

Project Progress Report

Project title: PIMS 4865 (FSP)

“Reducing UPOPs and Mercury Releases from the Health Sector in Africa - Regional Component”

Award ID: 00090700

Project ID: 00096344

Implementing partner: UNDP Istanbul Regional Hub – Direct Implementation Modality (DIM)

Period covered in this report: June 2017 – May 2018

Date of last Annual Report: 2 June 2017

Date of the last Project Board meeting: 2 June 2017

Summary presentation of the project:

The regional component of the GEF-funded project entitled “Reducing UPOPs and Mercury Releases from The Health Sector in Africa” was launched in December, 2015 and will end in April, 2020. The project has a GEF budget of USD 6,453,195 overall and a regional component (managed by UNDP IRH) of USD 3,990,791.

The overall objective of this full-size GEF funded project, implemented by UNDP in partnership with WHO and the NGO Health Care Without Harm, is to implement best environmental practices and introduce non-incineration healthcare waste treatment technologies and mercury-free medical devices in four Sub-Saharan African countries (Ghana, Madagascar, Tanzania and Zambia) to reduce harmful releases from the health sector.

The project promotes best practices and techniques for healthcare waste management with the aim of minimizing or eliminating releases of Persistent Organic Pollutants (POPs) to help countries meet their obligations under the Stockholm Convention on POPs. The project also supports these countries in phasing-down the use of Mercury containing medical devices and products, while improving practices for Mercury containing wastes with the objective to reduce releases of Mercury in support of countries’ future obligations under the Minamata Convention. Finally, because the project aims to improve healthcare waste management systems (e.g. through improved classification, segregation, storage, transport and disposal) it also contributes to the reduction of the spread of infections both at healthcare facility level as well as in places where healthcare waste is being handled.

The project now benefits from strengthened capacity at national/regional levels and is accelerating its support to participating countries for the common objective of reducing harmful releases from the health sector.

1. Project Performance

a) Please state the expected Output of the Project, set indicators and corresponding CP Outcome (as per project document/AWP):

The regional component of the project has 5 outcomes including one main objective, as indicated below, with expected outputs and indicators set for each:

Project Main Objective - Implement best environmental practices and non-incineration and Mercury-free technologies to help African countries meet their Stockholm Convention obligations and to reduce Mercury use in healthcare;

Output A. Non-incineration technologies and Mercury-free medical devices introduced at 4 central treatment facilities, 22 hospitals and 24 health posts

Indicator:

- Non-incineration and Mercury-free technologies introduced in African countries
- Affordable non-incineration technologies available in the African region

Output B. Amount of UPOPs releases from HCW incinerators reduced by 31.8 (g-TEQ/yr)

Indicator:

- UPOPs releases from the health sector reduced or avoided

Output C. Amount of Mercury releases from the health sector reduced by 25.3 (Kg/yr)

Indicator:

- Mercury releases from the health sector reduced

Output D. Completed draft, revision or adoption of a national policy, plan, strategy, standard and/or guidelines in each country

Indicator:

- Country capacity built to effectively phase out and reduce releases of POPs and mercury

Outcome 1 - Disseminate technical guidelines, establish mid-term evaluation criteria and technology allocation formula, and build teams of national experts on BAT/BEP at the regional level (USD 401,172)

Output 1.1. Mid-term evaluation criteria and formula for the allocation of technologies among countries agreed upon

Indicator:

- Mid-term evaluation criteria and formula for the allocation of technologies among countries available

Output 1.2. Teams of national experts trained (at the regional level)

Indicator:

- 4 teams of national experts (16 in total) trained at regional level

Outcome 3a - Make available in the region affordable non-incineration HCWM systems and Mercury-free devices that conform to BAT and international standards - (USD 2,792,026)

Output 3.1: HCWM systems and Mercury-free devices for at least 3 health posts, 2 hospitals and 1 central or cluster facility procured

Indicator:

- Number of HCWM systems and Hg free devices procured

Output 3.2: Initial set of HCWM systems and Mercury-free devices given to 3 health posts, up to 2 hospitals, and 1 central or cluster treatment facility

Indicator:

- Number of HCWM systems and Hg free devices distributed and installed

Outcome 4a - Evaluate the capacities of each recipient country to absorb additional non-incineration HCWM systems and Mercury-free devices and distribute technologies based on the evaluation results and allocation formula (USD 435,082)

Output 4.1: Evaluation report for each recipient country including recommendations for improvement
Indicator:

- Evaluation report (including recommendations for each project country and HCF) available

Output 4.2: Additional technologies distributed to countries based on the evaluation and allocation formula

Indicator:

- Number of HCWM systems and Hg free devices procured

Outcome 5 - Monitoring, learning, adaptive feedback, outreach, and evaluation (USD 141,000)

Output 5.1: M&E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted

Indicator:

- Number of high quality monitoring and evaluation documents prepared during project implementation
- Number of knowledge product on project results disseminated at national, regional and global level.

b) Were the indicators and output achieved? Yes No Partially

c) If no or partially, please explain why? Project still ongoing, please see details in section 2.

2. Progress Reporting

a) Please summarize the main achievements during the project cycle:

The main highlights are the following, as per the overall objective of the project:

- At the regional level, technical specification and tender documents for the procurement mercury free medical devices and for the procurement of healthcare waste (HCW) management and treatment equipment were prepared. Both tenders were successfully published, several offers received and evaluated. While the non-mercury containing medical devices are already delivered and partly distributed. The HCW management and treatment equipment will be delivered and installed in April/July 2018. Overall the project is generally on track and only minor delays occurred. All emerged problems could be satisfactorily solved and no major risks exist.
- In this reporting period, the countries finalized their legal framework on healthcare waste management (HCWM), carried out different trainings on HCWM and improved generally the national awareness on HCWM issues. At the pilot facilities, housing for the installation of the HCW management and treatment equipment was designed, tendered and constructed. Additionally, strategies for the future management of mercury containing waste were developed and the countries prepared themselves to replace mercury containing medical devices.
- Project partnerships are satisfactorily progressing with WHO and Health Care Without Harm (HCWH), which support the project implementation at both national and regional levels.

Overall, the project intensified its activities at all levels - regional/national components and project partners. In this reporting period, the project covered activities under Outcome 3 and 5. Below is reported in a way to match the project log frame outcomes.

Outcome 1 - Disseminate technical guidelines, establish mid-term evaluation criteria and technology allocation formula, and build teams of national experts on BAT/BEP at the regional level

- Activities in Outcome 1 was completed in May 2017.

