



CED

CHRISTIAN  
ENGINEERS  
IN DEVELOPMENT

SHARING SKILLS  
CHANGING LIVES



40

1985 - 2025

CHRISTIAN ENGINEERS IN DEVELOPMENT  
***Annual Review 2024/2025***

# Christian Engineers in Development

CED is a Christian professional consultancy service dedicated to development work in partnership with overseas communities.

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Above: Kalyamwemvu Reservoir, Uganda, 2004  
Front cover: Wind pump, Nabuliatuk, Uganda 1997.

# Executive View

Welcome to the Annual Review. So CED is forty years old – and it is possible that someone somewhere has all forty Annual Reviews, which would make for an interesting read. A few current members have been involved in CED since its inception in 1985; I was still a civil engineering student in those days and had not heard of CED, and I suspect that some of our younger members might not even have been born then!

The world has changed a lot since 1985 – and yet many things remain the same. The poverty that we hoped would disappear persists, injustice persists, inequality persists, wars and conflict persist. And yet God still calls his people to “do justice, love mercy, and walk humbly with their God” (Micah 6v8). And so there are still people responding to the call to use their time and skills and resources to help those in poverty, and CED still has a *raison d’être* – being a means of Christian service, serving the poor, in Jesus’ name.

## PrayerPoints

Paul asks the Colossians to “devote yourselves to prayer with an alert mind and a thankful heart” (Col 4:2). As we look forward, we really need God’s blessing and guidance so that we can remain relevant as the world changes. As CED works mainly through Christian groups overseas, beneficiaries are more likely to be following Jesus than are our friends in UK. We need an understanding of why we do what we do and how this can bring glory to the Lord



My thanks to all our members who have given of their time and skills in this past year, and to the Executive Committee for all their work. My thanks also to the Board for their unwavering support, wise governance, and searching questions. Thanks too, from all those who have benefitted from CED’s input during this year, and whose lives have been made easier as a result.

*Jonathan Appleby, Executive Chair*

and introduce people to his love.

CED produces a monthly prayer bulletin and we encourage members and supporters both to use this in their devotions and to share news with CED so that we might pray for you.

If you do not yet receive PrayerPoints please email [pray@ced.org.uk](mailto:pray@ced.org.uk) and we will send you the link to sign up.

*Ian Rankin.*



*Tanzania, Pawaga. Intake for piped water supply, 2008-2011, serving 16,000 people in 8 villages on a 23km delivery pipeline at a cost of €1.2m. CED’s biggest project to date!*

# From the Chair of the Trustees

*“The Maker of heaven and earth . . . remains faithful forever, ever at work upholding the cause of the oppressed and providing food to the hungry” (Psalm 146)*

As I have watched events unfold in our turbulent world over the past 12 months, I have found it helpful and important, even if challenging, to remember that God remains forever faithful and upholds the cause of the oppressed. And more, it is our privilege, and a blessing, to be able to use our skills, time and resources to be a part of that divine work.

In my final introduction as Chair of the Trustee Board, before handing over to Colin Gibson, I would like to express my deep thanks to all who play their part in the work of CED in this mission. In particular, may I thank both Board colleagues and the Exec. members who all work so hard to improve the lives of the poor and oppressed through the work of CED. It is great that the Board has been strengthened with the experience and broadened



perspective brought by Sam Kayaga joining during the year.

As I write this, I look forward to our AGM on Saturday 4<sup>th</sup> October and am hoping to meet many of you there. I would, in advance, like to voice my appreciation to Dick Waller and other members of Christ Church, New Maldon for hosting us this year.

*Rob Brighthouse*

## Membership

CED's Membership continues to grow and has risen to 90 members after adding 4 to its number this year. Find below a brief introduction to the 4 new CED Members.

**Sam Kayaga** is a recently retired Associate Professor in Sustainable Systems for Water Security at Loughborough University. Sam is well published academically and has vast experience in engineering in Uganda.

**Aaron Cross** is a Chemical Engineer working as the Head of Chemicals and Manufacturing at Otto Simon – Aaron attended the AGM last year so some of you may have met him there.

**Robert Foulkes** is retired but continues to shoot videos for commercial and charity customers. His latest project is building a solar powered Bitcoin mining system. He took one of the workshops at the AGM last year on making videos to better publicise the work of CED.

**Matthew Robb** is a Civil & Environmental Engineer who is currently working as a Contracts Manager, with most of his professional experience working on facades & civil engineering works.

