

**United Nations Development Programme
Kyrgyz Republic**

Project Proposal

Project title: Strengthening disaster response and risk assessment capacities in the Kyrgyz Republic and facilitating a regional dialogue for cooperation

CP/UNDAF Outcome(s):¹ By 2016, Disaster Risk Management framework in compliance with international standards, especially the Hyogo Framework of Action.

Expected Output(s):

Output 1. Risk assessment and monitoring capabilities of Crisis Management Centers enhanced for better socio-economic development programming.

Output 2. National early warning capacities strengthened through developing infrastructure, rapid risk analysis, and information dissemination capacities

Output 3. National response capacities strengthened through upgrading infrastructure of Emergency Rescue Facilities

Output 4. Regional cooperation advocated for increasing dialogue and cooperation in disaster risk reduction

Implementing partners: United Nations Development Programme

Responsible parties:

Ministries: Ministry of Emergency Situations, Ministry of Health Care, Central Asian Center for Disaster Response and Risk Reduction

Local level partners: local state administrations, local self-governments, Civil Protection Commissions.

Brief Description

Within the framework of UNDAF 2005-2011 UNDP has made important contributions in disaster prevention and recovery through mainstreaming disaster risk management into decentralized policy-making (as recommended by a mid-term outcome evaluation) and in strengthening disaster response and coordination frameworks. Past cooperation and lessons learned show that national risk assessment & monitoring, response and early warning capacities as well as regional cooperation are still inadequate to effectively address current DRR challenges and priorities. In line with these recommendations, this Project proposal makes a particular focus on: a) building risk assessment & monitoring capacities of Crisis Management Centers of MES b) strengthening national early warning and operational response capacities c) upgrading infrastructure of Emergency Rescue Facilities d) strengthening regional cooperation through advocating increased dialogue and cooperation. Therefore, the core objective of this Project Proposal is to assist the Government in building a comprehensive DRR system.

CP Programme Period:	2012-2014
CP Programme Component:	Disaster Risk Management
Atlas Award ID:	TBD
Start date:	November 2012
End Date:	June 2014
Management arrangement:	Direct implementation

Total resources required: \$ 2,586,262.39
Total allocated resources: \$ 2,586,262.39
Donor: Government of Japan

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I. Situation Analysis

Over the past two decades, the number of disasters happening each year in the Kyrgyz Republic tends to be growing. In its turn such trend is affecting the development capacity of the country and local communities negatively. There are more than 14 000 disaster prone areas throughout the country; more than 300 emergency situations are being reported each year displacing 1000 people in average. Since 1992 more than 25 000 households were subject to resettlement, three and half thousand emergencies occurred owing at least \$35 million per year (1.0 - 1.5% of GDP) in direct economic losses, with around 2,000 families affected annually. High altitude relief of the country (from 350 to 7439 meters above the sea level) and the fact that 94% of the territory is raised over 1 km., stipulate the development of 20 natural processes and phenomena among the 70 most widespread in the world, such as landslides, avalanches, rockslides, mudslides, floods, earthquakes, outburst prone lakes as well as other hazards.

Geophysical hazards pose the greatest risk in the country. The Kyrgyz Republic is located in the area of intensive collision of two lithospheric plates: Euro-Asian from the North and Indo-Asian from the South, these plates are in charge of developing the orogenic processes hereby resulting in a whole spectrum of natural disasters and catastrophes. Much of the country's territory is located on seismic areas scaled at 8-9 (according to the MSK-64 scale). Annually the Institute of seismology registers up to 3500 earthquakes, of which 5 to 10 are considered strong (without major damage), while a destructive earthquake (causing infrastructural damage) occurs every 3 to 5 years, and a catastrophic one (causing infrastructural damage and death) every 35 years on average. Four most significant recent earthquakes (1992-2006) resulted in 132 deaths, affected 150 930 people, and caused direct damages estimated at \$163 million.

There are 5,000 landslide sites in the country out of which 3500 are developed in the southern regions of the country. Number of landslides grows annually due to geodynamic movements, seismicity, rise of groundwater level, and/or increasingly intense precipitation events. Landslides cause threat to around 7.5 percent of the country's population (509 settlements). They kill dozens of people and destroy around 700 homes annually.

On average, 3-4 extreme meteorological hazards (drastic changes of weather, frosts, heavy precipitation) occur annually covering the majority of the country, there are about 7-10 high-impact mudflows and avalanches, and seasonal river floods happen every year. Mudflows and floods occur on 3,103 rivers, and 1,000 settlements are exposed to potential damage. Out of over 1,000 glacial lakes in the country, at least 20% have been identified as threats for outburst floods.

Climate change has already heightened exposure to meteorological hazards, and this trend is expected to accelerate, owing to continued global warming. A recent World Bank publication ranked Kyrgyzstan third among 28 European and CIS countries in terms of vulnerability to climate change impacts.²

Growing tendency of disasters, climate change impacts and limited economic opportunities put the Kyrgyz society at high risk of vulnerability and further exacerbate human security and sustainable development efforts of the country. High level of poverty is another driving force for accelerated impacts of disasters.

Considering multidimensional context of disasters this project proposal touches upon and aligned with the following strategic priorities of the National DRR Platform and aimed at strengthening of national risk assessment & monitoring, early warning and operational response capacities. Moreover, acknowledging growing impacts of climate change and variability both globally and locally, as well as complexity of transboundary resource management challenges (e.g. water and pasture resources) this document puts regional cooperation and dialogue as another priority development issue.

Key priority directions of the Project Proposal, existing challenges and the Government response (development frameworks):

- **Strengthening risk assessment and monitoring capacities Crisis Management Centers (CMCs):** CMCs play a key role in national risk assessment and monitoring processes, however their capabilities are still inadequate to effectively address the given role as think tanks. In particular, capacities of CMCs require further enhancement in analytical work of staff, upgrading infrastructure (hardware) to

² World Bank, 2009, *Adapting to Climate Change in Europe and Central Asia*.
http://www.worldbank.org/eca/climate/ECA_CCA_Full_Report.pdf

efficiently deal with coordination and information management from all line ministries and levels of government. Available resources do not allow CMCs fulfilling such crucial functions and role. In this respect, the Government of the Kyrgyz Republic through its Resolution dd. 01/01/2011 with ref.# 1 adopted a national development concept on: “Establishment of the National Information Management System”, which stresses out strengthening risk assessment and monitoring capacities within National DRR Platform. Crisis Management Centers (CMCs) of MES were identified as nodal management bodies at national and sub-national levels in coordinating risk assessment and monitoring processes through refinement coordination and information management practices.

- **Strengthening national early warning capacities:** Existing early warning system inherited from the Soviet times that focuses “cold war” tendencies of 1970s. Considering that political environment has drastically changed since the country gained its independence, technical improvements in early warning has been advanced significantly, and decentralized public service delivery attains more dynamic pace, the existing early warning system’s infrastructure needs to be diversified too. Current national early warning infrastructure needs further upgrading to be consistent with and responsive to today’s needs and realities focusing on citizens’ safety first. For these purposes, the Government of the Kyrgyz Republic through its Resolution dd. 25/08/2011 with ref.# 506 adopted an “Action Plan on Establishment and Development of National Comprehensive System on Early Warning and Public Information”. This system will become as an integral part of the National Information System and will play a key role in intermediating between the public and government in early warning processes.
- **Strengthening national response capacities (Emergency Rescue Facilities):** While rescuing functions particularly belonged to medical sector during the soviet times and the first decade of the transition period (1991-1999), establishment of variegated net of rescuing services has started to be a straightforward dimension in saving human lives since 2000. To this end, MES established Rescue Services in several densely populated areas, mainly in oblast administration centers. However district and peri-district areas that lie on the main traffic junctures are still not covered with such important service delivery. To this end, the Kyrgyz National DRR Strategy developed for 2012-2020 envisions strengthening operational response capacities further through re-profiling of existing Fire Services into Fire and Rescue Facilities.
- **Advocacy for increased regional cooperation and dialogue:** Regional cooperation is of particular importance due to multicolored political environment and development contexts of Central Asian counties. Exposure of Central Asian countries to a variety of natural hazards including earthquakes, floods, landslides and droughts, is further aggravated by discordant mechanisms of coordination in resource (water, land, pasture) management among neighboring countries. Specific frameworks for regional cooperation in DRR are still embryonic, national policies ambiguous and even conflicting in other cases. At last, lack of visible regional level development strategy makes DRR more challenging. To respond transboundary and regional challenges, senior management of Disaster Management Agencies of Kyrgyzstan, Kazakhstan and Tajikistan signed Memorandum of Understanding (MoU) on October 15, 2010 with the aim to establish an Organizing Committee working towards establishment of the Central Asian Center for Disaster Response and Risk Reduction (CACDRRR). Upon results of the work of an Organizing Committee Kazakhstan and Kyrgyzstan have signed MoU on further establishment of CACDRRR to which Tajikistan will join soon after fulfillment of some technical procedures at the country level. Organizing Committee of CACDRRR developed its two year strategy and action plan, which specify particular activities/directions on further development of regional cooperation. Upon materialization of this initiative more cohesive cooperation terms envisioned.

UNDP support so far and future perspectives in Disaster Risk Reduction sphere

During 2005-11 UNDP jointly with the Ministry of Emergency Situations of the Kyrgyz Republic implemented four projects aimed at strengthening disaster preparedness and response capacities of the country. UNDP’s engagement at the policy level was to operationalize local level DRR system through mainstreaming DRR into ongoing decentralized policy-making, creation of an enabling environment, institutionalization of local self-government mandates, and sustaining their roles and functional capacities.

In order to strengthen coordination between international, humanitarian, non-governmental organizations and the Government, UNDP and the Kyrgyz Government implemented the project on: “Enhancing

Coordination for Disaster Response in the Kyrgyz Republic.” This intervention established a sector approach that operates during small- and medium-scale natural and man-made disasters. The sector leads are responsible now for ensuring that response capacity is in place and that rapid needs assessment, planning and response are carried out among partners according to agreed standards. Further to leverage achieved results the next project on: “Enhancing disaster risk reduction capacities in Central Asia” was implemented. This project established a National Platform for DRR and drafted National DRR Strategy to promote national ownership and adaptation of HFA to national context and institutional systems.