Outcome 3 - Make available in the region affordable non-incineration HCWM systems and Mercury-free devices that conform to BAT and international standards

Regional Project Meeting (June 2017)

- Last regional project meeting was organized on 1-3 June 2017 in Istanbul-Turkey. During the project meeting, the project partners provided an overview of the project progress from the management as well as the technical point of view. Each country presented the current implementation status and open questions such as the finalization of HCWM policies and the set up and installation of the non-incineration technology were discussed.
 - o Meeting extensively covered issued related to sustainable procurement and more specifically procurement of non-incineration HCWM equipment and mercury free medical devices. In the context of the upcoming technology procurement, many technical details were covered specially to make pilot facilities ready to receive equipment and for their proper installation. IRH Procurement unit also participated in these sessions. The meeting agreed to prepare a checklist for key technical issues to monitor site readiness/preparations at both regional and national levels.
 - o Technical sessions were also covered preparations for receiving mercury-free medical devices including devising strategic plan at facility level and advocacy on Mercury phase-out; and alternative HCW treatment technologies including bio-digestion.
 - o Additionally, the way forward on the 2017-2018 work plan of the regional component of the project was elaborated and further developed. Finally, the next steps on the key country activities were discussed and recommendations provided.
 - o The successful organization of the Green Bag Lunch on “Greening the healthcare: SPHS and uPOPs and Mercury Reduction in Africa” also helped the project to connect with the rest of the IRH and demonstrated relevant connections on partnership approaches and greener procurement in the health sector.
 - o Session on Kyrgyzstan’s HCWM experience under similar GEF financed UNDP supported project was very well received and generated a good level of participation. Main take-away points were the experience shared on the coordination among different ministries on HCWM issues and warning/emphasizing the need for early action on the storage of mercury-containing devices upon their collections for replacement.
 - o Session on Communication was facilitated by Mehmet from IRH Communication Team and Sandra, Regional Communication Advisor for Africa, who remotely participated from UNDP Addis regional office. Mehmet’s presentation emphasizing the need for human stories out of UNDP projects and dissemination through different media, received positive feedback from participants. Sandra introduced herself to the group and indicated she will provide regional communication support through Addis office. She also encouraged publication of a blog for UNDP to emphasize why this topic matters (from a human perspective) for Africa, in the context of ratification and entry into force of the Minamata Convention on Mercury (on 16 August 2017).

- The meeting hosted the 2nd Project Board (see Board minutes in Annex A) following group discussions on the progress and workplan of the regional component of the project. Also, presentations on key technical issues were provided to enable the board member to make realistic decisions. Project board raised/discussed key issues and recommended adding lessons learnt to the activity report; emphasizing SDG linkages/measurements; focusing on Environmental Impact Assessments (EIA), green procurement, equipment maintenance, gender, exit strategy, sustainability and importance of co-financing for sustainability. The regional Project Board approved the annual work plans incorporating the key recommendations for 2017-2018 and following key decisions for the implementation at regional level:
 - Approval of project progress report with the Quality Assessment of the project (rated 'highly satisfactory')
 - Approval of 2nd micro-capital grant agreement with HCWH to transfer USD 90,000 for HCWH's activities to support project implementation.
 - Approval of regional component to provide support for requests on national implementation activities up to USD 10,000.
 - Approval of next regional project board meeting to be held in Tanzania.
- The meeting ended with a technical site visit of the ISTAC Healthcare Waste Treatment Site, Kemberburgaz, Istanbul (responsible for the treatment of all of Istanbul's medical waste).

Procurement of mercury free devices and non-incineration HCWM systems

- The procurement of non-incineration HCWM systems and mercury-free devices that conform to BAT and international standards forms a critical part within the project activity 3.
- As noted during the regional inception workshop, because the HCWM situation in the four project countries is very different, the size and type of facilities to be supported by the project varies from country to country and so do their locations and the circumstances under which they operate. As such the project currently supports different set-ups in each of the countries than what was initially projected.
 - Briefly, 24 pilot HCFs (Ghana:5; Madagascar:6; Tanzania:5; Zambia:8) as 11 health posts, 8 hospitals and 5 cluster/central hospitals were selected in 4 project countries. All HCFs will pilot mercury-free devices and 21 HCFs (Ghana:5; Madagascar:6; Tanzania:5; Zambia:5) will pilot non-incineration treatment either through on-site treatment or cluster treatment facility.
 - During the first procurement round, it is agreed with project countries that 14 HCFs (Ghana:3; Madagascar:3; Tanzania:5; Zambia:3) will receive non-incineration technology equipment. Among 14 HCFs, there will be 5 hospitals with cluster treatment facility (serving to additional 7 HCFs), 5 hospitals with on-site treatment facility and 4 rural health posts with on-site treatment facility.

General procurement strategy

- As discussed/agreed during the regional project meetings, general strategy for the procurement of equipment was developed to ensure successful installation and operation of the HCWM equipment through a detailed assessment of the local situation in the four project countries and at each of the pilot site was carried out in an earlier stage of the project. The evaluation of the assessment showed that the pilot facilities are lacking required infrastructure. Also, strong possible problems in the sustainable future operation of to be provided equipment, including the

financing of the operation costs and the availability of maintenance services could be noticed. To overcome these challenges, a procurement strategy was developed to ensure:

- **Ownership on the equipment of the countries and the pilot facilities**

Ownership of to be provided equipment was considered as a key issue to motivate stakeholders to support the future operation of to be set up systems. To better involve the countries and the pilot healthcare facilities in the procurement process, a catalogue on HCWM equipment was developed. The catalogue included nearly one hundred different items from minor, simple equipment such as plastic bags up to complex items as turn-key treatment plants and supporting equipment (e.g. voltage stabilizers). The technical specifications for each item were prepared in cooperation with the project team in a collaborative manner, international standards were considered to ensure high quality equipment. Expected prices were provided. Based on the catalogue and the available budget, the countries and the pilot facilities could select individually the required items based on local needs.

The proposed Bill of Quantities (BoQ) of the countries were technically cross-checked by the regional expert team. If items such as needed supportive equipment were missing (e.g. booster pumps to ensure operation of the treatment equipment), these were recommended to be added by the regional team. The developed catalogue of technical specifications can be found in the Annex B.

- **Accurate installation of the equipment**

The successful installation and operation of to be provided healthcare waste treatment equipment requires necessary infrastructure, especially sufficient housing and storage space for the internal healthcare waste treatment and logistic, adequate media supply (water, electricity, etc.) and space. The provision of this infrastructure belongs to the counterpart contribution (co-financing). To enable the countries to provide this, a three-step approach was followed:

- 1st step: Provision of a general design for the set-up of infrastructure
- 2nd step: Adaption of the general design to the selected treatment technology and local circumstances
- 3rd step: Cross check prior installation

The general design was provided by the regional team and discussed during the regional meeting (see sample design in Annex C). Based on the general design the countries started with the detailed design for each pilot facility. After the selection of the treatment technology, the countries were informed on the specific requirements to operate the systems, especially regarding water and electricity supply. The final design was discussed during on-site missions and afterwards locally tendered and constructed in pilot facilities. Based on a checklist developed in cooperation with the supplier and based on photo documentation, the “No-objection” for the delivery and installation of the equipment was provided. To ensure good communication, during the last three months prior the installation of the equipment, bi-monthly calls between the countries and the supplier were organized to ensure the site readiness and to provide a platform for discussion between supplier and receiver of the equipment.