*Jonny Burns, Membership Secretary*

# Project Roundup

Review of CED Projects, August 2024 – August 2025

## Uganda Kuluva Hospital Hydro



*Commissioning team, refit*

Jonathan Appleby and Darran Waters visited Kuluva Hospital in early October 2024, to oversee the installation of the new hydro turbine equipment. The visit was successful, with the new turbine, control panel and hydraulic power pack all installed and commissioned, despite some challenges. The principal challenge was the difficulty in obtaining a high-pressure seal against the existing control valve, and in the end this was achieved using a circular clamp (a bit like a large jubilee clip). The seal has held since then, but we are looking to provide a more robust long-term solution.



*Welding repair strap at local workshop*

In May this year, a lightning strike on the power house damaged some electrical equipment, and parts had to be sourced and couriered into Uganda, to allow repairs to be carried out. The hydro plant was offline for 26 days as a result of this. The lightning protection system was commissioned whilst the plant was offline (having been delayed from last year) – and this incident has underlined for all of us how important it is to have some form of lightning protection in western Uganda.

## Uganda Kuluva Hospital Water Supply



*Existing borewell awaiting rehabilitation*

CED are also now assisting the hospital team with a re-configuring of the water supply system for the hospital. The existing system is plagued with problems, including broken borehole pumps and a lack of storage capacity, in addition to a lack of treatment. A revised water supply design has now been agreed upon, and we are assisting with estimating the cost for this.

## Uganda Kagando Hospital Solar PV



*Kagando, existing electricity supply*

Over the past year we have been continuing to work with Friends of Kagando on the design of a Solar PV power supply for Kagando Hospital. David Bookham and Graham Miller deserve a long-service medal, as the discussions on this project have continued for much longer than expected; however we are now nearing a consensus on the best way forward for the hospital.

## Uganda Kagando Hospital Water Supply



*Kagando Clariwash water treatment system, awaiting recommissioning*

We have continued to work with the hospital staff on the water supply. The raw water intake was destroyed by floods in May 2024, and it has not been possible to operate the Clariwash water treatment plant since then. We are hopeful that water will soon be available again, and the Clariwash system can be returned to operation.

## Uganda Kikatsi Valley Tank



After several unsuccessful applications for funding, we were delighted to receive a grant from the Government of Guernsey for this project in June of this year. A Memorandum of Understanding has been signed with North Ankole Diocese (Church of Uganda) and preparations are currently under way for a baseline survey, and selection of a suitable local contractor.

## Uganda, Kampala, God's Love Home and School



*The well at God's Love School*

Work was completed last October, so now there are fully functioning hand pumps at both the school and at the children's home – much to the delight of the children!

## Rwanda, Water Solutions



*Building a 10,000 litre pumpkin tank*

Through the first half of 2025 Angus Armstrong developed proposals for various local water solutions for three small communities in Rwanda, in consultation with CED's partner Faith Centred Ministries. In July, Angus was able to visit the communities and initiate these projects, which will continue through into 2026. The projects will provide rainwater harvesting tanks to a primary school and church in Kavumu, where CED have worked before. An additional two rainwater harvesting tanks will be built in a community called Rukara, in the east of Rwanda. The largest element of the project is in Gakamba, where we will provide an extension to the existing government water main, bringing water to within easy reach of the community and terminating with a multi-tap tapstand.

## Tanzania, Lake Zone tanks:



*Typical 1000 litre Thai jar*

We continue to develop partnerships with dioceses around Lake Victoria. Geita AICT Diocese joined with us in August 2024 and Shinyanga AICT in November. Ian Rankin works with these partners to develop the programme. We sent 2 people to an international conference in Dar Es Salaam in January 2025 and presented a paper there. We are exploring an opportunity to have the university in Dar Es Salaam carry out some research work on water quality.

## Tanzania, Tanga, Imani School:



*Two 10,000 litre pumpkin tanks on tower above Imani School*

Ian Rankin had been working with the school since 2019, at first focused on architectural work but more recently they needed help with a water scheme. Other CED members became involved and it made sense to formalise an agreement with CED providing services. An MoU was signed in January.

Malcolm Anderson has designed a scheme whereby water from 6 shallow wells will be pumped to tanks on a mound from where it will flow by gravity to the school. Barbara Brighthouse has provided advice on the layout and Colin Gibson designed the tower. We hope to complete the work next year and also build a new classroom block.

