

United Nations Department of Operational Support

The Way Forward: Environment Strategy for Peace Operations

2023-2030

Responsibility, Ambition, Legacy.



This is a 'living' document – developed in close consultation with Member States - and will be regularly updated.

Questions, input and requests for latest update of the document may be directed to:

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1. Introduction

The end of June 2023 marked the completion of the initial period set out for a major strategic initiative within the Department of Operational Support (DOS). The Environment Strategy for Peace Operations (2017 to 2023) was aimed at addressing a legacy of underperformance in this area – minimizing risk and maximizing efficiency across the board, while laying out priorities for innovation in the areas of renewable energy and positive legacy. In recognition of unique environmental considerations that are distinct from other Secretariat entities¹, the Environment Strategy was applied to peacekeeping operations (PKOs) and relevant special political missions (SPMs)², in coherence with the broader context and initiatives in the UN system as they evolved.³ The strategy ran in two phases between 2017-2020 and between 2020-2023.⁴

Member States have supported the strategic emphasis placed on this work, including through the formation of a sizeable and active Group of Friends on ‘Leading Environmental Management in the Field’ (LEAF), co-chaired by Italy and Bangladesh, as well as through the Action for Peacekeeping and A4P+ initiatives. The General Assembly has progressively strengthened mandate language in this area during the course of the strategy, and starting in 2022, the Security Council has made reference to the strategy and its objectives in several resolutions, e.g. DRC S/RES/2666 (2022), CAR S/RES/2659 (2022) South Sudan S/RES/2677 (2023), among others. In A/RES/76/274, the General Assembly noted *“the progress made in the implementation of the multi-year environmental strategy to reduce the footprint of peacekeeping operations”* and requested *“the Secretary-General to develop, in consultation with Member States, a way forward to ensure continuity in his efforts after the ending of the strategy in 2023, in line with the five pillars of the strategy and in accordance with the legislative mandates and particular conditions on the ground and in full compliance with the relevant rules and regulations, and to report thereon in the context of his next overview report”*. Subsequently, in A/77/19, the General Assembly requested that the Secretariat *“continue to work, together with Member States, to implement the environment strategy and to further develop it, in consultation with Member States, for the next period”*.

In 2022, DOS initiated a preliminary internal consultation with relevant missions, a summary of which was shared with Members of the LEAF Group of Friends. Under-Secretary-General Khare met with Permanent Representatives of LEAF in December 2022 and again in July 2023 to solicit input on the way forward. Drawing on input from preliminary consultations, a “Proposed Strategy Outline” was developed to set a

¹ Operational footprint, size, mandates, and various organizational supporting structures.

² Manage or maintain facilities and infrastructure, or have operational control of energy or water provision, or wastewater or waste treatment or disposal, or any other significant environmental aspect. The concept of operational control is determined by whether a peacekeeping operation or special political mission has authority over the procurement, operation or disposal, of a site, facility, or infrastructure, noting that the level of operational control can vary depending on many parameters including local regulations, the specific contractual arrangements with service providers/building owners, location of the asset/facility (e.g., whether on a UN site or off site), ownership, and safety and security requirements. PKOs and SPMs covered under the Strategy may be referred to as missions or peace operations in this document.

³ The broader context and range of initiatives and programmes on environmental management in the UN system to which the Environmental Strategy is aligned can be found on the <https://www.greeningtheblue.org/> website. Of particular relevance is the Environmental policy for the United Nations Secretariat [ST/SGB/2019/7](https://www.un.org/press/docs/2019/201907.sgsm20190701.en.doc.htm). Operational policy was provided for missions on what implementation of this looks like in the particular context of peacekeeping via the [2022.01 Environmental Policy for Peacekeeping Operations and Special Political Missions](#).

⁴ The strategy documents in support of the two phases may be obtained from dos-ousg-envs@un.org.

direction for further consultations with the wider Membership of the United Nations in the fall of 2023. This document draws on these discussions and subsequent written input to present a fully consulted version of the Way Forward: Environment Strategy 2030. As with previous iterations of the Environment Strategy, it is a living document and will be updated based on operational context and ongoing consultations with Member States and other stakeholders.

1. Evaluation of the 2017-2023 strategy

A full analysis of the sustained strategic effort on environmental management between 2017 and 2023 was conducted by DOS and made available at the end of 2023 ([link](#)). The key performance indicators for this period are provided in the table below. As can be seen, there has been substantial improvement in the majority of KPIs over the course of the Strategy, most notably the elimination of uncontrolled releases of wastewater, improvements to waste treatment and disposal, and reductions in fuel and GHG emissions. This has been achieved despite a range of operational challenges, not least being the impact of COVID-19 on supply chains, logistics and operations.⁵

