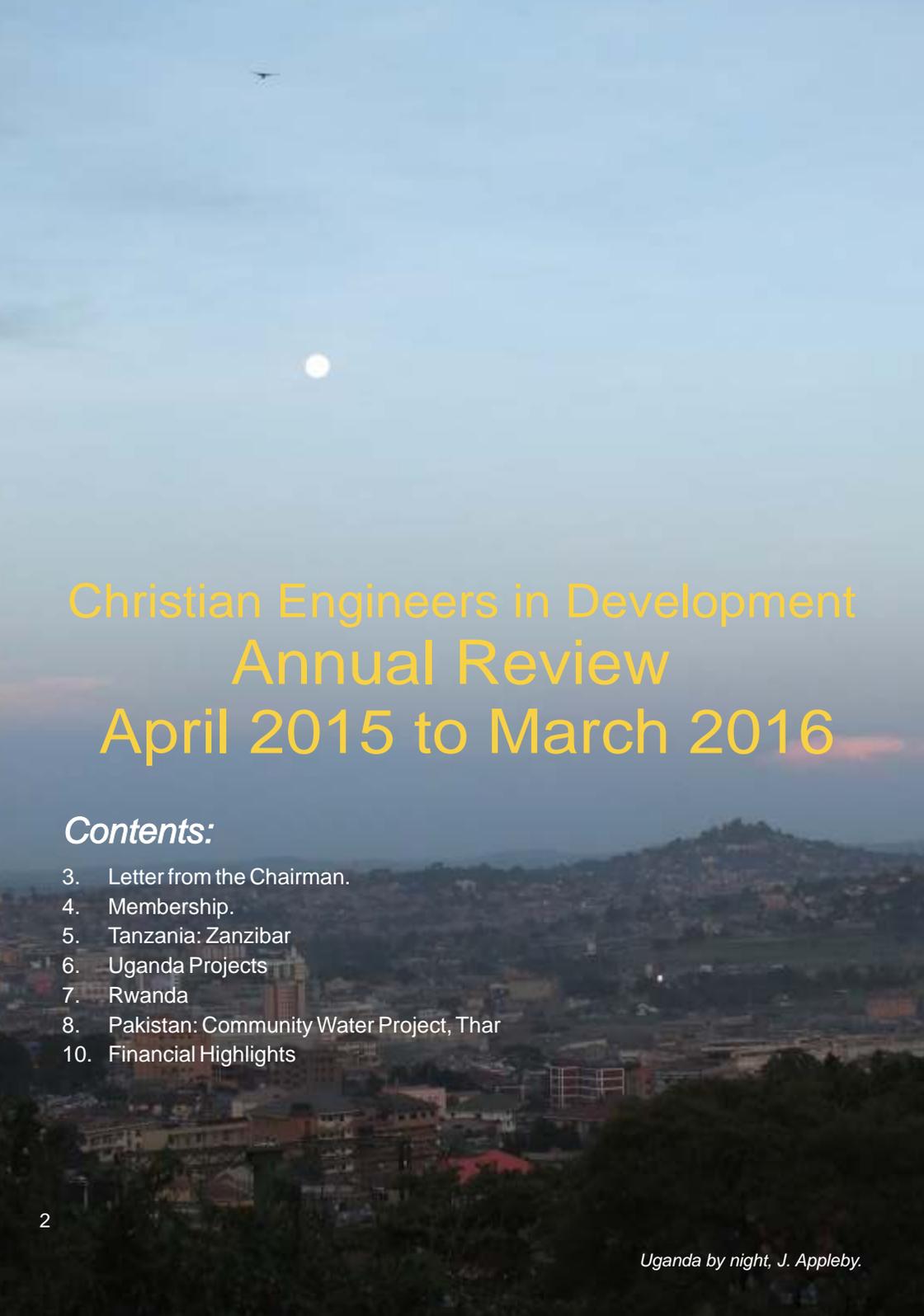




Opening up the spring at Kisya Kagaana.

