# Scottish Government Zambia Development Programme

# **End Year Report**

	General Project Information				
1.1	Project Reference Number:	e ZAM6	ZAM6		
1.2	Name of Organisation:	The Big Fi	The Big First Aid Project		
1.3	Lead Partner(s):	First Aid A	frica Zambia		
1.4	Project Title:	First Aid &	Renewable Energy (FA	ARE)	
1.5	Reporting Period	From: 01/0 To: 31/03/			
1.6	Reporting Year:	2			
1.7	Project Start date	October 20	)17		
1.8	Project End date	March 202	2		
1.9	Total Project Budget*	£780,161			
1.10	Total Funding fro	<b>m</b> £780,161			
	<ul> <li>Have you made any changes to your logframe? If so please outline proposed changes in the table below. Please note all changes require Scottish Government approval. If changes have already been approved please indicate this in the table.</li> <li>Outcome/Output Proposed Change Reason for Change Date Change</li> </ul>				
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1.12	Supporting Documentation	Up to date	e Logical Framework, ges detailed above.	Approved and b Whom	X
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1.12	Documentation Check box to confirm key documents have	Up to date	e Logical Framework, ges detailed above. e Budget Spreadsheet	Approved and b Whom which reflects	X
1.13	Documentation Check box to confirm key documents have been submitted with this report  Please highlight an recent review. Plea feedback, if relevan	Up to date any chang Up to date Recent Ca y actions ident se tell us about	e Logical Framework, ges detailed above. E Budget Spreadsheet ase Study tified by the Scottish Gout what action you have	Approved and be Whom which reflects	X X X most
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#### 2. Progress and Results

Please use this section to give an update on the progress the project has made during this reporting period. This section will be reviewed together with your Logical Framework and budget spreadsheet.

Please give an update on the progress your project has made during the reporting period. Please use this space to update us on what has gone well and any challenges you have experienced, detailing how you have overcome these. (Max 500 words)

Following meetings with the World Health Organisation (WHO, the African Federation of Emergency Medicine (AFEM), we have agreed to lead on piloting a new, globally recognised community first aid course, in partnership with the Zambian Ministry of Health.

These multilateral organisations are not alone in recognising the benefits of our partnership-approach to emergency first aid and we've hosted or met with international experts from the US, Australia, Europe, and Africa over the past 12 months, as interest in our programme increases.

Particular highlights have included running training for; anti-poaching units in Zambia's national parks, the Zambia police service (in partnership with Police Scotland), low-income groups in Lusaka's urban settlements, and community groups in Central Province.

We have continued our development of innovative technology, with our mobile first aid app being used at over 200 emergencies, and our Zambian partners having just taken delivery of Africa's largest ever mobile solar array – increasing the country's capacity to respond to major emergencies.

With our partners in the private sector, we have continued to maintain solar units in Chitambo at three clinics and, in line with the beyond-aid agenda, we have developed commercial first aid training courses to ensure the long-term sustainability of the work initiated through this grant, utilising expertise from Scotland's pre-hospital healthcare sector.

Currently our Scottish staff are overstretched, with two staff responsible for leading on projects providing training to over 5,000 people across six countries per year. This remains our greatest challenge. New board members have been appointed to help build our capacity in this regard through diversification of our funding.

Has the focus or plans for delivery changed significantly during the last year? Please highlight what issues or challenges prompted this change and how you anticipate any changes in focus will impact on the previously agreed outcomes. (Max 250 words)

No, there are no major changes to the focus or plans for delivery.

2.3 Taking into consideration what you have achieved during the last year, along with any challenges you have experienced, please highlight to us what lessons you have learned in this reporting period, and how these will be applied in the project in the future. (Max 250 words)

As the international community, and the health sector in general understand the importance of pre-hospital healthcare, Scotland has the opportunity to provide solutions to the challenge of accessing emergency care in remote locations.

First Aid Africa are a comparatively small organisation but as we grow, we have huge potential to be the 'linking organisation' which brings together partners from a range of different disciplines. If we can build internal capacity then we will be a key player in global healthcare in the coming years.