| <i>Performance Indicator</i> | <i>2017/18</i> | <i>2018/19</i> | <i>2019/20</i> | <i>2020/21</i> | <i>2021/22</i> | <i>2022/23</i> | <i>Unit</i> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---|
| Mission environmental management scores | 61 | 67 | 75 | 76 | 80 | 81 | average of missions (score from 0-100) |
| Data measurement | 47% | 37% | 63% | 77% | 75% | 74% | proportion measured vs estimated |
| Site environmental assessments | 48% | 68% | 90% | 87% | 92% | 91% | proportion conducted |
| Generator fuel consumption (UNOE and COE) | 4.1 | 4.1 | 3.3 | 3.4 | 3.9 | 3.7 | litres per person per day |
| Renewable energy | 3% | 3% | 4% | 5% | 6% | 7% | proportion of total electricity consumption |
| GHG emissions | 8.4 | 8.3 | 7.5 | 7.3 | 7.6 | 7.5 | tonnes of CO ₂ eq per person per year |
| Freshwater use | 138 | 138 | 129 | 133 | 128 | 133 | litres per person per day |
| Wastewater treatment at minimum risk | 32% | 47% | 60% | 69% | 72% | 70% | proportion of sites |
| Alternative water sources | 34% | 29% | 34% | 33% | 32% | 28% | proportion of sites |
| Generation of solid waste | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | kilograms per person per day |
| Waste management at minimum risk | 13% | 22% | 18% | 23% | 25% | 34% | proportion of sites |
| Waste treated with preferred disposal methods | 19% | 33% | 40% | 43% | 48% | 65% | proportion of total waste generated |

⁵ Cumulative data across the 12 strategy KPIs is included annually in the Overview Report

Under the Strategy, DOS, through close engagement and feedback from missions, has facilitated the implementation of centralised support structures and processes to support mission activities, and has developed a range of technical solutions to manage risks and deliver operational efficiencies. With this support, missions have successfully mitigated key areas of risk, and are in the process of deploying more efficient infrastructure in line with mission action plans and investment programmes.

14 sites, initially identified as operating at significant risk, have now had their wastewater treatment systems upgraded, leading to zero uncontrolled discharges since the 2021-22 reporting period. And 70% of sites (some 300 hundred of 450 locations) now have fit-for-purpose wastewater treatment systems, deemed to be at “minimum risk”. This is more than double the proportion of sites at the outset of the Strategy.

Around 2/3 of wastes are now composted, recycled, incinerated, or sent to engineered landfill. Still, some 300 sites require improvement. Fortunately, at the remaining sites, relatively low cost and easy to deploy solutions are available and achieving close to zero disposal of waste to un-engineered landfill is achievable.

Fuel use (in generators) has fallen from 150 m litres to 130 m litres, with mission closure a significant factor. Fuel use per person (per day), however, has also dropped from 4.1 L (2017/18) to 3.7 L (2022/33) and was as low as 3.3 L during COVID-19. The difference between 4.1 L and 3.7 L per person per day (10%) equates to some 15 m litres less fuel per year.⁶

Other areas showing the greatest improvements include increases in data measurement, completion of site assessments, and training of personnel (rates around 90%). Although we see a downward trend in fuel use, the use of water and the generation of waste is relatively static, perhaps reflecting the focus on risk and treatment aspects during the Strategy, or issues with accurate measurement of these metrics, or even that missions were relatively efficient in their use of water and generation of waste at the outset, given the operational challenges in sourcing water and materials.

Key success factors for the Strategy included senior leadership commitment both across missions and at Headquarters, as well as the creation of centralized strategic and technical support resources under the direct leadership of the Under-Secretary-General. Dedicated efforts to build and sustain community and information exchange among technical staff across missions, a focus on effective data collection and reporting, and the close accompaniment of the implementation process by the LEAF Group of Friends were all crucial to the success of the efforts.

Systemic improvements made during the 2017-2023 Environment Strategy included, inter alia:

- the implementation of a data-driven performance management framework, including clear methodologies for risk assessment and leadership response, drawing on data from the site level and reported through an annual “mission scorecard” to Member States,

⁶ While the per capita figure is less affected by mission closure than the absolute value, the results may still be affected: closure of a low efficiency mission will improve the results, and vice versa, even if all other missions have not changed.



- the implementation of technical assistance capacity in the Global Service Centre and through the REACT technical assistance facility with UNOPS, with more than 100 deployments made and more than 1300 days spent in the field helping missions to address a range of environmental challenges,
- the promulgation of detailed operational policy and guidance materials pertinent to the context of peace operations,
- the introduction of a requirement for multi-year planning in relation to energy, waste and wastewater,
- the development of communities of practice across missions in relevant sectors, with working groups chaired by DMSs who form a Field Advisory Committee on Environment to advise the DOS Senior Leadership Team on this issue,
- regular collection and dissemination of good practice, including through an annual report,
- regular engagement between DOS and mission leadership on progress, with reporting on environmental management integrated into the Secretary-General's leadership compacts with senior staff, and
- new system contracts in the areas of waste (incinerators, shredders, balers, etc) and energy (meters and sensors, lighting, air conditioners, pre-fabs, solar systems, etc), and upgrades to the wastewater treatment systems contract to allow greater flexibility in design, enabling low tech and energy efficient solutions in addition to various options for modularised plants.⁷

The full review conducted of the implementation of the Environment Strategy from 2017 to 2023 provides an analysis of key operational challenges and the recommended strategic approach, in order to inform implementation going forward. Some of these issues are summarized here:

- While missions can be commended for their commitment to quickly addressing wastewater treatment concerns in recent years, the widespread deployment of complex modular equipment has been expensive in terms of equipment and operating costs. The complexity of the equipment also results in a relatively short useful life and mitigates their utility for host countries at handover— ongoing maintenance costs and availability of spare parts may also be problematic. Going forward, missions will prioritize energy efficient, lower technology, or larger scale built in place systems modelled on traditional wastewater utilities. Modular plants using membrane bioreactor (MBR) technology would still be used when other options are not suitable and may be the only option in some circumstances for effective risk management.
- Waste disposal options have been limited: either through open burning / burying on site, or transporting to a local landfill or dumpsite that in most cases does not meet UN expectations. Few recycling options are available. Efforts to upgrade local landfills have proven expensive and can leave problematic legacy issues. In most cases, the appropriate solution is to divert as much waste as possible from landfill by removing organics (composting), establishing recycling where possible, and incinerating the remainder in units that meet strict emissions standards. These methods can

⁷ As of June 2023, deployment rates of these goods and their relative contribution to reduced resource use are: 58% of cooling (air conditioning) units are now of the more efficient type; 54% of lighting is now more efficient (LEDs); 59% of accommodation meet improved insulation standards; 61% of applicable generators are synchronized, but only 12% are considered “rightsized”; 59% of water points are equipped with efficient fittings.

reduce waste volumes by over 90% and more readily enable the encapsulation of residual materials to prevent releases to the environment. Hazardous wastes are generally well managed, but often result in stockpiling which can result in problems at drawdown, particularly in the case of a rapid departure. However, solutions are now in place (technical treatment methods developed, and contracts in place for specialized disposal when required) to address this issue.

- Missions have progressed energy efficiency initiatives, following an initial focus on generator efficiencies, staff awareness, and deployment of more efficient equipment in line with asset turnover. Fuel use for power generation in missions is down on both an absolute and per capita basis. Only modest progress has been made on renewable energy, partially a result on focusing on higher return on investment activities (energy efficiency). But this also reflects the relatively high technical complexity, novel technology, and constrained capital investment budgets (with multiple year payback periods), as well as the lead time required in implementing projects initiated during the latter part of the strategy. Given the constraints listed, a range of solutions are required in this area of work depending on the mission context, ranging from: UN-owned or Contingent-owned renewable energy systems installed and/or operated by either the UN, contingents, or contractors; sourcing of renewable energy from, or establishing connections to, renewable systems in national/local grids (where available); or enabling the development of renewable systems owned by public or private providers by leveraging the scale of the mission's energy needs, either solely for the mission or for multiple beneficiaries. Although the latter has the advantage of not requiring upfront capital investment by the UN, it does require entry into long-term agreements that can place future liabilities on the UN. Various models to overcome these issues have been identified, and DOS is currently determining the most appropriate financial and contractual mechanisms through negotiations with vendors during the solicitation process.
- With respect to positive legacy, missions have been documenting a wide range of activities that contribute to the host country: from handover of environmental infrastructure through to “quick impact projects” such as provision of water bores. It has been the projects where co-beneficiaries are involved in the design process (e.g., wastewater treatment plants managed by the local utility supported or rehabilitated through the technical engineering expertise of the mission) that offer the highest likelihood of long-term sustainable outcomes. Going forward, improved planning for low-tech, cost effective and long-lived mission infrastructure—accompanied by effective planning for end use—is essential, if the interests the United Nations over the longer term are to be served, particularly in the areas of renewable energy, water and wastewater facilities, and waste management infrastructure.

2. Summary of consultations on the way forward

The mission consultation process was conducted in two parts: engagement with mission leadership, through which feedback from eleven SRSGs was received⁸; and an online survey in which 81 working level

⁸ UNMISS, MONUSCO, MINUSCA, UNISFA, UNDOF, UNSOM/UNSOS/ATMIS, UNFICYP, UNMIK, UNMOGIP, UNTSO and UNAMA.



staff in the environment, engineering, administration, logistics, transport, finance and other sections participated, from both missions and HQ.⁹

Overall feedback from missions was positive, highlighting that support provided by DOS since the start of the Strategy (i.e., policy and technical guidance, strategic direction and engagement with Member States, remote and on-site technical assistance, performance and risk monitoring, establishment of communities of practice, and supply chain solutions) has been effective—and that continuing support from DOS in these areas is important. Missions indicated the following priorities going forward: continued focus on renewable energy and increasing energy efficiency (both UNOE and COE); reinforcing solid waste and wastewater management systems and reducing significant environmental risks in all sites (including in temporary operating bases); looking for opportunities for positive legacy; managing and reporting on performance and risk; building capacity of national staff in operation and maintenance of environmental management facilities; improving behaviour of civilian and uniformed personnel; improving data collection; and alignment with Agenda 2030. 91% of staff surveyed indicated the value of setting performance targets. Considerable emphasis was also placed on the importance of capacity building and training across the five pillars of the Strategy.¹⁰

In December 2022, Under-Secretary-General Khare briefed Permanent Representatives from the LEAF Group of Friends on these internal consultations, seeking input from the group on priorities for the “way forward”. Input was provided by several Member States, both verbally at the meeting and through subsequent written communication. A preliminary proposal was presented to the LEAF group in July 2023 at which further input was given, and further consultations were also conducted with the Security Council (August 2023), the ACABQ (September 2023), and finally with the full membership of the General Assembly (October 2023).¹¹

