ANNUAL PROJECT REPORT

August 2018-August 2019



Sustainable Solutions to Solid Waste Management

UNDP COX'S BAZAR

Funded by SIDA

September 2019







Summary of the Project

Operation (Project)	Sustainable Solutions to Solid Waste: A Local Response to the Rohingya Crisis
Name	in Bangladesh
Organisation	UNDP Cox's Bazar Sub Office
City, Country	Bangladesh
Sector area	Early Recovery/ Environment and waste management
Total Budget	4,879,764 USD
Source of Funding	SIDA (Plus 2 MSB seconded International specialists)
Gender and Diversity marker category	Medium
Environmental marker category	High
Project Manager	Marta Kucharski Duran
Project expected results	 On an outcome level: Outcome 1: Developing Waste Management Systems Outcome 2: Changing Behaviours and Attitudes At an output-level the mission will contribute to the below results: 1.1 A quick-impact waste removal project having been developed. 1.2 Preconditions created for the establishment of a basic waste management system. 1.3 Preparations undertaken for the establishment of new waste management infrastructure. 2.1 Recycling and livelihoods development activities planned and initiated. 2.2 Strengthened local government engagement and enhanced capacity within key functions. 2.3 Enhanced household engagement for improved segregation and recycling of waste. 2.4 Target groups capacitated within the "3Rs" awareness campaign (reduce, reuse, recycle). 2.5 Contingency planning.
Implementation period	August 2018- August 2021
Reporting Period	August 2018 – August 2019
Reporting Feriou	August 2018 – August 2019



Section 1 – TECHNICAL REPORT

1.1 Summary: progress and achievements to date

The table below summarizes the main project activities implemented classified in the 3 main components of the project -1.SWM Basic Systems, 2. Behaviour change and Attitudes, 3. Local Government engagement- over the first year of the project (August 2018-August 2019). At a time, the activities are also classified by three phases - Phase I. Assessments, Phase II. Small scale implementation in Teknaf Municipality, Phase III. Large scale project implementation in all project locations (ANNEX 1).

		1. SWM Basic Systems& Infrastructures (Collection, transportation and safe disposal	2.Change&Attitudes (Minimize final waste disposal & income generation)	3. Local Government engagement/capacity building (Project sustainability)
Oct18 - Feb19	PHASE I. Assessment	 SWM Assessment in Host communities. SWM Assessment in Refugee camps. SWM Assessment in Teknaf Municipality. 	 Value Chain Analysis Study. SWM Practises in camps and Host communities. 	 Initial Project workshop Inception meeting. Bilateral meetings with UP, DPHE, UNOs, AC Land. Coordination with WASH sector and stakeholders.
March – August 19	PHASEI II. Teknaf M.	 Clean up campaign (20d) CfW based Waste collection system for 100HH. Construction&Maintenance of a Community compost Unit. Improved Municipal Temporary Landfill. Land identification and Design. 	 HH Organization and profile (Ward 8). HH Awareness sessions. Waste bin distribution. Markets Organization (3 markets). Scrap Dealers workshops (Integration of the Informal Recycling Sector). 	 5. Initial Project Workshop. 6. Ward 8 Workshop. 7. Consultative working meetings. 8. Improvement of the Municipal collection system.
July-August 19	PHASEI III. IP Implementation	 Selection of IP: <u>BRAC NGO</u> Operational plan for the Cleaning Campaign across camps and Host communities. Design&Construction of a Temporary SW facility in Camp 4Ext-Camp 20Ext. Identification of land for other SW facilities. Initial Environmental Examination for the SW facilities. 	 Selection of IP: <u>PRACTICAL</u> <u>ACTION</u>. Value chain and marketing Workshop for the Informal recycling sector. Hiring a Recycling Value Chain Consultant – Grant Program Hiring a Gender expert Consultant – Project Gender Strategy. 	 9. Capacity building Program for key SWM actors and local government. 10. Integration of SWM component on the District Development Plan. 11. Training preparatin on SWM for the Local Government.



- PHASE I. Assessment phase. Several assessments on the existing Solid waste management systems and practises in place were completed from Oct'2018 to Feb'2019, being produced as a result 5 main reports:
 - \circ $\;$ SWM Assessment in Host communities.
 - SWM Assessment in Refugee camps.
 - SWM Assessment in Teknaf Municipality.
 - Recycling Value Chain Analysis Study.
 - SWM Practises in camps and Host communities.
- PHASE II. Teknaf Municpality project implementation. Small scale project Implementation started in February 2018 in Teknaf Municipality after a Workshop celebrated and cochaired by the Mayor and Secretary on the 18th February. Meetings with the representatives of the Ward 8, selection of 100HH and 4 market areas, awareness sessions, training on waste segregation and composting, distribution of bins, cleaning campaigns and establishment a basic waste collection system have been completed in this location.
- PHASE III. NGO Partners project implementation. General implementation of the project has started during the month of September. The team has provided the NGO partners orientation sessions and field visit in Teknaf municipality to understand the project and current achievements. NGO partners have submitted a joint workplan of the project activities accross the different project locations. Official introduction of the implemented partners to Governmental authorities DC, RRRC, UNOs, Chairmans and CiCs have been completed by sending official letters.

