

YEMEN



Tropical Storm, October 2008

Recovery Framework Case Study

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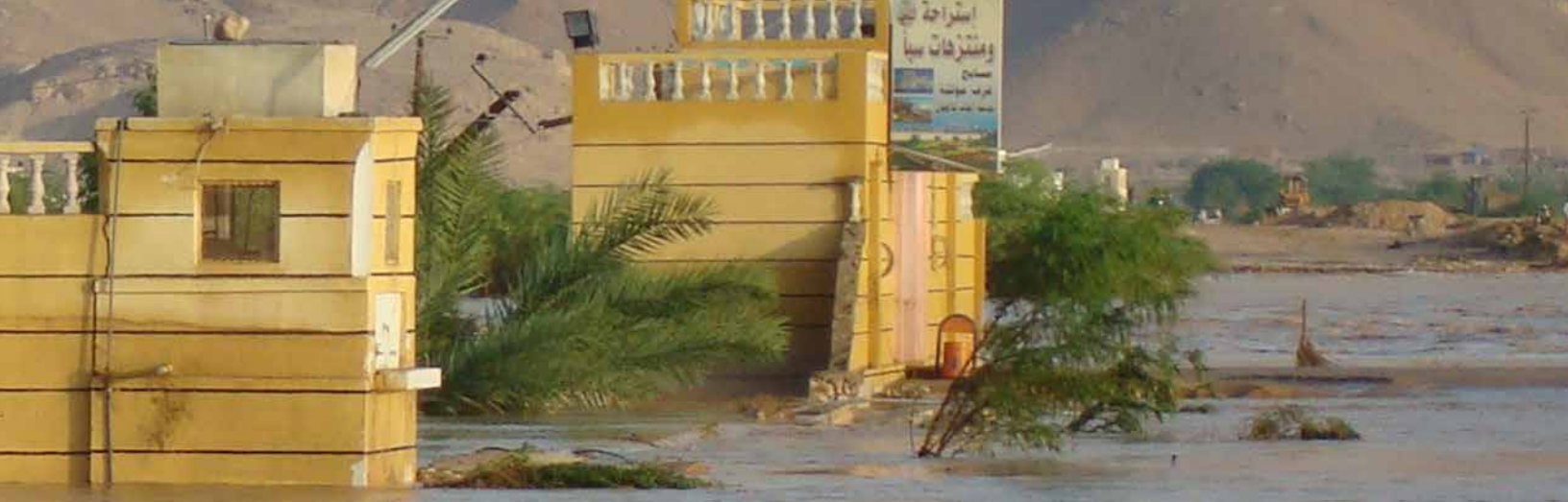
INTRODUCTION

The World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR), the United Nations Development Program (UNDP) and the European Union (EU) are working on a guide for developing disaster recovery frameworks (DRF). This guide aims to help governments and partners plan for resilient post disaster recovery while contributing to longer term sustainable development. It is based on practices gleaned from country experiences in disaster recovery around the world. Hence, the development of the DRF Guide entailed the development of country-level case studies as well as thematic case studies on disaster recovery.

These case studies have been designed to collect and analyze information on: i) disaster recovery standards and principles adapted by countries for specific disasters; ii) planning efforts for making such recovery efficient, equitable and resilient; iii) policies, institutions and capacities to implement and monitor disaster recovery; and iv) ways and means for translating the gains of resilient recovery into longer-term risk reduction and resilient development.

Importantly, these case studies aim to learn from, and not evaluate, country reconstruction initiatives. Practices learned from each country's experience will inform the contents of the guide for developing a DRF. Additionally, the case studies examine the planning processes and not the implementation details of recovery experiences. As such, they do not seek to offer a comprehensive account of the post-disaster recovery program, but instead provide details and insight into the decision-making processes for reconstruction policies and programs.

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ACRONYMS AND ABBREVIATIONS

CAS	The World Bank Country Assistance Strategy
COCA	Central Organization for Control and Auditing
DFID	Department for International Development (UK)
DLNA	Damage, Loss and Needs Assessment
DRM	Disaster Risk Management
GCC	Gulf Cooperation Council
GFDRR	Global Facility for Disaster Recovery and Reduction
GOY	Government of Yemen
HFA	Hyogo Framework for Action
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa
MOAI	Ministry of Agriculture and Irrigation
MOF	Ministry of Finance
MOPIC	Ministry of Planning and International Cooperation
MPWH	Ministry of Public Works and Highways
NDMU	National Disaster Management Unit
PDNA	Post Disaster Needs Assessment
PPP	Public Private Partnership
RRF	Recovery and Reconstruction Fund for Hadramout and Al-Mahara
SFD	Social Fund for Development (Yemen)
UN	United Nations
UNDP	United Nations Development Programme
UNISDR	United Nations Office for Disaster Risk Reduction



EXECUTIVE SUMMARY

In October 2008, a major tropical storm produced one of the worst adverse natural events ever to affect the Republic of Yemen. Flooding from the storm caused an estimated \$1.6 billion in damage and losses, or about 6% of the country's GDP. Flooding from the storm caused an estimated \$1.6 billion in damage and losses, or about 6% of the country's GDP. While the storm's impact was felt across the country, the Wadi Hadramout region was the worst hit, sustaining 67.5% of the country's overall damage and loss. Hadramout's coastal areas alone sustained 28.6% of the total impact of the storm and flooding. The Al-Mahara governorate east of Hadramout was also affected, sustaining 3.9% of the total effect of the storm.

Years of political turmoil, population growth, and unsustainable economic policies have left Yemen with very limited infrastructure. This has limited the scale and cost to physically rebuild affected areas. While environmental disasters tend to degrade and affect national or regional infrastructure, the 2008 storm and flooding in Yemen was also a "productive-social disaster". The storm significantly undermined already poor socio-economic productivity in a country that has faced extreme water and food scarcity for years.

The 2008 tropical storm and subsequent flooding in Yemen shows that only addressing infrastructure shortfalls in affected areas will produce a limited effect in terms of overall recovery. Producing positive outcome in similar events in the future will be contingent upon mobilizing national and international resources that can alleviate socio-economic losses and declines in productivity associated with an adverse natural event.

The Yemen experience highlights the challenges that regional, national, and international recovery institutions face when dealing with a disaster event in a country with high levels of political, security, demographic, and socio-economic challenges. A key illustration of this would be the stalling of the post-2008 recovery planning and funding effort as a fallout of instability and uncertain political transition that accompanied protests and unrest in Yemen and the broader Middle East and North Africa (MENA) region starting at the beginning of 2011.

INSTITUTIONAL FRAMEWORK

Following the 2008 tropical storm, the government of Yemen (GoY) worked to define an institutional model with the assistance of the Damage, Loss and Needs Assessment (DLNA) mission. All of the pertinent partners in central government, regional government, civil society, and the private sector participated. Yemen's institutional arrangements are intended to ensure the stability and continuity of key administrative, technical and executive functions. They also operate under a single political leadership structure in order to ensure accountability through a clear chain of command.

In addition to a centralized leadership and management structure, local government is a key element of the model.

GUIDING PRINCIPLES AND RECOVERY POLICY

The GoY and the DLNA aimed to move from a state of persistent risk and vulnerability to one that would institutionalize resilience, align recovery with long-term development goals, and empower local government, civil society, and the affected population. These principles are reflected in national law and official government pronouncements on disaster recovery. The goal is to ensure not only effective communication with local, regional, and national stakeholders, but collaborative implementation as well.

RECOVERY FINANCING

There were five principle sources of financing for the recovery effort. These included:

1. Funding from the GoY national budget;
2. Funds collected through donations from employees, citizens, and the private sector (NA);
3. Pledges at the donors conference;
4. Funds re-allocated from donors from pre-existing or ongoing projects; and
5. Civil society-driven fundraising through local and regional charitable contributions and donations.

2010 saw the highest level of annual efforts towards reconstruction operations in Yemen as the Government showed willingness and an ability to cooperate with local, regional and international partners. In 2010, Recovery and Reconstruction Fund (RRF) operations met and surpassed planned targets for the year by 22%, accounted for 40% of all incoming funding commitments over the 2009-2012 period, and annual 2010 expenses tied to recovery were the equivalent of 50% of total expenses over that same timeframe.¹

Instability and uncertain political transitions in early 2011 had a negative impact on donor funding, shifting the focus of both the GoY and external donors away from disaster recovery. Instead, the post-2011 local, national, and international efforts centered on mitigating the effects of political change and uncertain transition of political power in the capital Sana'a.

MANAGEMENT, MONITORING AND EVALUATION

The GoY did not maintain a central automated system to coordinate disaster recovery efforts or to facilitate performance monitoring. All monitoring took place through site visits. RRF reporting relied heavily upon descriptive analytics to describe outputs, but without any reporting on outcomes. However, as a good practice, RRF planned for certain standards (transparency, effectiveness) early on the design phase by identifying a direct cash transfer mechanism as a means of direct interaction with the beneficiary to minimize middlemen.

¹ RRF Performance Report, 2009-2012.



