

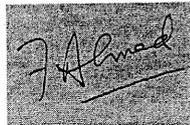
## TERMINAL REPORT

<b>PROJECT TITLE</b>	Enhancing Tsunami Resilience in Pakistan		
<b>ORGANIZATION</b>	Oxfam GB – Pakistan Program		
1.			
Total project budget	US\$ 230,000	Funding received to date	US\$ 230,000
Percentage of total project budget spent	100%	Percentage of funding received to date that has been spent	100%
Duration of Project	22 months	Period covered	01 Dec 2014 to 30 Sep 2016
2.			
Date of signature of LoA	04 Dec 2014	End date agreed between your organization and ESCAP	30 Sep 2016
Current expected date of completion	30 Sep 2016	Interest earned on funding received from ESCAP	

### ANNEXES

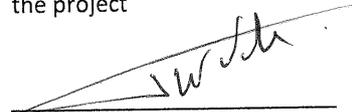
1. Memorandum of cooperation between Oxfam and Pakistan Metrological Departemnt
2. Assest donoation to PMD
3. Report about the installation of Inmarsat satelite siren pole
4. Evacuation Response plan of Gwadar City
5. Booklet "Untold stories" an eye witness account from Indus delta about 1945 Tsunami event
6. Village Disaster Management plan of Damb,
7. Village Disaster Managment Plan of Gadani
9. Province DRM plan of Gwadar
10. Evacuation plan and maps on the basis of research study
11. Pictures of filed activities

I certify the accuracy of the substantive and financial information contained in this report.



Furqan Ahmed  
Programme Funding Manager  
27-Dec-16

The terminal report is accepted.  
I hereby certify that I satisfied with the delivery of the project from the funds ESCAP provided to partner and the expense reporting from IP reflects the realistic progress of the project

  
(Signature of Certifying Officer)  
Mr. Edward Turvill, Programme Officer  
Trust Fund for Tsunami, Disaster and Climate Preparedness

  
Date

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### OVERALL ASSESSMENT

Oxfam acknowledges the financial contributions by the UNESCAP for this project. In 2014, this joint venture was signed between Oxfam and UNESCAP under the program titled “Enhancing Tsunami Resilience in Pakistan”. The aim of the project was reducing the loss of life and destruction of assets, resources and livelihoods from maritime and oceanic hazards in the coastline of Sindh and Baluchistan provinces in Pakistan. Three districts from Sindh and two districts from Baluchistan namely Thatta, Sajawal and Badin and Gwadar and Lasbella were selected respectively for the project interventions. In all the five districts, the field activities were implemented by the implementing partners: TCCR (Trust for Coastal conservation Resources) and PFF (Pakistan Fisher Folk Forum). Based on the agreed upon criteria, the two implementing partners identified communities for the interventions, while Oxfam ensured that the selection of the targeted areas was in line with its policy as well as the criteria set for the project. At the village level, subsequently, selection of the communities was primarily based on their vulnerability and proximity to the hazard and adaptation capacity. It is worth mentioning that 13 villages were identified from the intervention districts while fully engaging members of the communities in the process.

During all the implementation stages, the interventions’ quality was ensured through frequent field visits conducted by of the Country Office staff of Oxfam in addition to effective coordination and management of the project. In this regard, Oxfam allocated additional technical and financial resources agreed upon co-financing arrangement for the project activities. On 30 December 2015, the first phase of the project was completed. Subsequently, between the period January and September 2016, additional funding was provided by UNESCAP in order to complete some of the activities. In the province of Baluchistan, the extension phase of the project was primarily implemented to consolidate the existing investments made for the effective sustainability and optimal productivity of the interventions.

The Project's specific objectives were (1) institutional capacity of the stakeholders is enhanced and EWS are in place/strengthened in addition to the development of Early Warning Systems and preparedness, and (2) community-based disaster risk management (CBDRM) strategies are in place in the targeted districts as well as the increased level of community preparedness and reduced exposure to the coastal natural hazards. By end of the project, there is a strong evidence that significant progress has been made in terms of both components: Results demonstrate that the project has exceeded the set targets. The reported statistics indicate that there are over 21,000 direct beneficiaries, including school students (15,302), government officials (100) and community members

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(5,598) in addition to 30,000 indirect beneficiaries - of which 40% were women - against the intended target of 20,000.

In this project, the approach adopted was participatory, right-based and demonstrative planning which was supported by effective linkages and therefore successfully translated into practice. Data was collected as part of the final evaluation which demonstrates that the project has solid foundations anchored at different stages such as effective community mobilization, the establishment of linkages, involvement of academia in a manner that ensured program sustainability.

Several lessons were learned during different stages of project implementation and coordination, particularly the unique nature of the project, the unfamiliar hazard, and remoteness and isolation of the project implementation communities coupled with the availability of limited technical expertise to name a few of the key challenges. Another major challenge faced during the implementation phase was the operational approach adopted for this project, for example, identical resource allocation for both Sindh and Baluchistan provinces, which offered significantly differential contexts and operational environment. In addition, the concrete outcomes such as devising a mechanism to regularly update the database in the Tsunami Centre, Karachi will take ample time and efforts, which Oxfam is contentiously perusing as part of its advocacy with the Pakistan Metrological Department (PMD) to institutionalize the process in line with its standard operating procedures. However, the evidence indicated the firm commitment from PMD, Islamabad to continue working in this area as well as planning effective interventions in the future.

Contrary to the perception that women might not come forward and actively participate in the project activities, the objective of mobilization of stakeholders was achieved successfully despite the fact that there were several challenges such as women involvement and their mobilization, particularly in Baluchistan. However, there has been a considerable progress regarding women's increased involvement and participation in various activities such as their participation in the training sessions including female students. This indicates an effective mobilization of the marginalized females who availed the opportunity by coming forward and participating in the risk reduction activities rather than remaining passive.

There is ample evidence that suggests that the program management and lateral and vertical coordination has worked well: It is evident from effective networking and linkages drawn at the UN agencies, public and non-profit entities levels. In addition, the flexible project management approach has significantly contributed to the continuous evolution and adaptation of the program components and activities, which maintained relevance to the local context e.g., an extension of the Inmarsat siren pole and combining research

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activities.

Oxfam has completed this project while following its philosophy to make difference in the lives of poor communities including women and men. In this respect, 20,000 direct beneficiaries are living in this relatively resilient communities model of Community Based Disaster Risk Management (CBDRM); therefore, Oxfam would like to work with similar communities in the future to fill the identified gaps to make them proactive rather than reactive in dealing with the tsunami hazard.