We look forward to the coming year, in anticipation of God's provision and leading, as we seek to serve the poor in His name.

# Rwanda—local solutions

I first became involved with Rwanda in September 2022 when I made a visit to the Kavumu village upgrade project to carry out an audit of the completed works. I was impressed and concluded that the people were healthy, happy and hopeful. In February 2024 I returned on a fact-finding trip to visit various parts of the country and meet various church and community leaders with a view to identifying a suitable follow on project to Kavumu. During this visit many needs were seen - these were narrowed down to a project with our existing partner, Bishop Charles Semwaga of Faith Centred Ministries, an independent evangelical organisation.

RW12 was born and given the title “Rwanda – local solutions”. Whilst it will not change the course of the nation, it will serve the needs of three small rural groups of people in need. The project has been split into two parts:

Part 1 to improve access to water at three locations, Kavumu (the new primary school and the church), Gakamba and Rukara. Kavumu and Rukara are to receive two 10,000 litre rain water harvesting tanks each and Gakamba is to be provided with a tap stand and distribution pipeline, from the government main pipe to their village 1100m away. If you’ve ever tried carrying a 20 litre jerry can of water just 20m, you’ll appreciate



*10,000 litre pumpkin tank, Kavumu*

how much this will be appreciated as water is needed every day. As we go to press the Kavumu tanks have been completed, the Rukara tanks are to start shortly and the Gakamba pipeline is in the final stage of negotiation with the contractor.

Part 2 will deal with the state of the houses in the Gakamba village. There are 26 houses in all, built of mud brick and rendered with mud. Inside, the floors are bare earth and the internal walls are mud. The doors and windows are simple wooden shutters and in heavy rain conditions the water comes in the back door and flows out the front! The plan is to strengthen the foundations, cement render the walls, provide cement floors and take steps to control the flood waters. An audit of house condition has been carried out and a detailed proposal is in the process of being prepared. We hope to be able to start this work early in the coming year.

*Angus Armstrong*



# Rainwater Harvesting (RWH) Lweru

Lweru Diocese was established in 2006 and now has 56 Parishes with 120 local churches. We are extremely grateful for CED's generous support for the rainwater harvesting project in our diocese.

We knew that schools and village churches found it difficult to access clean water. The diocese realized that supplying rainwater tanks met its mission goal of preaching an integrated mission, both practical and spiritual. There has been a marked decrease in water borne diseases where we have been building tanks.

Previously, the majority of village householders had to walk long distances for water that was unsafe for family use. Since this project was implemented we have noticed:

- Elderly widows feel blessed because they are able to access water nearby instead of facing the challenges of bringing water from a river.
- Children and school students have testified to the privilege of having water nearby which means they have more time for study. Previously they often missed classes because they had to fetch water.



1000 litre Thai jar

- Incidents of water -borne disease like diarrhoea have reduced dramatically
- Women and girls who used to carry heavy water container have more time to do other essential family activities.

The project not only provides water but also restores dignity, health and hope to our communities. We promise to look after these water facilities with great care, maintaining hygiene, protecting them and so ensuring they last for many years.

With thanks to God, we pray that he may bless you richly for your kindness and generosity. We will never forget what you have done and continue to do in supporting our diocese and community.

*Kabia Geniva, Project Coordinator,  
Lweru Diocese*

*Since May 2024, CED has paid for 15 small Thai jars for widows in Lweru and supplied grants toward the cost of 56 pumpkin tanks for local churches. Across 6 partners, since 2020 CED has supported 166 Thai jars and 176 pumpkin tanks.*

*Ian Rankin*



Bwami Church, 10,000 litre pumpkin tank

# Project Highlights April 24 - March 25

## India:

- ▶ Flushing/lining of well, pump installed at Sathya Veda Bible college.

## Rwanda:

- ▶ Provision of rainwater tanks and home improvements at Gakamba, Rukara and Kavumu.

## Sierra Leone:

- ▶ Installation of solar panels and pump as final part of water supply scheme for the Manowa community.

## Tanzania:

- ▶ Continued training and development of rainwater harvesting tank programme with Kagera, Biharamulo, Lweru, Geita, Musoma and Shinyanga dioceses.
- ▶ Funding support provided for tank construction material costs. Tap Twinning programme continues to generate financial support.
- ▶ Provision of design/engineering support for required repair of dam at Buhuri.

