



# ENVIRONMENTAL GOOD PRACTICE

## 2019 Implementation of the Environment Strategy for Field Missions



### ENERGY

#### ENERGY EFFICIENCY AND POWER GENERATION IN UNMISS



In 2019, UNMISS replaced more than 5,000 traditional window type ACs with energy efficient models. This 3-year project is expected to generate a decrease in energy consumption for cooling of up to 40%. Similar efforts are on-going in UNFICYP, UNDOF and MINURSO. UNMISS is also implementing a project to centralize power production in Juba, and installing a transmission system to provide power to nearby contingents. This will optimize the number of operational generators in the area, with a resultant reduction in fuel consumption. In UN House in Juba, and in Wau, two Solar PV projects amounting to 2.25 MWp will be commissioned in 2020, providing renewable energy of approximately 15% and 29% of the total energy requirements, respectively, by site.

#### CONNECTION TO A RENEWABLE GRID IN MONUSCO



MONUSCO sites were primarily powered by diesel generators due to the previous lack of a robust national electrical power supply across mission locations. Following major developments and improvements to hydroelectrical power stations in the Democratic

Republic of Congo (DRC), MONUSCO has connected more sites to this renewable grid, leading to a reduction in fuel consumption of approximately 750,000 litres per annum. 30% of overall energy requirements are now met through hydropower.

#### TCC GENERATOR SYNCHRONIZATION IN UNIFIL



UNIFIL is increasing power generation efficiency by optimizing the size and numbers of generators. Collaboration between uniformed and civilian stakeholders with the Mission as well as with the Meber States has resulted in a very positive change to the NEPBATT generator fleet. Fourteen inefficient generator sets have been replaced with a centralized power house consisting of three synchronized generators, leading to fuel savings of close to 46,000 liters per annum, and a commensurate reduction in carbon emissions.

#### PASSIVE COOLING IN UNAMI



In Iraq, UNAMI constructed a retractable shade at its Forward Support Base in the Baghdad International Airport, and planted indigenous bushes to improve resilience and energy performance of the UN Guard Unit accommodations, by reducing the requirement for cooling. Given that the soft walls of the containers could not resist Iraq's high ambient temperature, and the inability to improve thermal resistance of the walls, UNAMI constructed the shade covering a 900m<sup>2</sup> area to protect the building from direct sunlight. As a result, energy consumption linked to cooling has been reduced by 35% at this site.



## WATER AND WASTEWATER

### TRAINING ON HIGH CAPACITY WASTEWATER TREATMENT PLANTS



In UNIFIL, South Lebanon, focal points from 15 missions gathered during the week of World Water Day 2019 for training on high capacity wastewater treatment plants. Participants attended classes and visited 5 of the 21 high capacity wastewater and sludge treatment plants constructed and operated by UNIFIL across its area of operations. In Naqoura, a 600 cubic meters per day capacity plant serves about 6,000 people (2,000 UN personnel, 4,000 local community members), with treated effluent reused for irrigation purposes. Training participants were encouraged to “think outside the box” in their approach to the challenges faced in field settings for wastewater management, especially in large camps or in remote areas.

### DECENTRALIZED WASTEWATER TREATMENT IN UNAMA



In Kabul, UNAMA operates a decentralized wastewater treatment system (DEWATS). Lift stations are placed around the compound and collect wastewater from accommodations and offices. Heavy biodegradable particles settle in the lift stations; wastewater is sent to the DEWATS where it is treated. The treated wastewater is used either for groundwater table recharging or gardening. In addition to those benefits, this system is also expected to reduce liquid waste

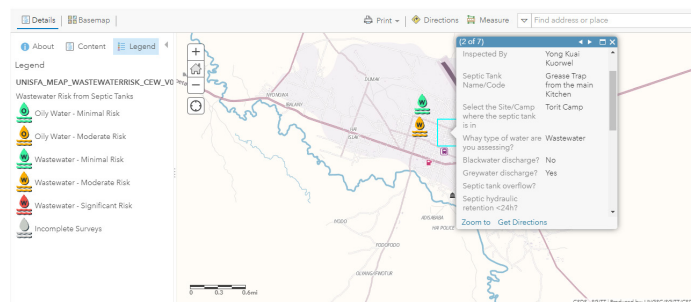
disposal costs and security risks, as fewer sewage trucks are now required to enter the compound given the onsite treatment.

