



DECEMBER 2024 EDITION 1

Dear ESRAG GBI Members,

Welcome to the inaugural edition of the ESRAG GBI Newsletter!

We are excited to embark on this journey with you as we share updates, insights, and success stories from our collective efforts to promote environmental sustainability around the GBI.

ESRAG's mission is to inspire and empower Rotary the Family and partners with extensive expertise, networks, education, and best practices to take bold action in addressing some of the most pressing environmental challenges of our time. Together, we are building a cleaner, greener, and more resilient sustainable future to protect the environment.

In this first edition, you'll find:

- Inspiring stories of impact from ESRAG GBI members
- Updates on some environmental initiatives within ESRAG GBI
- Practical tips and resources for Rotary clubs to lead sustainability projects
- Upcoming events and opportunities to get involved

Your passion, creativity, and commitment drive the change we seek. Let this newsletter serve as both a source of inspiration and a call to action as we continue working toward a sustainable future for all.

Thank you for being part of this vital mission. Together, we are making a difference—one project, one community, and one planet at a time.

Best wishes

Dr Mohammad Alramahi & Chris Davies
Co-Chairs, Environmental Sustainability Rotary Action Group (ESRAG) GBI



Be A Hero, Go Net Zero!

By Chris Davies

You are invited to become part of the ESRAG initiative Be a Hero, Go Net Zero, or "BHAGNZ" (pronounced Baggins for ease). The Great Britain and Ireland Chapter designed the scheme several years ago and recognized the initiative contributes to ESRAG's Every Club Climate Friendly. There is also an ESRAG initiative for each of us to regard ourselves as a project in our own right. The methodology is simple. We start by doing everything within reason to minimise our footprint. Then we offset the rest by donating to a Rotary-sponsored project that prevent emissions or remove CO2 from the air.

The statement "*We don't inherit the Earth from our ancestors: we borrow it from our children*" is used in environment-related articles for good reason. Why would anyone with the resources and capability to reduce one's carbon footprint deliberately contribute to global warming through inaction, to the detriment of our children and the next generation? And yet here we are!

If we are individually truly trying to lead others and do our best to mitigate our impact as a species on the environment, how can we do so with any credibility if we are part of the problem? It is perhaps akin to COP events being hosted by oil based states.

We Rotarians would not throw our litter into hedges, ponds, rivers and oceans, yet many of us are quite happy, or at least complicit, in being net contributors to global warming, presumably in part because the CO2 our activities generate is invisible to ourselves and others and often indirect. But how do we serve society (the core Rotary objective) by contributing to global warming? How do we advance peace and goodwill by contributing to climate change, with all its impacts?

In Chris Davis's three and a half years as District Environment Lead and three years as ESRAG GBI co-chair, he heard many reasons not to reduce and offset our individual and club footprints:- "What's the point" given the impact of India, China, Russia, Ukraine, Gaza," or "Geoengineering will sort it out" or "technology is the answer" or even "I like the resultant hot summers." Frequently, he hears "what difference can I make?" as an argument. This is an interesting one, since as Rotarians we endeavour to lead in our communities and for the benefit of society. As responsible citizens we vote, often without gaining the result we cast our vote for. By contrast, everything we do as an individual to reduce our footprint benefits the whole of humanity!

If we can afford more than a week's holiday a year, we can surely afford to offset our annual footprint. In the developed world the average person's footprint hovers around 10 tonnes a year, so at £10/tonne, you could donate £100 per year to appropriate Rotary-supported projects that remove CO2 from the air or avoid its



production. This would - until such time as there is no choice but to adjust - ensure that you do your bit; for you, your family, your fellow Rotarians, grandchildren, humanity and the dwindling yet amazing range of species in our wonderful biosphere.

Process

In order to self-declare Net-Zero we suggest you run through two or three calculators: Appendix 1 provides the links to a few. Typically these take about five minutes each. Take the average of the calculations, allow a 30% margin of error and offset that amount. Appendix II provides a list of some of the organisations and projects that you may wish to use to offset your footprint.

We suggest you overcompensate as above, but as a self-declaration it is down to whatever you are comfortable with. If you use the Treakly app, it is possible to achieve offsetting without cost, and you will end up incredibly fit.