Main adjustments of the project to the needs of the context:

The context in the refugee camps and host communities is evolving daily. The presence of multiple actors in this crisis contributes to this change. The team has had to adjust the project to the emerging needs and new realities ensuring the achievement of the same project targets. The main changes of approaches are described below:

- **Project locations.** The project was initially designed to only target UNHCR camps besides host communities. However, after several conversations with IOM and UNICEF in October 2018, it was agreed to include all the camps in the initial assessment as an overall contribution to the SWM sector. Consequently, the 11 project locations in the refugee camps have been chosen among all 34 refugee camps and not only UNHCR camps. Moreover, in host communities, the project has also included market areas as a target being both, community households and market area, the two big waste generators. So, engagement, training, bin distribution and waste collection activities have also been expanded to the market areas.
- Timeline of the Clean-up campaign (output 1.1). Due to the cyclone season and dengue emergency preparedness the WASH and SMS Sector requested UNDP to conduct a clean-up campaign simultaneously to all the camps. Therefore, the quick waste removal (output 1.1) that was plan before the establishment of a SWM system in each project location, turned into a massive one-off clean up campaign to respond the emerging needs of the sectors in the camps.
- **Construction of Solid Waste Temporary landfills for waste storage.** The scarcity of land available in the camps and host communities is one of the main challenges of the project. The construction of SW pits to dispose the waste from the quick waste removal campaign in each camp, was considered as not feasible after the initial assessment conducted at the beginning of the project. Instead, two large SW



Temporary facility for the camps, one in Ukhia and one in Teknaf, have been prioritized as a better alternative. *Budget has been taken from Output 2.6 and 1.3.*

- Resources allocation approach between camps and host communities. Due to the nature of the context in the refugee camps there are some differences of approach when implementing the project in these locations. While in host communities establishing SWM systems means social mobilization, distribution of bins, trainings, construction of SW facilities, 6 months waste collection by volunteers, etc., in camps the needs may differ. Camps are run by NGOs already conducting their SWM systems with different challenges and needs. The camps may not need all the project activities being implemented in the same location. Therefore, the project will start targeting 11 locations in camps, but it may extend to other camps in order to allocate all the available project resources available.
- Distribution of bins. When the project was designed, it was envisaged the distribution of 10,000 bins to reach 80,000 HH (1 large bin to share among 8 HH). However, in practice the project has distributed a set of 2 bins instead of 1, in order to promote waste segregation at source and maximize the volume of waste recovered as new resource. Besides that, in host communities, small size of bins has been preferred by households than big shared bins. The small bins bring two main advantages: 1) improves the engagement of households and the quality of the organic waste segregated; 2) responds to the request of female HH representatives who preferred door-to-door waste collection than moving outside the house to throw the waste. Consequently, the total number of bins purchased with the same budget has changed.

1.2 Results and Activities follow up

	Description	Initial date	Status C/O/NS	Actual date of completion	Comments
Outcome 1	Developing Waste Management Syste	ems.			
Output 1.1	Quick impact waste removal project				
Activity 1.1.1	Initial assessment	Jan.2019	Completed	March.2019	 <u>Pilot</u>: An assessment on the existing SWM system in Teknaf Municipality was conducted in January 2019. Assessment on SWM systems and practices in the Refugee camps and Host communities have been completed in March 2019. This assessment includes data on mapping: SW facilities, available land, pile-up waste and SWM best practices (ANNEX 2 and ANNEX 3).
Activity 1.1.2	Preparing the cleaning campaign	Sept.2019	Ongoing		 <u>Pilot</u>: Pilot cleaning campaign in Teknaf Municipality has been conducted for 20 days with the support of 50 CfW and 2 supervisors in May 2019. Inauguration event was organized with the participation of about 500 people. (ANNEX 4). In May 2019, preparation of the general Cleaning campaign activity started with the identification of a land to construct a temporary landfill. Up to now, land is grant, facility being constructed and operational plan for the cleaning campaign finalized. BRAC is the implementing partner responsible to conduct the whole operation. A joint clean-up campaign with UNDP and SMEP with the support of WASH and SMS sector has been planned to ensure removing waste from on land (UNDP) and drains (SMEP) (ANNEX 5).
Activity 1.1.3	Cleaning campaign – on land and drains.	Oct.2019	Ongoing		The general Cleaning campaign is planned to start during the last week of October once the Temporary SW facility is finalized.

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Empowered lives. Resilient nations May.2019 Ongoing Activity **Recovery of materials** Pilot: In Teknaf Municipality 11m3 out of 150m3 were recovered from the cleaning campaign activity in Teknaf 1.1.4 Municipality (ANNEX 4). The general Operational plan of the cleaning campaign envisages the recovery of recyclables at the final disposal site. Practical Action is responsible of dealing with this part. Output 1.2 Basic waste management system Preparation- Design the operation in Ongoing Activity Juny.2019 Pilot: Pilot implementation for 100HH in Teknaf 1.2.1 each location Municipality has been completed, which has allowed the team to consolidate the methodology to quickly implement the project in other project locations (ANNEX 6). Design of each SWM is based on a community bottom-up approach which ensures the necessary level of ownership among HH, market areas and local government. Training program to SWM key actors in the sector (NGOs, UN agencies, etc.) was finalized in July 2019 (ANNEX 7). Ongoing Activity **Distributing Waste Bins** June.2019 Pilot: 200 bins distributed across the pilot Ward 8 in Teknaf Municipality (ANNEX 8). 1.2.2 21,853 bins (10,998 sets of 2 colour bins) small/large have been purchased to distribute on the project locations over the next months. Maintain Rehabilitated Areas Ongoing Pilot: 9 Cfw and 2 supervisors are collecting waste Activity June.2019 1.2.3 segregated from the pilot Ward 8 in Teknaf Municipality for 6 months (ANNEX 9).

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Activity 1.2.4	Regular Waste Transport	June.2019	Ongoing	New CfW will be deployed in the other project locations progressively following the plan scheduled until the end of the year in host communities and in camp from January 2019.Pilot: 3 Vans have been purchased to support the CfW on
1.2.4				Other locations will be equipped with similar vehicles as basic transportation vehicles.
Activity 1.2.5	Improved waste disposal site/construction of new SW small facilities		Ongoing	 <u>Pilot</u>: The project is supporting Teknaf Municipality improving their current municipal dumping site to avoid any potential environmental impact. Design is completed and construction firm being selected. (ANNEX 11). Construction of SW facilities in each project location (if not existing yet) are necessary. Land is being identified for each location.
Output 1.3				
Activity 1.3.1	Feasibility Study, Design and Monitoring of Construction	March.2019	Ongoing	TORs for feasibility study completed and advertised. Study to start in December 2019. Previous attempts failed in March to find a competent consultancy firm in Bangladesh (ANNEX 12).
Activity 1.3.2	Conduct IEE for short/small SW facilities and EIA for the long-term facility.	July.2019	Ongoing	Initial Environmental Examination report has been finalized and submitted to DoE for three facilities: SW Temporary landfill in Teknaf, Improved SW landfill and Composting Unit in Teknaf Municipality (ANNEX 13 and ANNEX 14). TORs for a consultancy to conduct an EIA for the long- term SW facility has been developed (ANNEX 15).
Activity 1.3.3	Construction of RMF/landfill	January.2020	No started yet	Land is being searched by the teams for the construction of the long-term SW facility.



