



**Planet &
Society**

Minimising Environmental Impacts



Environmental Management



Disaster Management & Response



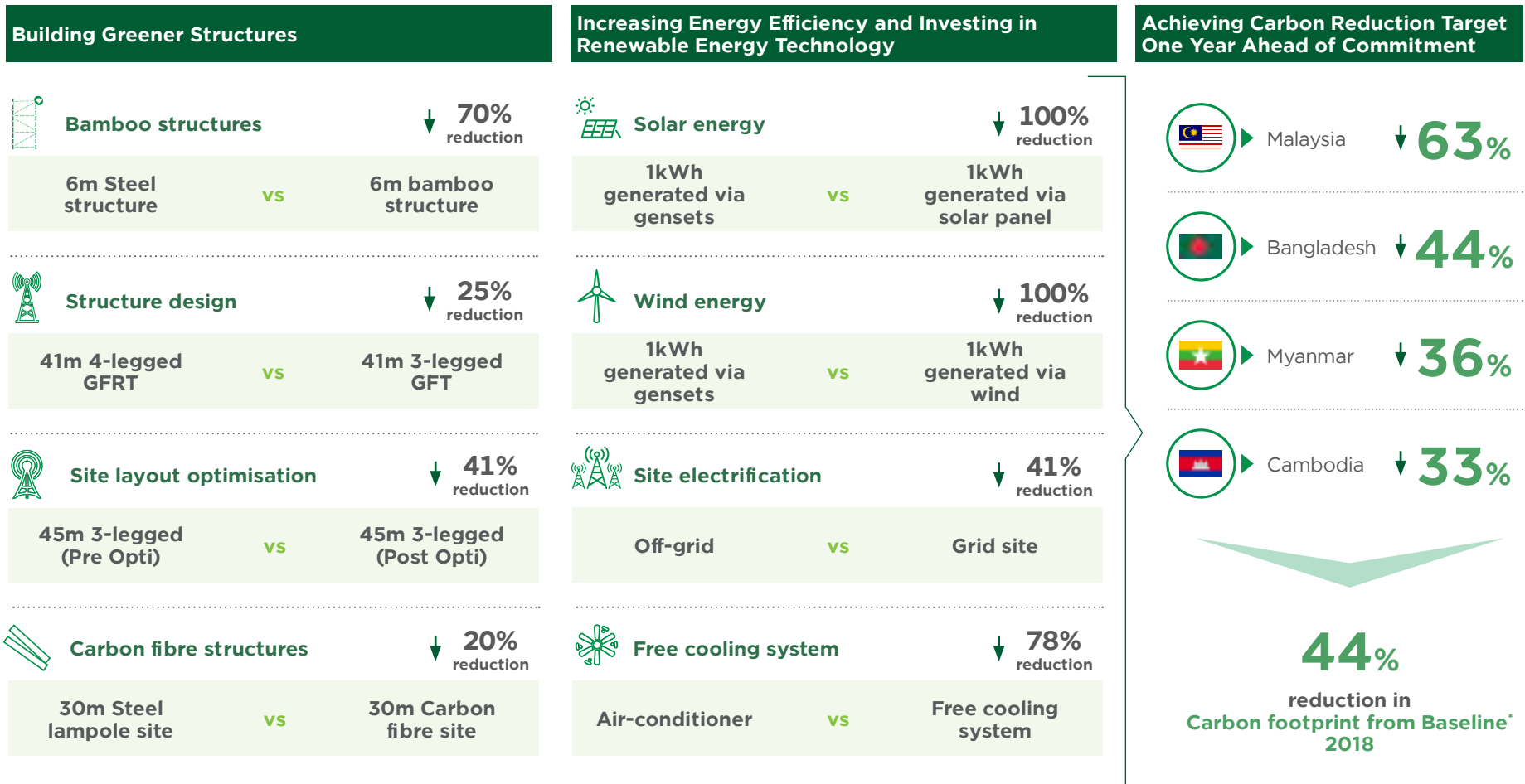
Corporate Responsibility



Businesses are increasingly seen to play a vital role in reducing carbon emissions to keep global temperatures from rising by 1.5°C. Operating in a region particularly vulnerable to the impacts of climate change can potentially affect the long-term sustainability of our business.