- **Lowest possible follow up cost in the operation of the equipment**

Major concerns of the participating hospitals were the follow-up cost of the operation of the equipment, especially regarding the cost for electricity. During the preparation of the technical specification future operation cost were considered (e.g. usage of low-operation cost pumps). If possible, the hospitals were encouraged to treat also waste from other facilities to create additional sources of income (in-sourcing of services). In selected cases,

the installation of photo-voltaic panels was carried out to compensate electricity consumption.

- **Future maintenance of the equipment and availability of spare parts**

To reduce the need of corrective maintenance, necessary supporting equipment such as water treatment systems and voltage stabilizers were included in the equipment supply to guarantee a problem-free operation of the main equipment. Also, items included in the procurement of the equipment were a spare-part package to cover at least 2500 operation hours, the provision of training on preventive maintenance and the provision on manuals on the carrying out of maintenance. Additionally, it was requested for the technology provider to guarantee a 10-year spare-part availability and to have a local agent for maintenance available in each country.

- In this reporting period, the regional component organized support missions of regional expert team to all four project countries to ensure buy-in of mercury free alternatives procured and the site readiness for the implementation of the treatment technology as well as to provide support in the implementation of the healthcare waste management plan, mercury phase-out strategy and national workplans.

Procurement of mercury-free medical devices

- For the procurement of mercury-free devices inventory for mercury containing medical devices in pilot facilities were carried out by the national project teams. Based on the list of requested items by the countries and based on the standard technical specifications, the Bill of Quantity (BoQ) for each country was developed. To support the countries in the development of the exchange strategy, a document on the “Recommendations on the replacement of mercury containing medical devices” was developed and shared with the countries (see the guidance document in Annex D). Included in the document were the technical specifications to enable the countries to change existing specifications.

Code	Item	Ghana	Madagascar	Tanzania	Zambia	Total New
HGF-01-01	Mercury free aneroid sphygmomanometer	148	146	283	208	785
HGF-01-02	Mercury free automatic sphygmomanometer	47	145	20	213	425
HGF-01-03	Mercury Free Digital Blood Pressure Monitor	24	-	3	-	27
HGF-02-01	Mercury free digital thermometer	225	963	160	953	2.301

Table 1. BoQs requested by countries

- According to UN Environment Toolkit for Identification and Quantification of Mercury Releases (2017)¹, clinical thermometers typically contain 0.5-1.5 g mercury, sphygmomanometers in average contain about 80 g mercury. Assuming in average 1 g mercury per thermometer and 80 g mercury per sphygmomanometers and assuming a 1:1 exchange in the countries, in total, 101,26 kg of mercury waste is expected to be collected in the countries during the first procurement round, if 1:1 exchange achieved. It can be noted that project document targets the amount of Mercury releases from the health sector reduced by 25.3 kg.

¹<http://wedocs.unep.org/bitstream/handle/20.500.11822/14777/Hg-Toolkit-Guideline-IL1-January2017.pdf?sequence=1&isAllowed=y>

Code	Item	Ghana	Madagascar	Tanzania	Zambia	Total (kg)
HGF-01-01	Mercury free aneroid sphygmomanometer	11.84	11.68	22.64	16.64	62.80
HGF-01-02	Mercury free automatic sphygmomanometer	3.76	11.60	1.60	17.04	34.00
HGF-01-03	Mercury free digital blood pressure monitor	1.92		0.24		2.16
HGF-02-01	Mercury free digital thermometer	0.23	0.96	0.16	0.95	2.30
	Total mercury collected (kg)	17.75	24.24	24.64	34.63	101.26

Table 2. Estimated amount of mercury waste to be collected from pilot facilities

- The tender for the mercury free alternatives was prepared and announced in April 2017. After an evaluation of the received offers from different potential suppliers, the contract was awarded in the end of June 2016 to the company Intertrade International Services SA (IIS) from Switzerland, in DDP amount of \$49,944.
- The non-mercury containing medical devices were delivered to three countries in the period September-October 2017. The delivery to Madagascar was postponed until January 2018 due to the need of the clearance of custom regulations. During a mission in Zambia, the quantity and quality of the supplied items were controlled. The inspection showed that the supplied digital thermometers did not fulfil the offered specifications. The supplier was informed and the already delivered thermometers were replaced in 2018 by correct thermometers. With this replacement, the contract was amended and new DDP amount became, \$48,909.
- A validation assessment of the delivered aneroid sphygmomanometer showed that in Ghana 13 pieces (12%) did not show the correct pressure. Also, these items were replaced by the supplier. This information was provided to all other recipient countries and countries now check on delivered items accordingly.
- All countries are now on the step for formal hand over of the devices to the pilot hospitals. In parallel training on the usage of the devices will be provided.
- In accordance with the developed strategy, a one-by-one exchange of the mercury containing devices was planned. However, initial reports from countries reveal 1:1 exchange will not be possible in most of pilot facilities as they earlier started replacing mercury containing medical devices, therefore do not have enough mercury containing devices to provide.
- The collected devices will be stored in the pilot hospitals and from there be transported to a central interim storage facility for longer term storage until treatment and disposal will be possible. The storage facility will be either a modified 20-foot container or will be done in one of the newly constructed waste houses. In all countries the project is working with the local environmental authorities for the approval of the longer-term storage of the mercury waste.

Procurement of HCW management and treatment equipment

- Based on the carried-out analysis of the healthcare waste situation in the pilot hospitals, the countries developed the BoQs based on the HCWM catalogue earlier developed. The developed BoQs were reviewed by the regional expert team and recommendations for changes provided. After agreement of the BoQs, the tender document was developed and in June 2017 published. After two clarification rounds, on 5th of July 2018, bids were received. The bids were evaluated as per the ITB requirements and in October 2017 the contract was awarded to the NGO TTM from Germany, in the DDP amount of \$1,539,101. Different from the specifications, the company offered for the large autoclaves a larger equipment than requested with a chamber size of 1,300 liters (instead of 700l / 850l). As this will enable the hospitals to either treat more waste or to treat waste in a shorter time, this deviation was accepted. The final list of autoclaves provided to the hospitals is as follows:

Code	Item	Ghana	Madagascar	Tanzania	Zambia	Total
TRE-02-01	80 l treatment equipment	0	1	1	0	2
TRE-02-02	130 l treatment equipment	0	0	1	0	1
TRE-02-03	260 l treatment equipment	5	1	2	4	12
TRE-02-04	1300l treatment equipment	0	1	1	1	3

Table 3. Volume/number of autoclaves to be provided to countries

- For the expected waste treatment quantities per autoclave, the following calculation can be made. The calculation is based on an average density of the waste of 120 kg/m³ and up to 6 treatment cycles per day. It is assumed that the autoclaves will be operated 260 days per year:

Code	Item	Treatment (l) capacity	Treatment (kg) per cycle	Treatment (kg) per day	Treatment (ton) per year
TRE-02-01	80 l treatment equipment	50	6	36	9,36
TRE-02-02	130 l treatment equipment	100	12	72	18,72
TRE-02-03	260 l treatment equipment	200	24	144	37,44
TRE-02-04	1300l treatment equipment	1000	120	720	187,2

Table 4. Estimated amount of waste to be treated per equipment

- Based on this, the expected treated waste amount per country (tons per year) will be:

Code	Item	Ghana	Madagascar	Tanzania	Zambia	Total
TRE-02-01	80 l treatment equipment	0,0	9,4	9,4	0,0	18,7
TRE-02-02	130 l treatment equipment	0,0	0,0	18,7	0,0	18,7
TRE-02-03	260 l treatment equipment	187,2	37,4	74,9	149,8	449,3
TRE-02-04	1300l treatment equipment	0,0	187,2	187,2	187,2	561,6
		187,2	234,0	290,2	337,0	1048,3

Table 5. Estimated amount of waste to be treated in each country

- Currently, healthcare waste in the pilot hospitals is either dumped and burned openly, or is treated in small incinerators without control and flue gas treatment. Unfortunately, such incinerators, even if they are properly operated, emit significant levels of dioxins and furans (about 0,042 grams of Toxic Equivalent (g-TEQ) in air emissions and in ash residues per ton of waste burned). In accordance with the UNEP toolkit on the calculation of persistence organic pollutants (2012)², the level of generated dioxins and furans by using autoclaves can be considered as zero. For the setup of the autoclaves in the countries, the following calculation on Dioxin reduction can be carried out:

Item	Ghana	Madagascar	Tanzania	Zambia	Total
Waste treated (ton/yr)	187,2	234,0	290,2	337,0	1048,3
Dioxins Emitted (mg TEQ/yr)					
By Air (factor 40)	7488,0	9360,0	11606,4	13478,4	41932,8
Residue (factor 0,2)	37,4	46,8	58,0	67,4	209,7
Total (g TEQ/yr)	7,5	9,4	11,7	13,5	42,1

Table 6. Estimated amount of Dioxin emissions to be reduced

- If the autoclaves will be operated in the pilot facilities as planned, per year >40 grams of Dioxins emitted (TEQ/yr) can be avoided. According to the project document, the project is expected to

² <http://toolkit.pops.int/Publish/Downloads/UNEP-POPS-TOOLKIT-2012-En.pdf>

result in a reduction of UPOPs emissions of about 31.8 g-TEQ/yr. For comparison, the currently total amount of emitted dioxin in Germany is less than 70 g-TEQ per year.

- In all four project countries, the pilot healthcare facilities already constructed or is constructing the housing for the treatment equipment. In order to ensure site readiness in line with infrastructural requirements for autoclave installations, the pre-installation checklist was provided to countries to be confirmed before the installations (see Annex E).
- First installation of the autoclaves was completed in Ghana on 16-27 April 2018 and this will follow with installations in Tanzania, Zambia and Madagascar. After installations, the future operators will be trained and the commissioning test will be carried out. For the quantity and quality check of the supplied equipment, a checklist was developed and shared with countries (see Annex F).
- Customs clearance, delivery processes in other countries are ongoing. Current overview of the time-planning for the planned installation of the plants is provided below (also see Annex G).

Confirmation of site readiness to receive equipment																													
Version C - 01 May 2018																													
		Week	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28									
		Week of	12-Mar	19-Mar	26-Mar	02-Apr	09-Apr	16-Apr	23-Apr	30-Apr	07-May	14-May	21-May	28-May	04-Jun	11-Jun	18-Jun	25-Jun	02-Jul	09-Jul									
Activities / Installation planning																													
Country	Ghana																												
✓ 1.1	Tax & custom exemption / other documents																												
✓ 1.2	Delivery / custom clearance																												
✓ 1.3	Installation & Commissioning																												
Country	Tanzania																												
✓ 2.1	Tax & custom exemption / other documents																												
✓ 2.2	Delivery / custom clearance																												
✓ 2.3	Installation & Commissioning																												
Country	Madagascar																												
✓ 3.1	Tax & custom exemption / other documents																												
✓ 3.2	Delivery / custom clearance																												
✓ 3.3	Installation & Commissioning																												
Country	Zambia																												
✓ 4.1	Tax & custom exemption / other documents																												
✓ 4.2	Delivery / custom clearance																												
✓ 4.3	Installation & Commissioning																												
Other Activities																													
Regional Board Meeting																													

Table 7. Time-planning for delivery/installation/commissioning of HCW management and treatment items

Overview of regional procurement budget allocation

- Below table provides details of procurement budget allocation per country at the regional level with estimated figures for HCWM equipment and requested budget for local activities. Additional budgetary support, \$10,000 is included for each country based on 2017 project board decision. Initial budgetary assessment estimates approx. \$28,000 as overspending after the first phase of the procurement activity. This overspending will need to be balanced within the budget of the second procurement phase, approx. \$1mln.

	Allocated Budget	Additional Support	Mercury Free DAP	HCWM Lot1 DAP	HCWM Lot2 DAP	HCWM LOT1 + LOT2	Local Activity	Total	Balance
Ghana	313,611.00	10,000.00	14,197.60	69,742.65	283,306.25	353,048.90	8,612.00	375,858.50	-52,247.50
Madagascar	313,611.00	10,000.00	11,167.40	55,859.45	172,199.55	228,059.00	75,000.00	314,226.40	9,384.60
Tanzania	313,611.00	10,000.00	8,370.25	41,604.10	259,458.45	301,062.55	5,000.00	314,432.80	9,178.20
Zambia	313,611.00	10,000.00	15,173.30	45,713.85	306,832.75	352,546.60	-50,000.00	317,719.90	5,891.10
	1,254,444.00	40,000.00	48,908.55	212,920.05	1,021,797.00	1,234,717.05	38,612.00	1,322,237.60	-27,793.60

Table 8. Overview of procurement budget allocation and disbursement plan per country at regional level

Partnership

- The regional component has continued project partnerships with WHO and NGO Healthcare Without Harm (HCWH) to bring the best of international expertise on healthcare waste management, non-incineration technologies, UPOPs and Mercury reduction; and for their active participation to the project implementation and outreach.