Christian Engineers in Development Annual Review 2015 / 2016



Christian Engineers in Development Annual Review April 2015 to March 2016

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Letter from the Chairman

Over the past five years Ian Rankin has faithfully written this introductory paragraph. I would like to take this opportunity to thank Ian for his faithful service to the Lord as Chair of CED, much of which has been behind the scenes. It has been great to have his ongoing support during my first year in the post.

I admitted last year that I was daunted by the task of being CED's new Chair. This is the first time that I have been Chair of any organisation (since the University of Surrey Mountaineering Club in the 1980's!) For those of you who don't know me, I am the full-time Mission Director for Zambesi Mission, see www.zambesimission.org. When I moved from the role of Engineering Project Manager at an oil refinery on the Humber Estuary at the end of 2011, I was given a card which depicted the friendly face of a computer screen looking out at its user, saying "you don't know what you're doing, do you?"! Whilst we should never glamorize inexperience or boast about lack of preparedness, when we serve God as Christians we are reminded that God's grace is sufficient for us. He will provide for our needs. In my role as Chair of CED I am acutely aware that we all need to continuously seek the face of God and understand His will for our organisation. We must remember that *"unless the Lord builds the house, its builders labour in vain"* (Psalm 127:1).

CED's aims are to:

- ◆ relieve poverty, suffering and distress and prevent disease and ill health among the peoples of the World by serving God

through the practice of engineering and technical skills.

- ◆ promote the Christian faith.

Different CED members and engineers have been active over the past year in Uganda, Rwanda, Tanzania (including Zanzibar) and Pakistan. They have been developing or executing projects that seek to fulfil CED's aims. For example, the Kisyga Kagaana project in Uganda is now nearing completion - it will provide vital clean water supplies to the community, thereby reducing disease and ill health. But, in addition, the time that women and children currently spend fetching water can be used more productively in the future: for income generation and education, which can help them to lift themselves out of poverty. CED's project in the Thar desert had similar objectives: not only to bring important hardware to vulnerable communities, but ultimately to enhance the quality of their lives. Meeting CED's aims on most of our work can usually be clearly demonstrated. But CED's involvement at Zanzibar Cathedral has been unique. The structural and architectural restoration work on the cathedral should ensure that it continues to



Faith's house, Rushere, Uganda

occupy a prominent place for years to come on the predominantly Moslem island. We pray that the name of Jesus would be glorified and lifted high through the ongoing faithful witness of the Christians who worship there. We can certainly look back with great thankfulness to God for what has been achieved over the past year.

Having looked back, we also look forward

to the future: putting our trust in a God who is faithful. But we face a number of challenges: issues that CED needs to prayerfully consider and then instigate appropriate actions. Whatever the future holds for CED, we can remember that "*the one who calls you is faithful, and He will do it*" (1 Thessalonians 5:24).

Mike Beresford

Open Day, Crawley, June 2015



Membership

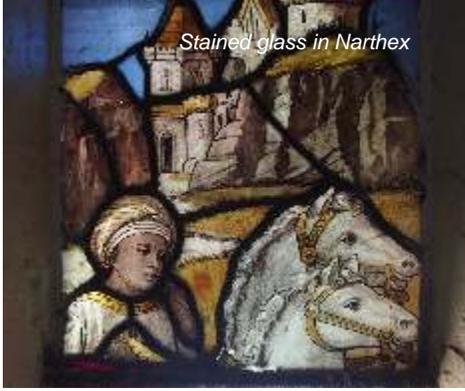
As we go to press CED has 67 members. There have been 4 resignations over the last year and, sadly, three others have been removed from the membership list as we have lost touch with them despite repeated attempts to make contact.

We have one new member, Jonathan Truslove, who is a civil engineering student at Glasgow University. He has attended the Scotland Regional Group and accompanied Alan Michell on his trip to Rwanda earlier in the year, where he was able to obtain useful information for his dissertation.

