

CLIMATE SMART MSF



"Sierra Leone 2023 © MSF/William Gagnon"

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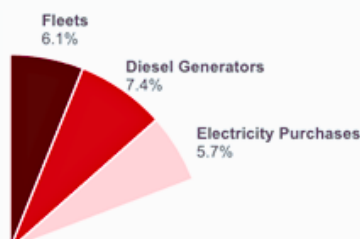
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WILLIAM GAGNON, CLIMATE SMART ENERGY TRANSITION ADVISOR

MSF's Climate Commitment: Decarbonization in Action!

MSF has set ambitious climate goals in 2021, aiming for a 50% reduction in emissions by 2030. But big goals require big action. The first major step towards this goal was finally reached this summer with the publication of MSF's emissions baseline (spoiler: we stood at a little over 500k tons of CO2 eq. in 2019). Now that we know how much we emit and where those emissions come from, it's time to turbocharge our decarbonization!



Turns out: fleets (including our Land Cruisers) represent about 6.1% of our global emissions; diesel generators stand at 7.4%, and the electricity we purchase from the grid, 5.7%. The good news is that the energy sector is one of the easiest sectors to decarbonize, because we already have the know-how. Unlike other sectors that are more difficult to decarbonize (air travel, for example!), we have the tools at our fingertips: cheaper and better solar panels and batteries galore.

Solar is booming, with costs plummeting (from \$100/W in 1975 to less than a \$1/W today) and capacities outstripping even the International Energy Agency's predictions. Batteries are on a similar course, from \$7000/kWh in 1991 to around \$150/kWh today – with very little indicators that the trend will slow down, particularly as electric vehicles are expected to reach price parity in Europe between 2024-2026. Larger markets will likely follow soon after, so it's not early to start thinking about the future. MSF, however, is not just banking on solar – we're diving deep to understand our energy consumption.



SOLAR WATER HEATERS
KENEMA, SIERRA LEONE 2023 | MSF/WILLIAM GAGNON



TRANSFORMATIONAL
INVESTMENT
CAPACITY

Raluca Radu, Climate and Health Educator
Climate Smart MSF

CLIMATE SMART UPDATES

Climate Smart as a decarbonization catalyzer and accelerator

Climate Smart's role is to catalyze and accelerate MSF's decarbonization work. This is how:

- Understanding and adapting our energy needs is crucial. While we have some data, such as fuel consumption from diesel generators (in a spreadsheet, the LRS, MyFleet, MEMO, or elsewhere, depending on the office you report to), it doesn't reveal the entire energy landscape. For instance, did you know diesel generators have a maximum efficiency of 40%? This means they're converting just 40% (or often less) of the fuel's energy into electricity. If diesel generators were students, they would fail in my opinion. It's crucial we understand the actual energy needs of our projects, so we can be more money-savvy.
- To fill this knowledge gap, Climate Smart is pioneering a project to get a finer look at energy consumption. The magic tool? Energy meters, and energy assessments. Energy meters are the mother of all decarbonization tools. Electrifying, I know. By assessing overall energy consumption, power demand and seasonal schedules, these meters are like peering into the future of our energy solutions. This is not new for MSF— [Climate Smart hosted a webinar on the topic with OCB back in December 2022](#). What's new here is the scale at which we are deploying those, aiming to cover close to 100% of the electrical consumption at the projects in CAR (OCBA) and Iraq (OCG), and working to confirm a 3rd mission in Asia/Pacific region to complete the Triad with Sub-Saharan Africa and Middle East. Gathering comprehensive data takes time – a year, to be precise, due to seasonal differences— and this is why Climate Smart is working on this critical path.

Developing proxies to speed up data collection, and sizing of new infrastructure

The augmented energy data collected with the meters and the assessments (total consumption, peak, demand, schedules, and profiling, amongst others) will allow us to develop proxies to supplement the basic energy data (liters of fuel, and spending) that we have access to at the moment. This will give us a global view of MSF's energy needs and allow us to start planning and budgeting for a scale-up and a shake-up.

Meet the Trailblazers: Gabriela Adam and Razvan Popa!

Gabriela Adam, our Building Energy Assessment Specialist, and Razvan Popa, our Energy Assessment Specialist, are heading to CAR (OCBA) and Iraq (OCG). Gabriela will evaluate and recommend energy-saving actions for buildings, pharmacies and warehouses— particularly to save on spending related to air conditioning (air conditioning remains the kid that takes too many cookies from the electricity cookie jar). Meanwhile, Razvan will install 60 energy meters (30 in CAR, 30 in Iraq) to provide a panoramic view of energy use in those areas. With this, we are building on the work that OCB has been doing to centralize energy data in an online platform. He will also be developing a Fleet Decarbonization Assessment Tool, to evaluate a project's readiness to consider a decarbonized fleet. Climate Smart made it clear that decarbonization will not come at the cost of our healthcare delivery or the safety and security of our staff— this tool will ask the question: in which conditions would MSF consider deploying electric vehicles, and where would that be?

Gabriela's and Razvan's combined efforts will produce an Energy Assessment Toolkit, enabling field teams to collect the vital energy data we need, and distributing decarbonization tools to more of our colleagues in the movement.

What's the Big Picture?

These field energy assessments and energy meters are not just data-collecting exercises. With these tools, we aim to answer the question:

What is the business case behind decarbonizing MSF's energy-related operations by 50% by 2030?

Our path ahead is challenging but filled with promise. Remember: The future is solar, and it's bright! I look forward to updating you with our findings in the new year.