As a quirk of human nature, contending with guilt as a net contributor to global warming is often seen as sufficient reason not to act, or maybe, some simply resent having to deal with it, so don't: perhaps it is a form of psychic numbing. BAHGNZ, by contrast, is a positive action that will do real good.

In summary, in becoming a Net Zero Hero:

- When your grandchildren or great-grandchildren ask "what did you do in the Great Climate Emergency?" you will have an answer.
- You become part of the solution.
- Your action will have benefitted all.
- You set a precedent for others to follow.

Once you are happy that you are Net Zero, email either Dr Mohammed Alramahi or Chris Davies (we're the ESRAG GBI Co-Chairs ChrisDavies300@outlook.com, m.aramahi@gmail.com) and self-declare as Net Zero. We will assign you a Net Zero Hero number and send you a certificate of achievement valid for one year from submission. Towards the end of the year we will write to ask if you are happy to renew your declaration. We suggest you use your Net Zero Hero number in your email signature in the form "Net Zero Hero x" where x is your unique number.

If every individual in a Rotary club is Net Zero then the club becomes Net Zero too. That makes your club Climate Friendly, and closer to Becoming Sustainable. Join Yasar Atacik, Laurie Zuckerman, Malcolm Rooney, Dr Mohammad Alramahi, Bob Leaper, Professor Keith Tovey etc and countless others. Please be part of the solution!

Appendix I: Carbon CALCULATORS:

[United Nations Carbon Footprint Calculator](#). Largely self-explanatory. Calculates a household footprint.



[ESRAG Flight offset Calculator](#)

[Carbon Footprint Calculator for Individuals and Households](#). Comprehensive, based on annual metrics and expenditure

[The Green Britain Carbon Footprint Calculator](#)

[MyClimate footprint calculator](#): Swiss based – a little vague at times – more subjective

[World Wildlife Fund](#) Total Lifestyle Carbon calculator

Appendix II – Options for offsetting your carbon footprint.

These are either Rotary or Rotary supported initiatives. You may wish to support one or a range of initiatives local, district, national, international.

Stoves for schools

ESRAG's [Cleaner Cookstoves Task Force](#) provides the opportunity for clubs and individuals to fund ecological stoves to communities which are still cooking over open fires. Rotarian and ESRAG GBI member Maya Smeulders can give you more information: email her at mayasmeulders@hotmail.com The stoves they provide are highly efficient, reduce the need for wood or charcoal, and have tremendous impact in reducing carbon emissions and exposure to deadly particulates from smoke. £250 provides a school stove which prevents 10.2 tonnes CO₂ per year. £25 for a household stove will prevent 1 tonne CO₂ per year.

Sol Malawi

ESRAG member Bob Leaper of the Rotary Club of Danetre, Daventry says, "We are working with a UK charity – SolarAid – on a new project to replace kerosene lamps and candles (which generate CO₂), with solar-powered home lighting systems. The lighting system, called Sun King Home 60, can be installed in one dwelling for £100. It uses a solar panel and battery to provide power to 3 LED lights, enabling users to study in the evenings, work, provide medical aid, power mobiles and more.

The saving in CO₂ and black carbon equivalent of one system is around 1.8 tonnes per year. Each system is guaranteed for 5 years, equating to a saving of 9 tonnes CO₂ equivalent over the lifetime of the system. Thus 1 tonne of CO₂ is offset with $\text{£}100/9 = \text{£}11.10/\text{tonne}$.



Account Name: Rotary Club of Danetre Daventry, Sort Code 30-99-50, Account No. 38759260, Account Type Business. Please use as a reference; **SoL Malawi**. The project was officially launched at District Assembly in May 2024, and donations will then be directed to a specific carbon-offsetting solar project in Malawi - of which you will be kept fully informed.' Bob Leaper: bob.leaper@mail.com

Sustainable Global Gardens

SGG is run by Rotarian & ESRAG member Paul Keeley, paul_keeley@hotmail.com. "SGG has a stock of trees that are 5+ years old planted in 2017-2018," he says. "SGG pay farmers £10 per year to maintain 50 trees which will offset 1 tonne of CO2 equivalent per year. Mature trees are planted rather than newly planted trees. They currently have 20,000 trees that are mature enough, with more maturing each year. CO2 offset is £10/tonne."

Treekly

Treekly plants trees. Co-founded by Keith Mortimer (CEO), RGBI backs the relationship. They work with planting partners such as Eden Reforestation.