As our network expands to support business growth, we are committed to working with vendors and partners to reduce our footprint. Our carbon reduction strategy focuses on three aspects of our operations: building greener structures, investing in renewable energy technologies, and increasing energy efficiency to reduce, mitigate and adapt to climate change.

Carbon Footprint Reduction Initiatives



Note: * edotco Group had committed to reduce its carbon footprint by 40% by 2018 from a 2013 baseline

Minimising Environmental Impacts

Improving Network Efficiency



Environmental Management



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Corporate Responsibility

Energy used in powering our network accounts for over 98% of our total energy use. Energy efficiency is managed and monitored monthly by a member of senior management. Reduction targets are set by respective OpCos, and environmental performance is part of senior management's KPIs. We work

with our vendor partners to source energy efficient equipment as part of our procurement process, and explore renewable energy (RE) technology as a viable alternative.

Energy Efficient Base Stations

87%

of edotco Group's sites are monitored remotely for energy performance and security from its ECHO monitoring centre

Ongoing Improvement Works

- ▶ Integrating network equipment
 - ▶ Replacing old air-conditioners
 - ▶ Adjusting air-conditioning and heating systems
- Replaced generators with lithium ion batteries at 292 BTS sites in Nepal

Investing in Renewable Energy Technology

Total of **1,112** RE sites across the Group in 2018

36,280GJ

RE accounted for **0.5%** of total energy consumed in Axiata Group

23GJ



edotco Myanmar launched a proof of concept (PoC) hybrid solar-wind turbine energy solution.

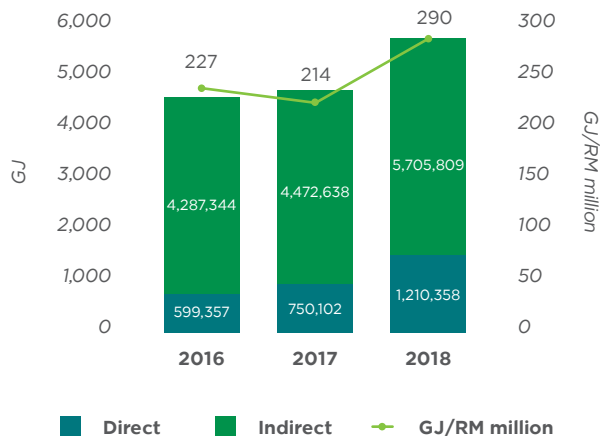
The PoC is equipped with a helical vertical axis wind turbine and solar panels which provide complete off-grid reliability.

Growth in total energy consumption and GHG emission due to

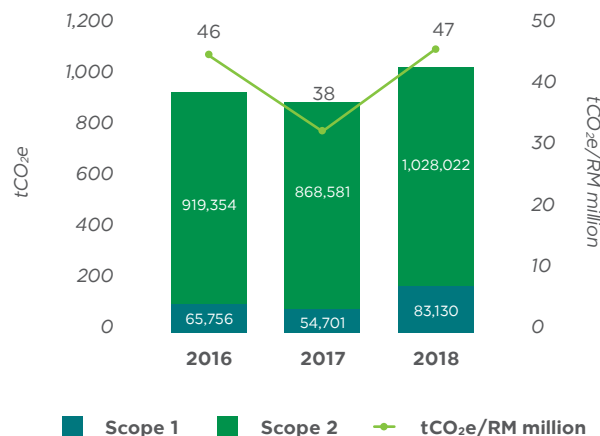
Growth in the number of sites

Entry into new markets

Axiata Group Total Energy and Intensity



Axiata Group Total GHG and Intensity



Moving Forward



New targets to be developed aligned with industry standards that are currently being developed and to be launched at the end of 2019





Supporting At-Risk Communities through Disaster Response Preparedness



Environmental Management

Mobile networks and connectivity are critical during times of natural disasters and other humanitarian emergencies. Access to communication and information for those affected by crisis have the potential to reduce the loss of life and positively contribute to humanitarian relief coordination.

Axiata Group is a signatory to The GSMA Humanitarian Connectivity Charter, which supports mobile network operators in improving disaster preparedness and resilience. Across the region, our OpCos are engaging with stakeholders to understand how they can play a crucial role in disaster preparedness and response in their national context.