## Uganda:

- ▶ Assistance with repairs to intake for filtration system.
- ▶ Continued engineering advice given for hydro schemes at Kuluva.
- ▶ Provision of engineering advice as part of infrastructure audit at Kuluva hospital.
- ▶ Planning/funding applications for valley tank at Kikatsi.
- ▶ Provision of engineering advice for solar scheme at Kagando Hospital.
- ▶ New borehole drilled, existing well recommissioned, handpumps fitted to both, at God's Love School.

		B/F	Income	Expend	Transfer	C/F
No.	Project	£	£	£	£	£
IN01	India: Sathya Veda well			-5,565	5,565	
RW12	Rwanda: tanks and home Improvements		7,293			7,293
SL01	Sierra Leone: Manowa water supply		118	-20,775	20,657	
	SECMA grant Manowa/Tanzania RWH	42,176			-20,657	21,519
TZ20	Tanzania: rainwater harvesting prog		22,028	-44,494	27,086	4,620
TZ22	Tanzania: Buhuri dam repair		62			62
UG00	Uganda general costs			-3,557	3,557	
UG42	Uganda: Kagando Hospital water treatmt		125	-1,039	914	
UG43	Uganda: Kuluva hydro scheme			-2,353	2,353	
UG44	Uganda: Kikatsi valley tank		1,000	-500	500	1,000
UG45	Uganda: Kuluva hospital infrastructure			-3,825	3,825	
UG46	Uganda: Kagando Hospital solar scheme	1,897				1,897
UG47	Uganda: God's Love School wells		5,000	-5,207	207	
	Member project donations to be allocated		11,000			11,000
	<b>Total</b>	<b>44,073</b>	<b>46,626</b>	<b>-87,315</b>	<b>44,007</b>	<b>47,391</b>

# Financial Summary

The CED financial position continues to be healthy largely as a result of a legacy received in 2017 and grants received in 2023/24 to be used to meet specific future project costs.

The level of donations from supporters and other individual donors remained at an encouragingly high level. The generosity of many individuals, churches and charities who regularly support us is greatly valued.

Significant donations were received from members and supporters towards the God's Love School project in Uganda and via the Tap Twinning programme in support of rainwater harvesting work in Tanzania.

In addition, donations were received from members to be used for project work as



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determined by the Executive Committee. In the year £5,000 was allocated to the Tank and Home Improvement project in Rwanda.

Other income represents deposit interest received.

Generally the costs of managing the charity are kept low as most activity is undertaken on a voluntary basis.

*David Beak, Treasurer*

	Unrestr'd Funds £	Design'd Funds £	Restric'd Funds £	<b>Total 2025 £</b>	Total 2024 £
<b>Income and endowments from:</b>					
Donations and legacies	21,608	-	46,126	<b>67,734</b>	50,846
Charitable activities	-	-	500	<b>500</b>	47,000
Other	311	5,741	-	<b>6,052</b>	7,587
<b>Total</b>	<b>21,919</b>	<b>5,741</b>	<b>46,626</b>	<b>74,286</b>	105,433
<b>Expenditure on:</b>					
Raising funds	675	-	-	<b>675</b>	1,254
Charitable activities	4,184	-	87,315	<b>91,499</b>	123,545
<b>Total</b>	<b>4,859</b>	<b>-</b>	<b>87,315</b>	<b>92,174</b>	124,799
<b>Net Income / (expenditure)</b>	<b>17,060</b>	<b>5,741</b>	<b>(40,689)</b>	<b>(17,888)</b>	<b>(19,366)</b>
<b>Transfers between funds</b>	<b>(17,000)</b>	<b>(27007)</b>	<b>44,007</b>	<b>-</b>	<b>-</b>
<b>Net movement in funds</b>	<b>60</b>	<b>(21,266)</b>	<b>3,318</b>	<b>(17,888)</b>	<b>(19,366)</b>
Total funds brought forward at 1 April 2024	10,017	102,176	44,073	<b>156,266</b>	175,632
<b>Total funds carried fwd at 31 March 2025</b>	<b>10,077</b>	<b>80,910</b>	<b>47,391</b>	<b>138,378</b>	156,266



***CED exists to demonstrate the love of Christ by enabling Christians with engineering and allied skills to help the poorest communities overseas.***

*We invite supporters to become involved through:*

- *Praying regularly for CED*
- *Raising the profile of CED*
- *Making donations*
- *Fundraising for specific projects*

***Enquiries to CED Secretary:***

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*Above: Turbine, Kuluva Hospital Hydro Project*