

Out of
poverty

United
Purpose U

Formerly known
as Concern Universal



Sustainable Energy

Our Work in Malawi

Who We Are

United Purpose is an international development charity with an innovative community-led approach to delivering the Sustainable Development Goals (SDGs) and eradicating global poverty and inequality.

We began work in Malawi in 1988, initially supporting refugees from the Mozambican civil war and their hosts in the Dedza area.

Today we are one of Malawi's largest NGOs, working in partnership with local government and communities across fourteen districts mainly in central and southern Malawi. Over the years we have developed a trusted reputation with most of the established institutional and non-institutional donors and organisations in the country.

Over the past 29 years we have gained significant experience in sustainable agriculture and food security; climate change and disaster risk management; water sanitation and hygiene (WASH); nutrition; malaria prevention and control;

community mobilisation and capacity building; sustainable energy; microfinance; and emergency response work.

Our spin-off social enterprise, CUMO Microfinance bank, has been an incredible success story, and has grown to be the largest provider of rural microfinance in the country—providing savings and loans, entrepreneurship and financial literacy to over 84,000 clients, 82% of whom are women. CUMO will continue to be an integral partner and co-implementer across a range of programmes.

We have a very hands-on, vibrant and skilled team of over 360 dedicated employees and in partnership with others we have directly reached over 1.2m rural people in 2016.

The Context: Energy

“

Energy is the gold-en thread that connects economic growth, social equity and environmental sustainability.

UN Secretary-General Ban Ki-Moon

Access to basic, clean and modern energy is critical to sustainable, equitable development. This realisation has resulted in the creation of the global Sustainable Energy for All (SE4All) initiative and the inclusion of energy in the sustainable Development Goals (SDGs).

In Malawi, only 9% of the population have access to the national grid, which falls to 1% in rural areas. While 83% of energy consumed nationally is from by households and an incredible 99% of household energy is provided by biomass. Largely due to this, forests are depleting at a terrifying rate, with 32% reduction in forest cover in less than 40 years, and a current deforestation rate of 2.3%.

While the Government of Malawi recognises these issues, its focus over the last decade has been one of rural electrification through national grid extension.

Although understandable, this approach does not deliver to the majority of the population in the short to medium term.

Therefore, ‘energy poverty’ condemns millions of people to absolute poverty and drudgery, stifling economic activity, hampering provision of basic services such as health care and education, which directly impacts on infant mortality, access to communication, and quality of life. It also adds a disproportionate burden on women who are responsible for collecting firewood, which is physically straining and very time-consuming.

Our Strategy 2016—2020: Sustainable Energy

We will work to provide poor and marginalised communities with increased access to sustainable energy as a route to improved service provision, mitigating climate change and promoting wealth creation.

Our initiatives will contribute towards the Sustainable Energy for All agenda, and in particular, increasing access to modern energy services. We will build our position as a leading implementer by continuing to develop innovative projects that meet the needs of the communities we work with and serve. While our primary focus will be at the household level, we will also work to improve energy access at institutions (school and health centres) and for productive uses. We will continue to advocate for energy access for those trapped in energy poverty. Recognising the inherent link between energy supply and access, we will address the driving causes of deforestation to ensure that there is continuous, sustainable supply

of biomass. Participatory forest management will be promoted to ensure forest areas are protected and equitably accessed by their users.

We believe that rural value chains are fundamental for economic development. We will therefore design interventions that are income-generating and support broader market development, leading to enhanced markets for sustainable energy. To kick-start commercial energy markets that create strong links between local production and consumers, we will continue our incorporation of energy into the National Social Support Programme, by scaling up our successful pilots of mainstreaming stoves into the Social Cash Transfer and Public Works programmes. This will create demand for energy products, while also increasing the number of promoters on the ground, building stronger energy value chains.

Addressing energy access requires innovative solutions, particularly with regard to financing. We will therefore develop our own carbon finance and reinvestment models, which we will make available to other organisations in Malawi. Revenues generated will be reinvested back to increasing rural energy access and ensuring water point functionality. Our Sustainable Energy Management Unit (SEMU) will act as a focal point for UP's energy work globally and will identify strategic partnerships to maximise our impact.