Based upon past cooperation and lessons learned, the UNCT has formulated the new UNDAF 2012-16 which identifies DRR as a cross cutting issue and outlines its outcome as: *“By the end of 2016, Disaster Risk Management (DRM) framework in compliance with international standards, especially the Hyogo Framework for Action”*. This tool was further strengthened by UNDP Country Programme Document and Country Programme Action Plan for the same period. In line with these corporate strategies and through exhaustive consultations, UNDP Disaster Risk Management Programme identified the following strategic areas of development for the next programming cycle (2012-16):

- a. Integration of Disaster Risk Reduction into sustainable development programming and national capacity building
- b. Establishment of Comprehensive disaster risk assessment & monitoring system for effective socio-economic development programming
- c. Strengthening resilience of local communities by applying integrated DRR approaches
- d. Strengthening regional cooperation in addressing transboundary resource based conflicts and mainstreaming of cross-cutting issues (gender and age-sensitive approaches).

II. Strategy

The proposed project is in line with UN and governmental policies and plans. The project strategy is aligned to the National DRR Strategy for 2012-20 (Strategy) which clearly identified the national priorities of the project proposal's areas of strengthening. As a national response to core development and challenges in the sphere of DRR, the Strategy was incorporated with Country Development Strategy for 2012-14 and identified key development objectives across five priority areas: (1) *Enhancing legal framework*; (2) *Development of risk assessment*; (3) *Establishment of Government system to regulate emergency safety issues*; (4) *Development of Emergency Response System* and (5) *Development of Information Management System for disaster reduction*.

The project proposal's four areas of intervention fall under the 2nd, 3rd, 4th and 5th pillars of National DRR Strategy and UNDP is one of the lead development partners of the Government on DRR sector. The proposal is a component of UNDP Disaster Risk Management Programme, which aims to establish integrated, accountable and decentralized DRR system in the country. UNDP Programme covers the period from January 2012 to December 2016 and the budgeted cost for the programme activities planned for this period is **USD 5,000,000.00**. The programme budget is supported by UNDP Bureau for Crisis Prevention and Recovery (BCPR) – USD 500,000.00 for 2012, UNDP Regular Resources – USD 902,876.00 for 2012-16, "Delivering As One" Funding Window – USD 283,172.00 for 2012 and DIPECHO V – USD 26,000.00 for 2012. The Annual Work Plan of Disaster Risk Management Programme for 2012 amounts to **USD 941,672.00** (or 18, 83% out of total planned \$ 5 million). While UNDP supports the refinement of legal and regulatory framework to establish institutional frameworks for integrated DRR, this project proposal will support Government's plans in a) strengthening/upgrading infrastructure (hardware) of national risk assessment, early warning and operational response facilities and b) enhancing regional cooperation through conducting regional level activities facilitating better collaboration and dialogue.

As stated above, the project intends to implement four interrelated activities: (i) enhancing risk assessment and monitoring capabilities of Crisis Management Centers for better socio-economic development programming (ii) strengthening national early warning capacities through developing infrastructure, rapid risk analysis, and information dissemination capacities (iii) strengthening national response capacities through upgrading infrastructure of Emergency Rescue Facilities and (iv) Advocacy of regional cooperation through support of Central Asian Center for Disaster response and Risk Reduction. The effective and timely implementation of these activities will contribute to the achievement of the intended UNDAF outcome: *"By the end of 2016, Disaster Risk Management (DRM) framework in compliance with international standards, especially the Hyogo Framework for Action"* and will contribute to the attainment of core development objectives of the National DRR Strategy.

The project will specifically adopt the following strategies in addressing the capacity gaps mentioned under Project Proposal:

Applying a mutually complementary approach: While UNDP's engagement will focus on refinement legal and regulatory framework to establish integrated DRR and improvement of coordination mechanisms among all interested parties, this project proposal will strengthen/upgrade technical infrastructure of DRR essential elements (CMCs, Early Warning, Rescue Facilities, and Regional Cooperation). In this way activities of both ongoing UNDP Disaster Risk Management Programme and the project proposal will mutually accelerate each other's common development goals. UNDP Disaster Risk Management Programme's common strategy is built upon multi-stakeholder approach, in which capacity and technical expertise of BCPR, UNDP programmes, UN agencies, UNDP's global level initiatives such as Capacity for Disaster Reduction Initiative, Global Risk Identification Programme etc. is engaged so that cascaded effect will be ensured. In the capacity of implementing agency UNDP's resources as well as long-term experience contribute to effective implementation of the project.

Exit Strategy: Further sustainability of project results is supported by the political will of Government (e.g. existing development concepts) and commitment of MES to gradually take control of the project both administratively and financially. The project will be implemented under common development strategy of UNDP Disaster Risk Management Programme which in its turn will further follow up with institutional sustainability after the end of the project. The project does not create new and parallel structures, which would be unsustainable in the long run. First, in the event where there is a need for establishing project

related committees or task forces, they will be based upon existing institutions, primarily Technical and Thematic Working Groups of Secretariat of the National DRR Platform. Secondly, the project results are explicitly linked to the sustainable development contexts of the country that emphasizes national ownership in long terms perspective. Thirdly, the project strategy is tailored to national needs and priorities.

Partnership and Communication Strategy: The project will make use of any opportunities to build partnerships among National DRR Platforms of Japan and Kyrgyzstan as well as regional development platforms such as CACDRRR. In this regard, dialogue and collaboration with JICA will be explored. The visibility of the donor contribution to the project achievements will be ensured in line with the UNDP communication strategy. Communication of the results of the UNDP and Japan partnership will be achieved through several means and covered by UNDP internal sources:

- The tagline ‘This project is funded by the Government of Japan’ will be featured on any products/goods produced or procured by the project within the project life-cycle.
- Best practices will be widely advocated through mass media, UNDP web resources and regular publications (e.g. newsletters, press releases, press conferences, handover ceremonies, etc.).
- The project activities and progress reports will be uploaded into UNDP global level resource management e-tool “Atlas”, so to ensure visibility at the global level.
- UNDP will coordinate with the Embassy of Japan on any publication content making reference to the contribution of the Government of Japan.

III. Planned Activities and Actions

As mentioned above, the project will implement the following four outputs to respond to existing gaps:

Output 1: Strengthening risk assessment and monitoring capacities Crisis Management Centers

Output 2: Strengthening national early warning capacities

Output 3: Strengthening national response capacities (Emergency Rescue Facilities)

Output 4: Advocacy of increased regional cooperation and dialogue

Output 1: Strengthening risk assessment & monitoring capacities of Crisis Management Centers

Activity 1.1: Upgrading hardware of five CMCs to strengthen risk assessment and monitoring capacities

- **Action 1.1.1.** Assessment of existing technical capacity of CMCs in risk assessment & monitoring, development Terms of Reference for equipment.

This actions will be achieved through hiring an international expert (possibly from Japan) to a) assess analytical and technical capacity of CMCs in risk assessment & monitoring b) further identify list and technical parameters of required equipment and c) develop Terms of Reference (TOR) for equipment and training. Up to date, the following kinds of equipment have been identified by staff of CMCs, however they may vary based upon international expert's recommendations: (i) seamless LCD video wall panels (ii) equipment for fiber-optic network (iii) servers of high capacity to store, process, analyze and exchange data and (iv) plotters for printing out prognosis materials (vi) Digital Video Recorders. In order to find international expert from Japan, UNDP Kyrgyzstan will engage UNDP's Global "Capacity exchange programme" and thus will seek for further support of Japanese UNDP Country Office to identify eligible experts from Japan. Involvement of respective expert from Japanese Disaster Management Agency is the most preferable way in addressing this task. In its turn such approach will found a basis for establishment of long-term collaboration between Japanese and Kyrgyzstani Disaster Management Agencies in risk assessment and monitoring practices.

- **Action 1.1.2.** Organize international tender to identify supplier/s of equipment

Under this Action UNDP will conduct open, transparent and competitive international tender to determine supplier/suppliers for delivery of equipment under outputs 1 and 2. International tender will be conducted as per UNDP rules and regulations based on the TOR developed by an international expert. The whole package of equipment might be divided into separate lots to ensure better quality and competitiveness. The whole tender process will be handled by Procurement Unit of UNDP Country Office, which will identify the most eligible supplier/suppliers and will further seek the approval of Procurement Committees at regional level Bureaus/Head Quarters. Also, to ensure quality a Procurement Assistant, who will be hired for the sole purpose of this Project, will provide all possible assistance.

- **Action 1.1.3.** Installation of relevant equipment to facilitate effective risk assessment and monitoring by CMCs

Equipment will be purchased for 6 CMCs of Bishkek, Osh, Jalal-Abad, Talas, Naryn and Karakol cities. Purchase Order/s will be signed with successful suppliers, which will outline terms & conditions of deliveries and payment modes. Upon deliveries due amounts will be disbursed via bank transfers and technical specialists of the Central Apparatus of CMC in Osh will check the correctness & completeness of the delivered equipment in terms of consistency with technical parameters set forth in TOR. The payment will be effected after deliveries and signing Act of Acceptance by the recipient institutions (MES CMC).

Delivery, installation and testing costs will be requested to be included into the Financial Proposal under the TOR as well as during conducting a tender. Budgeted amount is tentative and will vary depending on the suppliers Financial Proposal. While development of TOR for the equipment by the international expert, UNDP through its own financial resources will hire a local technical specialist, thereby the TOR for equipment will be developed jointly. In such way the local specialist will be able to monitor installation and testing processes and take over the equipment upon deliveries/installation and sign an Act of Acceptance.

Official handover ceremony will be organized for visibility purposes with participation of representatives of Japanese Embassy in Kyrgyzstan, UNDP and MES, which will be widely broadcasted through local mass media. Costs of official ceremony will be covered by UNDP own resources.

Activity 1.2: *Training of staff of seven Crisis Management Centers to effectively use new equipment.*

- **Action 1.2.** Prepare training materials and conduct two 2-days trainings on usage of new equipment

After the assessment of technical capacity of CMCs by the international expert (possibly from Japan) takes place, the Terms of Reference for training will be developed to address needs of CMC staff to handle the equipment. Delivery of trainings will be included into the Terms of Reference of the supplier company, thus trainings will be conducted by the supplier company.

Development of training materials will be done in Russian by an expert from supplier company/s. Content of trainings will be defined based on TOR, although details will be modified by the supplier company, and will cover the main subjects on how to use the equipment, troubleshooting, installation etc.

Two 2-days training programmes will be conducted and 57 staff members of all 7 CMCs (5 newly equipped and 2 already existing) will be trained from Bishkek (5), Osh (17), Jalal-Abad (7), Batken (7), Talas (7), Naryn (7) and Karakol (7) cities on usage of new equipment. These 2-days trainings will be conducted at a) CMC of Osh city for 31 representatives of CMCs from Osh, Jalal-Abad and Batken cities and b) CMC of Bishkek city for 26 staff members of Bishkek, Talas, Naryn, Karakol cities.

