UNITED NATIONS DEVELOPMENT PROGRAMME

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# PROJECT DOCUMENT

## *Tajikistan*

**Project Title:** Strengthening Disaster Risk Reduction and Response Capacities

**Project Award:** 00089898 **Project ID:** 00095938

**Implementing Partner:** UNDP Tajikistan

**Start Date:** September 2016 **End Date:** August 2020 **PAC Meeting date:** 2 September 2016


**Brief Description**

The "Strengthening Disaster Risk Reduction and Response Capacities" project is built on the National Disaster Risk Management Strategy and priority areas identified in the *"Sendai Framework for Disaster Risk Reduction (2015-2030)"*, and designed in close cooperation with the Committee for Emergency Situations and Civil Defense of Tajikistan, based on the analysis of the disaster risk reduction (DRR) and response capacity in the country. Analysis of the recent disasters and lessons learnt from previous response operations were taken into account.

The project will support the Government of Tajikistan to undertake a nation-wide risk assessment, establish and implement risk reduction measures and improve early warning (Project Outcome 1) in line with Sendai Framework's Priority Area 1 on understanding disaster risks and Priority Area 3 on investing in DRR for resilience. The project will support improved disaster management planning, preparedness and response in nine mid-sized municipalities, including three close to Afghanistan (Outcome 2) and strengthen capacities of search-and-rescue teams (Outcome 3) in line with Sendai's Priority Area 2 on enhancing disaster preparedness for an effective response and disaster risk governance. The project will promote cross-border cooperation with Afghanistan to improve disaster response (Outcome 4), in line with the call under the "*Central Asia plus Japan" Dialogue* to promote regional cooperation in the area of DRR. The project will be implemented by UNDP Tajikistan in partnership with the Committee of Emergency Situations and Civil Defense of Tajikistan, Agency of Hydrometeorology, Department of Geology, Afghanistan National Disaster Management Authority, and local authorities, with broad participation of the communities.


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|---|---|
| **Contributing Outcome (UNDAF/CPD, RPD or GPD):**<br>People in Tajikistan are more resilient to natural and man-made disasters resulting from improved policy and operational frameworks for environmental protection and sustainable management of natural resources.<br>**Indicative CP Output 6.8:** Proportion of the at-risk population covered by national and community level mechanisms to prepare for and recover from disaster events. | |

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|---|---|---|
| **Total resources required:** | 10,682,973 USD | |
| **Total resources allocated:** | | |
| | **UNDP TRAC:** | |
| | **GoT of Japan:** | 10,682,973 USD |
| | **Government:** | |
| | **In-Kind:** | |

Agreed by (signatures):

| On behalf of Government: | On behalf of UNDP: |
|---|---|
| Mr. Rustam Nazarzoda, CoES Chairman | Mr. Jan Harfst, Country Director |
| Date: 07/09/16 | Date: Sep. 07, 2016 |

Contents

**List of Abbreviations**

| | |
|---|---|
| AFA | Administrative/Finance Assistant |
| AKDN | Aga Khan Development Network |
| BoQ | Bill of Quantities |
| CDR | Combined Delivery Report |
| CoES | Committee of Emergency Situations and Civil Defense under the Government of the Republic of Tajikistan |
| CERF | Central Emergency Response Fund |
| CBDRM | Community-Based Disaster Risk Management |
| DIM | Direct Implementation Modality |
| DRMP | Disaster Risk Management Programme |
| ECHO | European Community Humanitarian Office |
| GBAO | Gorno-Badakhshan Autonomous Oblast |
| Hydromet | Agency for Hydrometeorology |
| IMAC | Information Management and Analytical Center |
| INSARAG | International Search and Rescue Advisory Group |
| JICA | Japan International Cooperation Agency |
| LITACA | Livelihoods Improvement in Tajik-Afghan Cross-border Areas |
| M&E | Monitoring and Evaluation |
| MEDT | Ministry of Economic Development and Trade |
| MSB | Swedish Civil Defense Agency |
| NGO | Non-Governmental Organization |
| OCHA | United Nations Office for the Coordination of Humanitarian Affairs |
| REACT | Rapid Emergency Assessment and Coordination Team |
| RAM | Risk Assessment Methodology |
| SAR | Search and Rescue |
| TAPRI | Tajik-Afghan Poverty Reduction Initiative |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| UNICEF | United Nations International Children's Emergency Fund |
| US | United States |
| US$ | United States Dollar |
| USAR | Urban Search and Rescue |
| WFP | World Food Programme |

# 1 Situation Analysis

## 1.1 Disasters and Development in Tajikistan

Tajikistan faces a constant threat from disasters. Between 1997 and 2014, disasters resulted in 1,205 recorded deaths[2], affecting 361,125 persons and US$ 504 million in economic losses[3], from 3,190 disasters based on data from the Committee of Emergency Situations and Civil Defense (CoES) under the Government of the Republic of Tajikistan. Over the 2005-2014 period, avalanches and mudflows were the most frequent contributors to disasters (see Figure 1 below on average disasters per year, 2005-2014), with an average of 11 deaths for each type of hazard type per year.

For the same period, mudflows resulted in an average of US$ 18.8 million[4] in officially registered damage, greater than any other type of disaster experienced in Tajikistan, followed by earthquakes (US$ 3 million/year average) and floods (US$ 2.8 million/year average). An average of 31 earthquakes occurred annually from 2005 to 2014. These were generally small events with losses averaging US$ 95,000 each.

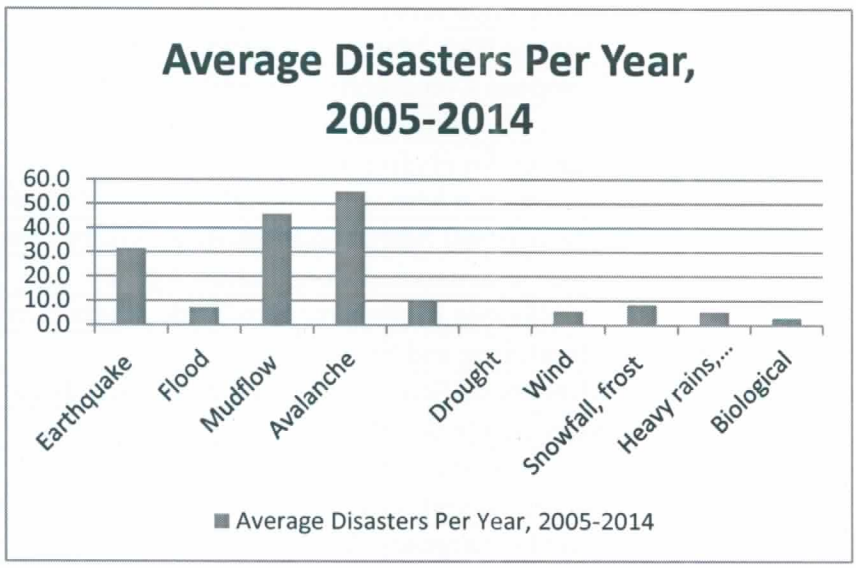


**Figure 1.**

The CoES figures do not capture the potential impact of a major earthquake in Tajikistan that could result in an estimated 55,000 deaths in Dushanbe alone. Incorporating the impact of these mega-disasters (including the collapse of the Sarez or Nurek dams) into disaster risk management planning is important given the scale of the threat posed by these disasters to Tajikistan.

Disasters in Tajikistan are most often local, frequently affecting the more inaccessible piedmont and mountain areas of the country and rarely impacting the nation as a whole. Official disaster damage figures generally do not capture the frequent smaller mudslides, flooding, rock falls and avalanches that particularly affect rural areas on a regular basis. As a result, damage statistics, particularly damage data, under report the actual impact of disasters locally and on the country as a whole.

The more common small disaster events represent a significant burden on rural households' lives and livelihoods. For instance, when a single mudflow damages a traditional Tajik house, the replacement cost can be over US$50,000, not including personal possessions, outbuildings or productive assets. This is a significant impact when compared to a per capita income of

[2] Gender breakdown of fatalities or numbers affected is not available.
[3] Not adjusted for inflation.
[4] Not adjusted for inflation.

approximately US$1,000 in 2014[5]. The recovery burden is all the more severe in a country with a 49% rural poverty head count[6] and a heavy reliance on remittances to meet basic needs.

Damage from localized mudflows, floods, severe winter weather, hail, strong winds, avalanches, or small earthquakes diverts a household's limited disposable assets and remittances from financing food needs, education, health care or investment into increasing one's income (a fundamental element of the development process), to rebuilding after the disaster. This situation creates the classic poverty-shock trap where shocks (disasters) cause the families' assets to fall below a level at which they are unable to provide for their basic needs, or build assets to move ahead.[7]

In these conditions, families often resort to coping strategies with short and negative impacts, particularly on natural resources in rural areas. Disasters do not make people poor, but can significantly limit their ability to move out of poverty. These impacts often more heavily fall on women and girls given the high level of adult male migration from rural Tajikistan. An analysis of disaster impacts on men/boys and women/girls is provided in Box 1.

**Box 1. Gender and Disasters in Tajikistan**

In Tajikistan, gender break-downs of disaster impacts are not currently available. Based on risk and recovery assessments and community-based risk reduction work, it appears that avalanches more often affect men/boys than women/girls while mudflows tend to be the opposite, as is the case with earthquakes. This analysis draws on the predominant location of men/boys outside the home, with the opposite for women/girls, where homes tend to be more often affected by mudflows and earthquakes than avalanches.

For girls and boys of school age, the greatest risk outside the home comes from travel to and from school, and the need to cross streams and rivers.

The nation-wide risk assessment planned within the project will aid in better understanding the links between gender and disaster impacts and risk reduction.

In contrast to the longstanding challenge of rural disasters, disasters in urban areas are a significant emerging challenge. There is, as noted, a significant long-term threat from a large seismic event affecting Dushanbe or other large cities. However, in the last decade, Tajikistan has also seen a significant growth in the size and populations of mid-sized cities such as Kurgan-Tyube, Shaartuz, Kulyab, Gharm, Khujand, Tursunzade, Dusti (Kumsangir), Khorog and Pandjakent and these cities are increasingly under threat from disasters. This issue is discussed in more detail in Section 2.4, below.

To summarize, Tajikistan faces a continual and changing threat to the development process from disasters. The cost of disasters in often isolated rural areas of the country is a significant constraint on local development. Urban areas are facing an emerging threat of new or larger disasters, as a result of the growth process and changes in the urban context. These issues are expanded on in the following sections.

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[5] http://www.ruralpovertyportal.org/country/statistics/tags/tajikistan
[6] http://www.ruralpovertyportal.org/country/statistics/tags/tajikistan
[7] Adapted from Carter M., Little, P., Mogues, M. and Negatu, W (2007), Poverty Traps and Natural Disasters, World Development, Vol 25, # 5. http://www.sciencedirect.com/science/article/pii/S0305750X07000149.

**Box 2. Disaster Risk Management Coordination in Tajikistan**

Disaster risk management in Tajikistan is coordinated through a national Commission of Emergency Situations and Civil Defense which brings together all key government organizations as a decision making body on risk management and disaster response and recovery. The Commission structure is repeated at each lower level of government down to the District level. Each commission is responsible for disaster risk management at its level of operation.

The Committee of Emergency Situations and Civil Defense (CoES) under the Government of the Republic of Tajikistan is responsible for coordinating disaster preparedness across the government and supporting response and recovery efforts under the direction of the Commission. CoES has approximately 2,300 staff overall, working at the district, province/oblast and national levels.

The National Platform for Disaster Risk Reduction, established as a follow up to Hyogo Framework of Action, coordinates Government efforts for risk reduction. An Expert Group under the Platform focuses on technical exchanges related to risk reduction.

Coordination of external disaster risk management efforts, including relief and risk reduction, is conducted through REACT (Rapid Emergency Assessment and Coordination Team), chaired by CoES and the UN Resident Coordinator and participated by over 30 NGOs, UN agencies and donors. REACT meets regularly to address disaster risk management matters, and issues a monthly information Bulletin and periodic reports on disaster response and recovery.