In these consultations, Member States recognized the success so far, commended the inclusive consultation process, and called on DOS to sustain progress, heighten ambition (while recognizing the varied contexts of missions), and implement targets to track progress. The demonstrable advancement in many areas was noted, with a recognition that there is room for improvement—particularly in relation to renewable energy. A more ambitious mechanism was called for, linked to Agenda 2030, drawing on innovative approaches to external support. The need to protect the principle of international competition in pursuing environmental technologies was flagged, and the need to adhere to the rules of the

⁹ The document summarizing “Preliminary consultation with missions on progress with the Environment Strategy for Peace Operations and on future priorities” 2 November 2022 is available from dos-ousg-envs@un.org

¹⁰ Further input was subsequently obtained from working level mission and HQ staff at the Engineering and Environment Conference held in Entebbe in April 2023, including a focus on: improving data collection and analysis for projects; the need for practical guidance on positive legacy; analysis of the benefits of designing long-term accommodation (i.e., hard wall) and using locally-sourced materials (sustainability, lower cost, security, energy efficiency, etc.); capacity and training, including formal or informal opportunities for cross-mission mobility; wider ownership of sectoral planning across the mission and better linkages between management plans and budget; improving stock management practices (to reduce packaging and overbuying); and, greater consultation during the development of new systems contracts. The report is available from dos-ousg-envs@un.org.

¹¹ Verbal and/or written feedback was received during the consultation process by Bangladesh, Cameroon, Denmark, Egypt, European Union, Germany, India, Indonesia, Italy, Malaysia, Mali, Morocco, Pakistan, Portugal, Russian Federation, Sri Lanka, Switzerland and United States of America.

Organization. The importance of partnerships was referenced in the implementation of this work, ranging from universities to national training centres with relevant expertise, to international platforms such as the International Solar Alliance and the International Renewable Energy Agency. Recognizing the current trajectory of peacekeeping, emphasis was placed on the need for the strategy to be flexible, replicable, and scalable to suit future requirements.

The value of renewables for the safety and security of peacekeepers was noted, in addition to other benefits, with attention placed on the centrality of mandate implementation and on the importance of ensuring cost efficiency and value for money. The important contribution that Troop and Police Contributing Countries (T/PCCs) can play in this area was stressed, together with acknowledgement of the recent efforts made by several T/PCCs and partners to develop valuable projects in this area. A role for DOS in helping to ‘match’ potential donors and T/PCCs was foreseen. Cross-learning and sharing of best practices among T/PCCs and host states was encouraged.

Energy efficiency and minimization of waste was an area of focus in the input provided, as was a reduction in the use of single-use plastics. The importance of stock management was also emphasized, with an increased focus on overseeing inventories to enhance efficiency and reduce waste. In this regard, the benefits of fully leveraging the role and capabilities of the Global Service Centre were underscored. Some Member States emphasized the role that the UN can play in monitoring and reporting environmental violation and damage, as well as supporting efforts in environmental restoration and protection against illegal activities (e.g. illegal logging, fishing and poaching). Reference was made to ensuring the Regional Service Centre in Entebbe is integrated into strategy implementation.

In moving forward, the importance of data collection was a key theme, with emphasis given to increasing the availability to Member States of mission Scorecards and multi-year sectoral plans in energy, waste, and wastewater management, as well as increasing the visibility of performance data across time and across missions. The introduction of mission-specific targets through the budgetary process, linked to multi-year planning, was encouraged, with emphasis on ensuring that missions are provided with the necessary support and resources to do this. Suggestions were made on how the Scorecards could be strengthened, drawing on other models such as the “status reports” provided on gender parity.

The strengthening of partnerships with the private sector, including locally, was highlighted, together with the value of an increased range of supply solutions to support missions. Consistent across input from Member States was emphasis on the opportunities presented by the concept of positive legacy, with stress on the importance of close engagement with (and capacity building of) host states: ensuring early engagement to support buy-in, capacity, knowledge transfer, and planning for positive legacy through the design and implementation of infrastructure projects, making sure that activities are done in the context of national priorities and that investments are made in sustainable infrastructures rather than temporary equipment. Some of the challenges of this approach were noted, including the difficulty of finding partners on the ground and the different planning timelines of development and peacekeeping activities, along with the suggestion that this kind of initiative could provide some ‘seed’ activity for later development. The need to identify end-use of infrastructure early on was stressed, while recognizing the factors that can complicate this in some settings. The importance of conducting the strategy in coordination with UN Country Teams and Resident Coordinators was flagged. Nationally owned initiatives aimed at empowering the community and strengthening resilience to cope with pollution and

environmental and climate hazards were encouraged, including promoting fiber-based products as an alternative to plastics.