CHALLENGES FACING YEMEN

With a population estimated at 24.8 million as of 2014, Yemen faces more immediate macro-level resource and economic challenges than any other state on the Arabian Peninsula. The country's difficult topography, geographic isolation, rural-urban divisions, and sparse settlements have all proven to be recurring challenges for the central government. The Republic of Yemen was formed by the merger of the formerly separate states of North Yemen and South Yemen in 1990.² After reunification, power sharing arrangements were put in place, although challenges remained to its full political and socio-economic implementation.³

These and other factors contributed over time to limited socioeconomic development and foreign investment. Outside of the capital of Sanaa, central government institutions faced difficulties historically to expand and consolidate their impact.⁴

One of the challenges that Yemen faces is managing its scarce water resources. Yemeni government statistics indicate that domestic consumptions surpasses renewable fresh water reserves by close to 1 billion cubic meters on an annual basis – a deficit could double by 2025 when population estimates reach some 44 million.⁵ Failure to sustain or preserve Yemen's water table may force the GoY to attempt a strategy that promotes heightened water-use efficiency and the construction of expensive and energy-intensive water desalination plants.⁶

Agricultural and economic practices in a water-scarce country are only further aggravated by declining oil revenues. Revenue from oil exports account for some 65% of GoY revenue. However, barring major new discoveries, Yemen will likely deplete its reserves between 2017 and 2021. Production has declined sharply from 440,000 barrels per day (bpd) in 2010 to some 260,000 bpd in 2011. In June 2010, the GoY announced that the combined impact of falling oil production and rising domestic consumption had made Yemen a net importer of oil.⁷

² Jeremy M. Sharp, "Yemen: Background and U.S. Relations," Congressional Research Service Report, RL34170, March 22, 2011, p. 7-8; "In Yemen's South, Protests Could Cause More Instability," *New York Times*, February 27, 2010.

³ Jeremy M. Sharp, "Yemen: Background and U.S. Relations," Congressional Research Service Report, RL34170, March 22, 2011, p. 24-25. For more information refer to World Bank (2010) "Republic of Yemen: assessing the impacts of climate change and variability on the water and agriculture sectors, and the policy implications", World Bank report no. 54196-YE, Sustainable Development Sector Department, Middle East and North Africa Region, World Bank.

⁴ Jeremy M. Sharp, "Yemen: Background and U.S. Relations," Congressional Research Service Report, RL34170, March 22, 2011, p. 7.

⁵ "Alarm as Water Taps Run Dry," *The National*, September 24, 2009.

⁶ Gerhard Lichtenthaler, "Water Conflict and Cooperation in Yemen," *Middle East Report*, Spring 2010.

⁷ Jeremy M. Sharp, "Yemen: Background and U.S. Relations," Congressional Research Service Report, RL34170, March 22, 2011, p. 28-29.

YEMEN HAZARD RISK AND CLIMATE PROFILE

Floods are the most important and recurrent adverse natural events in Yemen, followed by land or rockslides, earthquakes, volcanoes, sand storms, extreme temperatures, epidemics, and drought. Other recent major floods occurred in 1996 and 2000. The destruction is exacerbated by the absence or poor maintenance of flood protection measures. Yemen also faces an increased desertification process, which is leading to the loss of land productivity, water erosion, saline water intrusion, and coastline erosion.⁸ Apart from the manmade factors, arid climate, natural erosion process, barren landform, and recurrent disasters are all increasing land degradation.⁹

These recurring adverse natural events result in significant loss of life, and damage to livelihood, property and infrastructure. The effects of the October 2008 floods alone were estimated at US\$1.6 billion, equivalent to 6% of Yemen's GDP, thus illustrating the sheer magnitude of the disaster. At least one disaster strikes the country every year with estimated annual economic losses averaging \$200 million. More recently, on May 5, 2010 heavy rains hit Sana'a causing 9 deaths, resulting in the collapse of many houses in old Sana'a, and disrupting electricity service for several days.

Yemen's vulnerability to natural disasters, exacerbated by climate change, poses great risks to the country, with the poor and vulnerable populations disproportionately affected. Climatic variability could also affect sea level raise resulting in increased coastal flooding that would severely impact the fisheries sector, which could diminish the country's GDP by up to 15%.

Furthermore, climatic variability will have considerable impacts on the availability of freshwater in Yemen, affecting the country's already fragile water balance. Yemen is one of the most water scarce countries in the world with approximately 135 meters cubed per capita per annum (m³/c/a) water resources, compared to the 1,000 m³/c/a water scarcity threshold developed by World Health Organization (WHO) and compared to 2,500 m³/c/a in the MENA region. The declining availability of water resources is having significant impacts on agricultural productivity (which uses 93 percent of Yemen's surface and groundwater) while exacerbating food insecurity.

Two additional factors are contributing to Yemen's vulnerability to internal and external shocks. First, Yemen's oil revenues, which have traditionally been used to finance its food imports, are decreasing, making food security a more urgent problem. In addition, population in Yemen has been growing rapidly, particularly in the urban areas around Sana'a which has seen its population grow to 2.5 million from just 40,000 in the 1940s. Not only is this putting an additional burden on the country's food resources, but it is also contributing to the depletion of groundwater resources which are not being recharged fast enough to keep pace with population growth. Finally, urban population growth combined with dated urban management policies has increased the number of people at risk of natural hazards.

⁸ Ministry of Agriculture and Irrigation, The National Action Plan to Combat Desertification, 2000.

⁹ World Bank (2010) "Republic of Yemen: assessing the impacts of climate change and variability on the water and agriculture sectors, and the policy implications", World Bank report no. 54196-YE, Sustainable Development Sector Department, Middle East and North Africa Region, World Bank



ASSESSING THE IMPACT OF THE 2008 TROPICAL STORM

A Tropical Storm hit Yemen on October 24th, 2008; on October 27th, Hadramout and Al-Mahara – two of the most heavily affected governorates – were declared disaster areas.¹⁰ Wadi Hadramout was the worst hit region, sustaining 67.5% of the total damage and loss, with 16 of its 19 districts reporting damages. Hadramout's coastal areas (Sahel) sustained 28.6% of the total damage and loss, while Al-Mahara sustained 3.9% of the total.

Unlike many other disaster events, the impact of the 2008 Tropical Storm in Yemen was a disruption in overall productivity and economic activity, in addition to major damage to infrastructure. Presented in order of decreasing magnitude, productivity (agriculture, livestock, fishery, industry, commerce and tourism) accounted for 76% of the overall effect of the disaster, followed by social sectors (shelter, education, and health) at 13.0%, infrastructure (transport, power, water and sanitation, and telecommunications) at 8.9% and lastly several other cross-sectoral activities (the environment, religious facilities and cultural heritage) which amounted to 1.2%. These patterns classify Yemen and the 2008 tropical storm event as a productive-social disaster, rather than one in which destruction of infrastructure is the preeminent effect.¹¹ Fixing infrastructure only will have limited effect on recovery.

The flooding and heavy rain also destroyed 2,826 houses and huts in both and partially damaged 3,679 houses. Some 25,000 people were displaced as a result, seeking temporary shelter in mosques and schools or with host families. The impact on agricultural land and people's livelihoods has been particularly devastating. A total of 22,902 Feddans (acres) of cultivated agricultural land and 51,455 Feddans of uncultivated land were damaged in both Governorates due to soil erosion.

Public and private irrigation infrastructure also sustained significant damage. In addition, about 550,000 palm trees and 160,000 fruit trees were uprooted. Some 58,500 livestock heads (sheep, goats, camels, and cattle) died due to the water surge, and as much as 309,103 honey beehive cells were washed away.

Overall, about 700,000 persons—over 50% of the total population in the affected areas—have had their livelihoods destroyed or significantly affected, of which two-thirds live in Wadi Hadramout. In general, the floods did not seem to have significant adverse impact on national food balances, overall food supply or national food security. However, this cannot belly the fact that food security and declining access to potable ground water reserves remain persistent challenges.¹²

¹⁰ For details on the 2008 tropical storm, see "Damage, Losses and Needs Assessment: October 2008 Tropical Storm and Floods, Hadramout and Al-Mahara, Republic of Yemen," January 2009, available at "Yemen DLNA http://gfdr.org/docs/Yemen_DLNA_Report.pdf.

¹¹ "Damage, Losses and Needs Assessment: October 2008 Tropical Storm and Floods, Hadramout and Al-Mahara, Republic of Yemen," January 2009, available at "Yemen DLNA http://gfdr.org/docs/Yemen_DLNA_Report.pdf.

¹² Jeremy M. Sharp, "Yemen: Background and U.S. Relations," Congressional Research Service Report, RL3410, February 6, 2014, p. 6.

Of the total disaster effects, an estimated YR 174,962 million (US\$ 874.8 million) refers to the value of the destruction or damage to physical assets existing in the affected areas, and an additional YR 152,590 million (US\$ 762.9 million) represents economic losses that are expected to occur in the country over the next four years as a result of the temporary absence of the destroyed assets (See Figure 1).

According to the joint assessment, the total value of the disaster effects caused by the October 2008 storm and floods in Yemen is estimated to reach YR 327,551 million or US\$1,638 million equivalent (See Table Table 1). This amount is equivalent to 6% of Yemen's Gross Domestic Product (GDP), comparable to annual development expenditures by the Government, which illustrates the important magnitude of the disaster.

ASSESSMENTS

In October, just days after the disaster, at the request of the Government of Yemen, a rapid damage assessment of the infrastructure facilities, shelter, and productive sectors was conducted. Information was based on reports from local councils. A report, covering essential damages to assets in these sectors, was subsequently published. As part of this assessment, the Government of Yemen and the World Bank started an early discussion on the various possibilities of the World Bank providing support to the government for infrastructure reconstruction, and recovery, as well as a risk and vulnerability assessment. Following the request of GoY, the World Bank, in partnership with the EU and the UN through GFDRR conducted a more detailed Damage and Loss Assessment (DALA).¹³

Table 1: GFDRR DaLA Estimates for Damages and Losses, Differentiated by Sector

Sector and Sub-Sector	Disaster Effects			Ownership by Sector	
	Damage (YR, mln)	Losses (YR, mln)	Total (YR, mln)	Public (YR, mln)	Private (YR, mln)
Productive	111,468.3	137,629.7	249,098	39,406.5	209,691.5
Agriculture, Livestock, Fishery	109,937	97,305	207,242	39,406.5	167,835.5
Industry, Commerce, Tourism	1,531.3	40,324.7	41,856		41,856
Social Sectors	39,983.4	5,536	45,519.4	12,843.9	32,675.5
Houseing	32,249.4	3,246.2	35,495.6	2,820.1	32,675.5
Education	3,460	34.8	3,494.8	3,494.8	
Health	4,274	2,255	6,529	6,529	
Infrastructure	22,532.9	6,520	29,052.9	24,581.8	4,471.1
Electricity	4,016	1,200.2	5,216.2	5,216.2	
Water and Sanitation	6,033.6	679	6,712.6	6,712.6	
Transport	11,999.9	4,326	16,325.9	11,942.8	4,383.1
Communications	483.4	314.8	798.2	710.2	88
Cross Sectoral	976.9	2,904	3,880.9	3,642.2	238.7
Environment	35	2,904	2,939	2,939	
Public Buildings	941.9		941.9	703.2	238.7
Total (YR, mln)	174,961.5	152,589.6	327,551.1	80,747.4	247,076.7
Million US\$	874.8	769.8	1,637.8	402.4	1,235.4

Source: Estimates of the DaLA Assesment Team using information from official and other sources

¹³ Back to Office Report, Mission October 29 – November 2, 2008, Hadramout and Al-Mahara Flood Damage Assessment and Scope for an Emergency Recovery Operation, IDA and the Republic of Yemen.