### WASTEWATER MANAGEMENT MEASURES IN UNISFA



In UNISFA, Abyei, the mission commenced implementation of a risk mitigation plan to address noncompliance with wastewater collection, treatment, disposal, and effluent testing. In addition to the installation of 33 new wastewater treatment plants, mitigation measures include outsourcing technical expertise to manage and maintain the equipment, strengthening environmental human resources capacity, and improving roads for better access during the rainy season. The Mission is now implementing a remote-control system and technology platform for wastewater treatment plant management, and establishing a centralized water and sanitation laboratory to ensure regular quality testing.

### WASTEWATER RISK ASSESSMENT APPLICATION



In Torit, South Sudan, UNMISS is the first mission to pilot the Environment Risk Assessment (currently for wastewater risk) (ERAw<sup>2</sup>) application in the field. The app is used to facilitate identification of wastewater risk directly on site, by enabling real time data collection combined with geospatial information. The ERAw<sup>2</sup> app can also function offline in cases of intermittent or unavailable internet connectivity. With the first pilot exercise successfully conducted in mid-2019, the app will facilitate wastewater risk assessments and ultimately more rapid implementation of risk mitigation measures.





## SOLID WASTE

### REPLACING PLASTIC BOTTLES IN UNSOS



In Somalia, UNSOS phased out the provision of bottled drinking water from January 2019, as part of the effort to reduce plastic waste. Water dispensers with refillable 20-litre bottles are located in offices, providing hot and cold water. This initiative removes approximately 30,000 plastic bottles from the waste stream every month.

### SITE CLOSURE IN UNAMID AND MINUJUSTH



In Darfur, UNAMID reduced the level of contaminant in soil through the landfarming method (left). The process involves mixing contaminated soil with manure, dried leaves, and/or sewage sludge, keeping the mixture in a moist condition and periodically turning over for aeration. UNAMID planted seeds into the remediated material - if the seed germinates, the soil has an acceptable hydrocarbon content. In Haiti, MINUJUSTH's tasks included the remediation of MINUSTAH's former shooting range (right). The Mission successfully exhumed the range including physical extraction of a sizable amount of (leachable) lead fragments as well as bullet casings. The recovered materials were sold locally as scrap metal, with impacted soil treated for reuse.

### CESSATION OF COMBUSTION AT THE KOLONGO LANDFILL



In February 2019, MINUSCA conducted an environmental inspection at the Kolongo Landfill, a government-owned local waste disposal facility. As part of the inspection it was discovered that several sections of the site were on fire and experiencing a subsurface oxidation issue. The Mission quickly dispatched expertise across mission functions (including support leadership, environment, local fire unit, health and safety, engineering, and public relations). Immediate action was taken to carry out testing of the most effective method for suppressing the fire; ultimately it was successfully resolved through the placement of sand and/or soil on the identified hotspots.



## WIDER IMPACT

### everGREEN KOSOVO CONFERENCE



On 28 June 2019, UNMIK and the Office of the UN Development Coordinator supported the "everGREEN Kosovo" forum coordinated by Let's Do it Kosovo, a local chapter of a non-governmental organisation. The forum brought together relevant actors, including governmental ministries, municipalities, youth groups, civil society, businesses, international actors, environmentalists, environmental experts, students, and volunteers to share knowledge and experiences that can contribute to improved environmental performance and sustainable development in Kosovo.

### WORLD ENVIRONMENT DAY



Environmental teams, engineers, and other civilian personnel and uniformed components came together on June 5 to celebrate World Environment Day. Based on the success of its Uganda Camp Cleanliness Event, UNMISS launched its second of what is

anticipated to be regular events in September, with an external focus on the city of Juba. 800 UN personnel (military, police, civilians) were mobilized to clean up a 6 km stretch of Gudule One Road, to support the Juba City Council improve the environment in the South Sudanese capital. UNMISS was joined by the country's police corps and the diplomatic police. With the participation of the SRSG, the DMS, the City's mayor and deputy mayor, the sector Juba commander, other VIPs and local community members, the event resulted in the collection of more than 1,700 bags of refuse.

