

Endline Evaluation 'M'mera Mpoyamba / Planting the seed' - Investing in Early Childhood Development in Malawi



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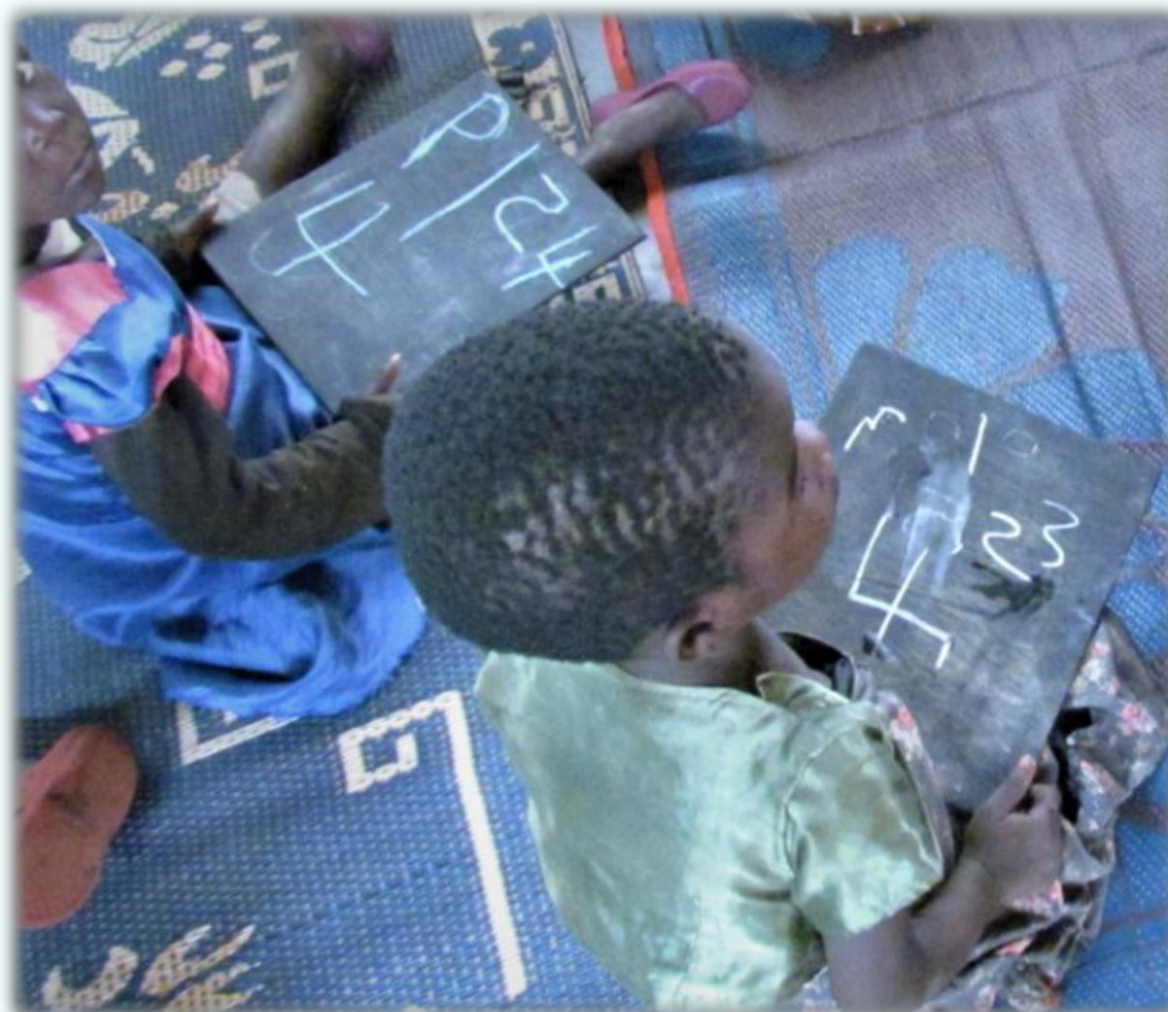


Figure 1 Children learning at the ECD Centres @Joshua

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Acronyms

ECD	Community Based Childcare Centre
CBO	Community Based Organisation
ECD	Early Childhood Development
FGD	Focus Group Discussion
GoM	Government of Malawi
GVH	Group Village Headman
IDELA	International Development and Early Learning Assessment
KII	Key Informant Interview
MAM	Moderate Acute Malnutrition
M&E	Monitoring and Evaluation
MTR	Mid Term Review
SAM	Severe Acute Malnutrition
TA	Traditional Authority
TALULAR	Teaching and Learning Using Locally Available Resources
VDC	Village Development Committee
VSLA	Village Savings and Loans Association

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Executive Summary

The End line Evaluation for the UKAid funded 'Planting the Seed' (*M'mera Mpoyamba*) was conducted between April and June 2021. 'Planting the Seed' is a three-year (2018-2021) project implemented by Joshua Orphan and Community Care in Blantyre District, Malawi. The purpose of the project was to both increase access to quality ECD services for children and contribute towards children's learning and development outcomes in the project sites. Results from the intervention were to inform design and programme implementation for possible replication in other districts, as well as programme design for children in such areas. The primary target groups were children 2–6 years old, their families, service providers (ECD caregivers, community health workers), government officials, representatives of civil society organisations and community representatives.

The project proposed a comprehensive package of supports encompassing the provision of education resources and caregiver training, adequate nutrition, water, sanitation and hygiene (WASH) supports, child and social protection interventions, as well as parenting capacity building.

The main objectives of this endline evaluation were to:

- Assess how the project's approach, activities and supports contributed to the project's desired outcomes/change.
- Document key finding and identify any challenges of the project that need to be addressed in future design and implementation of similar, future projects.
- Provide practical recommendations for overall programme strengthening and/or scale-up, to inform future similar projects and advocacy.

The endline evaluation conducted primary data collection through IDELA child assessment tool, field visits to the five ECD Centres where Focus Groups Discussions (FDGs) were held, and direct observations made. Primary data was also gathered through a series of Key Informant Interviews with Joshua project team members and wider stakeholders, such as Social Welfare Officers. Secondary data was provided by the project team, this was reviewed and validated as part of the process.

There is strong evidence that the project's ECD interventions yielded significant benefits in the short and longer terms by enhancing school readiness and related educational outcomes, improving physical and mental health and reducing reliance on the health care system. In particular, the data suggests improved educational attainment of children aged 2-6 through the provision of project activities that included increased education and learning services, parental education, good quality care-giver training as well as linking with other government services.

In summary, and despite experiencing a number of challenges (including Covid 19, difficulties in the integration of children with disabilities and problems ensuring the sustainability of kitchen gardens) the programme implemented multiple positive interventions and achieved significant milestones, e.g. 1,600 beneficiaries, of which approximately 557 were orphans or vulnerable children and 573 were 'extremely poor' adults.

1. Background and Objectives

According to the 2016 ECCD Lancet series, 43%, or 250 million, of children under five years of age in low- and middle-income countries are at risk of not meeting their developmental potential as a result of chronic neglect, inadequate cognitive stimulation, stunting as a result of malnutrition, poverty, and other forms of adversity. Stunting predicts poorer cognitive outcomes, harms the young brain and affects later learning, behaviour and health and chronic neglect can lead to cognitive delays and poor executive functioning.

In Malawi, stunting affects 37% percent of children under five, 20 % of the population lives in extreme poverty, less than 7 % of children aged 3-5 have three or more children's books, and only half were engaged by an adult household member in four or more stimulating activities in the last three days (Save the Children 2018, World Bank 2020). Malawian children who risk not reaching their full potential may face lifelong consequences and never reach their full potential for learning, health and economic success.

Over the past eight years, the Government of Malawi, with assistance of development partners such as Save the Children and UNICEF, has made highly successful and sustained efforts to promote and institute various kinds of early childhood development (ECD) interventions, including Centre- and school-based programmes and parenting education. This programme of works has been led by the Ministry of Gender, Children, and Social Welfare and consists of support to preschools (known as community-based childcare centres CBCCs¹) and parenting groups. ECD Centres are community-led centres that promote child development by providing safe and stimulating environments, access to health and nutrition services, and that provide training for parents and caregivers. There are an estimated 32,361 caregivers in Malawi, half of whom are trained and half of whom are untrained. ECD Centres service children aged 3–6 years and are open from 0800 to 1100, 5 days a week. When possible, a nutrient enriched porridge known as Likuni Phala, is provided midmorning, along with food contributions from the community.