[Want to learn more about the Climate Smart Energy Assessment Pilot? Check out our video!](#)



Raluca Radu, Climate and Health Educator
Climate Smart MSF

HACE UPDATES

hace



Humanitarian Action on Climate and Environment

HACE PROJECT LEAD | LÉO LYSANDRE TREMBLAY

Several exciting developments are underway at HACE, the Climate Adaptation unit of MSF-Canada. Over recent months, there's been a transition in leadership. Carol Devine, the initiator and former head of the unit, has moved on to embrace new projects, paving the way for Léo Tremblay to assume the Lead position. We are also thrilled to introduce a new addition to our team, Aina Roca Barcelò, who recently earned her PhD in Environmental Epidemiology from Imperial College London. Aina brings her experience in modeling the impact of extreme heat in urban areas.

Currently, HACE is immersed in the development of country specific knowledge bases focusing on Climate and Health, initiating this project in East Africa. In addition, we are in the process of instituting monthly seasonal monitoring in particular regions where MSF operates.

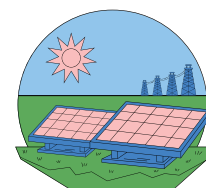
We hold the responsibility for the forthcoming Climate Hub, slated for launch before the year concludes. The Climate Hub aims to be MSF's centralized source for all climate-related content. It will consolidate the most recent updates on climate-centric initiatives, events and news articles from MSF and will feature specialized segments providing technical content on Mitigation, Adaptation, Advocacy and Learning resources.



An MSF medical team travels by boat to bring medical care to the city of Johi, in Dadu district, Sindh, Pakistan, October 2022. ASIM HAFEEZ

ENERGY SPOTLIGHT:

INSTALLATION OF SOLAR PANELS IN JAHUN (JIGAWA STATE, NIGERIA)



OCP's team in Jahun are proud to share a recent successful project where they installed solar panels. Let's learn a bit more about what the process was like for them through this brief Q & A:

When did the project start and what was the motivation behind it?

Since MSF uses mainly generators due to the lack of city power or often poor quality of city power, we noticed the CO2 emissions from these generators to be directly correlated with a fuel consumption of 3.32 kg of CO2/L of fuel. When we looked at solar use in our missions we learned they will reduce:

- Electricity production costs (including the cost of fuel theft)
- Burden of fuel management
- CO2 emissions, thereby helping MSF to reach its targets by 2030

Phase I: Our project started in October 2022 and completed in December 2022, after a close identification of our needs and some feasibility studies. We also ensured the scope definition, call for tender, and technical discussions were completed with the technical referents. The total cost was of 292,500 euros. We were thrilled when we completed this phase, and to especially see the synchronization between the generators and solar, followed by two consecutive weeks with no technical issues.

Phase II: We completed installation of 3 x 40Kva inverters and batteries for critical units (operating theatre, newborn and intensive care units) with a start date in September 2023 and an expected completion in mid-November 2023.

What levels of support were necessary for this project to be underway?

We were thankful to have support from a wide range of staff at the Mission, Technical, Cell, and HQ levels. In fact, the teamwork, consultations at various levels, and overall collective approach was what made this project successful.

What were your main takeaways from this project and what would you do differently?

- It's important to consider the criteria for battery selection based on availability in the local market, any local recycling possibilities, and whether the site is accessible
- Battery management - charging and discharging parameters are critical for battery health
- When sizing systems, it's good practice to oversize them to absorb future evolutions
- We recognize the project is taking a while to execute and hence addressing internal constraints (validation & budget) is key!

Overall, we would most definitely do something like this again especially in places where the sun is over head for more than 6 months in a year!

RESOURCES

Events

MSF Green Day was held on September 15, 2023, as a virtual event highlighting essential information about Environment, Health and the Climate Crisis that has been circulating within the Movement. If you missed the chance to join the event live you can catch-up with all the recordings [here](#). Equally, we recommend checking out the [Virtual Poster Museum](#).

On October 17th, Climate Action Accelerator, in partnership with ALIMA, are organizing the following event: **Climate emergency, aid and health in West Africa** to share experiences and inspire accelerated climate action in West Africa & the Sahel. This event is taking place in person in Dakar (Senegal) and online. Registration information is available [here](#).

Save-the-Date for Climate Action Accelerator's Annual Global Event - **Fast Tracks: Accelerating Climate Action to Better Meet Growing Needs** (November 8th, 09.30-17.30 CET) - hosted at Campus Biotech in Geneva (and online). Register [here!](#)

News

[A short video on MSF's 2019 Baseline](#)

[SEEAP Climate Emergency Communication Package](#)

[MSF Germany marches at the Climate March](#)

[BBC - Climate change: Six young people take 32 countries to court](#)

Interesting Reads & Resources

[The energy transition in five charts and not too many numbers](#)

["What to do about climate's front-page paradox?"](#)

[WREC Environmental Sustainability in Humanitarian Supply Chains: Training Landscape Mapping \(2023\)](#)

[Paper-based food packaging at the centre of Europe's waste crisis, new report reveals](#)

[MSF OCB Eco-Playbook](#)

SharePoint & Sites

[Climate Smart MSF](#)

[MSF-Climate-Environment-Health](#) on Yammer

[Meteorological and Climatic Anticipation \(MACA\)](#)

[MSF Climate Emergency Site](#)

OFFER YOUR FEEDBACK

Did you enjoy this edition of the Climate Smart Newsletter? We always welcome feedback from readers and would love to share your projects in our next newsletter. Contact us at faith.toran@newyork.msf.org

The Climate Smart Newsletter, edited by Faith Toran, Communication and Fundraising Coordinator for Climate Smart, is a bi-monthly Climate and Health newsletter amplifying our decarbonization initiatives, providing guidance and support and celebrating our victories across MSF!