Accounts have been set up for all RGBI clubs based on the 5-digit club code. It need not cost anything. Once you've downloaded the Treekly App, registered and linked your step counter, you click bottom right 'together', then the '+' top right, then 'join a group' and enter your 5 digit club code (in the District handbook). All you then need to do is press your step counter (I use Google Fit) and then Treekly once a day and your personal steps and trees planted will show in your club League and your clubs steps and trees planted in the RGBI league.

To plant a tree for free you need to walk 5000 steps a day for 20 days in a month. There are subscription options that for example plant 1 tree for every day you complete 5000 steps.

Over its 'full capacity' 25 year growth period, 1 mangrove on average captures 308kg of CO2 at which point it is locked in (via the root system) for millennia.

Based on a conservative estimate of 1 mangrove tree capturing 50kg during the first trimester of its growth stage (ie 8 years), the number of trees required to counterbalance 12t of CO2 emissions is 240 trees.

Treekly have calculated that over an average lifetime of 25 years, each mangrove tree will sequester 308kg of CO2. This is calculated as an average per tree across a hectare of forest, allowing for multiple factors including survivability. Sequestration is not a linear process, Treekly suggest that in the absence of any exact research data, that 50kg is a good estimate per tree during the first 7/8 years, an average of say



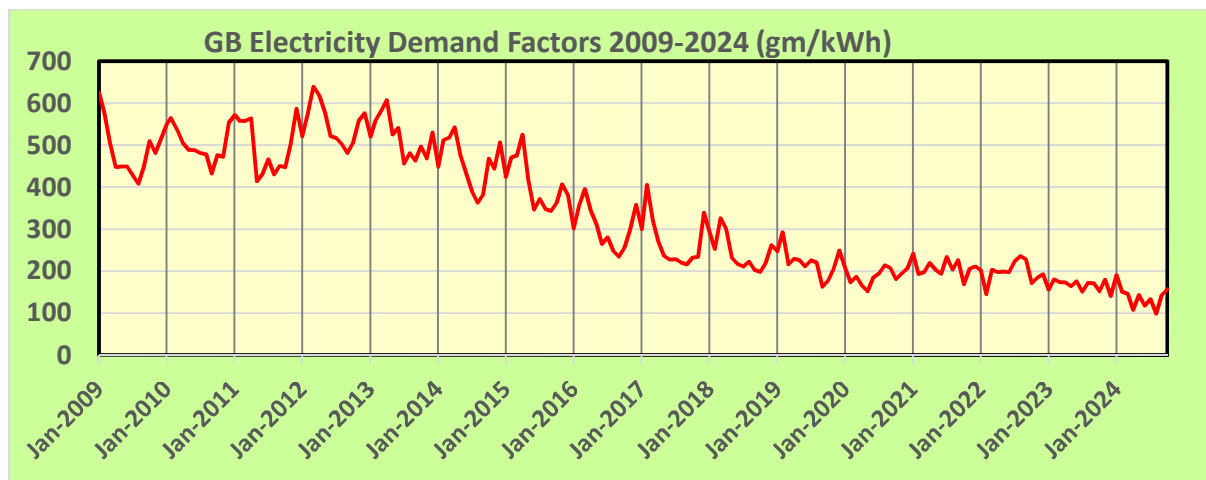
7Kg per year. Given that 2030, is widely regarded as the key tipping point this is perhaps a useful metric.