In spite of the remarkable achievements of the Government programme and in such a short span of time, there is, however, still much to be done. The Malawian Government's Ministry of Education ECCD Centre programme only covers 27% of the country's children, failing to impact the harder-to-reach children and families that are most in need of such services, particularly those living in remote parts of the country.

The Joshua 'Planting the Seed' project was a three-year (2018-2021) UKAid Direct-funded project implemented by Joshua in an area controlled by Group Village Head (GVH) Malunga in Blantyre District. Planting the Seed's overall outcome was for children aged 2-6 living in five catchment areas of GVH Malunga developmentally on track and ready for transition to primary school with the aim of contributing to an overall, long-term impact that allows Malawian children to access comprehensive and effective community-based early childhood development supports that improves their nutrition, health and education.

The project focused on reaching all children in the community in an equitable and non-discriminatory way, inclusive of children with disabilities and was implemented particularly in the villages of Chilaweni, Daniel, Kaliati, Maso and Ching'ombe where Joshua was operational.

¹ Although the term Community Based Childhood Centre (CBCC) is used frequently in Malawi, the term used for this report is Early Childhood Development Centre (ECD Centre)

The focus of the project was to strengthen ECD service delivery at community level by building capacity and providing other forms of support to severely under-resourced Early Childhood Centres. Research has shown that effective ECD activities, including ensuring adequate nutrition, appropriate health care and play-based education utilising locally available resources, helps children to meet developmental milestones and enter into primary school at the appropriate age (UNICEF 2020).

The purpose of the project was to both increase access to quality ECD services for children and contribute towards children's learning and development outcomes in the project sites. Results from the intervention were to inform design and programme implementation for possible replication in other districts, as well as programme design for children in such areas. The primary target groups were children 2–6 years old, their families, service providers (ECD caregivers, community health workers), government officials, representatives of civil society organisations and community representatives. The project proposed a comprehensive package of supports encompassing the provision of education resources and caregiver training, adequate nutrition, water, sanitation and hygiene (WASH) supports, child and social protection interventions, as well as parenting capacity building.

The project had five outputs, as follows:

1. **Provision of Quality Early Years Education:** 600 children in GVH Malunga meeting development milestones leading to greater preparedness for formal schooling
2. **Direct Nutritional Support:** Reduction in Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) in children aged 2-5 in GVH Malunga
3. **Caregiver Training:** 60 caregivers with increased skills, self-esteem and earning potential
4. **Parental Involvement:** Enhanced ECD capacity and knowledge among parents and community members with strong home-school partnerships developed
5. **Kitchen Gardens:** Five CBCCs with increased food security and 600 children aged 2-5 with diversified diet

As a result of an observational visit by UK Aid Direct, the log frame was changed in the second year of the project based on a review of the initial output related activities and in terms of their relevance to beneficiaries and the likely success of the project.

The revised outcomes were:

1. **Provision of Quality Early Years Education:** Creation of safe, inclusive and sustainable learning environments at 5 ECD
2. **Direct Nutritional Support:** Improved health and nutrition monitoring, hygiene and sanitation at 5 ECD
3. **Caregiver Training:** Caregivers empowered with knowledge and skills on ECD and able to lead daily activities at ECD
4. **Parental Involvement:** Increased community engagement, involvement in and ownership of ECD activities at ECD
5. **Kitchen Gardens:** Increased food security and diversification of diet for children attending 5 ECD

Output 1 had initially focused on the percentage of children developmentally on track for transition to primary school. It was determined that it would be difficult for parents to objectively comment on cognitive change and thus appropriate to examine attendance and absenteeism as a measure of family commitment. As a result, Output 1 was removed and a new outcome formed that examined safety, inclusiveness and sustainability of the learning environments, not least as this related also to disability

inclusion, gender equality, safeguarding and TALULAR (Teaching and Learning using local resources); all important training activities.

Revised Output 2 maintained attention to ensuring regular nutrition assessment, but also focused on children and caregivers attention to basic hygiene routines.

Output 3 remained unchanged

For Output 4, there were changes to sub-output 4.1- examining the effect of parent training in ECDs on an individual child's attendance rates, rather than on the number of parents attending the training. Similarly, for sub-output 4.3, it was felt parental involvement would be more easily measured by a focus on Centre Management Committees, as these are made up of involved parents whose role is to liaise with the larger parent body.

Output 5 related to the distribution of food and the kitchen gardens. Sub-output 5.2 was removed and replaced with the sub-output from Output 2 that focused on the regular distribution of Likuni Phala. An indicator relating the number of crops grown in kitchen gardens was removed, as the aim of the gardens was to produce food directly or through cash sales to supplement what was already provided to children in the Centres; such evidence could be collected from the new indicator which assessed the number of times kitchen gardens produced food. The target number relating to training in irrigation and permaculture remained.



Figure 2 Inside Chilaweni ECD Centre @Joshua

2. Interventions

The programme was rolled out in phases, beginning with development of a conceptual framework, community mobilisation and construction of new ECD Centres at Maso and Ching'ombe and the renovation of the Centre at Kaliati. Communities committed to providing a space to construct the Centres and to creating a committee responsible for managing and supervising them. These committees mobilised parents and caregivers to enrol their children, ensured regular attendance by, as well as commitment from, parents and caregivers at meetings, and engaged them in maintenance activities. During this phase, Joshua commissioned a baseline evaluation, the results of which led to small modifications in the programme's Log frame. The baseline evaluation enhanced understanding of the health, nutrition and developmental status of young children at the target sites and highlighted key factors affecting children, their families and the community and showed that children were not benefiting from an improved education at the Centres. The study showed attendance rates below the desired IDELA scores of 75%². Based on results of the study, it was decided that interventions should focus on:

1. Improving play and learning resources in ECD Centres
2. Strengthening capacity of caregivers to support children's early development and learning
3. Teaching parents how to support children's development and learning activities in the home
4. Improving nutrition of children, through daily provision of Likuni Phala porridge, supplemented by produce from ECD Centres' kitchen gardens
5. Improving children's health, growth and overall development through the implementation and adoption of WASH activities.

2.1. Improving the play and learning resources in ECD Centres

In order to address the basic developmental and learning needs of children, each Centre in the study received a kit of play and learning materials, the contents of which were developed by Joshua and included items such as books, displays, balls, paint, chalk, blocks, puzzles, and kitchen utensils (all locally sourced and produced). These were supplemented throughout the project with the on-site production of TALULAR -Teaching and learning using locally sourced resources.

2.2. Strengthening capacity of caregivers to support children's early development and learning

The project sought to improve knowledge, skills, and practices of teachers in the five ECDs, by providing teacher-training packages, both internally from Joshua ECD teachers and externally from a local NGO (Beehive) specialising in caregiver training. Beehive was identified by Joshua staff, as offering the best and most relevant ECD training in the area. Training was provided once a week for 14 weeks and was conducted in Chichewa in order to make it more accessible to caregivers (whose

² Save the Children informally uses a score of 75 % on the overall assessment, and within individual domains, as an indication of mastery, and we also used the same cut off.

English was limited). Carers received a Beehive Certificate in ECD (currently in the process of being accredited by the Government of Malawi) at the end of their training.

2.3. Teaching parents how to support children's development and learning activities in the home

Joshua staff facilitated monthly parenting sessions throughout the three year programme. Parents participated in group sessions providing information on topics such as: child nutrition, stimulation, and the parental role in school readiness, and parents were given demonstrations of practical activities for them to replicate at home. All sessions were facilitated by Joshua project coordinators, social welfare representatives and guest speakers.

2.4. Improving the nutrition of children through daily provision of porridge supplemented by produce from ECD kitchen gardens.

All children were provided with a daily cup of fortified porridge designed to improve nutrition and to encourage attendance. Kitchen gardens were also established at the centres, these with the aim of supplementing nutrition and diets for the children. A kitchen garden committee was established at each Centre with training provided by Crown Ministries, an external NGO, on composting and basic cultivation of fruit and vegetables. Ongoing support was provided to committees by the Joshua Project Coordinator in order to build confidence and empower communities to maintain the facilities in the future.

2.5. Improving children's health, growth and overall development through WASH activities.

The project used a multi-layered approach to implementation of water, sanitation and hygiene activities at the ECD centres. These focussed on children and community members and engaged them in actions that reinforced improved behaviour and encouraged use of safe facilities and good hygiene practices. All centres were provided soap and given interactive training sessions to help children and caregivers understand the importance of improving their hygiene through adoption of new or changed behaviours. The WASH training was provided by an external NGO who also gave training that enabled communities to dig child friendly latrines with a design that also facilitated creation of manure for fertiliser.