The DLNA estimated the overall recovery needs to US\$ 1,064.51 million. As of 2013, the met and unmet costs of recovery needs are as follows:¹⁴

Overall Estimated Cost of Recovery (US\$ millions)	Funds Available at MoF		Unmet Needs Awaiting Funding
	Committed to RRF	Remaining Uncommitted	
1,064.51	145.02	87.32	814.09

2010 saw the highest level of annual focus geared towards reconstruction operations in Yemen as the GoY showed willingness and an ability to cooperate with local, regional, and international partners. In 2010, Recovery and Reconstruction Fund (RRF) operations met and surpassed planned targets for the year by 22%, accounted for 40% of all incoming funding commitments over the 2009-2012 period, and annual 2010 expenses tied to recovery were the equivalent of 50% of total expenses over that same timeframe.¹⁵

Instability and uncertain political transitions in Yemen as of early 2011 had a negative impact on donor funding. Unrest served to shift the focus of both the GoY and external donors away from natural disaster recovery. The post-2011 local, national, and international efforts were centered principally on mitigating the effects of political change and an uncertain transition of power in the capital Sanaa. Unlike 2010, the following years suffered dramatic reductions in funding as follows:

- 2011 – 50% Stoppage of Finance against planned
- 2012 – 80% Stoppage
- 2013 – 100% Stoppage

¹⁴ RRF Performance Report, 2009-2012

¹⁵ Ibid.



PRE/EXISTING MINIMUM LEVEL INSTITUTIONAL ARRANGEMENTS

In the face of disaster events that have been growing both in number and size in the recent past, the Government of Yemen, with the support of development partners, has put in place an institutional arrangement for disaster risk management, in the aim of coordinating and managing the aspects related to disaster preparedness, response, and mitigation. This arrangement, whose legal basis is found in the Civil Defense Law of 1997, is outlined in the National Disaster Management Plan, a draft of which was prepared in 2006 by the Ministry of Interior's Civil Defense Department with support from the UN agencies and was updated in 2010.

The GoY had previous experience with disaster reconstruction operations and fund/council setup (1982, 2007, 2009, 2012), with concepts like BBB and embedding recovery in long-term development:

- Supreme Council for Reconstruction – Dhamar earthquake, 1982 (headed by Vice President)¹⁶
- Supreme Council for Disasters (headed by Prime Minister)¹⁷

The advent of the Yemeni civil war in 1994 served to dissolve many of these councils. In the post-war period, three reconstruction funds were established:

- Saada Reconstruction Fund (Conflict, July 2007)¹⁸
- Hadramout Reconstruction Fund (Natural Disaster, 2009)
- Abyan Reconstruction Fund (Conflict, June 2012)¹⁹

Since 1990, the World Bank (WB) has supported more than seven operations (worth approximately US\$ 200 million), largely focused on post-disaster reconstruction, in addition to flood reducing activities under other operations. The most significant projects were the Taiz and Sailah (Sana'a) flood management projects that have dramatically transformed the cities and reduced the risks associated to flooding. GoY's institutional memory did not preserve these lessons previously learned through these experiences, and as illustrated in the chart below,²⁰ Yemen's approach to managing disasters continued to be reactive, focused on post disaster relief activities.²¹

¹⁶ <http://cidbimena.desastres.hn/docum/crid/Septiembre2007/CD1/pdf/eng/doc11963/doc11963-contenido.pdf> Is an example of a recovery and reconstruction effort done by the Swedish Relief. It had a DRR, preparedness and BBB components, and discusses contractor vs. self-built housing reconstruction. It recommends embedding recovery as part of long-term development, national mapping of risk areas (risk assessment), and national policy, building codes, and central database system to coordinate such work.

¹⁷ Year unknown.

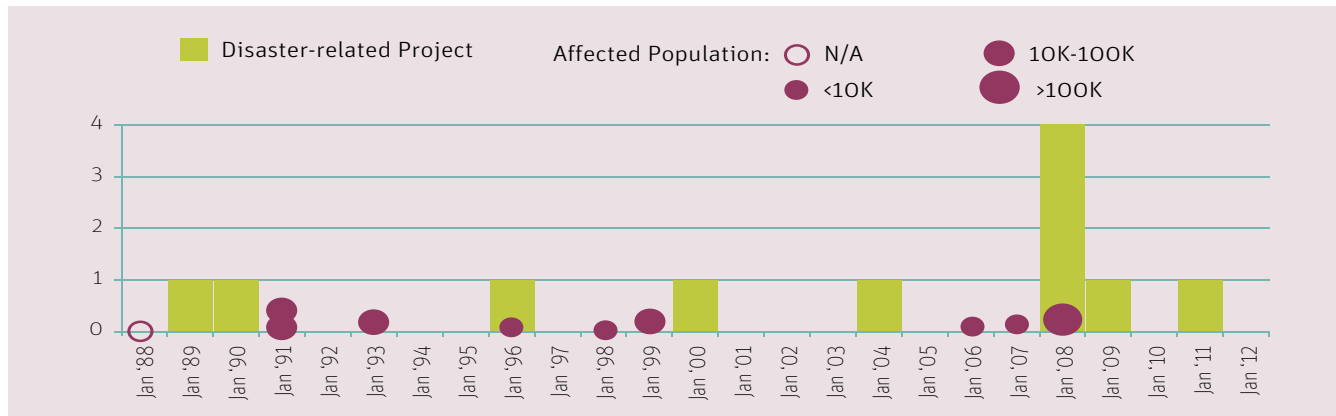
¹⁸ <http://www.almotamar.net/en/3114.htm>

¹⁹ http://www.yemen-nic.info/english_site/government/detail.php?ID=31789

²⁰ Adapted from: World Bank Internal Database and EM-DAT list of disasters for Yemen.

²¹ Yemen DRM Country Note <http://gfdrr.org/ctrydrmnotes/Yemen.pdf>

Figure 1: Disaster-relevant World Bank Projects–Yemen, 1989-2012



In 2008, in response to torrential floods in Governorates of Hadramout and Al-Mahara, the World Bank performed a Post Disaster Needs Assessment (PDNA) mobilizing funding for the implementation of the Yemen Flood Protection and Emergency Reconstruction project (US \$ 41 million). These funds were instrumental to assist Yemen rehabilitate and rebuild critical infrastructure, ensuring that the new infrastructure was “flood proofed”. The PDNA catalyzed multi-sectoral national debate on proactive DRM, resulting in the launch of a National, Governorate, and Capital level probabilistic risk, and water management studies performed by RMSI (for a total of US\$ 1.4 million by GFDRR) providing the basis for the design of comprehensive DRM planning and mitigation measures. The Government’s attention to disaster resilience has been mainstreamed since 2006, and was in the process of mainstreaming through national policy when the disaster hit in late 2008.

Immediately following the disaster, the Prime Minister’s cabinet appointed the Deputy Prime Minister for Internal Affairs and the governor of the affected areas to lead the relief effort. Quickly, the government took strong ownership of the relief and recovery effort, and the president took an early interest and visited Hadramout during the relief phase with the governor and the minister of local affairs. During the relief phase as part of the Operations Committee, a strong central government presence was established in Hadramout, the worst affected governorate.²²

DISASTER RISK MANAGEMENT (DRM) IN YEMEN

The Unit in the Civil Defense Directorate has the mandate to focus on disaster management and response in Yemen, while the Department of Environmental Emergencies under the Ministry of Water is responsible for reporting on progress in Yemen on the five priority areas of action outlined in the Hyogo Framework for Action, to the UN International Strategy for Disaster Risk Reduction (UNISDR) – UNISDR being the agency that is responsible for monitoring progress on the Hyogo Framework.²³ Although the DEE has represented Yemen at several international forums, it has limited resources. The Unit in the Civil Defense Directorate, on the other hand, is better resourced as it has been responsible for providing emergency relief after disasters.

Yemen has established an institutional basis for implementation of actions related to disaster risk reduction. There is a legal foundation for the creation of an organizational structure for managing the risks from disasters, and Yemen has designated its Ministry of Interior to lead the structure. The 1997 Civil Defense

²² Early Recovery Project for the livelihoods Sector of the Flood Affected Areas in Hadramout and Al-Mahara Governorates, Yemen, UNDP, September 2009.

²³ The Hyogo Framework for Action (HFA) 2005-2015: *Building the Resilience of Nations and Communities to Disasters* was developed during 2005 World Conference on Disaster reduction in Kobe, Japan. The HFA aims to substantially reduce disaster losses, in lives and in the social, economic and environmental assets of communities and countries by effectively integrating, in a coherent manner, disaster risk considerations into sustainable development policies, planning, programming, and financing at all levels of government.