Empowered lives. Resilient nations Ongoing Activity Partner Identification for ownership of Feb.2020 Bilateral meetings with DPHE, AC Land, DC, Union Land Officers, UNOs and Union Chairman have been conducted 1.3.4 SWM infrastructures and maintenance (and land identification). to build up awareness and ownership of the SW network of infrastructures. Identification of land is still one of the main challenges to infrastructure development. Outcome 2 Behaviour change and attitudes Output 2.1 Recycling and livelihoods development activities Activity Conduct a Recycling Value Change 31 Oct. 2018 Completed The study was finalized and published in January 2019 January. 2019 2.1.1 Analisis study (see link). Registration system for recycling Ongoing Activity Sept.2019 Marketing and Value chain Workshop organized in Teknaf 2.1.2 enterprises and groups (Recognition) Municipality with representatives of the recycling sector (ANNEX 16). Data base to register the scrap dealers in Teknaf and Ukhia is being developed. Consultant has been hired to develop a Grant program Ongoing Activity Provide initial capital outlay and Sept.2019 2.1.3 mentoring to the existing and start-up and technical capacity to existing/new recycling business (grants, training and technical enterprises (ANNEX 17). support). KII interviews to develop the Grant program are being conducted to existing scrap dealers in Teknaf and Ukhia (ANNEX 18). Contribute to reduce the January.2020 No started Activity yet 2.1.4 barriers/transaction costs that can impair profit. Activity Overall coordination to establish Sept.2019 Ongoing Information from other NGOs working with recycling 2.1.5 recycling activities and expand to initiatives have been started (ANNEX 19). other locations. Strengthened local government Output 2.2 engagement and enhanced capacity within key functions

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Activity 2.2.1	Assessment Period (gaps in capacity, key stakeholders and build	30Nov.2018	Ongoing	Initial Workshop was conducted in October 2018 for the project presentation and identification of challenges.
	partnerships)			project presentation and rachandation of chancinges.
Act. 2.2.2	Mentoring for Government Administrators - Providing training /information / field visits /exchanging sessions.	Sept.2019	Ongoing	Workshop/training are planned in October and November 2019 to raise awareness on the importance of SWM, share the project updates and engagement (ANNEX 20).
Act 2.2.3	Model Developed	June.2019	Ongoing	Participation on the Union Development Plans as key contribution to SWM sector. The SWM systems established in the Unions Parishads and Teknaf Municipality will form part of the Model/Plan on SWM (ANNEX 21).
Act 2.2.4	Plan developed	January.2020	No started yet	A consultative process will start from November 2019 to draft the SWM District Plan.
Act 2.2.5	Sustainability and Long-Term Handover	January.2020	No started yet	
Act 2.2.6	Integration Across the District	January.2020	No started yet	
Output 2.3	Household engagement for improved segregation and recycling of solid waste			
Activity 2.3.1	Household Organization and Training	June.2019	Ongoing	Pilot: 100HH have been mobilized, organized in Primary groups and trained to take ownership of the SWM system. Polybag has been distributed to facilitate the storage of recyclables at home and increase the revenue when selling them to the recycling sector.The provision of bins at HH level rather than shared bins responds to the preferences of communities and avoid gender issues.
				The same model will be replicated in other project locations.



Activity	Non-Organic Waste: Segregating and	June.2019	Ongoing	Pilot: A monitoring system is in place: to collect data of
2.3.2	Recycling at Source			the HH profile and the incomes generated by selling recyclables (ANNEX 22).
Activity 2.3.3	Organic Waste: Household and Community Composting	June.2019	Ongoing	<u>Pilot</u> : Green bin is used to store the organic waste at home. 3 bags of compost have been generated after 3 months of the composting process. At the moment compost is being used by the community collectors to grow fruits and vegetables around the composting unit in Teknaf Municipality.
Output 2.4	"3Rs" awareness campaign (reduce, reuse, recycle)			
Activity 2.4.1	Education campaign	Dec.2019	No started yet	
Activity 2.4.2	Bins in Public Places	Sept.2019	Ongoing	Pilot: Market areas have been targeted and distributed bins.
Activity 2.4.2	Radio/Tv campaign.	Jan.2020	No started yet	
Activity 2.4.2	Local consultation.	May.2019	Ongoing	<u>Pilot</u> : Different events have been organized at municipal level integrating local leaders and other key community actors in Teknaf Municipality.
Activity 2.4.2	Cooperation with other agencies	Sept.2019	Ongoing	Participation to WASH sector HC and Camps in Teknaf and Ukhia.
Output 2.5	Contingency planning			
Activity 2.5.1	Support to the Rohingya ISCG and partners to plan for solid waste management in daily operations and in the case of an emergency	Oct. 2018	Ongoing	Participation in several emergency response sector meetings: WASH, Sanitation TWG, Information Management, Hygiene Promotion TWG. UNDP greatly respond to the call of SMS and WASH to conduct the cleaning campaign simultaneously in all refugee camps for the monsoon preparedness and dengue emergency response.
Activity 2.5.2	Identify emergency dumpsites to accommodate possible disaster debris	May. 2019	Ongoing	Construction of a Temporary SW facility for Ukhia camps (ANNEX 23).