#### 2.4 | Project Impact

In the table below, please list each of your project Impacts, and provide further detail on your progress and results over this reporting period. Describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should be updated within the logframe

Impact: Improved access to emergency care in Zambia

Impact Indicator	Milestone / Achievement	Progress
1.1 WHO Statistics (Mortality in Zambia)	Agreeing standards for measuring pre- hospital healthcare in Zambia	Meeting with Ministry of Health and members of the World Health Organisation, we will be piloting a new first aid course. We believe this will give us a better understanding of the true mortality levels at the pre-hospital stage of healthcare as researchers join our courses alongside the Zambian Ministry of Health.
1.2 Government statistics on pre-hospital deaths	Agreeing MoU with the Ministry of Health and better understanding cause of deaths at hospitals.	See above.

#### 2.5 | Project Outcomes

In the table below, please list each of your project Outcomes, and provide further detail on your progress and results over this reporting period. Describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should also be updated within the relevant fields of your logframe

Outcome: Public has access to first aid training & resources

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Outcome Indicator	Milestone /	Progress
	Target	

Total number of benficiaries accessing training 'online', 'face to face' and 'trained by other organisations (using First Aid Africa Zambia syllabus)	Mobile app is launched in Zambia & updated by Mednav to include reporting tools  The first five community groups complete the syllabus and are awarded their	All milestones from our original activities log have been completed. We have completed our syllabus and reviewed new course guidelines for a standardised community first aid course at a national level. We have prioritised taking time to get this right and work with multiple partners this year ready for a national launch in 2019 – 2020, meaning the total number of people trained is less in 2018-2019 but will exceed targets
	certificates  Agree final content for learning resources in Zambia with relevant government agencies and stakeholders	for the subsequent year.  Additionally, we have developed online learning resources and a free mobile app, which teaches users first aid in their own languages (English, Bemba, and Nyanja) and can be used offline in remote locations during an emergency.
Patients arriving at a participating health facility having already been given first aid treatment (as defined within comments/explanations section)	Increase in the number of people having been given access to first aid before they arrive at hospitals.	The data for this indicator has proved more difficult to collect than expected. Government currently does not collect reliable data for pre-hospital care and as such, we will need to implement our own direct research in partnership with the Ministry of Health to ensure that a) We are not overburdening existing healthcare staff, b) That any data collection systems put in place are reliable.  We have discussed this issue with colleagues at the University of Zambia, the University of Stirling, and the University of Edinburgh to ensure we have a clear plan in place for collecting this data in 2019-2020

Outcome: Healthcare facility has renewable energy source to provide power for medical emergencies

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Outcome Indicator	Milestone / Target	Progress
1.1 Number of people using the health facility when our solar power systems are operational	Logframe milestone: 3078 people	As we had originally expected solar units to be used as a back-up for primary generators, we set our target at around 3000 patients being served while our units were in place.  In fact, the hospitals, recognising the value of solar power, and the current lack of reliability from existing electricity services, the units have been used almost
		continuously since installation, serving <b>over 20,000 people</b> (total 20291)
1.2 Usable power generated annually from solar energy system	2 Megawatt hours (2MWh)	Thanks to our partnerships with the supplier and the funds provided by SG to provide solar power to three clinics, the output provided by solar units was more than 8 times the target for this year. Averaged between 15MW/h to 22MW/h this year. The

equivalent of the total household energy required run between 20 and 30 homes (World Bank 2014).
When compared to the equivalent power being provided by diesel generators, this saves 240 metric tonnes in CO2 emissions.

Please add additional Outcomes / indicators as required as required

### 2.6 Project Outputs

In the table below, please list each of your project Outputs, and provide further detail on your progress and results over this reporting period. Describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should be updated within the logframe

Output: Community accesses evidence-based first aid resources & training

Output Indicator	Milestone / Target	Progress
Number of people accessing the 'First Aid Africa' online learning hub from Zambia	Mobile app is launched in Zambia & updated by Mednav to include reporting tools  4500 people to access online training	The mobile app has been launched and used in over 200 emergencies before the official launch.  We have intentionally waited for the Bemba & Nyanja language versions to be fully piloted before they go live on app stores meaning less people than originally predicted will have used it this year, but a sharp increase can be reasonably expected in 2019-2020
Number of individuals accessing direct training from qualified first aid instructors at public courses	460	<b>512 people</b> have received direct training and we expect this to increase rapidly in the coming with the advent of a nationally standardised first aid course in the country.
Number of organisations (schools, NGOs, Community groups) accessing the 'First Aid Africa Zambia' teaching syllabus and assessment criteria.	7	18 groups now have full access to our training and assessment criteria, and again, this is likely to increase significantly in the coming year.