In summary, and despite experiencing a number of challenges (including Covid 19, difficulties in the integration of children with disabilities and problems ensuring the sustainability of kitchen gardens) the programme implemented multiple positive interventions and achieved significant milestones, e.g. 1,600 beneficiaries, of which approximately 557 were orphans or vulnerable children and 573 were 'extremely poor' adults.

In order to monitor impacts of the interventions, Joshua collected data, using a range of instruments, on children and families participating in the programme. This report summarises and analyses that data, with the objective of understanding the impact of Joshua's 'Planting the seed' pilot project and the overall contribution it made in the long-term to allowing Malawian children, aged 2-6, to access comprehensive and effective community-based ECD that supported their nutrition, health and education.

3. Geographic Focus

Joshua works in Southern Malawi in Blantyre District in three Traditional Authorities (TA's) - Kuntaja, Machinjiri and Nsomba. The project intervention targets GVH Malunga (better known as Chilaweni) within TA Machinjiri. GVH Malunga is a cluster of 11 villages with five ECD Centre's; Chilaweni ECD Centre operates as a central hub with four connecting ECD Centre's (Daniel, Maso, Kaliati and Ching'ombe). The ECD Centres operate at village level but report through Community Based Organisations (Chilaweni) to Social Welfare. The maps below show the location of the five Centres relative to each other and to the urban Centre of Blantyre.

Figure 3 Geographic location of five ECDs



Figure 4 ECD Centre @Joshua

4. Methodology

The main objectives of this endline evaluation were to:

- Assess how the project's approach, activities and supports contributed to the project's desired outcomes/change.
- Document key finding and identify any challenges of the project that need to be addressed in future design and implementation of similar, future projects.
- Provide practical recommendations for overall programme strengthening and/or scale-up, to inform future similar projects and advocacy.

This section describes the general approach, description of instruments of data collection, study design and methods, population of the study, and ethical considerations for undertaking this research study.

The study was underpinned by a 'mixed method approach' including, classic qualitative (focus group discussions (FGDs) and key informant interviews (KIIs) and quantitative (child assessments) collection techniques. The endline data was collected from February to April 2021. The quantitative data collection included a standardised tool developed by Save the Children for the assessment of children and was administered to all children in the five ECD Centres. The qualitative data collection included KIIs at Local and District level and FGDs with caregivers and parents. This allowed for further insights to be gleaned to understand the reasons behind some issues as well as motivations that were not captured in the child assessments.

5.1. The IDELA Methodology

Endline data to assess children's progress toward achieving development milestones was generated using the IDELA methodology. The International Development and Early Learning Assessment (IDELA)³ is a global, skills-oriented assessment tool that measures children's early learning and development between the ages of 3 - 6. It has been pioneered in Malawi by Save the Children⁴ but the project team used their own resources to implement the tool. IDELA provides a holistic picture of children's development and learning covering four core developmental domains:

- motor development
- emergent language and literacy
- emergent numeracy/problem solving
- social-emotional skills

Understanding a child's ability to undertake these tasks throughout project implementation provided evidence as to the effectiveness of the activities they were participating in at the ECD Centre and thus the impact of the project objectives.

5.2. The IDELA assessment

For the IDELA test, all children in attendance on the day of the tests were selected from the five Centres. Joshua staff and ten external primary school teachers worked on the tools and data collection guidelines received from Save the Children to further shape and develop the assessment to meet the

³ <https://idela-network.org/about/>

⁴ Joshua Orphan and Community Care have signed an MoU with Save the Children for the use of their IDELA tool in Joshua ECD Centres

local Malawi context. The IDELA tool was translated into local language (Chichewa). An intensive three-day training was conducted each year for the enumerators (including 5 Joshua staff). The purpose of this activity was to ensure that the research team understood the basic principles of social science research and in particular the IDELA assessment tool. Such principles included interviewing skills, data quality management and standard operating procedures (SOP) during fieldwork. The pretesting activity carried out during the training period provided the assessors with a familiarity of the tools use and inputs for tools revisions. Before taking the test, caregivers and parents were informed and consulted about the test and its nature. After random sampling of children, the children were briefed on what the test was about. The researchers started the assessment by playing games with the children to make the children comfortable and unaware that the assessment was a test. Local enumerators/assessors hired for the data collection were regularly monitored and supervised by Joshua staff. Upon completion of the field activity data was entered, checked and cleaned.

5.3. Document review

Data collection included project-related data and information (including project proposals, baseline reports, quarterly progress reports), as well as broader literature in the area of early childhood education, including nutritional needs, kitchen gardens, caregiver training and parental knowledge and early childhood growth.

5.4. Interviews with key informants

In order to supplement the information gathered during the child assessments, reflective, semi-structured interviews were conducted with key individuals from the Joshua project. The interview guide was developed with the intention of collecting information related to changes at both individual and organisational level, to highlight enabling and hindering factors for this, and capture reflections on the Joshua holistic project approach. Key informant interviews were held with the implementing staff of the Joshua project (Country Manager, Programme Manager, Project Coordinator and ECD Centre trainer). Interviews were also held with the Chiefs from each of the ECD Centre villages as well other key stakeholders such as the Social Welfare Officer, Child Protection Officer and members of the VDC and CBO. These individuals were purposely selected as they were either directly involved with the project or work closely with the targeted ECD Centres and were therefore best positioned to supplement the child assessment findings and facilitate the interpretation of results.

5.5. Focus Group Discussions (FGDs)

In addition to the document review and KIIs, Focus Group Discussions (FGDs) were conducted. Kitzinger (2005) observes that ‘the idea behind focus group methodology is that group processes can help people to explore and clarify their views in ways that would be less easily accessible in a one-to-one interview’. When organising FGDs, and where applicable, a representative selection of gender, age, socio-economic status, people with disabilities and geographic distribution were invited to participate. The FGDs were held in Chichewa with one researcher conducting the interview and another note taking; so as to allow the discussion to flow more like a conversation and thus naturally facilitate the delivery of information. A consent form explaining the purpose of the FGD and giving approval to use data gathered was signed by all individuals participating. The commonplace best practice FGD techniques were implemented such as encouraging quieter members of the group to participate, recording when prompting had obtained an answer, and recording group consensus or individual opinion / circumstances etc.

At each of the five centres three FGDs were held;

1. Caregivers (mixed sex)
2. Parents of children attending the Centre with representation from the Centre Committee and the Parents Association (male)
3. Parents of children attending the Centre with representation from the Centre Committee and the Parents Association (female)

5.6. Triangulation and Validation

Effort was made throughout the endline to triangulate and validate data and information. For example, similar questions were posed to the project team, the key informants and the FGD participants in order to get a series of responses on the same topic in order to check for consistency and to track differences in opinion / knowledge. On salient issues a piece of information was sought from several angles, for example, caregivers and parents were asked 'What is the purpose of the ECD Centre', 'What are the benefits of your child attending the ECD Centre' and 'What do you expect your child to have learnt by the time they leave the ECD Centre', in order to understand the parent's grasp on the role of the ECD Centre in their child's development. Where pure data was given, the fieldwork team used the FGDs and direct observation to correlate the data. This was the case with the IDELA scores where caregivers were asked what educational activities they undertake with the children and why, researchers could then observe this in action at the ECD Centre.

5.7. Data Analysis and Report Generation

Information collected, including documentary evidence, child assessments, and interviews, was compiled, organised and collated according to the questions asked and by thematic analysis. The interventions implemented, and the implementation/organisational arrangements for these, were the main areas of interest and it was from these that key findings and challenges were extracted and explained.

5.8. Limitations

There are a number of limitations that have affected the measurement of results.

- The evaluation was severely limited due to funding and time constraints. All of the data was collected by the Joshua team with the write-up provided pro-bono by an external consultant within a very short time-frame. There is a possibility of a positive response bias. In other words, there may have been little incentive for the respondents to speak critically of a project from which they may have benefitted in some capacity, or from which they still hope to benefit in the future. That said, and although, data collection for the IDELA child assessments was managed by the Joshua team, data input, cleaning and analysis were carried out externally by Magga teachers and the external consultant, meaning that the results can be considered more objective.
- The data upon which the results provided here, stems from a longitudinal study that aimed to assess the same children between 2017 and 2021 in order to assess their progress across four core developmental domains: motor development, emergent language and literacy, emergent numeracy/problem solving and social-emotional skills. The validity of estimates in longitudinal datasets depends on how successfully a study maintains respondents within samples from one educational assessment to the next - this is needed to minimise any bias resulting from initial

respondents dropping out of a study sample. For the Joshua ECD Centres, it was very difficult to trace large numbers of children across all centres, which resulted in a significant number not being assessed at either the mid-or end-line stages. The analysis undertaken and the findings reported therefrom, are based on overall averages for each Centre and contain considerable bias and inaccuracy. Additionally, as the same test was delivered in each of the four years, there exists the possibility of 'repeated-testing bias' with learners increasingly likely to have remembered the questions asked previously and associated correct answers. It is, therefore, best to view the data purely as a snapshot of attainment across the four core development domains, rather than a rigorous assessment of the data for each.