To respond to these broad challenges, the Government does have a disaster response management and coordination mechanism that is supported by the international community (See Box 2 above). A need to address these disaster threats facing Tajikistan was anticipated in the country's National Disaster Risk Management Strategy 2010-2015 which largely overlaps with the new **Sendai Framework for Disaster Risk Reduction** (see Box 3 below). A new National Disaster Risk Management Strategy 2016-2030 is being developed. Core to both the 2010-2015 and 2016-2030 **Strategies** are the building resilience to hazards and their consequences.

**Box 3. Tajikistan's National Disaster Risk Management Strategy 2010-2015**

Tajikistan's **National Disaster Risk Management Strategy** (NDRMS) was approved by the Government in 2010 and ran through 2015. The **Strategy** is based on the **Hyogo Framework for Action** and included five priority areas for action:

1. Establish a regulatory and legal framework for efficient disaster risk management.
2. Conduct disaster risk assessments.
3. Incorporate disaster risk reduction into the development process.
4. Prevent human and material losses from disasters.
5. Reduce disaster impacts through increased knowledge sharing and education.

It is important to note that the **2010-2015 Strategy** overlapped considerably with the four priorities established in the 2015 **Sendai Framework for Disaster Risk Reduction**:

1. Understand disaster risk.
2. Strengthen disaster risk governance to manage disaster risk.
3. Invest in disaster risk reduction for resilience.
4. Enhance preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

## 1.2 The Challenge of Local Risk Reduction

Knowing where hazards and risks are located and how to reduce these risks is core to integrating risk reduction into the development process. Once risks are known, the challenge is to define the most cost effective way they can be addressed to improve risk reduction and resilience.

Since 2003, local authorities, UN agencies and NGOs have been working at collecting and applying risk information to local disaster management through a range of community-based disaster management projects. The initial focus of these efforts was on using the risk information to define evacuation needs. This evolved into attempting to define the locations where risk reduction actions, largely construction works, were needed. By 2008, it was recognized that a single risk assessment methodology was needed to ensure that risks were being treated across the country in an equitable fashion and that resources were being rationally directed to where they would do the most good.

With initial support from the Swiss Government, Disaster Risk Management Programme (DRMP) of UNDP Tajikistan worked with the Information Management and Analysis Center (IMAC) at CoES to develop a standard process for disaster risk assessment. As a result, the risk assessment methodology (RAM) has been developed and piloted in several parts of Tajikistan and is operational.

The RAM is based on the widely used *risk equals hazard and vulnerability* concept. However, the technical assessment of the factors which define *risk* can be a highly technical process requiring inputs from multiple data sources and specialists. One result is that the RAM, in its current structure, is time and resource intensive to use and requires experts to be used.

The result is that generating risk assessment information for risk-based planning and preparedness by local authorities is very slow. The RAM process needs to become more automatic and usable by a non-specialist if risk assessments are to be widely used in Tajikistan.

Improving risk assessment availability addresses Tajikistan's NDRMS priority for risk assessment and the Sendai priority on understanding risk. A specific additional outcome of expanding the extent of standardized risk assessment in Tajikistan is to better define the scope and nature of risk threats on the basis of gender and age. Improved risk assessment results will also better define areas where resilience can be improved in a cost effective manner.

The risk management approach inherited from the Soviet period (and common in other countries) focused heavily on using structural measures to control hazards such as mudflows, avalanches, flooding and the like. These structural measures were generally classified as "hard" and involved reengineering natural systems and the use of, for instance, concrete walls, channels and basins to minimize hazard impacts.[8]

Globally, hazard management is increasingly incorporating "soft" structural measures (e.g., planting vegetation, watershed management, expanding natural retention systems and flow management) into risk reduction, in part because of their lower costs, and lower operation and maintenance needs. Current best practice is to develop a combination of hard and soft structural risk management based on risk assessments and cost benefit analysis.

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[8] For further information on hard and soft structural measures see http://www.bbc.co.uk/schools/gcsebitesize/geography/water_rivers/river_flooding_management_rev5.shtml.

Reliance on hard measures not accompanied by adequate soft measures have proven to fail in many instances. In one case in Tajikistan, an NGO rebuilt a flood protection embankment twice, only to have it washed out both times. While a larger structure may have been successful, the size, and survivability, of the embankment was defined by the limited funding available to the NGO.

Recognizing the challenge posed by limited funding and the high costs of hard hazard management infrastructure, UNDP in Tajikistan has been working to expand the use of soft structural measure and more broadly an eco-system approach to hazard management to complement investments in hard infrastructure. An example is UNDP's intervention on construction of check dams to reduce urban flooding in parts of Kulyab, which reduced the size and cost of downstream drains to handle floodwaters. Other organizations have ventured into restoring natural vegetation to reduce mudflows and erosion as well as tree planting and contouring to reduce mass movement risk. The eco-system approach also contributes to building resilience of natural and engineered systems to disasters.

For both reasons of cost and improving effectiveness, the reliance on hard hazard management structures needs to be reduced and the use of less costly and easier to maintain soft structural measures needs to be increased. This shift is not to drop hard measures but to use risk assessments to develop a package of hard and soft structural measures which are cost effective and managerially feasible for a specific location. Programs such as UNEP's Partnership for Environment and Disaster Risk Reduction[9], as well as experience from Afghanistan and Kyrgyzstan[10], can be used in this process to diversify and expand the scope and range of soft (ecosystem) structural measures in use in Tajikistan.

The use of a combination of hard and soft hazard management measures responds to the NDRMS priority to reducing disaster losses and integrating risk reduction into development and the Sendai priority on investing in disaster risk reduction. Diversifying risk reduction approaches to include "soft" measures will improve overall resilience by addressing risks from a variety of approaches rather than reliance on a single approach.

Improving the nature of risk reduction interventions addresses the NDRMS priority areas on incorporating disaster risk reduction into the development process and prevention of human and material losses from disasters. These actions also address the **Sendai Framework for Disaster Risk Reduction** priority to invest in disaster risk reduction for resilience.

### 1.3 Improving Risk Avoidance

Avalanches and mudflows are the most important contributors to disaster-related deaths in Tajikistan based on CoES data (see Figure 1 on p. 7 above). These climate-related hazards are closely associated with short-term weather patterns, specifically periods of stormy weather, heavy precipitation (i.e., rain or snow) and changes in temperature and wind conditions (for avalanches).

Currently, the Tajik Agency for Hydrometeorology (Hydromet) monitors weather conditions on a daily basis and issues daily forecasts of severe weather, including heavy precipitation or severe storms and the potential for flooding and rapidly melting snow pack (important sources of

[9] http://www.unep.org/disastersandconflicts/Introduction/DisasterRiskReduction/PartnershipforEnvironmentandDisasterRiskRedu/tabid/104428/Default.aspx

[10] UNEP sponsored an experience sharing exchange on an eco-systems approach to DRR between Tajikistan, Afghanistan and Kyrgyzstan in 2014.

mudflows). By 2017, the Agency for Hydrometeorology will begin using the updated forecasting software which is expected to improve the quality and precision of forecasts.

However, a significant constraint remains in that Hydromet has only 52 weather stations, and not all are fully operational. Tajikistan's mountainous terrain, variation in local topography and climatological zones requires a dense network of temperature, pressure, precipitation reporting stations to improve forecast accuracy, particularly for short term severe weather events. The Agency for Hydrometeorology is currently exploring with the World Bank on upgrading or reinstalling of 50 weather stations. Hydromet estimates it needs, beyond the World Bank's assistance, up to an additional 20 basic [11] weather stations to meet weather forecasting requirements.

Severe weather warnings are disseminated internally to Government of Tajikistan officials down to the sub-district level, including CoES staff, who are expected to take action on these warnings based on established operating procedures. Warnings are also disseminated to the public through radio and TV, the Agency web site (http://www.meteo.tj/), and in English via the Secretariat of the Rapid Emergency Assessment and Coordination Team (REACT)[12]. Despite these warning efforts, deaths and losses continue to occur from avalanches and mudflows.

Timely communication of warnings about climate-related hazards in a way that triggers risk avoidance is a challenge in Tajikistan, as elsewhere. For example, several of the main roads in Tajikistan are subject to avalanches in the winter and mudflows in the spring. While Hydromet provides avalanche and mudflows warnings, these warnings do not generally appear to be effective in reducing risky behavior in using the roads during times of danger, and damage and deaths are occurring unnecessarily. A more positive example is from early 2010, when Hydromet avalanche warnings circulated via the REACT Secretariat resulted in NGOs and the local authorities in Khorog evacuating residents from at risk locations based on local risk assessments.

The Hydromet has been working to improve dissemination of severe weather warnings. The current focus is on the use of TV and radio. These warning efforts are expected to eventually incorporate the extensive mobile phone network[13] in the country which provides coverage of most inhabited areas and the main road corridors. Warnings via mobile phone short message service – SMS - is currently being used in Kyrgyzstan, a country with similar forecasting challenges. This experience can be a model for similar application in Tajikistan.

In addition to improving how (the "mode") warnings are disseminated, the content of warnings and whether they are triggering risk avoidance (the "message") needs attention. Global experience is that weather information, and particularly severe weather warnings, tend not to be easily understandable to the lay person and not provide clear and direct guidance on protective actions. Severe weather warnings in Tajikistan need to be assessed against these gaps and understandability improved. This process needs to consider how women, men, young adults and children understand and use warning information differently.

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[11] Basic stations provide temperature, pressure and precipitation data. More sophisticated stations would be provided as part of the World Bank assistance.

[12] Rapid Emergency Assessment and Coordination Team (REACT) is the humanitarian coordination structure in Tajikistan

[13] The number mobile phone subscriptions in Tajikistan, 8 million, is just short of the total population of the country, 8.4 million (http://www.ruralpovertyportal.org/country/statistics/tags/tajikistan).

Improving severe weather forecasting and warning messaging to induce risk avoidance addresses the NDRMS priorities on prevention of human and material losses from disasters and reduction of disaster impacts through increased knowledge sharing and education. **Such an effort also addresses the Sendai priority to invest in disaster risk reduction for resilience**. Improved warning and risk avoidance are also likely to have a proportionally greater benefit for women and girls who are more likely to be in mudflow-threatened locations due to male outmigration. Better risk avoidance will also improve resilience by allowing potential victims to take short term actions to reduce hazard impacts, particularly from mudflows and severe weather conditions.

### 1.4 The Urban Risk Management Challenge

Risks, and risk management needs, are changing in urban areas. The challenge is most acute in the mid-sized cities of Tajikistan, which lack the financial resources and investments allocated to Dushanbe, the capital.

The increasing urban risk management challenge arises generally from several overlapping sources:

- The growth in the population of mid-sized cities.
- An increase in urban-based livelihoods, including small-scale manufacturing and service provision, increasing the level of damage which can result from a disaster.
- Investment of remittances in physical capital (buildings, corner stores, car repair shops, etc.), significantly increasing assets at risk.
- An expansion of housing into areas which are often more hazard prone, especially to mudflows and flooding (see Box 4 below).
- Changes in the social fabric that make disaster preparedness and the development of community-based disaster management systems different from rural areas.

These factors present a three-sided challenge for local urban government and urban residents. First, there is a need to improve the collection and use of risk information to improve local land use and disaster preparedness planning to:

- Ensure that expanding urban areas do not increase or create new risks,
- Address risks which need to be accepted due to a lack of alternatives, and,
- Develop preparedness and response plans based on a realistic understanding of hazards and potential disaster impacts.

Second, the structure of

**Box 4. Urban Growth is Creating Increased Hazard Management Challenges**

Aggregated data indicates that mid-sized cities in Tajikistan grew at an average of 2.01% per year between 2010 and 2015 (see http://www.citypopulation.de/Tajikistan.html). This growth translates into a demand for increased space to build housing, increased local services, and expanded scope for disaster planning.

For a city like Kurgan Tube, a 7.28% growth rate could translate into a need for up to an additional 3.2 sq. km of urban space per year. Even where theoretical demand for space to build housing is small, as in Gharm (0.8% annual growth), ringing mountains and the Vakhsh river limit the space for new housing, with some current housing already in landslide/mudflow zones.