Participants of the training programmes will be provided by Daily Subsistence Allowances/Per Diems in order to cover the costs of accommodation, meals and within-the-city transportation expenses. In particular DSA will be paid for those CMC staff who will arrive from the regions (Jalal-Abad and Batken; Talas, Naryn & Issyk-Kul) to participate at two-day trainings to be held in Osh and Bishkek cities.

UNDP's contribution to Output 1: UNDP will develop institutional frameworks of national risk assessment and monitoring system through conducting analysis and public discussions. In addition capacity of staff of CMCs will be built based on GRIP's (UNDP Global Risk Identification Programme) training programmes. UNDP will continue supporting the Govt. beyond this project's life cycle in development and testing software risk assessment products.

Expected impact of output 1: The objective of Output 1 is to embark Crisis Management Centers onto the National Risk Assessment & Monitoring system of the country through capacity building of technical preparedness for data collection, processing and analysis, including its close linkage with the province level risk assessment & monitoring capacity. As a result of this Output institutional integration of two tier risk assessment and monitoring systems will be ensured. Thus reliable National Risk Assessment and Monitoring system will contribute to: 1) assess a situation/define a vision/mandate in disaster prevention and recovery 2) formulate policies/strategies 3) monitor & evaluate hazards. CMCs' enhanced capacity in risk assessment & monitoring enables the concerned actors of DRR to formulate & monitor the socio-economic policies/plans both at the province and national levels towards achievement of MDGs & implementation of Country Development Strategy.

Therefore, the impact of this activity is that National disaster risk assessment and monitoring capacities will be bolstered by advanced Crisis Management Centers' technical preparedness in disaster response management and better channeling risk assessment & monitoring information.

Output 2: Strengthening national early warning system in the country

Activity 2: *Introduction of new technologies that can send alerts about natural hazards*

Up to date, Ministry of Emergency Situations identified the following tools in order to strengthen National Early Warning System through installation of: a) Street Reporting and Public Notification (SRPN) Terminal Facilities b) Information and Early Warning Terminal Facilities (EWTF) in Crowded Buildings and c) Purchase and installment of Radio Stations. Up to date, SRPNs and EWTFs have been installed in Osh city only (in 5 places), There are only 4 functional immovable radio stations, which are located at Osh and Bishkek offices of MES (2), Batken MES (1) and Naryn MES (1). Radio stations and satellite terminals have being prioritized by MES under its concept on "Action Plan on Establishment and Development of National Comprehensive System on Early Warning and Public Informing"/OKSION.

- **Action 2.1.** *Purchase equipment for installation Five Street Reporting and Public Notification (SPRN) Terminal Facilities*

SPRN Terminal Facilities are expected to be installed in Jalal-Abad, Batken, Talas, Naryn, Karakol cities (by one set in each city) across the roads with intensive traffic and/or crowded places. The precise places/locations will be determined jointly with the Ministry of Emergency Situations. SPRNs will be administered by central servers, which will be transmitting relevant information on safety & security before and during disasters to Street Terminals/Screens. In this way, the public of densely populated settlements will be regularly obtaining information which will raise public awareness and knowledge.

- **Action 2.2.** *Purchase equipment for installation Five Information and Early Warning Terminal Facilities (EWTF) in Crowded Buildings*

EWTFs are expected to be installed in Jalal-Abad, Batken, Talas, Naryn, Karakol cities (by one set in each city) in Crowded Buildings most vulnerable to disasters (e.g. markets, bazaars, universities and/or schools etc.). The precise location will be determined jointly with MES and local authorities. Similarly to SPRNs, the Early Warning Terminal Facilities will be informing public on disaster risks and thus raise awareness of the public.

- **Action 2.3.** *Purchase equipment for establishment of sixteen Immovable and twenty Mobile Short Wave Radio Stations, Portable VHF Radios & Satellite Terminals*

Immovable Short Wave Radio Stations will be provided to: a) all 7 oblast level divisions of MES b) 2 city divisions of MES in Bishkek and Osh c) 1 Mountain Rescue Service d) 4 troops of MES and e) 2 for CMCs in Bishkek and Osh cities. To date, there are no such radios stations installed.

Mobile Short Wave Radio Stations will be provided to: a) all 7 oblast level divisions of MES b) 2 city divisions of MES in Bishkek and Osh c) 1 Mountain Rescue Service d) 9 troops of MES e) 1 for operations duty officer of the Central Office of MES.

200 portable VHF radios (List of recipient institutions is given in Ms Excel table # 2.1.1.D.), 9 portable satellite terminals (7 oblast MES, 2 operative groups MES) and 9 notebooks will be to work with satellite terminal will be purchased.

Purpose of Radio Stations and Satellite Terminals:

During emergencies with severe damage (e.g. earthquake) the mobile and land telephone communication facilities might be significantly destroyed. In this respect, radio stations would be the most effective tool to keep communicating in disaster response operations among MES, rescuing services, troops etc.

Immovable Short Wave Radio Stations are aimed at strengthening of communication capacities between MES, oblast level divisions, as well as rescue facilities/teams, functioning on-site emergencies, where the usual forms of communication are not available.

Mobile Short Wave Radio Stations will be mounted on vehicles, which will provide radio communication between Central office of MES and all forces involved into rescuing operations.

Portable VHF radios are intended to ensure coordination/communication between the rescuers, functioning on-site of emergencies, as the process of search and rescue requires the presence of such means of communication.

Portable satellite terminal are required to transmit video information from the places of emergencies in the mode of “real-time”, needed for management of MES for decision making.

Notebooks are required to work with satellite terminals.

- **Action 2.4:** *Conduct awareness raising campaigns (trainings, toolkits, information materials).*

Currently UNDP is selecting 30 pilot local self-governments jointly with MES. In this regard, awareness of selected target communities will be raised through development of communication materials. In particular, the booklets about six types of disasters including earthquake, torrents and spring flood, landslides, avalanches, gales and conflagrations will be developed (10,000 copies for each field). For these purposes two public relations experts will be recruited to develop booklets and media materials (at least

six different ones for TV, radio, newspaper and internet platforms). Communication materials will be delivered to target communities through UNDP Disaster Risk Management Programme's field offices.

Booklets will be disseminated during conducting 1-day training programmes for UNDP 30 target communities. For these purposes a training module on "Disaster Risks and Response Actions" will be developed jointly with MES's Training Center on Civil Protection. Trainings will be conducted through involvement of above Mobile Training Facilities' capacity which will deliver trainings to community members. It is expected to train 900 community members (30 persons from each 30 target community). A total of 45 days will be needed (1,5 day per each community) including time for commuting between 30 target communities.

Video clips about "Disaster Risks and Response Actions" will be developed and broadcasted through mass media resources (local TV programmes, radio and internet resources). Video clips will be developed by two public relations experts as mentioned above.

UNDP's contribution to Output 2: UNDP will develop institutional frameworks of National Early Warning System and continue supporting the Govt. beyond this project's life cycle in integrating early warning into risk assessment products.

Expected impact of output 2: Timely and understandable communication mechanisms in early warning and capacity to act rapidly on the warning remains a challenge in the establishment of effective early warning system in Kyrgyzstan. This is due to lack of communication systems and logistical arrangements in early warning system. This activity aims to translate risk assessment & monitoring instruments into early warning and offer concrete local actions through installation of suitable technologies for disseminating information.

The impact of this activity is that respective national and local authorities will be capable in disseminating early warning messages, so that National Early Warning System is linked to public announcement service. Public access to Early Warning and Awareness Raising Sources will be extended, early warning communication channels diversified and awareness of the public increased through massive and regular communication campaigns

Output 3: Strengthening capacities of Emergency Rescue Facilities

Activity 3: Purchase equipment for establishment Emergency Rescue Facilities

- **Action 3.1:** *Purchase equipment and inventory to re-profile five Fire Services into Fire-Rescuing Facilities.*

Emergency situations, periodically occurring all over the country, require availability of Emergency Rescue Facilities, in those areas, exposed to hazardous processes and phenomena. At the moment the country does not have a sufficient system of Emergency Rescue Facilities. It is expected to provide assistance to MES in establishment of Emergency Rescue Facilities (ERFs), strengthening capacity and improvement of technical preparedness. These will be supported in line with an early warning system. There are 45 Fire Services all over the country within MES's system which are located in city municipalities (Bishkek, Osh and 40 district administration centers). In 2009, MES upgraded technical capacity of Fire Services and purchased 73 Fire Trucks. Starting from 2012, MES is going to gradually re-profile existing Fire Services into Fire-Rescuing Facilities. Sustainability of such approach is very high since existing capacity of Fire Services will be engaged (i.e. buildings, staff, determined sources of funding from republican budget etc.). In line with this development context this project proposal will assist to establish 5 Fire Rescuing Facilities on the basis of existing 5 Fire Services through purchase of equipment and inventory on rescuing. The exact location where to establish Fire-Rescuing Services will be determined jointly with MES at later stages, however the priority will be given to potential hazardous itinerary (Bishkek-Karakol, Osh-Sary-Tash etc.). Currently Fire Services do not have rescuing equipment (they have only machinery and equipment for firefighting). After establishment of 5 Fire-Rescuing Facilities their staff needs to be trained in rescuing issues (i.e. getting skills and knowledge in rescuing during all types of disasters).

- **Action 3.2:** *Conduct knowledge and skills raising trainings for staff of 45 Fire Services on Rescuing Operations*

Staff of existing 45 Fire Services will be trained at the MES's Rescuers' Training Center in Osh and Bishkek. As a result, the fire-fighters will get skills and knowledge on how to provide rescuing services to the victims of disasters. A total of 225 fire-fighters (by 5 persons from 45 Fire Services) will be trained on rescuing and

obtain rescuer's certificate. Since the training will be held in the government premises costs related to training (trainers costs) will be the contribution of MES.

Moreover, fire fighters will be trained on how to provide the first before-the-doctor medical aid. For these purposes, 2 trainers will be hired to train fire fighters. Such training will be delivered while fire-fighters are trained at the MES's Rescuers' Training Centers. As a result, staff of 45 fire services will be able to provide rescuing operations during disasters.

UNDP's contribution to Output 3: UNDP will establish 30 voluntary Rural Rescue Teams (equipment and training) and conduct rehearsals. Capacity of 5 professional Emergency Rescue Facilities (additional to those which are planned to be established through this project proposal) will be developed through equipping and training. UNDP will also support to improve institutional frameworks for re-profiling Fire Services into Fire-Rescuing Facilities and coordination mechanisms between MES and Ministry of health Care in providing emergency medical care.

