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United Nations Development Programme
Kyrgyz Republic

REPORT ON UNDP PROJECT: "STRENGTHENING DISASTER RESPONSE AND RISK ASSESSMENT CAPACITIES IN THE KYRGYZ REPUBLIC AND FACILITATING A REGIONAL DIALOGUE FOR COOPERATION", FUNDED BY THE GOVERNMENT OF JAPAN

Bishkek, 2015

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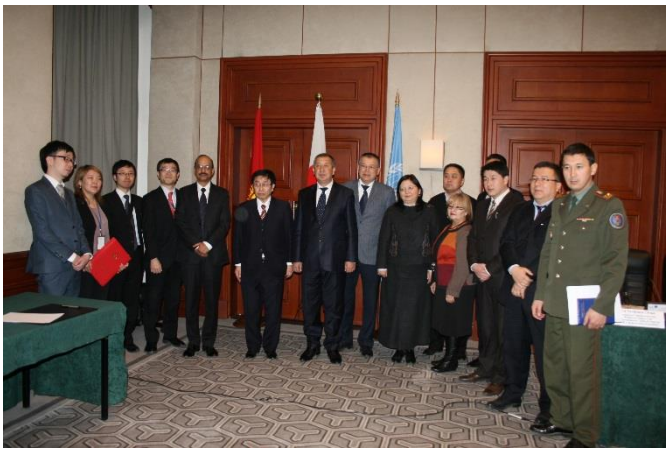
I. Official ceremony of signing Exchange Notes and Grant Agreement

UNDP Project launched was on February 21, 2013 with signing of Exchange Notes and Grant Agreement with the Embassy of Japan and JICA. The event took place at the "Hayat Regency Bishkek" with participation of following high officials:

- Mr. Kubatbek Boronov, Minister of Emergency Situations of the Kyrgyz Republic
- Ms. Samargul Adamkulova, Deputy
- Minister of Foreign Affairs of the Kyrgyz Republic
- Mr. Abdytalip Kamalov, Staff unit on defense, law order and emergency situations of Prime-Minister's Office of the Kyrgyz Republic
- Mr. Takayuki Koike, Ambassador Extraordinary and Plenipotentiary of Japan to the Kyrgyz Republic
- Mr. Takayuki Oyama, JICA Resident Representative in the Kyrgyz Republic
- Mr. Pradeep Sharma, Interim UN Resident Coordinator/ UNDP Resident Representative a.i. in the Kyrgyz Republic
- Mr. Erkinbek Kasybekov, UNDP Assistant Resident Representative in the Kyrgyz Republic

In photo from left to right: Mr. Pradeep Sharma UNDP Resident Representative, a.i. and HE Takayuki KOIKE Ambassador



In photo: participants of ceremony

II. Achieved results under the Project Outputs.

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

Activity 1.1: Upgrading hardware of five Crises Management Centers (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 action was planned to be implemented through hiring of the 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.

In 2013, Ministry of Emergency Situations (MES) conducted Feasibility Studies (Technical-Economic Justification) on building Unified Information Management System to mutually integrate Crises Management Centers, National Early Warning System (OKSION) and Emergency Call Center – 112. Studies were conducted by the Scientific Institution on Civil Defense and Emergency Situations of Russian Federation and World Bank's financial support, which covered, inter-alia, all above tasks planned to be implemented by international expert. Considering this fact, the coordination meetings of Embassy of Japan, JICA and UNDP, held on September 23, 2013 and December 3, 2013 led to re-targeting the envisaged funds for international expert for other activities of the Project Document.

A mixed group of experts was hired to support UNDP while preparing technical specifications, evaluate received tendering documents, accept delivered equipment and test them:

- Mr. Bakyt Kulov as a local expert to support tendering process IT equipment, who has an extensive experience in procurement of CMCs established in previous years
- Mr. Sergey Ageev as an international expert to support procurement from Iskratel who has an extensive experience in building Crises Management Centers, Call Centers and Early Warning Systems in Russia. He was recommended by MES and proposed very attractive and cost-effective amount up to USD 5000. In cases when, experts' services amount bellow USD 5000, UNDP rules allow hiring experts directly (without open tender).
- Mr. Alexey Somov, as a local expert to support procurement of satellite equipment. He has an extensive experience in the area of satellite communication and is being involved by various organizations and ministries in cases of need.

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

This action encompassed all other actions associated with the purchase of equipment, namely actions # 1.1.3, 2.1.-2.3 and 3.1. Overall, international tenders were announced through local mass media and UNDP's corporate website. On the other hand, Long Term Agreements signed globally between UNDP and respective suppliers as well as capacities of the regional procurement hub of UN WFP in Dubai were extensively utilized to identify suppliers.

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

The table in Annex 1.1.3 shows the list of equipment purchased under this action. While purchasing equipment, the Long Term Agreements (LTAs) were utilized signed with UNDP and relevant suppliers globally. Some of the equipment was purchased through regional procurement hub of UN WFP in Dubai. In cases when relevant equipment was not identified under LTAs and through UN WFP Dubai, then UNDP was purchasing equipment through local tender processes or directly in accordance with UNDP rules and regulations.

All above equipment was handed over to MES in accordance with UNDP rules and regulations, i.e. signing of relevant Transfer Acts.

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

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

Action 2.1. Purchase of telecommunications equipment and equipment for automated workstations of dispatching units of emergency response services in the regions

Action 2.2. Purchase of equipment and control modules for public notification

Overall, the equipment planned under actions 2. 1 and 2.2 was aimed at building the Unified Information Management System (i.e. Crises Management Centers, National Early Warning System – OKSION and Call Center 112). Therefore, having reviewed all types of equipment planned under above outputs, the UNDP Project classified it into four main lots given beneath, so to enable possible suppliers to deliver the equipment:

- Lot #1: ICT equipment
- Lot #2: Radio stations
- Lot #3: Hardware and software complex for Unified Information Management System
- Lot # 4: Satellite equipment

All planned equipment was procured and delivered to the Ministry of Emergency Situations. For more details please refer to Annex 2.1 and 2.2.

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

The full list of equipment purchased under action 2.3 is giver in Annex 2.3.

The purpose of the purchased equipment was to increase communication capacities during emergency situations.

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. Training of staff on usage of equipment

Action 2.4. Training of staff on usage of equipment

After deliveries of equipment under action 2.3,the Immovable Short Wave Radio Stations were installed on vehicles of MES as well as its staff was trained on usage of immovable, portable radio stations and portable satellite terminals. The local supplier of services LLC TCS Bishkek conducted the training.

Impact of Outputs 1 and 2:

On January 3, 2011, the Government of the Kyrgyz Republic issued its Resolution # 1 on "Unified Information Management System for Disaster and Crises Settings" (UIMS). This system is aimed at increasing an effectiveness of the National Disaster Risk Reduction System in information management, early warning and decision-making through automated business processes and applying innovative technologies. Based on the above Resolution, the Government adopted its Programme on the Development of National Early Warning System (NEWS), the so called OKSION. NEWS captures the creation of Emergency Call Centers.

UIMS consists of three core elements:

- Crises Management Centers, the coordinating and management body during disaster and crises situations;
- NEWS to ensure public warning and alerting (OKSION).;
- Call Center 112 to receive calls from victims of emergency situations, provide rescuing consultations as well as coordinate the work of Emergency Rescue Facilities (such as Fire-Rescuing Services, Mountain Services, Professional Services, Fire-Rescuing Service – 101, Polic-102, Ambulance-103, mayors' offices, provincial and district level state administrations).

Crises Management Centers (CMCs)

CMCs were established through Governmental Resolution # 170, dd. March 19, 2014 and is funded through the republican budget. Today, CMCs are operational in all seven provinces of the country and allow making decisions in real time (on-line) by MES and Inter-Ministerial Commission of the Kyrgyz Republic on Civil Protection headed by Prime-Minister of the country. Within the framework of UNDP Project 2 CMCs in Bishkek and Osh cities were established and logistical infrastructure (i.e. equipment) of CMCs in other regions upgraded.

Call Center "112"

"112" is the Kyrgyzstan's emergency number. People in disaster situations can call 24h/7d to get immediate assistance from relevant Disaster Response Services (e.g. fire brigade, a medical team, police or the rescuers).

The purchased equipment under above Outputs 1 and 2 has allowed establishment of 48 Duty-Dispatch Units (DDUs 101, 102, 103) of UIMS, which are connected to the system of Call Center-112 located in Osh and Bishkek CMCs. Based upon results of UNDP Project DDUs have been operationalized in the following manner:

- In Batken province; 19 DDUs have been established and connected to the system of Call-Center – 112. Therefore, DDUs in Isfana (4 DDUs), Batken (4) and Kadamjai (4)

cities cover the respective territories of the same districts. In addition, DDUs were created in Sulukta (3) and Kyzyl-Kiya (4) cities to cover their own territories.

- In Osh; province 21 DDUs have been established and connected to the system of Call Center – 112. Simirlalry to Batken oblast, DDUS in Kara-Suu (3 DDUs), Uzgen (3), Nookat (3), Kara-Kulja (3), Aravan (3) and Chong-Alay (3) cities cover respective districts and 1 DDU cover Osh city. Due to poor internet connection in Chong-Alay district and high migration there is a need to conduct regular training for staff engaged to work in DDUs.
- In Jalal-Abad province; 6 DDUs were established and connected accordingly to the system of Call Center-112 in Jalal-Abad (3) and Toktogul (3) cities.
- In Talas and Issyk-Kul provinces; 6 DDUs cover respectively Talas (3) and Cholpon-Ata (3) cities.
- 1 DDU created in Bishkek city in city's rescuing service.
- National Early Warning System – NEWS (OKSION)
- Kyrgyztelecom installed internet lines to connect all points/stations of UIMS with 40% of discount according to the agreements reached between Kyrgyztelecom and MES.

National Early Warning System (NEWS)/OKSION

- NEWS capture TV and radio channels, which means that all TV and radio channels will be automatically turned off and switched into the alert messages regime, if and when the crisis erupts.
- The relevant hardware and software delivered within the project has been installed in:
- CMCs of Bishkek and Osh cities which allow capturing national TV and radio channels
- Batken, Talas and Jalal-Abad territorial divisions of MES to which respectively "Batken provincial TV", "Talas TV - TTR" and "7-channel" in Jalal-Abad were connected.

According to the Crises Management Centers, 142 820 calls were received by Call Centers-112 within the first 8 months of 2015 on various sets of technical questions. All calls are registered and conversations are recorded. As of today, most people are calling to 112 and are interested on the work of Call Center 112.

Call Centers 112	Confirmed calls (i.e. rescuing services provided)	Consultations	101 Fire-Rescuing Service	102 Police	103 Ambulance	185 Mayors' offices
Osh city	4509	3698	39	153	288	331
Bishkek city	7161	5944	45	236	588	348
Total:	**11670**	**9642**	**84**	**389**	**876**	**679**

According to MES, the time for generating a response has been decreased for 20% since the Call Centers "112" have been operationalized.

The official opening ceremony of UIMS https://www.youtube.com/watch?v=tbgwVpOsBEw&t=257 was broadly presented to the Government with participation of Vice-Prime-Minister of the Kyrgyz Republic Mr. Mamataliev, Senior officials from the Ministry of Emergency Situations of Russian Federation, Security block of the country (Ministry of Defense, Ministry of Interior), Embassy of Japan in the Kyrgyz Republic, JICA, UNDP, World Bank and others.

Other useful links:

http://www.kg.undp.org/content/kyrgyzstan/ru/home/presscenter/pressreleases/2014/12/15/kyrgyzstan-launched-an-emergency-information-and-management-system-with-undp-s-support/

In photo: Vice-Prime Minister Mamataliev, deputies of parliament and members of the Government are familiarizing with the Call Center "112" of Bishkek city

In photo: Prime-Minister Otorbaev familiarizes with Call Center "112"

In order to further extend capabilities of existing CMCs, two Mobile Crises Management Centers have been established for a total of US$269 K (vehicles equipped with satellite equipment of high capacity). These Mobile CMCs will be rapidly deployed on sites to manage the response and post-disaster recovery operations in conjunction with the Central level Crises Management Centers.

Extracts from the Independent Evaluator's report on Outputs 1 and 2:

"The project achieved more than the expected outcomes and objectives, at both national and regional levels. Key components of an end-to-end early warning system were put in place and made operational in very short time. Critical equipment and training were provided for response. Dialogue and initiatives in regional cooperation in DRR were advanced well above expectations. These outcomes result in a score of 4.5 for effectiveness".

"The potential impact of the UIMS is enhanced by the fact that all pieces work together within an end-to-end early warning concept. The project outcomes within the elements of an end-to-end system are depicted in Figure 2 below. The components of the UIMS are linked functionally and work together to support, informed, coordinated, rapid response. It is important that, as the UIMS continues to evolve, it follows this concept and expands these elements to serve comprehensive DRR".

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

In accordance with the National Sustainable Development Strategy of the Kyrgyz Republic for the period 2013-2017 approved through Presidential Decree # 11 dd. January 21, 2013, the Government has started re-profiling existing Firefighting Units into Fire-Rescuing

Services. In this regard, the project supports re-profiling establishment of 9 Fire-Rescuing Services. The strategic purpose of such initiative is to extend the net of Emergency Rescue Services in the country and increase peoples' access to such important public service delivery. Twenty-one Fire-Rescuing Services have been established since 2013, out of which UNDP Project, funded by the Government of Japan, supported nine. The purchased equipment under Output 3 included 9 pick-up vehicles (6 Mazda and 3 Toyota) and rescuing inventory/accessories/equipment.

Activity 3: Purchase equipment for establishment Emergency Rescue Facilities

Action 3.1. Purchase of equipment to re-profile 5 fire services into fire-rescuing facilities

In accordance with Annex 3.1, as total of 9 vehicles and relevant fire-rescuing equipment were purchased.

All nine Fire-Rescuing Services established through the support of UNDP Project, funded by the Government of Japan were deployed alongside transport corridors of the country in the following geographical areas:

- Gulcha village of Alay district of Osh province (Mazda)
- Uzgen city of Uzgen district of Osh province (Mazda)
- Kara-Kul city of Jalal-Abad province
- Talas (Otmok mount. pass, Mazda)
- Balykchy city of Issyk-Kul province (Mazda)
- Cholpon-Ata city of Issyk-Kul province (Mazda)
- Nariman village of Osh province (Toyota)
- Chaek village of Jumgal district of Naryn province (Toyota)
- Romanovka village and Sokuluk district of Chui province (Toyota)

Action 3.2. Conduct knowledge and skills raising trainings for staff of 25 Fire Services on Rescuing Operations

126 fire fighters were trained on rescuing operations at the State Training Center of Rescuers under MES in Sadovoye village of Chui province from northern regions of the country) and 24 fire-fighters in Uchaar village of nearby Osh city.