Based on the evaluation and critical review of the project, the following are some of the significant findings and short-term impact. In the first half of the project period, the project implementation primarily focused on community mobilization, coordination and capacity building of the relevant authorities responsible for tsunami warning and dissemination. Oxfam and its partners have successfully achieved most of the targets against each indicator outlined for the interventions. In this context, following is the detail of the activities conducted along with the achievement level.

### **Output 1: Institution capacity of the state is enhanced and EWS in placed/strengthen and functional**

#### **Indicators:**

- Percentage of local authority departments at province and district level report increased capacity and knowledge base to reduce and manage
  - Disaster impacts by the end of the project.
  - Gender responsive SOP for capacity building and information dissemination is produced
  - Number of publications disseminated for evidence-based decision-making at policy and practice levels

The expected results keeping in mind the planned indicators have been achieved in this component. The progress against these indicators is summarized as under:

Increased capacity of different stakeholders for tsunami hazard dissemination to the remote and isolated areas: 100 government officials (who were involved in various capacity building activities and planning exercises) have now better understanding and knowledge about the Tsunami hazard, its effects, and improved coordination and warning monitoring system at the country level.

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Mainly through the project activities, the relevant stakeholders have now better understanding regarding the importance of pre-disaster phase (e.g., disaster preparedness) and coordination, which is now considered as the main responsibility of the provincial disaster response agencies.

Other achievements of the project include sensitization and mainstreaming of the dysfunctional satellite Tsunami Early Warning System (TEWS) at Gwadar. The project followed a simple yet systematic process, starting with informal discussions with UNDP and PMD to complete the formal handing over as well as the functionality of the system, which gained momentum with a series of interactions and meetings with the stakeholders. As a result, the siren pole of Gwadar was re-activated, made functional and relocated to the local PMD office in the district. Moreover, these activities were carried out in a swift fashion because of the fact that the timing coincided with the Oxfam's plan to either activate or extend the siren network. Taking one step ahead, Oxfam has extended this TEWS Network along with the trained government officials to the most vulnerable coastal areas of Pasni. In this respect, on 28th November 2015, the signing of separate Memorandum of Understanding (MOU) with PMD, the key milestone to ensuring the sustainability of the initiatives taken by the stakeholders was achieved. This MOU also covers the future collaboration in strengthening the flood and tsunami early warning system in Pakistan. With the extension of the network, the remote coastal communities of Pasni districts will now be able to get timely information that previously was difficult to access to for official warning and emergency response. This is another facet of the programme effectiveness which has increased the country's capacity regarding reaching out to some of the remotest areas. This success coupled with the close coordination between the PMD authorities has started paying the dividends in the form of appointment of a dedicated staff in the local PMD office, which is an indication of full involvement and understanding between Oxfam and its implementing partners. It is worth mentioning that 150 selected volunteers received low-cost equipment such as megaphones, rechargeable torches, first-aid kits and wireless phones for early Tsunami warning dissemination to the remote and isolated communities. The low-cost model of early warning dissemination for community members along with linking them with the district authorities has significantly helped in strengthening the TEWS communication process to the last mile.

Formation of consortium for working on long-term basis is another key milestone achieved as by product of this project. Oxfam initiated coordination meetings with UNDP and UNESCO to develop a strategic partnership for optimum utilization of ongoing initiatives on tsunami. This initial coordination resulted in an informal Coastal Consortium which is a by-product of ongoing ESCAP funded project, intends to follow a collaborative approach and jointly hosted international Conference on 70th anniversary on

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tsunami. In another example of collaboration, Oxfam's partner TCCR joined Tsunami Center in Regional IO wave 16 exercise of Indian Ocean Wave simulation organized by the Intergovernmental Oceanographic Commission of UNESCO.

The positive interaction and partnership with local officials and Provincial Disaster Management authorities around developing District Disaster Management Plan and Evacuation Response plan is itself a great success of the project. It has enhanced their capacity to systematically plan and monitor the activities for preparedness and risk reduction. Furthermore, optimum potential of many initiatives is yet to be explored and attained. For example, Oxfam supported the process to develop a regular mechanism for updating the database of stakeholders which has generated an interesting discussion to develop time bound Standard Operation Procedures between Tsunami Centre, provincial and district administrative authorities. All this has a lot of potential for planners and implementers to work and enhance coordination and efficiency of warnings in times of emergency.

Generation of solid evidences: Solid evidences and practical solutions were generated through research studies conducted under this project which could be used in advocacy with government authorities for strengthening the chain of information flow at community and institutional level. Furthermore, the study results from tsunami inundation maps for Gwadar and Pasni can lead to detailed tsunami risk assessment of city and quantifying estimates of potential damages/ loss which can be used as convincing tool for sensitizing stakeholders. for this particular hazard, very less studies are available so Oxfam made efforts to socialize research results by publishing it in International site like the study on Early Warning gaps at community and Institutional level is published as a part of a International book on Tsunami and on Policy & Practice of Oxfam [website](#). In addition, study on model structures for the tsunami and other coastal hazard mitigation and preparedness was completed. The proposed mitigation and preparedness focused on two detailed structural solutions for vulnerable locations of the project area.

### **Output 2: Community-based disaster risk management strategies in place in target districts, increasing community preparedness and reducing the exposure to coastal hazards**

Under this output, all the activities contributed to develop more prepared community as well as providing policy support to institutions and equip its personnel. Below is the summary of key achievements under this output

#### **Indicators:**

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% of targeted individuals (disaggregated by age and gender) that participated in community based disaster risk management activities by the end of the project# of communities with a disaster preparedness plan in place by the end of the project period

Two community drills are completed by the end of the project as per plan.

# of individuals (disaggregated by age and gender) that have access to accurate and timely information through early warning systems by the end of the project period

**Greater awareness of Tsunami and other coastal hazards among school children and catalysts for change:** A pool of more than 15302 school children (and their teachers) in five districts benefitted from awareness raising sessions through drills and school competitions that offered an encouraging prospect to serve as agent of change and transfer information to their parents and peers about preparedness and disaster risk reduction. Schools were selected with the support and consents of District Education department and Inputs were designed to cover a number of thematic priorities, consistent with the school preparedness including: What the different types of disasters are; life saving skills for children , role of teachers and children in DRR and importance of evacuation drills. Field staff used child to child and child to parents learning approach to involve the students and the awareness sessions were conducted in addition to the events such as story competitions at school levels. IEC material reinforced the same preparedness messages. Secondary beneficiaries are estimated to be more than 28,000 children who received these messages through direct participants i.e. school children. During the field visits of staff a significant change was observed in the interest, confidence and awareness level of the students after participating in community level drills.