Expected impact of output 3: Emergency Rescue Facilities (ERFs) will protect human capital during and after crises and buffer victims against the impacts of disasters. Currently, little number of Rescuing Services function in Kyrgyzstan predominantly in big province level cities (such as Bishkek, Osh, Jalal-Abad, Karakol, Naryn, Talas and Batken). Evidently, existing ERFs are not capable to ensure security to the greater part of population. To reduce this gap:

- Ministry of Emergency Situations is planning to re-profile existing district level 45 Fire-Services into Fire-Rescuing Facilities starting as of 2012.

In such way, the population of district and peri-district areas will be sheltered by security services. The impact of this activity is to support MES to kick-start its initiative aimed at re-profiling Fire-Services into Fire-Rescuing Facilities. Primarily, this will be achieved through equipping five Fire Services (exact locales will be determined with MES at later stages) with necessary rescuing inventory and equipment and training of 225 fire-fighters on rescuing operations, including before-the-doctor medical aid. Such noble initiative will foster MES capacity to save lives in case of disasters.

Output 4: Strengthening regional cooperation in the sphere of Disaster Risk Reduction

During the Sixth Senior Officials' Meetings of "Central Asia + Japan" Dialogue held in December 2011 in Tokyo, disaster reduction was defined as one of 4 concrete cooperation areas. This output is in line with this cooperation initiative and aims to increase regional cooperation through providing a dialogue platform for Disaster Management Agencies of Central Asian countries.

In 2010-11, through the regional EU-funded project on "Enhancing Disaster Risk Reduction capacities in Central Asia", UNDP engagement was aiming at establishment of Central Asian Center for Disaster Response and Risk Reduction in Almaty (CACDRRR). The main purpose of the center is to establish a coordination mechanism in the region in consolidating efforts among Central Asian countries in policy-making issues in DRR, development relevant strategies, strengthening coordination mechanisms and capacity building activities in order to better respond DRR issues at transboundary areas and to possible disasters of regional level. On October 15, 2010, senior management of Disaster Management Agencies of Kyrgyzstan, Kazakhstan and Tajikistan signed Memorandum of Understanding (MoU) with the aim to establish an Organizing Committee working towards establishment of CACDRRR. Upon results of the work of an Organizing Committee, Kazakhstan and Kyrgyzstan have signed MoU to which Tajikistan will likely join soon after fulfillment of some technical procedures at the country level. Upon negotiations held by Organizing Committee Uzbekistan and Turkmenistan will take part at CACDRRR's work as observers. Representatives of MES of Russian Federation have also expressed their willingness to collaborate with CACDRRR in the future. Kazakh MES allocated a two-storey building for the center and covering administrative costs. The center has conference halls for conducting events and trainings with capacity of up to 100 persons. Currently, an expert hired by UN International Strategy on Disaster Reduction (ISDR) is supporting Organizing Committee in establishment of CACDRRR.

Organizing Committee of CACDRRR devised its Two-year strategy and drafted a Joint Project Document (UNDP & CACDRRR). Under these documents, one of the key directions is carrying out training programmes for representatives of DRR agencies of Central Asian countries and establish a joint warehouse for emergencies in the Fergana Valley.

Considering above, the following priority activities have been defined under this project proposal, which will be implemented through involvement capacity of an Organizing Committee of CACDRRR:

- a. Conduct regional level activities/events facilitating increased dialogue and cooperation in DRR among Central-Asian countries.
- b. Conduct capacity development interventions

Activity 4.1: *Conduct regional level activities/events facilitating increased dialogue and cooperation*

- **Action 4.1.1:** *Alignment and making consistent national legal frameworks in Central Asia and develop a strategy to better address regional cooperation in DRR*

In 2011, an assessment of legal frameworks of Kazakhstan, Kyrgyzstan and Tajikistan was carried out by the Organizing Committee of CADRRR and relevant recommendations were developed on how to align national legal and regulatory base and make them consistent each other to better respond to transboundary and regional level disasters. To this end, further support is needed in two directions. First, the developed recommendations have to be further promoted through providing relevant technical expertise and revival a policy dialogue processes. Secondly, a cooperation development strategy needs to be developed and coordinated among Central Asian countries. In this regard, two highly qualified experts at the Central Asian regional level will be hired for 6 months period to achieve above two goals (4 months) and development of common strategies facilitating further refinement of DRR plans at border areas mentioned under action 4.2.2. (2 months). In particular, within 4 months period of time the following scope of work is going to be fulfilled towards development & adoption of regional DRR strategy: a) 1 month: assessment current situation to identify existing challenges/tensions in the region b) 2 month: drafting regional level DRR strategy c) 3 month: facilitate adoption of the strategy d) 4 month: preparing final reports. In addition, alignment process of national legal and regulatory frameworks will be conducting simultaneously along with the development of regional DRR strategy during all 4 months. While one of the experts will focus on providing narrow technical expertise in terms of legal issues/development of strategy, the second one with well understanding of CACDRRR's work and the regional context will facilitate an overall coordination process among Central Asian countries. It is expected that duty station of the first expert will be based at CACDRRR's office in Almaty, whereas the latter one will predominantly sit in Bishkek, but with frequent travels to Almaty and Dushanbe to bring into conformity the whole analytical process. Expert with duty station in Almaty is expected to be hired through UNDP Kazakhstan for which UNDP Kyrgyzstan will take necessary negotiations with UNDP Kazakhstan.

Series of regional high-level events (see bellow) will be organized to discuss and further promote the results of experts' work. CACDRRR's capacity and mandate will be engaged to promote project's goals.

- **Action 4.1.2:** *Conduct 3 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR*

Based upon results of foregoing action three consecutive high level events will be organized within the project's life cycle to discuss and further agree on regional development perspectives. Such high level events with 4-days of duration each will be arranged in the form of tripled round of discussions by targeting existing challenges/tensions of the regional development context during the first discussions, defining preliminary strategies at the second event and adopting relevant strategies during the third one. 50 officials, who are specifically involved in DRR, will be invited (by 10 persons from each CA country) to take part in discussions. The startup event will be conducted in Osh, the next one in Bishkek and the third one in CACDRRR's office in Almaty to wrap up the entire work cycle. Two rehearsals will be conducted at border areas of Kyrgyzstan (one with Uzbekistan and/or Tajikistan in the South, and another one in Chui oblast with Kazakhstan) to demonstrate strengths of collective preparedness and response.

Activity 4.2: *Conduct capacity development interventions*

Based upon results of regional high-level events, particular capacity development interventions will be implemented at border areas. In this regard capacity development interventions will be conducted such as:

- **Action 4.2.1.** *Training key staff of bordering districts on Disaster Risk Management*

Consistent with foregoing actions and for the purposes of cementing the policy level interventions at the practical level, the 4-days training programmes will be conducted for district level authorities on the following subject areas like: Disaster Risk Management, Legal and Organizational Frameworks of Inter-State Cooperation, Risk Assessment & Monitoring, Early Warning, Climate Change Adaptation, Climate Risk Management and others (subject to negotiations with CACDRRR at later stages). A total of 50 key staff from bordering districts of Kyrgyzstan and 70 representatives from Uzbekistan, Tajikistan and Kazakhstan will be trained. Two local experts will be hired to develop and conduct 4-day training programmes in Osh (Kyrgyzstan, Uzbekistan and Tajikistan representatives) and Bishkek (Kyrgyzstan and Kazakhstan). Training products will be translated and disseminated among training participants during the trainings. Upon completion of trainings, selected trainees will meet twice to refine DRR plans and make them consistent each other, which facilitates a better response during transboundary emergencies (please refer to the next action).

▪ **Action 4.2.2.** *Conduct two times meeting to refine district DRR Plans at border areas*

Following to foregoing action, 25 representatives out of trained staff (10 from Kyrgyzstan and 15 from Kazakstan, Uzbekistan and Tajikistan) will meet twice to refine and make consistent respective Disaster Preparedness and Response Plans (DPRPs) of the districts of their own by using gained knowledge. One of the meetings will be held in Osh with participation of representatives from Uzbekistan and Tajikistan and the second one in Bishkek to which representatives of Kazakhstan will be invited. For these purposes, above-mentioned two experts (action 4.1.1.) will continue working towards development strategies, which will be universal for national contexts of Central Asian countries. As final stage of capacity building activities, and based upon on improved DPRPs, 2 rehearsals will be conducted at border areas through engagement Disaster Management Departments of neighboring districts. All the events under this Action will be implemented within two months period.

UNDP's contribution to Output 4: UNDP will mainstream climate risk management and climate resilient approaches into development strategies at border areas during 2013-15.

Expected impact of output 4: Output 4 will have several impacts: a) CACDRRR will be supported in development and advocacy of regional level strategy on DRR so that Central Asian countries are able further act according to agreed standards and strategies in disaster preparedness and response b) through CACDRRR's mandate the Central Asian countries will be sensitized to align respective national legal base towards making consistent cross-border DRR procedures and practices c) under auspices of CACDRRR the neighboring countries (KZ, KG, TJ, UZ) will refine their own Disaster Management Plans at border areas to increase effectiveness of collective preparedness and response.