The total 150 trainees got theoretical and practical skills and knowledge on topics below:

- Framework of Civil Protection of the Kyrgyz Republic
- First medical aid
- Organizing and conducting of rescuing works
- Specialized technical preparedness including development of practical rescuing skills, safety security.
- Engineering preparedness including type and purposes of protection structures, anti-exposure shelter.
- Communications including facilities, maintenance of communication lines.
- Radiation, chemical and biological protection including hazardous chemicals, personal protective equipment.
- Fire-fighting protection including fire-technical preparedness, fire-tactical preparedness, fire-line preparedness.

Upon completion of trainings, all trained staff passed through exams and obtained certificate of the rescuer.

Full list of trainees and relevant fire units given in Annex 3.2.

Impact of Output 3

Above nine Fire-Rescuing Services have made the following impact since they were established:

Years	No of responses	No of saved lives	No of dead people extracted in various accidents
2014	500	92 (16 children)	145 (11 children)
2015 (January August)	389	64 (17 children)	120 (9 children)
Total	**889**	**156**	**265**

In photo: Fire fighters completed courses on Rescuing and obtained certificates of rescuers

In photo: Official ceremony of opening of newly established Fire-Rescuing Services in Tokmok city on March 11, 2014.

Official opening of Fire-Rescuing Services (Mazda) were conducted with participation of high-ranking officials such as Prime-Minister of the Kyrgyz Republic Mr. Satybaldiev Jantoro, Minister of Emergency Situations, Ambassador of Japan, JICA, UNDP Representatives, etc.

In photo: Minister Boronov from the left and MR. Kentaro SONOURA from the riaht. Bishkek

On May 18, 2015 Mr. Kentaro SONOURA, Parliamentary Vice-Minister for Foreign Affairs of Japan and Minister Boronov had opened additional three Fire-Rescuing Services (Totyota) to be located alongside of the strategic transport corridors in Sokuluk, Yssyk-Ata and Djumgal districts.

Extracts from the Independent Evaluator's report on Output 3:

"Search and rescue also received a sorely needed upgrade in vehicles and equipment. Before the project, Fire Services possessed vehicles and equipment suitable only for firefighting. The support provided in this respect was appropriate and effective. The trucks procured under the project are highly mobile, durable, have adequate carrying capacity for kits and personnel, and can be easily repaired. They replace aging vehicles well past their service life. [1] Search and rescue kits are simple, easily transportable collections of basic gear (ropes, helmets, cutters, lights, generator, etc.) that emergency responders can readily use and maintain (see photos). To commission the equipment, search and rescue training was provided to 396 employees of the Fire and Rescue Service, of which 141 employees were trained under UNDP Project, funded by the Government of Japan".

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

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

Action 4.1.2: Conduct 2 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR

Activity 4.2: Conduct capacity development interventions

Action 4.2.1: Training key staff of bordering districts on Disaster Risk Management

Action 4.2.2: Conduct two times meeting to refine district DRR Plans at border areas

The following regional level events were conducted within the framework of UNDP Project funded by the Government of Japan under the aegis of "Central Asia plus Japan" Dialogue:

[1] For example, at the garage/equipment base of the fire/rescue service in Bishkek, the mission was shown 40-year-old vehicles that have been kept in operation through multiple refurbishments.

- /First/ Regional Ministerial Conference "Regional Cooperation in the area of Disaster Risk Reduction in Central Asia", October 16-18, 2013 http://www.jp.undp.org/content/tokyo/ja/home/presscenter/articles/2014/02/21/-/
- Regional workshop on the issues of interaction in the area of DRR at border areas, September 4-5, 2014
- Second Regional Ministerial Conference of Disaster Management Authorities of Central Asian countries under the "Central Asia + Japan" Dialogue, September 18-19, 2014, Bishkek
- The first working level meeting of Disaster Management Authorities of Central Asia countries to discuss the issues of harmonization disaster response/interaction plans at border areas, October 9-10, 2014, Bishkek
- The first meeting of the experts of Disaster Management Authorities of Central Asian Countries on strengthening the regional cooperation in the area of Disaster Risk Reduction, November 24-25, 2014, Bishkek
- Regional Ministerial Meeting of Central Asia and South Caucasus on Disaster Risk Reduction, January 29-30, 2015, Bishkek.

Impact of Output 4

The aforementioned events led to the following outcomes:

In photo: high-ranking officials/delegates of the Ministerial Conference of CASC region, Bishkek, Jannat, January 29-30, 2015

- Regional Forum of the heads of Disaster Management Authorities of Central Asian countries agreed to be established. The first session of the Forum agreed to conduct in 2015 in Turkmenistan as the next chair country of "Central Asia + Japan" Dialogue.
- Expert group of Disaster Management Authorities established to support the Regional Forum.
- Joint Regional Statement of Central Asia and South Caucasus on the Post-2015 Framework for Disaster Risk Reduction was adopted
- Framework of Cooperation (FOC) on strengthening regional collaboration of Disaster Management Authorities of Central Asia and South Caucasus in the area of Disaster Risk Reduction were adopted.

The Sendai Framework for Disaster Risk Reduction: 2015-2030 (Sendai Framework) was adopted on 18 March 2015 during the Third UN World Conference on Disaster Risk Reduction. Over 6,500 delegates attended the intergovernmental and multi-stakeholder events and over 50,000 attended the public forum, 187 states were officially represented, over 25 Heads of State, Vice Presidents, and Heads of Government attended.

In photo: from left to right: Ms. Elvira Sarieva - Minister of Education, Mr. Rysbek Moldogaziev – Ambassador of KR in Japan, Mr. Boronov – Minister of Emergency Situations, Mr. Almazbek Baatyrbekov – Deputy of Parliament. In back-side: Mr. Temiraliev, States-Secretary of MES, Mr. Kamalov – representative of Prime-Minister's Office

The Kyrgyz Republic was represented by 13 delegates consisting of the Minister of Emergency Situations (head of delegation), Minister of Education, representative of Prime-minister's office, Deputy of the Parliament, Ambassador of KR in Japan, National Platform and UNDP staff.

During 3WCDRR, Minister Boronov, on behalf of Central Asia and South Caucasus (CASC) region conferred and delivered *i) Joint Regional Statement regarding the post-2015 framework for disaster risk reduction* and *ii) Framework of Cooperation of CASC counties on strengthening regional collaboration* during the 3rd session of Preparatory Committee as well as various meetings of 3WCDRR.

In photo: Minister Boronov delivers voluntary commitment in support of post-20145 DRR Framework, Joint Regional Statement and Framework of Cooperation during Ministerial Round Table on "Post-disaster Recovery: Built Back Better, March 15, 2015

Overall, the outcomes of ministerial conferences conducted in CASC supported to voice out the unified regional position during 3WCDRR.

As mentioned above, the documents were rigorously discussed by and developed jointly with CASC countries during Regional Ministerial Conferences. UNDP, UNSIDR, UNESCAP, JICA and Embassy of Japan in KR were the partners.

Overall, the leadership role of Kyrgyzstan in betterment of regional dialogue was highly recognized during the 3WCDRR.

For more information, please visit:

1) Joint Regional Statement and Framework of cooperation are available at:

In photo: Minister Boronov is a panelist in one of the sessions

- http://www.wcdrr.org/wcdrr-data/uploads/1040/Joint%20CASC%20Regional%20Statement%20for%20HFA2%20.pdf
- http://www.wcdrr.org/wcdrr-data/uploads/1040/Framework%20of%20Cooperation%20-%20Regional%20Cooperation%20for%20DRR%20in%20CASC%20Eng.pdf
- http://www.preventionweb.net/english/professional/trainings-events/events/v.php?id=41426
- http://www.wcdrr.org/preparatory/regional/41426

2) Live broadcast: Minister Boronov delivers above two documents at 3WCDRR: http://webtv.un.org/meetings-events/conferencessummits/3rd-un-world-conference-on-disaster-risk-reduction-14-18-march-2015-sendai-japan/watch/kubatbek-boronov-kyrgyzstan-3rd-plenary-meeting/4112026629001

Kyrgyzstan ratified the interstate agreement on establishing the Center for Disaster Response and Risk Reduction in Almaty (CDRRR)

CDRRR and milestones;

- At the second World Conference for Disaster Risk Reduction in 2005 in Kobe Japan, Kazakhstan initiated the creation of a Central Asian Center for Disaster Response and Risk Reduction (CACDRRR);
- On October 15, 2010 in Almaty the Disaster Management Authorities of Kazakhstan, Kyrgyzstan and Tajikistan signed a Memorandum of Understanding on the creation of the Organizing Committee, working towards the establishment of CACDRRR.
- On May 17, 2013 in Almaty the Ministers of Emergency Situations of Kazakhsatn and Kyrgyzstan signed an Interstate Agreement on creation the Center for Disaster Response and Risk Reduction (CDRRR).
- On July 16, 2015 the Kyrgyz Republic ratified an Interstate Agreement on creation CDRRR.

UNDP's support;

- UNDP project under the Sixth DIPECHO Action Plan "Enhancing Disaster Risk Reduction Capacities in central Asia" worked on the creation of CACDRRR from December 2010 through August 2011.
- UNDP Project, funded by the Government of Japan on "Strengthening Disaster Response and Risk Assessment Capacities in the Kyrgyz Republic and Facilitating a Regional Dialogue for Cooperation" accelerated and further boosted regional collaboration under the "Central Asia plus Japan" Dialogue. **Minister Boronov, in his letter, expressed appreciation to UNDP's support and emphasized the important role of UNDP Project funded by the Government of Japan.**

Extracts from the Independent Evaluator's report on Output 4:

"Dialogue and initiatives in regional cooperation in DRR were advanced well above expectations".

"A series of national consultations culminated within regional ministerial conferences in 2013-15 held with support of UNDP project, funded by the Government of Japan under the "Central Asia plus Japan" Dialogue in Bishkek. In particular, national partners from Central Asia definitively shifted the emphasis of the DRR Work Plan from donor priorities (such as portfolio analysis and advocacy) to their core DRR priorities in regional cooperation. Therefore, as a result of regional ministerial conferences the work planning process and the orientation were adjusted towards making the regional cooperation nationally-owned by linking donor priorities outlined under CARRA works plans. By doing this, the nascent priorities of CDRRR and National Platforms (as coordinating entities among national partners) from one hand and priorities of donor community from the other hand defined joint priority actions and mandates. The second phase of the CARRA project will be undertaken proceeding from this mandate".

III. Project funds

In accordance with signed Exchange Notes and the Grant Agreement, UNDP received 204,000,000 JPY or USD 2,231,947.48. The grant amount was deposited at UNDP accounts on March 28, 2013. It should be emphasized that UNDP Project jointly with the Ministry of Emergency Situations and based on the consultations with the Embassy of Japan in the Kyrgyz Republic had optimized the budget, i.e. USD 2 586 262.39 was the initially planned/requested amount; however, due to fluctuations of exchange rates at that time, the final amount received amounted to $2,231,947.48. Therefore, the discrepancy in the amount of USD 354 314,92 was reviewed and taken into consideration, in order to minimize the overall influence that might have impacted achievement of project's goals and objectives.

IV. Conclusions and summary (Project impacts)

The project has enabled forming the following strategic foundations:

Output 1 and 2:

1. **The project led to an establishment of Unified Information Space for disaster and crises settings with appropriate architecture, logistical, institutional and operational frames.** The established Unified Information Space has therefore allowed that:

    - both national and sub-national levels of the National Disaster Risk Management System institutionally and operationally integrated each other horizontally and vertically
    - holistic public service delivery of early warning and response put in place
    - decision-making, crises management and response became standardized with automated business processes at all levels of governance
    - citizens and the government are bridged in disaster prevention and response through set up of relevant end-to-end communication/early

warning (e.g. Call Center 112, TV and radio capturing), standard operating procedures

2. **The project results ensured that relevant capacities for Business Continuity put in place.** This means that if catastrophic events take place in one of the regions of the country (e.g. disastrous earthquake), the functioning of the destroyed elements of the Unified Information Management System (UIMS) in the particular disaster-affected region will be automatically backstopped/substituted by a similar system located in other regions. This also means that *institutional resilience* of the Ministry of Emergency Situations is in place for crises management and disaster recovery.

3. **The project results created a solid base for linking up Monitoring and Early Warning Systems.** The whole architecture of the established UIMS allows to be linked to existing and future monitoring nets (e.g. various warning and monitoring devices applied across sectors, video cameras etc.). Inturn, such possibilities will allow processing an evidence-based/scientific-based data (risk assessment) and generate information for decision-making, early warning and response. For example, Central Asian Institute for Applied Geosciences has a net of seismic monitoring and early warning devises. Kyrgyzhydromet is installing monitoring devises alongside rivers. Therefore, Crises Management Center is currently connecting those devises into an UIMS. MES is also exploring with relevant Parties an opportunity to connect the UIMS to an outdoor video cameras of the "Safe City" Concept. There is still a huge capacity/room for further extending monitoring capabilities of UIMS in the future.

Output 3:

Fire-Rescuing Services created within the project allowed that citizens, with just one phone call, would be getting all the help they need (ambulance, fire-fighting, rescuing, police, traffic services). The hardware and software complex installed in UIMS allows connecting the emergency response services of all sectors to Crises Management Centers and the Call Center itslef - 112 (gas, electricity, drainage, avalanche, veterinary services, the enterprises utilizing particularly dangerous chemical substances, scientific institutions etc.). Therefore, cohesive work of created Fire-Rescuing Services and UIMS is just a start-up point for further extending national inter-agency disaster response capacities.

Fire-Rescuing Services as such, deployed alongside of transport corridors decrease mortality rates of communities living in respective territories as well as of passengers caught in crises situations. Overall, Fire-Rescuing Facilities have founded a solid base to further development of Safety and Security System alongside major transport corridors.

Output 4.