Law defines the responsibilities of the Civil Defense General Directorate with respect to for disaster management.²⁴ Subsequently, the Executive Bylaw and the Republican Decree (N°386) became the basis for the Supreme Council of Civil Defense. The Council is responsible for providing policy direction, approving plans for disaster preparedness and response, and defining the tasks and responsibilities of each ministry/agency, actors and stakeholders before and during any emergency. It is chaired by the Minister of Interior, and includes key ministries as members. However, when the floods occurred in 2008, the Supreme Council was chaired by the Prime Minister himself on two occasions.²⁵



POLICY FRAMEWORK FOR RECOVERY

- **Before the Disaster – Attention to Resilience in the National Development Plan:** Yemen’s Third Socio-Economic Development Plan (2006-2010) explicitly recognized the need to reduce risks from adverse natural events and focused on mainstreaming risk reduction from adverse natural events in development. The World Bank’s Country Assistance Strategy (CAS) for the period 2009-2013 therefore included the “management of natural resource scarcity and natural disaster risk” as an explicit CAS goal.
- **After the Disaster – Planning for Resilient Recovery:** The GoY has embarked on disaster recovery with an emphasis on risk reduction and resilience. This was evident in the DLNA which provided an overall DRM needs assessment, and used the 2008 disaster to work toward the HFA objectives and commitments that the government agreed to in 2006. Furthermore, the GoY carried out probabilistic risk assessments with the support of GFDRR as part of the recovery effort, in order to design comprehensive risk management strategies at the national, provincial, and local levels, enabling long-term disaster risk reduction planning and mitigation measures.
- **Establishment of a Single Multi-Sectoral Mechanism for DRM:** Given the multi-sectoral nature of hazard risks, and the limited capacity of Yemen Institutions, in early 2010, the World Bank, and the Yemen DRM institutions started crafting a multi-sectoral DRM program. This cohesive approach, which is being crafted across DRM, Climate Change, Food Security and Water, is

²⁴ Protecting the population from natural and general disasters and securing methods of safety and communication during peace and war (source Law N° (24) of 1997 on Civil Defense).

²⁵ http://www.unisdr.org/files/14757_6thCGDRMProgramsforPriorityCountry.pdf

spearheaded by the Government which is keen to identify best international practices and align its policies towards multi-sectoral disaster risk reduction to mitigate its negative impacts on Yemen's development. This program aims to establish a single mechanism for risk management under the Prime Minister's office, to enable comprehensive multi-donors risk management across ministries (absorbing donor funds as well as the Government's funds). A legal document will be prepared for the establishment of this fund.

- The mechanism will enhance the country ability to cope with crisis and emergencies, including its preparedness capacity, whether these risks arise from natural hazards, climate change, food security, or water scarcity. The mechanism would function as a 'one-stop-shop' providing:
 - technical capacity for rapid assessment of disaster loss and damage;
 - expertise for development of recovery strategies; and
 - decision support services to the Prime Minister's office and to the Cabinet to enable risk reduction and crisis mitigation.
- The establishment of this multi-sectoral mechanism will include the development of emergency procurement procedures, financial management and crisis response coordination, which could be used in the case of disaster event, severe economic and financial shocks including, food security emergencies, or any event that causes serious adverse economic and/or social impact associated with natural or man-made crisis or disasters.
- **There is progress on the identification, assessment, and monitoring of risks from disasters, and the establishment of an early warning system is in its infancy:** In addition to the World Bank²⁶, the UN agencies, and the Government of Norway have provided support to initiate disaster risk management related activities in Yemen. They supported the Disaster Preparedness, Management and Recovery project in 2003, which established under the Civil Defense General Directorate the National Disaster Management Unit (NDMU). However, the Unit would require technical and financial strengthening, in addition to an improved internal re-organization that would enable it to develop the necessary vertical mechanisms for coordination with sub-national entities and communities.
- **Making disaster risk management a priority:** sub-national governments, their agencies, and local communities ought to be integral to the planning and execution of DRM activities. This could generate a sense of ownership, which could lead to more effective policy implementation. There was already progress towards decentralization in Yemen, and Yemen's decentralization policy²⁷ mandated local governments with disaster risk management and reduction. The legal foundations for developing and implementing disaster risk management programs at the local level are already in place.
- **Civil Society in the Policy Design:** Civil society has two seats on the RRF board of directors to engage in recovery policy design. However, MOPIC indicated that there is no policy of CSO/INGO engagement in disaster recovery. There are about 10,000 local CSOs in Yemen; none is working on disaster recovery; whereas for INGOs: there are about seven big players, of which only the UAE Red Crescent (entered Yemen in 1982) engaged in housing reconstruction.

²⁶ Refer to the three risk assessment and flood management studies performed by the World Bank.

²⁷ The local Authorities law No. 4 of 2000.

- **Targeted Recovery Assistance:** GoY has worked to ensure that affected areas receive support tailored to local economy-specific priorities. For example, in agriculture: the limited size of cultivatable land area meant that the farmers were at risk or facing poverty in the pre-disaster period. As a result, affected demographics were forced to migrate and look for employment and income elsewhere. Therefore the MOAI tried to help people recover on their own lands to mitigate post-disaster migration. On the other hand, MPWH stressed and ensured the intensive use of local materials and labor-intensive projects, allowing affected people to train and to work as labor in the reconstruction of their own homes, as well as enabling local communities to participate in group work related to public amenities reconstruction tied to water and sanitation.
- **Emerging Understanding of Conflict as Baseline Operating Condition:** Conflict in one area affects governance in other regions as the capacity for broader public service delivery deteriorates. Nominally, after a given conflict is over, MOAI encourages refugees to return to their homes and their lands. However, returnees have few post-conflict prospects or opportunities due to loss of capital, and the resources associated to local or regional production. Therefore, MOAI would like to develop a re-integration system, in order to provide people with a baseline of core resources – such as seeds for harvests and livestock – as a means of restarting their socioeconomic activity and productivity. A system of re-integration will require more social and demographic policy understanding, beyond engineering and water/soil-related sciences.





INSTITUTIONAL FRAMEWORK FOR RECOVERY

EARLY RECOVERY

The government of Yemen was unprepared to conduct recovery operations on the scale required by the disaster of 2008. In the first few months after the disaster, line ministries undertook reconstruction activities in their own sectors. This work was coordinated by the office of the President and the cabinet. There was a need for work to begin prior to the establishment of an overall recovery body, which is why relief activities were facilitated by reconstruction work. For example, the Ministry of Public works did some early work to make roads accessible for relief work. Additionally, the initial assessments of the impact of the floods did not accurately capture its impact, and during the first few months, the government expected the line ministries to be sufficient to carry out the recovery.²⁸

In the absence of a government plan, in Hadramout, the governorate prioritized recovery efforts on its own.²⁹ According to a UNDP report, no fully coordinated recovery plan existed as of September 2009.³⁰ Early recovery projects such as UNDP's livelihoods sector interventions, built on the Operations Committees established during the relief phase and served as the entry point for the projects. This allowed early recovery to build on the close working relationships established during the relief phase with the administration of the governorate, the department of civil defense, and the local councils.³¹

UNDP also leveraged its existing network to assist with Early Recovery projects. The relief work relocated people and provided them temporary housing. Local authorities (local councils) were also tasked with recovery. As reconstruction work progressed, the government realized that the scale of recovery work required exceeded the capacity of line ministries. As a solution, the government identified areas of recovery where capacity was lacking, and a dedicated agency to lead recovery in these sectors was decreed to be established.³²

The RRF became active in mid-2009. Until mid-2009 the recovery was ad-hoc. For example and as mentioned above, the Ministry of Public Works was undertaking some infrastructure works. The ministry of energy was working on its own electricity infrastructure. The president's office was coordinating the work of reconstruction activities before the establishment of the RRF. Recovery was led by line ministries, most prominently the Ministry of Public Works, the Red Crescent and later the Recovery and Reconstruction Fund.

²⁸ Authors' interview with DRM Specialist, July 1st, 2014.

²⁹ Early Recovery Project for the livelihoods Sector of the Flood Affected Areas in Hadramout and Al-Mahara Governorates, Yemen, UNDP, September 2009.

³⁰ Ibid.

³¹ Ibid.

³² Authors' interview with DRM Specialist, July 1st, 2014

RECONSTRUCTION AND RECOVERY FUND (RRF)

Following DLNA's recommendations, the government established through a presidential decree, the "Fund for Hadramout and Al-Mahara Reconstruction" (also known as the Recovery and Reconstruction Fund or RRF) to support the recovery and reconstruction activities of the two governorates.³³ The fund was established primarily for the post disaster activities and not for disaster prevention. An executive director was appointed to oversee the day to day operations of the Fund. It is governed by a board of directors and is chaired by the Prime Minister.³⁴

RRF is dedicated to achieve national, social, economic, and humanitarian objectives through the reconstruction and recovery operations. RRF stipulates a strong executive management structure with enforceable mandates that enable a motivated workforce to achieve the RRF objectives and move away from centralization. RRF also use objective indicators to monitor and evaluate performance and progress toward objectives with a high degree of financial and administrative autonomy.³⁵

Other features of RRF's approach include transparency in all policies and procedures to support effective communication between the RRF executive body and beneficiaries through local representatives. The RRF prioritizes flexibility to support feedback as a means of innovating and taking corrective action when and where needed, direct contracting with beneficiaries and effectiveness through partnerships with local communities as opposed to the internal operations of RFF. Lastly, liaising with NGOS, the private sector and local government entities enabled better responses to reconstruction needs.³⁶

In the months following its establishment limited public visibility of the fund led to a public outcry. As a consequence, the prime minister appointed a new executive director in July of 2009 with specific instructions to deliver quick results. Since then, the fund has established a credible high performance track record in Yemen. Its operational procedures, mainly related to procurement have not just adhered to the considerations of economy, transparency, and efficiency but have been informed by both explicit and tacit local knowledge. It is this latter element that has been instrumental in the delivery not just of rapid results, but also in the strengthening of social cohesion that is likely to be a critical enabler for future risk reduction activities in the governorates.³⁷

The fund supports housing, agriculture, fisheries and services to the displaced through its cash transfer program, and from trunk infrastructure, site preparation for new homes and rehabilitation of damaged infrastructure from its Direct Contracting Program. The key factors success are:

- the autonomy for the Fund's operations which have facilitated innovative operational procedures as it reports directly to the Prime Minister;
- its decentralized structure with sufficient authority delegated to its branch offices;
- management based on accountability and transparency;
- leadership and merit based staffing; and
- harnesses and builds on existing social networks within the affected areas.³⁸

³³ Please refer to the annex, Mandate of the fund – Translation of the Decree in the annex in the Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October16, and November 8 – November 13, 2010.