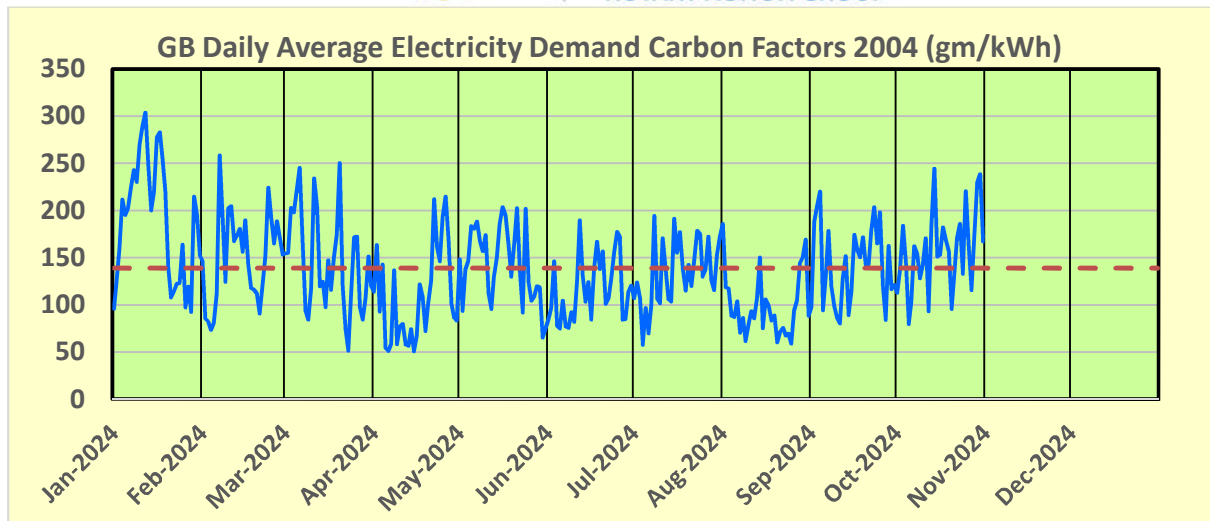
An average UK adult has a footprint of around 10 tonnes, so using this method you will need to plant around 1400 mangrove trees/year. The free tree planted by Treakly for every month you walk more than 5000 steps for 20 days, means in a year you can plant 12 trees, better than none, but a long way from Net Zero. If you subscribe you can plant at the same rate as the Treakly challenge ie 1 tree per day for every time you exceed 5000 steps, a max of 365 per year – job done.

UK Progress towards Net Zero: Electricity

By Professor Keith Tovey

In the last 15 years the UK has seen the largest reduction in the carbon (CO₂) factor for electricity use of any country, albeit starting from a relatively high level. For 15 years from 1995, the average factor was around 500 gm CO_{2e}/kWh but through the reduction in coal generation and the increase in renewables the average demand factor in Great Britain has fallen to an average of 139 gm CO_{2e}/kWh in 2024.





The carbon factors shown are corrected values to give the factors at the point of use and include:

- 1). Carbon Dioxide emitted during generation,
- 2). Emissions associated with electricity imported,
- 3). Allowing for emissions incurred for electricity exported to other countries,
- 4). Allowing for emissions associated with pumped storage,
- 5). Allowing for 7% losses in transmission and distribution.

The impact of all these corrections amends the factor from GB generation alone by +203% to 52% depending on relevant aspects in a given 30-minute period, explaining why there are often variations of the quoted carbon factors between different sources.

Notable events in 2024, include the final closure of the last coal fired power station on 30th September, and increasing deployment of wind and solar generation. The minimum factor for GB generation alone occurred on 4th June 14:00-14:30 at 14.5 gms CO_{2e}/kWh, while the maximum to the end of October at 305.9 gms CO_{2e}/kWh occurred on 12 January (10:30-11:00).

Reminder- ESRAG GBI can offer your club!

- Guest speakers on a variety of sustainability topics
- Links to other sustainability projects within ESRAG GBI ready for your support



ESRAG GBI Microgrant

ESRAG GBI has a small pot of money, £500, to award £100 to 5 ESRAG GBI members to put towards project work that is in line with the objectives of ESRAG. The application form is short, just one page of A4. Guidelines and the application form are attached. Award of this grant will not nullify any application you make to the wider ESRAG Project grant. All applications and Awards will be approved by the Board on a first come first served basis (the application form template is enclosed at the end of this newsletter).

Rationale for ESRAG GBI Microgrant 2024/25

Caring for the environment has been listed as the 7th Area of Focus

The concept of a microgrant is to encourage and support members to involve themselves and others in this new area. Fresh inventive ideas are encouraged !

A £100 cap (Maximum) on the amount as a contribution to either a one-off event or to purchase specialist equipment.