Regional level events conducted within the framework of UNDP Project, funded by the Government of Japan and especially under the aegis of the "Central Asia plus Japan" Dialogue's mandate have led to immense outcomes. For the first time in the history of Central Asian region (and perhaps in the rest of the CIS too) Parties wee able to agree on common development priorities, i.e. Framework of Cooperation (FOC) aimed at strengthening regional collaboration to jointly address transboundary hazards. Management mechanisms of implementation of FOC have also found a consensus through creation of High Level Dialogue (HLD) of Disaster Management Authorities of CA countries as well as an expert level group. One can say that inter-governmental platforms such as Collective Security Treaty Organization, Shanghai Cooperation Organization and alike already exist in this region; however, one should =also emphasized their inter-governmental and close-ended nature. Hence, the specific nature of HLD and FOC is open-ended and invites for cooperation all interested Parties, creating thereby the regional high-level platform, which is owned and driven by national counterparts one the one hand, and complemented by non-governmental and international donor community On the other.

Overall, the project results have led that governmental initiatives and initiatives of UN, international donor community, non-governmental organizations brought together and consolidated around HLD and FOC. These documents therefore, created a strategic foundation for further strengthening collaboration in Central Asia including for Center for Disaster Response and Risk Reduction in Almaty.

V. Project Evaluation

UNDP conducted an external evaluation on July 20-26, 2015. For this purpose, Mr. Michael Thurman was hired as an international consultant, who was chosen from the roster of experts of UNDP Regional Bureau for Europe and CIS (RBEC) in Istanbul, which compiles such roster through international/global level tender.

Terms of Reference developed for international consultant, among others, included the following specific tasks:

- to assess overall performance against the objectives and outcomes of the project;
- to assess the effectiveness and efficiency of the project;
- to analyze critically the implementation and management arrangements of the project;
- to assess the progress to date towards achievement of the outcomes;
- to assess the sustainability of the projects' interventions;
- to assess project relevance to national long term priorities (including achieving gender equality goals).

Preliminary key findings and recommendations presented during in-country mission of the international consultant were as following:

Relevance:

- The design of the project is in line with national priorities and needs on the ground
- Outputs are mutually supportive

Effectiveness:

- All outputs achieved
- Builds upon previous experiences and feasibility studies
- Institutional and capacity development, proceeding from prior interventions
- Proceeds from CARRA and Central Asia + Japan dialogue
- Close attention to political economy of the region

Efficiency:

- Capacities of UNDP Disaster Risk Management Programme utilized for execution, so transaction cost is low: small team, large work
- Successful execution, despite UNDP restructuring
- Beating the bushes for appropriate procurement

Sustainability:

- 20% of budget to institutional and capacity development for systems and equipment
- Equipment is appropriate: MES can operate it readily, maintain it and train others in its application
- Regional: building upon momentum of previous actions; will have synergy with CARRA II (Central Asia Risk Resilience Alliance)

Impact:

- Early warning system: Response time reduced ~20%, Response organized and coordinated, Bishkek and Osh Crisis Management Centers backstop each other
- Crisis Management Centers can also house database for risk assessment
- 112: unifies a plethora of numbers
- Regional Cooperation: from donor coordination (CARRA I) to cooperation among national partners (regional ministerial conference)
- Agreement to establish Almaty CDRRR culminates a decade-long process
- Regional Action Plan and ambitious mandate to international community

Recommendations:

- Expand geographical coverage of present system of EWS and solidify legal and regulatory foundation

- Expand thematic focus of end-to-end EWS: Risk assessment for DRM, remote sensing, standards for interoperability of databases and communications with monitoring agencies
- Focus upon specific vulnerable sectors for early warning: avalanche and transport, uranium tailings, drought and agriculture
- Support Regional Action Plan
- Facilitate development of CDRRR: staffing, equipment, training, (if feasible) cross-border EWS
- Work closely to with CARRA II, Central Asia + Japan, and other initiatives
- Include Afghanistan.

Strengthening Disaster Response and Risk Assessment Capacities

in the Kyrgyz Republic and Facilitating a Regional Dialogue for Cooperation:

Terminal Evaluation

Michael Thurman

27 July 2015

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Introduction

During 2013-15 United Nations Development Programme (UNDP) Kyrgyzstan, with funding from the Government of Japan, implemented the project "Strengthening Disaster Response and Risk Assessment Capacities in the Kyrgyz Republic and Facilitating a Regional Dialogue for Cooperation." The project aimed to establish new systems and provide equipment to reduce disaster risks within the country, as well as to enhance cooperation in this area among the counties of Central Asia. In order to ensure accountability and capture the benefits and lessons of the project for future interventions, a terminal evaluation was undertaken in July of 2015. This report presents the results of the evaluation.

Evaluation Methodology

This evaluation assesses the project according to the international best practice and UNDP guidelines.[2] According to this methodology, the following parameters are applied to the project's results and outcomes:

- Relevance: How does the project relate to the main objectives of UNDP and to DRR and development priorities at the local, regional and national levels?
- Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?
- Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?
- Sustainability: To what extent are there financial, institutional, social-economic, and/or DRR risks to sustaining long-term project results?
- Impact: Are there indications that the project has contributed to or enabled progress toward reduction of disaster risks?

A simple five-point scale is applied to appraise these questions of the project, based upon analysis of the materials available and interactions of the evaluator with project participants. The points on the scale to grades for performance and achievement of project objectives and outputs: 5/ Excellent/Overachievement, 4/Good/Strong Achievement, 3/Satisfactory/Achievement, 2/Needs Improvement/Underachievement, 1/Unsatisfactory/Non-achievement.

The evaluation commenced with a desk review of the available monitoring and evaluation and other documentation produced by the project. This permitted an initial assessment of the project results and identified gaps in information that needed to be filled. These were performed in order to facilitate a more complete analysis of the project's outcomes.

In order to "ground truth" the project documentation and obtain additional data and impressions, a subsequent mission to Kyrgyzstan was undertaken. The mission liaised and consulted with project

[2] UNDP, 2009, *Handbook on Planning, Monitoring and Evaluating for Results*; ___, 2011, *Updated Guidance on Evaluation in the Handbook on Planning, Monitoring and Evaluating for Results*.

participants during site visits to Bishkek, Osh, Kara Suu, and Uzgen. At the conclusion of the mission, its findings were presented to and discussed with national partners, Government of Japan, JICA, and UNDP.

The ensuing report analyzes the contributions of the project to sustainable development according to the parameters listed above. It notes any areas in which the project might have contributed more towards enhancing resilience and highlights lessons learned from the project. The scores are aggregated in a concluding section that draws main conclusions from the analysis and offers recommendations for further interventions.

Project Context

UNDP Kyrgyzstan established the Disaster Risk Management Programme in 2005 to support the government in addressing this risks associated with natural hazards. The strategic direction of the program evolved with the needs of the national partners and their intention to update and revamp the DRR system. The phases of the programme are described below:

- 2005-08: Initial interventions were undertaken mainly in local level risk management (LLRM) and disaster preparedness. Within this period, UNDP jointly with the Ministry of Emergency Situations of the Kyrgyz Republic (MES) implemented three projects aimed at strengthening disaster preparedness and response capacity at the community level. However, a mid-term review of UNDP interventions in DRR sphere in early 2008 indicated that local level interventions could not be further sustained unless effective institutional and legal frameworks were established. Based upon the review, UNDP started supporting the Government to kick-start on-the-ground level DRM system by mainstreaming it into decentralized policymaking. In 2005 Kyrgyzstan Ministry of Emergency Situations (MES) joined Kazakhstan and Tajikistan counterparts in leading an effort to establish a Center for Disaster Response and Risk Reduction (CDRRR) in Almaty, Kazakhstan. The weaknesses of the existing system became painfully apparent during an unexpected "compound crisis" in 2007-08 brought on by severe winter, drought and energy drawdown, rising food prices, and economic downturn.
- 2008-11: Support to LLRM was continued with increasing emphasis upon the supporting institutional and legal framework for DRR at both local and national levels within the context of a nationwide transition to decentralized local self-government. To this end, UNDP's intervention in disaster risk reduction sphere was scaled up to policy level in 2008 based upon mid-term review as mentioned above and lessons learned of Disaster Risk Management Programme implemented in 2005-08. This was done first of all by launching the project "Mainstreaming Disaster Risk Management into Decentralization Processes in Kyrgyzstan", which strived to explicitly link DRR with decentralized policymaking. The main outcome of that project was to operationalize the local level DRR system through mainstreaming DRR into ongoing decentralization processes and the enabling environment, the institutionalization of local self-governments' mandates, and sustaining of their roles and functional capacities. A Disaster Response Coordination Unit and province-level teams were created to strengthen response to small- and medium-scale disasters (currently led by UNOCHA). At the regional level, a strategy and architecture for establishing CDRRR were laid out (with active participation of Kyrgyzstan MES) under aegis of the UNDP/EU project "Sixth DIPECHO Action Plan: Enhancing Disaster Risk Reduction in Central Asia." The compound crisis prompted UNDP to initiate the Central Asia Regional Risk Assessment (CARRA),

which began as a donor coordination initiative and after 2011 was reformulated as a project, which expanded participation of national partners in the CARRA process and linked it with CDRRR (see Text Box 1 below)

- 2012-16: It is worthwhile to mention that previous UNDP Strategic Plan (SP) adopted globally identified disaster risk reduction as an important factor in reducing poverty and vulnerability and achieving the MDGs, and noted that disasters affect the poorest people to a disproportionate degree. SP made explicit links between disaster risk reduction and sustainable development and climate change adaptation. Guided by this corporate strategy the UNDP's intervention within 2012-16 expanded considerably by addressing DRR as a comprehensive, integrated and cross-cutting programming, synergetic with good governance, sustainable development and other inter-related dimensions. Working towards shifting the focus of national and local DRR policies and practices from post-disaster response and recovery to comprehensive disaster risk reduction became a core objective of UNDP's intervention within 2012-16 programming cycle. Therefore, the course was maintained in core areas, the programme expanded thematically, with increasing emphasis upon developing a national level DRR system and linking it with sustainable development, local self-governments, risk assessment and early warning, information management and e-governance, integration of DRR into development frameworks, climate risk management, and regional cooperation. Prior to the start of the project under evaluation, DRMP supported the government in adopting a National DRR Strategy and establishing a National Platform for DRR to execute it, conducting a national climate risk assessment, piloting innovative mitigation interventions, and contributing to regional dialogue on cooperation.

Text Box 1: Central Asia Regional Risk Assessment

UNDP launched the Central Asia Regional Risk Assessment in 2008 in response to the "compound crisis" of 2007-08 and the shortcomings in risk management that it exposed. The initiative began as an interagency donor coordination forum and post-event analysis to understand and prepare for compound hazards, focusing upon DRR and highly vulnerable sectors (water and energy, agriculture, and social protection). Subsequent to regional meetings in 2008 and 2009 regional and national support for enhancing resilience in Central Asia were increased under a Framework for Action in produced 2009.

In 2011 CARRA became an umbrella platform for an interagency donor DRR work plan, embracing all major donors, as well as national partners in Central Asia and Afghanistan. The DRR Work Plan has provided an interagency platform (including UNDP, OCHA, GIZ, UNICEF, ISDR, and UNFPA) for executing key tasks, for achieving consensus on priorities and mandates in assisting national partners, and for facilitating regional consultations and cooperation among national partners in high priority areas identified/requested by them. The DRR Work Plan was institutionalized through the establishment (with CARRA support) of the Regional Task Force for Central Asia of the Inter-Agency Standing Committee, providing a quarterly forum for planning, status updates, and suggestions. From the outset, the DRR Work Plan targeted support to CDRRR and National Platforms in areas such as institutional development, capacity assessment and development, risk assessment and information management, and integrating DRR into development frameworks.

A series of national consultations culminated within regional ministerial conferences in 2013-15 held with support of UNDP project, funded by the Government of Japan under the "Central Asia plus Japan" Dialogue in Bishkek. In particular, national partners from Central Asia definitively shifted the emphasis of the DRR Work Plan from donor priorities (such as portfolio analysis and advocacy) to their core DRR priorities in regional cooperation. Therefore, as a result of regional ministerial conferences the work planning process and the orientation were adjusted

towards making the regional cooperation nationally-owned by linking donor priorities outlined under CARRA works plans. By doing this, the nascent priorities of CDRRR and National Platforms (as coordinating entities among national partners) from one hand and priorities of donor community from the other hand defined joint priority actions and mandates. The second phase of the CARRA project will be undertaken proceeding from this mandate.

Seeking to expand the endeavors of DRMP, in 2012 UNDP and MES jointly approached the Government of Japan in Bishkek and Tokyo. A concept was developed proceeding from the strategic direction of DRMP and close consultation with national partners and the potential donor. After several rounds of high-level consultation, Government of Japan declared an interest in providing financing for the project "Strengthening disaster response and risk assessment capacities in the Kyrgyz Republic and facilitating a regional dialogue for cooperation." The project, which was funded in the amount of $2.23 million, commenced in February 2013 and ended in July 2015. The outputs, activities, and allocated funding are summarized below (and presented in detail in Annex 1).

Table 1: Project Outputs and Activities

Outputs	Activities	Allocated Funding
Output 1: Enhancing risk assessment & monitoring capacities of Crisis Management Centers	Establishment of risk assessment and information management system in Crisis Management Centers and capacity development for data collection, processing and analysis, including its close linkage with province level risk assessment and monitoring capacity.	$229.287
Output 2: Strengthening national early warning system in the country	Development of early warning capacities and provision of equipment with an emphasis upon communications and dissemination of warnings.	$1,233,233
Output 3: Strengthening capacities of Emergency Rescue Facilities	Equipping and developing the capacity of emergency rescue facilities	$298,176
Output 4: Strengthening regional cooperation in Disaster Risk Reduction	Promoting dialogue among national agencies, joint assessment and setting of priorities, and planning for specific transboundary or regional actions	$304 435

The project was implemented by UNDP with Kyrgyzstan MES, civil society, and local self-governments as the main beneficiaries. These entities, together with Government of Japan and UNDP as senior suppliers, comprised the Executive Board. Start-up commenced in July of 2013, with scheduled completion in December of 2014.

Project Performance and Outcomes

Relevance

The project directly supported development priorities at the local, regional and national levels, in terms of risks addressed, capacities developed, and support for national strategies and goals (as well as those of the UN and Government of Japan). This was achieved through building upon the strategic direction of DRMP and regional initiatives, as well as employing a participatory process in project formulation. Because of this approach, the evaluation assigns a perfect score (5) for relevance.