CED has three regional groups, in Scotland, Northern England (usually

meeting in Leeds or York) and Southern England (meeting in London). It is generally those who are able to attend these groups that feel most connected to CED and thereby become more involved. If you would like to attend one of these groups but do not receive emails notifying you regarding meetings, please get in touch (admin@ced.org.uk). Similarly, if you don't live anywhere near the places in which the current groups meet but are interested in starting a group in your area, we'd love to hear from you.

*Barbara Brighthouse
Admin@ced.org.uk*



Stained glass in Narthex

Tanzania: Zanzibar

The World Monuments Fund project, in which CED are partners, comes to an end in May 2016. The critical structural work at the cathedral was completed and the roof covering replaced in 2015 and the slave heritage exhibition is expected to complete in June 2016.

With detailed engineering and architectural work being undertaken by members' businesses for professional indemnity reasons, CED's main involvement has been to support the broader conservation challenge and in supporting the cathedral's fund-raising efforts, raising funds ourselves and also forwarding gifts from others.

Of course, with old buildings the work does not stop at the end of refurbishment. WMF are continuing to work with the Diocese of Zanzibar to make repairs to the steeple. This is proving more expensive than expected and the Diocese is working hard at raising funds internationally.

Future areas for conservation include the stained glass by HG Murray of S. Belham and Co in the 1880s, the mosaic faced Arts



New galvanised steel valley gutters in a rain storm

and Crafts altar, artist unknown, the clock that was a gift from the Sultan, the bells that were given by the Archbishop of London and the Willis organ. There are also beautifully made copper panels and murals depicting angels, again by British artists at the close of the 19th Century.(see p10).

The Diocese and CED look forward to developing their relationship and in the coming months CED plans to send an engineer to discuss possible sites for water intervention on the islands.

Ian Rankin



Scaffolded steeple from roof of heritage exhibition / old dispensary.



Kisya Kagaana: shed for backwash filters.

Uganda Projects

At Kisya-Kagaana excellent progress has been made during the past year and completion is expected by September 2016, 6 months ahead of programme. The final cost of the project on completion is expected to be within the budget.

The remaining work involves completion of the last 22 public tap stands and connecting distribution pipe lines. The developed yield from the main spring source, Kinyankobe, proved higher than expected which allowed the supply to be extended to additional homesteads and provides adequate water reserves to meet the demand from expansion of the population in years to come.

Nigel Heeler supervised the assembly of the first of six automatic backwash sand filter units which he has designed and are

being installed as a pilot trial on this project with a view to replication on future gravity water supply schemes in remote rural areas in Africa. The trial assembly proved very satisfactory and, subject to some very minor 'tuning' adjustments, the remaining four units will be installed as copies. Nigel is to be congratulated on this initiative and it is hoped that the system will be replicated elsewhere. The quality of the raw water supply from the springs at Kisya-Kagaana is good enough without filtration, so the success of the system is a bonus in this case. However the successful trial of the system in remote and difficult conditions holds out promise for future schemes where water treatment is essential.

The management and site supervision of the construction has been largely carried out by Philip Tibenderana, CED's part-time engineer in Uganda, who is to be congratulated for a job very well done. Philip deserves our thanks for his dedication and service to the Lord Jesus Christ. The Christian spirit which has pervaded the local community and its leaders, particularly the leadership of Rev. Canon John Basingwire has been wonderful to witness.

John Holloway





James Rubakisibo of RHEPI with whom CED has worked on past project.

Rwanda

Jonathan Truslove and Alan Michell visited Rwanda in February this year to investigate ways in which CED can assist the local communities in Rainwater Harvesting or other similar projects. The recent history of Rwanda made the warm Christian reception they experienced more even more remarkable. This was the first visit by CED to Rwanda since 2012, so over the two weeks they were in Rwanda, they visited 9 schools, 8 churches which included 2 for worship, 5 homes, 4 village communities, a natural spring and the Scripture Union HQ in Kigali, whilst also renewing contacts from the earlier visits.