³⁴ Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October16, and November 8 – November 13, 2010.

³⁵ RRF Manual and Bylaws – 2008, p. 4.

³⁶ Ibid.

³⁷ Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October16, and November 8 – November 13, 2010.

³⁸ Ibid.

COMPOSITION OF THE FUND

As the highest policy setting body in the RF, the Board of Directors chaired by the Prime Minister, included the following members:

Minister of Local Administration and Deputy Prime Minister; the Minister of Planning and International Cooperation (also Deputy Chairman); the Minister of Finance; the Minister of Legal Affairs; the Minister of Education; the Minister of Public Health and Population; the Minister of Public Works and Roads; the Minister of Water and Environment; the Minister of Telecommunication and Information Technology; the Minister of Agriculture and Irrigation; the Minister of Interior; the Minister of Electricity and Energy; the Secretary General of the Cabinet; the Governor of Hadramout; and, the Governor of Al-Mahara.³⁹

INVOLVEMENT OF MINISTRIES

The aforementioned ministries, members of the Fund's board of directors, have to be present, as they are usually involved in the emergency and relief phase. While service ministries are present, they have no role in the project's execution and implementation. It is the fund's executive administration that implements projects.⁴⁰

The fund was also respectively composed of the representatives of the Hadramout and Al-Mahara Chambers of Commerce. Civil society inclusion in the Board of Directors was established through the inclusion of two NGO representatives, one from each of the affected governorates.⁴¹ The affected population also had a representative on the board.⁴²

MORE ON CIVIL SOCIETY PARTICIPATION

Civil society representatives, members of the board, were chosen by the Minister of Local Administration and following the council of ministers' decision. Three public figures (important individuals) are designated by the cabinet of ministers based on recommendations from the respective local administrations in collaboration with the governors of Hadramout and Al-Mahara. So were the representatives of the affected communities such as the farmers and fishermen, as well as civil society representatives who were members of parliament. These individuals and organizations were chosen because they were affected by the disaster or because of their involvement in the reconstruction at the local level.⁴³

PROJECT DESIGN AND STAFFING

The Fund's executive management was comprised of diverse technical, engineering, and legal expertise from the private sector and those who have experience working with the local authorities of Hadramout and Al-Mahara, which could also facilitate the link between citizens and the fund.⁴⁴

Given the region's specificities work force was employed locally because of their expertise and know-how. Engineers and construction teams were all local hires with expertise and experience working with local materials and methods, including with regards to clay-based construction. In 2010 – about a year and a half after the flood – the number of employees working across specializations (administration, technicians, finance, etc). reached approximately 200. While the Fund relied on these employees, it also consulted and relied upon cadres working

³⁹ Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October 16, and November 8 – November 13, 2010.

⁴⁰ Authors' interview with senior reconstruction official, July 8th, 2014.

⁴¹ Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October 16, and November 8 – November 13, 2010 and authors' interview with senior reconstruction official, July 8th, 2014, name withheld.

⁴² Authors' interview with Senior Reconstruction Official, July 8th, 2014.

⁴³ Ibid.

⁴⁴ Ibid.

with local government. The Fund also at times sought counsel and guidance from outside the region.⁴⁵

PROCESS

Once a project is selected by the executive branch of the Fund, it is discussed with local entities specialized in construction or infrastructure development. Local entities would then conduct a feasibility study, which would then be vetted by the Fund's review board prior to project implementation.

Example of a project from Start to finish (or a typical process): The Say'oun airport project was intended to restore and rebuild the airport in the wake of flooding in 2008 that damaged runways and other critical infrastructure within or in close proximity to the facility. The desired end-state for the airport is to put in place counter-measures that would redirect water away from the airport in the event of future flooding. The Say'oun airport project was implemented within a very narrow timeframe and at lower cost than expected.⁴⁶

ON HOUSING AND LIVELIHOOD

Priority was given to the housing project in affected areas to alleviate pressure on displaced citizens and to encourage their return to their homes and communities. A focus on infrastructure reconstruction and overall livelihood was also maintained in parallel to securing the housing effort, which included irrigation canals, boats and boating equipment for fishermen, etc.⁴⁷

“BUILDING BACK BETTER?”

Hadramout's unique cultural heritage, eight hundred-year history and traditional clay construction were maintained in the wake of the 2008 flood. While the impetus for reconstruction is grounded in “building back better,” there was no need to change or enhance clay-based construction processes which had proven sound for centuries. Infractions tied to the illegal redirection of irrigation canals and waterways were viewed to have undermined the structural integrity of buildings and infrastructure in Hadramout as opposed to construction methods employed in the area. Clay remains ideal for construction in an area where concrete construction is not viable, to say nothing of clay's thermal properties when adapting to both warm and cold climactic conditions.⁴⁸

Both legal and illegal buildings were destroyed during the flooding. Inhabitants of buildings constructed in areas without proper legal authorization within the flood planes were subsequently relocated to areas where reconstruction could be pursued legally and with the appropriate permits.⁴⁹

COORDINATION (FUND & GOVERNMENT)

The Fund works in coordination with local government on every aspect of its reconstruction efforts, including the Governor and the Director General of the directorate of Hadramout and al-Mahara. Every step of the Fund's work is conducted in complete cooperation with them. During quarterly meetings, the work of the Fund is discussed. Comments, suggestions, critiques and corrections are shared with the Fund, and the Fund cannot act on its own without the input of local government.⁵⁰

⁴⁵ Ibid.

⁴⁶ Aide Memoire, The Republic of Yemen, GFDRR, DRM Mission, September 17 – October 16, and November 8 – November 13, 2010 and authors' interview with senior reconstruction official, July 8th, 2014.

⁴⁷ Authors' interview with senior reconstruction official, July 8th, 2014.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Authors' interview with senior reconstruction official, July 8th, 2014, name withheld.

Some challenges arise between the Fund and local government, but are managed and handed through dialogue. Local government may at times try to shift local pressures onto the Fund in ways that fall outside the mandate of the organization. For example, local government asked the Fund to take ownership of construction projects in Tarim – the proposed Islamic cultural capital – which were outside of the Fund’s purview in a bid to benefit from its quick turnaround time in post-flood reconstruction. The Fund subsequently completed the effort in about two months’ time.⁵¹

EXECUTION/IMPLEMENTATION OF PROJECT

The Fund did not implement all of the reconstruction work. Some of it was undertaken by the UAE Red Crescent and the Yemeni ministry of public works – efforts which did not fall under the purview of the Fund, including some of which pre-dated the creation of the Fund itself. Even after the creation of the fund, third party efforts such as these continued to function based on their own discreet priorities and resources.⁵²

STRENGTHS AND WEAKNESSES

A barrier may exist between the Fund and donors in that there is no direct link between the donor community and the Fund. This has served to slow down the overall recovery, given the multiple actors that stand between aid and project implementation.

Positive: The powers that were given to the executive branch of the Fund by the board of directors enabled the fund to work freely, taking advantage of laws governing tenders in Yemen, specifically in the context of disaster events. The Fund can circumvent bureaucratic hurdles which can be time and labor-intensive, and this in turn facilitates efforts toward rapid reconstruction.⁵³

THE FUND TODAY

Shortfalls in funding may serve to complicate current and future priorities toward reconstruction and recovery. One way this challenge would manifest itself could include the executive branch not getting previously agreed upon allocations from the board of directors because the ministry of finance may be unable to live up to its commitments.⁵⁴

WORKING IN A CONFLICT PRONE AND HAZARDOUS ENVIRONMENT

Since 2011, political turmoil also had negative effects on key aspects of the overall efforts. First, the absence of funding has hindered reconstruction. Second, the country’s declining security environment undermined the completion of reconstruction and recovery initiatives despite the continuous support of local government to the executive branch. Lastly, the political situation influences ministries and other institutions, including the Fund.⁵⁵

⁵¹ Authors’ interview with senior reconstruction official, July 8th, 2014, name withheld.

⁵² Refer to table on “Fund pledges and commitments as a result of the Donor Conference,” April 2009.

⁵³ Authors’ interview with senior reconstruction official, July 8th, 2014.

⁵⁴ Ibid.

⁵⁵ Ibid.



RECOVERY FINANCING

On October 27, 2008, the Government of Yemen (GOY), represented by the Ministry of Planning and International Cooperation (MOPIC), requested the international community's support to assess the damages, losses, and post-disaster needs and to join the reconstruction and recovery efforts. The World Bank (GF-DRR) assessed the damage to infrastructure, shelter, and productive sectors; whereas the UN assessed humanitarian needs and emergency relief. These needs assessments fed the donor pledging conference organized in April 2009.⁵⁶

SOURCES OF FUNDING FOR RECONSTRUCTION

- Amounts Financed by GoY from Budget (Salary One-Day Cut - \$4.25 mn). The total amount financed by GoY from Budget (\$100 mn)⁵⁷
- Amounts collected through donations from citizens, local and regional charity, and the private sector (\$8.5 mn)⁵⁸(NA)
- Pledges at the donors' conference (\$301 mn)
- Funds re-allocated from donors for ongoing projects, adding new funding (Total NA, because most funding takes place through direct implementation, therefore there are no central records)

MOBILIZED FUNDS: RECIPIENTS AND ALLOCATIONS

The biggest donors to the Hadramout and Al-Mahara flood recovery and reconstruction were the Arab Fund, Saudi Arabia, The World Bank, and the UAE.