Risks Addressed

Kyrgyzstan is at considerable risk of natural and compound disasters, owing to high exposure and vulnerability to natural and technogenic hazards (Annex 2 presents a brief risk profile). The country is highly exposed to earthquakes, (river, torrent, and glacial lake outburst) floods, mudflows, drought, avalanches, and landslides. The highest risk is derived from floods and mudflows that occur annually in the mountains and foothills, often on transboundary rivers. The most exposed areas are hit repeatedly by minor and medium disasters, with a cumulative long-term effect on development that is highly

pervasive. Given this hazard profile, there is a need for an effective EWS to ensure that warnings are provided to local self-governments and communities that are on the front line of the disaster. Their capacity to recover from and mitigate disasters is also critical. The project's outputs for strengthening early warning, risk assessment and information management, and preparedness and response directly address these risks and well fit the risk profile and capacity needs.

At the regional level, Kyrgyzstan is most affected by floods and mudflows in transboundary river basins (Ferghana Valley and Chu-Talas), potential transmission of radioactive waste and heavy metals associated with these hazards, and active earthquake zones that cross state boundaries in north and south. The project output in support of regional dialogue was aimed at advancing ongoing discussions concerning cooperation to address these hazards (as noted above).

Capacities Developed

The thematic focus areas of the project correspond quite closely to the areas with the highest capacity gaps in Kyrgyzstan's DRR system. In 2011 UNDP carried out a capacity assessment of MES in preparation for establishment of CDRRR (under the DIPECHO VI project).[3] The following were among the lowest scores for existing capacity (on a scale of one to five; the average for all questions in the assessment is 2.3):[4]

- To what extent does the DRR system have adequate budget management systems to allocate resources to all key stakeholders at all levels? (2.09)
- To what extent does the DRR system have the capacity to develop, update and disseminate risk maps and related information to decision makers, general public and communities at risk? (2.23)
- How well does the DRR system review and maintain information systems as part of the early warning system to ensure rapid and coordinated action is taken in case of alert / emergency? (1.86)
- To what extent the DRR systems ensure integration of early warning systems into policy and decision making processes and emergency systems at a national and local level? (2.00)
- To what extent are recent information, communication and space-based technologies and earth observations used to support DRR? (2.00)
- To what extent are directories, inventories and national information sharing systems and services for exchange of information on good practices, disaster risk technologies and lessons learned? (1.91)
- To what extent are there technical and organizational capacities to manage disasters at regional, national and local levels? (2.14)
- To what extent existing policies and DRR system support dialogue, exchange of information and coordination between DRR organizations? (1.95)
- To what extent current DRR system is ready to effectively cooperate with regional and international partners for coordinated response in situations of exceeding national coping capacities? (2.18)

[3] UNDP, 2011, *Assessment of Disaster Risk Reduction Capacities in Kazakhstan, Kyrgyzstan, and Tajikistan*.

[4] Other lowest scores are for integrating DRR into development frameworks and engaging communities and volunteers in DRR.

National and Regional Strategies and Goals

The project was aimed at fulfilling actions specified in core laws and strategies pertaining to DRR in Kyrgyzstan. Overarching strategies and frameworks supported include the following:

- National: National DRR Strategy to 2020 and National Strategy on Sustainable Development for 2013-17: the priorities of these were embodied in the Country Development Strategy for 2012-14, including enhancing legal framework, developing risk assessment, information management, early warning, and response. Moreover, the UIMS components of the intervention directly fulfilled the goals of the government resolutions "Establishment of the National Information Management System" (1 January 2011, Ref.# 1) and "Action Plan on Establishment and Development of National Comprehensive System on Early Warning and Public Information" (25 August 2011, Ref # 506).
- Donor: Assistance Strategy of Government of Japan, UN Development Assistance Framework for 2012-16 (followed by UNDP Country Programme Document, and UNDP Country Programme Action Plan for same period): both identify DRR as a cross cutting issue and support the creation of DRR system in line with international standards, especially the Hyogo Framework for Action.
- Regional: the project was aligned with a 2010 agreement between Kazakhstan, Kyrgyzstan, and Tajikistan to create and organizing Committee for the Central Asian Center for Disaster Response and Risk Reduction. Following the committee's work, Kazakhstan and Kyrgyzstan had signed a MoU to move further towards establishment of CDRRR.

Strategic Direction of DRMP

At the time of project formulation DRMP was already programmed and positioned to address the risks, capacities, and strategies and goals described above. Thus the design was able to build upon its strategic direction. At local, national, and regional levels, this occurred as follows:

- Local: As part of DRMP's comprehensive local level risk management intervention, the project design linked local and national EWS and response capabilities, with additional support to reform and strengthening of search and rescue.
- National: The project aimed at developing early warning, risk assessment and information management, which had at various intervals in preceding years been discussed, planned, and/or requested among MES, the Prime Minister's Office, and the UN. With UNDP and other support, MES had already begun to develop Crisis Management Centers and participated in several study tours to look at various EWSs.[5] Risk assessment and information management were prioritized for own sake by MES and also as a component of an overall e-governance approach of the government.
- Regional: The goal was to position national (Kyrgyzstan MES and National Platform) and regional (CDRRR) bodies to promote dialogue and set the stage for transboundary cooperation in DRR, focusing upon the priority areas established during the formative stage of CDRRR and subsequent dialogue (harmonization of enabling environment, risk assessment and early warning, response, engaging communities in LLRM).

[5] Study tours were made to Kazakhstan, Ukraine, and Armenia. The latter was supported by UNDP and presented a command center with integrated risk assessment and early warning capabilities.

Participatory Consultation Process and Coordination

Relevance was achieved from the outset and maintained during implementation through a rigorous participatory process that preceded the project. DRMP had arrived at the directions expressed in the project document through several rounds of consultation in prior years. This was continued during the development of concept and project document, review, and refinement. The consultation and review process involved MES and other ministries, local governments, and civil society. In order to avoid duplication and foster synergies where feasible, international partners were consulted via DRCU and bilaterally. By the time of project design, DRMP also had established cooperation with partners working in relevant areas, in particular with World Bank on providing complementary approaches and equipment for risk assessment and early warning.[6] Because of the thorough and participatory assessment and consultation that went into the project, it was precisely attuned to the needs on the ground.

Effectiveness

The project achieved more than the expected outcomes and objectives, at both national and regional levels. Key components of an end-to-end early warning system were put in place and made operational in very short time. Critical equipment and training were provided for response. Dialogue and initiatives in regional cooperation in DRR were advanced well above expectations. These outcomes result in a score of 4.5 for effectiveness.

National and Local Outcomes

The main outcomes of the project at the national level are several systems that are integrated under a Unified Information Management System (UIMS), which was officially initiated on 15 December 2014. The UIMS by its predication upon an end-to-end concept. An end-to-end EWS makes its various elements more effective through integrating Knowledge (risk assessment, rapid analysis, and information management), Monitoring (and linkage with monitoring agencies), Communication (among all relevant agencies), and Response (and its coordination). The UIMS components established under the project are described and analyzed below.

Crisis Management Centers in Bishkek and Osh, supported by CMCs in the provinces, coordinate and facilitate real-time operational management decisions. The capacities contained therein and linkages with local parts of the system are depicted in Figure 1 below. CMCs contain command and analysis room containing communications-, database-, and GIS-equipped computer stations and wall of monitors that displays situations and furnishes risk information for rapid analysis. The central CMCs in Bishkek and Osh incorporate meeting rooms for decision-making, which communicate via satellite channels, which permits more timely and coordinated decision-making by the Interdepartmental Committee for Civil Protection. Two mobile command posts (north and south) transmit information from the field in real time.

CMCs were established as a separate division of MES with 88 staff members. The central CMCs are managed by a chief-of-command whose orders are “number one” in chain of command throughout the system.

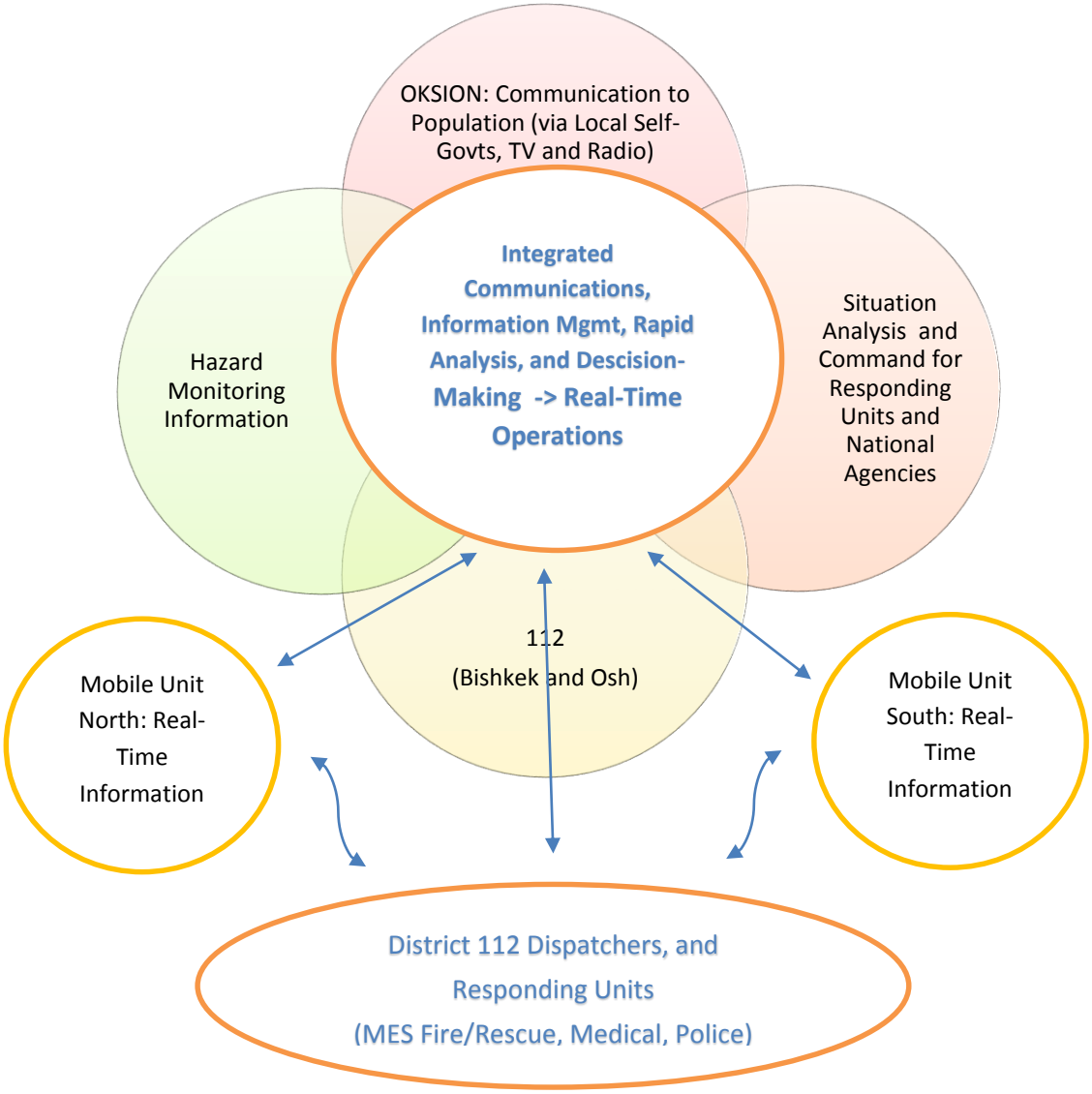
[6] The Disaster Risk Management Project was funded by World Bank in the amount of $1.5 million and was active from May of 2011 to May of 2015.

112 dispatcher centers centralize and coordinate all emergency calls in Kyrgyzstan, are housed in the same building as CMCs. The centers have basic collections of communications-enabled computers linked by a broadband signal and are run 24 hours/ day by a staff of operators. CMCs and local units are linked by internet. At district level, there is a full coverage of Osh (19 Duty Dispatch Units -DDUs) and Batken (21 DDUs) provinces and partially in Jalal-Abad (3 DDUs), Talas (3 DDUs) and Issyk-Kul (3 DDUs). Therefore, out of seven provinces of the country 2 were fully covered and 3 partially. However, the system was built in a way that Call Centers of 112 in Osh and Bishkek cities are able to receive calls from all over the country from the citizens in need and give orders to respective Rescue Teams to respond. Here the MES dispatcher communicates horizontally with the fire/rescue, medical, and police services. All local calls are centralized and coordinated by the dispatcher, as well as visible to the other services.

The National Comprehensive System on Early Warning and Public Informing ”OKSION” enables MES to readily communicate warnings through simultaneous transmission on all TV channels, as well as via radio stations and media. Stronger and more organized communications with relevant monitoring (through developing institutional protocols and IT) permit more ready access of CMCs to risk information for rapid analysis and decision-making, as well as communication to and other agencies.[7]

[7] The concept for OKSION is embodied in the Draft Concept of Information Policy in the Field of Civil Protection, which the Interdepartmental Commission for Civil Protection approved in December of 2014.

Figure 1: Housing of Capacities with Crisis Management Centers and Linkage with District Units



The project also supported a reform within MES that consolidated fire and search and rescue units and furnished training and equipment in the form of vehicles, and search and rescue kits. The reform consolidates previously disparate search and rescue units of MES and improves their coverage through establishing a Fire and Rescue Service.[8] The service has 46 units, of which 21 were established in 2014, while the remainder are to be put in place through 2017.

[8] The medical sector fulfilled most rescue functions during the Soviet period and early transition. Beginning in 2000 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 were still not covered.

Search and rescue also received a sorely needed upgrade in vehicles and equipment. Before the project Fire Services possessed vehicles and equipment suitable only for firefighting. The support provided in this respect was appropriate and effective. The trucks procured under the project are highly mobile, durable, have adequate carrying capacity for kits and personnel, and can be easily repaired. They replace aging vehicles well past their service life. [9] Search and rescue kits are simple, easily transportable collections of basic gear (ropes, helmets, cutters, lights, generator, etc.) that emergency responders can readily use and maintain (see photos). To commission the equipment, search and rescue training was provided to 396 employees of the Fire and Rescue Service, of which 141 employees were trained under UNDP Project, funded by the Government of Japan.