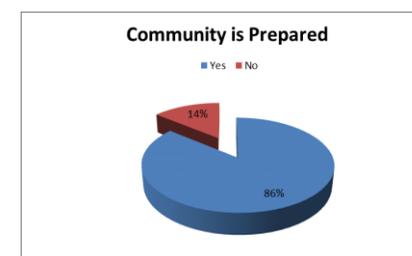
“Drill is a new activity for me and I learnt practically how I can save myself and my family in case of any Tsunami threat. Will ask my teachers to conduct such drills more frequently so every student get better prepared and improve their safety”- Sabira Majeed- class 9th from TCF secondary school Gadani

*“This is the first time that our school children have participated in any such activity where they can learn about disasters especially Tsunami in such an interactive manner”.* It has developed their interest and curiosity to find more about how this hazard and what needs to be done for save their lives from any impending disaster risk’ class teacher from government Boys High school Gadani. Sustainability has been achieved through capacity building and mobilization which have equipped future generations as

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rights holders to lead future DRR initiatives. In terms of efficacy of programme interventions, capacity building activities have made the knowledge and skills available within communities which will serve as potential resource for application at the time of calamity.

The end evaluation of the project further reveals that one of the programme highlights is social capital formation and sensitization, through which people have been mobilized and organized into groups and are committed to work further on the preparedness and mitigation agenda, that visibly show a change in their approach and mindset. Community based disaster management component included both structural and non-structural (community based preparedness) elements which corresponds to the DRR principles and programming frameworks like Sendai Framework for Action and Pakistan National DRR Framework. The elements of training and awareness have shown positive results in creating awareness and sensitization due to elements of early warning systems (within the broader DRR plans) and local level institutional capacity building support been incorporated as well. The capacity building activities like sessions, trainings interventions, have achieved the intended objectives of raising awareness and creating space for discussion. Project bridge the knowledge gap in the target villages which cannot be reached timely for official disaster warning through orientation sessions, trainings, hazard mapping which has undoubtedly enhanced their basic understanding.



Findings from the quantitative and qualitative surveys depict that the awareness campaigns have remained very effective and efficient, and reached the community at large. However due to social constraints, at some places the campaigns could not reach women in the area. Results of evaluation show that 85% of community members are prepared to minimize disaster effect. 93% of respondent are satisfied form role of community and community volunteer in DRR preparedness and resilience .78% of community members agreed that selected volunteer helped in early warning dissemination, community preparedness and evacuation community Refers to community preparedness to avoid tsunami effect is overall 86% stated that we are prepared. Community preparedness is Baluchistan is only 76% which is high referring to condition and local environment of Baluchistan. 85% community females said that they are prepared of costal disaster.

The interventions around research studies, awareness raising, trainings and evacuation drills significantly contributed towards enhancement of government institutional capacity as well community preparedness. The detailed results have been captured by

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elaborative project end evaluation report attached as Annex.

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### ACTIVITY WORK PLAN

	Activity	Time Frame	Trust Fund Contribution (USD)	Trust Fund Contribution Spent (USD)	Description of progress
1.4	Development of evacuation plan and maps on the basis of research study conducted using digital inundation modeling	Jun – Oct 2015	4,725	4,725	<p>Oxfam signed an agreement with the NED University of Engineering &amp; Technology, Karachi to conduct this research. The University developed macro level inundation maps of the districts of Gwadar and Pasni keeping in mind the worst case scenario. The micro level risk maps of Gwadar port in terms of inundation depth and extent should a tsunami hit the area have also been developed in addition to evacuation maps for the city. A detailed report has also been prepared in this regard.</p> <p>It is worth noting that the risk maps developed also highlight whether or not any Critical Infrastructure (CI) lies within the scenario developed for the tsunami hazard. It also highlights what level of water may likely affect the CI. The risk maps show that there are two different components of the study conducted: (1) risk mapping (2) Evacuation Maps. The modeling focuses on the cities of Gawadar and Pasni as both appears to be the most vulnerable settlements along the coast of Balochistan in Pakistan. While the initial model process used tectonic sources, which modeling in the past had assumed in case of the 1945 tsunami event, a difficulty in calibrating the Makran Tsunami Model was faced while considering the 1945 tsunami event observations – this has been essentially due to the 1945 incomplete recorded/published available data. Nonetheless, the output generated has</p>

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				<p>been compared with the tsunami inundation estimates in the light of the descriptions of flooding and damage estimated in the UNESCO project, which was conducted by Din Muhammad Kakar, the University of Baluchistan. Furthermore, the inundation maps have been developed which are based on the worst case scenario reported by Smith (2013). The second component involves a comprehensive report based on micro level risk mapping for the City of Gwadar. This involves infrastructure being plotted on the same DEM used for the tsunami modeling to show the effects of inundation in terms of its depth and extent. The comparison shows whether or not any given facility and/or Critical Infrastructure that falls within the worst case scenario of tsunami in addition to the assessment what water depths and velocities would affect the CI in the city. Based on the inundated models evaluation plan for both areas were also developed with identification of possible safe routes as per level of vulnerabilities. The information and level of threat estimated through this mapping exercise proved crucial basis for district and provincial authorities to further build the future scenarios, its possible impact and required preparedness and evacuation in case a tsunami hits the Pakistani coastal areas in the future.</p> <p>Oxfam has used these maps while representing Pakistan in the ICG meeting held in Muscat during the month of October 2015. Similarly, these maps were also used during the two days training (two) sessions held on 26-27 November 2015 organized by NED University, Karachi. As stated earlier, Oxfam and its partners have also shared these maps with NDMA and the MET Office at the federal, provincial and district levels. Furthermore, consistent efforts are being/will be made to disseminate this valuable hazard risk information maps to help in promoting awareness,</p>
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					<p>improving the district level planning and advocacy activities at all the three levels of governments. Likewise, these maps were displayed while representing Pakistan in the Regional Consultative Committee (13 RCC) meeting held in Islamabad from 17-19 October 2015 in Islamabad in which 16 countries from Asia participated. Findings of the inundation mapping were again shared during the National workshop on Coastal hazards and its impact on tsunami, held in Karachi on 27 September.</p> <p>At practice level these risk maps were used by Oxfam to develop Evacuation Response Plan and Disaster Risk Management Plan for Gwadar. The planning documents which are developed on the basis if these scientific studies are technically very strong documents and good example to use research for planning.</p>
	External Audit	Sep 2016	1,500	1,500	Done and report is attached in annex.
	External Evaluation	Sep 2016	2,500	2,501	<p>For the project end evaluation , Oxfam involved an external consulting firm namely Big Data Solutions who utilized the Results Chain Model (RCM) to measure project accomplished and its intended outcomes.</p> <p>A total of 24 locations in 4 districts (Sajawal, Badin, Gwadar, and Lasbela) were selected randomly during the first stage. Community volunteers and implementing partners were involved for selection of household survey and FGD participants. During the second stage of sample selection, circular systematic random sampling was proposed for household survey but based on community dynamics it was partly implemented for the selection of male respondents only. A total of 20 FGDs were conducted ,one FGD in the four districts for each of the five participant groups. The participant groups comprised of male beneficiaries, female beneficiaries, school-attending</p>