- In the first phase of the project, WHO has supported project activities as following (for more details, see WHO progress report in Annex H):
 - o Project coordination and technical support: A WHO focal point has been appointed for the project in each WHO country office. Regular calls are held with the focal points to ensure coordination of national and project activities related to HCWM. At WHO HQ, project coordination is managed through monthly telephone conferences with the partner organizations (UNDP and HCWH).
 - o Development of national HCWM plans
 WHO is taking the lead in the development of national HCWM policies and guidelines. These policies and guidelines provide an outline of how each country will meet national targets set through the Minamata and Stockholm Conventions on POPs (in accordance with existing national commitments related to these Conventions). A short summary of the progress in each country is detailed below. Senior technical expert from WHO, Dr. Ute Pieper is supporting national working groups for the development of respective National Policies, Guidelines and SOPs on HCWM. Overall progress on policy component in project countries is summarized below:

	Status and gaps at project start (2016)	Status	Planned and proposed activities
Ghana	<ul style="list-style-type: none"> - HCWM Policy and Guidelines (March 2006 – under development) - Environmental Sanitation Policy (revised 2010) - Technical HCWM Guidelines as part of the Policy document (March 2006) 	Overall progress: final stage <ul style="list-style-type: none"> - Policy review: The final revised HCWM Policy is being edited by the Assistant Director, Legal department of MoH and the EPA, Built Environment Unit. - Guideline: Final draft ready for approval from the three main stakeholders: Ministry of Local Government and Rural Development, Environmental Protection Agency and the Ghana Health service. - SOP: The facility level SOPs (regional, teaching hospital and health center) being pretested in all facilities. 	Next steps <ul style="list-style-type: none"> - Approval of HCWM Policy - Printing and Dissemination of HCWM policy and Guidelines - Approval and dissemination of SOPs Proposed further activities: development of a regulation on HCWM
Madagascar	<ul style="list-style-type: none"> - National policy on health care waste management in health facilities and safety of injections - 2015 - Health code act # 2011-002, July 15, 2011 	Overall progress: on the way <ul style="list-style-type: none"> - Policy review: project supported the MOH in 	Next steps: <ul style="list-style-type: none"> - Final approval of updated Policy - Presenting and dissemination of

	Status and gaps at project start (2016)	Status	Planned and proposed activities
	<ul style="list-style-type: none"> - Malagasy environment charter (90-033, amended by act # 97-012, June 6, 1997) - Water code act # 98-029, January 20, 1999 - Act # 97-041, January 2, 1998 on radioactive waste No regulation on HCWM - Decree # 2012-754, Basel convention - Decree # 2010-960, creation of national drug agency - Decree # 99 954, compatibility of investments with environment - Inter-departmental order # 11564/2013, disposal of expired health and pharmaceutical products - Order # 991/CUA/CAB, waste management in Antananarivo city - Order # 6225/93, restriction use of few agricultural and pharmaceutical products - Decree 2006-680, 2006 September 12, adoption of the National Policy in HCWM and injection safety in Madagascar 	<p>disseminating the policy on HCWM within all 22 regions over the country.</p> <ul style="list-style-type: none"> - Guideline / technical booklet for the basic health centers are revised - SOP / job aids: Updates of the existing SOP on autoclaving, segregation and recycling / revision of job aids at the model health facilities on HCWM 	<p>Guideline and booklet in May / June 2018</p> <p>Proposed further activities:</p> <ul style="list-style-type: none"> - development of a regulation on HCWM - development of an implementation strategy on HCWM
Tanzania	<ul style="list-style-type: none"> - National Policy Guidelines for HCWM (March 2016) - The Public Health (HCWM) Regulations (2015) including checklist for monitoring, color coding, operation of incinerators, recommended treatment methods, requirements for pits - National HCWM Monitoring plan (June 2015) - National Standards and Procedures for HCWM (March 2016) 	<p>Overall progress: completed</p> <ul style="list-style-type: none"> - Policy Guideline: The policy guideline of 2016 has been revised - Standards on HCWM: A set of HCWM standards have been developed (minimization, re-use and recycling; segregation, storage, transportation and treatment, disposal including equipment and tools required.) - Both documents were approved by the MoH in December 2017 	<p>Proposed further activities:</p> <ul style="list-style-type: none"> - Review and update a national Strategic Plan for Healthcare Waste Management - Development of an implementation strategy on HCWM

	Status and gaps at project start (2016)	Status	Planned and proposed activities
Zambia	<ul style="list-style-type: none"> - National Health Policy - Infection Safety Policy - Public Health Act, Cap 295 (HCW not included) - Environmental Management Act (EMA) on hazardous waste No 12, 2011 - Medicines and Allied Substances Act - The Ionization Radiation Act, Cap 311 - National Solid Waste Strategy (expired 2012) - draft National HCWM Plan 2016 - National Infection Prevention Guidelines - Minimum Specifications for HCWM Incineration 	Status: ongoing <ul style="list-style-type: none"> - On-going review of the PHA - Policy review: same meeting as PHA finalization - Guideline: Meeting with ZEMA initiated to start the revision of guidelines - SOP: drafting initiated and ongoing 	Next steps: <ul style="list-style-type: none"> - Finalization of the Public Health Act revision (May 2018 – financial support of WHO) - Finalization of SOPs - Policy review Proposed further activities: <ul style="list-style-type: none"> - Development of a HCWM regulation - Development of a HCWM guideline - Input: National Health Strategic Plan, 2017 – 2021 - Update of National HCWM Plan 2016-2021

Table 9. Summary of legal revision in countries, prepared by Ute Pieper, WHO (April 2018)

- Training materials and risk-based quality improvement processes: In July 2017, a five-day training on infection prevention and control (IPC) took place in Cape Town, South Africa, led by the Infection Control Africa Network (ICAN) and WHO. A representative from Ghana, Madagascar and Tanzania attended the workshop, which gave a foundational training in IPC, WASH and HCWM.
- In Madagascar, a short, refresher training took place in September 2017, led by two members of WHO HQ, with members of WHO, UNDP and the Ministry of Health in Madagascar which covered WASH FIT and HCWM eco-friendly initiatives. WASH FIT is a risk-based, continuous improvement framework for monitoring WASH (including HCWM) services and making improvements to WASH services and behaviors to improve quality of care. Additional targeted WASH and HCWM trainings have taken place to disseminate knowledge and support implementation of WASH FIT. In February 2017, roll out of the tool begun in one of the project facilities. Learnings from this implementation will be shared in the next donor report.
- In September 2017, a member of WHO travelled to Tanzania to train nationals on WASH FIT. The training included a module on HCWM (as well as other WASH technical areas) and a visit to a facility during which participants inspected HCWM infrastructure, conducted a risk assessment and identified possible areas for improvement.
- Guideline development: WHO produced a summary version of WHO’s “Safe management of wastes from healthcare activities” (2014) which was edited, published and translated in November 2017 using project funds as well as support from the International Solid Waste Association (see the summary version in English in Annex I). The project has supported the translation of summary version into French with support of Madagascar component. The French version is also published in May 2018 (see Annex J). This document provides a brief overview and introduction to safe healthcare waste management for policy-makers, practitioners and health care facility managers. It is largely based on the comprehensive and detailed WHO handbook, but also takes into consideration relevant World Health Assembly resolutions, other UN documents and