Vehicles and Equipment Provided

New and Old Emergency Vehicles

Rescue Kit

The UIMS, compared to previous state, considerably organizes and integrates functions of risk assessment, information management, monitoring, communications, and response. CMCs provide a powerful capability in organizing rapid analysis, chain-of-command and direction during operations, and management and provision of risk information in other parts of the system. The 112 dispatch system unifies a plethora of call-in numbers that were difficult to track, while the reform of the fire and search and rescue units eliminates ambiguities that had previously existed at local level in mandates and competencies for search and rescue.

The components of the UIMS established by the project are nascent, albeit easily operationalized. CMCs are the backbone and nerve center of the system, and were under development years ahead of the project, so they are accordingly more fully capable. Moreover, the initial variant established by the project is easily operable - here at the system's highest level of complexity, operation requires only a GIS/database specialist and personnel able to operate the communications system and make decisions within the chain of command. Despite the limited period available for training between equipment installation and project closure, the staff in the fire/rescue units observed by the mission had all but mastered the system.

[9] For example, at the garage/equipment base of the fire/rescue service in Bishkek, the mission was shown 40-year-old vehicles that have been kept in operation through multiple refurbishments.

Medical and especially police units will require further capacity development to fulfill their envisaged roles in the EWS.

Regional Outcomes

Regional dialogue provided the opportunity for ongoing initiatives to advance considerably. At the time of project inception, regional cooperation was in a transitional phase along two tracks:

- CARRA was in the process of evolving from a platform for cooperation among international partners to a framework for cooperation among national partners. The project (with total funding of only $50,000) also lacked resources as it neared the end of its second phase.
- The groundwork has been laid to establish CDRRR, but political issues and diplomatic protocol had slowed the pace of this effort, with little movement since the preparatory phase in 2010-11.

Within this context, during 2013-15 the project conducted a series of several regional dialogues within the framework of the Central Asia + Japan initiative. These included three regional ministerial conferences (October 2013, September 2014 and January 2015) with intervening consultations. A substantive consultative process was pursued, in which technical experts would first convene to "hammer out the details" and ministerial representation of the various countries would subsequently convene to provide high-level consultation and make and approve decisions. Senior officials of MES and Ministry of Foreign Affairs of Kyrgyzstan played a key role in supporting the project to advocate the meetings to their counterparts and ensure adequately high level representation for decisions, which lent more weight to them after the meetings. Beginning in 2014, the Central Asia + Japan initiative played a facilitating role, including exhaustive consultations ahead of the ministerial conference, the first such active role for a country outside Central Asia. National Platforms and wide range of national and international partners also were involved, which helped achieve consensus, ownership, and coordination. These led to a more precise specification of actions and heightened the effectiveness of political representation.

Second Ministerial Conference, September 2014

National and International Representation

Driving Forces: Kyrgyzstan National Platform Secretariat with MES Stats-Sekretar

The main outcome of this process was that mandates developed into more specific plans and actions. In preparation for the Sendai conference in 2015, the Central Asian and South Caucasus countries under the

aegis of third ministerial conference adopted a Joint declaration on cooperation in DRR, a framework for action to coincide with the timing of the Sendai declaration. These establish a permanent working group, regional forum, and emphasize the importance of operationalizing CDRRR. They also lay out a process for inter-ministerial consultation along priority thematic areas of action (harmonization of enabling environment, risk assessment and early warning, coordination of response, disaster mitigation, and capacity development).[10]

During the course of the project the dialogue was expanded both beyond and within Central Asia, which greatly expanded the potential for fostering cooperation.

- In July of 2015 the project achieved the ratification of a full-fledged agreement to establish CDRRR in the near future. The agreement realized a longstanding goal of MES Kyrgyzstan, MES Kazakhstan, and the international community serving DRR in Central Asia.[11]
- The South Caucasus was included into the dialogue, as cooperation (in particular with DRR agencies in Armenia) had been already discussed and agreed bilaterally among various countries, and the South Caucasus countries were interested in supporting or possibly joining CDRRR.
- The ministerial conference process, as well as participation in Central Asia + Japan, facilitated preparations for the Third World Conference on Disaster Risk Reduction planned for March 2015 in Sendai, Japan on the adoption of post-2015 global agenda in this field. Thus, the countries of Central Asia and South Caucasus were able to field a large, active, and effective contingent to the Sendai conference, which provided strong representation with a unified strategy and message.
- In September and November of 2014 DRR agencies of Kyrgyzstan, Tajikistan, and Kazakhstan for the first time engaged in specific discussions related to the harmonization of response planning and enabling environment for it.[12]
- Whereas Turkmenistan had previous stood "on the sidelines" in regional cooperation for DRR, its representatives became actively involved in the regional dialogue, to the point of offering to host the meetings of the working group between ministerial conferences. [13]
- A unified mandate, backed by considerable political weight, was handed to the international community by the regional ministerial meetings. CARRA was reshaped according to the mandate handed to the international community at the 2013 regional ministerial conferences. The strategy

[10] *Analiticheskaia zapiska po Regional'noi ministerkoi vstrechi stran Tsentra'noi Azii I Iuzhnoogo Kavkaza po Ramochnoi programme deistvii po umesheniiu opasnosti bedstvii na period posle 2015 goda.* See also: http://npdrr.kg/main_news/102-japanactivates-cooperation-with-central-asian-countriesin-disaster-risk-reduction.html and

[11] In 2005 all of the Central Asian countries requested that the UN facilitate the establishment of CDRRR. The process has been consistently driven by DRR agencies (MES and National Platform) in Kazakhstan and Kyrgyzstan, with Tajikistan also an active participant.

[12] See: http://npdrr.kg/main/103-eksperty-chrezvychaynyh-vedomstv-kyrgyzstana-i-tadzhikistana-obsudili-sovmestnye-plany-vzaimodeystviya-prigranichnyh-territoriy.html and http://www.time.kg/vremya-ne-zhdet/7451-predstaviteli-chrezvychaynyh-vedomstv-i-organov-mestnoy-vlasti-kazahstana-kyrgyzstana-tadzhikistana-obsuzhdayut-voprosy-sotrudnichestva.html.

[13] Uzbekistan continued to maintain a passive stance towards participating in the dialogue process, sending instead of ministerial representation to the conferences only an Adviser of Extraordinary and Plenipotentiary Ambassador of the Republic of Uzbekistan in the Kyrgyz Republic.

and programing for the next phase of CARRA proceed directly from this and decisions of the 2014 conference.

Factors Enhancing Effectiveness

Several key factors made this high degree of effectiveness possible. These include the following:

- Ownership: MES had a strong sense of national ownership of the project from the outset. Thus, it was active in both the design and implementation of the project. MES carefully tracked execution to ensure that capacities and equipment acquired were those that it really wanted. MES also played an active role in the effort to establish CDRRR. This sense of ownership in the regional process developed during the course of the project, to the extent that MES Kyrgyzstan acquired a leading/facilitating role in fostering regional cooperation in DRR in Central Asia (that is analogous to Kazakhstan's in creating CDRRR).
- Mutually Supportive Outputs**:** The design, in addition to, the outputs of the project were mutually supportive amongst themselves. Outputs 1-3 of the project were designed with a systematic approach in mind. Equipment was embedded into various systems that in turn comprised an end-to-end early warning system. The end-to-end EWS consolidated and permitted its various components (CMCs, information management, 112, search and rescue) to work together synergistically. While this could have been more explicitly expressed in the prodoc, it is embodied both national and programme documentation and was clearly the approach from the outset.in DRMP. Most importantly, it was executed effectively.
- Base Analysis: Actions were grounded in solid base analysis. For early warning, risk assessment, and information management, this was done by cooperating with World Bank and the Scientific Research Institute of the Russian Federation on Civil Defense and Emergency Situations. Technical studies helped to ensure that the equipment to be acquired was appropriate to the systems.
- Building Block Approach: At the national and local levels, the intervention benefited from previous and ongoing actions in priority areas. The project also employed a “building block” approach to regional cooperation (with CDRRR and CARRA), which would eventually link national and regional level efforts when joint action among national agencies became feasible (in the identified priority areas of risk assessment, early warning, response, and LLRM).
- Coordination: the project built upon considerable momentum for cooperation both nationally and regionally. During implementation its team maintained close coordination with key international partners at the national (World Bank) and regional levels (multiple agencies). Thus, a unified concept for the UIMS was developed in which the interventions worked together (rather than at cross-purposes) and equipment was complementary.
- Capacity: An integrated approach was taken in which outputs paid adequate attention to the institutional and capacity actions required to ensure that equipment would be used appropriately. DRMP had by this time acquired substantial experience in these areas and was able to ensure that institutional and capacity development proceeded from proven approaches and methods.
- Appropriate Technology: The project went to great lengths to ensure that the equipment acquired (around 80% of the project budget) was technologically appropriate, which greatly facilitated its rapid adoption and application in practice with the existing equipment of MES.

- Political Economy: Close attention by the project team to the political economy and various needs and positions, particularly at regional level, ensured that actions were feasible and encouraged participation and ownership.

Other success factors related to the project's execution are covered in the ensuing section.

Efficiency

The project executed the project work plan and budget efficiently and fully in line with international and national norms and standards. This is primarily due to effective deployment of a longstanding DRMP team, close teamwork among UNDP, MES, and Government of Japan, and cooperation and coordination with other partners. A no-cost extension was required for implementation, owing to the need to coordinate procurement with other actions. With all factors considered, the project earns a relatively high score (4.5) for efficiency.

Execution of Work Plan and Budget

The project was designed to produce quick and tangible results and outputs, leading to the outcomes noted above. The main activities in support of this are expressed in the Annual Work Plan and are presented in Annex 2, together with the assigned budget. In highly simplified form, they are as follows:

- Conducting technical assessments of the Crisis Management Centers of MES, feasibility studies concerning the early warning, communications, and search and rescue capacities to be developed to be created, and developing of Terms of Reference for purchasing equipment;
- Tendering the purchase of equipment;
- Development and application of training modules for the operation and maintenance of the equipment; and
- Organizing and convening regional meetings and consultations to promote cooperation in DRR in Central Asia.

According to project reporting and the interviews and site visits conducted, all results were achieved per the Results and Resources Framework and Annual Work Plans (reports work plan execution to Government of Japan also are attached to this report). The main variances between plan and execution were as follows:

- For feasibility studies, World Bank and Russian Federation expertise was substituted for that of hired consultants, as it was made available gratis. The implementation timeline, was therefore dependent upon the feasibility study.
- Delays in procurement of CMC telecommunications equipment were necessitated by the need to purchase equipment that was inter-operable with that being purchased by World Bank. UNDP was able to start working with the purchase of hardware and software only after the World Bank completed its tender in July of 2014.
- Some targets for acquisition of satellite equipment had to be adjusted downward, owing to high-than-expected complexity/cost and the need to make it consistent with existing MES equipment.

Moreover, procuring according to the technical specification required going as far as a regional procurement hub (operated by UN WFP in Dubai).

- Tenders for fire-rescue equipment required analysis of adjustments by MES (additional vehicles) and had to be repeatedly advertised, as there was no initial response.

Ultimately, these factors compelled UNDP in December of 2014 to request a no-cost extension, which was granted by JICA through July 2015.

All funds in the project budget (of $2,231,947) were delivered within 2013-15. Majority portion of the budget was delivered in 2014-15. Because of the factors delaying procurement, around 35% of the budget was spent in 2014, with actual installation, commissioning, and testing occurring in the following year. Among the types of activities upon which funds were allocated, capacity development comprised around 20%, equipment almost 83%, and General Management Service (GMS) charges almost seven percent. A small allocation of $20,000 covered a much-needed procurement assistant. Financial management was conducted according to the rules and procedures of UNDP and in line with those of JICA and MES, with regular and full reporting.

Deployment of DRMP Capacities

The project benefitted from the fact that a new management team did not have to be created or substantially funded. Aside from the procurement assistant noted above, project management and its cost was covered by a UNDP team of three people already working on the Disaster Risk Management Programme (Chief Technical Advisor, Disaster Risk Management Specialist, and Coordination Specialist). Management factors in DRMP's favor from the outset were this team's substantial experience and a strong record of delivery in the field, as well as a long-term investment in mentoring and training them within UNDP.

The project entailed a considerable expansion of procurement activity for DRMP. Considerable advance planning and preparation were made for this ahead of the project, as well as hiring of a dedicated specialist. During the execution of these tasks, project management and the donor went to great lengths to ensure appropriate procurement and displayed the flexibility needed to adjust to changes in very precise equipment specifications by MES.

Project management utilized DRMP capacities to their maximum. The challenge for the UNDP project team was that, at a time when the project added to its responsibilities, global organizational restructuring/budget austerity processes effectively limited UNDP Kyrgyzstan's ability to augment the staff. DRMP staff ultimately was able to handle the extra work and perform the tasks at a high professional level. This was noted by all stakeholders with whom the evaluation mission met, and the DRMP staff was rightly credited with being the driving force of the project. However, this was achieved to the point of personal sacrifice by the staff. If future interventions entail a similarly elevated workload, it is recommended that DRMP staff be correspondingly increased to maintain this high level of performance.

Teamwork and Coordination

The project team maintained a constant briefing and consultation process with MES (International Department and senior management of relevant units), other national partners, The Embassy of Japan, JICA, and UNDP senior management. Frequent day-to-day consultation rendered project decision-making and the business of Executive Board meetings more efficient and effective. The project also received strong support by senior management of these organizations, who maintained close contact with each other, the project team, and national partners.

DRMP invested the extra effort required to make coordination and cooperation among agencies work. At national level, this occurred mainly through close cooperation with World Bank in establishing the EWS/info systems and discussion of the project among international partners. Regionally the project brought together a large range of international partners (most prominently UN ISDR, UN OCHA, UN ESCAP, and GIZ) and worked to promote ongoing regional dialogues and cooperation mechanisms (CARRA and CDRRR). This approach permitted DRMP to make a more efficient use of project resources.

Monitoring and Evaluation

The project team conducted monitoring and evaluation in line with the procedures and standards of UNDP and JICA. Although this was adequate to track performance and results and facilitated critical adjustments in work planning, it did not capture the outcomes, in the manner sufficient for a terminal evaluation, particularly as a second phase of the project was being discussed as its completion neared. Therefore, an additional allocation of $15,000 was made to support this. While the additional resources and effort satisfy the requirements for a terminal evaluation of a two-year intervention, they cannot capture the full impact of the UIMS and actions of the project, for reasons noted below.