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					Boys, School-attending Girls and Teachers. In addition, a total of five Key Informant In-depth Interviews (KIIs) were conducted from the officials of Oxfam, PFF, TCCR, UNESCO and Tsunami Center. Details of key achievements and recommendation can be find in the Project Evaluation Report attached in the Annex
<u>1.5</u>	Study to identify gaps and capacities in early warning dissemination at institutional and community level	Jan – Apr 2016	6,750	5,228	<p>During reporting period the research study on “Gaps and capacities in early warning dissemination at institutional and community level” was completed. Through this research a review was done for the existing policies/procedures.</p> <p>The said research was further socialized through online publication as part of a book Published on Tusnami. Oxfam is knowledge based organization and firmly believes that publication of results should be done considering it as an opportunity to make our contribution in knowledge sharing and dissemination of evidences generated by Oxfam regarding early warning systems in Pakistan. This could be instrumental in strengthening the advocacy at national level to invest more on community preparedness and filling the gaps at different levels. For this Oxfam identified a renowned publication house which has capacity and expertise to publish scientific articles, researches etc. The publication house also has huge online viewership and authenticity. InTech Publication House is the publisher of open access books covering the fields of Science, Technology and Medicine. Oxfam shared this research with them and their review committee agreed to include one chapter from this research in their book. The web address of this chapter entitled “Challenges and Opportunities for Reducing Losses to Fast- Arriving Tsunamis in Remote Villages Along the Coast of Pakistan can be reached by clicking on the link <a href="http://www.intechopen.com/articles/show/title/challenges-and-opportunities-">http://www.intechopen.com/articles/show/title/challenges-and-opportunities-</a></p>

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					<a href="#">for-reducing-losses-to-fast-arriving-tsunamis-in-remote-villages-along-</a>
1.7	(Re) activation and extension of Inmarsat Satellite-based EWS installed at PMD Tsunami Centre, Karachi.	Mar – Oct 2015	15,250	15,178	<p>Another major highlight of this project was close coordination with existing partners who worked on Tsunami Resilience that resulted in the re-activation and shifting of the very much similar system (Satellite connected Inmarsat mass notification system) by UNDP Pakistan in 2010. It was dysfunctional and still required handing over to MET office. Using the platform of coastal consortium which is being led by Oxfam, UNDP was perused on this matter. As this activity was also planned under ESCAP project but during coordination meeting this matter was discussed and sought out. UNDP responded very positively and allocated resources to make it functional and then shifting of system to PMD office in Gwadar. This whole process was done very smoothly and now Pakistan has these two latest systems for tsunami warning in national capacity. Based on this scenario Oxfam decided to extend this system in Pasni.</p> <p>To carry out this activity Oxfam involved a technical expert along with representative of the Tsunami Centre, for site identification and assessment. Keeping in view the field assessment report, Oxfam G.B held meetings with the cellular company Mobilink at their headquarter to explore if the company allows installation of the Tsunami Warning System siren (TEWS) (mounted on brackets, excluding pole) at a specified height at their existing tower in Pasni district, as the site is considered most appropriate one. Several meeting with the head of Corporate Social Responsibility (CSR) were held but there was no significant outcome as company shared that it is possible for them to share their infrastructure with any other organization as it could create hindrance in their service. Consequentially, the Pakistan MET Department recommended to go for the</p>

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				<p>second option that was the MET Pasni district office, which was materialized, accordingly. Later civil work including foundation pad was completed and siren pole was successfully installed on it. As soon as installation was completed training of the local Met staff was conducted and later testing was done to ensure the proper functioning of the system.</p> <p>The site and location is well-suited keeping in mind that the Pasni district MET office location has many advantages including a lot of investment made by the government to make the facility functional. In addition, to meet the trained human resource requirement, two key personnel have also be transferred and posted at the MET Pasni district office. More importantly, the government is set to initiate a major meteorological project for the Makran coastal areas, which will be managed by the Pasni and Gawadar MET Offices. For that PMD department has planned to increase the staff and posting senior officials at its Gawadar facility. Above all, this region particularly Gwadar deep sea port is going to be the hub of export/import activities as China is going to invest about 40 billion dollars in Pakistan for the economic corridor during the next ten years. Gwadar is going to be the gateway of this massive foreign investment. All the above stated steps will push the authorities to ensure safety and functioning of the EWS in general and the siren pole with regards to maintenance of the system in the future. On 28th November 2015, during the International Conference on 1945 Makran Tsunami, Oxfam formally handover the equipment to the MET department to ensure its maintenance.</p> <p>Oxfam continued to engage with Tsunami centre and PMD to include the satellite charges and maintenance cost of both the towers in their annual budget to avoid any future disruption or inactivation. Due to continuous</p>
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					follow up of Oxfam program staff, Pakistan Metrological Department and Tsunami Centre Karachi initiated the process and sent a detailed proposal to their management which is hopefully to be approved soon. Oxfam also facilitated PMD in getting connected with the service provider. This will ensure the sustainability and continuous functionality of this communication satellite tower.
1.8	Device a mechanism for regular updating database of focal persons/institutions in Tsunami centre	Mar – Apr 2016	7,000	3,133	Efforts were made to identify the key challenges which impede the information flow between Tsunami warning centre and relevant stakeholders. Two broad based consultative meetings were conducted to discuss the issue and agree on solution to overcome these challenges. After all these individual and consultative meetings, the key reason identified was lacking of “time based coordinated SOPs for National warning center and emergency response authorities” and making regular information sharing as part of these SOPs. As the development of formal SOPs take time and Oxfam is advocating PMD to initiate the process and get support of technical experts to come up with these SOPs as a permanent solution. Meanwhile for further improvement in the efficiency of Tsunami warning centre, Oxfam on the request of PMD provided some basic equipment to Tsunami centre like scanner, photocopier and desktop computer. Pakistan Met has shown very positive response on this issue and agreed to mobilize resources and technical expertise from some regional or international bodies to support in developing these SOPs.
1.9	Update district DRM Plan for Coastal District Gwadar (initially developed in 2008-2009) on the	Mar 2016	18,000	16,844	Oxfam’s partner TCCR successfully updated the District DRM plan of Gwadar through participatory process starting from individual meetings with key relevant departments and later by organizing consultation workshop. Gawadar falls among the most disaster prone districts among the 51 vulnerable districts of Pakistan, according to the ranking conducted by the