- It is also difficult to attribute and measure changes resulting specifically from interventions provided by the project. Children involved in the study aged over the project timeframe and it was not possible to differentiate changes resulting from project activities from wider changes due to natural growth and development and/or other external factors.



Figure 5 Kitchen Gardens- @Joshua website

5. ECD Centre / Village Profiles

This section provides a profile of the five Early Childhood Development Centres and the Joshua interventions that have been provided to each Centre since the project inception.

ECD Centre	Enrolment			Management Committee Members			Caregivers		
	Total Enrolment	Boys	Girls	Female	Male	Total	Female	Male	Total
Chilaweni	154	67	87	9	1	10	5	1	6
Daniel	110	50	60	9	1	10	6	1	7
Maso	104	48	56	9	1	10	7	2	9
Kaliati	93	45	48	9	0	9	4	2	6
Chingombe	226	124	102	8	2	10	6	1	7
Total	687	334	353	44	5	49	28	7	35

Figure 6 Profile of ECD Centres by enrolment, number of Centre Management Committee members and caregivers-2021

5.1. Chilaweni Centre

Sixty-seven girls and 87 boys were enrolled and an average of approximately 85 children attended the Centre on a daily basis. Six volunteer caregivers were supported using the knowledge and skills provided by training from Joshua to enhance quality teaching and care. Chilaweni's Centre management committee comprised of ten members and there was a parent's association and a garden committee that provided support towards children at the Centre.

The Centre depends on water pumped from nearest health centre (AMECA), as well as from the primary school about 200m away. There are also other organisations, from a range of sectors, working in this area, including the AMECA health clinic, that provides basic health care and medication, weighs children and makes referrals and FORUM, a special needs school that provides education and physiotherapy to their students. The government also supports Chilaweni and the community through social cash transfers, and a child protection committee promoting children's rights. Agricultural extensional worker also play a supporting role to farmers, providing training and agricultural inputs, such as fertiliser, seed and pesticide.

5.2. Daniel Centre

Daniel had 110 enrolled children, 50 boys and 60 girls. On average, 65 children and six caregivers attended the Centre and there was also an active management committee comprising of ten members, eight women and two men. In terms of project support, Joshua provided Likuni Phala flour on a monthly basis, with the quantity depending on average attendance rates, and also provided utensils and other infrastructure, such as toilets, classrooms and a kitchen. A range of training was also provided to the management committee, as well as to caregivers and parents/community members as part of a sensitisation strategy to increase parent awareness of early childhood development. Daniel has a kitchen garden that produced and provided fruit to children and has

community land that produces crops like maize, groundnuts and soya as ingredients for Likuni flour. Daniel is equipped with a functioning borehole that provides clean water for drinking, cooking etc.

5.3. Maso Centre

MASO is an abbreviation derived from the names of the two surrounding villages, Makwelani and Solobala, whose residents send their children to this Centre. One hundred and four children, 48 boys and 56 girls were enrolled and the Centre has eight volunteer caregivers, ten committee members and ten garden committee members who contributed to running of the Centre. A borehole, located about 150m from the Centre, provides safe water for drinking and cleaning. Joshua has provided development training to all caregivers and to the three committees and supplies the Centre with Likuni Phala. Other activities are also provided by a range of actors such as, government social cash transfers to needy families and individuals, and fish farming and agricultural crop production schemes.

5.4. Ching'ombe Centre

Ching'ombe Centre was supported by ten committee members, 20 PTA members and has seven active caregivers, of which four have been ECD trained. Two hundred and twenty six children (124 boys and 102 girls) were enrolled and on average 94 regularly attended.

As with the other CBCCs, Joshua provided the Centre with Likuni Phala quarterly throughout the project, and the Centre holds its own utensils etc. Joshua also provided teaching resources to the caregivers in order to facilitate them in their work and the caregivers also make some of their own resources using local available materials. Joshua has provided regular refresher training to caregivers.

Ching'ombe CBCC has a kitchen garden that provides supplementary food to the children. External support is provided from an organisation called SOS that support the elderly and needy by building houses and meeting some basic needs, working in conjunction with certain community members.

The government also supports the area by way of a community dispensary hospital that provides different treatments and services, such as the weighing of children, as well as through social cash transfer and provision of certain items like teaching materials as well as advice to Centre members on how to operate their Centre.

5.5. Kaliati Centre

There were ten committee members, 20 PTA members and six active caregivers, three of whom were ECD trained. The Centre has 93 children (45 boys and 48 girls) enrolled, of which 65 on average regularly attended.

As with the other centres, Joshua provided the Centre with Likuni Phala quarterly throughout the project, and the Centre holds its own utensils etc. Joshua provided teaching resources to the caregivers in order to facilitate them in their work and the caregivers also make some of their own resources using local available materials. Joshua has also provided regular refresher training to caregivers.

The Centre has a kitchen garden that provides supplementary food to the children. As with the Chingombe Centre, external support is also provided here from an organisation called SOS that support the elderly and needy by building houses and meeting some basic needs, working in conjunction with certain community members.

The government also supports the area by way of a community dispensary hospital that provides different treatments and services, such as the weighing of children, as well as through social cash transfer and provision of certain items like teaching materials as well as advice to Centre members on how to operate their Centre.



Figure 7 Caregiver Training @Joshua

6. Key Findings

We found lasting, positive impacts on children's' development in early literacy, numeracy, social and emotional learning, as well as overall school readiness, as a result of implementation of the programme.

6.1. The provision of quality caregiver training, increased resources, and good attendance improved educational attainment for children across all five ECDs.

There is strong evidence that the project's ECD interventions yielded significant benefits in the short and longer terms by enhancing school readiness and related educational outcomes, improving physical and mental health and reducing reliance on the health care system. In particular, the data suggests improved educational attainment of children aged 2-6 through the provision of project activities that included increased education and learning services, parental education, good quality care-giver training as well as linking with other government services. The project was able to deliver the full programme of activities up to March 2020 when the Covid-19 pandemic forced the closure of all schools in Malawi. Children aged 5-6 years who were preparing to enter primary school resumed a reduced level of education from May onwards. When schools were again closed in July 2020, caregivers delivered home schooling materials and outside instruction to children where possible. Although schools initially opened in January, due to teacher strikes and vaccinations fears they were closed until mid-March 2021. It is therefore important that findings and results are considered within this context.

The evaluation made use of the IDELA as a tool to measure children's learning and development (discussed in detail in the Methodology section). The 22 core subtasks of IDELA fall into the four core domains, namely motor development, emergent numeracy, emergent literacy, and social-emotional development. Domain scores were calculated as an average of subtask performance (the percentage of correct responses for each subtask). An unweighted average of domains is calculated to create a total IDELA score to report overall early learning and development. Although no official benchmarks exist for what constitutes proficiency on a given IDELA item, Save the Children informally uses a score of 75 % on the overall assessment, and within individual domains, as an indication of mastery, and we also used the same cut off.

a) Children's average motor skills development gains between 2017 and 2021 by ECD Centre

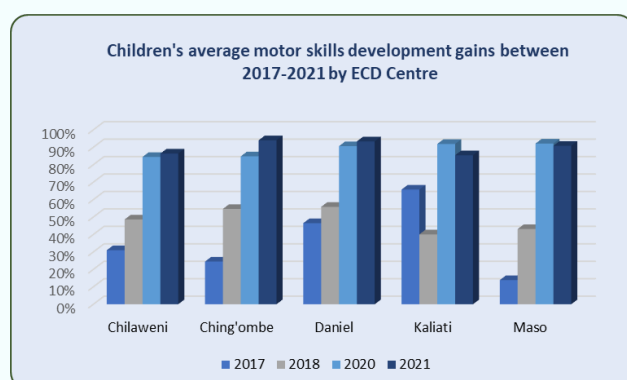


Figure 8 Children's motor skills development gains

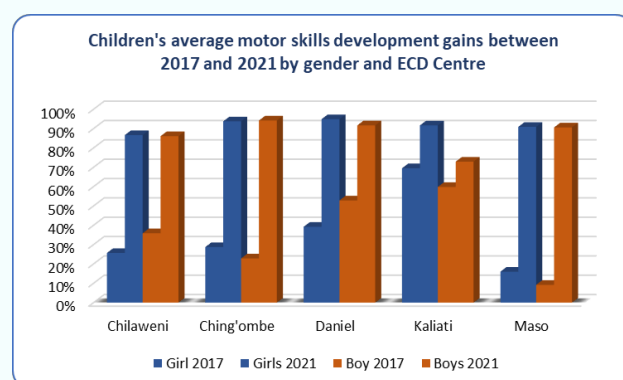


Figure 9 Motor skills development by gender

Children's healthy motor development and functioning skills (assessed through requiring children to hop, copy a shape, draw a person, and fold a piece of paper) greatly improved between base and end line evaluations. Observed increases are across all five centres, with Maso reporting the largest, moving from 14% to 91%. This may be because Maso was a new Centre in 2017 and had children generally younger than the other centres. All centres also reported an increase in 2021, despite impacts of Covid-19, possibly as a result of increased outdoor activity as children were not attending school. There is little significant difference between boys and girls, with the exception of Maso where the motor skills of boys were already well developed in 2017. Figures for Kaliati 2017, are skewed as children of school going age that should have been attending the local primary school were often in attendance especially during rainy season, as the distance to the primary school was over 2km.

