュニティや下部自治体への伝搬などがある。	
・ハード対策/規制等による抑止力の向上(HFA4)	<構造物対策> ・ウガンダの湿地は米作のために排水されている。湿地の縮小は、一部雨季の洪水の増加や、乾季の水不足の原因となっている。洪水と干ばつの危険の特定のためのプログラムは、陸稲の生産に適應するための米生産者の奨励による湿地の再生を含んでいる。	
・予警報/避難体制の整備(HFA2,3)	<意識啓発・教育・訓練> ・教育プログラムは、気候変動、環境汚染、干ばつ及び洪水のような災害を包括している。これらのプログラムは、災害に対処する方針の見直しを含んでいない。 ・土砂災害、洪水、侵食等の原因となる環境悪化の管理のような、いくつかの災害分野については、学校で教えられている。段々畑はこれらの教育プログラムの結果として、ウガンダの丘陵地帯で実施されている。 <気象・通信体制> ・干ばつ、洪水、土砂災害、伝染病、特にコレラ、髄膜炎、エボラ出血熱のような危険については、早期警戒システムは開発されている。主たる機関は、「災害準備及び避難者省」、農業省、厚生省、水、国土及び環境省、地方自治体である。	
・経済的な備え(HFA1)	・北東ウガンダのような、災害が発生しやすい地域では、政府はコミュニティの復旧活動を支援するマイクロファイナンスクレジットのスキームを創設した。 ・新防災に関する国家政策*10の中で、年間予算の1.5%を防災に充てるよう定める防災財源法案(National Disaster Preparedness and Management Fund Bill)の提出が明記されている。	
4.応急対応(HFA5)	・56の災害危険地域のうち30地域については、緊急計画が準備されている。この計画は、リスクと、影響を及ぼす可能性のある災害を示している。また、災害対応の準備のできた対策についても示している。	
5.コミュニティ防災の位置づけ		
6.気候変動適応		
課題への支援	7.日本による支援実績	<調査・計画・設計> ・気象サービス強化プログラム準備調査 (2011) <無償> ・気候変動による自然災害対処能力向上計画 (2009) <緊急無償> ・東部地すべり・洪水被災者緊急支援 (2010)
	8.他ドナー、NGO、産官学団体の支援実績	<World Bank> 10. Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 11. Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 12. South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 13. (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 14. Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 15. Uganda: Capacity Building in Damage and Loss Assessment (Uganda) \$ 28,617 16. Uganda: Round-2 Capacity Building in Damage and Loss Assessment (Uganda) \$72,000 <ProVention Consortium> 1. Research & Action Grants for Disaster Risk Reduction; provide financial support to young researchers to undertake projects related to disaster risk reduction <WMO> 1. Climate observations and regional modeling in support of climate risk management*13 2. Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <AfDB> 1. EAC Backbone & Lake Victoria Maritime
	9.既存ネットワークの課題や連携・活用状況	

Disaster Risk Reduction (DRR) Information in Burundi (Outline)

The Current Situation and Issue	1. Characteristics of disasters	<ul style="list-style-type: none"> Major natural disasters in Rwanda from 1978 to 2012 were epidemics, droughts, floods, earthquakes and storms. 	
	2. Administrative Structure	There are 17 provinces (intara) and 117 communes under the provinces in Burundi.	
	3. Disaster Prevention Understanding disaster risk (HFA2)	<p>【Current Situation】</p> <ul style="list-style-type: none"> Summary assessment of vulnerability and risk in some provinces with Contingency Plans (action continue) 	<p>【Issue】</p> <p>Lack of expertise for thorough assessment can identify statistical.</p>
	Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> Awareness workshops on DRR are regularly organized from the national to the community through the Provincial level. 	
	Legislation/policy principle/plan development (HFA1)	<p>Legislation</p> <ul style="list-style-type: none"> National Policy for Risk Prevention and Disaster Management: Policy formulated and approved by Cabinet 2008 but not approved by Parliament. National Strategy for Disaster Risk Prevention and Disaster Management and Action Plan: Stratégie Nationale de prévention des Risques et de Gestion des Catastrophes et un Plan d'Action National Platform set up since 2007 by a presidential decree. Provincial Platform implemented since 2009 by Ministerial Orders Communal Platform will be implemented before the end of 2010. The Law on the National Policy for Risk Prevention and Disaster Management (Politique Nationale de Prévention des Risques et de Gestion des Catastrophes) should be promulgated. 	The National Strategy for DRR not implemented in all details.