- emerging global and national developments on WASH and IPC. The summary version provides a more accessible document for the four project countries, and others, to help improve practices and develop national health care waste guidelines.
- Advocacy-related activities: WHO have participated in a number of international conferences and learning events since the start of the project to promote and advocate principles of environmentally sound HCWM to a range of partners and share experiences and learning from this project. Presentations at these events were given by Dr. Ute Pieper and Arabella Hayter, WHO Consultants and Dr Maggie Montgomery, Technical Officer, WHO.
 - Furthermore, WHO continues to support countries in implementing the Minamata Convention. A workshop for African MoHs on Minamata Convention is organized in May 2018 in Johannesburg and a specific session has been devoted to reflecting on lessons learned from this project and discussing how they could be applied more widely. Project funds was used to fund the travel of one representative from each of the four project countries to participate in this meeting.
- Health Care Without Harm (HCWH) has provided active support for the project implementation with following main highlights (for more details, see HCWH progress report in Annex K):
- General HCWH engagement in Project Activities: HCWH provided support for the planning and implementation of inception workshop for regional expert team, steering committee and national working groups.
 - Convened monthly Regional Expert Team meetings. From Jan 2018, facilitated fortnightly calls on technology supply and installation.
 - Provided technical support on alternative treatment technologies, specifically within ongoing activity on bio-digestion in a pilot hospital (Myanamala Hospital) in Tanzania. Cross-fertilization on bio-digester design, including advice from expert in Nepal.
 - Dissemination and networking:
 - Meetings with ICAN Chair and programme committee in preparation for presentation at the Infection Control Africa Network Annual meeting. July 2018 Cape Town.
 - Presentation at the Public Health Association of South Africa (PHASA) meeting during the launch of the environment and health working group September 2017, Johannesburg.
 - Presentation at the Asian Regional Global Green and Healthy Hospitals Conference, Taipei, October 2017.
 - Report on project at the International Solid Waste Association health care working group meeting, Oman, November 2017 (by WebEx).
 - Resource materials
 - New materials developed and disseminated for implementation of non-mercury devices, piloted in Zambia, Sept 2017.
 - World Bank resources on Climate-Smart Health Care in Madagascar with reference to the project disseminated to project team, January 2018.
 - Provision of expert support:
 - Review of Tanzania HCWM guidelines (Aug 2017).
 - Review of SOPs for Ghana (Jan 2018)
 - Preliminary review of equipment manuals (Dec 2017)
 - Installation and related training

- new training materials developed for ToT on implementation of non-mercury devices and exercise on spill kit production from local materials (Sept 2017)
- Participated in Zambia ToT to demonstrate new tools and materials.
- Connect project teams on GGHH social – media platform: Provided membership in Global Green Healthy Hospitals (GGHH) online network for project hospitals and create accounts on CONNECT for each of the hospital-based project teams and the National Technical Consultants. Webinars held:
 - 30 August 2017: Mercury-free Health Care: Implementing the Minamata Convention.
 - 1 November 2017: Green Health Challenges – Leadership.
 - Webinar videotapes made available at <https://www.greenhospitals.net/2017-webinar-archive/> and information disseminated through the chemicals and waste communities on the CONNECT social media platform

Others

- The regional component had satisfactorily progressed on the assignment of Chief Technical Expert (Jan-Gerd Kuehling) on Activity 3, and Laurence Reno, international consultant (with pro-bono contract), whose responsibility to help and troubleshoot on request related to technical and administration issues.
- The regional component has also supported additional activities in project countries upon requests in line with last project board decision. In Ghana, the regional component provided funding support for the training activity for technicians, operators and focal points of pilot facilities after delivery/installations of HCWM equipment in April 2018. In Tanzania, the regional component provides the funding support for an international consultant on bio-digestion.

Outcome 5 - Monitoring, learning, adaptive feedback, outreach, and evaluation

- The regional component closely monitors the progress at countries through monthly reports within this specific template agreed and submitted by national components. These reports then are forwarded to project’s all national and regional stakeholders with a regional overview of the progress on different activities agreed earlier and country specific activities. These overviews can be found all together in Annex L.
- Regional Expert Team (RET) provides technical and policy expertise and has joint responsibility to assure that project activities are successfully implemented. The team is composed of Chief Technical Expert, Regional Technical Advisor, Regional Project Coordinator, WHO focal points, HCWH focal points, IRH HHD focal points and other technical experts if needed. Monthly conference calls are organized to exchange on the progress and discuss on the next steps of technical implementation of the project. Minutes of RET calls can be found in Annex M.
- For the recent procurement case with HCWM equipment, the regional component organizes bi-Monthly supplier calls to discuss on the supply and installation of HCWM equipment. Participants include the national project coordinator of each country, the regional expert team, the autoclave manufacturer and the supplier.
- The regional component collected list of contacts from all stakeholders including focal points of pilot HCFs. These lists can be found in Annex N and will be updated regularly in online folder: <https://www.dropbox.com/home/GEF%20MedWaste%20Africa%20Team%20Folder/1.%20Abo%20the%20Project?select=Contacts+-+GEF+MedWaste+Africa.xlsx>
- In this reporting period, the project supported 8 national delegations (75% women, 25% men) to participate in following international trainings and events:
 - ICAN IPC/WASH training, Cape Town, South Africa (July 2017), 3 delegates
 - ICAN IPC/WASH training, Douala, Cameroon (January 2018), 1 delegate

- WHO Regional Workshop on Health Sector Implementation of Minamata Convention on Mercury, Johannesburg, South Africa (April 2018), 4 delegates
- The project was outreached by project teams and partners in 10 (ten) international conferences and learning events:
 - GGHH Webinar Series, Reducing UPOPs and Mercury Releases from the Health Sector in Africa: A report back from Tanzania and Madagascar, Online (July 2017)
 - Keynote address at the International Workshop on Infection Prevention and Control, Arusha, Tanzania (September 2017)
 - Presentation at the Public Health Association of South Africa (PHASA) meeting during the launch of the environment and health working group, Johannesburg, South Africa (September 2017)
 - European Regional Meeting on Water and Sanitation in Health Care Facilities, Bonn, Germany (September 2017)
 - Presentation at the Asian Regional Global Green and Healthy Hospitals Conference, Taipei, Taiwan (October 2017)
 - Report on project at the International Solid Waste Association health care working group meeting, Oman, by WebEx (November 2017)
 - SPHS Webinar on Effective Communication, Online (December 2017)
 - First Scientific and Technical Committee Meeting on GEF financed UN Environment supported project, ChemObs Africa, Dakar, Senegal (March 2018)
 - One-day training workshop on WASH in health care facilities at the WASH Futures Conference, Brisbane (March 2018)
 - Regional inception workshop of SIDA financed UNDP-HCWH supported project, Sustainable Health in Procurement Project (SHiPP), Istanbul, Turkey (April 2018)
- Additionally, the project was covered by a newsletter by UNDP Ghana³ and SPHS annual report 2017 (see Annex O for project's section).
- With regards to project website assigned, www.gefmedwaste.org, the project contracted a resource person, Jorge Emmanuel to make technical resource documents available for the project's website. The contract will end on 15th May 2018 and it is expected that technical guidance documents will be available before the contract end date.
- As planned, the Mid-Term Review (MTR) would take place after the project has been in implementation for at least two years. Therefore, MTR is planned to be conducted by the second half of 2018 and expected to be finalized in November 2018. A joint evaluation by independent international consultant with missions to all 4 national components and regional component. Recruitment of the consultant and this MTR activity is being coordinated by regional component, noting that related costs (including consultancy fee and travel expenses) will also be covered by the regional budget. The vacancy for an international MTR consultant was posted and currently candidates are being evaluated as per UNDP HR requirements. It is expected that the contracting will be finalized and the MTR consultant will be announced before the upcoming regional board meeting in Tanzania. The following is estimated MTR schedule:
 - MTR Inception Report, 15 June 2018
 - Submission of mission reports, 28 September 2018
 - Draft Final Report, 31 October 2018
 - Final Report, 15 November 2018
 - Presentation, Regional project meeting (before the end of December 2018, TBC)