IV. Summary table on requested funds

A. Requested funds as per activities:

#	Activities	Requested from Japanese Govt
1	Output 1. Strengthening capacity of Crisis Management Centers of Ministry of Emergency Situations of the Kyrgyz Republic in risk assessment and monitoring	168 209,86
2	Output 2. Strengthening national early warning system in the country	1 313 487,00
3	Output 3. Strengthening capacities of Emergency Rescue Facilities	347 178,00
4	Output 4. Strengthening regional cooperation in the sphere of Disaster Risk Reduction	566 352,80
5	Personnel cost	21 840,00
	Total requested funds (net):	2 417 067,66
	General Management Services (7%)	169 194,74
	Grand total per project	2 586 262,39

Remarks: UNDP contribution consist of 9,48% out of grand total requested funds (or \$245 202,00)

B. Requested funds by "soft" and "hard" components:

1	Soft component (43,30%)	1 119 739,40
2	Hard component (56,70%)	1 466 523,00
4	Total requested (100%)	2 586 262,39

V. Project Budget

Outputs	PLANNED ACTIVITIES/ACTIONS	Responsible Parties	Amount (USD)			
			Total	2012	2013	2014
Output 1. Strengthening capacity of Crisis Management Centers of MES in risk assessment and monitoring	Activity 1.1. Upgrade hardware of five Crisis Management Centers (CMCs) to strengthen CMCs' capacities in risk assessment and monitoring		144 373,84	0,00	144 373,84	0,00
	Action 1.1.1. Assessment of existing technical capacity of CMCs in risk assessment & monitoring, development Terms of Reference for equipment	UNDP	18 236,40		18 236,40	
	Action 1.1.2. Organize international tender to identify supplier/s of equipment	UNDP	520,00		520,00	
	Action 1.1.3. Installation of relevant equipment to facilitate effective risk assessment and monitoring by CMCs	UNDP, MES, Central and regional CMCs	125 617,44		125 617,44	
	Activity 1.2: Training of staff of seven Crisis Management Centers to effectively use new equipment.		23 836,02	0,00	23 836,02	0,00
	Action 1.2. Prepare training materials and conduct two 2-days trainings on usage of new equipment	Selected supplier company/s, UNDP	23 836,02		23 836,02	
	Total Output 1:		168 209,86	0,00	168 209,86	0,00
Output 2. Strengthening national early warning system in the country	Activity 2: Introduction of new technologies that can send alerts about natural hazards		1 313 487,00	0,00	1 313 487,00	0,00
	Action 2.1. Purchase equipment for installation Five Street Reporting and Public Notification (SPRN) Terminal Facilities	UNDP, MES	351 083,85		351 083,85	
	Action 2.2. Purchase equipment for installation Five Information and Early Warning Terminal Facilities (EWTF) in Crowded Buildings	UNDP, MES	295 169,90		295 169,90	
	Action 2.3. Purchase equipment for establishment of sixteen Immovable and twenty Mobile Short Wave Radio Stations, Portable VHF Radios & Satellite Terminals	UNDP, MES	544 669,25		544 669,25	
	Action 2.4. Conduct awareness raising campaigns (trainings, toolkits, information materials).	UNDP, MES	122 564,00		122 564,00	
	Total Output 2:		1 313 487,00	0,00	1 313 487,00	0,00
Output 3. Strengthening capacities of Emergency Rescue Facilities	Activity 3: Purchase equipment for establishment Emergency Rescue Facilities		347 178,00	0,00	275 600,00	71 578,00
	Action 3.1. Purchase of equipment to re-profile 5 fire services into fire-rescuing facilities	UNDP, MES	275 600,00		275 600,00	

Outputs	PLANNED ACTIVITIES/ACTIONS	Responsible Parties	Amount (USD)			
			Total	2012	2013	2014
	Action 3.2. Conduct knowledge and skills raising trainings for staff of 45 Fire Services on Rescuing Operations	UNDP, MES	71 578,00			71 578,00
	Total Output 3:		347 178,00	0,00	275 600,00	71 578,00
Output 4. Strengthening regional cooperation in the sphere of Disaster Risk Reduction	Activity 4.1: Conduct regional level activities/events facilitating increased dialogue and cooperation		379 491,84	0,00	379 491,84	0,00
	Action 4.1.1: Alignment and making consistent national legal frameworks in Central Asia and develop a strategy to better address regional cooperation in DRR	CACDRRR, MES, UNDP	31 844,80		31 844,80	
	Action 4.1.2: Conduct 3 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR	CACDRRR, MES, UNDP	347 647,04		347 647,04	
	Activity 4.2: Conduct capacity development interventions		186 860,96	0,00	121 652,96	65 208,00
	Action 4.2.1: Training key staff of bordering districts on Disaster Risk Management	CACDRRR, MES, UNDP	121 652,96		121 652,96	
	Action 4.2.2: Conduct two times meeting to refine district DRR Plans at border areas	DRR Agencies of CA countries, UJNDP	65 208,00			65 208,00
	Total Output 4:		566 352,80	0,00	501 144,80	65 208,00
Personnel cost	Procurement Assistant		21 840,00	2 080,00	12 480,00	7 280,00
	PROJECT TOTAL		2 417 067,66	2 080,00	2 270 921,66	144 066,00
Administrative costs	General Management Services (7%)		169 194,74	145,60	158 964,52	10 084,62
	PROJECT GRAND TOTAL		2 586 262,39	2 225,60	2 429 886,17	154 150,62

VI. Results and Resources Framework

COUNTRY PROGRAMME /UNDAF OUTCOME#3: By 2016, Disaster Risk Management (DRM) framework in compliance with international standards, especially the Hyogo Framework for Action.

Indicators: 1) National institutional, legal and policy framework for disaster risk reduction (DRR) with decentralized responsibilities, resources and capacities at all levels 2) % of Local Governments' (LSGs) local development plans with integrated disaster risk reduction (DRR) strategies 3) % of disaster prone communities and institutions with reduced vulnerabilities

Targets: 1) Disaster Risk Reduction (DRR) legal, institutional and policy frameworks that feature coherence and mechanisms of coordination adopted and functional 2) Disaster Risk Reduction (DRR) Strategies integrated in at least 10% of Local Self-Governments' (LSGs) local development plans 3) Disaster Risk Reduction (DRR) monitoring system established and functional (informing socio-economic planning) in at least 10% of LSGs 4) Vulnerabilities reduced in 10% of communities prone to natural disasters 5) Resilience of vulnerable groups to shock is strengthened 6) Capacities to address disaster risk reduction (DRR) of stakeholders in education strengthened and education curricula mainstreams disaster risk reduction.

Baselines: 1) National institutional, legal and policy framework for Disaster Risk Reduction (DRR) at nascent stages 2) Absence of DRR strategies integrated in Local Self-Governments' (LSGs) local development plans 3) Absence of DRR monitoring system that would inform local level planning 4) 70% of communities in Kyrgyzstan are vulnerable to natural disasters 5) Inadequate knowledge and capacities of stakeholders in education to address DRR and apply related existing policies; absence of DRR in education curricula.

INDICATIVE OUTPUTS	OUTPUTS TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS (USD)
<p>Output 1. Strengthening capacity of Crisis Management Centers of the Ministry of Emergency Situations of the Kyrgyz Republic in risk assessment and monitoring</p> <p>Baseline:</p> <p>1. National development concept on "Establishing National Information Management System on DRR" is in progress towards refining risk assessment & monitoring mechanisms</p> <p>2. Seven Crisis Management Centers (CMCs) are operational with defined roles, legal & financial frameworks, but low technical preparedness in risk assessment & monitoring processes</p> <p>Indicator by the end of 2013:</p> <p>1. Seven CMCs with increased technical preparedness and knowledge for better risk assessment and monitoring.</p> <p>Indicators for years:</p> <p>1) 2013:</p> <ul style="list-style-type: none"> - Assessment report of an international expert on existing analytical and technical capacity of CMCs in risk assessment & monitoring processes - Selected supplier/s of equipment - Upgraded technical infrastructure and trained 57 staff of 	<p>Targets by the end of 2013:</p> <p>Technical capacities of Crisis Management Centers strengthened in disaster risk assessment & monitoring processes</p> <p>Targets for years:</p> <p>2013:</p> <ul style="list-style-type: none"> - Existing technical capacity of CMCs in risk assessment & monitoring assessed - Procurement planning, Sourcing of Suppliers, Solicitation & Evaluation Offers completed - Equipment delivered 	<p>Activity Result 1.1. Upgrading hardware of five CMCs to strengthen risk assessment and monitoring capacities</p> <p>Action:</p> <p>1.1.1. Assessment of existing technical capacity of CMCs in risk assessment & monitoring and development of TOR for equipment</p> <p>1.1.2. Organize international tender to identify supplier/s of equipment</p> <p>1.1.3. Installation of relevant equipment to facilitate effective risk assessment and monitoring by CMCs</p> <p>Activity Result 1.2. Training of staff of seven Crisis Management Centers to effectively use new equipment</p> <p>Action:</p> <p>1.2. Prepare training materials and</p>	<p>UNDP, MES, Central and regional CMCs</p>	<p>Japan Govt.: 168 209,86</p>

INDICATIVE OUTPUTS	OUTPUTS TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS (USD)
<p>CMCs to better grip risk assessment & monitoring</p> <p>Gender benchmarking: Gender disaggregated data articulated within risk assessment and monitoring to adequately address gender needs and priorities (UNDP contribution)</p>	<p>to 7 CMCs, installed and tested and 57 staff trained in usage new equipment</p>	<p>conduct two 2-day trainings in Bishkek and Osh</p>		
<p>Output 2: Strengthening national early warning system in the country</p> <p>Baseline:</p> <ol style="list-style-type: none"> Underdeveloped infrastructure of National Early Warning System Action Plan on “Establishment and Development of National Comprehensive System on Early Warning and Public Informing” is in progress. Low technical preparedness of public institutions in early warning processes. <p>Indicator by the end of 2013:</p> <ol style="list-style-type: none"> # of disaster risk management structures with increased technical preparedness for effective early warning <p>Indicators for years:</p> <ol style="list-style-type: none"> 2013: <ul style="list-style-type: none"> Selected supplier/s of equipment # of communication materials produced for public awareness purposes # of densely populated settlements with public informing & awareness raising facilities # of disaster risk management structures with available equipment for effective early warning of the public <p>Gender benchmarking: Access of women and other vulnerable groups (elderly, women, disabled) to early warning sources emphasized in National Early Warning policies and practices</p>	<p>Targets by the end of 2013:</p> <p>Technical preparedness of National Early Warning System strengthened</p> <p>Targets for years:</p> <p>2013:</p> <ul style="list-style-type: none"> Supplier company/s selected Public Awareness Raising campaigns conducted Public Informing and Awareness Raising Facilities installed in selected densely populated settlements VHF Radio Stations installed in disaster risk management structures leading early warning processes 	<p>Activity Result 2. Introduction of new technologies that can send alerts about natural hazard</p> <p>Action:</p> <ol style="list-style-type: none"> Purchase and installment of Street Reporting and Public Notification (SRPN) Terminal Facilities Purchase and installment of Information and Early Warning Terminal Facilities (EWTF) in Crowded Buildings Purchase equipment for establishment Immovable and Mobile Short Wave Radio Stations, Portable VHF Radios & Satellite Terminals Conduct awareness raising campaigns (trainings, toolkits, information materials). 	<p>UNDP, MES</p>	<p>Japan Govt.: 1 313 487,00</p>
<p>Output 3. Strengthening capacities of Emergency Rescue Facilities</p> <p>Baseline:</p> <ol style="list-style-type: none"> 45 Fire Services with lack of capacity (equipment & knowledge) in rescuing operations 	<p>Targets by the end of 2013:</p> <p>Technical preparedness of Emergency Rescue</p>	<p>Activity Result 3. Purchase equipment for establishment Emergency Rescue Facilities</p> <p>Action:</p>	<p>UNDP, MES</p>	<p>Japan Govt.: 347 178,00</p>