FGDs revealed that caregivers had also noted perceived improvements to children's motor skills. Caregivers cited improvements in students' drawing skills, including increased understanding of a drawing task, ability to complete drawing tasks more quickly, and more independence completing drawing tasks as well as improved pencil holding.

b) Children's average socio-emotional development gains between 2017 and 2021 by ECD Centre

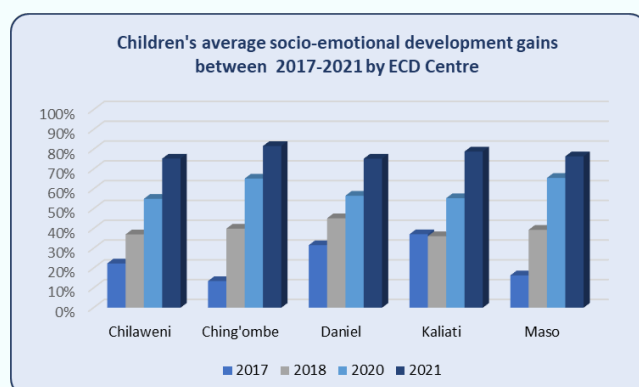


Figure 10 Children's socio-emotional gains

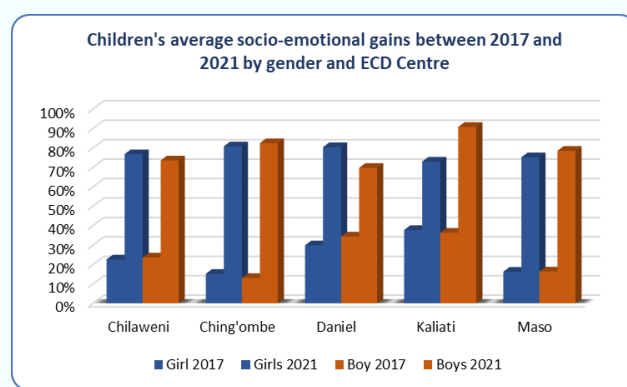


Figure 11 Socio-emotional gains by gender

To measure social-emotional development, IDELA assessed skills that facilitated children's ability to appropriately interact and build relationships with peers, authorities and family. This module specifically looked at children's self-awareness, emotional awareness, and empathy and their ability to resolve conflicts, with scores based on a total of 25 points. As with all other modules, scores increased for all centres across the project timeframe. Significant effects were found from project activities on children's social-emotional development, with significant changes from baseline score of 13% to 82% in Chingombe and from 16% to 76% in Maso. Increases in Chilaweni and Daniel were not as high, possibly as they are less rural than Maso and Chingombe and may contain children already more used to social activities. Although, the overall positive impact on children's social-emotional development, we did not find evidence of differential impacts between boys and girls.

FGDs with caregivers also noted improvement in socio-emotional skills over the project period-improved competencies included increased understanding of how to play with others, knowing how

to participate in classroom activities, being brave enough to ask questions, as well as knowing how to apologise when someone gets hurt. In terms of socialising with others, a teacher commented at endline they were ‘*not so shy now* and ‘*less afraid*’ than when they first arrived at the Centre.

c) Children’s average numeracy gains between 2017 and 2021 by ECD Centre

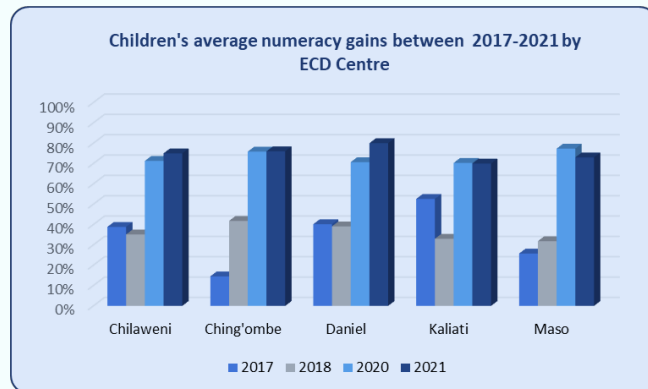


Figure 12 Children's numeracy gains

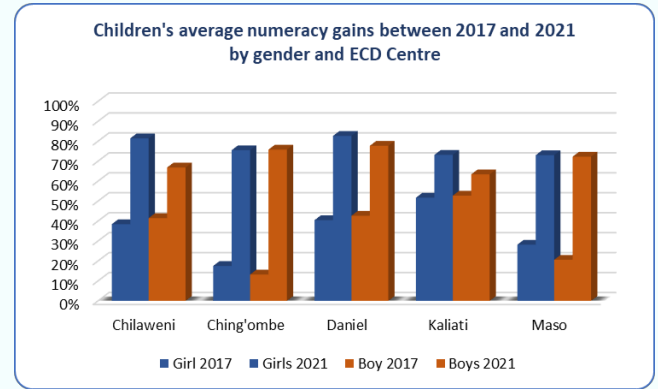


Figure 13 Numeracy gains by gender

Results indicate a significant increase in the performance of early Maths and numeracy skills of children at the end of the project phase. The numeracy module of IDELA captures children’s emergent numeracy by testing a progression of skills contributing to proficiency in Mathematics. Specifically, the module assesses children’s knowledge of and ability to recognise numbers and patterns, compare quantities, and manipulate numbers through addition and subtraction. Within the numeracy domain, and across all sub-tasks, children can score a maximum of 43 points and children at all ECDs made significant gains over the life of the project and, again, particularly in the more rural of the five centres, i.e., Maso and Chingome with percentage increasing from 26% to 73% and 15% to 76% respectively. There was little significant difference between boys and girls across centres, although percentage increase for girls in Chilaweni is notable.

FGDs with care givers also noted increased numeracy skills especially familiarity of shapes and comparing sizes, which are part of the IDELA numeracy skills construct. For example, one teacher stated, ‘*Yes, when I hold up a shape for the children, they could tell what they are*’.

Another example taken from a Joshua case study report illustrates children’s development in numeracy, highlighting the value of the TALULAR approach-

Number cards up to 30 were placed in a container. Individual children were asked to select a card, identify it and count out the appropriate number of bottle tops. This was followed by a ‘mangoes in a tree’ activity where a caregiver placed a number of mangoes (drawings) on to two cut out tree pictures. This was an addition activity. I then modelled a variation on this activity by using only 10 mangoes and placing only some of them on one tree and asking the children if they knew how many were left in my hand for the other tree. Several children began to call out the correct answer suggesting that they are gaining number facts to 10.