⁵⁶ In general, per the National Disaster Management Plan, governorate authorities are responsible for preparing a full report on the impact of the disaster, to be submitted to the CDHC (through the NDMU) within two weeks of the end of the major response operations. These local reports are to be added to the ones prepared by the NDMU and/or concerned ministries, to cover the national aspects of the damage (National Disaster Management Plan, General Directorate of Civil Defence, MOI, 2010).

⁵⁷ Authors' interview with senior government official, February 26, 2014.

⁵⁸ MOF Progress Report.

Table 2: Fund Pledges and Commitments as a Result of the Donor Conference, April 2009.⁵⁹

Implementer	Source	Project	% Implementation	Type	Value Pledged (million USD)	% of Total Pledged	Value Committed (million USD)	% of Total Committed
MPWH	WB	Road Recovery	30%	Grant	\$35.0	11.62%	\$35.0	17.40%
	Arab Fund	Road Rehabilitation	-	Grant	\$35.0	11.62%	\$35.0	17.40%
Red Crescent	Abu Dhabi Grant (via UAE Red Crescent)	Housing Reconstruction (1000 Houses)	50%	In-kind Grant	\$27.3	9.06%	\$27.3	13.57%
RRF	Arab Fund	Compensations and Projects (housing, agriculture, fishing, deaths; and infrastructure rehabilitation)		Grant	\$3.9	1.29%	\$3.9	1.94%
	KSA	Compensations and Projects (housing, agriculture, fishing, deaths; and infrastructure rehabilitation)	94% implemented with 49.70% disbursement		\$100.0	33.20%	\$100.0	49.70%
	Private Sector (Civil society through remittances and household donations)	Housing Reconstruction (100 Houses)		In-kind Grant	NA	NA	NA	NA
N/A	Arab Fund				\$100.0	33.20%	0	0.00%
Total					\$301.2		\$201.2	

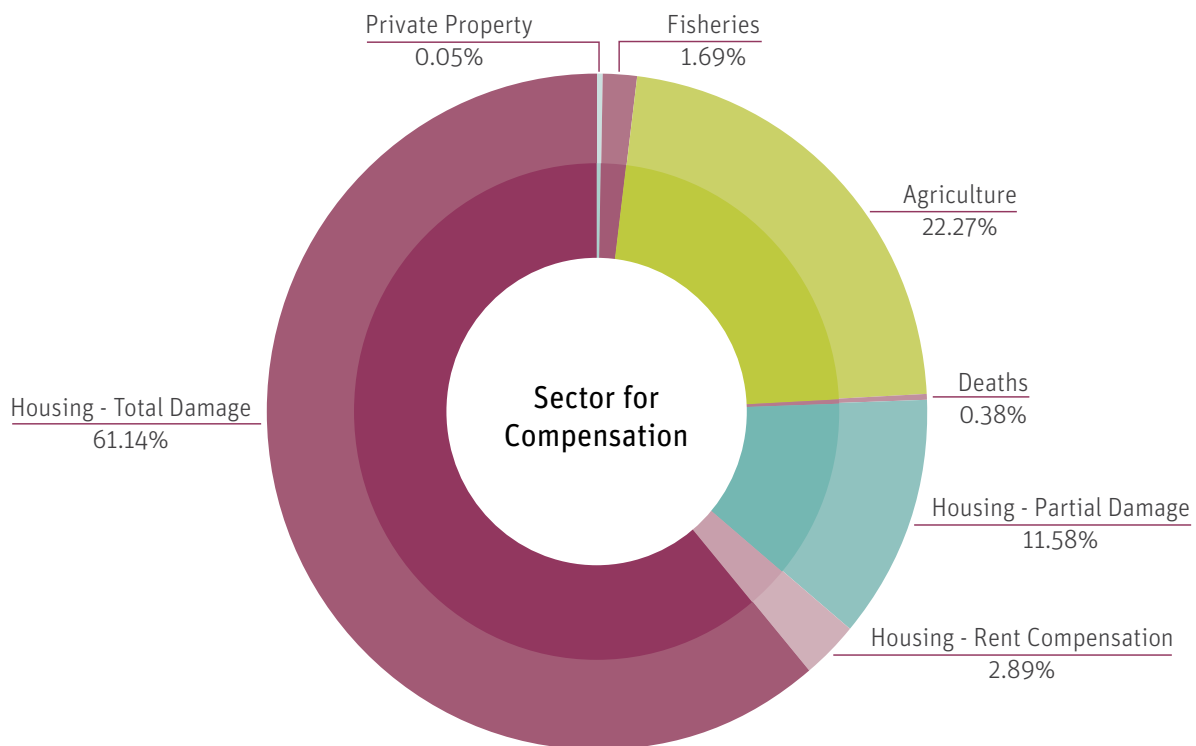
⁵⁹ RRF Performance Report (2009-2013).



RECOVERY PROGRAMMING: NEEDS VS. SPENDING

Housing Sector received 75% of the reported compensation, even though it comprised 12% of the assessed needs. As for the agriculture sector, it received 22.27% of the compensation, despite being the most hit sector with 53.3% of the needs.

Figure 2: Beneficiary Compensation by Sector



Source: Hadramout and Almahara Reconstruction Fund, Government of Yemen.

Report Period: March 2009 - April 2013

Table 3: Beneficiary Compensation by Sector

Sector	Needs (USD millions) ⁶¹	% of Need	% Share of Actual Financing ⁶²
Agriculture	496	53.39%	24%
Crops	445	47.90%	22.27%
Fishing	50	5.38%	1.69%
Livestock	1	0.11%	
Industry/Commerce	9	0.97%	NA
Manufacturing	3	0.32%	
Retail	6	0.65%	
Infrastructure	186	20.02%	NA
Electricity	26	2.80%	
Water	44	4.74%	
Transport	112	12.06%	
Telecom	3x	0.32%	
Social	169	18.19%	
Education	26	2.80%	NA
Health	28	3.01%	NA
Housing	115	12.38%	75%
Cross cutting	19	2.05%	
Environment	14	1.51%	
Religious/Cultural	5	0.54%	
Cash transfer	50	5.38%	
Total Needs	929	100.00%	

There are two theories that could explain this disparity:

- **The Structural Centrality of Housing:** Housing is one of the sectors that enjoys the highest level of priority due to the central role it plays in sustaining logistics and maintaining socio-economic structures. Access to housing mitigates the spread of disease, reduces gender-based violence, in addition to reducing the impact of other similar threats to the daily functioning of societal group. Because of these net effects, government is often compelled to perceiving housing as a top priority line item. However, prioritizing housing becomes complicated when uncalculated numbers of beneficiaries present themselves and consume remaining funds that should have been allocated to other sectors.
- **Perceptual/Political Importance:** When administering any given recovery, housing compensation has a better return on investment in terms of building citizen trust, therefore reducing some of the pressures on government. This can be the case especially in conditions of deteriorating security and governance, wherein the successful management of efforts to recover personal property could also help improve the restoration of security as an external benefit to mitigate/avoid conflict. This is pertinent in part because recovering economic and productive sectors can face higher levels of overall volatility.

⁶⁰ Yemen DLNA 2008, GFDRR.

⁶¹ RRF Performance Report (2009-2013).

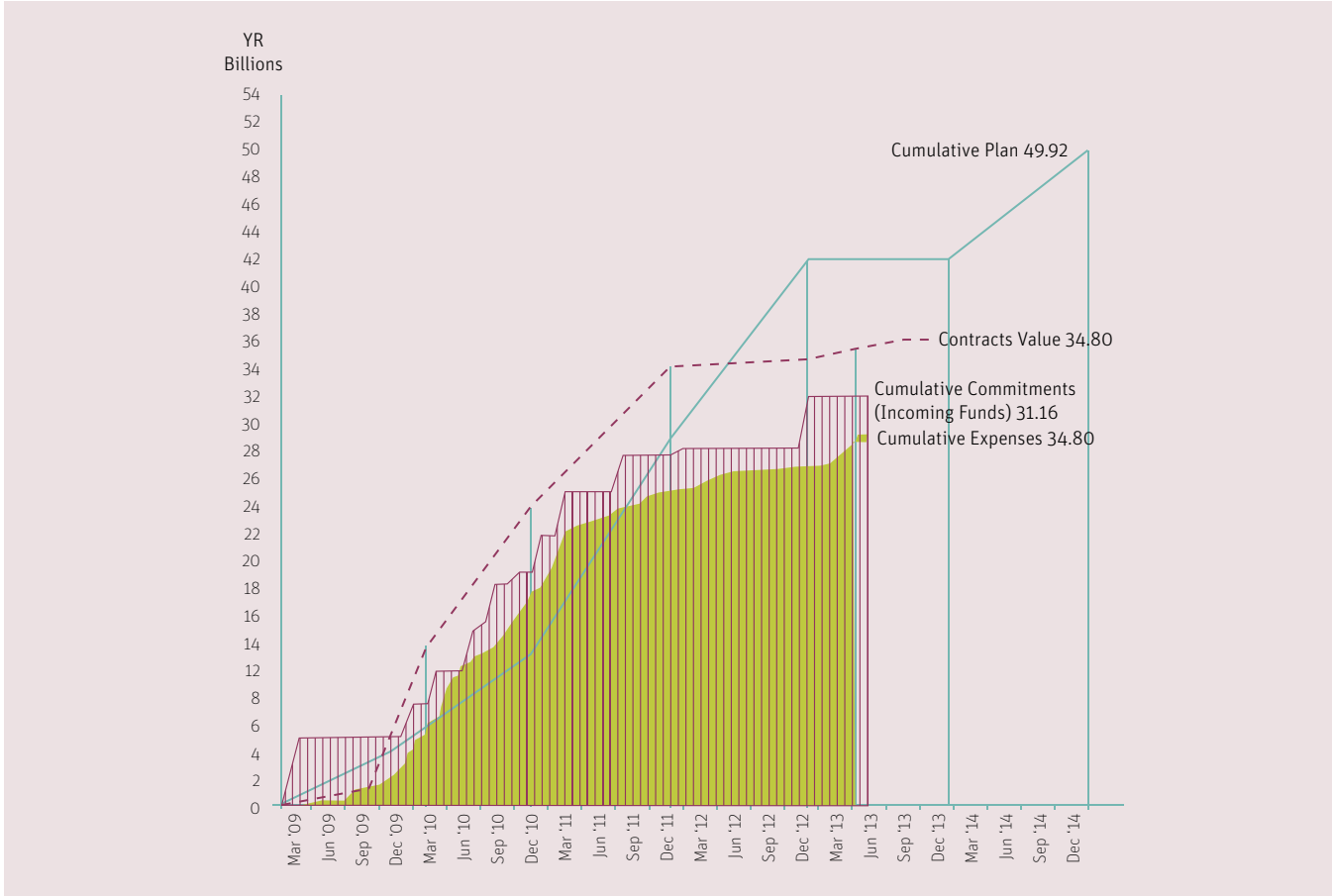
The mismanagement of the housing sector deprives the affected population of every other benefit, and puts the government in a critical position with regards to the success of recovery in every other sector. Failure in addressing the housing sector could also serve to undermine the core metrics of governance altogether, especially if the government is plagued by inherent fragility.