Whatever the growth rate, mid-sized cities need to allocate land for housing based on risk assessments. Disaster preparedness needs to expand to face new, risks, if more severe disasters are to be prevented.

urban risk management, including preparedness and response, needs to be revised to take into account the changing nature of the urban fabric. Basic emergency services, such as fire, rescue and emergency medical care, need to be revamped to deal with larger populations and increased demand for rescue, relief and recovery after a disaster.

Given the budgetary constraints, urban populations need to take on a greater responsibility for their own preparedness, response and risk reduction (as has been the case in rural areas for some time). To make this happen, the traditional divide between government and community-based disaster risk management needs to be bridged through the integration of plans and procedures, capacity building and simulation to build common capabilities and improve all aspects of disaster management.

Third, risk assessments, land use planning, and hard and soft (ecosystems) approaches to risk management need to be combined to develop a robust process for managing risk within the generally limited means available to local authorities in Tajikistan. Such an approach to urban flooding has been tested by DRMP in Kulyab.

A core requirement to addressing this three-sided challenge is building urban community-based disaster risk management (CBDRM) capacities. Tajikistan has considerable experience with CBDRM, starting as far back as 2003. At present, six organizations are working on community-based DRR projects with EU funding and UNDP is supporting CBDRM through its Disaster Risk Management Programme (DRMP) and as part of "Livelihood Improvement in Tajikistan and Afghanistan Cross Border Areas" (LITACA) project. In previous years, up to 10 organizations had been involved in CBDRM activities, but this involvement has dropped as funding reduced.

CBDRM activities largely focused on local risk assessment, preparedness and warning systems, training and capacity building and small-scale hazard management activities. Shifting CBDRM efforts to urban areas requires (1) a stronger focus on the process of community involvement, (2) targeted education (e.g., via schools, as is done by the NGO "Save the Children" and UNICEF ), (3) improving the governance process linking community organizations to official structures (an issue raised by the NGO "Mercy Corps") and (4) linking local risk reduction to proactive community involvement (e.g., modalities for using voluntary labor alongside contractors as well as involvement of WFP food for assets and food for risk reduction interventions).

The experience of the Tajik Red Crescent and German Red Cross in local disaster preparedness is also relevant in addressing urban challenges. UNDP, through DRMP's work in Kulyab, Shurab and other cities, has also gained a good base of experience for expanding risk reduction in urban areas. The project will also seek synergies with NGO "FOCUS" that deals with integrating Disaster Risk Reduction (DRR) into urban and rural development planning in GBAO. Urban-focused efforts also need to recognize role-based differences in the exposure of women/girls and men/boys to risks and opportunities for risk management.

Improving risk management in urban areas addresses the NDRMS priorities in incorporating disaster risk reduction into the development process, and preventing human and material losses from disasters. In terms of the **Sendai Framework, improving urban risk management addresses priorities to strengthen disaster risk governance, investment in disaster risk reduction and enhances disaster preparedness for effective response**. Improving disaster risk management in urban areas also contributes to the resilience of these areas when disasters do occur.

Stronger resilience in urban areas will also contribute to improved rural resilience as urban areas are significant source of support to rural areas following a disaster.

### 1.5 Search and Rescue

With avalanches and mudflows being the major causes of deaths and prevailing number of disasters, search and rescue (SAR)[14] capacities are of critical importance to reducing the loss of life during disasters. A complicating factor is that disasters often occur in some distance from urban areas, where SAR bases are usually located.

While rural SAR presents specific challenges, strengthening urban SAR (USAR) is also a significant need. Many small-scale rescue operations (e.g., car extractions, building rescues, etc.) take place in urban areas. The same areas may also be the location of larger scale urban search and rescue operations following a significant earthquake (see Section 2.1) or urban flood, as occurred in Kulyab in 2010.[15]

Tajikistan has been building SAR capacities through two complementary efforts. The first is through community-based disaster risk management, largely implemented by NGOs such as FOCUS, Oxfam, Save the Children, Mercy Corps, German Agro Action, Mission East, ACTED, Caritas, Tajik Red Crescent/Intl. Federation of Red Cross and Red Crescent members, as well as UNDP via DRMP. These efforts started after the end of the civil war and continue today at a reduced level.

These efforts focused on creating trained community-based groups able to conduct basic SAR work, as well as local disaster response plans, and have covered large parts of the country with, for instance, community teams trained by FOCUS in GBAO playing a key role in the response to the recent mudflows near Khorog this year.

CBDRM SAR teams tend to work well during the project lifespan, but tend not to be sustainable for two core reasons:

1. Team members are lost through labor migration.
2. The CBDRM SAR teams are not formally integrated into the official disaster response planning process and have no standing once a project ends.[16]

The first challenge has been addressed in part by incorporating women and young adults into CBDRM SAR teams.[17] But the lack of legal standing, and lack of formal role in the government-managed response to disaster are the challenges that remain to be addressed.[18]

In Tajikistan, the Fire Service is under the Ministry of Internal Affairs. The Service covers all urban areas with an effective strength of 2,300 personnel.[19] However, unlike some other

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[14] Search and rescue is often abbreviated as USAR – Urban Search and Rescue. As much of the search and rescue work done in Tajikistan is in rural areas, SAR is used to indicate the overall effort, while USAR is used specifically for urban efforts.

[15] Note that during the Kulyab flooding, mechanized units from the Russian 201 military battalion assisted in rescue work, providing capacity not available in Tajikistan.

[16] There is a legal provision on volunteers engaged in disaster response in Tajikistan, but it does not cover groups of volunteers, such as rescue teams.

[17] Save the Children and others have also focused on including young adults as rescue teams, particularly in association with efforts to improve school safety, which addresses the outmigration issue for some period of time.

[18] Note that the Tajik Red Crescent is not affected by this issue as they have a formal agreement with the government.

[19] The Fire Service is reported as not fully staffed at present.

countries, the Fire Service in Tajikistan only engages in rescue operations when they involve fire events, and does not generally respond when non-fire rescue is needed.[20] The response to non-fire emergencies is the responsibility of Tajspas, the specially trained SAR units of CoES.

Tajspas is composed of six specialized teams plus support personnel (see Figure 2 below for a typical Tajspas structure) based in Dushanbe, Kurgan Tube, Khujand, Kulyab, Gharm and Khorog (see Figure 3 on p. 18). The latter two bases are particularly not well equipped and have limited facilities.

Tajspas has a listed strength of approximately 200 of personnel. Currently, Tajspas is at 60% operational strength due to staff turnover and may need to consider bringing women into its ranks to bolster operational capacities.

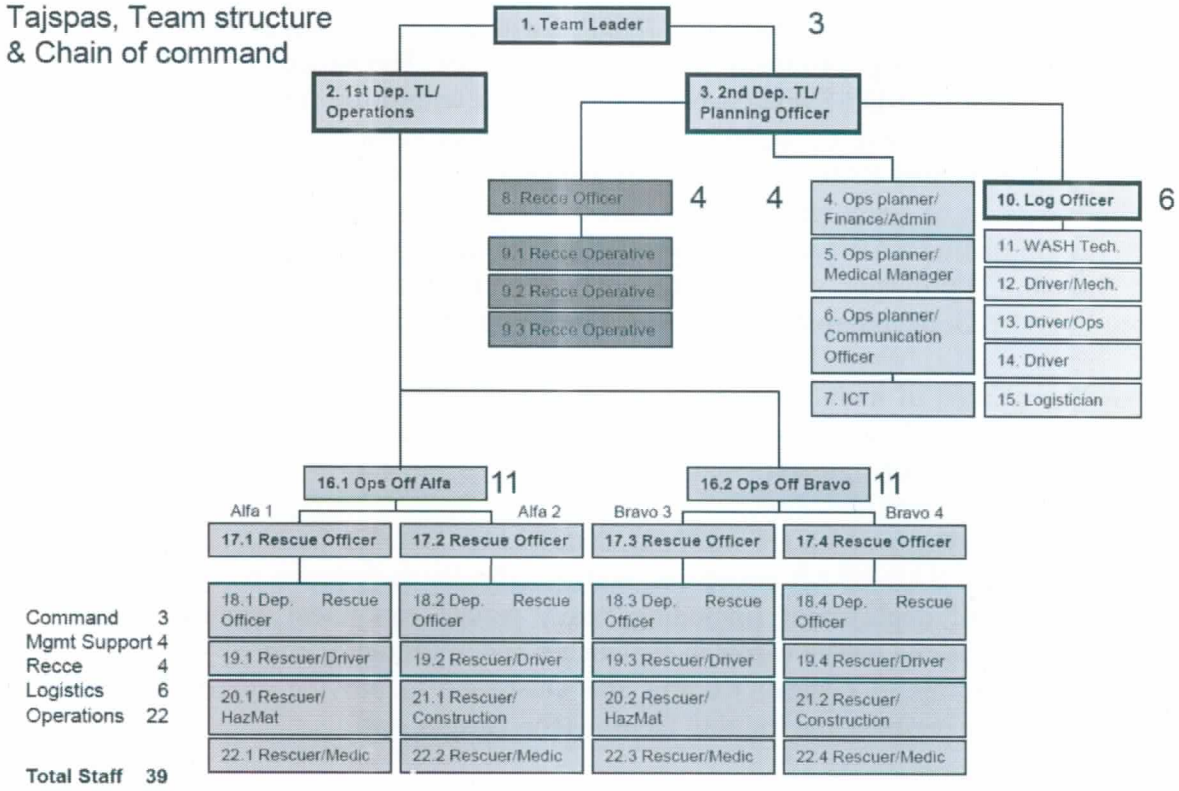


**Figure 2. TajSpas Team Structure**

Tajspas also responds to a wide range of emergency events, including car accidents, water rescues, and avalanches, mud flows and other natural hazards. As can be expected, the workload for Tajspas is highly variable, with years of greater mudflows and similar events requiring more field operations. The most recent annual data available indicates that Tajspas conducted:

- 536 operations in 2012, saving 84 persons[21],
- 405 operations in 2013, saving 66 persons, and
- 411 operations in 2014, saving 74 persons.

[20] Recognizing the tendency for the Fire Service to be called for any event, UNDP is working with CoES, the Fire Service and health authorities under a Swiss-funded project to establish a single emergency call number that will assure the dispatch of the appropriate services to an accident, fire or other emergency.

[21] A gender breakdown of those rescued is not available.

In the first half of 2015, a period of numerous mudflows, avalanches and other extreme events in Tajikistan, 180 rescue operations took place, saving 44 persons. These numbers are 21% and 70% higher, respectively, than for the same period of 2014.

Tajspas also implements proactive SAR deployments along the Dushanbe-Khujand and Dushanbe-Khorog highways during winter and spring in anticipation of avalanches, mud flows and rock falls. These efforts are implemented in cooperation with the Ministry of Transport and Communication and LLC "Integrated Road Solutions", the road operation contractor for the Dushanbe-Khujand highway. Tajspsas winter operations on the Maikhura-Ayni stretch of the Dushanbe-Khujand highway are critically important as this section is subject to frequent avalanches. Tajspas routinely rescues large numbers of travelers trapped on the road following major avalanches.

Tajikistan, through CoES and together with UNDP, Switzerland, Sweden and other countries, has been working to expand government-based SAR capacities. The single largest effort in this area has been the CoES-UNDP-Swiss-Swedish cooperation within the framework "Support of the National Disaster Response Capacity in Tajikistan" project to build the technical capacities of "Tajspas" as a dedicated SAR operation. The collaboration focused on training of Tajspas staff and the provision of some rescue equipment: (1) Training-of-Trainers in a wide range of SAR tasks, (2) Upgrading SAR bases in Dushanbe (central training facility), Khujand, Kurgan-Tube, and Kulyab, (3) provision of rescue equipment; and (4) recommendations on integrating Tajspas into INSARAG, the international coordinating system for disaster-related SAR.