Output: Stakeholders (including government) can access mobile solar system in large scale emergencies

Output Indicator	Milestone / Target	Progress
Number of organisations/key stakeholders briefed on the Renovagen mobile solar energy system	10	76 stakeholders have now been briefed on the ground-breaking Renovagen solar system, including government departments, NGOs, local community leaders, and our partners.
Number of organisations participating in emergency simulation	3 Organisations	We were delighted to be able to run live casualty simulations in a number of communities this year, including with the Police service, and in Zambia's national

		parks. Five organisations have already participated and larger scenario training is planned to take place in 2019-2020
Number of government representatives attending meetings with partners on the project.	6	43 Government representatives, from Ministers to local government officials, our partners have done well in networking with the relevant departments to ensure there is strong government buy-in to the project.

Output: Health centre uses solar power, and reduces reliance on diesel to power generators

Output Indicator	Milestone / Target	Progress
Reported reduction in diesel used each year by health centre for back-up generator	10%	We have not been able to ascertain the total true reduction in diesel usage at partner clinics.
Renovagen system Increase in % of total output capacity each year	50%	As the Renovagen system was delivered late in the year, it has not yet been possible to ascertain the output, however installed-solar units at clinics are working well meaning full solar back-up is in place for these communities.

Output: Build the capacity of First Aid Africa Zambia and The Big First Aid Project Scotland to ensure sustainability of this and future projects

Output Indicator	Milestone /	Progress
	Target	
Increased income through social enterprise in Zambia (Selling of commercial equipment and first aid courses to commercial clients)	£4,800	£11,811 has been received in additional income through the social enterprise developed by First Aid Africa Zambia to serve the local community.
Increased organisational capacity	10	42 staff and volunteers have received CPD training as part of the project this year across Scotland and Zambia. The large increase compared to our expected output is largely due to support from Universities and experts, in some cases with course leaders volunteering their time or offering opportunities for our staff to shadow them.

2.7 If data is not available to update progress against planned milestones or targets for any Outcome or Output indicators, please provide an explanation below, including how you plan to overcome any gaps in monitoring data. (Max 250 words)

The primary challenge we have experienced this year is how to collect reliable data on the number of people attending hospital having had some kind of pre-hospital care. Breaking down this challenge, the barriers we've identified are;

1. How to collect this data without adding a burden to hardworking healthcare

professionals, who are already largely working at capacity.

- 2. If people receive high-quality first aid, it has been suggested that they may be less likely to attend hospital.
- 3. Hospitals and clinics receive vastly different patients within Urban, Peri-Urban and Rural communities.

We plan to utilise Zambian interns from a USAID funded project in 2019-2020 to collect data over a prescribed period for cross-sectional analysis. This will give us the best possible insight into how people access healthcare following an emergency.

2.8 Have any evaluations/ reviews been produced during the reporting period? Please give details of these below, including any key recommendations from these and how they will be addressed. Please attach any evaluations to the report. (Max 200 words)

N/A

#### 2.9 Changes to Logframe

Please outline any changes you have made (with permission from SG) or would like to propose, to your logical framework. Please include full justification for proposed changes below.

Indicator no	Proposed change	Reason for change	Date Change Approved and by Whom.
2.2 Usable power	Increase in target from 8MWh in Y3 to 15MWh	We expect output from our solar units at clinics and in the	
generated annually from	Increase in target from	field to be at least the same in years 3, 4 and 5 as they were	
solar energy system	10MWh in Y4 to 15MWh	in year 2.	
	Increase in total at end of project to 60MWh		
Have you inc	Yes		
which reflects			

#### 3. Partnerships and collaboration

This section allows you to discuss how partnership working is progressing on the project, as well as wider collaboration and sharing of learning.

Please give an update on how partnership working has progressed during this reporting period, letting us know about any highlights, challenges or changes to roles and responsibilities. (Max 350 words)

Partnership working has been one of the key success stories of this project, with 25 different organisations contributing to the project in various ways.

The private sector has been an important partner, recognising the

value of the training provided by our Zambian colleagues and

providing a much-needed additional revenue stream to support purchases outside of the SG grant conditions.