	Establishment and reinforcement of disaster reduction system (HFA1)	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> The directorate of civil protection in the Ministry of Public Security is responsible for disaster management. An inter-ministerial committee for DRR coordinated by the Minister of Public Security (Ministre de la Sécurité Publique) is created. National Platform has a main role for disaster risk reduction. Geographic Institute of Burundi (IGEBU: Institut Géographique du Burundi) observes climate information. However, risk identification is not advanced. Information is received via "IGAD Climate Prediction and Application Center" (ICPAC). There is the Ministry of Agriculture (Ministère de l'Agriculture et de l'Élevage) early warning system and monitoring of food security developed by FAO in collaboration with agencies of the United Nations system. It publishes a monthly newsletter that aims to prevent severe food crises and to relate the assessment of food security. The Ministry of Agriculture and Livestock has already put in place the means to fight against erosion at the national level. Ministry of Public Works and Equipment (Ministère des Travaux Publics et de l'Équipement) has already studied management of rivers and ravines in the city of Bujumbura. Ministry of Water, Environment, Spatial Planning and Urban Development (Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme), which coordinates watershed management (rational use of land, mitigating efforts of drought), is involved in disaster management by protecting the natural environment. <p>< Organization for inter-agency Coordination ></p> <ul style="list-style-type: none"> An inter-ministerial committee for DRR coordinated by the Minister of Public Security (Ministre de la Sécurité Publique) is created. 	Lack of mechanisms for integration of DRR in CCA-sector projects and programs of development.
	Improvement on prevention by structural measurement/land-use control (HFA4)	<p>< Structural measurement ></p> <ul style="list-style-type: none"> Slope stabilization in landslide prone areas The Government is making efforts in stabilizing the banks of rivers flowing through the capital and the tracing of the beds of these rivers. <p>< Regulation ></p> <ul style="list-style-type: none"> Diagrams of land use planning are in place 	Lack of funds
	Development on warning system/evacuation system (HFA2,3)	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> Cooperation between UNICEF and Ministry of Education to integrate DRR into education is planned. Office of Civil Protection (Protection Civile) in cooperation with UNDP and members of the national Platform are organizing workshops and field trips for information and sensitization campaigns. <p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> Seasonal weather information from IGEBU is made by a radio announcement. Early warning systems exist in some sectors such as Health and Environment and are effectively operated. The perspectives of future are to establish the organs that the System of Information and Communication validated by the National Platform of Risk Prevention and Management of the Disasters recommends (Système d'Information et de Communication validé par la Plate Forme Nationale de Prévention des Risques et de Gestion des Catastrophes) Website for DRR information and communication has not been established yet, although the promoter team of the site has been formed. 	National Centre of Information and Communication (Le Centre National d'Information et de Communication) has not been established yet.
	Economical preparation (HFA1)	<ul style="list-style-type: none"> Special Fund PRGC is proposed. 	Lack of own financial resources to DRR.
	4. Emergency Correspondence (HFA5)	<ul style="list-style-type: none"> Information and Communication Systems have been developed and validated. National Emergency Operation Centre (Un Centre National d'Opérations d'Urgences) is planned. 	
5. Community-based disaster risk reduction			
6. Climate change adaptation (CCA)	<ul style="list-style-type: none"> CCA projects and programs began as a part of the implementation of the UN Framework Convention on Climate Change, UN Convention on Biological Diversity and UN Convention to Combat Desertification. 		
Aid to Issue	7. Record of Japanese aid	<p>< Grant Aid ></p> <ul style="list-style-type: none"> The Programme for the Improvement of Capabilities to cope with Natural Disasters Caused by Climate Change (2010) <p>< Emergency Grant Aid ></p> <ul style="list-style-type: none"> Emergency disaster aid (drought) (1984) 	
	8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank / GFDRR ></p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 450,000 Asia Leadership Development in Disaster Risk Management (Bangladesh, Bhutan, Burundi, Cambodia, Egypt, Arab Republic of, India, Indonesia, Kiribati, Korea, Democratic People's Republic of, Vanuatu, Vietnam) \$ 257,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 <p>< UNOCHA ></p> <ol style="list-style-type: none"> Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC <p>< UNISDR ></p> <ol style="list-style-type: none"> Strengthening National Platforms for DRR in Africa <p>< UNDP ></p> <ol style="list-style-type: none"> Reinforcement of national capacities on prevention and risk management <p>< WMO ></p> <ol style="list-style-type: none"> Climate observations and regional modeling in support of climate risk management and Sustainable Development Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <p>< AfDB ></p> <ol style="list-style-type: none"> EAC Backbone & Lake Victoria Maritime 	
9. Issue and collaboration use of existing network			

Disaster Risk Reduction (DRR) Information in Kenya (Outline)

The Current Situation and Issue	1. Characteristics of disasters	<ul style="list-style-type: none"> Major natural disasters in Kenya from 1991 to 2011 were epidemics, droughts, floods, earthquakes and landslides. Earth quake damage in 2004 was caused by Tsunami, which was generated by Northern Sumatra Earth quake. This was special case. It seems that the Kenya government attaches importance to measures for HIV/AIDS more than for disasters. 	
	2. Administrative Structure	Kenya is consisted from eight (8) provinces (mikoa). States are divided into 46 districts (wilaya'at) and 262 divisions (tarafa) as of 2007. The constitution which was established in 2010 decided to abolish province it will be reorganized into 47 counties. The new system will be put into force in 2012.	