The Tajspas has worked to maintain training and capacity levels and the equipment provided under projects mentioned above. However, a self-assessment by Tajspas indicates needs for:

1. Additional training-of-trainers;
2. Additional equipment to:
    a. Replace items which are worn out, damaged or no longer usable, and
    b. Upgrade SAR/USAR capacities, and specifically to improve reconnaissance and speed of deployment (including heavy rescue equipment required for debris clearance and rescue works in avalanches and mudflows), and
3. Upgraded facilities in Gharm, Khorog and Dushanbe to provide appropriate housing (during training periods) and training facilities for Tajspas staff.

Finally, in the face of a major disaster, and particularly an urban one, Tajikistan can expect an influx of foreign SAR teams under existing agreements (e.g., with Switzerland or under CIS and other agreements), and on an ad hoc basis.[22] While OCHA will likely to provide some coordination support on foreign USAR arrivals, there are considerable legal, logistical, coordination and field operations challenges even in dealing with five foreign SAR teams totaling up to 250 personnel. Without efficient coordination, foreign USAR teams can become a disaster within a disaster and prove to be very ineffective in lifesaving rescue efforts.[23]

INSARAG is designed to ensure interoperability of USAR teams as well as to provide a basis for coordination and operations when foreign teams are requested. Tajikistan needs to ensure integration of Tajspas into the INSARAG system and conduct simulations, preferably with

[22] Reportedly over 100 foreign SAR teams responded after the Haiti earthquake and 76 responded after the Nepal earthquakes.

[23] After the Nepal earthquakes, foreign USAR teams were reported to have only saved 18 persons. More people were rescued in Port au Prince, but the number was still small when compared to the overall scale of the disaster.

potential foreign USAR responders such as from CIS members, Afghanistan and Japan on USAR operations to ensure functional interoperability and effective response coordination.

Improving SAR capacities in Tajikistan will address the priorities of the National Disaster Risk Management Strategy (NDRMS) on prevention of human and material losses from disasters and the **Sendai Framework priorities on enhancing the disaster preparedness for effective response**. In addition, increasing the number of women and young adult girls will redress the gender imbalance within the SAR community and improve the availability of SAR personnel at community and national levels.

### 1.6 Disaster as a Sub-Regional Challenge

Disasters in Central Asia are not limited by political boundaries. Heavy snowfall and avalanches in Afghan Badakhshan will also likely occur in Tajikistan. Heavy rainfall leading to mudflows in Hamadoni District of southern Tajikistan is likely to see similar rainfall and flooding in adjoining areas of Afghanistan. And, of course, a major earthquake in southern Tajikistan or north- eastern Afghanistan will likely cause damage across the border.

The northern and eastern parts of Afghan Badakhshan are significantly isolated from other parts of Afghanistan and are more accessible from the Tajikistan side of the border. The Aga Khan Development Network (AKDN) has funded a number of bridges and bridge-end markets to improve access from GBAO to Afghan Badakhshan (see Figure 3 below).

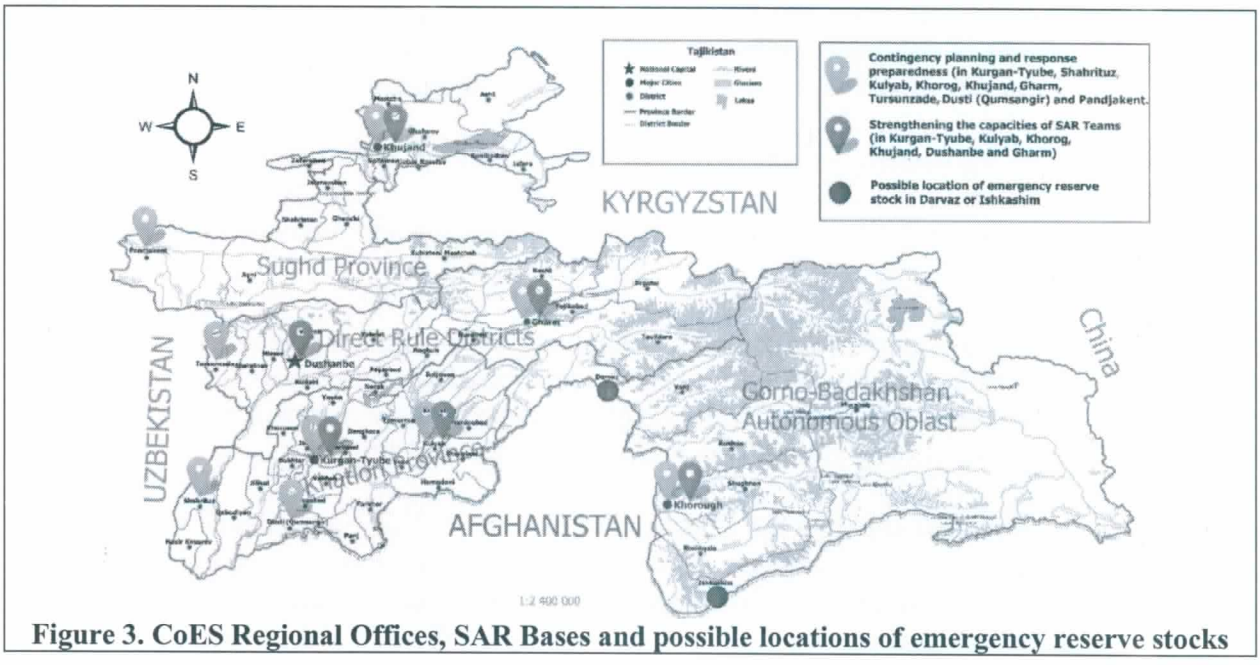


**Figure 3. CoES Regional Offices, SAR Bases and possible locations of emergency reserve stocks**

Humanitarian organizations, including NGO "FOCUS" and NGO "Mission East", have used the more accessible Tajik side of the border in Badakhshan for relief and development aid to Afghanistan. Humanitarian organizations also have emergency stocks in the region, including the Tajik Red Crescent in Khorog (as well as Kulyab, Kurgan-Tyube and Shaartuz), and FOCUS in several locations in GBAO. These resources are for use in Tajikistan and can assist only a limited number of people.

Some relief needs can be addressed using commercially available supplies in Khorog (which also has the only airport capable of handling larger aircraft along the border), but resupply to GBAO is very limited during the winter due to bad road conditions. Darvoz, toward the northern end of

Afghan Badakhstan, and Ishkashim, toward the southwest of GBAO, provide other border crossing bridges and potential sites for local storage for relief stocks for use in the isolated parts of Afghan Badakhstan. To the west, commercial stocks in large markets such as Kurgan-Tube and Dushanbe are more available for relief aid, and physical access is less of an issue.

Under the Japanese-funded "Tajik-Afghan Poverty Reduction Initiative" (TAPRI) project, UNDP established a small stockpile of relief supplies in Kurgan-Tube under the UN Emergency Reserve Tajikistan (UNERT) to respond to disasters in northeast Afghanistan.[24] A significant challenge noted in using this stock was the lack of a formal agreement between Afghanistan and Tajikistan on moving relief supplies to Afghanistan as emergency assistance (i.e., outside normal customs procedures). This issue needs to be addressed through the adoption by both parties of *"Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance"*[25].

To date, Tajikistan has engaged on the *Guidelines* through the good offices of the International Federation of the Red Cross and OCHA[26], but more in relation to neighboring countries to the north and not towards Afghanistan. More direct engagement between authorities in both countries is needed to ensure the *Guidelines* can be used to provide for the friction-free movement of humanitarian aid between the two countries.

A second sub-regional challenge exists in terms of search and rescue. Tajikistan's dedicated SAR capacity includes bases located at or near the Afghan border in Kurgan-Tube, Kulyab, Khorog, while Dushanbe is too far from the border. In a significant disaster, CoES personnel could support SAR efforts in the near-border areas of Afghanistan working in support of Afghan Ministry of Defense search and rescue capacities. However, there are two significant constraints, namely:

1. Lack of an agreement for cross-border deployment of staff between Tajikistan and Afghanistan, and,
2. Lack of inter-operability with respect to SAR techniques and methods between the two countries.

Establishing an inter-government agreement on the deployment of SAR personnel can be part of formalizing the *Guidelines* by both countries. In anticipation of this agreement, Tajik and Afghan SAR conduct joint exercises to ensure interoperability between the two organizations. (Tajikistan already has at least one training ground which can be used for this purpose.)

It is worth mentioning that although the majority of the SAR staff on both sides of the border are expected to be men, the majority of those rescued are expected to be women and girls, given the more frequent presence of females in or near houses or other buildings in both countries. Therefore, specific approaches targeting gender equality in disaster risk awareness are to be applied in the project proposed (e.g. separate trainings targeting women and girls only where traditional attitudes and settings prevail, etc.).

Improving cross-border disaster preparedness and response is in line with the **Sendai priority of enhancing preparedness for effective response and in terms of preventing human and material losses from disasters**. Improvement of cross-border cooperation on disaster

[24] The stockpile was turned over to the Afghanistan Disaster Management Authority at the end of TAPRI project.
[25] See https://www.ifrc.org/en/what-we-do/disaster-law/about-disaster-law/international-disaster-response-laws-rules-and-principles/idrl-guidelines/.
[26] See https://www.ifrc.org/PageFiles/86597/IC31_5_5_1_IDRLReport_2Oct_EN.pdf.

management also responds to the need for stability in Afghanistan and **improvement of disaster management across the region expressed in the Sixth Senior Officials meeting of the Central Asia plus Japan dialogue**.[27]

## 2 Project Strategy

### 2.1 Strengthening Risk Reduction and Response capacities

The project's strategy is to build on existing structures and capacities to strengthen the management and reduction of risk in areas of high importance. The project strategy acknowledges and builds on the work done by the Government, UNDP and others for more than a decade to improve the management of natural hazards and risks in the country. This strategy is framed by the **Tajikistan National Disaster Risk Management Strategy**, the **Sendai Framework for Disaster Risk Reduction** as well as by the **Central Asia plus Japan Dialogues** since 2004.

To implement this strategy, project will focus on four components:

Component One will reduce high-threat disaster risks (e.g., mudflows and avalanches) through work in three areas:

1. Improving risk assessment by making the current risk assessment methodology user-friendly and achieving nation-wide risk assessment coverage.
2. Targeting risk reduction, based on the risk assessment results, using a combination of hard and soft (ecosystem) engineering approaches and addressing priority risks in rural and urban areas.
3. Improving early warning of severe weather events by strengthening data collection by the Agency for Hydrometeorology and the communication of warnings in ways which induce risk aversion.

Component Two will improve the management of urban risks through work in three areas:

1. Improving the integration of risk assessment results into local land use and disaster planning (based on the risk assessments conducted under Outcome 1).
2. Improving local level disaster preparedness including development/updating warning and response plans, capacity building, scenario-based exercises and public education.
3. Integrating community-based disaster risk management systems into the overall local government disaster risk management structure.

Component Three will be improving SAR capacities through:

1. Integrating community-based disaster risk management capacities into the overall SAR response process (in association with Component Two).
2. Increasing Tajspas search and rescue capacities.
3. Integrating Tajikistan into INSARAG.

Component Four will improve the level of disaster response in Afghanistan-Tajikistan cross-border areas through:

1. Establishing emergency stocks in Tajikistan accessible to hard-to-reach areas of Badakhshan Province of Afghanistan.
2. Implementing the *"Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance"* through mutual agreements between the Governments of Afghanistan and Tajikistan.

[27] See http://www.mofa.go.jp/announce/announce/2011/12/1201_07.html.

3. Establishing inter-operability between Afghan and Tajik search and rescue teams through cross-training and simulation exercises.

Specific activities to implement the strategy are set out in ***Section 4, Expected Impact, Outcomes, Outputs, and Activities***, below. These activities are expected to reduce the level of disaster-related deaths and damage in Tajikistan by 20% over the life of the project.

The project strategy incorporates the gender and disaster risk management nexus. As gender-related dimensions of interventions are always context-based, the project will identify gender aspects of each activity and define ways in which gender-based differences in activity engagement or impacts will be defined and addressed. These are discussed specifically below and specific gender-based actions of the project will be covered in a Gender Engagement Plan to be developed after project approval.