UP Energy Initiatives



National Cookstove Steering Committee

In 2012, concerned by the negative impacts of traditional cooking on women, the Ministry of Gender signed on as a partner to the Global Alliance for Clean Cookstoves (GACC). The GACC is aiming to reach 100 million households with improved cookstoves by 2020 and the Government of Malawi (GoM) pledged to contribute 2 million towards this target.

From this pledge, the National Cookstove Taskforce was established in 2013, which later transitioned to the National Cookstove Steering Committee (NCSC). The NCSC, chaired by the Department of Energy, with Concern Universal acting as the Secretariat, has taken ownership of the 2 million by 2020 target and is advocating nationally for cleaner cooking.

To guide its work, the NCSC drafted a 'Cookstoves Roadmap' which provides broad, policy level direction to its work. The Roadmap was subsequently endorsed by the Government of Malawi in 2015. As well as the Roadmap, the NCSC has undertaken a number of other activities, including: a Market Assessment; Grants to 6 stove producers; Stove model testing; Technical advice to the National Energy Policy and Renewable Energy Strategy; and the creation of a national stoves database and map.

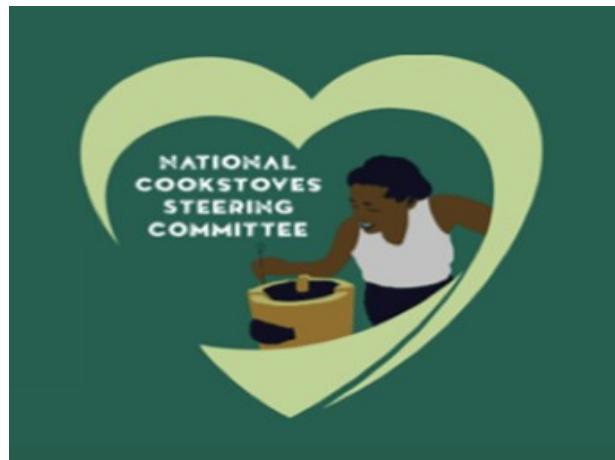
A central component of our work is counting towards the 2 million by 2020 target. To support this, the NCSC

undertook a national mapping exercise to determine: Production centres, Retailers and Projects. This exercise led to the creation of a publicly available map and database, which is periodically updated by the Mbula Network. At the time of writing the number of stoves in Malawi stood in **excess of 500,000**.

Location: National

Duration: December 2020

Outcomes: A robust and vibrant cookstove sector capable of delivering on the 2 million by 2020 target





Social Cash Transfer Approach and Cookstoves

In support of the **National Cookstove Steering Committee** (NCSC) objective of catalysing the uptake of 2 million stoves by 2020, United Purpose (UP) has been developing innovative methods to scale up the delivery of improved cooking technologies to households in Malawi. One approach that has proven successful is the integration of the Chitetezo Mbaula into the Social Cash Transfer (SCT) programme.

SCT beneficiaries represent the bottom 10% of society and are considered to be ultra-poor and labour constrained. Therefore, our approach is to provide SCT beneficiaries with a free stove, produced by local groups, which have been trained by United Purpose. Free stoves are redeemed through a voucher system, from local sales agents, that UP has established across the district.

As well as providing direct support to vulnerable households, this approach also increases awareness of, and demand for, stoves in the wider community. To capitalise on this, UP continues to provide market linkage support to sales agents during the project period. This ensures they have a surplus of stoves to sell to the wider community and can potentially build their income stream. In this way we are using support to vulnerable households as a catalyst for the rural market.

The Chitetezo Mbaula (CM), meaning ‘protecting stove’ in Chichewa, is among the most widely dispersed cleaner cookstoves in Malawi. It has a simple conical pottery structure, which is produced from locally sourced clay. It is designed to burn firewood, although it can burn crop waste, such as maize stalks, pigeon peas, sorghum etc. The stove has an opening at the front which wood is fed into, while it can heat one pot on the top, on the three uniform pot rests.