³<http://www.gh.undp.org/content/ghana/en/home/ourperspective/ourperspectivearticles/2017/08/16/the-creeping-mercury-menace-solution-is-here-.html>

- The regional component also initiated a vacancy post on Gender Equality and Human Rights Consultant for the project to analyze, review and develop technical and policy-relevant materials, including methodologies and tools to integrate gender equality and human rights considerations into the project level implementation. As the case of MTR consultancy assignment, the vacancy was posted and currently candidates are being evaluated. It is expected same that the contracting will be finalized before the upcoming regional board meeting in Tanzania. The consultant will carry out the following tasks:
 - Carry out participatory social and environmental injustice analysis over healthcare waste management (HCWM) issues in the project in one of the project countries, including gender dimensions;
 - In close collaboration with the midterm review consultant, highlight the gender equality dimensions of the evaluation and analyze the gender equality and human rights mainstreaming gaps in the project implementation;
 - Develop list of recommendations for HCWM project in the selected country with annual outputs to facilitate implementation of activities that promote gender equality and human rights;
 - Develop a short gender equality and human rights training module to be part of HCWM training activities in the project region;
 - Participate in the regional project meeting to advise on the results of the analysis, present the list of recommendations for implementation; and conduct a short training session on gender equality and human rights issues in HCWM.

3. Lessons learned

- In this reporting period, key lessons learnt are noted in terms of project implementation at the regional level, especially related to procurement practices.
 - The project can emphasize the importance of building capacity to allow beneficiaries to select right equipment. This was exercised throughout the project, starting from initial regional training on advanced HCWM systems (in Kenya, December 2016) and following participatory approach to agree on specifications standardized (by the catalogue developed/agreed) for all countries in line with MEAs, Stockholm Convention on POPs, Minamata Convention on Mercury. By using this approach, the project has learnt positive lessons on how to enhance ownership of the national stakeholders through the informed and participatory decision making in the selection of the right equipment.
 - Second key lessons learnt was observed during the procurement process for mercury free devices, which was separated from HCWM equipment. The mercury free case was in the value of approx. \$50k and the regional component decided to use this case as a test for the procurement of HCWM equipment, in the DDP value of \$1.5mln. This two-phase approach (one small followed by larger procurement) was an important learning practice on logistics, specifically on tax/customs clearance of medical equipment in project countries. This experience clearly facilitated the logistic process of the larger procurement case on HCWM equipment both for regional and national project teams.
 - During the last procurement case for mercury free devices, some negative lessons learnt as follows, how to address these challenges will be one of discussion points in the upcoming regional project meeting:
 - Low capacity observed in project countries for quality assurance, validation, calibration of medical equipment
 - Resistance by users to accept the new devices, mercury free medical devices.
 - No solution available for the final disposal of collected mercury waste

4. Transfer of Assets or other related matter

a) Please state on any past or future transfer of assets made within the project cycle (Attach list of equipment, cooperation frameworks with beneficiaries, etc.)

- As stated in previous sections, the project has already organized two separate procurement cases, first for mercury free medical devices and second for HCW management and treatment equipment. All procured items will be formally transferred to pilot facilities in participating countries right after required quantity/quality checks performed, including test and accuracy validation of medical devices.
- With regards to mercury free medical devices procured, Annex P provides list of equipment procured per pilot facility (23 facilities in total) and the project will transfer the title assets at facility level to ensure that procured items are received by beneficiaries. Accordingly, the project will issue transfer title assets forms specific to each of 23 pilot facilities (see an example of Transfer of Title Assets form from Ghana in Annex R).
- With regards to HCW management and treatment equipment procured, Annex S provides list of equipment procured per pilot facility (24 facilities in total). The same procedure will apply and transfer of title assets forms will be collected from each of 24 pilot facilities.

5. Other Issues

Progress on decisions of the last project board meeting in 2017

- Decision: 2nd micro-capital grant agreement with HCWH to transfer USD 90,000 for HCWH's activities to support project implementation.
- Progress: This decision is being implemented accordingly with ongoing satisfactory progress in partnership with HCWH.
- Decision: Regional component to provide support for requests on national implementation activities up to \$10,000.
- Progress: This decision is considered to support national activities mostly related to procurement activities such as training costs related to operation/maintenance of autoclaves after installations (in Ghana), consultant on bio-digestion (in Tanzania). Accordingly, the budget allocated for HCWM technology procurement activities was adjusted with additional \$10,000 for each country.
- Decision: Next regional project board meeting to be held in Tanzania in March 2018.
- Progress: The decision is being implemented as the next board meeting will be organized in Zanzibar, Tanzania with field visits to pilot sites in Dar es Salaam on 14th May 2018. Meeting date was taken to May 2018 to ensure installations of autoclaves completed before the board meeting.

SDG linkages and measurements

- Following last project board's advice on SDG linkages and measurements of project results, the project made an initial examination of SDG linkages of the initial project results which can mainly fall under chemicals and waste management. As noted by IOMC (Inter-Organization Programme for the Sound Management of Chemicals),⁴ "chemicals and waste management are related to achieving every aspect of SDG agenda. Chemicals and waste management play an important and increasingly significant role in every economic and social sector. Sound management of chemicals throughout their lifecycle is essential to avoiding complex risks to human health and ecosystems, and substantial costs to national economies. Similarly, sound management of chemicals and

⁴ http://www.who.int/iomc/publications/IOMC_CWMandSDG_brochure_final_01Feb18.pdf

waste is necessary to maximize the potential benefits of their contribution to human well-being.” In simplified manner, following SDGs and targets were shortlisted to identify SDG linkages/measurements of project results:

- Goal 12, Target 12.4: By 2020, to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

Data from the baseline analysis which was conducted during the project’s preparation phase suggests that in the four project countries the healthcare sector releases up to 165 g-TEQ/yr of UPOPs (based on 2007/2006 NIPs) and up to 287 kg Hg/yr. The hospitals that have been pre-selected for project participation currently release up to 31.8 g-TEQ/yr and 25.3 kg/Hg/yr.

With the ongoing activities in participating countries, the project estimates the reduction of UPOPs release of 42.1 g-TEQ/yr, which is above the project target and 25% of the healthcare sector UPOPs releases in project countries. Also, project estimates the mercury phase down of 101.26 kg/yr in its first phase, which is also above the project target and represents 40% of the healthcare sector mercury releases in project countries.