Because of the diversity of project activities, semi-annual gender engagement and impact reviews will be conducted as part of regular project monitoring procedures. The results of these reviews will be documented and incorporated into project implementation.

The overall strategy will also incorporate a resilience building approach, where specific project activities will be developed with an intended contribution towards making society more resilient to future disasters, if and when they occur. This approach recognizes that disasters cannot be avoided as such. Even where disaster risk reduction reaches a significant level of success, a certain level of preparedness and resilience is still needed to cope with disasters that do occur. Within the context of this particular project, resilience building will be the most direct in the project interventions dealing with risk reduction.

## 2.2 UNDP's Comparative Advantage in Implementing the Project

Since 1966 UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in more than 170 countries and territories, UNDP offers global perspective and local insight to help empower lives and build resilient nations.

In line with the UNDP's Strategic Plan (2014-2017), UNDP's work in Tajikistan is focused in the following main areas:

1. Improved governance, rule of law and access to justice;
2. Sustainable and equitable economic growth;
3. Social equity and protection of vulnerable groups from violence and discrimination; and
4. Resilience and environmental sustainability.

In Tajikistan UNDP is present in the country since 1994 and has been supporting the country in its transition from a post-conflict humanitarian stage to one aiming at longer-term sustainable development.

The UNDP's comparative advantage in implementing development programmes is its presence both at the policy and at operational levels. This set up enables UNDP to obtain and use the evidence from the ground to influence policy formulation and discussions.

***Partnerships:*** UNDP Tajikistan's Disaster Risk Management Programme (DRMP) has strong partnership with key development players, DRR stakeholders and Governmental counterparts. The primary Government partnership is with the Committee of Emergency Situations and Civil Defense under the Government of the Republic of Tajikistan, as also with Ministry of Economic

Development and Trade and the Committee for Environmental Protection. In addition, UNDP's efforts are focused on disaster risk management and implemented by its DRMP and other programmes, have worked with regional and local authorities on disaster preparedness, risk reduction, relief and response since 2003 through a variety of project modalities and initiatives.

The UNDP in Tajikistan is a lead partner in Rapid Emergency Assessment and Coordination Team (REACT), the humanitarian coordination structure in Tajikistan. REACT includes over 30 NGOs, donors, and UN Agencies, and UNDP has worked with a number of these organizations on relief and risk reduction activities over the years. Recent partnerships include with OSCE on environmentally-sound risk reduction and with UNEP and OCHA on addressing environmental disasters.

In terms of disaster risk management programming, UNDP is one of the largest actors in Tajikistan. Other DRM support is provided to international NGOs by the European Union through the DIPECHO funding mechanism and regional interventions in the areas of glacial lake monitoring and community-based disaster risk management (e.g., AKDN/FOCUS in GBAO). REACT provides a forum for the exchange of information on DRM activities in general. Meetings of the Expert Group of the National Platform for Disaster Risk Reduction provide another avenue for information exchange on risk reduction at a higher level.

In 2011 and 2012, UNDP Tajikistan, working through DRMP, partnered with Japan to implement a component of the Tajik-Afghan Poverty Reduction Initiative (TAPRI) on disaster risk management. The component included risk assessment in cross-border areas, risk reduction activities and cross-border technical visits to foster partnership between Tajikistan and Afghanistan. In 2015, this cooperation was continued under the project for "Livelihood Improvement in Tajikistan and Afghanistan Cross Border Areas" (LITACA) also funded by the Government of Japan through JICA. The LITACA project is working on institutional capacity building measures as well as four disaster risk reduction interventions through infrastructure rehabilitation across the border of Tajikistan and Afghanistan. The TAPRI and LITACA work provides a base of experience for elements of the proposed project interventions to strengthen risk reduction and response in the Afghan-Tajik border areas.

**Sectoral expertise and relevant networks:**[28] The Disaster Risk Management Programme (DRMP) is the primary mechanism through which UNDP addresses disaster preparedness, response, recovery and risk reduction in Tajikistan. The overall objective of UNDP's Disaster Risk Management Programme is to "decrease the risk of natural and man-made hazards to rural and urban livelihoods, and ensure infrastructure and recovery mechanisms in place". Established in 2003 as a stand-alone project, it addresses the serious and chronic problems faced by Tajikistan and its regional neighbors with regard to natural disaster risk management – comprised of disaster preparedness, response, recovery and most importantly mitigation and prevention activities and linking them to community level. In 2007, following the successful completion of the first phase of operations, DRMP was reorganized into a programme directly executed by UNDP. The second phase of the programme covered 2007 to 2009 and was aimed at the reduction of impact induced by natural disasters on vulnerable communities, through strengthening national capacity to prevent, coordinate and respond to natural disasters. Currently in its third phase covering 2010-2015, DRMP continues to strengthen the capacity of the Committee of Emergency Situations and Civil Defense at the national level, while building regional mechanisms for DRM and mainstreaming DRM into state policy at the national and sub-national level.

The DRMP serves as UNDP's primary mechanism for responding to disasters in Tajikistan and manages the UN Emergency Reserve for Tajikistan (which falls under the auspices of UN Resident

[28] See http://www.tj.undp.org/content/tajikistan/en/home/operations/projects/crisis_prevention_and_recovery/.

Coordinator's mechanism). DRMP, in its capacity of REACT Secretariat, is placed at the centre of humanitarian coordination arrangements in the country, forming strategic cooperation partnership with the main national stakeholder, the Committee of Emergency Situations (Co-Chair of REACT together with the UN Resident Coordinator). To-date, DRMP's areas of focus are:

1. Capacity building of CoES (with establishment of the CoES Information Management and Analytical Centre and National DRM Training System being major achievements in this area),
2. Enhancing response capacities for search and rescue; and
3. Harmonization of the legal and institutional frameworks (including supporting the development of the National Disaster Risk Management Strategy 2010 – 2015, approved by the Government in 2010).

DRMP's efforts have grown, in both scope and value, over the past years with the funding mainly from the European Commission/ECHO, Switzerland, Sweden, CERF, the United Kingdom and UNDP's own resources.

**Policy and local level presence:** UNDP has a long-term presence on the ground, and is recognized as trusted and reliable partner of the Government. With the presence on the ground, UNDP is (1) well aware of local realities, and (2) is able to work in difficult or restricted environments. UNDPs strong presence at the policy and operational levels enables UNDP to ensure that the outcomes of its work on the ground directly feed the policy level planning and decision making. At the same time UNDP's influence at the policy level can help scale up and replicate successful local-level development interventions in other parts of the country.

In line with four focus areas within UNDP's Strategic Plan (2014-2017), UNDP in Tajikistan has a strong policy level presence in Dushanbe, while its operations on the ground are implemented through its 5 Area Offices located across the country, in Sughd (Khujand and Ayni Area Offices) and Khatlon Provinces (Shaartuz and Kulyab Area Offices) in Rasht Valley (Gharm Area Office), as well as a project based presence in GBAO (Khorog). This set up enables UNDP Tajikistan to mobilize and utilize its technical, financial and human resources in line with prevailing time and quality standards. A total of 47 projects are currently in operation by UNDP nationwide.

**Integrated and cross-sectoral approach:** The proposed project is an integral part of UNDP's overall Japan-supported strategy for southern Tajikistan, which also includes *"Livelihoods Improvement in Tajik-Afghan Cross-border Areas" (LITACA)* project. The project will also integrate risk reduction efforts of other REACT partners including those supported by the DIPECHO mechanism of the European Union, and other donors.

This integration will take place at a conceptual (sharing approaches and concepts) and operational levels (e.g., use of risk assessment results by other projects, additional risk avoidance messaging based on the project experience, deepening SAR capacities to address new hazards, etc.).

At the operational level, project activities will be integrated into local development planning (through District Development Plans), disaster preparedness work and building institutional and individual capacities to avoid or manage risk. Because of the breadth of disaster impacts and an increasing range of options for disaster risk management, the project is by nature cross-sectoral and requires engagement of a wide range of actors and sectors to achieve results. Monitoring of the project results will identify whether the project has been successful in pursuing a cross-sectoral approach.

**Operational capacity:** UNDP has unrivalled operational capacity and is able to deliver administratively complex, multi-component programmes at regional and national levels. UNDP's financial and procurement management systems and controls ensure the highest-levels of

transparency and accountability, and adherence to all internationally recognized standards. UNDP in Tajikistan employs over 200 development professionals specialized in the field of governance, health, poverty reduction, energy and environment and disaster risk management. The annual budget of UNDP Tajikistan for 2015 is around US$ 40 million and includes funding provided by the Government of Japan, Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), European Commission, Switzerland, Russian Federation, Global Environment Facility, Finland, UK, USA, UNDP's core resources and other donors. Currently UNDP implements 47 projects funded from 18 different sources.

### 2.3 Relevance of the Project to Tajikistan's and JICA's Assistance Strategies

The proposed project corresponds to strategies and development frameworks of the Republic of Tajikistan, including the new National Development Strategy (2016-2030), and the National Disaster Risk Management Strategy (2010-2015).

The **National Development Strategy** recognizes the multiple threats of natural disasters (including those induced by climatic changes) facing Tajikistan, and identifies strengthening of preparedness and response capacities, improving risk reduction and effective recovery as areas of focus.

The **National Disaster Risk Management Strategy** identifies five broad objectives to improve disaster risk management in Tajikistan, namely:

1) Enhancement of the regulatory and legal framework for efficient disaster risk management;
2) Country-wide disaster risk assessment;
3) Integration of disaster risk reduction incorporated into the development process;
4) Prevention of human and material losses due to disasters, through strengthening disaster preparedness and response;
5) Reduction of disaster impacts through increased knowledge sharing and education.

All interventions proposed within the project are directly contributing to each of these objectives, in order to achieve an ultimate goal of NDRMS "to reduce preventable harm from natural and technological disasters thus leading to improved lives and wellbeing in Tajikistan".

The project is in line with **JICA's Assistance Strategy** for Tajikistan, and contributes to its implementation in four ways:

1. Reducing risks and impacts on development in areas near the Afghan border and the Khatlon Region in general.
2. Reducing disaster threats to the transport infrastructure.
3. Improving the movement of (relief) goods and (rescue) services across the Afghan-Tajik border.
4. Reducing the loss of life and livelihoods from disasters.

Project activities will complement the Japan-funded project for Livelihoods Improvement in Tajik-Afghan Cross-border Areas (LITACA) being implemented by UNDP. This project will also complement but not duplicate the cross-border disaster risk management activities planned under LITACA and implemented by DRMP.

Recognizing JICA's use of the *Development Assistance Committee Criteria for Evaluating Development Assistance* (http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm), the following section briefly reviews the major elements of this process:

1. ***Relevance:*** As documented earlier, disasters pose a major threat to life, wellbeing and development in Tajikistan. Saving lives and reducing disaster impacts are highly relevant to the safe and sustainable development process in both rural and urban areas, for women and men, as well as for girls and boys.
2. ***Effectiveness:*** The use of a multiple component approach to risk management, including elements which focus on risk assessment, reduction, risk avoidance, and preparedness, means that individual threats (such as mudflows or avalanches) will be effectively addressed when compared to a single component approach. Further, a strong gender mainstreaming approach will ensure that both men/boys and women/girls benefit appropriately from risk management efforts.
3. ***Efficiency:*** The project incorporates a high level of community engagement, particularly in the risk assessment, risk reduction and risk avoidance components. The risk reduction component will include a beneficiary contribution. Synergies with other projects will be actively sought.
4. ***Impact*:** The project is expected to have a direct and measurable impact on how disasters, particularly mudflows and avalanches, but also other hazards, affect the lives, livelihoods and development in Tajikistan.
5. ***Sustainability***: Sustainability has been a significant challenge for previous risk management projects. This project expects to achieve sustainability by:
    - ***a.*** Institutionalizing a low complexity risk assessment process in rural and urban areas.
    - ***b.*** Incorporating risk avoidance/weather forecasting messaging as a normal mobile phone service and other modes of messaging.
    - ***c.*** Incorporating improved disaster preparedness into standard urban disaster management procedures.
    - ***d.*** Improving the capacities of Tajikistan SAR teams and inter-operability with Afghan counterpart organizations.