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	<p>basis of information of 1945 tsunami project</p>				<p>National Disaster management Authority (NDMA) in 2008. Gawadar was one of the districts for which a district DRM Plan was compiled through a consultative process in 2008, under the support of the Provincial Disaster Management Authority (PDMA) and with technical support from United Nations Development Programme (UNDP). Oxfam realized the need to update this plan as the existing DRM plan set out a number of strategic and practical actions to address the vulnerability of the infrastructure, the people and the livelihoods in the district, but due to lack of ownership of the plan, especially at the provincial level, not much can be claimed in terms of any progress on it. Secondly, in view of the rapid developments in recent past and the future scenario of Gawadar emerging as a major economic and trade hub, the nature, number and geographical spread of the Elements have changed. Similarly, the Climate Change is also inducing alterations in the weather patterns, changing the profile of especially the hydro-meteorological Source of hazards. Thirdly, the stakeholders have come a long way since the initial days of introduction of DRM system in Pakistan in 2007 and the level of awareness and skills has increased and an updated plan is expected to be better informed, more strongly owned –at the local as well as at the provincial and national levels– increasing the likelihood of it receiving adequate attention and technical and financial support from various stakeholders. A DRM expert was involved for this assignment which analyzed the risk profile of the district at the level of both the Source(s) and the Element(s) in terms of capturing the changes at both levels and critically examine the relevance and adequacy of the measures suggested in the existing plan. After updating the profile of both the Source and the Elements, as well as a critical review of the previously suggested measures, a gap analysis of existing and required capacities (physical, technical, infrastructural and financial) for</p>
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				<p>implementing the DRM Plan was carried out and included in the plan. The process for updating the plan involved extensive consultations with the key stakeholders mainly with NDMA, PDMA, Planning &amp; Development department, Line departments at the district levels, elected members of the district government, District Administration, Gawadar Development Authority, Coastal Development Authority, Gawadar Port Authority, Locally active NGOs and civil society groups and Representatives of farmers, fisher-folk, businesses, women's organizations, etc.,</p> <p>The structure of District DRM Plans is a corporate format, prescribed by the National Disaster management Commission (NDMC) and endorsed by the Provincial governments, to maintain uniformity, so it was altered, but its contents were updated as per the findings.</p> <p>The final plan is now with PDMA Baluchistan for final review before publication and sharing widely. It is worth mentioning that TCCR managed to develop comprehensive participatory Village Disaster Management Plan for another 03 very vulnerable villages namely Sonmiani, Damb and Gadani on the request of district authorities with same budget. These plans were also handed over to PDMA to use them for future planning and development activities of DRR.</p>
2.1	Formations/strengthening of community groups in target communities.	Feb – Mar 2015	Nil	<p>For establishing/strengthening community organizations, Oxfam's project partners followed a participatory process by engaging community women and men in the potential targeted areas. They successfully mobilized communities 12 villages to get engaged in the interventions. They have formed Community Organizations (CBOs) (59 women, 157 men). Establishment of these COs provided momentum to project activities. Although there was no budget specifically allocated for this activity but</p>

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					considering its very important for a solid foundation of the project partner started field work with these steps.
2.2	Orientation of communities on projects	Feb – Mar 2015	Nil		Field staff conducted project orientation meetings on project's aims and objectives with respective communities. In total 12 community meetings were specially organized in both the targeted villages of both the provinces. The project orientation produced high interest in the community members as young generation of coastal communities are unaware about the Makran Tsunami of 1945 and were very surprised when heard the story of Tsunami from their elders during meetings. The project provided an opportunity to aware and organized youths of coastal communities on Tsunami as they can come forward and protect their families during disaster.
2.3	Hazard mapping and scenario building on storm surge and Tsunami	Feb – Mar 2015	Nil		05 hazard maps were developed through participatory process in five (05) target villages of Sindh namely Village Qadir Dano Bohrio, Ishaque Thahimore, Kadero Mallah and Shaikh Keerio. Through these mapping exercises the community members including men and women identified their vulnerabilities, possible hazards and risks and resources available as well as required to deal with the anticipated disastrous events. Some of the community members also shared their views they can now better able to understand different hazards and their impact that after development of the village maps. According to them, this is because the bigger picture of the village with regards to the hazards risks and vulnerability, which made them understand that how vulnerable is their community in addition to what they perceived that they do not have the required skills and capacity to cope with disastrous events.
2.4.2	Community awareness and trainings & coastal	Oct – Dec 2015	9,375	10,271	TCCR and PFF completed awareness raising-cum-training sessions with a total of 5598 community members and 100 government officials (PMD, Tsunami center, PDMA Baluchistan, National Institute of

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	hazard preparedness for educational institutions and community volunteers in 4 pilot communities				<p>Oceanography(NIO) ,NED university, District Education Office, Health Department etc). The training sessions supported in creating spaces for partners to involve community in other interventions and to generate discussion about this infrequent hazard. The IEC material like video documentary, posters and booklets were used to make these sessions more interactive and useful.</p> <p>A total of 15,302 school children and teachers were reached out by conducting awareness sessions, drills on tsunami by using different interactive tools. At outcome level, representatives from all the invited schools in awareness sessions, story competitions and Evacuation drills itself speaks of a change in authorities and Teachers' perceptions and behaviors toward education on disaster managements. A strong sign of this change is witnessed from the great concern of participants about the absence of disaster preparedness in schools, which may lead to high losses during times of disaster.</p> <p>Students showed great interest in disaster preparedness games and appreciated the use of videos and story books for the conceptual clarity of some concepts. During the field survey and evaluation exercise, some school children and teachers put better disaster preparedness ahead of all other achievements. As shared during evaluation by one of the participant "trained members are confident now more confident as newly acquired skills can be put to use in times of emergencies".</p>
2.4.3.	Workshop/meetings on coastal hazards preparedness and response	Feb 2015	5,250	3,459	Oxfam organized a two days' workshop that focused on stakeholder training & project orientation. The workshop was held in Karachi from 18-19th February 2015. It hosted 46 (41 men & 4 women) participants stakeholders and experts from 22 organizations both governmental and