Location: 11 Districts: Balaka, Dedza, Mchinji, Machinga, Zomba, Neno, Phalombe, Mulanje, Thyolo, Chikwawa and Mangochi

Duration: December 2018

Outcomes: Rural value chains developed





Public Works Approach and Cookstoves

Building from our successful integration of cookstoves into the Social Cash Transfer (SCT) programme, and in pursuit of the National Cookstove Steering Committee (NCSC) objective of 2 million stoves by 2020, United Purpose has expanded its work of integrating energy technologies into the National Social Support Policy and Programme.

Working under the USAID PERFORM project, UP is making cookstoves available to Public Works beneficiaries at a subsidised rate, through a voucher system. Subsidised stoves are redeemed from sales agents that were established by UP, while stoves are sourced from local groups. In recognition that cookstoves are only part of the solution, UP is building ‘model kitchens’ in the target areas, in the hope of encouraging the community to adopt the practice. Finally, the project is also establishing woodlots at each production group to provide a sustainable source of fuel to fire stoves.

As well as providing direct support to poor households, this approach also increases awareness of, and demand for, stoves in the wider community. To capitalise on this, UP continues to provide market linkage support to sales agents during the project period. This ensures they have a surplus of stoves to sell to the wider community. In this way we are using support to vulnerable households as a catalyst for the rural market. Furthermore, all stoves under

this project are eligible for earning carbon credits through one of our existing streams.

The project will generate emissions reductions to be sold through the voluntary markets. This will be achieved by working through a Public Private Partnership with an existing carbon partner to include the stoves into a Registered Gold Standard Program of Activities (PoA). In line with UP’s policy of ensuring those that generate carbon revenues also benefit from them, we will reinvest a share back into communities. This will be through community level projects and investment into the stoves value chain.

Location: Machinga—6 Traditional Authorities

Duration: August 2017

Outcomes: Rural value chains developed





Thermo-Electric Generator

Only 1% of rural Malawians are connected to the grid, while 99% of household energy is derived from biomass. While these numbers are highly undesirable, they do also present opportunities for innovation. One such innovation has been the development of a cookstove that can generate electricity, for applications such as phone charging and powering radios.

Known as the TEG Stove (Thermo-Electric Generator), United Purpose has been working in collaboration with Trinity College Dublin to prototype a design that adapts the existing Chitetezo Mbaula to provide these services. The objective of the project is to design, prototype and test a product that could be viably produced at scale, with a significant portion of the assembly completed in Malawi.

The TEG produces electricity due to a temperature differential, which is created from the heat of the stove and an associated cooling system. Through an iterative design process the stove has passed through three prototype stages to maximise electricity generation, while keeping costs below \$30 per unit. The first stage used a fan cooled system. However, this proved expensive and essentially over-engineered. The second stage converted to a water cooled system, using a small reservoir attached to the back of the stove. While this prototype was more robust, it produced a limited amount of energy. The third, and current, prototype maintains the water cooled system,

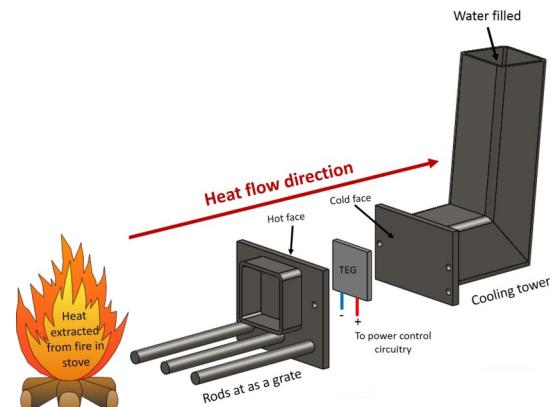
but increases the volume by attaching a bucket as the reservoir. At the time of writing this prototype was being installed in households for testing and data collection.

During 2015 UP was visited by reporters from the BBC World Service, who were keen to tell the story of Malawi's energy poverty, in the build up to COP 21 in Paris. As part of the visit UP demonstrated the TEG, which they made a video of, and subsequently posted on the World Service Facebook page. At last count the video has received 23 million views, more than the entire population of Malawi!