Under current budgetary conditions it is unlikely that direct government funding of risk reduction activities can continue after the end of the project. However, improved and expanded methods developed through the project are expected to remain activities of choice when additional funding for risk reduction activities becomes available.

## 3 Expected Impact, Outputs, Outcomes and Activities

The expected impact of the project is that the *people of Tajikistan will become more resilient to disasters and benefit from improved policy and operational frameworks for environmental protection and sustainable management of natural resources.* Achieving this impact will depend significantly on (1) improving disaster risk assessment, (2) improving the consideration of environmental issues in risk management, (3) improving risk avoidance through establishment of better early warning system of climatic hazards and (4) expanded search and rescue capacities in Tajikistan and neighboring areas of Afghanistan.

The expected overall "output" of the project will be *a 20% reduction in disaster impact, measured as a reduction in loss of life and damage, from high impact hazards, including mudflows, avalanches, earthquakes and floods, by the end of the project,* compared to the 2005-2014 baseline using data from CoES.

The expected impact and expected output for the project will be achieved through implementation of the following set of activities to achieve the stated outcomes.

The locations of proposed project interventions, apart from risk assessments that will be implemented throughout the country, are visualized in the Figure 4 below.


**Figure 4. Locations of selected project interventions**

Since the northern provinces of Afghanistan will also be benefiting from stockpile of non-food items and trainings, the map of Afghanistan highlighting the bordering with Tajikistan provinces are highlighted in green in Figure 5 below.


**Figure 5. Northern provinces bordering with Tajikistan**

## 3.1 OUTCOME 1: Risks Assessed and Addressed through Risk Reduction Activities and Improved Warning

**ACTIVITIES:**

### 3.1.1 Develop a user-friendly risk assessment tool.

The current Risk Assessment Methodology (RAM) will be transformed into a user-friendly risk assessment tool operating through a Geographic Information System (GIS). Developing the user friendly tool will require converting the RAM risk calculation process into an automatic procedure incorporating the base data (e.g., land use, hazard locations, etc.) required by the RAM process, work which will involve a number of technical specialists, utilizing national and international expertise.

Development of the user-friendly risk assessment tool will be coordinated by CoES/IMAC and will involve a technical support group of national experts and external assistance as required. It is clear that integrating data bases required for a risk assessment into a GIS will be a challenge. Expertise from Japanese sources for this process, particularly for the GIS task, is of interest to the project.

The risk assessment results will be disaggregated by demographic characteristics such as age and gender. Mid-sized cities covered under Outcome 3 below will be included in the risk assessments.

### 3.1.2 Conduct risk assessments to generate Risk Profiles.

The user-friendly risk assessment tool will be rolled out to local authorities as part of a nation-wide risk assessment campaign. The local authorities will be trained to use the risk assessment tool and be provided with on-going technical support and guidance on the use of the risk assessment results.

The roll out of the risk assessment tool will lead to results which generate a nation-wide risk assessment for Tajikistan. Risk assessment results will be used to develop a risk profile for District and Provincial Development Plans, thereby integrating disaster risks into development planning processes. The NGOs which are, or have been, involved in risk assessments or are potential Risk Profile users, will be targeted in the roll out process as well. The roll out will be coordinated through CoES/IMAC in cooperation with local and regional authorities.

The risk assessments and risk profile will cover the whole population of Tajikistan (8.4 million people).

### 3.1.3 Develop standardized packages of hard and soft (ecosystem) engineering risk reduction measures.

Concurrent with the development of the user-friendly risk assessment tool, research and local assessments will be used to develop a manual covering preferred risk reduction activities. These activities will incorporate both hard and soft (ecosystems) measures to reduce risk. The manual will incorporate specific information on engaging women and young adults in the proposed activities.

To date, a wide range of hard and soft engineering risk reduction measures have been implemented in Tajikistan. Often the design and application of these measures has not been consistent and at times the measures implemented have not been appropriate for the problem to be resolved. In terms of soft (ecosystem) measures, there is emerging experience with this approach in Tajikistan, but there is a lack of consistency in the selection and execution of these measures, in particularly due to a lack of common standards for when and how these measures should be applied. The standardized approach is required to ensure that relevant government agencies and other organization engaged in this field will apply a standard approach in addressing risk reduction measures. The standardized packages of hard and soft measures will describe (1) why the measure should be selected, (2) how it should be executed, (3) what are the costs and resource requirements involved and (4) how a specific measure can be complemented by other measures (e.g., water retention basins and reforestation). The manual approach is based on Chapter Five of the **Green Flood Management Guide** developed by Worldwide Fund for Nature (https://envirodm.org/).

The manual will be tested during the early stages of the project. These results will then guide the design and implementation more extensive risk reduction measures of the project. These efforts will be shared with partners involved in DRR in Tajikistan and made available globally via REACT.

This work will be coordinated by CoES with involvement of the Committee for Environmental Protection, Ministry of Agriculture and regional and local authorities. The project also anticipates working with several local NGOs active in ecosystem-based DRR as well as drawing particularly on Japanese experience in this area, as relevant.

### 3.1.4 Prioritize and implement strategic risk reduction sub-projects.

The Risk Profiles based on a standard risk assessment process will allow comparison of risks across locations and hazards. This will allow prioritizing of funding and other resources to priority risk reduction interventions. This process will be based on a protocol incorporating high impact hazards (e.g., mudflows, avalanches, earthquakes, floods) as priorities, together with cost-benefit analysis and gender impact analysis. While some pilot risk management activities will be initiated in Year Two of the project, most activities will be implemented in Years Three and Four.

A cost share will be sought from communities involved in risk reduction activities. Community cost shares are normally in the form of labor (e.g., removing/putting sand, gravel, etc.), although this can also be the collection of funds to cover direct costs. A decade of experience from UNDP's Communities Programme and other community mobilization efforts will be used to define the appropriate level and mechanisms for community contributions.

The process of coordinating risk reduction activities will be undertaken by CoES in cooperation with local and regional authorities. The externally funded projects which have possible engagement in risk reduction (e.g., water sector projects) will be taken into account while prioritizing and targeting the risk reduction activities.

Note that winter weather may limit when measures can be implemented, while the risk assessment process can be initiated in areas identified as at likely greatest risk with risk reduction measures implemented on a progressing basis, i.e., not waiting for the worse location to be identified.

Between 60 and 80 risk reduction sub-projects will be initiated over the life of the project (See Annexes III, IV, V, VI, VIII, IX, XI, XII for sample bills of quantities).Depending on the result of the risk assessment, apart from sub-projects indicated in annexes, the seismic retrofitting of social infrastructure like schools and hospitals may also be undertaken. This activity will benefit up to 1,000 persons (at least 55% female, including women-headed households) per project, on average. And, the total number of potential beneficiaries of this component will be approximately 80,000 people. At the same time, risk assessments and profiles will benefit almost all residents of Tajikistan.

### 3.1.5 Improve weather data collection

Within the framework of the project, twenty automatic reporting weather stations will be procured to expand the data collection network for the Agency of Hydrometeorology to improve the accuracy of severe weather forecasting. The stations will record temperature, precipitation and pressure data and transmit this data via the mobile phone network to the Agency in Dushanbe.

### 3.1.6 Improve weather warning messaging and modalities

The project will work with Hydromet to improve the content and understandability of severe weather warning messages, as well as define the most effective modalities for transmitting these messages to the general public (where general warnings are appropriate) and specific at-risk populations (where location-specific warnings are needed. For instance, a general warning may be provided for generally heavy rains for all of Tajikistan over a two day period, while location-specific warnings would be provided for locations designated at risk of flooding or mudflows as a result of the heavy rains.

This activity will include:

- Defining user-appropriate message to trigger risk avoidance.

- Identifying specific target populations for specific severe weather warning messages.
- Designing and assessing effective messaging content.
- Developing and accessing effective modes of message dissemination to target populations.

It is expected that this work will involve surveys and specialized technical assistance. Experience from Japan in severe weather warning and risk avoidance will be incorporated into project activities.

Improved severe weather warning is expected to have an impact on 45% of the population of the country (3.8 million), of whom 55% are expected to be female.

| Activity Timeline By Quarters | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.1.1 Develop user-friendly risk assessment tool | | | | | | | | | | | | | | | | | |
| 4.1.2 Conduct risk assessments | | | | | | | | | | | | | | | | | |
| 4.1.3 Develop standardized package of risk reduction measures | | | | | | | | | | | | | | | | | |
| 4.1.4 Implement strategic risk reduction measures. | | | | | | | | | | | | | | | | | |
| 4.1.5 Improve Weather Data Collection | | | | | | | | | | | | | | | | | |
| 4.1.6 Improve Weather Warning Messaging and Modalities | | | | | | | | | | | | | | | | | |

### 3.2 OUTCOME 2: Improved management of urban risks

This outcome will involve activities targeting the following mid-sized cities: Kurgan-Tyube, Shaartuz, Kulyab, Khorog, Gharm, Khujand, Tursunzade, Dusti (Kumsangir), and Panjakent. This list may be adjusted during the risk assessment process.

### 3.2.1 Assess urban disaster management challenges and opportunities.

A standard process will be used to assess the challenges facing a selected municipality from natural and man-made hazards as well as disaster preparedness, warning and response capabilities. The assessment will go beyond the disaster risk assessments of each municipality and cover the broader organizational and social context of disaster risk management in a municipality. The assessment will include a gender analysis of impacts of hazards and roles in addressing these hazards.

This assessment will be used to develop a municipality disaster risk management improvement plan to address critical gaps in the disaster management process, including changes to operating procedures and capacities. The municipality disaster risk management improvement plan will define specific actions, undertakings and capacity building needs to improve government and civil society engagement with disaster risk management at the municipal and neighborhood levels. These efforts are expected to cover:

- Improving preparedness and response planning and preparations.
- Training and education via schools (to be undertaken in partnership with UNICEF) and other channels.
- Exercises, drills and simulations.
- Land use and disaster risk reduction
- Citizen involvement in risk management,
- Neighborhood-driven selection and implementation of risk reduction measures (incorporating the DRR manual developed under Component One)

Integrated into this process will be the specific engagement of communities and local civil society in understanding risk profile results and defining how these people can be involved in planning for disaster risk reduction, preparedness and response. Another element of the municipality disaster risk management improvement plan will look at the costs and benefits of risk reduction and preparedness activities which can be initiated at a sub-municipal (neighborhood) level and how these activities can be integrated into local community action plans.

This effort will be led by municipal-level CoES staff and municipal authorities. Civil society will be engaged in the process as well as national and international NGOs who are working on DRR, municipal governance or environmental protection. The municipality disaster risk management improvement plan will include specific measures will be taken to ensure women and young adults are fully involved in this process.

### 3.2.2 Implement the municipality disaster risk management improvement plans.

The municipality, Municipal Commissions of Emergency Situations, CoES, other elements of the Government, UNDP[29], Tajik Red Cross and other members of civil society will work together to develop and implement the municipality disaster risk management plans. These efforts will go beyond risk reduction activities defined in the Risk Profile and will include:

- Revising operating procedures to reflect the prioritized risks facing the municipality.
- Updating warning and evacuation procedures, taking into account the unique nature of urban areas.
- Developing new operational modalities based on specific hazards and risks assessed for a municipality or neighborhood.
- Developing neighborhood disaster management organizations to officially incorporate civil society into the municipal disaster management system at the neighborhood level.

[29] Use of two UNVs in this role will be considered.

- Expanding the use of risk information in land use planning, including public awareness on the importance of risk information in assuring family and neighborhood safety.
- Assessing and addressing gaps in seismic safe construction, including public awareness on current standards in seismically safer construction.

While Tajikistan has considerable experience in community-based disaster risk management, experience from Japan and other urbanized countries is expected to improve the implementation of the activities described above.