Sustainability

The main risks to sustaining long-term project results are institutional and financial in nature and are derived from the short duration for implementation. These are somewhat mitigated by a considerable investment into capacity development, as well as the simplicity and relatively easy operationalization of the systems created. The balance of these factors produces an overall positive grade (3.5) for the project's sustainability.

Capacity Development

Capacity development has been a longstanding area of emphasis for DRMP, which heightened the sustainability of the project. First, the simplicity of the systems and equipment delivered made them much more readily operational than if a truly "high-tech" system had been installed. Moreover, (as noted above) MES, with DRMP support, had been preparing for the system for several years ahead of the project. Thus, the number of new structures was minimized to the Fire-Rescue Service Reform.

Utilizing these advantages, DRMP allocated around 20 % of project budget to capacity development with the majority of this devoted to training. During implementation, MES utilized its training centers near Bishkek and in Osh to develop the skills and expertise of its staff in the systems' operation. The result, as observed by the mission, was impressive. For example, the 112 dispatcher system was installed only 1.5 months ahead of project closure (owing to delays noted above), with only two days' training at the MES center at Osh. As observed by the mission, the dispatcher system for the Kara Suu District had been fully mastered by the fire-rescue service. (Similar impressions were gained at the 112 call centers, CMCs in

Bishkek and Osh, the Fire-Rescue Service and its garage in Bishkek, and a simulation by the district MES unit in Uzgen.) Thus, with regard to systems and equipment, three conditions were met: MES can operate it immediately, can train others in its application, and can maintain it with adequate financial resources.

Yet even these considerable resources cannot fully institutionalize the UIMS, owing to the brief duration of the project (two years) for such a task. To develop fully sustainable the institutions within UIMS as "rules in use," an additional three to five years of concentrated capacity development is required to strengthen the enabling environment, networks, and human resources for UIMS. Although capacity development actions would have been more effective had coordination of procurement not delayed the installation and commissioning of equipment, even with perfect procurement according to project design, the short duration of the project would have required follow-up actions to attain full sustainability. The most significant gaps identified by the (limited observations of) the evaluation mission include the following:

- Enabling Environment: Design of the UIMS systems in coordination with World Bank required more time than otherwise. Owing to this and the short duration, there was no time to amend and update laws and plans to provide a legal foundation for the reforms. This will be required to ensure that mandates and competencies of the various components are specified well enough to ensure proper operation and coordination.
- Networks: pre-existing networks among the MES and other organizations and their staffs are based upon the previous systems. While these can be used to strengthen UIMS, new networks will be required to fit it.
- Search and Rescue: The project's interventions support the reform of the Fire and Rescue Service into the main local response/search and rescue entity, which will eventually lead to a more effective, unified search and rescue capacity. At present the MES Fire and Rescue capacities are geared mainly towards fires and technogenic hazards. Senior officials consulted noted the need to further develop search and rescue capabilities for earthquakes, avalanches, and natural hazards. Developing these capabilities and providing specialized skills, expertise, and simple/adapted kits will further enhance the effectiveness of the project initial investment in this direction.
- IT Staff: MES noted (with emphasis) that it was a constant challenge to find qualified staff to run the GIS and servers needed to support the IT component of the end-to-end EWS. Most are unwilling to work at low government wages or, if they come to the post "raw" and gain training on-the-job they soon leave for more lucrative posts elsewhere. This has resulted in considerable turnover. An increase grade/rank/salary or other incentive will be needed to fully realize the potential effectiveness of the intervention. Fortunately, thus is not an issue for the communications staff manning the dispatcher stations, i.e. the majority involved in running the EWS.
- Local Hospitals and Police**:** Capacities for 112 dispatch in hospitals appeared adequate to the task, but less than those of the fire/rescue units that are part and parcel of MES, i.e. in need of further development. Police units appeared to be tangentially involved in the system and will require considerable capacity development and institutionalization in order to ensure that the EWS adequately supports the security aspects of response.

At the regional level, the project built upon and greatly accelerated the momentum of previous actions, thereby considerably improved the sustainability of regional dialogue. Without any follow-up intervention the regional ministerial conference process would be supported by the next phase of UNDP's CARRA project, which has been in pipeline for some time. CDRRR has been a long-term commitment of Kyrgyzstan and Kazakhstan for a decade, receives strong support from the international community, and was a primary focus of the regional UNDP (DIECHO and CARRA projects) from their inception.

Finally, the National Platform for DRR is charged with coordinating the execution of the National DRR Strategy. The platform has attempted to fulfill this mandate by setting up working groups, conducting analyses and consultations, and providing critical representation, advocacy, and coordination in priority thematic areas. At the regional level, the National Platform representation has played a critical role in furnishing input into the formation of CDRRR and the will represent Kyrgyzstan in the regional forum established in the second ministerial conference. Yet at present the National Platform is operating "on a shoestring," and managing to achieve effectiveness mainly on the strength of effort, acumen, and constant networking. In order to fully accomplish the goals of the National DRR and the regional dialogue, the National Platform needs a juridical status that will permit it to receive adequate funding from the state budget, as well as a further analysis and corresponding institutional and capacity development. [14]

Financial Viability

Financial viability at national and local levels poses a potential challenge to the sustainability of the project, as MES (as a provider of a public good) is mainly reliant upon a tight state budget for funding.[15] According to a 2010 analysis by UN ISDR, budgetary allocations for DRR (mainly MES) are only 10% of the economic losses incurred from disasters in Kyrgyzstan.[16] Allocations for DRR within the budget of local self-governments are at least in place, thanks to DRMP interventions, but remain lower than needed (0.2% of the total).[17]

To mitigate issues of financial viability, DRMP has consistently worked along two tracks. First, interventions have been geared towards a legal and policy environment conducive to adequate funding for DRR in Kyrgyzstan, beginning with assuring adequate state allocations for self-governments, MES, and the National Platform. These efforts have only begun to achieve traction in earnest. As the programme continue to develop its efforts to integrate DRR into development frameworks (including long term expenditure frameworks), these efforts will be expanded.

Second, DRMP works to help MES and other agencies mobilize resources. This is only temporary relief from the main issue of funding the public good (as the most effective purpose is to spread support and

[14] Secretariat of the Kyrgyz Republic National Platform for DRR, 2015, *National Progress Report on the Implementation of the Hyogo Framework for Action (2013-2015) – Interim*.

[15] This is owing to a many years of economic decline and transition to a market economy, with growth at intervals, and a high external debt ratio (over 50% of GDP, albeit improved from a high of 150% in 1999). Given the recent macroeconomic shocks in Central Asia, this position will improve only over the long term.

[16] UN ISDR, 2010*, In-Depth Review of Disaster Risk Reduction in the Kyrgyz Republic*.

[17] Secretariat of the Kyrgyz Republic National Platform for DRR, 2015, *National Progress Report on the Implementation of the Hyogo Framework for Action (2013-2015) - Interim*

coordination among donors), but it can inject resources into critical areas while more fundamental budgetary problems are being resolved.

The regional issue in financial viability lies with potential for underfunding of CDRRR. (CARRA has received strong support from UNDP since 2008, has already institutionalized its coordination structure, and thus is a low risk for sustainability.) The Government of Kazakhstan in 2010 committed around $700,000 for CDRRR, which is to be staffed from the DRR agencies supported by respective member countries. [18] The allocation is to be released contingent upon the signature of the agreement for establishment. As noted above, the project managed to achieve this in July of 2015, i.e. the allocation should be released in the 2016 and subsequent Kazakhstan state budgets. Since 2010 many donors have expressed an intention to match this allocation with international support. Thus, it is critical for CDRRR start-up that in the interim the funding be secured via Kazakhstan and donors. In the meantime, an enabling environment should be put in place that secures regular funding of own staff/operations from respective member countries budgets, and donor support to developing CDRRR capacities for resource mobilization should continue.[19]

Impact

There are significant indications that the project has contributed to reduction of disaster risks in Kyrgyzstan. The systems, machinery, and equipment in place are simple, effective, and easily operational, albeit in nascent stage of development. Thus, they have considerable potential to lower disaster risks and strengthen resilience in Kyrgyzstan. But the short duration of the project makes it impossible to fully assess impacts at this point in the systems' establishment. Given the combination of these factors, the evaluation assigns a grade of 4.0 for strong indications of impact, under the condition that capacitation of the system continues apace.

Indications of Impact at National and Local Levels

The score above comes with the caveat that most of this impact is potential. The main base components of UIMS were created during a two-year span. The EWS/information systems are nascent, institutionalization is ongoing, geographical coverage is incomplete. Thus, it is difficult to analyze impact, except in terms of preliminary indicators and observations of the mission. These are as follows:

- Preliminary statistical evidence afforded by MES concerning real-time operation of the UIMS is encouraging. Thanks to improved information management and communications, at the end of project response time to manage emergencies had been reduced by 15-20% from before the UIMS. Additionally, fatalities had decreased by nine percent, and injuries had diminished by 15% from the year before.
- Organization and Coordination: the UIMS through unifying call-in numbers and establishing an effective dispatcher system has not only cut down on response time, but made it much more likely that the right people will be there at the right time.
- Information Management: the improved capacities of CMCs make risk knowledge more accessible, according to MES staff consulted and observations at Bishkek and Osh CMCs. Although risk analysis capacities of CMCs remain geared towards response, they are positioned and

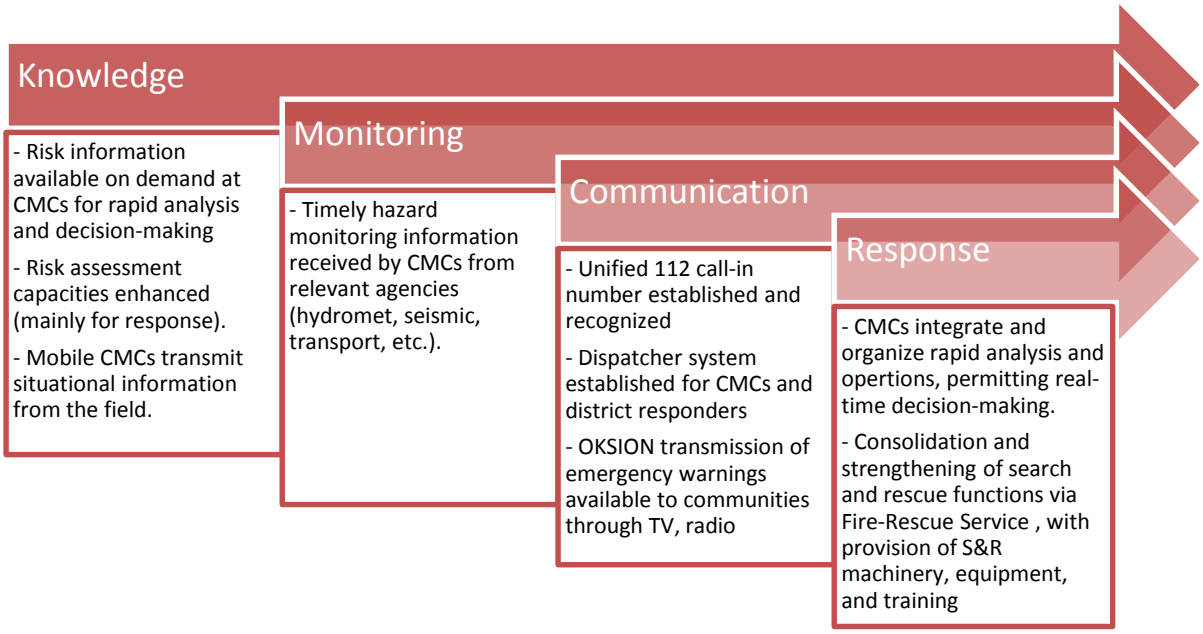
[18] The largest outlay from this amount funds a building for CDRRR in Almaty (a former medical emergency training facility) and its equipment (already in place).
[19] This began with the DIPECHO VI project and continued as part of the regional dialogue.

capacitated to serve this purpose well, and the enabling environment and systems is gradually being put in place to operationalize a more comprehensive risk assessment approach supporting disaster recovery and prevention (see below).

- Reliability: the Bishkek and Osh CMCs back each other up by server and possess own reserve power in the event of an outage. MES interviewees stated that the UIMS is reliable enough that, in the event of a repeat of the 2010 events, the system would not fail.
- Operability: the systems within the UIMS are simple, are built upon preceding efforts, and utilize appropriate technology. This made the UIMS easier to commission and render inter-operable with existing institutions, machinery, equipment, and staff. MES was able to use own capacities for training staff in its operation, and the staff observed at CMCs and in MES local units appeared confident and capable in its operation. Moreover, the senior level MES staff consulted are cognizant of the need to further develop capacity to sustain the UIMS.

The potential impact of the UIMS is enhanced by the fact that all pieces work together within an end-to-end early warning concept. The project outcomes within the elements of an end-to-end system are depicted in Figure 2 below. The components of the UIMS are linked functionally and work together to support, informed, coordinated, rapid response. It is important that, as the UIMS continues to evolve, it follows this concept and expands these elements to serve comprehensive DRR.

Figure 2: Project Outcomes as Components of an End-To-End Early Warning System



Indications of Impact at Regional Level

The project achieved several breakthroughs in dialogue and cooperation to address transboundary hazards. The most telling indications of these are as follows:

- Finalization of the CDRRR agreement making it a legal entity, which culminated a decade-long process in which prior projects had only partially succeeded;
- Heightened political representation via the regional ministerial conferences;

- Formalization of a substantive consultative process between annual ministerial conferences through the establishment of an expert working group and regional forum;
- Expansion of geographical scope for regional dialogue and cooperation through inclusion of the South Caucasus, as well as heightened activity among the countries of Central Asia in its facilitation;
- Concretization of planning, resulting in a Regional Strategy and Action Plan, through increased focus of the dialogue and supporting process upon specific cooperation actions.
- Considerable impetus lent to the international community and CARRA through the mandates handed to it in the regional ministerial conferences.
- Recognition of Kyrgyzstan MES and National Platform as effective facilitators of cooperation in Central Asia.

With these very strong indications, the project effectively changed the game in regional dialogue and cooperation for DRR in Central Asia. Thus, the evaluation has no doubt made a significant regional impact.