Additionally, Universities and researchers have provided guidance by suggesting ways in which the partnership can develop to evaluate our work.

First Aid Africa being the central point for this four-way relationship between; academia, NGOs, private, and public sectors, has been a unique experience and one we have been able to draw a lot of learning from. Without these partnerships, an organisation of our size would not be able to achieve the success we have had.

3.2

How are you monitoring and assessing your partners capacity to manage and deliver the project as it progresses? Please outline any plans for training, capacity building or shared learning between your organisation and your partner (s). (Max 300 words)

Training and monitoring has been provided by colleagues from Scotland, including continued-professional-development sessions led by representatives from Scotland's pre-hospital healthcare sector.

Key performance indicators have been developed for each member of staff involved in our Zambian work and these are tracked by the country director in Lusaka.

We were particularly grateful for a session on reporting and budgeting run by a representative of the Scottish Government in Zambia this year, which supported the framework for a new automated accounting system coming into place in 2019. This enables our partners in Zambia to provide us with live financial reporting against our budget lines using an online application.

Please give details below of all visits to country during this reporting

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5.5	l icase di	ive details below of all visits to country during this reporting		
	period, the purpose and outputs of each visit.			
Date of visit		Key achievements / outputs of visit	Follow up actions	
December	2018	[REDACTED], [REDACTED] – Met with key stakeholders and agreed framework for supporting the integration of ambulance services and elite-level first responders into the framework for emergency care in Zambia	Scottish Ambulance Service to create report for ScotGov showing how the service could collaborate with First Aid Africa and others on international development.	
February 2	2019	[REDACTED] – Meetings with Ministry of Health and Zambian partners. Led on training for anti-poaching units and other specialist groups in Zambia's national parks.	MoH, WHO, and African Federation for Emergency Medicine to collaborate on standardisation of community lay- responder first aid course.	

March 2019	[REDACTED], [REDACTED], [REDACTED] –	Collaboration with
	Comparing work from Safe Roads Africa in	Safe Roads Africa on
	Malawi.	future grant
		applications to share
		learning between
		Malawi and Zambia
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Add more rows if required

- Please tell us about any dissemination and learning throughout this reporting period. How have you promoted effective learning across the project? Please explain what processes you have used both internally and externally to share learning from the project so far, and how this learning is being used. (Max 300 words)
  - Multiple visits from or to Malawi by project leaders and instructors from each country have served to help share learning across the two SADC countries.
  - This reporting period we were joined by researchers and interns from Australia, Edinburgh and Zambia, who helped to review our work as part of their ongoing studies.
  - By meeting regularly with the Ministry of Health, as well as once with the relevant Minister (for International development) in Scotland, we have ensured that both governments are kept up to date with our progress.
- 3.5 With reference to Q39a & 39b in your original application form, please highlight how you are maintaining an awareness of others working in this region, giving details of collaboration, joint working or partnerships with others. (Max 300 words)

We are actively collaborating with members of the African Federation of Emergency medicine, the Zambian Ministry of Health, and others to help pilot courses which will form the basis of an internationally recognised qualification in First Aid for community first responders in low income countries.

Additionally, we have met with emergency response Zambia to discuss their programme training Zambian paramedics, and supported visits from St. Andrew's First Aid, and the Scottish Ambulance Service to see how this work can be integrated into the wider chain-of-survival across Zambia.

In Chitambo, where the small-grant project (funded by ScotGov) Friends of Chitambo is working, we provided essential medical and communications equipment and delivered this along with the installation of three solar units for the referral hospital and two satellite clinics.

## 4. Inclusion & accountability

With reference to question 38 in section E of your original application, please use this section to tell us how you are mainstreaming through your project, ensuring that you are aware of and actively working to reach vulnerable and marginalised groups.

4.1 Is the project still relevant for the beneficiaries you are working with? Please highlight how you ensure accountability on the project, ensuring beneficiaries have the opportunity to feedback on the project and influence its development? (max 250 words)

Communities in rural & low-income areas have directly benefited from training, with over 250 people trained.

Our Zambian colleagues invite participants to explain any additional barriers to participation. We take guidance from our various partners, including the Ministry of Health, to ensure our efforts fit in with national and regional priorities.