	3. Disaster Prevention	[Current Situation]	[Issue]
	Understanding disaster risk (HFA2)	<ul style="list-style-type: none"> The Meteorological Department, Kenya food security Monitoring System, Geology Department and University of Nairobi conduct a survey about food supply and demand twice annually. There is a drought correspondence plan at 22 dry areas and it links with the early warning system 	
	Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> Kenya has a community level drought early warning system at 28 dry areas. 	
	Legislation/policy principle/plan development (HFA1)	<p>Legislation</p> <ul style="list-style-type: none"> National Policy for Disaster Management is formulated, but the policy is not approved at the national assembly as of 2012. National Focal Points are advocating budget inclusion about disaster risk reduction, but it is not implemented. <p>< Related plans ></p> <ul style="list-style-type: none"> National Disaster Management Strategic Plan 2012-2017 (草案) National Disaster response Plan Arid Land Resource Management Plan II Disaster Risk Reduction Strategy 	
	Establishment and reinforcement of disaster reduction system (HFA1)	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> Ministry of State for Special Programmes in Office of the President is the responsible organization of Disaster Risk Reduction National Disaster Management Executive Committee (NDMEC) established to design programmes for disaster intervention. It is the highest institution in disaster systems and falls under the Cabinet Office. National Disaster Coordination Committee (NDCC) is next top level organ in disaster management. Office of President, Special Programmes was in charge of disaster risk reduction policy. In 2007, Ministry of State for Special Programme (MoSSP) is established and Department of Disaster Risk Reduction, DRR was established. NDOC: National Disaster Operation Center is established under DRR. It is in charge of emergency response according to decision of NDCC. Ministry of Planning and National Development, Ministry of Health, Ministry of Water, Ministry of Agriculture are the implementation agencies of disaster risk reduction. <p>< Coordinating body ></p> <ul style="list-style-type: none"> NDMEC, NDCC, NDOC are in charge of coordinating. <p>< Local level ></p> <ul style="list-style-type: none"> Provincial Disaster (Management) Committee (PDC) exist at 8 provinces level. District Disaster (Management) Committee (DDC) exist at district level. Technical representatives at the district level and the security teams are included into the members. <p>It is not clear that the National Policy for Disaster Management was executed or not. Draft of the National Policy has been on NOC HP as of Jul. 2012.</p>	<ul style="list-style-type: none"> Policies related to natural disaster is not approved Lack of resource due to new ministry
	Improvement on prevention by structural measurement/land-use control (HFA4)	<p>< Structural measurement ></p> <ul style="list-style-type: none"> At area which flood occurs often, dyke are strengthened and investment such as upstream dam is proceeding. <p>< Regulation ></p> <ul style="list-style-type: none"> Concept of Disaster risk reduction is included in settlement plan and management like as housing supply programme at slum areas for improvement on living environment. 	
	Development on warning system/evacuation system (HFA2,3)	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> A survey on needs about flood education was conducted. <p>< Tsunami ></p> <ul style="list-style-type: none"> A workshop to educators at five (5) counties after Sumatran tsunami. 	<ul style="list-style-type: none"> Awareness about disaster risk reduction and disaster education are conducted from the perspective of maintaining society. There is not enough space of curriculum to conduct disaster education.
	Economical preparation (HFA1)	<ul style="list-style-type: none"> Establishment of National Relief Trust Fund is proposed. 	<ul style="list-style-type: none"> HIV/AIDS and epidemic are considered as main matters of disaster, thus less amount of budget is utilized for natural disaster.
4. Emergency Correspondence (HFA5)	<ul style="list-style-type: none"> Related ministries raise and distribute fund about regular food and drinking water security, not natural disaster correspondence system. 	<ul style="list-style-type: none"> Disaster activity center was newly organized, and it do not have record. 	
5. Community-based disaster risk reduction	<ul style="list-style-type: none"> Through the administrative units public awareness raising is being done, the media is also helping out. A number of NGOs both international and local are also involved in the awareness in awareness rising at community level. 		
6. Climate change adaptation (CCA)	<ul style="list-style-type: none"> "National Climate Change Response Strategy" was declared in April, 2009. *9 The superintendence is Ministry of Environment and Mineral Resources. 		