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	arrangements of different institutions				<p>non-governmental that contribute in tsunami risk efforts at community and wider level. These stakeholders included Pakistan Meteorological Department (PMD), National Institute of Oceanography (NIO), Practitioner and emergency responders including PDMAs, DDMAAs and UN agencies, SUPARCO Karachi, Pakistan Navy, Pakistan Coast Guard, District &amp; provincial level education departments- Sindh &amp; Baluchistan, NED university, Baluchistan University, Marine Security Agency Gwadar, Health Department Gwadar, Sindh and Baluchistan police, political representative (MNAs) Sindh and Baluchistan, National and International NGOs; Trust for Conservation of Coastal Resources (TCCR), Pakistan Fisher Folk Forum (PFF), FOCUS Pakistan. Oxfam brought all the key well known resource persons whose credibility is well established for Tsunami work .It included Ghazal Naeem, Professor Din,Dr Haider, Karan Khan form Tsunami center.</p> <p>The workshop provided a unique opportunity in bringing together key players in detection &amp; dissemination of coastal hazards early warning including representative of remote coastal communities at risk. A web based disaster management game “Stop Disaster” of UNISDR was played with participants with the purpose s to build understanding of tsunami disaster management among participants. Mr. Dil Murad - eye witness of 1945 Tusnami from Beta island was also invited to share his experience .He was identified during the UNESCAP funded project “communication the effects of 1945 Tsunami”. A half day was dedicated to share the participants about the project objectives its main activities and the existing work done by stakeholders on this subject.</p>
2.4.5	Analysis, review and proposal for development of	Mar – Apr 2016	9,500	9,591	This research study was completed during reporting period highlighting the communal level structural solution for the most vulnerable coastal communities of Jhangisar (Sindh) and Ganz (Baluchistan) . These villages

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	model (structure) for Prevention, mitigation and preparedness as a part of counter measures to deal with tsunami and other coastal hazard risks				were selected on the basis of their exposure to hazards, fragility and lack of community's resilience. This led to proposing two different solutions for these areas like an evacuation site for communities at Jhangisar and construction of staircase at Ganz to access the natural shelter place i.e. elevated sand dunes. Study findings show that Jhangisar and Ganz are prone to different natural hazards such as Tsunami, Earthquake, Cyclone and Sea Erosion where schools and dispensaries are the only existing public structures available for accommodating a limited number of shelter seekers. Further, incomplete embankment structures and reliance on volatile livelihood means like fishing, agriculture etc. which could be easily affected by the natural disasters, and it reinforces the need for building safe evacuation sites for the vulnerable communities. Community members also expressed the need of an evacuation site which could be used during emergencies with the ability to mitigating risks arising from multiple hazards. Further, they also expressed that the evacuation sites should be at a junction and accessible from multiple routes having segregated spaces for males and females besides giving special attention to the persons with disabilities (i.e. persons with impairment, pregnant women, chronically ill and the elderly). Completed report is shared to relevant public authorities and other stakeholders.
2.6	Review and production of educative and outreach material including correct interpretations on tsunamis and coastal hazards	Feb – Mar 2016	4,500	3,164	Oxfam involved Miss Ghazal Naeem as consultant to review and collect the existing IEC material produced by NDMA, UNDP, UNESCO and UN-ESCAP and other partners. These material included posters, booklets, docu dram, videos and power point presentations on tsunami and later Oxfam and its partner used it for awareness campaign in schools and community and with government officials throughout the life of the project life. Oxfam ensured that to give due acknowledgment to these organizations by mentioning their name on all the material that is to be

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					used for field activities. For Sindh areas this material has been translated in local language( Sindhi) before printing.
2.7	Procurement of communication equipment for remote villages	Nov – Dec 2015	5,250	4,999	During the community training sessions, both IPs TCCR and PFF provided simple and low-cost equipment such as the megaphones, rechargeable torches, first-aid kits and wireless phones to selected trained 150 volunteer. These volunteers were selected with the consultation of community and this kit will help them in case of any emergency situations.
2.8	Training of community volunteers and media people and other relevant officials in effective communication and to properly interpret alert messages on Tsunami and other coastal hazard	Apr 2016	2,000	2,511	<p>TCCR and PFF organized four (03) training sessions against the target of one in their respective target areas while reaching out to 127 members (90 men and 37 women) including government officials, journalist and community volunteers. For each training session, one day was planned to sensitize on and equip participants with key information regarding the costal hazard risks, the early warning system and the natural warning signs with regards to the natural hazards that the coastal communities are prone to. These training sessions created a lot of interest among the participants especially the media personnel who shared their input while commenting that these sessions will be very helpful in identifying and reporting the news stories.</p> <p>PFF organized two training sessions (each one with extensive two days training) i.e. October 16-17 and October 23-24 2015) for government officials. The training opportunities also provided with a platform to the key players in detection and dissemination of and (re)acting to the coastal hazards occurrence accordingly. The training sessions were also attended by representatives of Pakistan Navy, the Sindh Provincial Disaster Management Authority (PDMA) media officials, the Fisheries Department, Education and Forest and Revenue Department of Sindh Government. In this regard, detail of the participants who participated in full two days two trainings is as under:</p>

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					TCCR organized one day Training Session for Media Persons of district Lasbella, Baluchistan on September 28, 2016, at Civic Centre Hub Municipal Corporation, Hub city Training was well attended by both print and electronic representatives. The main object of the these training workshops was to enhance the knowledge of media representatives and to sensitizing them on accurate and timely information about Coastal Hazard Mitigation and Preparedness Response and share scientific information about tsunami and other coastal hazards and to deal with this hazard.
2.9	Organize workshop for key figures and focal points on Tsunami preparedness and mitigation strategies	Feb 2015	5,250	8,078	Oxfam organized a two days' workshop that focused on stakeholder training & project orientation respectively. The workshop was held in Karachi from 18- 19th February 2015. It hosted 46 (41men & 4 women) participants stakeholders and experts from 22 organizations both governmental and non-governmental that contribute in tsunami risk efforts at community and wider level. These stakeholders included Pakistan Meteorological Department (PMD), National Institute of Oceanography (NIO), Practitioner and emergency responders including PDMAs, DDMA's and UN agencies, SUPARCO Karachi, Pakistan Navy, Pakistan Coast Guard, District & provincial level education departments- Sindh & Baluchistan, NED university, Baluchistan University, Marine Security Agency Gwadar, Health Department Gwadar, Sindh and Baluchistan police, political representative (MNAs) Sindh and Baluchistan, National and International NGOs; Trust for Conservation of Coastal Resources (TCCR), Pakistan Fisher Folk Forum (PFF), FOCUS Pakistan. Oxfam brought all the key well known resource persons whose credibility is well established for Tsunami work .It included Ghazal Naeem, Professor Din,Dr Haider, Karan Khan form Tsunami center.