Specific approaches in community engagement will be designed and applied to ensure that views of both men and women are equally solicited and reflected in developing the municipality disaster risk management plans. The assessments and municipality disaster risk management improvement plans will contain specific sections on gender, reflecting on roles women and men play in the implementation of disaster risk management. The municipality plans will include specific steps to ensure women and girls, as well as men and boys participate fully in the implementation of disaster risk management activities.

Approximately 45% of the residents (60% female) of the nine target municipalities or 230,000 people will benefit directly from the project. The potential beneficiaries will be estimated approximately 510,000 people which is the whole population of nine targeted municipalities.

| Activity Timeline By Quarters | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.2.1 Assess disaster management challenges and opportunities. | | | | | | | | | | | | | | | | |
| 4.2.2 Implement the municipality disaster risk management improvement plan | | | | | | | | | | | | | | | | |

### 3.3 OUTCOME 3: Search and Rescue Capacities Improved

Achieving this outcome will involve the following activities:

#### 3.3.1 Integrate CBDRM SAR teams into national SAR system.

Within this component of the project, CoES/Tajspas, UNDP, NGOs and Tajik Red Crescent will work together to integrate CBDRM SAR teams into the overall SAR system. This will involve (1) a census of existing and inactive CBDRM SAR team capacities, (2) establishment of CBDRM SAR standards, (3) a certification process and (4) development of a plan to progressively integrate CBDRM SAR organizations into the national SAR structure. An estimated 1,000 persons (including about 500 women and girls) will be involved in this process, which will be led by CoES Tajspas.

#### 3.3.2 Increase Tajspas search and rescue capacities

UNDP will work with CoES and directly with Tajspas to increase training capacities, re-equip rescue machinery, tools and supplies and increase SAR capacities through additional equipment, training and improved facilities. A preliminary list of additional equipment identified by CoES is provided in Annexes I and II (the information will be updated at the start of the project after detailed assessment).

The Japanese technical support will be involved, as appropriate, in assessing specific ToT and equipment needs, and defining facilities upgrades (including training fields) requirements. These efforts are expected to involve 20 women (UNDP will advocate with CoES that women be included in Tajspas).

### 3.3.3 Train women and young adults in search and rescue

The project will undertake a specific effort to integrate women and young adults into SAR system in Tajikistan. The activity will draw on earlier or current efforts in Tajikistan and elsewhere to train young adults (e.g., Save the Children and UNICEF projects) and women (e.g., FOCUS in Pakistan, Mission East in Tajikistan) involving search and rescue. This will be linked to Component Two, and involve the following elements:

- Collection and assessment of past and current non-CoES SAR-related training in Tajikistan to define the match to CoES SAR requirements and CoES SAR training programs.
- Establishing a common SAR training program specifically designed for women and young adults.
- Implementation of a national women and young adults SAR training program, in conjunction with Component Two activities as well as risk reduction projects being implemented by other donors and NGOs (e.g., FOCUS).

This activity will be implemented by CoES through Tajspas and the CoES Training Centers at national and regional levels, with the involvement of civil society, including the Tajik Red Crescent and local and international NGOs. The activity will target 1,000 young adults and 200 women nationally[30], with training taking place in Tajspas bases across the country. The persons involved will be volunteers and work as adjuncts to TajSpas staff. The trained women and young adults are expected to be integrated into the national SAR system in rural or urban areas (i.e., under Component Two).

### 3.3.4 Integrate Tajikistan into INSARAG[31]

Continuing from earlier CoES/Tajspas-UNDP-Swiss-Swedish efforts, the project will coordinate a process with OCHA and others to fully integrate Tajikistan into the INSARAG structure and define how Tajspas can become a part of the INSARAG operational system. This effort will include sponsoring Tajspas staff to attend INSARAG meetings, conducting at least two team-level field exercise with other national SAR structures that could be expected to respond to disasters in Tajikistan (also see activity 4.2.2) and holding one multi-day simulation exercise of foreign rescue team operations in Tajikistan (foreign teams and representatives will be invited to this simulation). The Japanese experience with INSARAG and foreign USAR activities will be tapped under this activity. It is expected that a total of 200 Tajspas members will benefit from this activity. This training is considered to benefit the entire population in Tajikistan which is 8,4 million people as SAR teams will be providing rescue operation at community level as well.

| Activity Timeline By Quarters | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrate CBDRM SAR teams into national SAR system. | | | | | | | | | | | | | | | | |

[30] Note that the larger number of young adults reflects the greater time expected to be available for training than for adult women.

[31] International Search and Rescue Advisory Group.

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increase Tajspas search and rescue capacities | | | | | | | | | | | | | | | |
| Train women and young adults in search and rescue | | | | | | | | | | | | | | | |
| Integrate Tajikistan into INSARAG | | | | | | | | | | | | | | | |

### 3.4 OUTCOME 4: Cross-border cooperation for disaster response improved.

Achieving this outcome will involve the following activities:

#### 3.4.1 Establish a "friction-free" agreement for the movement of relief aid and personnel across the Afghan-Tajik border.

The **Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance** will be used as the starting point for facilitating discussions between the two governments and third parties (e.g., IFRC) who may benefit from easier movement of relief aid to and from Afghanistan or Tajikistan. The discussions will be directed to an eventual outcome of establishing a formal agreement between Tajikistan and Afghanistan on the movement of relief aid, and, to the extent possible, similar agreements will be encouraged with other neighboring countries where they do not exist already.

This activity will be coordinated through the Ministry of Foreign Affairs with CoES playing a technical support role. It is expected that the IFRC will be involved through their ongoing efforts on establishing a legal basis for the movement of relief aid into Tajikistan. The Japanese Red Cross may also be able to facilitate engagement via the IFRC. Additional support will be provided through the project team for facilitating meetings, development of background briefs and provision of legal expertise.

#### 3.4.2 Establish Tajik-Afghan SAR interoperability.

This activity will involve meetings and simulation-based exercises between CoES SAR personal and Afghan Ministry of Defense rescue personnel to establish the following:

- Common procedures for search and rescue operations;
- Integrated command structures for common operations;
- Cross-border training on respective SAR equipment;
- Command system integration during common operations.

The INSARAG and the Incident Command System will provide a basis for defining interoperability requirements.

Most of the work under this activity will involve meetings between CoES and Afghan MoD staff, to define interoperability requirements and plan and conduct exercises. The project will support these efforts and will assist in engaging INSARAG members (including Japan) in supporting the process. Approximately 120 Tajspas from Tajikistan and 100 search and rescue personnel from Afghanistan will directly benefit from the training and joint activities.

Improved interoperability is expected to allow more effective rescue and critical assistance for approximately 500 persons in Afghanistan who are directly affected by a disaster (annual average of, e.g., trapped or otherwise needing rescue people), of whom half can be expected to be female. Also, the improved interoperability between Tajspas and Afghan rescue personnel and

established relief supply stockpiles will be estimated to benefit approximately 350,000 people (140,000 residents of six border districts in Badakhshan Province in Afghanistan, and 210,000 residents in GBAO in Tajikistan).

### 3.4.3 Establish relief supply stockpiles in Tajikistan for use in Afghanistan.

Based on the current assessment of commercial stocks, logistics on the Tajik side of the border and border crossing sites, UNDP via DRMP and CoES will establish relief stockpiles for use in Afghanistan Badakhshan in Darvoz and Ishkashim Districts in Tajikistan. This work will include engaging Afghanistan National Disaster Management Authority in establishing agreed stock levels and contents as well as procedures for the release of stocks into Afghanistan and protocols for their distribution.

Based on current expectations, stockpiled supplies will cover the immediate relief needs of 1,000 persons (155 families) in Afghanistan, of whom 60% are expected to be female. In extreme situations should disaster occur, this stockpile could be used in Tajikistan Badakhshan as well.

| Activity Timeline By Quarters | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Establish a "friction-free" agreement for the movement of relief aid and personnel across the Afghan-Tajik border. | | | | | | | | | | | | | | | | |
| Establish Tajik-Afghan SAR Interoperability | | | | | | | | | | | | | | | | |
| Establish relief supply stock piles in Tajikistan for use in Afghanistan. | | | | | | | | | | | | | | | | |

## 4 Logical framework

**Impact:** *People of Tajikistan will become more resilient to disasters and benefit from improved policy and operational frameworks for environmental protection and sustainable management of natural resources.*

**Output:** *20% reduction in disaster impact, in the form of loss of life and damage, from high impact hazards, including mudflows, avalanches, earthquakes and floods compared to the CoES 2005-2014 annual disaster data baseline for 2005-2014.*

| Outcomes | Target Indicators | Activities |
|---|---|---|
| ***Outcome 1:*** Risk Assessed and Addressed through Risk Reduction Activities and Improved Warning | 1.1 User-friendly risk assessment tool developed.<br>1.2 Risk assessments and Risk Profiles completed<br>1.3 Standardized package of hard and soft (ecosystem) engineering risk reduction measures developed.<br>1.4 Strategic risk reduction projects prioritized and completed.<br>1.5 Weather data collection improved<br>1.6 Weather warning messaging and modalities improved. | 1.1 Develop a user-friendly risk assessment tool based on the existing Risk Assessment Methodology.<br>1.2 Conduct risk assessments and generate Risk Profiles for the country as a whole.<br>1.3 Develop a standardized package of hard and soft (ecosystem) engineering risk reduction measures.<br>1.4 Prioritize and implement strategic risk reduction projects.<br>1.5 Improve weather data collection.<br>1.6 Improve weather warning messaging and modalities. |
| ***Outcome 2:*** Improved risk management in mid-sized cities | 2.1 Urban disaster management challenges and opportunities assessed.<br>2.2 Municipality disaster risk management improvement plans implemented. | 2.1 Assess urban disaster management challenges and opportunities.<br>2.2 Implement the municipality disaster risk management improvement plans. |
| ***Outcome 3:*** Search and Rescue capacities improved | 3.1 Modalities for integrating CDBRM SAR Teams into national system completed.<br>3.2 Assessment report completed.<br>3.3 Procurement completed.<br>3.4 Training of women/young adults completed<br>**3.4** Training for Tajspas completed. | 3.1 Identification of CBDRM SAR teams and integration requirements.<br>3.2<br>3.3 Assessment of equipment and facility needs. Development and execution of a procurement plan based on the assessment.<br>3.4 Provision of training for women/young adults.<br>3.5 Provision of additional training for Taspas. |
| ***Outcome 4:*** Cross-border cooperation for disaster response improved. | 4.1 "Friction-free" movement of relief aid and personnel across the Afghan-Tajik border established.<br>4.2 Tajik-Afghan SAR Interoperability established.<br>4.3 Relief stockpiles in Tajikistan for use in Afghanistan established. | 4.1 Establish a "friction-free" agreement for the movement of relief aid and personnel across the Afghan-Tajik border.<br>4.2 Establish Tajik-Afghan SAR Interoperability<br>4.3 Establish relief supply stockpiles in Tajikistan for use in Afghanistan. |

## 5 Budget and Duration

### 5.1 Duration:

Proposed project duration: 48 months

Expected project start date: 01.11.2016

Expected project completion date: 01.11.2020

### 5.2 Project Budget:

Proposed project budget: US$ **10,682,973**

Detailed budget breakdown by activities is provided in *Annex VII – Budget Proposal.*

## 6 Management Arrangements

**Implementation modality**: The project will be implemented by UNDP under its Direct Implementation Modality (DIM) whereby UNDP takes on the role of Implementing Partner.

UNDP has the technical and administrative capacity to assume the responsibility for mobilizing and applying effectively the required inputs in order to reach the expected outputs. UNDP assumes overall management responsibility and accountability for project implementation. Accordingly, UNDP must follow all policies and procedures established for its own operations.