	and hazardous/medical waste In cooperation with the Government				
Activity 2.5.3	Selecting, training and providing Personnel Protection Equipment PPE and cleaning tools for a cash workers in the host communities/camps.	April.2020	No started yet		For 2019, the preparedness/emergency response support it is been covered by Output 1.1
Activity 2.5.4	Conducting an emergency preparedness waste removal in all refugee camps and host communities through cash for work (CfW) schemes collecting, separating and safe disposing of the uncontrolled solid waste	April.2020	No started yet		For 2019, the preparedness/emergency response support it is been covered by Output 1.1
Activity 2.5.5	Lessons learned of the Emergency preparedness cleaning campaign to the development of the UNDP Project Contingency Plan for waste management.	January.2020	No started yet		
Output 2.6	National SWM Team Capacity building				
Activity 2.6.1	Trainings on the basics of SWM / Project/Composting/Livelihoods/Recyc ling	Mar. 2019	Completed	May.2019	Training sessions completed.
Activity 2.6.2	On-work training	Feb. 2019	Completed	Aug.2019	Pilot project implementation in Teknaf Municipality has been the best on-work training for the national team to build their capacity and confidence with the project and guide the NGO implementing partners.

1.3 SWM Team

The status, roles and responsibilities of the SWM team including external consultants/consultancies are summarized below:

International positions:

- **Project Management and Livelihoods Specialist (PM&L)** Marta Kucharski Duran, on board since Oct 2018.
- Solid Waste Management Specialist (SWM) Getaneh Gebre Jore, on board since Oct 2018.

National positions:

- SWM Specialist Sayed Hoque Monjur, on board since April 2019.
- Environmental/Infrastructure Associate (EA) Mahmudul Amin, on board since April 2019.
- Social Mobilizer Associate (SMA) Saleha Akhter, on board since mid-December 2018.
- Monitoring and Evaluation Officer (M&E) Safiur Rahman, on board since June 2019.

Temporal national positions:

- UNV National Communication Officer Farhad Hamid, on board since early May 2019.
- UNV National GIS/IM Officer Tarek Khan, on board since mid-May 2019.

Temporary Consultancies/Consultants:

- National Recycling Value Chain consultant Fahim Uddin, on since September 2019.
- National Gender expert in process, TORs announced.
- **SWM expert consultant** *in process, TORs announced.*

NGO Implementing partners:

- **BRAC** Implementation of the SWM project component, on board since September 2019.
- **PRACTICAL ACTION** Implementation of the Livelihood project component, on board since September 2019.



1.4 Environmental integration

The following table presents a list of potential impacts that the project can cause and measures to mitigate these potential project-negative impacts on the environment:

Mitigation measures planned
Definition of environmental standards for the location of temporary pits and MRF/Landfill.
Validation of the locations in accordance to the Environmental standards by the Department of the Environment in CXB.
Initial Environmental Examination conducted (ANNEX 13, 14).
The Value chain analysis not only searches the bottle-necks of increasing the local market of recyclables but also to do no harm the existing schemes performed mainly by the informal sector. Any intervention implemented by the project in this sector needs to be built integrating and in consultation to the existing stakeholders.
Given the fact that 70% of the waste is organic biodegradable, the team is considering the concept of <i>Materials Recovery Facility</i> (MRF) to integrate other treatment activities such as composting area and sorting area besides the landfill. Environmental Impact Assessment is plan to be conducted previous to the construction of this facility.



1.5 Gender mainstreaming

The following table presents a list of measures to mainstream gender balance and child protection into the project:

Gender mainstreaming indicators	Results					
Ensure the integration of gender perspective in all TORs developed for the project implementation: YES/NO	YES					
Enhance at least 30% of woman participation in the project by requesting the implementing partner to arrange consultations at community level with group of women about needs and requirements.	 <u>Pilot</u> implementation in Teknaf municipality: 80% of CfW for cleaning campaign are women (out of 52 people). 50% of CfW supervisors are women (out of 2 people). 73% of CfW for daily waste collection are women (out of 11 people). 90% of direct project beneficiaries are female (out of 100 people). 					
Ensure a proper gender balance within the team :	 7% of enumerators for SWM assessment (out of 14 people). 30% of the SWM team are women (out of 7 people). 33% of the National external consultants (out of 3 people). 					
Capacity building of the SWM team:	 100% of the SWM team has completed the PSEA training (ou of 7 people). Participation in the International Day against Women and Girls violence. 					
Project Gender strategy: YES/NO	 A Gender National Consultant is in the process of recruitment starting in December 2019. (ANNEX 27) Participation to the Inclusive WASH Strategy. UNDP wa requested to integrate the inclusive perspective into the SWN project and to advocate to extend it to other NGOs and partner of the sector. 					
Gender mainstreaming monitoring	 New indicators have been included in the Indicators Project Logframe. 					



Section 2 – FINANCIAL REPORT

This section includes the budget implemented during the first year of the SWM project, from August 2018 to September 2019. Initial budget was modified in February 2019 and again in September 2019 to adjust the needs of the project. See the breakdown of the budget latest updated version in ANNEX 24.

2.1 Project expenditures

During the period August 2018 to August 2019 the total project expenditure has been of: 401.840 USD against the annual budget 1,181,283 USD (without considering GMS). The total delivery rate is 34% against the annual budget.

Budget and Expenditure by outcome:

Outcome	Budget targeted (First year) USD	Expenditure (First year) USD	%
Outcome 1. Developing Waste Management Systems	528,850	18,854	4%
Outcome 2. Changing Behaviours and Attitudes	362,400	4,216	1%
Project Management costs	290,033	378,728	131%
Total Expenditure	1,181,283	401,840	34%

Details break down of the project expenditure is presented in (ANNEX 25).

For the next three months up to the end of 2019, it is expected that the level of budget expenditure increases considerably, surpassing the one-year target value up to 1,781,905 USD (see graph below). This increase will be possible thanks to the contribution of the NGO implementing partners that joined the team on September 2019, as well as, other activities such as the construction of SW facilities that are about to be completed.