Location: Balaka, Dedza, Tyolo

Duration: March 2017

Outcomes: Product development and prototyping





Social Cash Transfer Approach and Solar Lamps

Pico solar products (PSPs) offer a promising, low cost and scalable solution to quickly meeting the basic lighting and phone charging needs of people without grid connection. In fact, by adopting the SE4ALL multi-tier framework for measuring energy access, the **Government of Malawi could immediately demonstrate a 2% increase in people with electricity access [BIF]**. Therefore, as part of the second phase of our integration of energy technologies into the Social Cash Transfer (SCT) programme, UP is training its stove sales agents to promote solar lamps.

This approach provides SCT beneficiaries with a free lamp, redeemed through a voucher system, from local sales agents, which UP has established across the district. As well as providing direct support to vulnerable households, the approach also increases awareness of, and demand for, lamps in the wider community. To capitalise on this, UP continues to provide market linkage support to sales agents during the project period. This ensures they have a surplus of lamps to sell to the wider community and can potentially build their income stream. In this way we are using support to vulnerable households as a catalyst for the rural market.

The planned expansion of this model will use a three stage approach to further grow the network of agents. Stage 1 will focus on converting stove sales agents to solar. Stage 2

will graduate the highest performers to Pay-As-You-Go products. Finally, Stage 3 will make financial products available to the top sales agents, through existing MFIs such as CUMO, so that they can grow their businesses.

The Sun King Pico provides up to 72 hours of high power light after a single day of charge. Ideal for studying, home lighting and safe movement after dark, the Pico's portable, single-body design is easy for children to use and built to withstand many years of drops, splashes and rugged use. For off-grid families and school children, Pico means ultra-affordable solar power for a better future

Location: Balaka—funding pending for 6 districts

Duration: January 2017

Outcomes: Rural value chains developed





Sustainable Off-Grid Electrification of Rural Villages

The cross-cutting nature of energy has been widely recognized as central to achieving the Sustainable Development Goals. In fact, UN Secretary-General Ban Ki-Moon, stated: ***"Energy is the golden thread that connects economic growth, social equity and environmental sustainability"***. However, in practice, electrifying rural communities at scale in emerging countries has proven challenging.

With this in mind, the SOGERV project has been designed to demonstrate a sustainable community energy model. The project will see the deployment of four community energy projects in Chikwawa district, under three different business models. These will increase energy access to households, communities and businesses, through the deployment of appropriate Renewable Energy Technologies (RETs). Critically, the project will look to demonstrate innovative methods for safeguarding economic and technical sustainability of rural energy projects.

As well as providing renewable energy to communities in Chikwawa, this project will also be used to conduct research that will inform policy at the national and regional levels. In this way, it is hoped that findings from the SOGERV project can be used by relevant stakeholders in their rural energy planning.

The project is deploying a range of solar technologies, including: PV based charging stations for charging 12v batteries and other technologies; Pico solar lanterns for lighting and phone charging; Portable solar home systems for households and businesses; as well as larger fixed systems for schools and health centres. The majority of these can be bought outright or payed back over time, depending on the customer's preference.

Location: Chikwawa—4 Villages

Duration: March 2018

Outcomes: Four sustainable business models built to inform rural energy policy and practice





Climate Change and Carbon Finance

Addressing energy poverty and climate change requires innovative solutions, particularly with regard to financing. As energy is so intrinsically linked to climate change, climate finance provides one viable option. In particular, carbon offsetting, has proven successful in promoting modern energy technologies while reducing greenhouse gas (GHG) emissions.

Traditionally, United Purpose has worked with carbon partners to generate emission reductions. However, we are scaling up our carbon finance work through the development of our own Gold Standard Small-Scale Programme of Activities (PoA). This programme, currently in the ‘Listing’ stage, covers 6 countries and two technologies (boreholes and cookstoves). Once operational UP will make the PoA framework available to other stakeholders, helping to make carbon finance more accessible in developing countries.