Aid to Issue	7. Record of Japanese aid	<p>< Technical Cooperation ></p> <ul style="list-style-type: none"> Capacity Development for Effective Flood Management in Flood Prone Area (2011) <p>< Development Survey ></p> <ul style="list-style-type: none"> The Study on Integrated Flood Management for Nyando River Basin in the Republic of Kenya (2008) The Project for Enhancing Community Resilience against Drought in Northern Kenya (2012) <p>< Grant Aid ></p> <ul style="list-style-type: none"> The Programme for Community-based Flood Disaster Management to Adapt to Climate Change in the Nyando River Basin (2008) The Programme for the Improvement of Capabilities to cope with Natural Disasters Caused by Climate Change (2009) <p>< Emergency Grant Aid ></p> <ul style="list-style-type: none"> Emergency Grant Aid for flood (1997) Food aid for drought victims (1999) Food aid for drought victims (2000) Emergency Grant Aid for flood (2003) 	
	8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank ></p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 945,000 Disaster Risk Management in the Sub-Saharan Africa Region (Burkina Faso, Comoros, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Seychelles, Swaziland, Region) \$ 300,000 Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 Feasibility Study for Pan African Drought Risk Pool (Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Senegal, Zambia, Zimbabwe) \$ 220,000 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 <p>< UNDP ></p> <ol style="list-style-type: none"> Northern Uganda Drought Support Floods Emergency Project; Formation of water and sanitation coordination teams in the various regions <p>< UNISDR ></p> <ol style="list-style-type: none"> Strengthening National Platforms for Disaster Risk Reduction in Africa <p>< UNOCHA ></p> <ol style="list-style-type: none"> Drafting and review of National Disaster Response Plan; District Disaster Preparedness and Response planning ; Contingency Planning for Flood Management <p>< African Development Bank ></p> <ol style="list-style-type: none"> Emergency Assistance for Drought Crisis in Kenya EAC Backbone & Lake Victoria Maritime 	
	9. Issue and collaboration use of existing network	<ul style="list-style-type: none"> The government is working very closely with African Union (AU) at the regional and with Intergovernmental Authority on Development (IGAD) at sub-regional level in addressing disaster risk reduction and trans boundary issues. 	

Disaster Risk Reduction (DRR) Information in Rwanda (Outline)

The Current Situation and Issue	1. Characteristics of disasters	<ul style="list-style-type: none"> Major natural disasters in Rwanda from 1974 to 2012 were epidemics, droughts, floods, earthquakes and landslides.
	2. Administrative Structure	<p>There are 5 provinces (intara) in Rwanda. These provinces consist of 30 districts.</p>
	3. Disaster Prevention Understanding disaster risk (HFA2)	<p>[Current Situation]</p> <ul style="list-style-type: none"> Identifying disaster high risks zones on flood and landslides were carried out in Government Action Plan 2011-2012 by Dec. 2011. Mapping of vulnerability and hazard in disaster prone areas were carried out in Government Action Plan 2011-2012 by Mar. 2012.
	Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> District Disaster Management Committees (DDMC) was established, and the Ministry of Disaster Management and Refugee Affairs (MIDIMAR) trained members of DDMC
	Legislation/policy principle/plan development (HFA1)	<p>Legislation</p> <ul style="list-style-type: none"> National Disaster Management Policy: approved in 2009 A national policy on disaster risk reduction and prevention in Rwanda was formulated in 2002 and approved by the Cabinet in July 2003. The Strategic Plan of Action of the National Policy on Disaster Management was established. The Vision 2020 Umurenge Program (VUP), which began in 2008, is a social protection (SP) program in Rwanda managed and implemented by the Ministry of Local Government (MINALOC). The Government of Rwanda recognizes the links between Disaster Risk Management (DRM), Climate Change Adaption (CCA), food security, and SP, and the need to link and integrate the respective national strategies and implementation plans. Disaster Management Law MIDIMAR 5 Year Strategic Plan Strategic Orientation Paper National Contingency Plan National Disaster Risk Management Plan Cross-cutting issues guidelines
	Establishment and reinforcement of disaster reduction system (HFA1)	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> The Ministry of Disaster Management and Refugee Affairs (MIDIMAR) is a new Ministry (established March 2010) and is the responsible ministry of Disaster Risk Reduction National Disaster Management Center (NDMC), which is under MIDIMAR, has been historically linked to the Office of the President (and the Prime Minister's Office). <p>< Organization for inter-agency Coordination ></p> <ul style="list-style-type: none"> National Disaster Steering Committee (NDSC) chaired by MIDIMAR is an organ responsible for policy and coordination of disaster management at the highest level made up of heads of eight institutions. Disaster Steering Technical Committee (DSTC) was created in May 2012 to support NDSC. <p>< District level ></p> <ul style="list-style-type: none"> District Disaster Management Committees (DDMC) was established.
	Improvement on prevention by structural measurement/land-use control (HFA4)	<p>< Regulation ></p> <ul style="list-style-type: none"> There has been a major effort to generate a National Land Use and Development Master Plan, led by the National Land Commission (NLC). A draft from August 2010 was presented to Government.
	Development on warning system/evacuation system (HFA2,3)	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> Education programmes include sensitization about disaster risk management in primary schools (Elementary Science and Technology). <p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> National Meteorological Service of Rwanda observe meteorological condition. Development of a disaster communication system for emergency was carried out in Government Action Plan 2011-2012 by Sep. 2011. UNDP/UNEP Project (Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas) was begun in Jul. 2010.
	Economical preparation (HFA1)	
	4. Emergency Correspondence (HFA5)	
5. Community-based disaster risk reduction		
6. Climate change adaptation (CCA)	<ul style="list-style-type: none"> REMA (Rwanda Environment Management Authority) is the agency directly responsible to Climate Change Adaption strategy. 	