4.2 Do you have an awareness of particularly vulnerable or marginalised groups within the community in which your project is working? Please give details on how you are disaggregating data to recognise these groups across the project. (Max 250 words)

Vulnerable and marginalised groups have directly benefited from this project, and, where we are providing direct training, we record the location of these courses and the number of individuals attending from remote/rural or low-income communities.

4.3 How is your project working to actively meet the needs of these vulnerable and marginalised groups, ensuring they are benefiting from the project? Please outline any mechanisms you are using. (Max 250 words)

By providing first aid training within low income communities, and actively offering opportunities for progression to advanced or 'trainer' level, we've been able to empower a number of people who would otherwise not have had the opportunity to access this kind of work.

To date, we have trained over 250 people from rural communities and lowincome regions, and sought feedback on the barriers to participation which may exist for further scaling this aspect of our work.

4.4 Taking into consideration some of the challenges of mainstreaming, please describe any challenges you have faced in reaching vulnerable and marginalised groups, how you have overcome these or plans you have developed to support inclusion on the project. (Max 250 words)

Many organised groups are now experienced in receiving external support for the vulnerable people they represent, and the international community has created and expectation of "per-diems" as a financial incentive for attending training.

The original reasoning behind NGOs providing these per-diems was as a way of providing the economic means necessary for low-income communities to attend training. In recent years this has morphed into an expectation to be paid to attend training.

In line with the Scottish Government's position of standing against this abuse of the "per-diem" system, we have sought to meet people in the communities they live and work in, ensuring that those who attend are attending for good reason.

Much of this work, if not all, is done by our Zambian partners, who are able to ensure that those attending courses understand the value of the training being provided. This does mean that we don't always reach the poorest of the poor, but it *does* avoid a situation where people are attending courses for personal financial gain.

In trying to reach rural communities, we have had the need for a car, as motorbike travel has proven to be quite dangerous at times, especially within the rainy season. We generated revenue by providing commercial first aid courses to companies which could afford them, and used the revenue to cover the cost of purchasing a second-hand vehicle, which can be used offroad.

This model, represented in outcome 4 of our log-frame, is proof that this social enterprise model can work well.

### 5. Financial Reporting

This section will be reviewed alongside your budget report, which should be included alongside your narrative and logframe. Please ensure this spreadsheet is completed with both a detailed breakdown of expenditure for this financial year, along with your projected spend for the next financial year.

Please note carry over of funds to the next financial year should have been agreed with the Scottish Government by January 31<sup>st</sup> of the current financial year.

With reference to your budget spreadsheet, please give a detailed explanation of any variances between planned and actual expenditure, including reasons for the variances and whether these are as a result of timing issues, price achieved, quantity etc. If these are temporary variances, please outline plans for expenditure. (Max 350 words)

The primary area of variance between our original budget and total expenditure was recorded in December of 2018, when we predicted we would spend less on in-country staff costs due to the late recruitment of some staff roles. We agreed with SG that as our local partners were moving into larger premises, we would reprofile an equal amount to cover the upfront costs of the move, acknowledging that there would be no overall increase in project costs.

The largest delayed spend occurs in implementation under outputs 2 and 3,

due to delays in receiving a key piece of equipment (the Renovagen mobile solar unit), which is required for much of the proposed work under these outputs. In December 2018 laws around the transport of large lithium ion batteries were changed, meaning that instead of sending the unit by airfreight (6 days), we had to instead send the unit by sea-freight and overland (3 months) with the units only arriving at the end of the reporting period.

All other variances are noted within the updated budget framework attached with this narrative report.

5.2 Please give details of any capital expenditure in this reporting period.

This year represents our largest capital spend as our mobile solar unit was purchased and delivered to Zambia, alongside essential communication and medical equipment for Chitambo district.

5.3 Please explain how you are working to ensure cost effectiveness on the project, whilst maintaining the quality of delivery. (Max 250 words)

The finance policy of our Zambian partners ensure costs are kept to a minimum, we also benefit from revenue generated locally to pay for items which help to increase the effectiveness of our work.

This means that where it might be more efficient to visit project locations by vehicle (but where a vehicle would not be permitted as a purchase by existing grant conditions), the purchase can be made by colleagues in Zambia using the revenues generated under output 4 of our logframe (creating a viable social enterprise).

#### 6. Any other Information

Please use this section to tell us any other relevant information regarding your project. If the additional information included within this section is urgent please ensure it is highlighted. (Max 250 words)