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					<p>The workshop provided a unique opportunity in bringing together key players in detection &amp; dissemination of coastal hazards early warning including representative of remote coastal communities at risk. The main content of the training focused on A web based disaster management game “Stop Disaster” of UNISDR was played with participants with the purpose s to build understanding of tsunami disaster management among participants. Mr Dil Murad – eye witness of 1945 Tsunami from Beta island was also invited to share his experience .He was identified during the UNESCAP funded project “communication the effects of 1945 Tsunami” A half day was dedicated to share the participants about the project objectives its main activities and the existing work done by stakeholders on this subject.</p>
2.10	Organize evacuation safety drills in 2 communities	Oct 2015 – Mar 2016	4,750	13,058	<p>Implementing partners (TCCR and PFF) conducted 04 evacuation drills against the target of 2 at schools and at village level in district Lasbella, Gadani, Thatta, and Sajwal. These drills and exercises were conducted by involving school students, community members and staff of various district government line departments.</p> <p>Both partners prepared a detailed outline of the evacuation drill in consultation with the community volunteers. The outline included the sequence of the evacuation drill- i.e. dissemination of warning message, administrative measures at different levels, roles and responsibilities of volunteers and other stakeholders. Based on this outline evacuation plans were developed. Interactive material like videos was used to ensure that community members become familiar with whole process of conducting drills. The participation and coordination with relevant stakeholders such as the officials of District Administration. Health department, Education and Police departments, local councilors, volunteers were fully ensured. The</p>

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					<p>ground work resulted in very successful drills by attracting more than 200 community members and students.</p> <p>Another key achievement of the project is the organization of community drill on 8 September 2016 on the request of Tsunami center. The exercise was part of the Indian Ocean Wave simulation organized by the Intergovernmental Oceanographic Commission of UNESCO to create awareness and momentum for World Tsunami Awareness Day on November 5. TCCR supported Tsunami centre for community level drill and more than 300 coastal community members of District Gwadar including school children participated in the this exercise.</p>
2.11	Development of a paper on” Addressing Knowledge gaps in Makran tsunami”	Apr 2016	8,269	10,033	<p>Research study on Addressing knowledge gaps in Makran Tsunami was completed focusing on Lasbella and Thatta districts of Balochistan and Sindh provinces respectively.</p> <p>The study’s results concluded that knowledge and understanding of coastal communities on ‘Tsunami as risk’ in district Thatta is quite high as compared to district Lasbella. Community believes that Tsunami is huge disaster that could heavily damage their properties, lives and their livelihood. It is found that increased understanding among the communities in Thatta is contributed by their exposure to the cyclones and other recent disasters in the area while Lasbella has least exposure to such disasters in last few decades. Similarly knowledge and understanding of women on tsunami in both the districts found to be more than men. Elderly people and media have turned out to the best sources of the information for the communities in both the districts followed by local NGOs and fishermen. The respondents have identified educational institutions could have played</p>

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					<p>an effective role in spreading a word around and to prepare students on Tsunami and its possible damages. The coastal communities' weak capacities are heavily contributed by lack of awareness and information regarding tsunami which could have adverse effects. Most of the mitigation measures which they could refer to are either irrelevant or inappropriate for the conditions during Tsunami. They could only relate to the similar potential hazards that could be caused by many other hydro disasters including floods and cyclones. The coastal communities do possess some of the mitigation measures that have been transferred to them from their elders which could be effective in case of any disaster including disasters. Further details could be found in the Research report.</p>
2.12	Story competition among school students to create awareness raising about Tsunami Preparedness & Awareness	Sep 2016	3,000	3,003	<p>Awareness sessions were conducted in schools through fun-learning activities, such as organizing story competitions at school levels. TCCR organized an inter-school story competition and selected 35 students (10 Girls and 25 Boys) from grade 7 to 10th from six schools of district Lasbella and Gadani. To create interest of the students TCCR also organized sessions for students on how to capture human stories and probe the information and facts.</p> <p>The winners of story competition were given appreciation certificate and shields along with gift in a ceremony organized in auditorium of Lasbella Industrial Development authority on 30th September 2016. In this ceremony 37 students, 10 teachers from three schools participated. To encourage the efforts of other students who participated initially in this process, a bag and game kit was given.</p>
2.13	Develop evacuation plan for the most vulnerable coastal	Aug 2016	9,000	9,558	<p>Participatory evacuation response plan for the most vulnerable areas of Gwadar city was developed by involving a DRM expert. During the development of evacuation plan, the consultant took into account the</p>

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	areas of the port city				<p>existing researches done under the UNESCAP project like Inundation modeling “model structures for evacuations and gaps in early warning dissemination”. Key provincial disaster management institutions and district authorities were consulted and actively involved throughout this process of data collection, analysis and validation of information.</p> <p>This plan is instrumental to identify the roles, responsibilities, authority, capacities, and resources of relevant stakeholders and SOPs for decision making and evacuees. Oxfam has shared the plan with PDMA Baluchistan and will publish it as soon as it gets formal approval from PDMA</p>
2.14	Collect the interviews of Tsunami witness of 1945 in the remote areas of Sindh Delta especially Creeks. It is necessary to document the facts finding regarding 1945 tsunami affects in Sindh.	Mar – Apr 2016	5,000	5,010	<p>There is a fact that in 1945 Indus delta’ creeks were flourishing and were thickly populated but the damages occurred in these creeks of Indus delta were less reported and mostly remained unknown. As part of this project TCCR developed systematic process for collecting the stories of 1945 Tsunami survivors from Indus creeks. This has involved development of a questionnaire by taking into consideration the eye witness account collected as part of UNESCAP existing initiative. The standard questionnaire was used for collecting the stories with consistently. From the initially collected 46 stories 20 stories were finally selected and published in the form of booklet with the name of name of “The Untold Stories of Tsunami of 1945 in Indus Delta”. These stories will now be shared with UNESCO to make it part of eye-witness account on their website. In addition it is widely shared with national forums and organization. It is a valuable contribution in term of providing evidences about the destruction created in Sind coastal areas by 1945 Tsunami</p>
2.15	Awareness raising event on “70th anniversary of 1945	Nov 2015	17,000	16,935	<p>For the commemoration of 70th anniversary of 1945 Makran Tsunami Oxfam organized two main activities. The first activity was a two-day Workshop on Tsunami Inundation Modeling conducted from the 26th to</p>