Many possible projects arose from the visit and two are in the preliminary design stage for implementation in 2017 subject to the necessary funding becoming available.

Alan Michell



Collecting water from a contaminated stream near Gitiba, Rwanda



Water samples were collected and tested and showed E-Coli contamination..



Surveying for a charco-cum-valley tank in Uganda

Pakistan: Community Water Project, Thar.

The Scottish Government funded project in Tharparkar was completed at the end of March. It achieved what it set out to do:

Village committees were established in the 30 project villages and these engaged a high percentage of women; women traditionally do not have a voice in village affairs.

Water security plans were prepared for each village so that the committees could demonstrate their need to other NGOs and government officials.

30 households in each village were provided with rain water harvesting tanks.

Although 2 planned wells could not be dug due to a government moratorium, 42 wells were repaired instead of 30 in the original proposal.

2 ponds were dug.

A sand dam was built.

60 donkeys were provided to help start up water carrying businesses. (not in the original proposal but a response to getting water to households when the d.i.y. desalination stills proved unworkable).

The pilot experiment to distill brackish water at household level was disappointing though being small did not affect the overall project.

People were shown how to make simple kitchen gardens and appreciated the salads they could grow.

Householders planted saplings; 10,000 from the forestry department and a further 5,000 from surrounding land.

Technical training was provided in each village to improve the management of water and livestock.

Villages were trained in advocacy so they could approach local government officials to obtain the services to which they have a right.

The three year project ran without major problems. PVDP outreach staff worked hard to build relationships in the villages and managed the organisation of tradesmen. Colin Gibson made most of the visits on behalf of CED from his base in Karachi which reduced costs that could then be fed back into the project. Regrettably the Pakistan government did not provide a visa for the last trip from UK



Explaining the water security plan at Moole Ji Dhani.

and this is a concern for the future. We held regular Skype discussions about the project though these were of varying quality, limited by power outages and poor internet connections. Most discussion was therefore done through email. Financial control was relatively straightforward because small pieces of work could be easily adjusted. The project operated on the basis of PVDP providing fixed costs for staff then a cost per item list for the wells etc. laid out on a spreadsheet. Happily the exchange rate remained fairly constant throughout the period, again allowing additional funds to be used in-country.

The result of all of this work is that very poor people, discriminated against in their own country for generations, are finding a voice and through that are managing to improve their lives. Basic teaching about health and hygiene has resulted in a noticeable reduction in disease and in maternal and infant mortality. PVDP have been good at collecting data and it is clear that health is improving. People are starting to see that there is benefit in education. The status of women has changed in a fundamental way as women have been formally included in decision making and have taken leadership positions in the



Somewhere in there a small sapling is establishing itself.

village committees.

Working with PVDP has been a good experience and we hope to continue the association. The CED Board has set aside £10,000 for work to continue over a six month period during which a new project proposal based around WASH (mainly pit latrines) will be developed. This allows PVDP to continue to support the project villages and at the same time discuss new ideas.

Ian Rankin



Pond under construction

Financial Highlights

Dusk, Uganda

April 15 - March 16

We were fortunate to receive £111,285 to be used for the funding of projects. The major grants received were:

Scottish Government	£76,026	Thar Phase II Pakistan
Wilmslow Wells for Africa	£10,000	Kisya-Kagaana, Uganda
States of Guernsey	£19,980	Kisya-Kagaana, Uganda

The bulk of project spending in the year was devoted to the Thar scheme in Pakistan and to the Kisys-Kagaana project in Uganda. Details of all project transaction are set out in the separate Table.