The need to include a gender perspective was also raised, including the importance of identifying areas where the cost of the mission’s environmental footprint is disproportionately borne by women, so that targeted approaches may address this issue. The possibility of ‘incentive’ structures for mission performance was mooted, and the importance of training was highlighted – including as a means to raise awareness of both mission personnel and host communities. The need to ensure the presence of renewable energy specialists on the ground was stressed. Further guidance from Member States was provided through the Report of the Special Committee on Peacekeeping Operations (A/77/19), in which the General Assembly reiterated *“the shared commitment of Member States to employing environmentally responsible solutions”*. The Special Committee requested that the Secretariat *“develop specialized training materials for peacekeepers”* and encouraged the use of *“low- and zero-emission energy resources, renewable resources, clean technology and green solutions”*, as well as the *“elimination of single-use plastics, where possible”*. Among other recommendations, the resolution encourages *“home-grown environmental solutions [...] in order to leave a positive legacy in the field”* and notes opportunities around *“positive infrastructure legacy for host communities”*, including through the ‘Energy Compact for Renewables in Peacekeeping’ led by United Arab Emirates and Norway and joined by many UN and Member State stakeholders.¹² The Secretariat was requested to ensure that *“donations in the form of renewable energy technologies are made in accordance with the United Nations legislative framework”*.

3. Vision 2030

Drawing on analysis of results from the 2017-2023 strategy and input from the consultation processes, the Environment Strategy 2023-2030 envisions the following:

“UN peace operations routinely plan—and successfully implement—measures to achieve ambitious targets that demonstrate high standards in environmental management: minimizing risk and consumption, drawing from renewable resources and contributing to a positive legacy in host countries as part of wider UN efforts.”

¹² <https://www.un.org/en/energycompacts/page/registry#RenewableEnergyforPeacekeeping>

4. Three key themes

The implementation to 2030 will continue across 5 operational pillars: energy, waste, water and wastewater, environmental management systems, and wider impact. These pillars have proven effective due to the broad scope of environmental issues, by breaking down the activities into meaningful focus areas with targeted stakeholders. They have also enabled the topics to be mainstreamed into the respective mission functions, recognising that it is the engineers, technicians and operators that have the capacity to affect meaningful change in the field. Each pillar is co-ordinated by DOS and brings together field practitioners and DOS support functions to identify issues, share lessons learned and build on best practices. This coordination also brings about common approaches to risk assessment, planning, sourcing and data management across the pillars. In key areas of overlap, cross-cutting initiatives are also taking place, for example in rations, which straddles water, waste and energy (bottles, packaging, composting, cold storage).

Three key themes will cut across these operational pillars for the Way Forward: Environment Strategy 2030. An overview of how these themes relate to the achievement of Sustainable Development Goals in countries hosting UN field missions is provided in Figure 2. The three key themes are as follows:

i. Responsibility: “Do no harm”

Managing risk, particularly in relation to wastewater but also in relation to hazardous waste, will be an area of ongoing vigilance. This relies on the continuation of the strong and efficient structures that have been put in place for monitoring and assessment, and for technical assistance where issues are identified. The progressive deployment of reliable, low complexity, and more energy efficient systems, that are less prone to mechanical breakdown and require less oversight, also contribute to reduced risks (as well as better utility to host communities at mission closure).

Ensuring effective and responsible drawdown and liquidation processes will be an important area of activity for the strategy period, prioritizing the removal of hazards in unpredictable situations and drawing on lessons learned from other contexts. This work will include a focus on ensuring that all missions are taking appropriate actions during the sustainment phase to prepare for responsible liquidation, particularly in ensuring adequate spill containment everywhere, actively progressing the remediation of all contaminated soil, and monitoring and actively managing stockpiles of hazardous wastes.

ii. Increase ambition

The transition to renewable energy will remain at the top of the priority list for the Environment Strategy 2023-2030. While the current penetration of renewables stands at around 7%, it is anticipated that valuable efforts to initiate this transition (both by missions and by troop and police contributors) during the second phase of the 2017-2023 strategy will begin to bear fruit, bringing peace operations somewhat closer to the global share of renewables in power generation, which

currently stands at around 29%.¹³ However, given the challenging contexts within which this transition is taking place, dramatically moving the needle on this towards the ambitious goals of the Secretary General will require an increased and sustained effort from all stakeholders.¹⁴ DOS will prioritize supporting these efforts across a variety of strategic and technical assistance approaches tailored to different contexts: (1) connecting to local grids with a share of renewable energy, where available; (2) installing renewable energy systems through on-site UN- and contingent owned renewable energy systems; and (3) anchoring new private sector or local utility investment by outsourcing renewable energy supply.

Each of these three approaches presents both challenges and opportunities. The connection to local grids with a share of renewable energy is only possible in a limited number of locations, and this approach will continued be pursued as priority where possible. Installation of renewable energy systems by the missions is constrained by budgetary resources, due to the relatively high initial capital outlay. However, the investment is recouped through lower operating costs, and this payback period can be as little as 2 years (although 2-5 is more usual). Support will be provided via this strategy in a number of ways:

- Increased visibility (through the budgetary process) of the performance gains that can be expected through investments in specific projects in this area.
- Examination and documentation of operational resilience and safety /security benefits of renewable energy.
- Delivery of a ‘turnkey’ renewable energy system contract to facilitate installation, commissioning, operations and maintenance by missions.
- Ongoing technical support, guidance and training to support project design and implementation for both missions and Troop Contributing Countries (including through partnerships with bilateral donors).
- Delivery of renewable systems to missions via extra-budgetary resources provided to DOS.