If the capacity development effort is continued and sustainability issues addressed, and given the high degree of relevance and effectiveness in the intervention, it can be stated with confidence that there is strong potential for impact. It remains to assess the impact of the intervention more rigorously in the future to inform its development, as proposed below.

Conclusion

The project overachieved in performance and the outcomes attained, leading to an overall averaged score of 4.3. This is owing to a high degree of relevance, effectiveness, efficiency, and strong indications of impact. The chief factor lowering the score is the short duration of the intervention relative to its ambitious outcomes, which detracts somewhat from its sustainability.

Lessons Learned

Proceeding from the foregoing analysis, there are lessons to be learned for future actions. These are introduced below. Many are characteristic of an overall approach taken by DRMP in the last several years to the formulation and execution of DRR interventions.

The project's execution within a successful longstanding programme greatly enhanced its strategic direction, management, and execution. DRMP offered experience in implementation, management acumen, a strong working relationship with MES, and a strategic direction that had been proven by results.

Attuning project design to risks, capacities, institutions, and initiatives on the ground, made project interventions immediately relevant and contributed to their effectiveness and sustainability. Through long-term engagement and thorough participatory consultation, DRMP was able to translate the end-to-end early warning concept into a UIMS requiring no new structures, provide appropriate equipment and vehicles, and offer capacity development using MES's own facilities. Regional actions attained synergy with ongoing efforts (CDRRR and CARRA), which resulted in breakthroughs for them.

Coordination and teamwork among organizations involved in the project made it more effective and efficient. UNDP, Government of Japan, MES, National Platform, and other national partners built upon this longstanding modus operandi of DRMP to review progress and make critical adjustments in to improve the delivery of systems, equipment, vehicles, training, and regional dialogue. This required extra effort and time, but paid substantial dividends in the synergies achieved and efficient allocation of resources.

Considerable investment in capacity is required to initiate the institutionalization of DRR systems. Despite the considerable investment into capacity development by the project and the advantages presented by building UIMS upon ongoing efforts and structures, two years of even the best effort cannot fully institutionalize the early warning and information management systems, particularly given its incomplete geographical coverage. For this, follow-up actions will be required.

Recommendations for Further Action

The establishment of the UIMS and regional dialogue were designed with the understanding that these interventions were initial stages in developing fundamental components of a DRR system in Kyrgyzstan. Thus, considerable work remains. If a follow up intervention is to be undertaken, the analysis above supports several recommendations for further action. These are presented below.

Project Design

Duration and Sustainability: As noted above the main limitation of the project was its short duration. Future interventions of this nature should adopt a more extended, realistic duration of three to four years, in order that the "rules in use" of the new system can become more fully institutionalized. This time frame also fits the transition from regional dialogue to regional cooperation.

Monitoring and Evaluation: A longer time frame also will permit the project to capture the real impacts of the intervention and derive lessons learned. For this purpose, it is recommended that the project invest in a counter-factual impact assessment for the terminal evaluation. Result and outcome indicators should be tailored to support the assessment as much as possible. This will require the collection of a fuller set of baseline data at the outset of the project (which can be combined with project actions, such as a risk perception survey to inform EWS messaging to the populace).

Replication: The EWS offers a simple model that can be readily adapted to circumstances of needs of countries in the region (most of which have a similar structure of relevant agencies, particularly at local level). Thus, the project's effectiveness can be further increased through offering it as a model. It will be necessary to make the project's effectiveness and impact more visible as the system matures and results and impact become more apparent.

National Level Interventions

The foregoing analysis identifies several areas in which further work will be required to fulfill the potential of the UIMS. These are as follows:

- Coverage: expand geographical coverage, focusing upon high risk areas, hazards, and sectors. These include avalanche and transport, as well as floods, mudflows, and uranium tailings.

- Capacity Development: solidify the legal and regulatory foundation for UIMS. Systematize capacity development for the MES training center, building upon the recommendations of UNDP capacity development mission of 2012.
- Risk Assessment: develop risk assessment for comprehensive DRR, proceeding from the Country Situation Analysis of 2012 and emphasizing support for prevention through disaster recovery. Both risk assessment and monitoring could be enhanced through developing capacities for remote sensing.
- Information Management: develop and adopt standards for the interoperability of databases, focusing initially upon those maintained by MES and monitoring agencies;
- Communications: Improve messaging for communications through execution of a risk perception survey among the population and analysis to target messages to high-risk areas and especially vulnerable social groups.
- Response and Recovery: Update contingency and development planning related to DRR according to the new system. Improve disaster needs assessment and post-event analysis for enhanced humanitarian response and recovery, as well for improved data for risk assessment. Continue to provide simple equipment, vehicles, and training for response, with attention to specific needs e.g. (medical equipment was noted by the Fire-Rescue Service).

Any further intervention should also deepen the integration begun under the project with other areas of endeavor for DRMP. These include the following:

- Integration of DRR into development frameworks for high-risk sectors at various administrative scales
- Support to National Platform as coordinating body for comprehensive DRM and key representative/convening body at both national and regional levels.
- Recovery: Pilot recovery projects, utilizing UIMS in support of analyzing and targeting interventions, to demonstrate its potential to support risk reduction through prevention. Begin to develop pre-disaster recovery planning and a means to prepare for emergency recovery actions.

Regional Dialogue and Cooperation

Owing to the great success of this component of the project, the time is ripe for supporting regional cooperation for DRR in Central Asia. Recommendations along these lines are as follows:

- Regional Action Plan: provide assistance to its execution of the expert working group and regional forum, as well as capacity development and working out further specification of cooperation actions;
- CDRRR: facilitate its development through provision of staffing, equipment, and training for MES Kyrgyzstan and National Platform as stakeholders in it;
- Coordination: continue to work closely and achieve synergy with Central Asia + Japan, CARRA, and other regional initiatives.
- Transboundary EWS: if feasible, develop a cross-border EWS in the Ferghana Valley to address risks associated with transboundary floods and mudflows, linking the UIMS with Tajikistan's system and building upon discussions of cooperation during the project. (This has been discussed among CDRRR partners for several years).

- Afghanistan: this country intends to join CDRRR. Its DRR minister has several times expressed an intention to participate actively in regional cooperation and has been a participant in several regional meetings. Thus, it should be included into the regional ministerial conference, working group, and regional forum.

Annex 1: Annual Work Plan Activities and Budget

Activity and Actions of Annual Work Plan	Approved Budget (USD)
Activity 1.1. Upgrade hardware of five Crisis Management Centers (CMCs) to strengthen CMCs' capacities in risk assessment and monitoring	
Action 1.1.1. Assessment of existing technical capacity of CMCs in risk assessment & monitoring, development Terms of Reference for equipment	18 236,40
Action 1.1.2. Organize international tender to identify supplier/s of equipment	520,00
Action 1.1.3. Installation of relevant equipment to facilitate effective risk assessment and monitoring by CMCs	210 530,62
Activity 2: Introduction of new technologies that can send alerts about natural hazards	
Action 2.1. Purchase of telecommunications equipment and equipment for automated workstations of dispatching units of emergency response services in the regions	522 000,00
Action 2.2. Purchase of equipment and control modules for public notification	144 000,00
Action 2.3. Purchase equipment for establishment of sixteen Immovable and twenty Mobile Short Wave Radio Stations, Portable VHF Radios & Satellite Terminals	544 669,25
Action 2.4. Training of staff on usage of equipment	22 564,00
Activity 3: Purchase equipment for establishment Emergency Rescue Facilities	
Action 3.1. Purchase of equipment to reprofile 5 fire services into fire-rescuing facilities	275 600,00
Action 3.2. Conduct knowledge and skills raising trainings for staff of 25 Fire Services on Rescuing Operations	22 576,88
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	31 844,80
Action 4.1.2: Conduct 2 regional high-level events and rehearsals to facilitate a better regional cooperation in DRR	196 703,25
Activity 4.2: Conduct capacity development interventions	
Action 4.2.1: Training key staff of bordering districts on Disaster Risk Management	48 020,96
Action 4.2.2: Conduct two times meeting to refine district DRR Plans at border areas and rehearsals	27 866,07
Procurement Assistant	20 800,00
2,5-4% of bank charges	
General Management Services (7%)	146 015,25
TOTAL ALLOCATED FOR THE PROJECT:	**2 231 947,48**

Annex 2: Disaster Risks and Capacities in Kyrgyzstan

Kyrgyzstan is at high risk of natural disasters, mainly earthquakes, landslides, floods, and avalanches. Geophysical hazards pose the greatest risk in the country. According to the Ministry of Emergency Situations of the Kyrgyz Republic, more than 200 emergencies take place each year and this tendency is increasing. Approximately half of Kyrgyzstan's GDP is weather and climate sensitive. Annual economic losses incurred from natural disasters are estimated in the range of $30-35 million (1.0 - 1.5% of GDP), with around 2,000 families affected per year.

Meteorological hazards: On average, 3-4 extreme meteorological hazards (drastic changes of weather, frosts, heavy precipitation) occur annually covering the majority of the country, and there are about 7-10 high-impact floods, mudflows, and/or avalanches. 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.

Seismic hazards: Much of the country's territory is located on seismic areas scaled at 8-9 (according to the MSK-64 scale). Nearly 3,000 seismic events are registered each year. Among them, 5 to 10 per year are considered strong (felt, but no 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. The four most significant recent earthquakes (1992-2006) resulted in 132 deaths, affected 150930 people, and caused damages estimated at $163 million. There are 5,000 landslide sites in the country, which threaten around 7.5 percent of the population (509 settlements and destroy around 700 homes annually.

Socio-economic vulnerability: Natural hazards interact with human activity and unsustainable development practices. These include the cultivation and over-exploitation of marginal lands, overgrazing, unregulated logging/ deforestation, poor water-management and unsafe construction practices both in the housing sector and of critical infrastructure. Land-use and urban planning are – if existing - often outdated and rarely enforced. Poverty is one of the main underlying causes of vulnerability, particularly in Southern rural areas, where a majority of the poor reside. Livelihoods tend to depend upon small-scale commodity agriculture and livestock that in turn increase pressure on fragile lands and eco-systems. Together with physical isolation (particularly of mountain communities), a lack of awareness and limited access to assets and services, this reduces people's ability to withstand and cope with hazards.

Transboundary risks: At the regional level, Kyrgyzstan is affected by several transboundary hazards. Major events (mainly earthquakes and droughts) occur with a high rate of return; small to medium events (mainly floods, mudflows, and landslides) hit transboundary river basins in mountain and foothill areas almost every year, particularly in the Ferghana Valley. Localized events often have transboundary implications, particularly water-related hazards in areas that are linked with transboundary river basins (the Syr Darya and mountain rivers of the south and Chu-Talas in the north). Natural hazards, particularly floods and mudflows, also carry an alarming high risk of transmission of radionuclides and heavy metals, owing to the hydrological linkage of unsafe abandoned uranium mines with the Syr Darya and other river basins in the country.

Capacity: Kyrgyzstan has taken notable towards disaster prevention and sustainable recovery through supporting local level risk management as part of the decentralization process, enacting a National DRR

Strategy, and establishing institutions such as the National DRR Platform to execute it. However, their capacities are still in early stages of development.

Owing to a strong civil defense tradition, the capacities of the Ministry of Emergency Situations to manage natural and compound hazards are overwhelmingly in favor of disaster response and to a lesser degree preparedness. Budgetary allocations, although improved from the miserable levels of the 1990s, are a fraction of what had previously supported this system, with the result that MES has at its disposal inadequate resources to meet a growing demand. While the staff are dedicated, salaries are low, and much of its equipment and system has become outdated and operable only through refurbishment and careful maintenance.

Annex 1.1.3: Equipment purchased under Action 1.1.3.

#	Equipment	Action #	Supplier	Qty	Unit price	Subtotal	Disposal at / Remark
1	Computer server / Компьютерный сервер	1.1.3.	Long Term Agreement (Planson International, USA)	4	8 462,00	33 848,00	By one sets for CMCs of Bishkek, Osh, JA and Talas cities
2	UPS 5000VA/3.5 кВт. / UPS источник бесперебойного питания 5000VA\3.5kb.	1.1.3.		2	1 361,00	2 722,00	CMs of Bishkek and Osh cities
3	Shipping and Insuraqnce costs /Затраты по транспортировке и страхованию	1.1.3.				5 389,00	
4	Plotter /Плоттер	1.1.3.	Continent JSC, Bishkek	1	7 779,20	7 735,00	CMC in Osh city
5	Desk IP telephone, Voip connection / Настольные IP телефоны (вместо видеотерминала и айпи шлюза) Voip связь	1.1.3.	Logic company, Bishkek	11	1 630,00	17 930,00	By one sets in every province level disvision of MES JA, Talas, Naryn, Batken, Karakol, Chui; MES in Osh - 2; MES Bishkek - 3
6	Fiber-optic accessories / Оптико-волоконная связь	1.1.3.	Kyrgyztelecom	1	4 230,51	4 230,51	CMCs of Karakol, Osh and Bishkek
7	LCD seamless panel (not less 2,7/4,5 m from 9 blocks) / Бесшовные ЖК панели (не менее 2,7/4,5 м из 9 блоков)	1.1.3.	WFP Dubai	18	6 889,55	124 011,97	CMs of Bishkek and Osh cities by 9 panels in each
8	Installation expenses pf LCD seamless panel	1.1.3.	WFP Dubai			717,47	
9	Videocamera /Видеокамера	1.1.3.	Green Light JSC	2	7 390,54	14 781,09	CMCs of Bishkek and Osh cities
10	Professional digital video registrator (DVR) / Профессиональный цифровой видео регистратор (DVR)	1.1.3.	Atehsys LTD	1	3 832,00	3 832,00	CMC Bishkek
	Total:					**215 197,04**	