Aid to Issue	7. Record of Japanese aid	<p>< Emergency Grant Aid ></p> <ul style="list-style-type: none"> Emergency disaster aid (landslide) (1988)
	8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank ></p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Disaster risk management in Africa - strategic framework, good practice, communication (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Rwanda, Senegal, Seychelles, Swaziland) \$ 495,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk reduction (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 450,000 Enhancing the Capacity in Disaster Risk Reduction of Bank TTLs in ARD Africa (Burkina Faso, Comoros, Congo, Democratic Republic of, Eritrea, Ethiopia, Kenya, Madagascar, Niger, Rwanda, Senegal, Seychelles) \$ 50,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 Phase 1 of an Activity to Support National Red Cross and Red Crescent Societies (Albania, Armenia, Ecuador, Malawi, Pakistan, Philippines, Rwanda, Solomon Islands) \$200,000 <p>< UNOCHA ></p> <ol style="list-style-type: none"> Strengthening capacity for DRR in the Francophone and Lusophone African countries in line with the HFA priorities in cooperation with the AUC <p>< WMO ></p> <ol style="list-style-type: none"> Climate observations and regional modeling in support of climate risk management and Sustainable Development *13 Regional Climate Outlook Forums, Horn of Africa (GHACOF) seasonal forecasts in cooperation with ICPAC <p>< UNDP/UNEP ></p> <ol style="list-style-type: none"> Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas
9. Issue and collaboration use of existing network		

Disaster Risk Reduction (DRR) Information in Tanzania

The Current Situation and Issue	1. Characteristics of disasters	<ul style="list-style-type: none"> Major natural disasters in Tanzania from 1980 to 2007 were epidemics, droughts and floods. *1 *3 																
	2. Administrative Structure	<ul style="list-style-type: none"> Administrative structure of Tanzania is consisted from 26 regions (Mkoa). District, Division, Ward, Village/Street exist under region as the official administrative levels. There is constituency between district and division and sub-village under village exist. Administration system is divided into regional administration and local government. Regional administration is under the central government (region, district and division) and local government is under the local government (district, ward and village). *3 																
	3. Disaster Prevention	<p>【Current situation】</p> <ul style="list-style-type: none"> Disaster Management Department (DMD) under Prime Minister Office (POM) conducts Rapid Vulnerability Assessment (RVA) with National Food Security Team under Ministry of Agriculture. National Land Use Frame work Plan 2008-2028 is planning to implement hazard/risk mapping (planning stage). 		<p>【Issue】</p> <ul style="list-style-type: none"> Lack of system to know disaster occurrence and its damage and put them together at the central level/Ability to assess the full range of consequences and vulnerabilities. *5 														
	Understanding disaster risk (HFA2)	<ul style="list-style-type: none"> UN organizations, mass media, NGO and Tanzania Red Cross Society (TRCS) organize a disaster management forum and disseminate of disaster risk information at community level. In Zanzibar, Disaster Risk and capacity Needs Assessment was done in 2008 which gives the risk and vulnerability map of Zanzibar on disaster issues. The participatory needs and capacity assessment have been done in 85 Shehias while currently (as of October 2010) the assessment is carried out to other 50 Shehias of Zanzibar. *5 Different institutes have various means to communicate hazards and risks to community and stakeholders. Currently there is no consolidated database or website where, various stakeholders and the general public can disseminate and access data and information on disaster risk management. Normally information on disaster are shared to stakeholders, community at risk and the general public through formal communication, disaster platform, press release, radio and television programs etc.. *5 		<ul style="list-style-type: none"> Resources (fund, technical knowhow and IT equipment) are major drawbacks. There is need to develop other means for information sharing like Annual Government Report on Disaster Prevention and Response, Database, Web based information on disaster and so on. This should go parallel with educating the public on the importance of making follow up on various kinds of disaster information. *5 														
	Sharing disaster risk with region and community (HFA2)	<ul style="list-style-type: none"> National Disaster Management Policy 2004 was formulated and the policy is being reviewed at this moment. The policy and National Operational Guidelines for Disaster Management 2003 regulate the outline of disaster risk reduction policy at the all administrative level. National Land Policy, 1995, National Human Settlements Development policy, 2000, Environmental Management Policy include information about disaster management. The Disaster Relief Act no 9 which was formulated in 1990 regulate about rescue operations. However there is a need to improve the Act reflecting the policy of 2004. <p><Related plans></p> <ul style="list-style-type: none"> National Land Use Planning Commission (NLUPC) in Ministry of Lands, Housing and Human Settlements Development formulated National Land use frame work plan of 2008 and it plans to strengthen the disaster risk reduction ability which is corresponding to climate change. 		<ul style="list-style-type: none"> Disaster Management Policy exists, but the lack of Disaster management Act and participation by senior policy makers from the Sector ministries undermine the progress. *5 No expansion of disaster risk reduction activities due to lack of department of disaster risk reduction at the local level. 														