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	Makran tsunami”			<p>27th November 2015 at NED University. It was well attend by 15 participants from Pakistan Navy, National Institute of Oceanography, Geological survey of Pakistan, Karachi Port trust, SUPARCO, University of Karachi ,National Disaster Management Authority and Pakistan Metrological department of Engineering and Technology. Training was designed to cover different aspects to model tsunami inundation through an open source code Geoclaw. Multiple adult learning techniques like lectures and exercises together with the example and discussion of participant presentations were used for training.</p> <p>Second part of the commemorations was a one-day international conference jointly hosted Oxfam, UNESCO, Islamabad and Jakarta, Oxfam, NED University of Engineering and Technology (NED UET), National Disaster Management Authority (NDMA), Pakistan Meteorological Department (PMD), Resilience Group (RG) and United Nations Development Programme (UNDP). It was organized on 28th November 2015 titled “A step towards tsunami resilience” at Hotel Marriott Karachi. Oxfam also coordinated with countries of WG-NWIO Member States to participate in this conference. As a result Indian Ocean Tsunami Information Centre (IOTIC), Jakarta provided exhibition material in the form of 4 panels to Pakistan. The first panels describe, "what is a tsunami?"; the second provided details of the Indian Ocean Tsunami of 2004; the third panel was about the Makran tsunami of 1945; and the fourth panel about the in-country tsunami mitigation efforts. The panels were printed in Urdu language. Conference attracted more than 100 International and national participants and speakers along with community members and Eye-witness from 1945 Tsunami. Under the main theme ‘Tsunami Resilience’, two sessions devoted to national initiatives and regional</p>
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				<p>perspective on tsunami preparedness and resilience, engendered animated and constructive deliberations, culminating in the recommendations and outcomes in this Karachi Declaration. This Karachi Declaration reaffirms that, tsunami preparedness and resilient communities are very important for the sustainable development in the coastal areas around the world. A strong linkage between the stakeholders in this regard is instrumental. The “end-to-end” solutions are very important for all especially developing economies like Pakistan.</p> <p>The conference involved 3 sessions starting from Inaugural session where Prof. Dr. Sarosh Lodi welcomed the participants, speakers, and chief guest. Following, Vibake Jenson, Director UNESCO Islamabad addressed the participants regarding urgent need to make communities more resilient to natural disasters all over the world. The session proceeded with a keynote speaker, Mr. Tony Elliot, from Intergovernmental Oceanographic Commission (IOC) at UNESCO. Working as the head of Secretariat for the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS), he spoke about the progress toward implementation of global and regional warning systems and role of IOC in terms of coordinating.</p> <p>The session continued with a video message by Dr. Shamshad Akhtar, Under-Secretary-General of United Nations and Executive Secretary of UNESCAPE. She said “ESCAP is supporting the Government of Pakistan and local NGOs for the last mile of the tsunami resilience. Disaster caused half a million casualties and USD several billion economic losses. So there is sustainable development without disaster resilience.” The Chief Guest, Syed Murad Ali Shah, Senior Minister of Sindh, appreciated the concept of conference where people from varying sectors come together to share their</p>
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					<p>opinions and expertise. He further appreciated the efforts made on early warning systems and discussion on mathematical modelling in reference to risk reductions.</p> <p>After our inaugural speakers, an MoU was signed between Pakistan Meteorological Department (PMD) and Oxfam. This presents prolific initiative toward collaborated ventures in future.</p> <p>Toward the end of conference, Tony Elliot presented way forward in which he appreciated all the speakers and gave concluding remarks for all sessions. Based on the presentations and discussion, he summarized gaps in the system and potential methods to resolve. At last, token of appreciation was presented for participants and presenters, followed by Karachi Declaration</p>
<u>2.16</u>	National Consultation on Readiness for Tsunami and its impact on Local economy	Sep 2016	13,000	5,328	<p>A good understanding of tsunami history in any region is critically important in estimation of the return period of such events and in prediction of the most vulnerable coastlines. It will also eliminate the probability of ignoring the development of proper mitigation systems. In this context, Oxfam in collaboration with Department of Earthquake Engineering at NED University organized a workshop entitled National Workshop on Impact of Tsunami and Other Coastal Hazards on Local Economy on 27 September 2016 at NED University of Engineering and Technology. The workshop was attended by 26 participants from various governmental organizations, NGOs, academics and UN organizations. ADPC was also invited to share the good practices on Tsunami preparedness from the region.</p>

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### LESSONS LEARNED

The key lessons are outlined below.

- Where the expected results need to be achieved through playing the role of a connector, broker or advocate for sustainability and impact, sufficient resources must be allocated for playing that role which is missing in the current design of this project.
- Understanding and technical expertise related to the hazard of tsunami stated in the project document is very limited; therefore, it was challenging to bring competent, experienced and knowledgeable individuals/ consulting firms to conduct the studies. To tackle such challenges in future it is necessary to develop database of pre qualified pool of national and international consultants /experts that could later be used for technical support.
- IO wave 16 exercise provided a great opportunity to Tsunami center and district authorities for the very first time to test their communication and coordination mechanism at institutional and community level. Therefore such drills which are relevant to a specific location should be planned and regularly tested by relevant authorities by involving local communities as part of drill to determine what worked correctly, what areas can be improved, and what adjustments plans are needed.
- Oxfam tried hard to involve telecommunication company in Pasni for extension of satellite pole but the efforts could not produced any tangible results and the key learning that came out of this experience was that we need to engage private sector from the very beginning of the project i.e. inception phase so later it becomes easy to get their support and buy in for the intervention.
- Connecting with right stakeholders and authorities can help to achieve the desired objective especially in areas where expertise, resources and capacities are limited. With the same situation facing in this project Oxfam adopted alternate strategies to achieve the desired results. Oxfam established its strategic partnership with different organizations to get support of their expertise, coordination and previous experience to make this project a successful one.
- As per changing operational environment for I/NGOS in Pakistan, any research or technology (especially for this type of projects)

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### LESSONS LEARNED

needs prior government approval that is quite time taking some times; so this factor must be kept in mind and plan the activities in such a way where risk of possible delays can be minimized.

- While working in some security sensitive areas cost should be allocated for security and some institutional support especially to small size organizations.
- The advocacy efforts need time to achieve any results especially if it involves advocacy for developing or inclusion of initiatives which may be hard to achieve in short- term project.

### SUSTAINABILITY

**Please elaborate on any progress towards ensuring that this project results in a long-term benefit to the project stakeholders.**

- A formal handover of the Inmasrat is done to PMD through an MOU. Now PMD is the sole responsible for its operation and maintenance.
- Karachi Declaration is another key milestone for sustainability which ensures continued/ continuity of working and commitment by national stakeholders
- Increasing ownership of the relevant government agencies such as MET Department and Tsunami Centre is crucial to continue with the TEWS and keep it operational. Their involvement is intentionally increased in different activities such as site identification, involving them right from the planning stage and sharing the progress on a regular basis. Oxfam signed a long-term strategic partnership through Memorandum of Cooperation with MET.

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### SUSTAINABILITY

- The project staff frequent field visits in the targeted villages and their interactions with community activists and members is very crucial. Since both implanting partners organizational structure is already in place at the district level, the targeted communities can be regularly visited for follow-up and interaction to keep the momentum of activities.
- The project has provided with a rare opportunity to make aware the coastal communities' children and youths on the tsunami hazard risks and the TEWS as they can become an agent of change in their respective communities to cope with the disastrous events.