Annex 2.1 and 2.2. Equipment purchased under actions 2.1 and 2.2

#	Equipment	Action #	Supplier	Qty	Unit price	Subtotal	Disposal at / Remark
1	UPS for computers / UPS источник бесперебойного питания на компьютеры	2.1.	Long Term Agreement (Planson International, USA)	48	75,00	3 600,00	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
2	Computer with 2 monitors/Компьютер с 2 мониторами	2.1.	Long Term Agreement (Lenovo, USA)	48	1 348,00	64 704,00	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
3	Shipping and Insuraqnce costs / Затраты по транспортировке и страхованию	2.1.				9 658,00	
4	Terminal equipment (IP Phones) \ Терминальное оборудование (IP телефоны)	2.1.	Logic company, Bishkek	48	158,00	7 584,00	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
5	DSL Modem / DSL модем	2.1.	Logic, company, Bishkek	48	593,00	28 464,00	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
6	Shipment / Транспортировка	2.1.				500,00	
	Regional telecommunications gateway of UIM / Областной телекоммуникационный узел ЕИУС КР						
7	UIMS Hardware and software complex (HSC) Regional gateway / Областной телекоммуникационный узел ЕИУС КР Программно-аппаратный комплекс области шлюз (АТС, программное обеспечение)	2.1.	Iskratel Slovenia	3	15 516,11	46 548,33	Jalal-Abad, Batken, Talas, Naryn, Karakol cities
8	Set of cabinets for DPC equipment \ Комплект штативов для размещения оборудования ЦОД	2.1.		3	2 285,92	6 857,76	
9	Connectors kit for switching regional gateway equipment \ Комплект соединителей для подключения оборудования	2.1.		3	2 059,41	6 178,23	
10	Documentation set for DPC and CDTS equipment \ Комплект документации на оборудование ЦОД и ССПД	2.1.		3	343,61	1 030,83	
11	Guaranteed power supply system \ Система гарантированного электропитания	2.1.		3	7 514,66	22 543,98	
12	L3 Switch board (router)/ Коммутатор L3 (Маршрутизатор)	2.1.		3	1 716,65	5 149,95	
13	Licenses for connecting switchboard to the centralized management system / Линцензия подключения для Коммутатора L3	2.1.		3	20,38	61,14	
14	Information security of Hardware and Software Complex \ ПАК (программно аппаратный комплекс) обеспечения информационной безопасности	2.1.		3	5 264,00	15 792,00	
15	Delivery costs	2.1.		3	5 000,00	15 000,00	
16	Installation costs	2.1.		3	3 178,00	9 534,00	
	Statewide Integrated System of Informing and Warning the Population (SISIWP) / ОКСИОН						

#	Equipment	Action #	Supplier	Qty	Unit price	Subtotal	Disposal at / Remark
17	SCSIAP terminal devices \ Оконечные устройства ОКСИОН	2.2.		3	17 757,00	53 271,00	
18	Delivery costs / Расходы по поставке	2.2.		3	500,00	1 500,00	
19	Installation costs / расходы по установке	2.2.		3	3 178,00	9 534,00	
	Crises Management Centers / ЦУКС						
20	Automated workstations SCSIAP \ Автоматизированные рабочие места ОКСИОН	2.2.		3	12 751,00	38 253,00	
21	L3 Switch board (router)/ Коммутатор L3 (Маршрутизатор)	2.2.		3	1 842,72	5 528,16	
22	Licenses for connecting switchboard to the centralized management system / Линцензия подключения для Коммутатора L3	2.2.		3	20,38	61,14	
23	Client Software of Information security	2.1.		3	517,00	1 551,00	
24	Delivery costs / Расходы по поставке	2.2.		3	500,00	1 500,00	
25	Installation costs / расходы по установке	2.2.		3	1 589,00	4 767,00	
	Operation control duty desk (OCDD) / ЕДДС						
26	Special software of System-112 \ Специальное ПО Системы-112	2.1.		48	6 516,51	312 792,48	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
27	Client Software of Information security	2.1.		48	517,00	24 816,00	Duty Dispatch Units of Call Center 112 of Osh and Batken provinces
28	Delivery costs / Расходы по поставке	2.1.		2	58,50	117,00	
29	Installation costs / расходы по установке	2.1.		2	4 610,00	9 220,00	
30	Cost of Operational Acceptance Tests / Расходы по операциаонному тестированию для приемки	2.1.				3 178,00	
31	Cost of Comprehensive Test / Расходы комплексного тестирования	2.1.				4 767,00	
32	Sattelite terminal Asia Info 2 sets	2.1.	Asia Info	2	3 450,00	7 100,00	Installed into Ford Transit minibuses
33	Computers, UPSs Planson	2.1.	Planson Interntational	6	2 483,00	14 898,00	Installed in Duty Dispatch Units of 112 in Cholpon-Ata (3) and Toktogul (3) cities
34	Special software "Iskratel"	2.2.	Iskratel, Slovenia	6	8 496,04	50 976,21	
	Total:					**787 036,21**	

Annex 2.3: Equipment purchased under action 2.3.

#	Equipment	Action #	Supplier	Qty	Unit price	Subtotal	Remark / Примечание
1	Notebooks to work with satellite terminals/Ноутбуки для работы со спутниковыми терминалами	2.3.	Long Term Agreement (Dan office)	9	1 435,66	11 214,00	CMCs of Bishkek and Osh cities; 7 province level disvisions of MES
2	Shipping and Insuraqnce costs / Затраты по транспортировке и страхованию	2.3.				1 707,00	
3	Potable VHF (very high frequency) communicator / Портативная УКВ радиостанция (ультра короткие волны)	2.3.	Long Term Agreement (Danimex)	200	334,66	66 932,00	Province level divisions of MES (7) and MES in Bishkek and Osh cities (2) - 90 sets (by 10 sets in each); CMCs of Osh and Bishkek cities - 20 sets; Rescuing Service Bishkek - 10 sets; diving service - 10 sets; Training Center of Rscuers - 20 sets; Republican Special Rescuing Team - 50 sets
4	Mobile HF (auto) radio station / Мобильный КВ (авто) радиостанция	2.3.		16	3 688,10	59 009,60	MES in Osh and Bishkek (2), province level divisions of MES (7); CMCs of Osh and Bishkek cities - 2 sets; Training Center of Rescuers - 1 set; Republican Special Rescuing Team - 4 sets
5	Stationary HF (high frequency) radio station/ Стационарная КВ (высокочастотная) радиостанция	2.3.		20	3 386,60	67 732,00	Province level divisions of MES (7) and MES in Bishkek and Osh cities (2) - 90 sets (by 10 sets in each); CMCs of Osh and Bishkek cities - 20 sets; Rescuing Service Bishkek - 10 sets; diving service - 10 sets; Training Center of Rscuers - 20 sets; Republican Special Rescuing Team - 50 sets
6	Shipping and Insuraqnce costs / Затраты по транспортировке и страхованию	2.3.				13 400,00	
7	Satellite Equipment / Портативные спутниковые видеотерминалы	2.3.	WFP Dubai	2	94 526,69	189 053,38	CMCs in Osh and Bishkek cities and installed into 2 Ford Transit Minibuses
8	Ford Tranzit 2 vehicles	2.3.	Global Fleet Sales	2	40 049,84	80 535,95	CMCs in Osh and Bishkek cities to which the sattelite equipment was installed
9	Installation costs of 1 Ford Tranzit Vehicle	2.3.	Private entreprenuer Israilov			4 563,62	One of the minibuses was re-modelled so to adapt for installation of satellite equipment . The another minibus was remodelled by MES.
10		2.3.	Private entreprenuer Sagynbaev			4 814,78	
	Total:					**498 962,33**	

Annex 3.1.: Equipment purchased under action 3.1.

#	Equipment/	Action #	Supplier	Quantity	Unit price	Subtotal	Remark / Примечание
1	6 Mazda vehicles /Автомобили Мазда 6 ед.	3.1.	Long Term Agreement (RMA)	6	23 745	142 470,00	Gulcha village of Alay district of Osh province; Uzgen city of Uzgen district of Osh province ; Kara-Kul city of Jalal-Abad province ; Talas (Otmok mount. pass, Mazda) ; Balykchy city of Issyk-Kul province; Cholpon-Ata city of Issyk-Kul province
2	3 additional pick up vehicles Toyota Hillux /Дополнительные 3 автомашины Тойота Хайлюкс	3.1.	WFP Dubai	3	30 586,65	91 759,95	Nariman village of Osh province; Chaek village of Jumgal district of Naryn province (Toyota) Romanovka village and Sokuluk district of Chui province (Toyota)
3	Fire-Rescuing Equipment /Пожарно-спасательное оборудование	3.1.	Prograd stroy, Primavera, Zhukov	3	5 573,95	16 978,30	Installed into 3 Toyota vehicles deployed in Nariman village of Osh province; Chaek village of Jumgal district of Naryn province (Toyota) Romanovka village and Sokuluk district of Chui province (Toyota)
4			Too-Ashkan	3	30 191,00	45 495,00	
	Total					**296 703,25**	

Annex 3.2

No.	Nme	Fire unit
1	Асанкулов К.А.	Tokmok
2	Бордубаев Ж.Ч.	
3	Сагынбеков К.Т.	
4	Абыл у Т.	
5	Конурбаев Б.Д.	Kara-Balta
6	Шайлообек у К.	
7	Самурсинов К.Ж.	
8	Садыкжанов М.А.	
9	Ашимов У.К.	Kara-Kol
10	Алымбаев У.Т.	
11	Деркембаев С.И.	
12	Букамбаев М.А.	
13	Чукуев А.Ж.	
14	Сырдыбаев А.Т.	
15	Орозбаев А.З.	
16	Чиркин А.В.	
17	Сакибаев М.У.	
18	Раскелбеков Э.Т.	
19	Аблаканов Т.К.	
20	Солпиев К.Д.	
21	Баялиев Н.	Talas
22	Кочорбаев У.	
23	Рыспеков Т.	
24	Батыркан у. А.	
25	Намыркулов Н.З.	Alamudun
26	Мураталиев Т.С.	
27	Бутубаев К.М.	
28	Абдрашев Ж.С.	Kemin
29	Кулназаров М.Н.	
30	Нурсеитов Н.Н.	
31	Донбаев Б.	Talas
32	Турсалиев К.	
33	Токсонбаев Н.	
34	Егимбаев Т.К.	Cholpon-Ata
35	Омуров К.А.	
36	Дюшеев Ж.Ш.	
37	Качаганов Н.С.	Ton , Issyk-Kul
38	Асаналиев М.К.	
39	Касымов У.К.	
40	Бейшенов Р.Б.	Kochkor, Naryn
41	Өмуров Ж.Т.	
42	Тункатаров Б.А.	
43	Жокенов Ж.К.	At-Bashy, Naryn

44	Исламов А.И.	
45	Жумабеков Р.А.	
46	Соорбеков К.М	Alamudun, Chui
47	Жолдошев С.З.	
48	Ашимов Б.Ш.	
49	Алиев К.К.	Kemin, Chui
50	Абакиров К.З.	
51	Солпуев Ж.М.	
52	Баетов З.	Talas
53	Султанбаев Н.	
54	Андабаев Б.	
55	Абдылдаев А.А.	Cholpon-Ata, Issyk-Kul
56	Душоков Т.К.	
57	Молдобаев У.О.	
58	Барктабасов Б.Б.	Ton, Issyk-Kul
59	Мамбетов А.Б.	
60	Деркенбаев Ж.Ж.	
61	Султанов М.К.	Kochkor, Naryn
62	Муратбек у М.	
63	Абдыказиев А.	
64	Омуралиев Н.А.	At-Bashy, Naryn
65	Жаркынбаев Т.А.	
66	Нурмамбетов Т.С	
67	Тургуналы у Ж.	Alamudin, Chui
68	Турдумамбетов Д.Ж.	
69	Иманалиев А.С.	
70	Кожобергенов Т.К.	Kemin, Chui
71	Кожобергенов К.Т.	
72	Молдалиев О.	
73	Молдоканов Т.	Talas
74	Толоев Н.	
75	Эсенаманов С.	
76	Кыдыманов И.М.	Cholpon-At, Issyk-Kul
77	Мамбетбаев А.Д.	
78	Алдаярбек у К.	
79	Мамбетов А.Ж.	Ton-Issyk-Kul
80	Амантур у Н.	
81	Саламат у А.А.	
82	Сыдыков А.А.	Kochkor, Naryn
83	Абдаиров М.Э.	
84	Майрамбек у Б.	
85	Кадыракун у М.	At-Bashy-Naryn

86	Жумалиев Э.А.	
87	Осмонов Ч.С.	
88	Зарылбек у М.	Alamudun, Chui
89	Мамбешаев Э.Н.	
90	Дубашев Д.Н.	
91	Бекжанов А.Р.	KKemin, Chui
92	Караев А.А.	
93	Темиркул у У.	
94	Акматов У.	Talas
95	Баялиев Р.	
96	Баетов А.	
97	Уржанов Б.Б.	Cholpon-Ata
98	Узаков К.К.	
99	Кайынбаев М.Д.	
100	Тазабеков М.К.	Ton, Issyk-Kul
101	Урсеитов Т.К.	
102	Таалай у А.	
103	Омуров У.Д.	Kochkor, Naryn
104	Мырсакулов А.Э.	
105	Курманбеков А.К.	
106	Мокешов Н.Ж.	At-Bashy, Naryn
107	Мамбетурсунов Б.М.	
108	Бердалиев А.А.	
109	Сарыбаев А.О.	Alamudiun, Chui
110	Турганбаев Н.А.	
111	Зайырбек у А.	
112	Тыныбек у А.	Kemin, Chui
113	Кубанычбек у А.	
114	Сарыбаев А.С.	
115	Орозалиев М.Т.	
116	Абдрахманов А.К.	Cholpon-Ata, Issyk-Kul
117	Акматалиев К.А.	
118	Курманбек у Н.	
119	Шадыбеков А.Б.	
120	Эркинбек у У.	Ton, Issyk-Kul
121	Муталипов Э.Т.	
122	Мамбетакунов Б.	Kochkor, Naryn
123	Исаков Н.С.	
124	Акбаев У.М.	
125	Шакиров Н.З.	
126	Жумалиев К.Б.	At-Bashy-Naryn

No.	Name	Fire Unit
1	Кайыев Ж.Н.	Uzgen, Osh
2	Кенешбаев А.	
3	Жамшитов А.Ш.	
4	Абдисалиев К.А.	
5	Токторбаев М.К.	
6	Абдусаматов А.З.	Nooken, Jalal-Abad
7	Апсариев А.Т.	
8	Тойчиев З.Ж.	Jalal-Abad city
9	Иманов К.А.	
10	Мамиев П.	Kara-Kulja, Osh
11	Абдикаримов К.Ж.	Alai, Osh
12	Тонких С.	Ala-Buka, Jalal-Abad
13	Мурзалиев К.М.	Kara-Kol, Jalal-Abad
14	Мадалиев Н.М.	
24	Итибаев К.К.	Toktogul, Jalal-Abad