	Legislation/policy principle/plan development (HFA1)	<ul style="list-style-type: none"> National Disaster Management Policy 2004 was formulated and the policy is being reviewed at this moment. The policy and National Operational Guidelines for Disaster Management 2003 regulate the outline of disaster risk reduction policy at the all administrative level. National Land Policy, 1995, National Human Settlements Development policy, 2000, Environmental Management Policy include information about disaster management. The Disaster Relief Act no 9 which was formulated in 1990 regulate about rescue operations. However there is a need to improve the Act reflecting the policy of 2004. <p><Related plans></p> <ul style="list-style-type: none"> National Land Use Planning Commission (NLUPC) in Ministry of Lands, Housing and Human Settlements Development formulated National Land use frame work plan of 2008 and it plans to strengthen the disaster risk reduction ability which is corresponding to climate change. 		<ul style="list-style-type: none"> Disaster Management Policy exists, but the lack of Disaster management Act and participation by senior policy makers from the Sector ministries undermine the progress. *5 No expansion of disaster risk reduction activities due to lack of department of disaster risk reduction at the local level. 														
	Establishment and reinforcement of disaster reduction system (HFA1)	<p><Central level></p> <ul style="list-style-type: none"> Disaster Management Office (DMD) under Prime Minister's Office conducts disaster preparing, emergency response and renaissance. Tanzania Disaster Relief Committee (TANDREC) is in charge of policy making. <p><Coordinating body></p> <ul style="list-style-type: none"> National Platform for Disaster Risk Reduction was established in 2006. The National Platform is operational and has met four times with participants from the central and local government, government and private institutions, UN agencies, international and national development organizations, media, NGOs, religion/Faith group and so on. *5 <p><Local level></p> <ul style="list-style-type: none"> DMD of Zanzibar has established and trained Disaster Management Committees at regional, District and Shehia level. 		<ul style="list-style-type: none"> Risk management knowledge and funding are main challenge. *5 The absence of strong Disaster management Committees at the Regional, District and Community levels diminished the potential for organizational roles at these levels. *5 The main challenge is high cost and coordinating function has not been strong enough to facilitate National Platform meetings. *5 														
	Improvement on prevention by structural measurement/land-use control (HFA4)	<ul style="list-style-type: none"> National Land Policy (1995) formulates a policy about safe land supply. The village Act No. 5 of 199 determines about a formulation of village land use plan by village office. 		<ul style="list-style-type: none"> National Land Policy (1995) covers national, regional, district, village and agricultural land levels, but there are many sections which does not clearly consider whether it can apply to each level or not. 														
	Development on warning system/evacuation system (HFA2,3)	<p><Prediction and warning system></p> <ul style="list-style-type: none"> There are various kinds of early warning systems to monitor various kinds of hazard. Systems in the government include Tanzania Meteorological Agency (TMA), Seismology Unit in Ministry of Energy and Minerals, Emergence Preparedness and Response Unit (EPRU) in Ministry of Health and Social Welfare, Plant Protection Unit in Ministry of Agriculture and food Security and Food Security Department. Non-governmental systems include Famine Early Warning System Network (FEWS NET). <p><Awareness about disaster risk reduction, disaster education, evacuation drill></p> <ul style="list-style-type: none"> Under the financial support from USAID, Strengthening Tanzania Disaster Response Project (STDRP) was implemented, and Disaster Management Training Centre (DMTC) was established. *12 		<ul style="list-style-type: none"> Establishment of National Emergency Operation Centre is under planning level, and there is no organization which collects and accumulates the necessary information of early warning comprehensively and tells the information to community people. 														