Section 3 – NEXT ACTIONS

The immediate actions implemented by the NGO partners for the next 3 months up to the end of the year 2019 are explained below (ANNEX 26):

In camps:

- Cleaning campaign of 34 refugee camps
- Construction of the Temporary Landfill in Ukhia camps

In host communities:

- Cleaning campaing in 2 Unions
- **Establishing SWM systems in the next locations**: HH and market engagement, training, bins distribution and CfW for waste collection and construction of Composting unit.
 - **Teknaf Municipality**: in Ward 7, Ward 8 and Ward 9.
 - Whykong, Nhilla, Raja Palong, Palong Khali
- Data base of the scrap dealers, training needs assessment and launching the Grant facility for the recycling sector.

General:

- Gender strategy of the project and child protection mainstream
- **SWM camp-wise gap analysis** to set a need-based approach to select the project targeted areas in camps.
- Site selection and feasibility study for the long term SW facility.
- Build up team capacity of Local Government on SWM.



Section 4 – LESSONS LEARNED

After one year, the project has brought lessons learned applicable to the project and the overall sector:

- A small-scale project implementation in Teknaf Municipality has been the best training for the SWM team. After few months implementing all the activities of the project in that location, the team obtained sufficient understanding to guide the NGO implementing partners to scale up the project in other locations.
- The scarcity of land in Cox's Bazar District and particularly in camps for SW facilities has determined the SWM approach required to be implemented in this region. Source segregation and recovery of waste to minimize the final waste to ultimately dispose have been considered as the only practises applicable, particularly now in a phase from emergency to development context.
- SWM is included as a sanitation issue under the WASH Sector. However, the level of expertise on this
 matter is a subject to be improved among NGOs and field staff to ensure efficiency and quality of the
 systems. The UNDP training provided to SWM stakeholders have proved the interest and needs to build
 up the tehcnical knowledge on the topic to the sector members.
- Generally speaking, the social component of behaviour change is not very well addressed on the sector, which requires strong guidance and homogeination of practises. For instances, conducting a cleaning campaign requires to prepare a public awareness strategy in order to avoid immediate dupmping of waste to the same place after the cleaning activity. To fill this gap, UNDP is providing communication materials to the camps to support the WASH NGOs and social mobilizers.
- Any SWM project should ensure land allocation and construction (if non-existent) of SW facilities before any other activity. Land availability has been one of the major limitations and reasons for which some project activities have been delayed.

Section 5 – PROJECT LOGFRAME

In this section the Project Indicators Framework is presented with Baseline data (April 2019 – before the project implementation) and Progress against targets (up to September 2019). In blue there are highlighted some additional/precise information of the methods, means of verification, frequency and responsibilities.

Project Monitoring and Evaluation Plan

Project Title and Duration:	Sustainab	Sustainable Solutions to Solid Waste (3 years)											
Project ID (Atlas)													
UNDAF/CPD Outcome:													
Strategic Plan Outcome:													
Output 1.1 QUICK IMPACT WASTE REMOVAL PROJECTS													
Baseline Target Progress Against Data Collection Methods Means of Verification Engagement Resour tions													
Project Output Indicators	2018	2021	Target (Sept 19)*	(M&E Activities)	(data sources)	Frequency	Responsibilities	ces (Cost)	and Risks				
1.1.1 Number of camps/host communities/locations where uncontrolled piles of solid waste have been cleared;	0	25	1	Document review. Physical observation Data from project MIS; 100% Spot-checks to verify	Sample Before and after picture. CFW Payment sheet Implementing NGO report. Data and analysis of surveys will be available in a report that will be available to the public	Yearly Quarterly	SWM project team and UNDP staff member.						
1.1.2 Number of women and men benefitting from waste clearance	0	480,000	25,000	HH Interview, FGD, KII, Physical observation Project MIS	Targeted HH Implementing NGO report	Quarterly	SWM project team and UNDP staff member						
1.1.3 Cubic meters of waste cleared	0	10,000	160	Document review	Waste collection register /location Implementing NGO report	Quarterly	SWM project team and UNDP staff member						
1.1.4 Total number of labour days created under quick income schemes	0	18,114 93,340	1,040	Document review Project MIS — muster roll record of beneficiaries, person-days worked, cash disbursed; 100% verification Bi-weekly.	Sample picture of income schemes. CFW Payment sheet. Implementing NGO report Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member						



Output 1.2: BASIC WASTE MANAGEME	ENT SYSTEN	1							
Project Output Indicators	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	Frequency	Responsibilities	Resour ces	Assump tions
	2018	2021	Target (Sept/19)*	(M&E Activities)	(data sources)			(Cost)	and Risks
1.2.1 Number of camps/ villages with functioning SWM system	0	25 27	1	Document review, Physical observation Data from project MIS	Waste collection register /by location Implementing NGO report Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
1.2.2 Total population benefiting from the established and functioning systems	0	480,000 500,000	5,000	HH Interview, FGD, KII Project MIS	Targeted HH Implementing NGO report Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
1.2.3 Number of waste bins distributed at the community level	0	10,500	200	Document review, HH Interview, FGD, KII Project MIS	Bin distribution master-role, Picture of the distribution event, targeted HH Implementing NGO report Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
1.2.4 Cubic meters of solid waste collected and disposed of through maintenance systems (m3)	0	34,000	98.98	Document review, HH Interview, FGD, KII Measurements to be recorded ; verification of 30% sample by supervisors	Waste collection register and disposed /by location	Quarterly	SWM project team and UNDP staff member		
1.2.5 Reduction in water contamination (presence of solid waste) Y/N	0	Y	Y	Document review, KII WHO SOURCE WATER Testing	Pictures Before after, Waste collection register and disposed/by location	Half Yearly	SWM project team and UNDP staff member		
Output 1.3: NEW WASTE MANAGEMENT INFRASTRUCTURE									
Project Output Indicators	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	Frequency	Responsibilities		Assump tions