d) Children's average literacy gains between 2017 and 2021 by ECD Centre

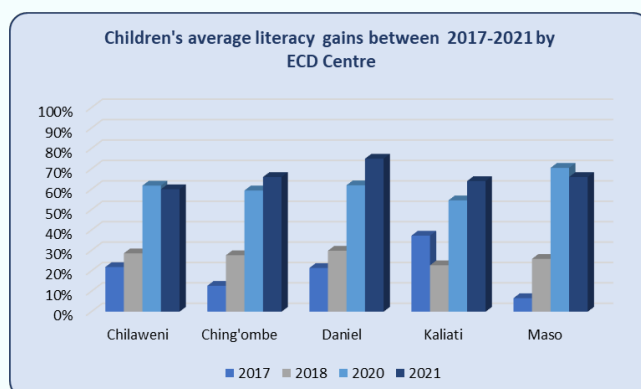


Figure 14 Children's literacy gains

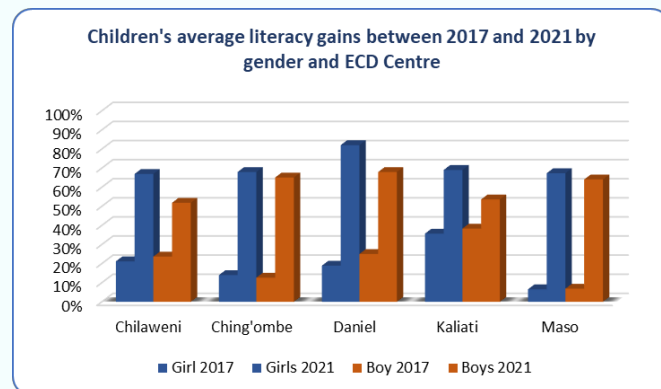


Figure 15 Literacy gains by gender

The performance of children in terms of literacy also increased compared to the baseline but was the area most affected by school closures due to Covid 19. The emergent literacy module assesses children's oral language knowledge, decoding skills, writing skills, and oral comprehension. For the emergent literacy domain, children's scores are based on a maximum total of 55 points. The analysis showed an increase between base- and end-line scores across all centres, although the only Centre to reach the target of 75% for mastery was Daniel. KIIs with Joshua's Country Manager shed light on this, i.e., that caregivers find the teaching of numeracy skills far easier as they don't require the same level of pre-existing knowledge as they do for literacy skills, such as reading, comprehension, interpreting etc. Scores also highlighted that girls outperform boys and make better progress in this area. The results also align with other IDELA studies, showing that boys generally excel in motor skills, but less so in literacy development (Save the Children 2018, 2019).

The quantitative findings concur with project documentation that illustrates literacy skills are for the most part improving but still developing:

The eldest children were working with two caregivers. The group looked animated and were well focused in a small circle. Initially children were working on name recognition. The children have name cards made by the caregivers. Name cards were held up and individual children were asked to claim them. Most of the children could name them but some still struggled.

- e) Children's average motor skills, literacy, numeracy and socio-emotional development gains between 2017 and 2021 by ECD Centre.

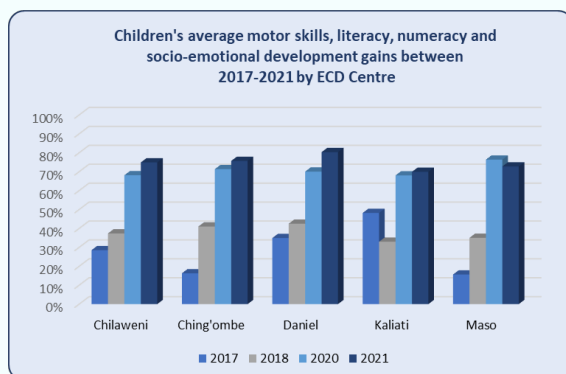


Figure 16 Children's average gains by ECD Centre

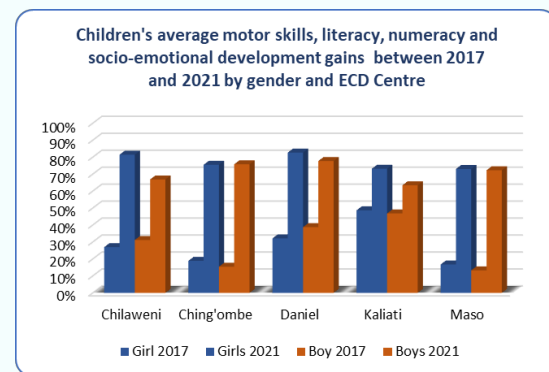


Figure 17 Average gains by gender and ECD Centre

Overall, successful implementation of the ECD programme has significantly helped development of children in all aspects (socio-emotional, executive function, math literacy and motor skills). Children's school readiness scores increased significantly between the base- (2017) and end-line (2021) evaluations at all five centres. For example, overall school readiness increased from 20% to 75% in Chilaweni and from 16% to 73% in Maso. The 2017 data for Kaliati is slightly misleading as at the time of data collection, a number of primary school-going children were attending the Centre as they were reluctant to walk to their actual primary school located quite a distance from their homes. Children's overall school readiness differed slightly for girls and boys, with girls making more progress than boys in most centres, except for Chingombe and Maso where scores were more equal.

The positive findings can be attributed to the comprehensive programme of activities that were delivered at the five centres. All children received 7.5 hours per week (30 hours per month) of age-appropriate teaching in age-related groups with a home-school programme implemented during Covid-19. To ensure that ECD centres were able to provide quality early learning and care for children, the project's main focus was on capacity building for caregivers through training, mentorship, exchange visits and supervision, equipping them to handle young children, promote good health and nutrition, make toys for early-age stimulation and learning, as well as at least to some extent, also being inclusive of children with disabilities. KIIs with caregivers revealed improved confidence, with one stating 'Yes, mainly when I see a lot of children coming, I get encouraged to do a great job (Maso Caregiver).

KIIs with the Joshua Country Manager revealed it was initially decided to focus on internal ECD training whereas caregivers had previously completed external Government run training programmes. Recipients of such external training tended not to transfer these skills back to the ECD Centres, possibly due to a lack of similar resources at Centres compared to that provided during training, a lack of follow-up observations, or that caregivers didn't feel confident enough to put themselves forward as experts to others. For the Joshua project, training was therefore provided to all caregivers at their own Centres by making use of resources already available, as well as taking opportunities to experience ready-made alternatives and by making others. Training was practically based, with

supporting theory. KIs with project staff revealed that it was observed initially *that caregivers frequently reverted back to rote learning techniques but with regular intervention and time to practice and observe the improved learning outcomes of the children, caregivers began to initiate their own ideas and to feel successful as teachers.* Over 80% of caregivers interviewed across the five Centres reported receiving training in water, sanitation and hygiene, nutrition, childcare, physical education, and special needs education; with one reporting *'I enjoyed the training on special needs education the most as it helps me understand some of the children and their needs'*- Maso caregiver.

After success of initial training and with increased confidence of caregivers, more advanced, external support was sourced from Beehive, a local NGO that specialises in training. From observation and experience, Joshua staff identified Beehive as offering the best and most relevant ECD training in the area. The program covered child development; play and early learning materials and equipment; learning through play; planning and organising the learning environment; child health and care; child hygiene and environmental care; child nutrition and care; child rights and their welfare; care and development of children with special needs; early childhood care, management, and partnership. The trainer devoted time to observe the trainees two or three times in their workplace during the training, this encouraged caregivers to transfer new skills into their daily practice.

Quarterly reports from the project to UK Aid Direct noted that the Beehive trainer, who visited the caregivers in their workplace, observed *that caregivers from the Centres generally displayed more confidence and greater initiative when teaching the children than caregivers from other centres who also received the same training.* The Country Manager believed that the preparatory training caregivers received during the first year of the project, such as for example in-house training from ECD teachers and other trainers, enabled caregivers to benefit more from the external course.

FGDs with caregivers revealed that following the training, they were very comfortable managing activities relating to dancing and movement, singing, music and play. They were less comfortable with subjects such as science, maths, language and literacy and felt they needed more advice and help in these areas. Caregivers were also trained in overall mechanism to deliver the approach including for example -how to construct a timetable and each Centre followed timetables with times for specific activities outlined. Caregiver FGDs stressed the benefits of introducing timetables, that provided structure and focus for the school day.

FGD with caregivers for the endline evaluation also emphasised the sustainability of the training as many caregivers stated their intention to pursue their teaching roles post project.

6.2. Parent-to-Parent sessions increased support for children's education

Parents are the primary caregivers and therefore very important for children's optimal development. The Joshua project implemented a parenting program with the aim of ensuring that children received optimal nurturing care for the first years of their lives and beyond. This was implemented through monthly parenting sessions, supplemented with parenting education workshops at the ECD Centres.

No	Month	Maso	Kaliati	Chilaweni	Ching'ombe	Daniel	Totals
1	May	84	67	91	98	37	377
2	June	109	95	112	126	66	508
3	July	136	106	148	142	74	606
4	August	145	122	156	169	84	676
5	September	156	120	162	186	106	730
6	October	161	133	183	182	111	770
7	November	167	151	177	199	98	792
8	December	154	147	125	219	104	749
9	January	135	136	123	244	109	747
10	February	148	150	223	263	119	903
11	March	156	146	198	204	122	826
TOTAL							7684

Figure 18 Number of attendances for Parent Sessions by ECD Communities 2018-2019

As noted in Figure 18, attendance was high with the sessions facilitated in a way that ensured interactive discussions and role-plays to teach parents on topics such as child health, nutrition, education, importance of play, child safety and security and positive disciplining. Parents were also encouraged to be involved in their children's educational experience and received updates on the children's education from caregivers once a term. Qualitative results affirm the positive role of the parenting sessions including increased awareness and support for children's eating, hygiene, dress, and on-time arrival at school each morning –with one parent stating *'CBCCs (ECDs) benefit their education not only through academic learning, but through spiritual growth, play, and good nutrition'* and a parent from Chingombe stating- *I make sure each and every day when coming back from school I ask my child to read alphabetical orders and instruct where fails'*. The Village Chief of Maso commented that he noticed that parents were taught about the importance of dietary diversity and hygiene through the parenting sessions which he perceived as positive.