However, simply generating carbon credits is only half the story. United Purpose has also launched CarbonUp, an exciting not for profit initiative which allows organisations to directly offset their carbon emissions from UP projects around the world. This transparent approach ensures strong links with the communities we work in; allowing companies to see how their money is being used to further improve lives. This is particularly true in the case of our innovative carbon reinvestment schemes.

UP believes that those responsible for reducing GHG emissions should receive a share of the financial benefits. We are therefore committed to maximizing the return of carbon revenue to the communities who have participated in our projects. Under our WASH programme this means using revenues to ensure that boreholes stay functional for up to 21 years, providing an uninterrupted clean water supply for those ‘off-grid’.

Location: Malawi, Mozambique, Bangladesh, Gambia, Senegal, Guinea

Duration: 28 Year Programme

Outcomes: Pro-poor carbon finance models built





Energy and Gender

Energy poverty—a malaise that afflicts over a billion people—is one aspect of broader economic poverty and has similar, marked gender characteristics. However, when women have access to energy it contributes to poverty reduction. Energy access saves time, when it substitutes manual labour and reduces drudgery of fetching fuel wood and water, tasks women are typically responsible for. It reduces indoor air pollution levels and hence improves health, when polluting energy forms such as traditional biomass stoves are replaced by improved cookstoves. It improves education, as it enables studying after sunset and greater flexibility in the organization of everyday chores.

Importantly, women can also be powerful actors for change in the transition to sustainable energy and their involvement in the design, distribution, management and consumption of sustainable energy solutions is a critical pathway for reaching the SDGs as well as the objectives of the SE4ALL initiative.

In recognition of these dynamics United Purposes energy initiatives are always designed with gender mainstreaming in mind. By focusing our attention at the household level we are providing sustainable energy solutions that will disproportionately affect women, improving their environment and reducing the burdens of running a household. However, our interventions go further, by

actively targeting women for leadership and income generating roles. For example, all of our stove production groups are predominantly comprised of women and always chaired by a female member. Similarly, when establishing sales agent networks, we ensure that at a minimum half are women.

In this way, we are more than empowering women; we are investing in their families, as it has been found that the benefits of a higher income for women reach far beyond the individual. Studies show that women reinvest 90 percent of their income in their families and communities, while men reinvest only 30 to 40 percent. However, when thinking about gender, we should not forget men, who are encouraged to directly take part in UP energy projects and to support the women in their households.



Our Approach: United Purposes 3 I's

Our strategy is underpinned by the following three approaches, known as our 3 I's.

1. Intelligent Development

Historically, we have always taken a community-focused participatory approach, and we will continue to do this. We do this because we believe that people lead their own development. It also ensures that we can support context-specific interventions, that build off individual and community strengths, resources and opportunities rather than imposing inappropriate generic external 'solutions'. We believe that genuine empowerment puts communities and beneficiaries in the driving seat in all stages of our work.

Integral to our participatory approach is ensuring that all voices within a community are heard, and actively working to make sure that those particularly marginalised and vulnerable—whether it is the elderly, sick, disabled, or the youth—within a community are not only involved in our work, but benefit meaningfully. We will work towards equalising power imbalances through our inclusive approach.

We will continue to focus on integrated multi-layered programmes—taking more than once sectoral approach in the same target area - which we know have a practical and meaningful impact on peoples lives. A holistic approach is vital. The problems that people face—such as the lack of clean water, poor health, uncertain livelihood prospects, gender-based violence, and a denial of rights—are interrelated. Our experience shows that the most sustainable

and cost-effective interventions are generally those that take an integrated multi-sector approach to effectively address diverse community needs. We see a multiplier effect where the overall outcome of our various interventions is greater than the sum of their parts. So we will try to do more multi-layering of different sectoral programmes in the same geographical areas.

Embedded in all of these, it is imperative we have a focus on restoring and protecting the environment and ensuring environmental sustainability.