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	2018	2021	Target (M/Y)*	(M&E Activities)	(data sources)			Resour ces (Cost)	and Risks
1.3.1 Total number of locations / communities served by a new landfill/Material Recovery Facility	0	2 UPAZILLAS	0	Document review,FGD Data from MIS	Landfill waste Register Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
1.3.2 New landfill constructed according to standards	0	1	0	Document review,FGD Data from MIS	Pictures, Construction documents (approved plan, work order, Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
1.3.3 Cubic meters of waste disposed at the new landfill/Material Recovery Facility	0	40,000	0	Document review Measurements to be recorded monthly; verification of 30% sample by supervisors weekly	Landfill Resister	Quarterly Monthly	SWM project team and UNDP staff member		
Output 2.1 RECYCLING AND LIVELIHO	ODS DEVEL	OPMENT							
	Baseline	OPMENT Target	Progress Against	Data Collection Methods	Means of Verification	Fragmanar	Beenensikiliities	Resour	Assump tions
Project Output Indicators				Data Collection Methods (M&E Activities)	Means of Verification (data sources)	Frequency	Responsibilities	Resour ces (Cost)	
	Baseline	Target	Against Target			Frequency Quarterly Monthly	Responsibilities SWM project team and UNDP staff member	ces	tions and



				,	Resilient nations.				
2.1.3 % of waste segregated at the HH level	0	25	37	Document review, physical observation Measurements to be recorded monthly; verification of 30% sample by supervisors weekly	Business proposal of CFW/community groups, Monitoring Kobo tools	Quarterly	SWM project team and UNDP staff member		
2.1.4 # of SWE supported by project with increased profitability. Profitability increase by %	0	10 25	0	Document review, physical observation Data from project MIS, from interviews	Business proposal of CFW/community groups, Monitoring Kobo tools	Quarterly	SWM project team and UNDP staff member		
Output 2.2 LOCAL GOVERNMENT ENG	AGEMENT A	ND CAPACIT	Y BUILDING						
	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	_		Resour	Assump tions
Project Output Indicators	2018	2021	Target (M/Y)*	(M&E Activities)	(data sources)	Frequency	Responsibilities	ces (Cost)	and Risks
2.2.1 Number of local government staff trained on SWM	0	40	0	Document review, physical observation, interview Data from MIS	Training attendance sheet, Picture Data and analysis of surveys will be available in a report that will be available to the public	Yearly Quarterly	SWM project team and UNDP staff member		
2.2.2 Number of local government staff actively participating in the project implementation in a short term (learning by doing)	0	40	0	Document review, KII Data from MIS	Project event report, picture Data and analysis of surveys will be available in a report that will be available to the public	Yearly Quarterly	SWM project team and UNDP staff member		
2.2.3 Solid Waste Management model developed and owned by the Government	0	1	0	Document review, KII Key Informant Interviews with government counterparts	Approved SWM model	Yearly Quarterly	SWM project team and UNDP staff member		
2.2.4 SWM master plan developed and incorporated in the revised District Development Plan	0	1	0	Document review, KII Key Informant Interviews with government counterparts	Approved SWM model at District	Yearly Quarterly	SWM project team and UNDP staff member		



2.2.5 Govt Budget allocated for SWM in the last year of project Implementation	0	Y	Truck and personnel assigned in Teknaf M.	Document review, KII Review of budget documents; Key Informant Interviews with government	Municipality/ Upazila/Union Parishad Budget document	Yearly Quarterly	SWM project team and UNDP staff member					
Dutput 2.3 HOUSEHOLD ENGAGEMENT FOR IMPROVED SEGREGATION AND RECYCLING OF WASTE												
Project Output Indicators	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	Frequency	Responsibilities	Resour ces	Assump tions			
	2018	2021	Target (M/Y)*	(M&E Activities)	(data sources)			(Cost)	and Risks			
2.3.1 Number of households and market shop served by waste bins distributed to the household level	0	50,000	100	Document review, KII, interview Data from project MIS; 20% verification through spot- checks	Attendance sheet of awareness meeting/session, and CFW/Community mobiliser's one to one communication, HH and shops Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member					
2.3.2 Number of household and market shop members sensitized to waste management practices (one person per household)	0	50,000	100+mark et	Document review, KII, interview Data from project MIS	Attendance sheet of awareness meeting/session, and CFW/Community mobiliser's one to one communication, HH and shops Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member					
2.3.3 % of households and market shops composting their organic waste	0	25	40	Document review, KII, HH interview Data from project MIS; 20% verification through spot- checks	Organic waste register, HH Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member					
Output 2.4 THREE Rs" AWARENESS C	AMPAIGN (R	Reduce, Reuse	e, Recycle)									
Project Output Indicators	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	Frequency	Responsibilities		Assump tions			

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	2018	2021	Target (M/Y)*	(M&E Activities)	(data sources)			Resour ces (Cost)	and Risks
2.4.1 Number of bins distributed in public locations	0	1,500	0	Document review, physical observation Data from project MIS	Distribution register, Geo- location Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
2.4.2 % of waste segregated in public facilities	0	50	0	Document review, physical observation Measurements to be recorded monthly; verification of 30% sample by supervisors weekly	Waste segregate register Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
2.4.3 Number of people who demonstrate basic knowledge about RRR (Reduce, Reuse, Recycle) (one per household)	0	60	100	HH interview, FGD Sample from 'people' affected by intervention; face-to-face interviews to record changes in Knowledge, Awareness and practice	Targeted HH Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
2.4.4 Number of listeners exposed to radio campaigns (two per household)	0	160,000	0	HH interview, FDG Sample from 'people' affected by intervention; face-to-face interviews to record changes in Knowledge, Awareness and practice	Targeted HH	Quarterly	SWM project team and UNDP staff member		
Output 2.5 CONTINGENCY PLANNING									
Project Output Indicators	Baseline	Target	Progress Against	Data Collection Methods	Means of Verification	Frequency	Responsibilities	Resour ces	Assump tions
	2018	2021	Target (M/Y)*	(M&E Activities)	(data sources)	riequency	Responsibilities	(Cost)	and Risks
2.5.1 Number of camps and villages covered by contingency plans	0	25	0	Document review Data from project MIS	Contingency plans Data and analysis of surveys will be available in a report that will be available to the public	Quarterly	SWM project team and UNDP staff member		
2.5.2 Emergency scenarios identified	N	Y	Y	Document review Data from project MIS	Emergency scenarios Development documents Data and analysis of surveys will be available in a report that will be available to the	Quarterly	SWM project team and UNDP staff member		