FGDs with parents revealed that over time, their interest in the children's learning increased and through encouragement, they joined in with school activities so that could support their children at home. Notes taken at observation sessions highlighted the positive learning with an instance where children were given different fruits to try during a parent/child session. A facilitator was invited to talk to the children about the fruit and explain the value of fruit in their diet. As parents were in attendance, they also learned the importance of fruit as a nutritional supplement and shared learning was experienced.

A parent commented *'I feel proud to help my ECD because my child is also there hence the benefits are all for us'*- (Daniel Parent) with another stating-*My child tells me interesting things they did at the ECD e.g. playing with clay so I find him clay to show me what he did while at the ECD* (Chilaweni parent).

6.3. Provision of daily nutritious supplement and building relationships with local schools allowed for increased attendance at ECD and primary schools.

There was an overall rise in average attendance at ECD Centres from 308 at the start of the project (2018) to 434 at the end (2021).

Centre	2018 baseline			2020 midline			2021 endline		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Chilaweni	37	31	68	34	47	81	37	41	78
Maso	27	28	55	22	41	63	46	59	105
Daniel	20	20	40	32	25	57	29	48	77
Kaliati	19	22	41	21	37	58	26	35	61
Ching'ombe	34	70	104	43	74	117	37	76	113
Total	137	171	308	152	224	376	175	259	434

Figure 89 The average attendance of children by gender and ECD Centre

The project learned that the provision of a daily nutritional meal, in the form of fortified porridge was critical to keeping attendance levels high. They also learned that engagement of and buy-in from stakeholders, including parents/guardians, was critical to keep children in attendance during critical times especially during harvesting season or weather concerns. After experiencing low or uneven attendance for the first few months- lack of support to mobilise students, absence of participants' names from lists, and bad weather were all cited as contributing factors – parents were engaged for a refresher on the program, to hear any of their concerns, and to create a plan for future missed attendance. Student attendance increased after this meeting.

Joshua provided nutritional supplements at Chilaweni since the Centre opened in 2015 but only from 2017 for the other centres (9 months before the start of the project). Before receiving a daily cup of fortified porridge (locally named likuni phala), children and parent reported that hunger was an issue with children going without food for long periods. Not only was hunger a factor in preventing children from attending the Centres, but it was also a factor for children having difficulty in concentrating, paying attention and participating in class. The provision of likuni phala daily, allowed for increased attendance and learning at the centres.

Joshua also developed strong links with local primary schools to ensure the smooth transition for students from ECDs to school and also supported links between caregivers and primary teachers. This enabled teachers to gain an understanding of what was happening in the ECD Centres and what and how the younger children were learning. For example, project documentation highlights the positive learning from the facilitation of a shared workshop:

Some of the standard one girls demonstrated reading and writing skills, increased the awareness of ECD parents of what children can achieve when they continue with education. The link was important for transition and tracking purposes. Schools were willing to allow enumerators into school to conduct

IDELA assessments and to look for names for tracking purposes. We have now received the registration codes for children which will help with tracking later. (Many children register under different names at school which makes tracking difficult). The link is also useful for marketing and publicity. It has been difficult for us to liaise effectively with the District Education Department, and we hope teachers will promote the ECD learning to this department.

6.4. Project interventions led to improved WASH

Sustainable WASH services within communities, healthcare facilities and schools are fundamental basics underpinning almost every aspect of early childhood development. It was therefore considered essential by the Joshua project team that WASH services be considered a key component of the programme, although not planned from the outset. Poor WASH has been linked to stunting through inadequate nutrition absorption, which ultimately impacts children's cognitive development (UNICEF 2020). The project initiated the setting up of ECD Centre committees to supervise and implement the introduction of good hygiene practices. Training from an external NGO enabled communities to dig child friendly latrines behind the ECDs with the intention to design and build latrines that can provide manure for the compost. A bucket of clean water and soap are kept on a tree close by. Subsequently, Garden Committees, following training provided by the external NGO, were encouraged to start manufacturing compost near the kitchen gardens. A challenge to this has been the procurement of necessary manure.



Figure 209 Seedlings for the kitchen gardens

6.5. Project interventions led to improved child nutrition assisted with sustainable food production.

As stated earlier, Joshua provided a daily cup of fortified porridge as well as some supplementary vegetable from kitchen gardens. The programme stimulated linkages with the local health Centre

AMECA that provided monitoring on the children's growth in order to track children's health and nutrition.

CBCC	Number of Children Assessed	Number of MAM / SAM Cases	Number of Children Assessed	Number of MAM / SAM Cases
	2018	2018	2021	2021
Maso	61	1	75	0
Daniel	29	0	35	0
Chilaweni	44	0	56	0
Kaliati	48	1	78	1
Chingombe	70	3	88	1
Total	252	5	332	2

Figure 10 Number of stunting cases by ECD Centre

The children at the five centres all reported healthy with stunting at 0.6%. This is reflective of a history of providing daily likuni phala since before the project started. Mary's Meals has researched the benefits of a daily supplement since 2015 and they evidence positive links not only to attendance but children's education attainment and increased parental involvement (Mary's Meals 2017). FGDs with parents revealed that many families rely on the daily porridge to feed their children. The project also provided children with home portions during holiday time and during the closure of schools due to Covid 19.

Joshua also attempted to provide sustainable nutrition to the children in the form of kitchen gardens however this element of the project did not achieve its targets although crops were grown, eaten by the children at the centres and sold at the market. Training was further provided by Crown Ministries, but land, water and sustainability issues were recurring problems. FGDs with parents highlighted that they perceived the gardens positively with one person stating *'Yes at our ECD we grew carrots and children are fed that. Sometimes they also buy them Bananas'* (Daniel parent), *'They eat fruit from the garden'* (Chilaweni parent).

6.6. Working in partnership improves the possibility of achieving project outcomes.

Overall, the commitment and engagement of community stakeholders – ECD caregivers, ECD management committee members, parents, community members, and CBOs –towards supporting and strengthening ECD services in the five communities was a fundamental underlying strength. For example, the fact that ECD caregivers have thus far been willing to give so much of their time and energy working at the centres without any pay is a testament to their care for and commitment to their community's children. Similarly, ECD management committee members, parents, and community members have been actively engaged in identifying and addressing challenges at the Centres. However, these community stakeholders sometimes lacked the necessary skills and expertise to effectively address the issues.

Project documentation revealed that although committee members attended meetings regularly, it was observed that issues were not always followed up and there was perhaps an expectation that the follow up was the responsibility of Joshua. It was felt that the committees did not really understand their role. Through networking with Social Welfare, the project staff became aware that part of the role of Social Welfare was to provide training to Community Committees. As a result, training through Social Welfare was organised for CBOs, PTAs and CMCs over a period of time. It was observed that committees were more able to manage their roles effectively following this training. For example, following up absenteeism at the ECD Centres, mobilisation of communities to grow additional crops improved, the CBO was also reported as being instrumental in negotiating with Village Chiefs for additional land and Chilaweni parents provided maize from their own gardens as they did not grow crops following the training.

Utilising Social Welfare (SW) built sustainability into the project as they are responsible for the long-term development of these rural communities. There was a Social Welfare presence in the community prior to the start of the Joshua project, however there was little contact or collaboration between the community and SW. The role of Joshua has been to improve links and open up dialogue between the two groups, acting as an intermediary/catalyst for change. KIs with the Joshua Programme Manager and Social Welfare Officer revealed that as the project takes a back seat, the community and SW continue to meet and plan independently.

The project further improved sustainability by strengthening links with Agricultural Extension Workers Health Surveillance Team and other Government services to ensure support in these areas/initiatives is sustained into the future- for example, gardens are still being planted, children are still being weighed, safeguarding issues can still be directed to child protection.

It was also useful to bring in other trainers/facilitators to run training sessions/workshops and to invite Government representatives to attend. For example, the project received tree seedlings from two organizations during the project. These organizations led workshops on caring for trees. The Agricultural Extension Workers attended this training.