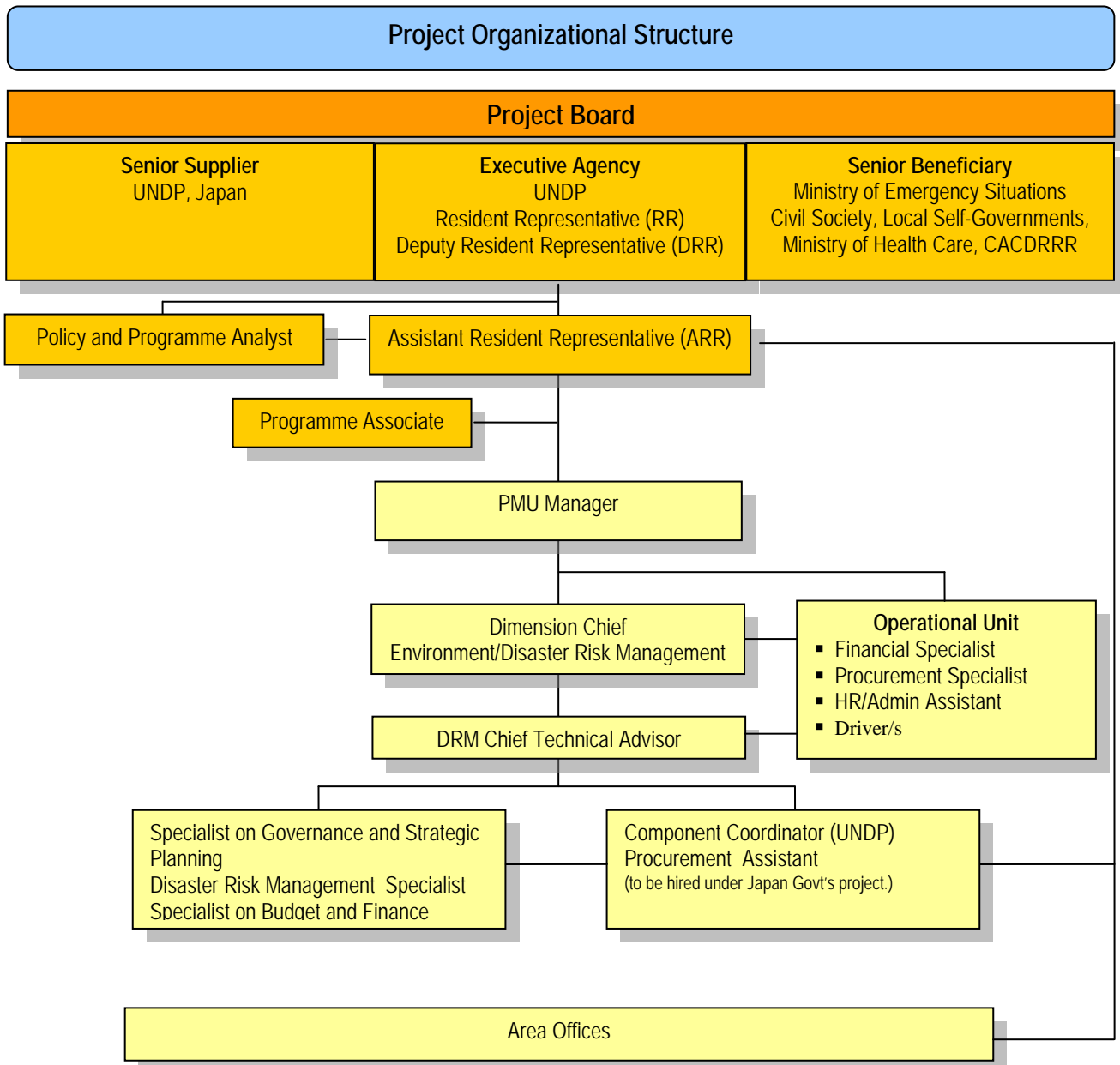
INDICATIVE OUTPUTS	OUTPUTS TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS (USD)
<p>Indicators by the end of 2013:</p> <p># of established Fire-Rescuing with appropriate technical capacity, skills and knowledge</p> <p>Indicators for years:</p> <p>1) 2013:</p> <ul style="list-style-type: none"> - Selected supplier/s of equipment <p>2) 2014:</p> <ul style="list-style-type: none"> - # of established and certificated Fire-Rescuing Facilities <p>Gender benchmarking: Women’s vulnerabilities to disaster risks and lack of their access to Early Warning Sources adequately responded within the project’s interventions.</p>	<p>Facilities strengthened, skills and knowledge raised</p> <p>Targets for years:</p> <p>2013:</p> <ul style="list-style-type: none"> - Supplier company/s selected <p>2014:</p> <ul style="list-style-type: none"> - 5 Fire Services re-profiled into Fire-Rescuing Facilities through upgrading technical capacity, knowledge and skills 	<p>3.1. Purchase of equipment to re-profile 5 fire services into fire-rescuing facilities</p> <p>3.2. Conduct knowledge and skills raising trainings for staff of 45 Fire Services on Rescuing Operations</p>		
<p>Output 4. Strengthening regional cooperation in the sphere of Disaster Risk Reduction</p> <p>Baseline:</p> <p>1) “Central Asia + Japan” dialogue initiative is in progress</p> <p>2) Central Asian Center for Disaster Response and Risk Reduction is to strengthen cooperation to better address transboundary and regional level disasters</p> <p>Indicators by the end of 2013:</p> <p>1. # of adopted strategies facilitating a regional dialogue and cooperation</p> <p>2. # of implemented joint activities strengthening collective disaster response mechanisms</p> <p>Indicators for years:</p>	<p>Targets by the end of 2013:</p> <p>A regional dialogue platform with functional cooperation strategy and DRM tools</p> <p>Targets for years:</p> <p>2013:</p> <ul style="list-style-type: none"> - A regional cooperation strategy developed and promoted - Benefits of regional cooperation sensitized, knowledge and skills increased 	<p>Activity Result 4.1. Conduct regional level activities/events facilitating increased dialogue and cooperation</p> <p>Action:</p> <p>4.1.1: Alignment and making consistent national legal frameworks in Central Asia and develop a strategy to better address regional cooperation in DRR</p> <p>4.1.2: Conduct 3 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR</p> <p>Activity 4.2: Conduct capacity development interventions</p> <p>Action:</p> <p>4.2.1: Training key staff of bordering districts on Disaster Risk Management</p> <p>4.2.2: Conduct two times meeting to</p>	<p>UNDP, MES, CACDRRR</p>	<p>Japan Govt.: 566 352,80</p>

INDICATIVE OUTPUTS	OUTPUTS TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS (USD)
1) 2013: <ul style="list-style-type: none"> – # of aligned legal acts and a strategy for betterment of regional cooperation – # of regional level events cementing regional cooperation and dialogue 3) 2014: <ul style="list-style-type: none"> – # of improved disaster management tools at border areas Gender benchmarking: International and national gender empowering standards mainstreamed into the regional strategy and national DRM tools	2014: - DRM Plans improved at border areas and across the countries	refine district DRR Plans at border areas		
Administrative costs		Personnel costs		Japan Govt.: 21 840,00
		General Management Services (7%)		Japan Govt.: 169 194,74
Grand Total				Japan Govt.: 2 586 262,39

VII. Management Arrangements

The project will be implemented in accordance with Direct Execution modality. In the framework of the Country Programme Action Plan, UNDP is an Executive Agency of the Project, which is responsible for project management, achievement of project outputs, and effective utilization of resources. Project implementation is performed based on the Annual Work Plans endorsed by UNDP.

Project activities will be implemented by existing Management Structure of ongoing Disaster Risk Management Programme (all existing staff will be involved into project implementation). Since the project proposal consists of many “hard” component additional support staff (Procurement Assistant) will be hired.



Project Board is a group of responsible parties for making by consensus management decisions for a programme when guidance is required by the project, including recommendation for UNDP/Executing Agency approval of project plans and revisions.

Project assurance to be performed by the DRM and Environment Policy and Programme Analyst and the UNDP Programme Associate to support the Project Board by carrying out objective and independent project oversight and monitoring of project results. This role ensures appropriate programme management milestones are managed and completed.

PMU Manager ensures timeliness of project implementation

Dimension Chief Environment/Disaster Risk Management – ensures timeliness of project implementation

Chief Technical Advisor – to provide expert support and technical expertise, ensure proper coordination among programme specialists, national partners and other interested parties towards successful achievement of project activities, including activities related to transboundary and conflict-sensitive approaches. Has the authority to run the Project on a day-to-day basis on behalf of the Programme Board within the constraints laid down by the Board. Chief Technical Adviser is responsible for day-to-day management and decision-making for the Programme.

Specialist on Governance and Strategic Planning – to provide expertise to the project in liaising with local government bodies and ensuring that risk assessment and monitoring products are mainstreamed into socio-economic development planning and monitor results of “soft” activities (training programmes, awareness raising campaigns, regional level events, monitor the work of experts).

Disaster Risk Management Specialist - to provide expertise to the programme in DRM issues, as well as improving risk assessment, monitoring and early warning systems, and monitor results of “soft” activities (training programmes, awareness raising campaigns, regional level events, monitor the work of experts).

Specialist on Budget and Finance - to provide expertise to the programme in budgeting and statistical reporting mechanisms for effective implementation of the project.

Component coordinator - runs the project on a day-to-day basis.

Operations Unit performs administrative, financial, and organizational support to the Programme Manager and the Programme Staff for successful achievement of the Project outputs.

Procurement Assistant will be hired to deal with contracting and procurement businesses.

Regional specialists of the programme (deployed in Area Offices) – to work at the sub-national level and are responsible for implementation of project activities in compliance with goals and objectives of the project.

UNDP Country Office support

The UNDP Country Office may provide support services at the request of the Government. The UNDP Country Office may offer assistance with reporting requirements and direct payment. In providing such support services, the UNDP Country Office will ensure that the capacity of the Government Agencies is strengthened to carry out such activities directly.

Procurement of goods and services will be conducted in accordance with UNDP rules and regulations. The relevant provisions of the Standard Basic Assistance Agreement between the Government of Kyrgyzstan and the UNDP, including the provision of liability and privileges and immunities, shall apply to the provision of such support services. UNDP jointly with MES will retain overall responsibility for implemented of the project.

Any claim or dispute arising under or in connection with the provision of support services by the UNDP Country Office in accordance with appropriate letter will be handled pursuant to the relevant provisions of the Standard Basic Assistance Agreement signed between the GoK and UNDP on 14 September 1992.