According to the Programme and Operational Policies and Procedures of UNDP, the following Policies are applied for Direct Implementation Modality:

- All Policies and Procedures applicable to UNDP operations (i.e. procurement of goods and services, recruitment of project personnel, training activities, etc).
- All UNDP **Financial Rules and Regulations**:
    - **Financial management:** In the context of DIM modality, the financial software programme - ATLAS will be applied. ATLAS is the management information system which ensures accuracy and transparency of financial information. UNDP country office uses ATLAS to keep track of the financial status of the project at all times, to control expenses, to handle outstanding commitments, to make payments and to monitor the performance of contractors. As such, Atlas is used for both financial management and substantive monitoring.
    - **Financial reporting:** The financial reporting and control mechanisms used to monitor DIM Project include: 1) Combined Delivery Report (CDR), 2) Project Budget Balance and 3) Project transaction detail report.

      The Combined Delivery Reporting is mandatory and reflects the expenses and funds utilized on a project. This report is run on a quarterly basis and is signed by UNDP Resident Representative or Country Director on an annual basis. The Project Budget Balance is used to monitor and manage budgetary availability of the Project. The Project transaction detail report is very detailed and is used on a daily basis to monitor daily transactions and expenses.

The Project Board comprising the Embassy of Japan in the Republic of Tajikistan, JICA in the Republic of Tajikistan, UNDP in Tajikistan and the Government of Tajikistan will be formed to provide strategic direction of the project. The Project Board will review the progress of the project, including project reports, and work plans. The Project Board will serve as a platform for the major stakeholders of the project to discuss the overall direction of the project as well as to take the strategic decisions to ensure most optimal use of resources towards achievement of set goals and objectives.

Project Board meetings will be organized on regular basis, but not less than twice a year, to review work-plans and implementation of the project.

*Main functions and responsibilities of project Staff:*

The assigned **UNDP Programme Analyst** will be responsible for the provision of Quality Assurance to this Project. As well, he/she will provide general Programme management support as required.

**Programme Manager of DRMP (60%)** will work under the guidance of UNDP Senior Management and in close coordination with the responsible UNDP Programme Analyst to refer major executive project decisions to the Project Board. The Programeme Manager will provide strategic management and oversight, including coordination and communication. The Programme Manager will be responsible for overall management of the Project activities. He/she will also bear responsibility for overall financial and operational accountability of the Project, including budgets and ensuring strict and consistent application of UNDP rules and regulations. He/she will ensure timely and accurate submission of periodic narrative and financial reports on Project activities and deliverables to UNDP, Project Board, donors, and the Government.

**Project Analyst and Junior Programme Officer (JPO, funded by the Government of Japan separately from this project)** will be responsible for the general, day-to-day management of the project, monitoring, reporting (60%) and will be specifically responsible for visibility, communication and outreach activities (40%) building on the experiences of Japan-funded project for Livelihood Improvement in Tajikistan and Afghanistan Cross Border Areas (LITACA). They will provide full programmatic support to the Programme Manager. The primary responsibilities of the Project Analyst will include 1) substantially supporting the Programme Manager in development of strategic documents, including in design and dissemination of visibility, communication and outreach materials, 2) close monitoring of project implementation against established work plan, 3) development of quarterly, semi-annual and annual reports, 4) provision of translation services (verbal and written); and 5) fulfillment of other relevant functions.

**Project Engineer** will be responsible for providing technical expertise and assistance to the project activities requiring Engineering services. The Engineer will also bear monitoring functions and will be responsible for collection of the project related data from different sources.

**Administrative/Finance Assistant (AFA)** will be responsible for all administrative, including human resources, and financial management of the Project in line with UNDP financial rules and regulations. As well, the AFA will provide the required logistical and other administrative support in organizing project related high level meetings and events. Within his/her established level of authority, he/she will also be responsible for procurement and contracts management from planning of the tender to handover of the goods and services to target beneficiaries;

**Admin/Warehouse Assistant** will be responsible for establishment of emergency stockpiles, procurement of non-food items, maintenance of the stock, organization of trainings, handling all logistics.

**Driver** will provide driving services and will also ensure safety of staff while on missions.

Other local and international experts may be involved for short-term project-specific assignments.

Upon the project completion, the assets such as vehicle, office equipment and furniture purchased under the present project, will be handed over to the Government based on established UNDP rules and procedures for transfer of project assets to the beneficiaries.

The proposed structure of the project is as follows (see Figure 6):

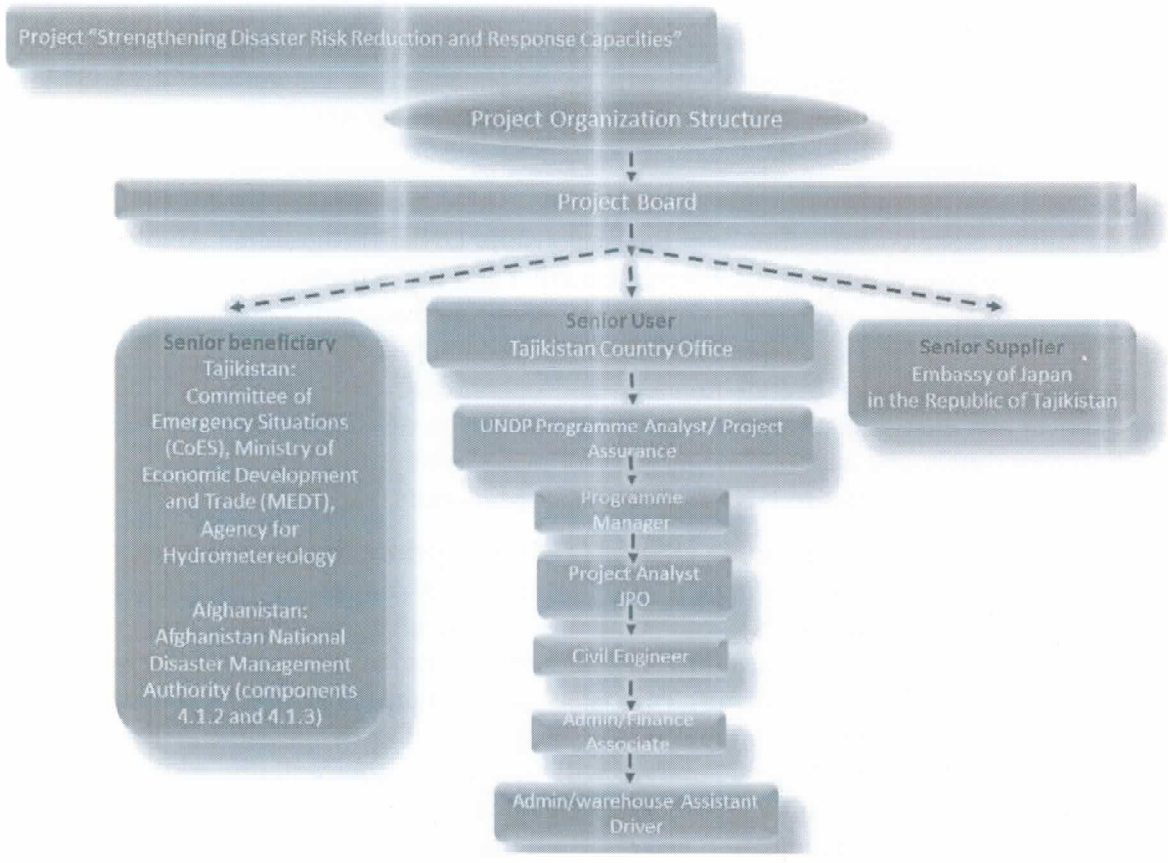


**Figure 6. Project Organizational Structure.**

## 7 Communications

The project will make strong emphasis on *visibility and communication* of project results. For this reason, a Communication Strategy for the project will be developed outlining frequency, modes and means of communication at the different levels of project implementation.

*Visibility:* the project will ensure due recognition of the donor's role in the project through ensuring full compliance with donor's Communication and Visibility Strategy and use of donor's logo in all visibility materials to be produced by the project.

*Communication:* project progress and achievements as well as main implementation challenges will be duly documented and communicated among main stakeholders, including UNDP, donor and beneficiaries. For wider dissemination of project outcomes, project related reports, success stories, articles, documentary films, photos, videos, and other communication and knowledge management materials will be developed and posted in UNDP and donor websites as well as through social media. Press Tours will be organised for mass media to capture and disseminate achievements of the project to the general public via mass media means (TV and radio).

## 8 Monitoring, evaluation and reporting

Monitoring and evaluation will follow the UNDP guidelines on Monitoring and Evaluating for Results. The Monitoring and Evaluation Plan (M&E Plan) to be developed for the project will ensure continuous feedback on implementation, early identification of potential problems to facilitate timely adjustments to Programme operation, and implementation in accordance with the overall strategic plan for the Programme. The M&E Plan will contribute to ensuring regular reporting to donor(s) on the effective use of all funding.

The Programme's M&E Plan will be a tool for planning and managing the collection of data and performance of activities, as well as for analyzing and reporting. Collection of data and information disaggregated by sex, age, and region and, where relevant, other grounds, to the extent possible will be an on-going process and will be integrated into the activities.

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

*Within the annual cycle*

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by the Programme Manager to facilitate tracking and resolution of potential problems or requests for change.
- A risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports shall be submitted by the Programme Manager to the Steering Committee through Project Assurance, using the standard report format available in the Executive Snapshot.
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events
- Annual reports, indicating the progress towards plans, achievement of outputs along with issues and lessons learned will be delivered.

*Annually*

- Annual Project Review. Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Steering Committee and may involve other stakeholders as required. It shall focus on the extent to

which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

- Annual Review Report. An Annual Review Report shall be prepared by the Project Manager and shared with the Steering Committee. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the Quarterly Progress Report covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.

## 9 External Factors and Risks

| # | Description | Type | Impact & Probability | Countermeasures / Mngt response | Owner |
|---|---|---|---|---|---|
| 1 | National political instability | Political | Weak support from the government at national level<br>P = 2, I = 2 | All activities will be implemented in close cooperation between UNDP, Japan Embassy in Tajikistan, JICA and implementing partners. | UNDP country office |
| 2 | Change of government at different levels | Political | Weak support from the government at all levels<br>P = 2, I = 1 | UNDP and implementing partners will try to adapt project activities to the developing situation at an early stage and will ensure that the project contributes to changes in the systems and institutions so that the outcomes of the project become less dependent on the separate individuals within the system/ institutions. | UNDP country office |
| 4 | Insufficient coordination among the Government entities involved | Organizational | Partial achievement of the project results<br>P = 2, I = 4 | UNDP will work in close cooperation with the implementing agencies and beneficiaries to ensure proper coordination among the involved Government entities involved. | UNDP country office |
| 5 | Poor participation / contribution from beneficiaries | Organizational | Partial achievement of the project results<br>P = 3, I = 3 | Country Office will work in close cooperation with the implementing agencies and beneficiaries to ensure ownership and participation in project | UNDP country office |
| 6 | Low capacity of beneficiaries | Organizational | Partial achievement of the project results<br>P = 3, I = 3 | Country Office and the implementing partner will facilitate activities to raise the capacity of beneficiaries | UNDP country office |

# 10 Annexes

| | |
|---|---|
| Annex I | Preliminary BOQ List of SAR equipment |
| Annex II | Preliminary BOQ heavy machinery for SAR |
| Annex III | Sample BOQ_slope stabilization |
| Annex IV | Sample BOQ - bridge defensive dam |
| Annex V | Sample BOQ -Rehabilitation of mudflow detention structures |
| Annex VI | Sample BOQ - Rehabilitation of flood diversion canal |
| Annex VII | Detailed Budget Proposal |
| Annex VIII | Sample BOQ Rehabilitation of bridge |
| Annex IX | Sample BOQ Rehabilitation of Health Centre |
| Annex X | Specification for 4x4 pick up |
| Annex XI | Sample BOQ Bank protection and flood retention facilities |
| Annex XII | Sample BOQ cleaning of mudflow collector |
| Annex XIII | Risk Assessment Methodology |
| Annex XIV | COES Organizational Structure |
| Annex XV | MEDT Organizational Structure |
| Annex XVI | Sample BOQ for rehabilitation of training center |
| Annex XVII | Sample BOQ for construction of warehouse |
| Annex XVIII | Sample BOQ for procurement of non-food items |