Figure 22 Parent meeting to discuss Covid-19 @Joshua

7. Challenges

7.1. Covid 19

All aspects of the project were adversely affected by the Covid-19 pandemic with ECD Centres closed for most of the last year. Although the IDELA results for the most part, stayed constant, the Country Manager believed that ECD closures had a detrimental effect on children's learning. It also resulted in a change in the educational year, which was moved from September to January to combat the disrupted learning. This caused further confusion around transition dates for children transferring into primary school as children who had turned six during that time were considered as school age.

KIIs with Joshua's staff disclosed that it had been hoped that the final year should focus on putting long term sustainability in place and improving weaker areas- for example certain aspect of literacy development. The project was able to continue with its training programme by reorganising training workshops into smaller groups and placing more responsibility on committees to cascade information to the community. However, even this was disrupted as training was diverted to Covid-19 awareness and precautions and the distribution of PPE. During Covid-19 waves, the project staff tried to avoid too much contact with the communities as rural areas did not experience high levels of Covid-19 whilst the staff team were all city based.

7.2. Kitchen gardens

KIIs with project staff as well as FGDs with Garden Committees revealed the kitchen garden initiative did not go as well as anticipated. It was difficult to acquire quality land for the gardens, as land with water access is in high demand. Most gardens were moved at least once, either because they were not available for a second year or because of lack of access to water. The size of garden and the amount of time offered by the garden committees did not allow the activity to meet its target. Joshua ended up having to pay for land to garden when it was growing season as there was a shortage of land since most of the free lands was being used by the owners to grow maize.

Extension worker from government through the Ministry of Agriculture had to facilitate a number of meeting and trainings with garden committees to encourage and motivate them for the work and it was just not possible to grow the required number of crops such as carrots that children could easily eat. Cash crops could only be sold cheaply within the community as more viable markets were too far away and profit would be consumed by transport costs. Garden committees found it difficult to tend the gardens during the maize growing season because of time spent in their own gardens. Although garden committees attended external training, they would have preferred to participate in training on site and formed better links with the Agricultural Extension Workers and Lead Farmers.

In summary, Joshua did not have enough experience in agriculture to effectively achieve the targets for this output. It is recommended that future project encourage Lead Farmers, trained by the Government, to take more responsibility for advising committees from project inception.

7.3. Children with Disabilities

The attendance and inclusion of children with disabilities into project activities was a challenge. Around the same time as the commencement of the project, a group named the Forum set up a centre for children with disabilities next door to the Joshua ECD Centre in Chilaweni. The Forum had an

attendance of more than 60 people aged from 3-22 years on a daily basis and although well intentioned, a number of the children that attended would have been more suitable at either the Joshua ECD Centre or the local primary school, albeit still needing some additional support. If this had happened, it would have allowed and enabled the Forum to concentrate on children and young adults with more severe disabilities. A number of external NGOs and well-wishers also exacerbated issues by providing different advice resulting in Forum staff becoming confused as to what advice they should take and from whom. After intensive work and capacity building of Forum teachers, as well as of the CBO that supports them, the Joshua team made some progress on moving children to more suitable education provision, inclusion some of the younger children to Joshua ECD Centres.

7.4. The use of Teaching and Learning using locally available resources (TALULAR) only.

The project initially proposed a comprehensive move to the development and use of TALULAR (locally made) resources at the ECD Centres, but over time, it became apparent that play-based learning would also need to be supplemented with 'introduced' resources. As an example, caregivers own experience of education was very 'chalk and talk' and thus their efforts to teach children frequently reverted to using individual blackboards or paper and pencils as well. It was thus unrealistic to expect the same caregivers to create appropriate play materials using locally resourced materials without any real understanding of the kind of resources really needed in the circumstances. Joshua reports provided examples of this, stating *If you have never played or even seen a doll's house or plastic animals or cars yourself, it is unrealistic to expect caregivers to create TALULAR alternatives or to understand that the toys that children make in the village such as as push a long recycled wire vehicles and abandoned metal hoops and tyres, are in fact learning tools.* It was, therefore, decided that although the project would, for the most part, continue to develop and use TALULAR resources, it would also use a small amount of resources from external sources to be used with the children for short periods; this in order that caregivers could understand their purpose, try to create alternatives and bring their own toys into the learning environment.

7.5. Training and Allowances

A frequent challenge in Malawi is the issue of training and allowances, with the majority of training workshops providing allowances to participants, ostensibly to cover cost of food, travel and accommodation but also as an incentive to attend. As a result, and despite that in many, if not most, circumstances, training programmes have food and accommodation built in, many people are reluctant to attend without an allowance also being offered. This attitude is understandable to some extent and can at least in part be attributed to poverty, where people would rather take the 'allowance' as well as receive food and accommodation, as the money can be used more flexibly. Feedback from the Gardening Committee three-day residential training was that, although they had found the workshop beneficial, they would rather that the training had taken place within their communities because they had to leave their families 'without anything' during their absence. In order to address this, Joshua could perhaps have offered a small allowance as well, this would again perpetuate the 'financial gain' view of the benefit of training as opposed to the 'desire for learning or skill development' view. This is a perpetual issue for all projects and programmes in Malawi and indeed NGOs and government almost or actually compete with one another to offer the greater financial incentive in order to secure more attendees. Joshua had to operate within this environment despite not wanting to contribute to perpetuation of the problem, and could, for example, consider provision of a small bag of maize to needy families during the hungry season.

7.6. Sustainable firewood

An ongoing challenge at all centres was the lack of sustainable firewood/briquettes needed for cooking of Likuni Phala. Many communities were unable to provide firewood as there was none available locally, and as the cutting of trees, even if/where they did exist was unsustainable in the long term. Production or sourcing of briquettes, often made from leftover organic matter, such as maize stalks etc. was also difficult or impossible as much of this material is returned to the ground, eaten by livestock or still burnt in the field, and as the majority of the manufacturers that do exist were small and unable to provide sufficient quantity for the five Centres. As a consequence of this, Joshua implemented an environment project that included tree planting near the Centres, but in the long term a more environmentally sustainable solution is needed, such as the use of gas stoves and/or development and use of biogas or solar cookstoves.

8. Conclusion and Recommendations

The project strove to improve children's development by adopting a holistic approach that inculcates interventions in numerous sectors including – education resource provision and caregiver training, parental education and training, child nutrition, improvement in nutrition, improvement in WASH and communication of key child-related messages to the wider community.

As noted above, for the most part, these interventions have had positive impacts on the lives of the children in the ECD Centres in the targeted villages. There is a need to further strengthen the investments in multiple areas crucial to promoting ECD. Considering the key findings outlined previously, a small number of recommendations are made as follows –

- Scale up the programme to other Joshua and ECD Centres in Malawi. The intervention showed lasting effects on overall school readiness, and children's development in the four key areas needed for primary education (literacy, mathematics, motor skills and social and emotional development).
- Keep the existing programme structure and curriculum but with modifications. The intervention typically makes use of existing ECD Centres and volunteer caregiver- there is a need to consider incentivising caregivers especially when they have received accredited training.
- Invest in ongoing and continuous capacity building of ECD caregivers to address the complexity and increasingly challenging nature of their role, especially in the light of COVID-19 situation. A training structure needs to be put in place that internalises and accounts for the issue of the recurring need to train staff and makes it easier to train new implementing groups. Caregivers commented on the difficulties they had with understanding literacy, some modifications are needed to improve this aspect to strengthen the curriculum in literacy.
- There is a need for the continuation of nutrition supplementation programme at the Centre level to maintain the very low stunting, wasting and underweight rates among children, given the food insecurity experienced by families is high.
- The agricultural component of the project took a lot of time to manage. It is recommended that future projects employ an additional field officer with agricultural experience as part of the project team. The Garden Committee role was a heavy responsibility and would have benefitted from having an incentive attached.
- There is a need for future projects to ensure young children with disabilities are included in ECD Centre activities and, significantly, have access to equal opportunities to learn, play and develop with their non-disabled peers.
- Future ECD projects need to source environmentally sustainable solution for the provision of nutritional porridge daily at the centres, such as the use of gas stoves and/or development and use of biogas or solar cookstoves.

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Appendix 1: Theory of Change

Planting the Seed' Theory of Change - Baseline



Appendix 2: List of Persons Interviewed

Maurice Topola - ECD Trainer

Steve Malasa – Field Officer

Joseph Chiundiza – Programme Manager

Edith Koloviko – Joshua Nurse

Jonathan Kaunjika - VDC member

Victoria Mwenye - Secretary of the VDC

Aubrey Chinyamba - Director of CBO

Austin Kalonga - Secretary of CBO

Hastings Zakeyu – Child Protection Worker, Social Welfare Office

Chikumbutso Salifu- Social welfare officer, Head Office

Chief Daniel

Chief Makwelani

Chief Ching'ombe

Chief Malunga