▶ Responding to Triple Disasters in Indonesia

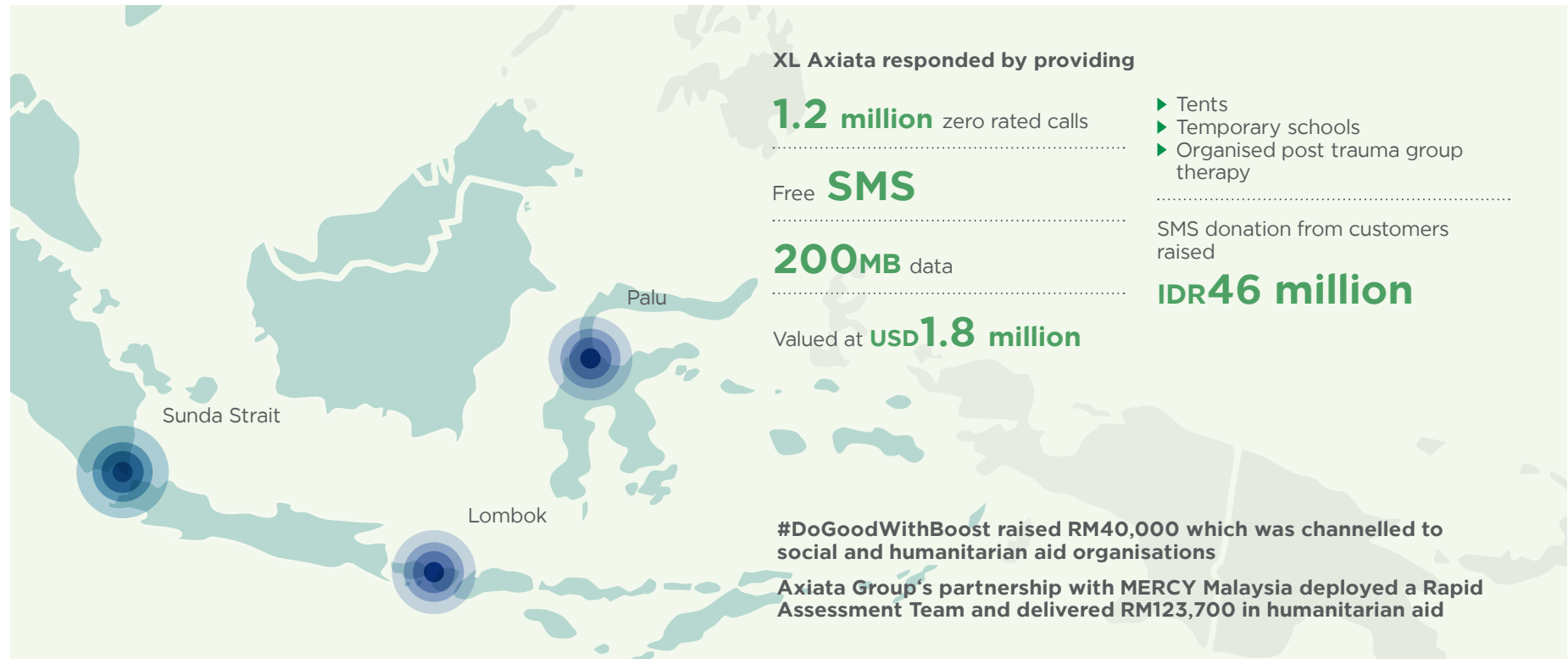


Disaster Management & Response

XL axiata ▶ In 2018, a series of earthquakes rocked Lombok and Palu, causing tremendous loss of lives and significant infrastructure damage. In the last week of December, massive landslides off an erupting volcano triggered a tsunami off the Sunda Straits that decimated the coastlines of Java and Sumatra.



Corporate Responsibility



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Strengthening Partnerships on Early Warning Systems



Since 2016, Ncell and the Department of Hydrology and Meteorology (DHM) have partnered to broadcast early warning SMS alerts to 42 communities living downstream of major river basins identified as disaster prone, thereby preventing potential loss to life and property.