	Economical preparation (HFA1)	<ul style="list-style-type: none"> Emergent and long-term financial support is provided from "life-saving assistance and assured protection for children in emergencies". 		<ul style="list-style-type: none"> No fund for disaster risk reduction activities at the local government level. *5 														
4. Emergency Correspondence (HFA5)	<ul style="list-style-type: none"> Equipment for 50,000 damaged people is currently ready. 		<ul style="list-style-type: none"> Insufficient early correspondence system, and distribution, logistics and distribution plan for relief goods. *5 															
5. Community-based disaster risk reduction	<ul style="list-style-type: none"> No Information 		<ul style="list-style-type: none"> Awareness about problems related to disaster is low at the individual level. *5 															
6. Climate change adaptation (CCA)	<ul style="list-style-type: none"> There is ongoing project on "Mainstreaming Climate Change Adaptation into National Policies in Tanzania (2010-2011)" under the Vice President's Office-Division of Environment financed by UNDP. *5 																	
Aid to Issue	7. Record of Japanese aid	<p>~Direct aid for disaster challenges~</p> <p><Emergency Grant Aid>*6</p> <table border="1"> <thead> <tr> <th>Projects</th> <th>Year</th> <th>Amount(10⁸ yen)</th> </tr> </thead> <tbody> <tr> <td>Disaster Emergency Disaster Aid (Flood) *7</td> <td>1990</td> <td>0.20</td> </tr> <tr> <td>Emergency Disaster Aid (Flood) (JICA Emergency humanitarian support goods procurement)</td> <td>1992</td> <td></td> </tr> </tbody> </table> <p>~Indirect aid for disaster challenges~</p> <p><Development planning></p> <table border="1"> <thead> <tr> <th>Projects</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>The Study on Water Supply Improvement in Coast Region and Dar es Salaam Peri-Urban (This project includes drought correspondence as a background)</td> <td>2003</td> <td>2005</td> </tr> </tbody> </table>		Projects	Year	Amount(10 ⁸ yen)	Disaster Emergency Disaster Aid (Flood) *7	1990	0.20	Emergency Disaster Aid (Flood) (JICA Emergency humanitarian support goods procurement)	1992		Projects	From	To	The Study on Water Supply Improvement in Coast Region and Dar es Salaam Peri-Urban (This project includes drought correspondence as a background)	2003	2005
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9. Issue and collaboration use of existing network	<ul style="list-style-type: none"> TMA works closely with regional bodies like Southern Africa Development Cooperation (SADC) and EAC on data process, sharing and dissemination. *5 																	

Disaster Risk Reduction (DRR) Information in Uganda (Outline)

The Current Situation and Issue	1. Characteristics of disasters	<ul style="list-style-type: none"> Major natural disasters in Uganda from 1901 to 2011 were epidemics, droughts, floods, earthquakes and landslides. 	
	2. Administrative Structure	Uganda is divided into 111 districts and one city (the capital city of Kampala) across four administrative regions.	
	3. Disaster Prevention Understanding disaster risk (HFA2)	<p>[Current Situation]</p> <ul style="list-style-type: none"> Government of Uganda has hazard maps for Wetlands, Environment, Forests, Earthquakes, Landslides, Drought and Floods. The Earthquake hazard maps were developed in 1994, Wetlands in 1997-2000, Environment 1999, Forest 1999-2001, landslides in 2002 and drought/ floods are being developed. 	[Issue]
	Sharing disaster risk with region and community (HFA2)		
	Legislation/policy principle/plan development (HFA1)	<p>Legislation</p> <ul style="list-style-type: none"> National Policy for Disaster Preparedness and Management: Formulated in 2010 and approved in May 2011 Uganda also has in place a National Disaster Preparedness Policy and Institutional Framework approved by Cabinet in 1999 and revised in 2003. The National Policy for Disaster Preparedness and Management was formulated in 2010 and approved in May 2011. 	
	Establishment and reinforcement of disaster reduction system (HFA1)	<p>System of Organization</p> <p>< Central level ></p> <ul style="list-style-type: none"> The Directorate for Relief, Disaster Preparedness and Refuges In the Prime Minister's Office is the organization for disaster prevention Policy actions for each disaster, organogram, responsible institutions and etc. are mentioned in the National Policy for Disaster Preparedness and Management. Lead responsible institutions for major disasters are followings. <ul style="list-style-type: none"> Drought and Flood: Ministry of Water and Environment Landslide, Mudslide and Environmental Degradation: NEMA(National Environment Management Authority) Human Epidemics: Ministry of Health Earthquakes: Ministry of Energy and Mineral Development Outline of organs for disasters mentioned in the National Policy for Disaster Preparedness and Management *10 is following. Please refer to about details. Article 110 of the 1995 Constitution gives the President the mandate to declare a state of emergency in any part of the country in the event of a disaster. The cabinet is the chief policy making body of government and will advise the President on disaster related matters. Directorate of Disaster Preparedness, Management and Refugees, Office of the Prime Minister (OPM) is the lead agency responsible for disaster preparedness and management. Implementation of Article 249 of the 1995 of the Constitution requires the minister responsible for disaster preparedness and management to present a proposal to Parliament for establishment of structures, composition, functions and procedures for operations of a National Disaster Preparedness and Management Commission (NDPMC). The NDPMC will be responsible for monitoring, supervising and evaluating activities of sectoral lead institutions, national and international humanitarian agencies. Ministerial Policy Committee (MPC) is a standing committee of Cabinet that shall handle cross sectorial matters relating to disaster preparedness and management. National Platform for Disaster Management: Inter-Agency technical committee (IATC) is comprised of focal point technical officers from line ministries, UN agencies, NGOs and relevant stakeholders. The functions of the IATC are monitoring and analysis of hazard, risk and disaster trends in the country and so on. National Emergency Coordination and Operation Centre (NECOC) shall deal with sudden-on-set emergencies such as mass casualty transport accidents, massive landslides and floods and collapsed buildings. The NECOC is established under the Office of the Prime Minister - Directorate of Relief, Disaster Preparedness and Refugees. In 2008, the Government established the National Platform for Disaster Risk Reduction. Led by OPM, <p>< District level ></p> <ul style="list-style-type: none"> There shall be District / City Disaster Policy Committee (DDPC / CDPC) and District / City Disaster Management Technical Committee (DDMTC / CDMTC) in districts or cities. The functions of DDPC / CDPC will be to give policy direction to the District Disaster Preparedness and Management Technical Committee, to inform council about the nature and effects of disasters, etc. DDPC / CDPC shall be chaired by the District Chairman / City Mayor. The functions of DDMTC / CDMTC will be to carry out vulnerability assessment, hazard and risk mapping and update the data annually, to publish an annual disaster report, etc. The DDMTC / CDMTC will comprise of district / city heads of department, the DPC, the army representative and representatives of other relevant government agencies and Partners within the district / city including Uganda Red Cross Society and relevant NGOs. Similar Policy Committee / Management Technical Committee will be established at municipal / town levels. At lower administrative levels, Sub-County / Village Disaster Management Committee (SDMC / VDMC) will be established. District Emergency Coordination and Operations Centre (DECOC) shall be headed by the District Police Commander and shall operate from the district police station. It shall report to the National Emergency Coordination and Operations Centre (NECOC) and to the Chief Administrative Officer. The DPC shall assign four police officers at operational level to manage the district emergency centre on 24 hour rotation basis during normal times. 	