Section 6 – RISK ANALYSIS

Updated table of project risks:

Proje	ct Title: Sustainable Solut	tions to Solid V	Vaste	Award ID:	Date: April 2019				
#	Description	Date Identified	Туре	Impact & probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Local Government does not extend their support to the Project	August 2018	Strategic	Non-cooperative administration, local government to some extent may impact the operational and sustainability of the project $P = 2$ $I = 4$	UNDP will carefully tailor its government engagement strategy to make the most of its relationship with key government agencies, expand its connections in other areas to develop strong partnerships built on mutual trust .	Head of Sub Office	Marta Kucharski, Project Manager	Sept-19	So far, the Local Governments have provided support during the Assessment phase. Engagement with Union's Parishads, UNOs, AC Land, DC, RRRC, DPHE and DoE has started.
2	Security in and around the camps deteriorates, access to the project sites is limited	August 2018	Security	Insecure condition may slow down or stop the project activities P = 2 I = 4	The Project will work through a network of local implementing partners, and use a low-key approach . As much as possible, local government counterparts will be involved and present on the ground. The process of selecting beneficiaries will be transparent, participatory, and conflict sensitive . In addition, UNDP will follow advice provided by the UN security experts at UNDSS, and consult them regularly to ensure the project is not attracting negative attention from dangerous actors, and that UN staff and implementing partners are not put at risk.	Head of Sub Office	Marta Kucharski, Project Manager	Sept-19	Increase security measures while visiting camps has been advised, particularly for female workers to work in pairs, and carry the radio system. The current situation allows normal access to camps though. However, in some occasions activities have been postponed at field level for security reasons: elections, clashes, repatriation campaign, etc.
3	Safety of project staff and implementers during monsoon and cyclone seasons.	August 2018	Security	The weather may deteriorate the field condition P = 4 I = 3	UNDP has clear standard operating procedures for suspension of operations before and during extreme events, and trains its staff for safety in post-disaster locations. Conditions would need to be reassessed and deemed to be safe before resumption of project activities.	Head of Sub Office	Marta Kucharski, Project Manager	Sept-19	During cyclone and monsoon season, security conditions have been assessed before sending the project staff to the field project locations. No remarkable situation to report so far.



4	Elections alters the implementation environment. Possibility of using the Project for political gain by external actors	August 2018	Political	P = 3 I = 3	The project will operate through at least two elections: The national parliamentary election is due in late 2018, and local Upazila elections will be held in 2019. UNDP respects the Bangladeshi political process and intends for the Project's activities to remain explicitly apolitical. UNDP will promote a tolerant, inclusive message that should be amenable to all parties. If necessary, UNDP may need to consider shifting some of its activities to the post- election period.	Head of Sub Office	Marta Kucharski, Project Manager	Sept-19	RRRC government has changed and the majority of CiCs in the camps. But no additional difficulties for the project implementation.
5	Lack of co- ordination and/or significant differences within and between Local Government Partners	August 2018	Political	P = 3 I = 3	Since the responsibility for waste management is not clearly defined or allocated to one institution within the local government, some differences in views and approaches may appear. UNDP will engage with all relevant stakeholders, facilitate inclusive consultation and cooperation and ensure that all actors are included into the process to overcome roadblocks.	Project Manager	Marta Kucharski, Project Manager	Sept-19	No issues have been detected in this regard.
6	Possible political uncertainty post elections	August 2018	Political	P = 4 I = 3	Many of the proposed activities are designed to be responsive to shifting political conditions, and can address new themes and realities as required. Additional partnerships and complementarity with other actors in this field might also help to address ways of keeping the project moving regardless of circumstances.	Project Manager	Marta Kucharski, Project Manager	Sept-19	No major issues have occurred in this regard.
7	Fraud, corruption and misuse/misdirection of funds	August 2018	Financial	P = 2 = 3	Strong financial systems and internal audits will be held regularly, and reinforced through quarterly financial reporting. All relevant staff will receive appropriate financial training. The proposed project intends to transfer funds to reputable partners via dedicated accounts and auditable procedures. Financial transparency is to be maintained at all levels. Rigorous attention to quality assurance will ensure that funding goes to appropriate causes	Operations Manager	Marta Kucharski, Project Manager	Sept-19	No issues have been detected in this regard.



	Included and the second s									
					and will contribute to the stated objectives.					
8	FOREX losses create a shortage of funds due to fluctuating exchange rates	August 2018	Financial	P = 1 I = 2	UNDP will actively revise its budget and activities based on any changes to international exchange rates.	Operations Manager	Marta Kucharski, Project Manager	Sept-19	As per Sept. 2019, the current exchange is 1USD = <mark>84,19BDT</mark>	
9	Lengthy procurement process	August 2018	Operational - Process efficiency - Inflexible operational procedures	The existing operational procedures might prove inadequate and inefficient to cope with the escalating demand Unavailability of services/goods on time resulting delayed in the execution of P = 3 I = 4	Utilization of fast track procurement and recruitment procedures (communication with HQ for guidance). Dedicated Procurement, Vendor mapping, Pre-qualification of NGOs; and Monitoring and Research entities, LTA with national volunteer organizations, National SURGE team, Standard job descriptions and roster	Operations Manager	Marta Kucharski, Project Manager	Sept-19	Hiring the NGO partners have been delayed for a few months due to UNDP inflexible operational procedures. Despite this delay, the NGOs are finally on board: September 2019.	
10	Duplication of efforts and missed- opportunities for synergy	August 2018	Operational	P = 2 I = 3	UNDP will coordinate very closely with actors at 3 levels: - Community/camp level through CICs in the camps and Union Parishad representatives in host communities; - District Level through Additional Deputy Commissioner's Office (ADC) for host communities, and RRRD for the camps; - The Inter-Sectoral Coordination Group within the UN.	Project Manager	Marta Kucharski, Project Manager	Sept-19	Proper coordination with the 3 actors has been ensured while planning the project activities work plan.	
11	Difficulty finding local implementing partners and technical experts	August 2018	Operational	P = 3 I = 2	As more development partners come on the ground there will be increasing demand for skilled, experienced and capable local personnel and implementing partners. A pilot project was implemented recently using local implementing partners, and these positive relationships have already been established. In addition, UNDP has a broad network of implementing partners countrywide. In case of difficulty UNDP can consider bringing in local implementing partners from other locations within Bangladesh.	Operations Manager	Marta Kucharski, Project Manager	Sept-19	UNDP faced some difficulties to recruit local experts on SWM. After two recruitment rounds, on April 2019 the team has already joined the project. No other major issues to report so far.	