In 2018, extended the MoU for another five years

Provide connectivity support to DHM to enable efficient transfer of data between hydrological/meteorological stations across the country and the central server

Provide 250 Ncell SIM cards worth NPR1.5 million in the first year of the MoU



Since 2015, Dialog's Early Warning Network (DEWN) mobile app, in collaboration with the Disaster Management Centre of Sri Lanka has achieved

Over 12,000 downloads

Sent over 500 weather, landslide and flood alerts

In 2018, Dialog signed an MoU with the World Food Programme to use cell tower-based heat maps to deploy rescue teams and resources more effectively



In October, Celcom signed a letter of co-operation to support Malaysia's National Disaster Management Agency (NADMA) in sending out early warning SMS in times of impending disasters.

Working with NADMA and the Malaysian Communications & Multimedia Commission along with other industry players to adopt a position to support an industry-wide SMS early warning response



Smart Weather, in partnership with Earth Networks

Uses data from 17 sensors installed on Smart's base stations across Cambodia to provide accurate severe weather forecast and intelligence

Tackling Hepatitis E outbreak in Bangladesh



In June 2018, over 170 people were confirmed to be infected with the Hepatitis E virus, creating mass panic among the 800,000 residents of the area.

Partnered with the local health authorities to craft and transmitted 24.4 million SMS on Hepatitis E prevention and risk reduction

Supported a three-day Hepatitis E awareness and prevention campaign to promote healthy living and hygiene and encourage residents to be screened





Partnering for Sustainable Development



Environmental Management

We are committed to be a responsible corporate citizen in all the markets where we operate, driving positive and sustainable change for our communities. We are committed to supporting the principle of the UN SDGs call for the achievement of holistic sustainable development for all and leaving no one behind.

We prioritise the local context and needs when we invest in the communities in which we operate, to ensure that we bring about positive and meaningful



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Corporate Responsibility

Connecting Communities to Basic Essentials



Tower to Community

edotco Group's commitment to improving the lives of communities living near our towers

Connected **1,020** families to electricity since the launch of the pilot in Bangladesh in 2017

In 2018, partnered with Mandalay Yoma to connect **125** households to mini solar grids in Myanmar

Solar Tuki Lamps

edotco Cambodia installed **283** tuki lamps in eight villages, two health centres and a community centre in five villages

Safe Drinking Water

Robi's "Nirapod Pani, Shustho Jibon" supplies water at 10 national railway stations in partnership with WaterAid, Bangladesh

In July 2018, set up two new water drinking plants in Cumilla and Feni railway station

Supplying up to **5,000** litres daily of safe UV filtered drinking water

Funding Scholarships



Dialog's Merit Scholarship

Monthly bursaries to top-performing O-Level and A-level students from all 25 districts in Sri Lanka

SmartEdu Scholarship

20 high school students selected annually
Bursary of USD15,000 per scholar to cover university tuition and living allowances

10 scholarships are awarded to students studying ICT

Ncell Scholarship and the Ncell Excellence Awards

Since 2014, Ncell provided 12 scholarships and four excellence awards to the top students at Pulchowk Campus, Institute of Engineering annually

change to our stakeholders and beneficiaries. We impact communities through consciously identifying and working with local partners on unique programmes that leverage our OpCos' individual strengths and assets in connectivity, infrastructure and digital services to meet the specific needs of local communities and citizens.

Bridging Digital Divide of the Orang Asli Community



In collaboration with Universiti Kebangsaan Malaysia (UKM), Celcom is empowering the Orang Asli community in Tasik Chini

Improved 4G network at Tasik Chini	Enabled real time data collection for water quality monitoring	Launched the Sri Gumum Cyber Cube and Pribumi online platform to sell indigenous products	To help provide disaster alert messages on floods
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Creating a Better Society



SmartSpark in partnership with Impact Hub Phnom Penh

Three months intensive entrepreneurship programme to test innovative ideas and social ventures that contribute to the

17 UN SDGs

Expected to generate over **54** ideas from nine cohorts over three-years

1st cohort winner: SUDrain offers SMEs an economical and eco-friendly way to tackle water contamination using natural and local coconut fibre

XL Axiata's Quota Donation Movement

In 2018, customers donated

145,000 Gigabytes

604 schools reached

181,000 students impacted