The third approach to transitioning to renewables, by anchoring external investments (which is the focus of the *Energy Compact on Renewable Energy for United Nations Peacekeeping*¹⁵), has considerable benefits in that it can minimize upfront capital outlay and has the potential to leave a positive legacy through supporting investment in climate resilient infrastructure in locations where the mission site is near a community in need of electrification. However, these projects are complex in nature and dependent on partnerships with host governments and others, meaning that missions are unable to act in the lead role and therefore to drive the timeline for projects. Efforts will continue to support this approach in a limited number of peacekeeping sites, mostly at MINUSCA, UNMISS and UNSOS. Mission-led energy outsourcing projects will also be supported, recognizing that these have

¹³ International Energy Agency (IEA) – [Renewables 2023 Analysis and forecasts to 2028 report](#)

¹⁴ United Nations Secretariat Climate Change Action Plan 2020-2030, September 2019.

¹⁵ Launched by the United Arab Emirates and Norway in 2021:

<https://www.un.org/en/energycompacts/page/registry#RenewableEnergyforPeacekeeping>

reduced co-benefit opportunities for a variety of technical, procurement and contractual reasons. Training to support this approach will be developed.

Reducing consumption will be a further area for increased ambition during Way forward: Environment Strategy 2023-2030. Efforts will focus at both the behavioural and systemic levels, with enhanced training and the introduction of incentives to support the former. At the systemic level, efforts on the ground to improve energy efficiency will continue, including in the energy efficiency of water supply and treatment and in the supply of materials (such as minimization of packaging and thus transport). Missions will be supported to implement effective inventory and stock management and analysis will be undertaken on opportunities for greater ambition in reducing single-use plastics in missions, building on a range of systemic and local initiatives such as eliminating, or severely restricting, the use of plastic bottles. DOS will build on the cross-pillar initiatives already undertaken under the category management approach (e.g., in rations, where the water supply, energy costs and waste dimensions of the provision of bottled water we considered), to reduce resource consumption across all categories. Greater emphasis on effective multi-year planning across key sectors (energy, waste, wastewater) will be crucial to delivering these results. While most missions have working level multi-year plans in place, greater awareness of—and commitment to—them by mission leadership and Member States is needed to drive forward consistent implementation and to enhance visibility of the operational relationship between performance and budgetary investments. In support of this, DOS will provide a framework that enables missions to set their own annual / multi-year performance targets (inspired by the Nationally Determined Contribution process), for senior leadership and Member State consideration and sign off, as part of the budgetary process. Technical assistance will be continued to support missions with planning and target-setting, and training will be rolled out to assist staff at all levels. The introduction of performance targets (to be included as supplementary budget information) through summaries of the multi-year mission Waste, Wastewater and Energy Management Plans, will be initially piloted in two missions, before being rolled out further based on this experience. Examples drawn from the pilots are shown in Figure 1.

iii. Leave a positive legacy

Recent mandates have stressed that missions should strive to design their operational footprint in such a way as to leave a positive legacy in host countries. During the second phase of the 2017-2023 strategy, DOS assisted missions through a variety of initiatives to integrate positive legacy aspects into infrastructure development, with a wealth of case studies collected, in recognition that the footprint of the mission can support host governments with their own progress towards the wide-ranging goals set out in Agenda 2030. Work with the private sector is a crucial aspect of this, and efforts to support a “Energy Compact for Renewables in Peacekeeping” that identifies opportunities for peacekeeping operations to anchor private or public sector investment in longer term infrastructure projects has set out a helpful approach that will continue to be explored to the extent feasible. Opportunities will be sought in a wide range of sectors, including, *inter alia*: construction, accommodation, recycling, wastewater treatment, and water abstraction and purification.

This area of work will remain a key priority for Environment Strategy 2030, with increased focus on early coordination on planned end-use, building capacity and local ownership, seeking “home-grown” solutions, enabling co-use, and ensuring that the operation and maintenance of systems and infrastructure is led by those who are expected to operate these after the mission’s departure wherever possible. DOS will develop operational guidance and training to support staff at all levels in these endeavours and will support mission planning and analysis in these areas. Close coordination and strong partnership with host governments and with development partners must be central to these efforts, and DOS will work closely with the LEAF Group of Friends and others to advance this.

5. Implementation structures and measures

The success factors and implementation structures described in Section 1 are to be continued, including, *inter alia*: strategic senior leadership in DOS and missions, Member State engagement, centralized technical assistance (on ground and remote), comprehensive policy and guidance provision, a data-driven performance and risk management framework, strong internal mechanisms for community building and decision making, and dissemination of good practices.

Oversight will continue to be provided by the Senior Leadership Team of DOS, with advice provided by the Field Advisory Committee on Environment (FACE), which is comprised of mission Directors of Mission support that chair the cross-mission pillar working groups. The “Environment Core Team”, led by the Environment Section in the Office of the Under-Secretary-General in DOS, will continue to support integration and mainstreaming of environmental management across the Department at the operational level, bringing together the Environmental Technical Support Unit in Brindisi (with a primary focus on supporting mission management plans) and the REACT technical assistance facility (with a primary focus on rapidly deployable specialized expertise), as well as representatives from relevant teams across DOS as necessary, particularly from the Logistics and Procurement Divisions of DOS. Key performance indicators will be reviewed and updated as necessary for the forthcoming period.