MANAGING THE FINANCIAL PLAN

2010 saw the highest level of annual focus geared towards reconstruction operations in Yemen as the GoY showed willingness and an ability to cooperate with local, regional, and international partners. In 2010, Recovery and Reconstruction Fund (RRF) operations met and surpassed planned targets for the year by 22%, accounted for 40% of all incoming funding commitments over the 2009-2012 period, and annual 2010 expenses tied to recovery were the equivalent of 50% of total expenses over that same timeframe.⁶²

In contrast, levels for 2012 were only 12% of the annual plan and 13% of overall spending, yet operating expenses increased significantly from 2.95 in 2010 to 17% in 2012 despite the contraction of the workforce by 50% of its size.⁶³ With the 2011 political turmoil, donor funding stopped and the government and donor attention diverted from natural disaster to political conflict. UNDP has expressed that this caused the halting of their early disaster recovery project, and that they should lock in funds more securely in the future before embarking on a project should this situation happen again.⁶⁴

Figure 3: RRF Activity (March 2009-2013)



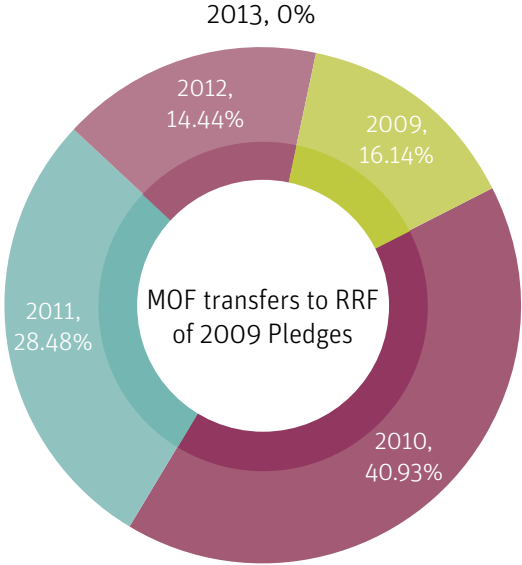
⁶² RRF Performance Report, 2009-2012.

⁶³ Ibid..

⁶⁴ Authors' Interview, with UNDP Analyst, 25 February 2014.

In the period 2009-2012, RRF executive management received only 64.97% of the amount pledged to it in 2009. The time distribution was as follows:⁶⁵

Figure 4: MOF Transfers to RRF of 2009 Pledges.



As of 2013, the met and unmet costs of recovery needs are as follows:⁶⁶

Overall Estimated Cost of Recovery (USD millions)	Funds Available at MoF		Unmet Needs Awaiting Funding
	Committed to RRF	Remaining Uncommitted	
1,046.428	145,023	87.315	814.09

As the drying of funds occurred as follows:

- 2011 – 50% Stoppage of Finance against planned
- 2012 – 80% Stoppage
- 2013 – 100% Stoppage

RRF FINANCING

Direct cash transfers were granted to affected individuals who had lost their houses in a bid to impart a sense of ownership on those directly affected by flooding at the local level. Contracts to disburse funding were implemented by the Fund in three or two tranches dependent upon the scale and timing of any individual reconstruction effort. The Fund also supervised and monitored the progress in overall reconstruction. For example, some individuals were able to complete the restoration or reconstruction of their homes within a five to six month timeframe and at reduced costs. The affected citizens will be provided with a temporary residence for 10 months, covered by the fund. If they don't finish the effort within 10 months the RRF will stop paying for the temporary residence but will not stop funding the reconstruction of the house. Furthermore, if affected citizen did not complete the effort, additional and future funds were then withheld.⁶⁷

⁶⁵ RRF Performance Report, 2009-2012.
⁶⁶ Ibid..
⁶⁷ Authors' interview with senior reconstruction official, July 8th, 2014..

The funding is procured from the donor community through the ministry of planning and international cooperation (MOPIC). MOPIC then transfers the funding the finance ministry, which deposits funding as needed in the central bank to be made available to the Fund. When a plan is outlined within the Fund and the board of directors agrees upon a given effort or project, the Fund issues a request to the ministry of finance, which in turn transfers funding to the Fund’s account at the central bank. Funding is then distributed directly as compensation for those who lost their houses and sources of livelihood (bee hives, livestock, fishing boats, etc.) or through local tenders to expand water holes and fertile valleys.

On project compliance, the damage assessment was given to the executive branch which then went about systematically planning for projects in line with assessment and based on information given to the fund by local authorities. The Fund strictly adheres to these guidelines and does not seek to circumvent them or to take on projects outside the scope of the assessment.⁶⁸ Initial program design was created by contractors who were shortlisted based on lists maintained by the government’s central procurement agency. These program designs were vetted by a central team of engineering experts maintained within RRF.

Tenders for recovery activities were solicited by RRF. The cost of the activity was proposed by each applicant. In an effort to limit the competition between applicants to profit margin and program design, the RRF issued standard prices for commodities that all tenders were required to reflect in their proposal. In order to achieve this, prices for construction material, etc. were standardized to match those set by the central government.⁶⁹ This also prevented applicants from undercutting competition by quoting relatively low prices for commodities (which would likely lead to the purchase of sub-par construction material). This not only alleviated resources required to vet tenders since commodity prices no longer needed to be evaluated, it also encouraged firms to focus competition on program design and profit margin.⁷⁰

RECONSTRUCTION AND RECOVERY FUND ACHIEVEMENTS

Compensations	Project Implementation
<ul style="list-style-type: none"> • 20,000 beneficiary (72% of total number of beneficiaries) • 5,000 house restoration for partial damage (serving 48,000 individuals). • 2,000 house reconstruction for full damage (88% of target, serving 20,000 individuals) • 7,000 compensation cases in agriculture (crops, beehives, and livestock) • 2,200 compensation cases in fisheries • 71 death compensation (for surviving families) • 1400 compensations for palm tree planters (includes providing 60,000 palm shoots out of 250,000 target) 	<ul style="list-style-type: none"> • 203 Projects (80% of total projects with committed funds) • 91 projects covering 50km of valley restoration (filtering from Saysaban blockages) • 33 projects in infrastructure • 35 projects in Sheikh Khalifa city • Land preparation million sq. meters = 11 building sites = 782 houses (UAE Red Crescent 1000 Homes Project) • 100% achievement of RRF target for construction site preparations target. • 44 project completions (\$3.2 million) in two months for Tarim reconstruction and rehabilitation in 2010

⁶⁸ Authors’ interview with senior reconstruction official, July 8th, 2014..

⁶⁹ Authors’ interview with senior government official, July 3 and 16 2014.

⁷⁰ Ibid.

A CASE OF INTERNAL ARBITRATION

A Case of Internal Arbitration

In Dec. 2012, tension increased between RRF and MoF and the beneficiary community. RRF was not receiving new funds as agreed from MoF. MoF had concerns about the repeated increases in the number of beneficiaries.

MoF gathered representatives of the three groups (MoF, RRF and the local community), and decided to run a one-time final survey of the damages and the beneficiaries in the governorate, so it doesn't become open-ended, and agreed to commit to this one final assessment.

Up until Dec 2012, YRRF total expenditure was YR 27 bn (\$135 mn), and the remaining needs based on concrete agreed-upon survey were YR 23 bn (\$110 mn) binding to all parties. MoF dispatched the first batch YR 4bn, but the YRRF did not disburse the money up until March 2013. After March they started spending, and then came back to the MoF with more needs to fill.

Find out how an M&E system can solve this problem.

RRF reports that this has been due to contraction in fund commitment and delay of disbursement on the side of Ministry of Finance committees despite RRF requests for disbursement, as well as withdrawal in powers granted from MoF to RRF.⁷¹ On the other hand, MoF diagnosis of this problem refers to shortcomings in the administration of funds, proposing the following corrections to RRF:

1. Increase the efficiency of performance with regards to fund utilization, with optimization and standardization of financial systems between the central RRF office and its branches to ensure financial accuracy and statistical precision in their reports.
2. Finalize the regulations and bylaws governing the work of the Fund, and determine and reconsider the ceiling of powers granted to branches in accordance with the legislation, in addition to the creation of a mechanism for performance monitoring and evaluation.
3. Requiring financial branches of the Fund to not exceed disbursement ceiling granted to it and do not exceed its monitoring powers identified by law.