The suggested projects should be broadly in line with ESRAG principles and ideally ESRAG GBI subgroups or ESRAG taskforces and objectives, so for example an inventive ways clubs can setup recycling initiatives locally – Public-facing with ESRAG and Rotary branding

Applications will be welcomed from any paid up ESRAG GBI member

Criteria to assist in completing the application form for

Successful Grants will include:

- An Environmental theme
- Classification of what aspect of the Environment you are targeting
- What type of geographical area are you working in? Urban, Rural, Coastal (postcode if possible)
- Working with existing community environmental projects working with schools and other groups
- An event which is open to both Rotarians and other groups as either a Rotary or a shared enterprise
- A Microgrant is available for project equipment/publicity to help getting an environmental activity started.
- Supporting letter from the appropriate Club or District Environment Lead
- Correct use of ESRAG & Rotary branding
- All events should by nature be planned in an environmentally sustainable way ie travel plans, minimal use of single use plastics etc.
- Clear simple aims and objectives of your project (think elevator pitch)
- New inventive ideas will be encouraged!
- Applications must be approved by and signed by the project leader (a paid up member of ESRAG GBI).



ESRAG GBI

ENVIRONMENTAL
SUSTAINABILITY
ROTARY ACTION GROUP

Great Britain
& Ireland

- For more information or help getting an environmental project underway please email Chris Davies chrisdavies300@outlook.com or Dr Mohammad Alramahi m.aramahi@gmail.com

ESRAG project grant



ANNOUNCES FUNDING GRANTS FOR MEMBER PROJECTS

Open ONLY to MEMBERS ESRAG Rotarians & Rotaractors

Applications open from
Dec 1 2024- January 15 2025

What type of Projects are eligible?

- Projects that fit into the Area of Focus Environment.
- The project should not be a Global Grant nor a District Grant
- Ongoing Projects - with a finish date of 30th June 2025 are eligible.
- New projects - with an end date of 30th June 2025

How do I Apply? Use the link [here](#)



Where can I find some help/Inspiration?

[Use the link here](#)

CONTACT EMAIL:

 projects@esrag.org





And finally....**what does it mean to be a member of ESRAG!**

ESRAG is building a network of People of Action who work with Rotary Districts and Clubs to:

- o Grow a network of active, engaged Rotarians and other change makers
- o Raise awareness and provide education
- o Support projects in Rotary Districts and ESRAG regions
- o Help build collaborative relationships

As a member of ESRAG, you will play a vital role in ESRAG's mission to protect the environment, promote environmental sustainability, build awareness, and inspire Rotarians to take action. When you join ESRAG you will automatically become a member of one of ESRAG's 12 vibrant, active regional chapters throughout the world. This will be a great way for you to network with inspiring, effective people across the globe who are giving their heart, expertise, and time to collaborative work to understand environmental issues and to preserve and protect life on our planet.

Engage and take action today to Protect the Environment:

- o Form an Environmental Committee in your District and Club (resources on ESRAG web site)
- o Commence at least one new environmental project in your club in the next Rotary year
- o Plan and organize an impactful, sustainable environmental global or district grant project
- o Make a commitment to practicing environmental sustainability with your personal actions
- o Share your commitment to the environment in your Rotary and professional life
- o Network and exchange ideas with others

From all of ESRAG GBI family....wishing you a joyous holiday season and a happy, peaceful, and greener New Year!

Contact: Dr Mohammad Alramahi
and Chris Davies- ESRAG GBI Co-
Chairs
ChrisDavies300@outlook.com ,
m.aramahi@gmail.com

Website: <https://gbi.esrag.org/>



<https://www.facebook.com/EnvironmentalSustainabilityRGBI/>

**We have also set up a Whatsapp ESRAG GBI Community Group- to join please text:
+44 777 614 2854**



ESRAG GBI Micro Grant Application 2024-25

Club or Clubs Applying	
Amount applied for (up to a maximum of £100 per club/project). Matched funding is not necessary, but is preferable.	
Brief description of your project: Please include indication of timescale, partners involved, scope of project, number of people likely to be involved and which ESRAG principles it contributes to, items to be purchased. Max 300 words	

Applications are now open (closing on 31st May 2025 or earlier if all funds allocated) Subject to funds being available, decisions will be notified within 30 days of receipt of application.

Expenditure can only be claimed for items purchased after the grant has been approved.

All applications will be considered and approved by the ESRAG GBI Board.

Reporting

An item of 300 words and pictures are requested for rotary publications, website etc.

Signatories

Grant contact (ESRAG GBI member)	
Contact Email address	
Contact Phone number	
Club President/s	
Club Environmental Lead	

Return (electronically) to Chris Davies – chrisdavies300@outlook.com,

or Dr Mohammad Alramahi m.aramahi@gmail.com