CED contributed £6,020 from its own funds to support work in Pakistan, Tanzania and Uganda. It also transferred £14,000 to the Project Fund from the unrestricted fund, representing the surplus balance on that fund at the year end. The Project Fund is there to provide start-up funding and to cover any over- spending.

Reference	Project name	B/F	Income	Payments	Transfers	C/F
PA 06	Thar Phase II	167	76,026	-79,705	3,512	0
TZ 04	Zan Cathedral	2,960		-2,960		0
TZ 10	Majahida	684	2,657	-4,830	1,500	11
UG 00	Uganda Unall	507		-224		263
UG 35	Kisya Kagaana	135,870	32,548	-146,812		21,606
UG 37	Rwemtamu	-787		-221	1,008	0
		139,401	111,231	-234,772	6,020	21,880



*Freeze behind clergy stalls,
Zanzibar Cathedral*

Statement of Financial Activities

Year Ended 31st March 2016



CED's financial position remained strong in the year. Unrestricted voluntary income was slightly down by comparison with 2014/15 but administrative and governance costs were also down and remain low. The result was that there was a surplus of unrestricted funds in the year of £14,234. Restricted income for project financing was reduced but this was mainly because substantial financing for the

Kisya-Kagaana project had been received in 2014/15. There are considerable amounts held in designated funds to enable CED to be proactive in scheme investigation and development.

Bill Harper, Treasurer

	Unrestricted Funds £	Designated Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
Incoming resources					
Incoming resources from generated funds					
Voluntary income					
Donations and gifts	18,759	-	5,225	23,984	98,796
Incoming resources from charitable activities					
Grants	-	-	106,006	106,006	155,272
Other income	1,995	344	54	2,393	2,986
	<u>20,754</u>	<u>344</u>	<u>111,285</u>	<u>132,383</u>	<u>257,054</u>
Resources expended					
Costs of generating funds					
Costs of generating voluntary income	993	-	-	993	726
Charitable activities					
Costs associated with engineering activities	3,243	1,640	234,772	239,655	125,166
Governance costs	2,284	-	-	2,284	3,172
Total Resources Expended	<u>6,520</u>	<u>1,640</u>	<u>234,772</u>	<u>242,932</u>	<u>129,064</u>
Net Incoming / (Outgoing) Resources before Transfers	<u>14,234</u>	<u>-1,296</u>	<u>(123,487)</u>	<u>(110,549)</u>	<u>127,990</u>
Transfers between funds	<u>(14,000)</u>	<u>7,980</u>	<u>6,020</u>	<u>-</u>	<u>-</u>
Net Incoming / (Outgoing) Resources	<u>234</u>	<u>6,684</u>	<u>(117,467)</u>	<u>(110,549)</u>	<u>127,990</u>
Balance brought forward at 1st April 2015	<u>10,600</u>	<u>69,721</u>	<u>150,171</u>	<u>230,492</u>	<u>102,502</u>
Balance carried forward at 31st March 2016	<u>10,834</u>	<u>76,405</u>	<u>32,704</u>	<u>119,943</u>	<u>230,492</u>

Christian Engineers in Development



CED is an association of engineers and other professional people who share their Christian faith and serve God through an engineering consultancy service for Christian and other communities.

Friends and supporters can be involved in CED's ministry in various ways including:

- Praying regularly for CED
- Raising the profile of CED
- Donating funds for project initiation and support
- Fund raising for specific projects

As members of Christ's body, the Church, we endeavour, in both our private and professional lives to:

Respond to the call of God our Father and Creator;

Trust his Son, Jesus Christ, as our Lord and Saviour and

Serve our fellow human beings in the power of the Holy Spirit –

That all may be done to the glory of God.

All enquiries to CED Secretary:

Mrs B. Brighthouse
Old Forge Cottage,
South Brent, TQ10 9JL
Email: admin@ced.org.uk

Registered Charity No. 293734
Registered Company No. 1980353

For the latest news within CED visit
the website at:

www.ced.org.uk



Uganda road, J. Appleby