4. Disbursement of compensation to the affected people according to the statements approved by the Board of Directors of the Fund, and do not exceed it in any way and to give priority for compensation according to the Cabinet Resolution 8/2010 in respect of new cases.

One of the recommendations would be to cut the costs on internal hiring and management.

GOY ABSORPTION CAPACITY

Yemen has a proper financing design set in place for disaster recovery. The design has a single focal point with enforceable mandate for recovery planning, coordination, and monitoring. The structure and governance, a multi-stakeholder organization with relevant variety of expertise, is designated to be member of the board. However, GoY has self-assessed its own financial management hindrances in: weak administrative, procurement and financial system; an inability to attract and retain quality staff; a lack of coordination within the Yemeni government; a lack of predictability in aid flows; and a lack of donor alignment with government priorities.⁷²

GoY is proactively trying to find solutions to these problems, as part of their motivation to join the GCC. In 2008, GoY presented to the GCC a 'vision' of its path to membership including possible reforms concerning financial regulation, the labor market, fiscal policy, and new structures that could be put in place to undertake these and oversee ties with the GCC. Future updates and assessments related to RRF and recovery financing should be informed by the public financial management reforms in place.

⁷¹ RRF Performance Report, 2009-2012.

⁷² <http://www.irinnews.org/report/96407/analysis-where-will-yemen-s-aid-money-go>

ROLE OF THE PRIVATE SECTOR

Anecdotal evidence shows that local government interfaced with the private sector and mobilized private funds and remittances effectively, but no empirical evidence was available for citation, this is an area that could be further tackled in light of GCC recommendation for promoting the private sector, and PPPs. To show the extent of private sector presence in the local community, some interviewees explained that private investors not only invest in the setup cost of community projects, but they also pay their running costs.⁷³ In general, there is strong social cohesion reinforced by the large household size (average 8 people/household), as well as an unintended byproduct of weak governance. This phenomenon constitutes an opportunity to promote disaster resilience through private sector, with market tools like risk insurance, building codes for private businesses, and other private economy tools, as well as revamp the power of governance by virtue of market regulation but non-interference in market.



⁷³ Authors' interview with Monitoring and Evaluation official, February 27, 2014.



MONITORING AND EVALUATION

There was no central automated system to coordinate efforts and facilitate performance monitoring. All monitoring took place through site visits. RRF reports used a descriptive approach to report on outputs, but not on outcomes. They reported summary figures and statistics, but did not measure project performance against benchmarks or baseline indicators.

REPORTING

YRRF works under the supervision of:

- the MOF;
- an independent auditor mandated by the Central Organization for Control and Auditing (COCA), and;
- branches of the COCA in local offices.

YRRF prepares three types of monitoring reports to:

Local Council	Regular reporting
Prime Minister (Chair of BoD)	Regular Comprehensive of all activities and policies
President	On ad-hoc basis, as requested

TRACKING MECHANISMS: SITE VISITS

Monitoring took place through site visits, but not through a central oversight or monitoring system. RRF's role was to plan, monitor, and report updates to the local council, but it is not the case anymore because of underfunding and political turmoil.⁷⁴

There have been no mid-course correction provisions,⁷⁵ whether correction due to self-error, or unforeseen exogenous events. This has been a major challenge in the recovery process, and especially in the MOF-RRF interaction with regards to the assessed size of beneficiaries. On the other hand, GoY ran into financial hardship during political instability in 2011. Despite the fact that events were taking place in a different part of the country, political dynamics affected recovery operations and caused the total stoppage of recovery at least in part due to an inability to factor in the risk of conflict and contingency planning in accordance with those risks.

⁷⁴ Authors' interview with senior reconstruction official, February 24, 2014.

⁷⁵ Ibid.

EMBEDDING STANDARDS FOR PERFORMANCE

To ensure that performance standards are met, RRF stipulates that such standards have to be planned for prior to embarking on the recovery process. In its user manual, RRF listed that a direct cash transfer scheme would be used with beneficiaries as a means of ensuring transparency and effectiveness.

- Most compensation was disbursed in cash to facilitate self-rebuilding. The installments were tied to completion of reconstruction phases according to an agreed upon framework.
- Some compensation was disbursed through direct contracting by providing new homes to affected populations when lost homes were situated in a risk area and concern existed that beneficiaries could rebuild in the same unsafe location.
- Cash transfer models and the implementation of reconstruction and rehabilitation projects promoted the settlement and urbanization of the local population, which is considered a best practice.⁷⁶

PERFORMANCE IN AN UNSTABLE OPERATING ENVIRONMENT

Yemen has been chronically vulnerable to natural and man-made disasters. This significantly hampered program efficiency by interrupting operations and weakening efforts to evaluation performance. These conditions stifled SFD efforts to do any analysis or follow-up reporting on their efforts tied to recovery during the 2009 to 2013 period.⁷⁷

In 2010, the DFID self-evaluation noted that program efficiency was impaired by having too few staff engaging regularly with partners in country. As in many states with similar conditions, addressing capacity constraints – often at the heart of program challenges – demanded individual, predictable, and regular contact and input.⁷⁸ There is a growing need for more adaptable policy solution to deal with unforeseen instability in operations. DFID proposed “lighter and more flexible” planning and assessment processes that were able to “to provide regular, repeated assessments of risks and opportunities.”⁷⁹

⁷⁶ Authors' Interview with government official, February 24, 2014..

⁷⁷ Authors' interview with Monitoring and Evaluation official, February 27, 2014

⁷⁸ <http://www.oecd.org/countries/yemen/45012078.pdf>

⁷⁹ Ibid.



LESSONS IDENTIFIED

- The GoY established a single entity dedicated to achieving national, social, economic, and humanitarian objectives through reconstruction and recovery operations. The Reconstruction and Recovery Fund (RRF) has a strong executive management structure with enforceable mandates that enable a motivated workforce to achieve the RRF objectives and move away from centralization. RRF uses objective indicators to monitor and evaluate performance and progress toward goals with a high degree of financial and administrative autonomy. The fund supported housing, agriculture, fisheries and services to the displaced through its cash transfer program, and from trunk infrastructure, site preparation for new homes, and rehabilitation of damaged infrastructure from its Direct Contracting Program.
- A driver of success in Yemen has been the active involvement of local government. Civil society organizations had a direct interface with the local governor, and held him responsible and accountable for attending their meetings and helping them follow through with what was required for recovery. Further, this kind of personal interaction and trust between communities, NGOs, and local governors seemed to be of growing importance especially under conditions of domestic instability, as local-level access to beneficiaries is a critical barrier to any recovery process.
- Putting in place direct cash transfer mechanisms proved to be a means of direct interaction with beneficiaries. This could serve to help avoid the use of middlemen and may provide for a clearer and more straightforward approach
- The provision of jobs for residents of the affected areas through the implementation of labor-intensive projects proved to be a success. It enabled local communities, particularly those that were affected, to participate in the reconstruction of their homes as well as the implementation of infrastructure projects. The use of local materials and local labor in reconstruction (following local traditions) encouraged local enterprises to engage in reconstruction programs which in turn could stimulate the local economy
- The GoY will put in place a multi-sectoral DRM program that aims to establish a single mechanism for risk management (under the Prime Minister's office) to enable comprehensive multi-donor risk management across ministries. The mechanism will enhance the country's ability to cope with crises and emergencies, including its preparedness capacity (natural hazards, climate change, food security, water scarcity, man-made disasters). The mechanism would function as a 'one-stop-shop' providing:
 - technical capacity for rapid assessment of disaster loss and damage;

- expertise in the development of recovery strategies; and
- decision support services to the Prime Minister's office and to the Cabinet to enable risk reduction and crisis mitigation. The establishment of this multi-sectoral mechanism will include the development of emergency procurement procedures, financial management, and crisis response coordination.

RECOMMENDATIONS

- The involvement of the private sector in the recovery process presents an opportunity to promote disaster resilience through private sector, with market tools like risk insurance, building codes for private businesses, and other private economy tools, as well as revamp the power of governance by virtue of market regulation but non-interference in market.
- A central system that coordinates efforts and facilitates performance monitoring could be an important tool. Operating under a well-established leadership is also key to ensuring accountability through a clear chain of command.
- Moving from risk to resilience means aligning recovery with long term development goals by empowering local systems and people.
- Donors' engagement needs to be aligned with government priorities taking into consideration the government's absorptive capacity.
- The institutional knowledge of the RRF needs to be maintained. Systems need to be put in place to preserve staff capacity and expertise in such a way that they can be mobilized when the next disaster strikes. Knowledge-sharing on best practices and lessons learned could be institutionalized for a resilient recovery that leads to sustainable development. Considering the possibility of setting up a national fund for disaster recovery in the Yemen could lead to the establishment of a centralized coordinating entity. This entity needs to be in direct contact with the relevant ministries. A comity could be set to put in place mechanisms and implement program design.
- Disaster risk mitigation measures need to be taken with a view to multi-hazard risk mitigation. Man-made disasters need to be taken into consideration as they often cannot be predicted, and they do not benefit from early warning systems. A resilient human recovery is important, as subsequent poverty could lead to radicalization, illicit activity, and possible recruitment by radical non-state armed groups.
- Donors and international partners need to make every effort to maintain their commitments to recovery even if conflict threatens to disrupt recovery activities. Not unlike disasters, conflict events impact financial flows into an affected country. When assistance from the international community is a pillar of recovery financing, recovery efforts are particularly sensitive to changing financial flows.