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12	High frequency of natural disasters and occurrence of mega disasters like earthquake or cyclone	August 2018	Operational	Recurring disasters would disrupt and pose challenge to the achievements of the project $P = 4$ I = 5	The project will aim to build resilience to disasters by adding a solid waste component to the local government's disaster planning. UNDP will monitor weather forecasts and work to prepare a contingency plan (including protection of project staff, equipment storage, radio communication system. etc) in case of emergencies. Should a natural disaster occur, some of the Project's activities might be delayed as a result, and project staff might also be diverted to the emergency response. The presence of solid waste management experts on the ground will likely be of particular value at such a moment, and UNDP would be ready to offer its services to a humanitarian response.	Project Manager	Marta Kucharski, Project Manager	Sept-19	The construction of the Temporary landfill in Ukhia camps has been delayed due to the weather conditions among other factors.
13	Difficulty with land allocation for the landfill	August 2018	Operational	P = 3 I = 4	Difficulty with allocation of a suitable site for the landfill may increase the leadtime to construction. Mitigation measure is early enagement and agreeing more than one possible location for a landfill . The local government will be asked to present 2 – 3 options if possible. The possibility of constructing a landfill has already been discussed with the local government representatives at the Upazilla level. Buiding on this initial engagement, the process of land selection and environmental and health risk assessment of locations will start as soon as the project commences.	Project Manager	Marta Kucharski, Project Manager	Sept-19	Difficulties in accessing information of public land available for landfill/other facilities does not allow the team to initiate the construction of facilities necessary for the project.



14	Gender restrictions limit women and girls from accessing the project's benefits	August 2018	Social	P = 4 I = 3	Commitment to gender equality is written into the proposed project and will be consistently monitored with reference to target indicators. However, given the nature of the project, UNDP expects that it may not be culturally sensitive to employ women in all activities, particularly as involve clearance of waste or heavy labour. Therefore, women will be targeted for segregation	Project Manager	Marta Kucharski, Project Manager	Apr-19	During the assessment phase, recruitment of female enumerators was challenging. Apart from this factor, no other has occurred in this regard.
15	Child Labour, Forced Labour, or other forms of illegal employment is used by local partners, particularly in the collection or transport of waste;	August 2018	Social	P = 3 = 4	and recycling livelihoods activities. As described in detail on pages 7-8, UNDP has developed a 2-pronged approach to ensuring that the project does not support in illicit or immoral activities. These include: Zero-Tolerance Contracting Practices: UNDP shall ensure that all contracts with local partners contain a zero-tolerance clause in reference to child labour or forced labour; Close Monitoring of Work Sites: UNDP will appoint Monitoring & Evaluation Officer who will monitor closely beneficiaries selection and registration, work on sites and payment sites. Community members will also be involved and participate in monitoring visits with UNDP team, and perform law- key spot checks on their own.	Project Manager	Marta Kucharski, Project Manager	Apr-19	No issues have occurred in this regard.
16	Some community members feel excluded from the Project	August 2018	Social	P = 2 I = 3	Selection of beneficiaries will be done in a transparent and inclusive way. Community representatives will be informed about project activities and invited to monitor project sites. The number of beneficiaries from host and refugee communities for Cash for Work activities will be proportional to the actual population figures.	Project Manager	Marta Kucharski, Project Manager	Apr-19	No issues have occurred in this regard.

List of Annex

- **ANNEX 1. Annual Project Progress Factsheet.**
- ANNEX 2. SWM Assessment in camps and Host communities.
- ANNEX 3. SWM practises in camps and Host communities.
- Annex 4. Clean up campaign report in Teknaf Municipality
- ANNEX 5. Clean up Campaign Operational Plan
- ANNEX 6. ISWM system implementation approach
- ANNEX 7. Training report to SWM key actors
- **ANNEX 8. Bins distribution event**
- ANNEX 9. Waste collection service work Teknaf municipality.
- ANNEX 10. Waste collection vehicles in Teknaf Municipality.
- ANNEX 11. SW network of infrastructures constructed.
- ANNEX 12. TORs for Feasibility study of the LG facility.
- ANNEX 13. Initial Environmental Examination report.
- ANNEX 14. Application form submitted to the Department of the Environment.
- ANNEX 15. TORs for the Environmental Impact Assessment for LG facility.
- ANNEX 16. Marketing and value chain Workshop report for recycling sector in Teknaf Municipality
- ANNEX 17. TORs Value chain consultant.
- ANNEX 18. KII form for scrap dealers in Teknaf and Ukhia
- ANNEX 19. Questionnaire form for NGO's working in Waste management
- ANNEX 20. Training to Local Government on SWM
- ANNEX 21. UNDP Unions' Plan Development contribution report
- ANNEX 22. Monitoring tools of SWM management system in Teknaf Municipality
- ANNEX 23. Agreement UNDP IOM for the construction of the Ukhia temporary Landfill
- ANNEX 24. New Project budget breakdown

ANNEX 25. Annual project budget expenditure - breakdown

- ANNEX 26. NGO partners orientation sessions and work plan
- ANNEX 27. TORs National Gender specialist.