Partnerships and inspiring collaborations will remain pivotal for us, and we can achieve significant change if we effectively harness the collective knowledge, skills, resources, and energies of a wide range of actors to increase the scale and impact of our work, and bring about wider change at a systems level. We will continue to work in strong partnership with districts and marginalised communities through a transparent and consultative approach. We will continue to work through decentralised structures to enable the effective development and delivery of inclusive district plans. We will develop the capacity of community structures and CBOs as an essential step in enhancing peoples choices, opportunities and capacity to participate effectively in society. We also want to promote role models who can bring others with them.

CUMO, our sister organisation which has been a great success story, will continue to be an integral partner for us as well as a co-implementer of a number of our key strategic

United
Purpose



programmes. We want to continue to work in consortium partnerships, like we have successfully done under DISCOVER and the INGO cash-transfer consortium. But at the same time we want to broaden out partnerships and partner systematically with higher learning institutions, private sector players and local organisations. We also want to work more effectively through advocacy and sharing networks - like we have with the National Cookstove Steering Committee.

2. Disruptive Innovation: Business Unusual

Our innovations to date have made an impact: our community-based carbon reinvestment schemes have been pioneering within Africa. Likewise, our work on integrating cleaner cookstoves into social protection and cash for work programming. Our partnership with Trinity College Dublin has led to the development of the world's first thermos-electric generator that can be attached to a locally produced stove to charge phones, as was profiled on the BBC and received over 20m views. Our work to fight malaria through the distribution of insecticide-treated bed nets has changed how the government delivers mass net programmes. Our low-cost irrigation schemes have guided policy, so too our sanitation initiatives.

But we want to further challenge ourselves, and continue to innovate and trial new technologies, programming approaches, and internal processes to find new solutions and

efficient ways of working and sparking wider change. Ideally this change would be game changing—true disruptive innovation, fundamentally altering the existing market system norms.

If these innovations are demonstrated or proven, we want to take them to scale through replication within our own programmes and advocating for others to take them up too. We want to extend our learning beyond our own organisation, and be present and speak out more at national for a.

We will also try to ensure that our programmes link closely to national social protection programmes, such as the social cash transfers, and public works schemes, as through this innovative approach we can reach more people in a cost-effective way.

To do this we must strive to keep abreast of technological developments and wider sectoral changes through partnering with research institutions, and we want to make more use of information and communication technologies in our programmes—from early warning to monitoring and evaluation systems.

3. Enabling Independence

Fundamentally we want to deliver programmes that enable people to make sustainable improvements themselves, after the end of our involvement. We do not want to create communities that are reliant on us, but rather adopt sustainable practices and technologies.

This is why we want to, wherever possible, use markets to deliver solutions and avoid handouts, as ultimately market-based business approaches will ensure long term viability; be it sanitation marketing; cleaner cookstove production and marketing; or our work with producer groups and enterprise development. This includes engaging with the large-scale private sector as partners and stakeholders, looking beyond production to market pull, and obstacles and opportunities further along the chain of benefit to small-scale farmers. We also want to deliberately address barriers that deny women and marginalised people from engaging and benefiting from these systems. We will also be cautious about risks. Since smallholders limited assets are vulnerable to environmental changes, participating in agricultural markets can be a risky business if existing, or emerging hazards are not adequately addressed.

We will continue to emphasise capacity building and developing local formal, as well as informal, structures to ensure to equip community members, as well as government, with the skills knowledge and tools by which to drive their destinies and carry on beyond us. We also believe in empowering people to take a stand and have their voices heard, be it to demand services and rights, or to hold power holders to account.

We will also apply the same principles of enabling independence to our own operations at United Purpose. CUMO started as a small DFID-funded project in 2000 reaching 100 farmers, it has now established

itself as its own independent social enterprise with its own Board and strategic plan, reaching over 84,000 clients in 17 districts. So similarly, we want to see over time our Sustainable Energy Management Unit (SEMU) transforming into a distinct social enterprise providing sustainable energy services, and delivering on a triple bottom line of economic, social and environmental measures of organisational success.



Out of
poverty



Formerly known
as Concern Universal

United Purpose, 21 King Street, Hereford, HR4 9BX | 01432 355 111 | www.united-purpose.org

Registered in England & Wales with Charity No. 272465 and Company No. 1278887