	Improvement on prevention by structural measurement/land-use control (HFA4)	<p>< Structural measurement ></p> <ul style="list-style-type: none"> Uganda's wetlands have been drained for rice production. The degradation of the wetlands is partly responsible for increased flooding during rainy seasons and extreme water shortages during dry seasons. Programmes to address flood and drought hazards include wetlands regeneration by encouraging rice growers to adapt upland rice production. 	
	Development on warning system/evacuation system (HFA2,3)	<p>< Awareness about disaster risk reduction, disaster education, evacuation drill ></p> <ul style="list-style-type: none"> The educational programmes in place cover hazard studies such as climate change, environment degradation, and drought and flood patterns. These programmes have not been re-oriented to address disaster risk reduction related to the hazards. Some disaster risk areas such as control of environment degradation leading to landslides, floods and soil degradation is taught in schools. Terracing is practiced in the hilly parts of Uganda as a result of these training programmes. <p>< Meteorology/communication system ></p> <ul style="list-style-type: none"> Hazards such as Drought, Floods, Landslides and Epidemic diseases especially cholera, meningitis and ebola have well developed early warning systems. The main institutions are the Department of Disaster Preparedness and Refugees, the Department of Meteorology, Ministry of Agriculture, Ministry of Health, Ministry of Water, Lands and Environment and the Local Governments. 	
	Economical preparation (HFA1)	<ul style="list-style-type: none"> In areas emerging from disasters such as North-Eastern Uganda, Government established micro-finance credit scheme to support recovery efforts of the communities. The National Policy for Disaster Preparedness and management urges the Ministry of Finance Planning and Economic Development in liaison with the Office of the Prime Minister to develop and present to cabinet and Parliament; a National Disaster Preparedness and Management Fund Bill. 	
	4. Emergency Correspondence (HFA5)	<ul style="list-style-type: none"> The disaster prone districts numbering 30 out of 56 have contingency plans in place. The plans show the risks and likelihood of related disasters occurring with potential effects. It also shows measures in place to respond to the disaster. 	
5. Community-based disaster risk reduction			
6. Climate change adaptation (CCA)			
Aid to Issue	7. Record of Japanese aid	<p>< Preliminary Survey ></p> <ul style="list-style-type: none"> Preliminary survey for reinforcement programme of meteorology system (2011) <p>< Grant Aid ></p> <ul style="list-style-type: none"> The Programme for the Improvement of Capabilities to cope with Natural Disasters Caused by Climate Change (2010) <p>< Emergency Grant Aid ></p> <ul style="list-style-type: none"> Emergency aid for landslide and flood victims in eastern Uganda (2010) 	
	8. Record of aid by other donors, NGO and industry-academic-government complexes and support strategy	<p>< World Bank ></p> <ol style="list-style-type: none"> Climate modeling and risk management Project (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$ 439,780 Horn of Africa Drought Response (Ethiopia, Kenya, Somalia, Uganda) \$ 1,000,000 South-South Cooperation ? Strengthening ICPAC as a regional centre of excellence for disaster risk r (Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda) \$450,000 (SSCP) Regional Risk Reduction and Sustainable Development (IGAD) (Burundi, Djibouti, Eritrea, Ethiopia, Rwanda, Somalia, Tanzania, Uganda, Global) \$ 100,000 Capacity Building for Disaster Resilient Leadership (Ethiopia, Ghana, Haiti, Kenya, Madagascar, Mozambique, Rwanda, Senegal, South Africa, Tanzania, Uganda) \$ 669,473 Uganda: Capacity Building in Damage and Loss Assessment (Uganda) \$ 28,617 Uganda: Round-2 Capacity Building in Damage and Loss Assessment (Uganda) \$72,000 	
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