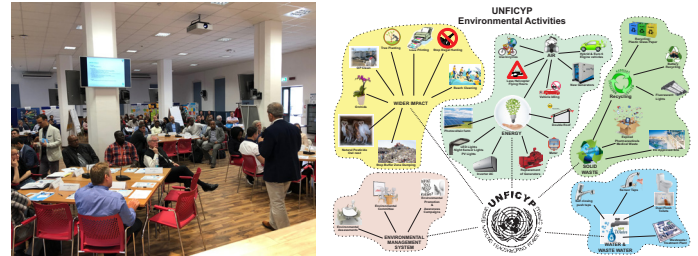
## MONUSCO's GREEN AND SAFE CHARCOAL PROJECT



In the Virunga National Park, MONUSCO partnered with World Wildlife Fund to plant a forest which will be used to produce charcoal, with the main objective of reducing the deforestation stress on the national park and support one of the largest parks in the world. The project also included training of local communities living around the Virunga Park on sustainable livelihood in apiculture, tree nurseries and sustainable production of charcoal.

designs were aligned with both the Environment Strategy for Field Missions and the Sustainable Development Goals (SDGs). World Water Day was commemorated by missions including MINUSCA, MINUSMA, UNAMA, UNAMI, UNAMID, and UNVMC by using the awareness materials for conserving water and reducing risk. In Afghanistan, UNAMA collaborated with other UN entities including WHO, UN-Habitat and UNICEF to celebrate the Day.

## ENVIRONMENT STRATEGY IMPLEMENTATION WORKSHOP



In Brindisi, Italy, staff from environment, engineering, COE, field technology, and administrative functions from 20 missions participated in the bi-annual Environment Implementation Strategy Workshop. Themes included performance and risk management, mainstreaming environmental management, and capacity building. On the first day, participants shared in an Information Market, where missions such as UNFICYP presented their environmental activities; promoting strong environmental management and environmental awareness throughout all facets of its operations. The rest of the week consisted of technical training, a field trip to a solar farm and field trainings on PV installation and soil remediation. Outcomes included bilateral decisions on overall strategy targets, and Strategy Pillar priority topics for the next year.



## LAUNCH OF AWARENESS CAMPAIGN

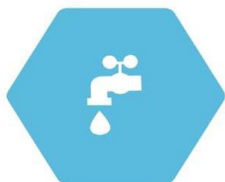
### WATER AND WASTEWATER MANAGEMENT IN UN FIELD MISSIONS

Friday, 22 March 2019



### WORLD WATER DAY 2019 - LEAVING NO ONE BEHIND

#### LAUNCH OF ENVIRONMENTAL AWARENESS CAMPAIGN IN UNVMC



In UNVMC we also want to **focus our attention on the importance of water**, a precious and scarce resource that not everybody has equal access to.

That is why UNVMC is participating in and commemorating World Water Day 2019. Today, as for all the coming days, each one of us needs to commit to supporting the SDG 6 "Water for all by 2030" and to achieving the vision of the Environment Strategy for UN Field Missions.

In that regard, UNVMC is working to improve its water and wastewater management: in 2018/19, we implemented a risk methodology assessment and we are now developing a strategy to reduce water consumption.

In March, an awareness campaign was launched, focusing on personal actions UN civilian and uniformed components can take to reduce consumption. Posters (available in Amharic, English, French, Hindi and Spanish), stickers, broadcast messages and other

## TRAINING WORKSHOPS WITH UNIFORMED PERSONNEL



Collaboration between civilian and uniformed personnel has been strengthened through the establishment of a network of environmental focal points within uniformed components, both military and police, as required in UN policies. In order to empower the environmental focal points to fulfil their responsibilities, several missions have facilitated training workshops. Whether organised by mission support, as in MINUSCA and UNISFA, or by police as in UNAMID and MONUSCO, these training workshops increase participants' knowledge of the importance of environmental management, the available guidance and tools to support environmental stewardship and, ultimately, help to mainstream environmental responsibilities.

For more information, please send an e-mail to [dos-ousg-envs@un.org](mailto:dos-ousg-envs@un.org).