The UNDP Country Office will submit progress reports on support services provided and will report on the costs reimbursed in providing such services as required. Any modification of the present arrangements will be made through mutual written agreement of both parties.

VIII. Legal Context

This project proposal shall be the instrument referred to as such in Article III of the SBAA (Standard Basic Assistance Agreement) between the Government of Kyrgyz Republic and the UNDP, signed in 1993.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the project implementing partner.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

IX. Monitoring Framework and Evaluation

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods
- An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis, a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Quarterly Progress Reports (QPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- a project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Programme Manager and shared with the Programme Board. As a minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Programme Review.** Based on the above report, an annual programme review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Programme Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

Midterm review

- **Midterm review.** The project results will be subject to mid-term review as an integral part of UNDP ongoing "Disaster Risk Management" Programme, which is planned for 2014. A final review of UNDP programme is proposed for 2016, to formulate the consecutive phase of the program 2017-2021. However, upon request of interested parties, UNDP may arrange logistical support, so that review of such party/s takes place before 2016.

Quality Management for Project Activity Results

Replicate the table for each activity result of the AWP to provide information on monitoring actions based on quality criteria. To be completed during the process "Defining a Project" if the information is available. This table shall be further refined during the process "Initiating a Project".

Output 1: Strengthening capacity of Crisis Management Centers of MES in risk assessment and monitoring		
Activity Result 1.1. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity Result 1.1. Upgrading hardware of five CMCs to strengthen risk assessment and monitoring capacities	Start Date: January 2013 End Date: December 2013
Purpose	{What is the purpose of the activity?} Technical capacities of Crisis Management Centers strengthened in disaster risk assessment & monitoring processes	
Description	{Planned actions to produce the activity result} Milestone actions: – 1.1.1. Assessment of existing technical capacity of CMCs in risk assessment & monitoring and development of TOR for equipment – 1.1.2. Organize international tender to identify supplier/s of equipment – 1.1.3. Installation of relevant equipment facilitating effective risk assessment and monitoring by CMCs	
Quality Criteria <i>how/with what indicators the quality of the activity result will be measured?</i>	Quality Method <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment <i>When will the assessment of quality be performed?</i>
Seven CMCs with increased technical preparedness and knowledge for better risk assessment and monitoring.	– Assessment report of an international expert on existing technical capacity of CMCs in risk assessment & monitoring – List of delivered equipment and trained staff	December 2013
Activity Result 1.2. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity Result 1.2. Training of staff of seven Crisis Management Centers to effectively use new equipment	Start Date: October 2013 End Date: December 2013
Purpose	{What is the purpose of the activity?} Increased knowledge and skills of CMC staff to use new equipment	
Description	{Planned actions to produce the activity result} Milestone actions: – 1.2. Prepare training materials and conduct two 2-day trainings in Bishkek and Osh	
Quality Criteria <i>how/with what indicators the quality of the activity result will be measured?</i>	Quality Method <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment <i>When will the assessment of quality be performed?</i>
# of trained 57 staff of CMCs to better grip risk assessment & monitoring	List of trained staff and developed training materials	December 2013
Output 2: Strengthening national early warning system in the country		
Activity Result 2. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity Result 2. Introduction of new technologies that can send alerts about natural hazard	Start Date: January 2013 End Date: December 2013
Purpose	{What is the purpose of the activity?} – Technical preparedness of National Early Warning System strengthened	
Description	{Planned actions to produce the activity result} Milestone actions, split by years: – 2.1. Purchase and installment of Street Reporting and Public Notification (SRPN) Terminal Facilities – 2.2. Purchase and installment of Information and Early Warning Terminal Facilities (EWTF) in Crowded Buildings – 2.3. Purchase equipment for establishment Immovable and Mobile Short Wave Radio Stations, Portable VHF Radios & Satellite Terminals – 2.4. Conduct awareness raising campaigns (trainings, toolkits, information materials).	
Quality Criteria	Quality Method	Date of Assessment

<i>how/with what indicators the quality of the activity result will be measured?</i>	<i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<i>When will the assessment of quality be performed?</i>
<i># of disaster risk management structures with increased technical preparedness for effective early warning</i>	<i>List of DRM structures with available equipment and trained staff</i>	December 2013
Output 3. Strengthening capacities of Emergency Rescue Facilities		
Activity Result 3. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity Result 3. Purchase equipment for establishment Emergency Rescue Facilities	Start Date: June 2013 End Date: March 2014
Purpose	{What is the purpose of the activity?} a) <i>Technical preparedness of Emergency Rescue Facilities strengthened, skills and knowledge raised</i>	
Description	{Planned actions to produce the activity result} <i>Milestone actions:</i> – 3.1. <i>Purchase of equipment to re-profile 5 fire services into fire-rescuing facilities</i> – 3.2. <i>Conduct knowledge and skills raising trainings for staff of 45 Fire Services on Rescuing Operations</i>	
Quality Criteria <i>how/with what indicators the quality of the activity result will be measured?</i>	Quality Method <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment <i>When will the assessment of quality be performed?</i>
<i># of established Fire-Rescuing Facilities with appropriate technical capacity, skills and knowledge</i>	<i>List of established Fire-Rescuing facilities with equipment and trained staff</i>	April 2014
Output 4. Strengthening regional cooperation in the sphere of Disaster Risk Reduction		
Activity Result 4.1. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity Result 4.1. Conduct regional level activities/events facilitating increased dialogue and cooperation	Start Date: November 2012 End Date: December 2013
Purpose	{What is the purpose of the activity?} a) <i>A regional dialogue platform with functional cooperation strategy and DRM tools</i> b) <i>Joint Warehouse refurbished</i>	
Description	{Planned actions to produce the activity result} <i>Milestone actions:</i> – 4.1.1: <i>Alignment and making consistent national legal frameworks in Central Asia and develop a strategy to better address regional cooperation in DRR</i> – 4.1.2: <i>Conduct 3 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR</i>	
Quality Criteria <i>how/with what indicators the quality of the activity result will be measured?</i>	Quality Method <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment <i>When will the assessment of quality be performed?</i>
<i># of adopted strategies facilitating a regional dialogue and cooperation</i>	<i>Developed strategy for regional cooperation</i>	December 2013
Activity Result 4.2. (Atlas Activity ID)	{Short title to be used for Atlas Activity ID} Activity 4.2: Conduct capacity development interventions	Start Date: October 2013 End Date: June 2014
Purpose	{What is the purpose of the activity?} a) <i>Key staff trained and</i> b) <i>DRR Plans improved</i>	
Description	{Planned actions to produce the activity result} <i>Milestone actions:</i> – 4.2.1: <i>Training key staff of bordering districts on Disaster Risk Management</i> – 4.2.2: <i>Conduct two times meeting to refine district DRR Plans at border areas</i>	
Quality Criteria <i>how/with what indicators the quality of the activity result will be measured?</i>	Quality Method <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	Date of Assessment <i>When will the assessment of quality be performed?</i>
<i># of improved disaster management tools at border areas</i>	<i>List of districts with improved DRR Plans</i>	July 2014

Offline Risk Log

(see [Deliverable Description](#) for the Risk Log regarding its purpose and use)

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	Enter a brief description of the risk <i>(In Atlas, use the Description field. Note: This field cannot be modified after first data entry)</i>	When was the risk first identified <i>(In Atlas, select date. Note: date cannot be modified after initial entry)</i>	Environmental Financial Operational Organizational Political Regulatory Strategic Other Subcategories for each risk type should be consulted to understand each risk type (see Deliverable Description for more information) <i>(In Atlas, select from list)</i>	Describe the potential effect on the project if this risk were to occur Enter probability on a scale from 1 (low) to 5 (high) P = Enter impact on a scale from 1 (low) to 5 (high) I = <i>(in Atlas, use the Management Response box. Check "critical" if the impact and probability are high)</i>	What actions have been taken/will be taken to counter this risk <i>(in Atlas, use the Management Response box. This field can be modified at any time. Create separate boxes as necessary using "+", for instance to record updates at different times)</i>	Who has been appointed to keep an eye on this risk <i>(in Atlas, use the Management Response box)</i>	Who submitted the risk <i>(In Atlas, automatically recorded)</i>	When was the status of the risk last checked <i>(In Atlas, automatically recorded)</i>	e.g. dead, reducing, increasing, no change <i>(in Atlas, use the Management Response box)</i>
1	<i>Further political instability (change of coalition of parties in Parliament, selection of prime-minister etc).</i>	<i>November 2011</i>	Political	Probability = 5 Impact = 4	To closely coordinate programme activities with the Ministry of Emergency Situations to balance this risk. To consider DEX modality as an option.	Programme staff of PMU DRMP (hereinafter referred to as "-Ditto-")	To be observed through mass media (hereinafter referred to as "-Ditto-")	September 2012 (right after two times collapse of previous coalitions)	Unpredictable
2	<i>Probable change in the structure of Government and of mandate of key national partners</i>	<i>January 2012</i>	Political	Probability = 4 Impact = 4	To close work with the Secretariat of the National DRR Platform to ensure continuity.	-Ditto-	-Ditto-	January 2012	Increasing

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
3	<i>Increase of staff turnover in key national institutions and re-shuffling of officials of key partner agencies</i>	<i>January 2012</i>	Political	Probability = 4 Impact = 3	To work with both senior management and heads of departments of partner agencies to keep "institutional memory".	-Ditto-	-Ditto- National partner agencies	January 2012	Unpredictable
5	Lack of consensus among key political actors	November 2011	Political	Probability = 3 Impact = 4	To work closely with the CACDRRR	-Ditto-	1) Programme staff of UNDP DRMP 2) National partners	November 2012	Reducing
7	Destructive large-scale natural disasters, including those derived from civil unrest (manmade disasters).	November 2011	Environmental	P = 3 I = 5	Reprogramming of project context could be considered as an option.	1) -Ditto- 2) Project Assurance Team of UNDP CO	1) Programme staff of UNDP DRMP 2) Project Assurance Team of UNDP CO		Unpredictable

X. Annexes

Annex 1 Synopsis of disaster risks in Kyrgyzstan

Seismic danger

The Kyrgyz Republic is located in the area of intensive collision of two lithospheric plates: Euro-Asian from the North and Indo-Asian from the South, these plates are in charge of developing the orogenic processes hereby resulting in a whole spectrum of natural disasters and catastrophes. Annually the Institute of seismology registers up to 3500 earthquakes – dozens of these earthquakes are quite sensible, some are disastrous.