The areas to be strengthened, and the proposed approach, are described here:

1. Building on the Energy, Water and Waste planning SOPs and Templates, support wider ownership within missions of these multi-year plans and integrate them with key budgeting and performance processes, including through the setting of targets linked to the initiatives to be agreed with Member States. In recognition that the responsibility for operational progress rests with individual missions, these targets and plans are the main locus for detailed execution of the strategy. DOS will provide a framework that enables missions to set their own annual / multi-year performance targets (inspired by the Nationally Determined Contribution process), for senior leadership and Member State consideration and sign off, as part of the budgetary process. DOS will provide analysis and commentary on progress and on forward plans and will support missions to ensure that the details of effective multi-year plans are made available to Member States. DOS will also assist the missions in documenting the benefits of individual projects, further informing future investments and target setting from real-world outcomes in the mission context.

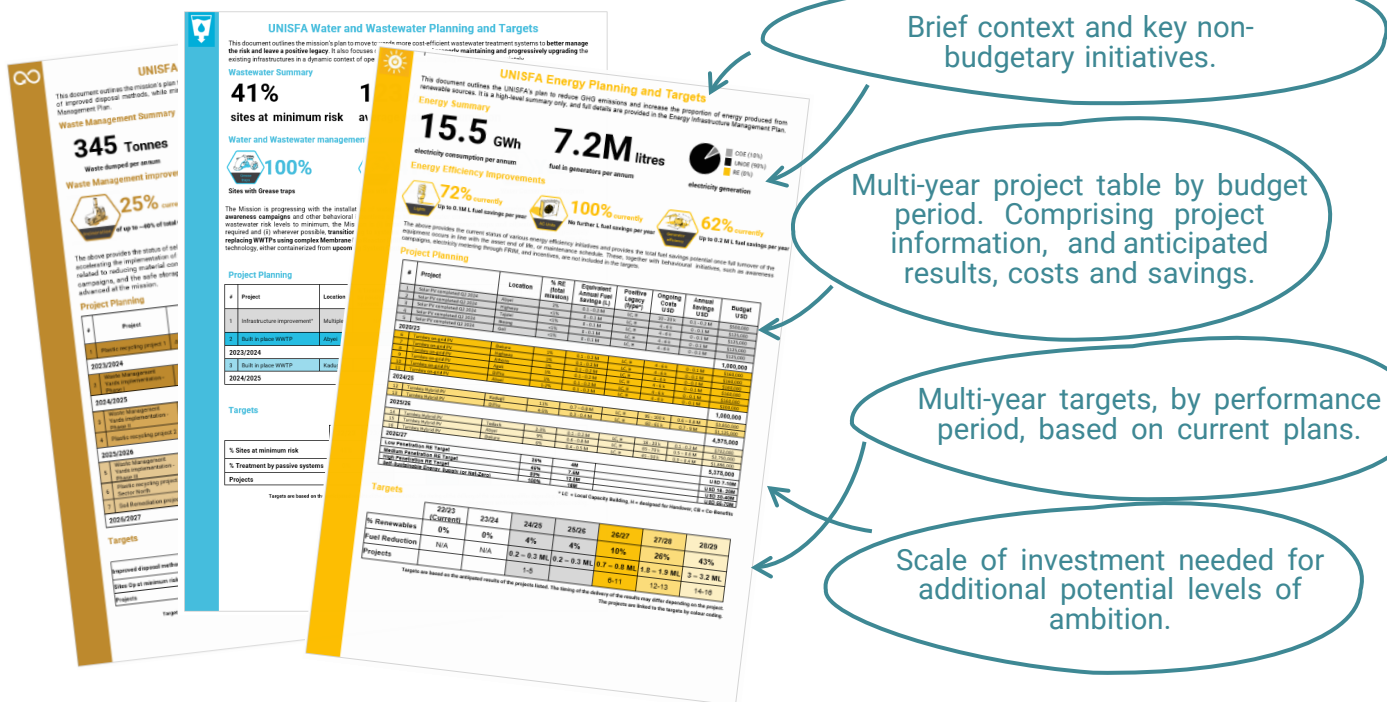
2. Continue to enhance the organisational environmental culture through awareness, skill development and incentives –addressing capacity gaps and training needs identified through the training needs assessment conducted in 2022. Areas of priority for civilian personnel include positive legacy, integrated planning, gender, budgeting and target setting, as well as technical areas of work such as operating and maintaining wastewater, energy and waste equipment, right-sizing and optimization of power generation systems, and conducting risk assessments. Training will also be developed to address the needs of uniformed components (assessed in 2022-2023), with a focus on the design and planning of renewable energy projects, and on installation, operation, maintenance, and decommissioning. Emphasis will also be placed on the capacity building of national staff, contractors, small enterprise, and host country utility providers in the provision of environmental services and in the operation and maintenance of equipment. The possibility of ‘award’ incentives will also be explored to encourage performance, likely requiring improved data capabilities (e.g. personal consumption) and thus bringing together the UN’s behavioural and digital strategies (UN 2.0), leveraging the work in this space delivered under the previous strategy.
3. Further the integration of category management and supply systems, leveraging the investments in Umoja and other information systems to provide better insight, and control over, stock levels to reduce waste (e.g., reduced expiry of perishable items such as food, medicines and chemicals) and more effectively manage stockpiles of hazardous and difficult to dispose of materials.
4. Encourage enhanced engagement with both host government and with UN Country Teams, at both HQ and mission levels, drawing on experiences with the “Energy Compact on Renewables in Peacekeeping”, as well as on preliminary research supported through the Transitions team (a joint initiative of DPO, DPPA, UNDP and DCO).
5. Further develop the range of options for outsourced equipment-as-a-service contractual arrangements, building on the experiences of missions with various leasing and power purchase agreements. DOS recognizes the potential of such arrangements to overcome the capital outlay constraints on missions but acknowledges a number of contractual and legal matters particular to peacekeeping missions which need to be addressed.
6. Ensure all missions are adequately prepared for closure through continual and proactive management of environmental issues during the sustainment phase, including through engagement with host country and other partners.
7. Evolve and leverage the environmental support functions established so that they are fit for emerging needs and new peacekeeping modalities, including those potentially emerging following the recent Security Council Resolution on the Financing of AU-Led Peace Support Operations.