- Goal 3, Target 3.3: By 2030 end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases

In addition to the benefits of reducing UPOPs and Mercury releases, the project also has a number of secondary benefits, in terms of health as well as social and economic benefits. According to WHO (2000) estimates, poor healthcare waste management results that about 3 million healthcare workers receive exposures to blood borne pathogens each year (e.g. needle stick injuries with contaminated sharps); 21 million Hepatitis B infections, 2 million Hepatitis C infections and 260,000 HIV infections each year globally; and nosocomial infections (“hospital-acquired infections”) caused by infectious waste/blood borne waste or contaminated sites.

As one of the means to reduce harmful releases from the health sector, the project will improve the overall waste management chain at project facilities, which encompasses: improved procurement; waste classification; waste segregation; waste minimization; handling and collection; on-site transport and storage and finally treatment, disposal and recycling. By improving all these aspects of the waste management chain, this will not only result in a reduction of environmental pollution and negative health impacts caused by UPOPs and Hg but also prevent the spread of infections.

At this stage, it is challenging to assess the contribution on this SDG target through reduction of diseases but it can be noted that in Ghana, the project exercised such assessment with Hepatitis B and C (HBV and HBC) status of about 180 sampled hospital staff from five pilot facilities. Repetition of such assessment in the end of project can provide some comparable data to estimate the project contribution.

Same type of comparable data can be extracted from Individualized Rapid Assessment Tool (IRAT) exercise conducted to assess the HCWM status of pilot facilities over project period.

The project, at country level, can also study on the burden of disease and cost implications (cost of action/cost of inaction) for Governments' national budget allocations to treat health impacts caused by poor HCWM as well as cost reduction through recycling activities.

- Goal 6, Target 6.3: By 2030, to improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

Improved waste management practices also have important benefits at national level which can include improved human health through a reduction in the spread of water-borne diseases and malaria; improved environmental health due to reduced water and soil pollution of local resources used by nearby. Currently, the project is working to promote proper WASH management in pilot healthcare facilities, through the support of WHO. Therefore, WHO's guidance can be sought to map and measure SDG linkages on WASH activities in healthcare facilities at national level.

- Above initial assessment can be unfolded and expanded with more detailed analysis, possibly in coordination with SDG focal points at UNDP COs in order to better map with existing SDG agenda in the project country and to effectively count and incorporate project's contribution within the country level SDG measurements.

Annual Targets/Results, Risks of the Project

- The regional component achieved all its targets in 2017 and all annual targets in 2018 are now on track. On risk logs, in this reporting period, the only update has been related with earlier assigned critical risk on "Insufficient/inadequate infrastructure in health care facilities could delay procurement action." This risk can be no longer considered as a critical because currently all preparations for infrastructural site readiness are on track and ensured with actions both at national and regional level in line with procurement strategy for HCWM systems, summarized in earlier sections. More detailed information, all project targets, results along with baselines and indicators, risk logs and other project profiles can be viewed at:
<https://intranet.undp.org/sites/SVK/project/00090700/SitePages/annualworkplan.aspx>

Quality Assurance (QA) Assessment

- The project went through the mandatory Quality Assessment for implementation, resulting in overall rating as Highly Satisfactory (see Table 10). This QA assessment report (see Annex T) is to be reviewed/approved by the Project Board in the upcoming meeting.

Quality Assurance	Year	Date	Status	Rating	Decision
Implementation and Monitoring	2017	Feb 07, 2018	Approved	Overall Rating	Highly Satisfactory
				Strategic	Highly Satisfactory
				Relevant	Satisfactory
				Social & Environmental Standards	Satisfactory
				Management & Monitoring	Exemplary
				Efficient	Exemplary
				Effective	Highly Satisfactory
				Sustainability & National Ownership	Satisfactory
					Continue as planned: The project is of sufficient quality to continue as planned. All management actions must be addressed in a timely manner.

Table 10. Project Quality Assurance (QA) ratings

6. Financial management

- On 14 November 2017, regional component budget was adjusted to accommodate full PO of 1st set of HCWM procurement into 2017 budget period (\$1,489,095.37) and its related adjustments in 2018-2020 budget periods.
- As the delivery and installations of procured HCWM items are still ongoing, the disbursement of full PO will be completed in 2018.
- Below figures represent only non-core financial figures (as there is no core budget disbursed) and indicate current financial status of the regional component with emphasis on 2017-2018 budget periods.
 - 2015: Total expenditure (2015): \$ 4,610.91
 - 2016: Total expenditure (2016): \$ 308,977.24
 - **2017:**
 - **Total approved budget (2017):** \$ 1,836,163.52
 - **Total expenditure (2017):** \$ 1,831,480.00⁵
 - **Delivery rate (2017):** 99.74%
 - **2018:**
 - **Total approved budget (2018):** \$ 482,600.00
 - **Total expenditure (2018):** \$ 253,084.00
 - **Delivery rate (2018):** 52.44%
 - 2019: Total expenditure (2019): \$ 1,059,173.61
 - 2020: Total expenditure (2020): \$ 280,506.28
 - Total approved budget (2015-2020): \$ 3,990,791.00

Prepared by: Selimcan Azizoglu⁶ (Project Manager, UNDP Istanbul Regional Hub)

Date: 1 May 2018

⁵ Please note that open PO (\$1,489,095.37) will be disbursed in 2018 budget period.

⁶ The progress report includes excerpts from technical reports submitted by Chief Technical Expert, Jan-Gerd Kuhling, progress reports provided by national project teams and partners, WHO and HCWH.

List of Annexes:

- **Annex A.** 2017 regional project board minutes
- **Annex B.** HCW management and treatment equipment catalogue with technical specifications
- **Annex C.** Sample infrastructural design for autoclave housing
- **Annex D.** Mercury free medical devices catalogue with technical specifications
- **Annex E.** Pre-installation checklist for autoclaves and other equipment
- **Annex F.** Quantity and quality checklist for HCWM equipment
- **Annex G.** Procurement implementation plan for HCWM equipment
- **Annex H.** WHO donor report, Apr2017–Mar2018
- **Annex I.** Summary of WHO Blue Book on HCWM, English, Nov2017
- **Annex J.** Summary of WHO Blue Book on HCWM, French, Apr2017
- **Annex K.** HCWH interim report on 2nd MCGA, Aug17-Jan18
- **Annex L.** Regional overview of monthly progress reports on key country activities, May17-Apr18
- **Annex M.** RET call minutes, May17-Apr18
- **Annex N.** List of contact information for partners, regional and national components
- **Annex O.** SPHS annual report 2017, section of the project's coverage
- **Annex P.** BoQ for mercury free devices, per country, per facility
- **Annex R.** Sample of transfer of title assets form
- **Annex S.** BoQ for HCWM equipment, per country, per facility
- **Annex T.** Project's 2017 Quality Assurance report