Landslide hazard

There are more than 5000 active landslides on the territory of the Kyrgyz Republic, of which 3500 are located in the southern regions. To a certain degree 509 settlements are exposed to the landslide processes. These prone areas accommodate more than 10 000 houses, which requires either anti-landslide measures or the resettlement of the population.

One of the problems in the studying of landslides is the need to deploy on each prone surface a surveillance network with necessary instruments providing remote information on deformation processes and dangerous motions.

Avalanche hazard

More than one half of the territory of the Kyrgyz Republic is exposed to the avalanche hazard. The duration of the season of avalanches is from 5 to 7 months.

According to the data from the Ministry of Emergency Situations of the Kyrgyz Republic the monitoring and forecasting is performed on 772 avalanche-prone areas, which are mostly dangerous to the traffic on motor roads, the settlements located near the avalanche-prone areas, as well as tourists, alpinists and sportsmen.

Underflooding caused by increased groundwater levels

According to the data from the Kyrgyz Comprehensive hydrological expedition the underflooding processes exist in the Kyrgyz Republic on the area of 3200 km². Currently the underflooding processes exist on the territory of 316 settlements and significant areas under crops.

The largest underflooded areas which are located in the central part of the Chui intermountain valley produce a negative impact on residential houses, objects of social infrastructure, agricultural lands and private land plots in Bishkek (northern part), Kant, Tokmok, Kara-Balta as well as some other towns.

There is a narrow underflooding strip in the central part of Talas basin, which affects a number of residential houses in Talas city. There are also a number of underflooded areas in the western and eastern parts of Issyk-Kul intermountain valley near lake Issyk-Kul, east part of Son-Kul lake as well as a number of hydropower plants of the Kyrgyz Republic – all these pose a risk of the slow destruction of residential houses as well as social, economic and cultural objects. The underflooding of territories and residential sector was registered near At-Bashy (Naryn region), Jalal-Abad, Osh, Batken as well as a number of settlements in the Osh region.

Hazard of mudflows, torrent floods and water outbursts from high altitude lakes

There are around 3900 mudflow and flood prone river basins on the territory of the Kyrgyz Republic with the length of 10 and more km. There are cases of mudflow registered in 1153 settlements which resulted in various damages. The high level of mudflow and flood hazard is observed in Jalal-Abad, Osh, Batken, Chui, Issyk-Kul and Talas regions.

The Republic has around 2000 high altitude lakes, of which 330 have unsustainable water dams and included in the catalogue of water outburst prone lakes. There are more than 300 settlements in the areas of possible water outbursts from lakes. Mountainous lakes, which are protected with more sustainable dams, present a risk of water outbursts during earthquakes of high magnitude. There are also moraine and glacial high altitude lakes prone to water outbursts located in the upper reaches of mudflow and water flow prone rivers. During hot season due to melting of moraine and glacial dams these lakes pose a risk of catastrophic outburst of large volumes of water in the river basins. The outburst wave while entering the river bed, picks soft rocks and stones with boulders, increasing the volume and destructive force of the mud-and-stone flow. These flows

destroy everything on their way – houses, bridges, power transmission lines, dikes, dams as well as other objects.

Man made disaster risks

Mining industry waste

There are 92 objects on the territory of Kyrgyzstan where 250 million m³ of toxic and nuclear mining waste are stored. The Republic has 36 tailing pits and 25 tailing tiles that are managed by state structures, these include 31 uranium and 5 toxic storage sites with the total volume of 15.7 million m³ of waste.

The total number of toxic waste storage sites has increased from 41 in 1999 to 48 in 2007, while the area under these storage sites has grown almost twice – from 189.3 to 381.3 ha correspondingly.

The international and national experts of the Kyrgyz Republic announced that there is a high level of risk of emergence of radiationally-dangerous environmental catastrophes in case these storage sites become destroyed by natural processes. These catastrophes may affect significant territories in Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan with the total number of population of 5 million.

According to the preliminary estimates, the costs of only priority measures to ensure the safe state of tailing pits will amount to circa USD 40 million.

During the recent years in Kyrgyzstan as elsewhere in the world there has been an observed trend of growth of disasters (in 2005 there were 182 registered emergency situations, in 2006 – 186, in 2007 - 209, in 2008 – 312, in 2009 – 227, in 2010 – 439 and in 2011 - 240). This is mostly related to the negative consequences of global climate warming. Man made and natural emergencies become a serious obstacle for the sustainable development of the country and poverty reduction among the population. Due to the increased number of man-made and natural emergencies there is also a need to annually increase the set of measures aimed at their prevention and liquidation. Their effective implementation to a large extent depends on the preparedness of rescue teams as well as their full and timely provision with human and material resources.

Annex 2 Capacity assessments of Crisis Management Centers: infrastructure, roles and resources

A. Infrastructure

Ministry of Emergency Situations has been concentrating its efforts to establish Crisis Management centers (CMCs) since 2005. To this end, CMCs have been established in Bishkek, Osh, Jalal-Abad and Talas cities in 2008-2009 and Naryn, Karakol and Batken cities in January 2011. Thereby, 7 CMCs are operational in a round-the-clock mode, which receive and transmit information on emergency situations. In 2010, through UNDP's financial support 2 Mobile Centers of Crisis Management (Bishkek and Osh) were established with usage of high-tech satellite equipment. This equipment was aimed at increasing capacity of MES to monitor disaster risks on-site, assess the situation during emergencies and organize TV-conferences to exchange opinions for adequate and in-time decisions for effective response to disasters. The total cost of equipment (including delivery, installation and testing) was 200,000 US Dollars.

List of available equipment at CMCs:

#	List of available equipment at CMCs	Unit	Qty
1.	Videoconferencing equipment Tandberg Cisco TelePresence Quick Set C20	set	1
2.	Switch Cisco Catalyst 3560 Series Switches WC-C3560-24TS-S	units	1
3.	Flame bar	units	24
4.	Remote control with loudspeaker and microphone Dis 4450	units	24
5.	Extension system cable for remote microphone	units	1
6.	Dual automatic feedback suppressor	units	1
7.	Thin client with a monitor	units	25
8.	Network hub "Network Hub D-Link DGS Switch 8 ports 1000Mbps"	units	1
9.	Server rack (cabinet) Server board 12U, 600 [450] 600	units	1
10.	Pace-panel 1U 16 ports CAT6 RJ-45	units	1
11.	The central control unit conference systems: (DIS CU) 4005	units	1
12.	Cable to connect to the LAN Pace Cord Cat 6 RJ45, 3m	units	25
13.	Dynamics of the two amplifiers Way Basic 400 275 Tues	units	2
14.	12 channel audio mixer Dehringer UB 1204 FX PRO	units	1
15.	Router - Cisco 2901 Router	units	1
16.	Local cable Category 6, VTP	units	1
17.	Sockets for dual LAN, Category 6, RJ-45	units	4
18.	Modem SHDSL	units	1
19.	UPS 5000VA, 3500-4000V	units	1
20.	Sever	units	1

Structure of Crisis Management Centers:

- Command post - is composed of responsible staff which provides round-the-clock collection, processing and transfer of information from the public and organizations about the incident and further delivers it to appropriate staff of ministries and agencies, rescue facilities etc.
- Communications Department - ensures the work of "E-equipment" (LAN, e-mails, etc.) and protects information from unauthorized access.
- GIS unit - makes possible modeling environment through simulation of Emergency Situations to determine the optimal response scenarios.

B. Role of Crisis Management Centers

Main functions:

In prevention of disaster risks:

- in-time analysis, monitoring and modeling of Emergency Situations (ES)
- short-term prognosis of ESs
- creation of comprehensive information data base on hazardous natural processes and phenomena, emergency and crisis situations for further aggregating the data and prognosis of events

In operational response and liquidation of aftermath of emergency situations:

- gathering operational information through available sources of communication
- analysis all sort of information, ascertaining its reliability and identification the scope of ESs
- identification of appropriate resources (human resources, technical assets) required for response measures
- operational planning and management over post disaster and recovery processes
- arrange/conduct inter-ministerial interaction, coordination of measures of line ministries and agencies, as well as emergency rescue facilities.

Within the framework of State System on Civil Protection (National DRR Platform), CMCs ensure informational interaction with national & sub-national public entities, institutions engaged into monitoring of hazardous processes and phenomena as well as with appropriate units/forces of response.

In accordance with own mandates CMCs are responsible for ensuring of:

- *videoconferencing* through telecommunication technologies for distant interaction among involved parties to exchange with necessary audio and video information for decision making
- *early warning* of population through disseminating of news flash in cases of emergencies of natural and man-made disasters
- *highly accurate information* on position, velocity and path traveled by the vehicles, as well as monitoring of their conditions through signals of satellite navigation systems such as GLONASS, GPS, WAAS, EGNOS
- *unified rapid operational management* during emergencies, post disaster and crisis situations
- *satellite communication* among immovable and mobile CMCs in monitoring of disaster-prone areas on site
- *functioning of Geographic Information System (GIS)* through usage of integrated information environment of electronic space-based images (maps, charts, plans, etc.) and database (DB) to extend the capabilities of MES to simplify the analytical work;
- *functioning of an Automated Resource Management System* to optimize all processes of information management
- functioning of Emergency Simulation System to support decision making processes during emergencies.

C. Resources

Human resources:

- Central Office (Bishkek-5 and Osh-17) - 22 persons.
- 5 oblast level CMCs (7 persons in each) – 35 persons
- Operations duty officer – 1 person
- Assistant to operations duty officer – 1 persons

Financial resources (covered by the republican budget):

Cost of personnel:

#	Expenditures	Monthly salary rate (USD)	Number of staff	Subtotal per annum
1	Wage bill of Central Office (Osh-15, Bishkek-3)	322,00 USD	22	85 008,00 USD
2	Wage bill of Oblast CMCs (5 persons in each 7 CMCs)	258,00 USD	35	108 360,00 USD
3	Wage bill of Operations Duty Officers (by 2 persons in each 7 CMCs)	200,00 USD	14	33 600,00 USD
	Total per annum			226 968,00 USD

Administrative costs:

#	Expenditures	Subtotal per annum
	Satellite communication	43 011,00 USD
1	Mobile communication	32 258,00 USD
2	Land telephone	25 806,00 USD
3	Oblast CMCs	17 204,00 USD
4	VPN network	10 753,00 USD
	Total per annum	129 032,00 USD

Every year republican budget spends USD 356 000 to cover personnel and administrative costs of CMCs. The approved republican budget for 2012 doesn't consist of any funds for further development of CMCs. To this end MES is undertaking any efforts to mobilize resources from any possible sources (e.g. development agencies such as World Bank, UNDP etc.).