Figure 1

The proposed Planning and Target setting information sheets are provided below. These are currently being piloted by two missions in the 2024-25 budget request process. They will be bundled with the Environmental Scorecard in the Supplementary Information to the budget package, and, if successful, will replace the supplementary information sheet on environmental projects.

The intent is to provide a clear multi-year plan to allow the advisory committee to deliberate on whether the targets are at the appropriate level of ambition. In the eventuality that higher levels of ambition are recommended, indication will be provided of the scale of investment likely needed in a particular country context to achieve more ambitious targets.



The information sheets clearly establish the link between a project and its anticipated results, incorporating the time lag between budget commitment and project delivery, noting that this may differ project by project.

As a result of consultation with stakeholders, the following targets have been recommended, as they draw the clearest link between the projects and performance results. Others may be considered where strong cause and effect can be demonstrated.

- % Renewable energy
- Litres of fuel reduction
- % Sites at minimum wastewater risk level
- % of wastewater treatment by low technology, cost effective and reliable solutions
- % Sites at minimum waste risk level
- % of waste disposal by improved methods

Figure 2

Responsibility: “Do no harm”

Increase ambition
in the efficient use of resources

Leave a positive legacy

| | Responsibility: “Do no harm” | Increase ambition in the efficient use of resources | Leave a positive legacy |
|--|--|---|--|
|  <p>6 CLEAN WATER AND SANITATION</p> | <p>Continuation of the strong and efficient risk management structures that have been put in place for monitoring and assessment. Progressively deploy reliable and low complexity wastewater treatment systems.</p> | <p>Progress and monitor water use efficiency across the whole water lifecycle, reducing water use (including through behavioural measures and incentives), making use of renewable sources of water, using solar pumps and gravity fed conveyance, and using passive and energy efficient wastewater treatment technologies (unless unavoidable).</p> | <p>Increase the availability of safe water for communities by progressing opportunities for joint projects with other stakeholders and/or involving local vendors in O&M to build capacity. Increase the likelihood of safe handover through the use of reliable, low complexity, and more energy efficient systems. Ensure handover of equipment in line with FR 105.23 and R 5.14.</p> |
| | 6.3 | 6.2 | 6.1 & 6.2 |
|  <p>7 AFFORDABLE AND CLEAN ENERGY</p> | <p>Ensuring adequate spill containment everywhere.</p> | <p>Progress and monitor energy efficiency, through behavioural measures and incentives and progressive replacement of equipment with more efficient alternatives. Substantially increase the share of renewable energy.</p> | <p>Increase the availability of renewable electricity by progressing opportunities for joint projects with other stakeholders and/or involving local vendors in O&M to build capacity. Ensure handover of equipment in line with FR 105.23 and R 5.14.</p> |
| | 7.2 | 7.2 & 7.3 | 7.1 |
|  <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> | <p>Continuation of the strong and efficient risk management structures that have been put in place for monitoring and assessment. Eliminate open burning and use of non-engineered landfill. Monitor and actively manage contaminated soils and stockpiles of hazardous wastes and ensure contracts and technical support mechanisms are in place for timely treatment and disposal.</p> | <p>Reduce the volume of transported materials, particularly through efficient packaging and elimination of single use plastics where avoidable. Identify and reduce the accumulation of surplus hazardous and perishable consumables such as food, medicines, and chemicals. Increase the proportion of renewable materials used in the supply chain.</p> | <p>Increase the availability of recycling and other waste management solutions by progressing opportunities for joint projects with other stakeholders and/or involving local vendors in O&M to build capacity. Ensure handover of equipment in line with FR 105.23 and R 5.14.</p> |
| | 12.4 | 12.4 & 12.5 | 12.4 |