

**Exploring The Provision of Early Childhood Education (ECE)
In The Barotse Flood Plains, Mongu District,
Western Province, Zambia
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Abstract— *This study was set out to explore the provision of Early Childhood Education in the Barotse Flood Plains. The Objectives were to determine the circumstances in which ECE was provided and to identify the challenges faced in the provision of ECE in the Barotse Flood Plains. Exploratory design within a qualitative paradigm was used. The study was conducted in public primary schools of Mongu district that are in the Barotse Flood Plains. Four schools participated, from which 81 respondents were sampled purposively. 04 School administrators, 04 ECE teachers and the Teachers Resource Center Coordinator were sampled through stakeholder sampling as a type of purposive sampling. The 72 Community members were sampled through convenience sampling. Data was collected using interviews, review of school documents, Focus Group Discussions and observations. The data was analyzed using themes by coding and grouping similar ideas.*

The study revealed that Barotse Floods affect ECE for close to two terms of the year. The effects of the Barotse Floods on ECE are negative. The age and vulnerability of the ECE learners makes it difficult for them to wad in water for distances when the floods start. Due to absence of government paid sandaula, crossing canals, streams, rivers and oxbow lakes to and from school is difficult. When the plains are fully flooded, movement to and from school is very impaired because it requires a dugout canoe and not every parent has a dugout canoe. Schools become submerged making ECE teaching and learning difficult; compromised sanitation, the ground is wet, ECE equipment for class work and child play is destroyed or rendered unusable, ECE learning activities become difficult to perform and learner attendance if greatly reduced. The teachers too lose motivation to apply themselves to work fully especially that none of the sampled school had teachers qualifying for payment of Rural Hardship allowance. The right to education in terms of ECE consequently suffers and the dream for Education For All (EFA) is stifled.

The study recommends that school mounds be subjected to land reclamation to make them high and not easily submersible. Let ECE satellite centers be opened near communities that are distant from the main schools. Means should be found to have sandaulas at crossing points of streams, canals, rivers and oxbow lakes to facilitate the crossing of learners to increase attendance of learners during time when the plains are not fully flooded. The eligibility for Rural Hardship Allowance needs to be revisited so as to include teachers in the Barotse Flood Plains.

Keywords — *Early Childhood Education, Barotse Floods, Barotse Flood Plains, Human Right*

I. INTRODUCTION

Education is one of the rights that every human being is entitled to. It has been formally recognized as a human right since the adoption of the Universal Declaration of Human Rights in 1948.

Zambia is signatory to most of the protocols and conventions to do with the provision of free, compulsory primary education for children. Zambia participated in the World Conference on Education for All (EFA) held in Jomtien (Thailand) in 1990 as well as the World Education Forum – 2000 held in Dakar (Senegal) and reaffirmed the Universal Primary Education (UPE) dream by the year 2015. However, records indicate that across Zambia, resource poor children are far less likely to attend school than children from better-off families: 27% of primary-age children from the poorest quintile are not in school, compared with 4% of children from the richest quintile. Similarly, 23% of primary school-age children from rural areas are out of school, compared with 9% of urban children (UNICEF 2014). These records were before Early Childhood Education (ECE) was introduced in Zambia's public schools.

ECE is a type of school education offered to children that have not yet reached grade school age; between 3 – 6 years of age. In Zambia, up until 2013, ECE was not offered within the mainstream Ministry of General Education (MoGE) but by the Ministry of Local Government. The Zambia Education Curriculum Framework 2013 (CDC, 2013) provides for the provision of ECE within the mainstream Ministry of General Education for the first time in the history post-independence Zambia.

Apart from socioeconomic and political factors that can impact the provision of education, disasters are also known to have an impact on education

(Kousky, 2016). Floods are one of the oldest known disasters known to mankind (Ferreira 2011). Many features of people's life including health, economy and education are affected by floods, for better or for worse (Namafe, 2010; Baidu-Forson, 2014; Banda et al, 2015).

The Barotse Flood Plains in Zambia's Western Province are one of the biggest flood plains in Zambia (Baidu-Forson, 2014). The flood plains get flooded annually (Castine et al, 2013). In the Barotse Flood Plains, School Education is offered within such a flood environment.

In Zambia, ECE which was introduced into the mainstream Ministry of General Education in 2014, caters for the age range of 3 years to 6 years. This is the age that is prone to a lot of vulnerability and not old enough to withstand harsh conditions. Records indicate that in Western Province 36.2 percent of children under the age of five are stunted (CSO, Ministry of Health, ICF International, 2014). The same age group that is supposed to access ECE has its vulnerability amplified by the poverty levels in the Western Province rated to have the second highest poverty rate; at 80.4 percent, of the 10 provinces of Zambia (CSO, 2012). This is the age group that following the Zambia Education Curriculum Framework 2013 (CDC, 2013) was to be in school for ECE in all public schools including schools in the Barotse Flood Plains.

There was need to carry out a study to explore how ECE was offered to such a young age group in the Barotse Flood Plains. This is in line with the view that it is critical that the children's rights to life, survival and development – including, specifically, the right to health, nutrition, education, rest, leisure and engagement in play as enshrined in the United Nations Conventions of the Right of the Child, are

continuously protected, promoted and upheld (UNICEF –ECD, 2014).

II. STATEMENT OF THE PROBLEM

The Barotse Flood Plains are the largest plains in Western Province of Zambia; about 240 kilometers long; from Lukulu in the north to Nangweshi in the south, and about 40 kilometers at its width (IUCN, 2003). The Barotse Flood Plains get flooded every year (Baidu-Forson, 2014). Floods are one of the most expensive and deadliest natural disasters on the planet, affecting more people each year than any other disaster (Guiteras, Jina, Lopez, Mobarak, and Vargas, 2014). During the floods, the people in the Barotse Flood Plains are known to be involved in a seasonal migration activity called Kuomboka (Sikayomya, 2010). In this case, they migrate to the upper land when the floods reach the peak and return to the plains when the floods recede.

It is hereby construed that school education is, in the Barotse Flood Plains, offered within the flood circumstances up until the time of Kuomboka. School education has been offered in that flood circumstance since its introduction by the missionaries in the late 1800's. Since independence, ECE has not been compulsory and a prerequisite for entry into grade school (Grade 1) in Zambia. It was not offered through the Ministry of Education but through the Ministry of Local Government and other private agencies (MOE, 1977).

In 2013, Zambia sought to provide ECE through the Ministry of General Education for the first time since independence. The ECE introduced in the MoGE for the first time in 2013 is equally offered within the flood circumstance in the Barotse Flood Plains. The clientele for ECE are 3 years to 6 years of age (CDC, 2013). The ECE age group is the youngest in Zambia's education system and yet the

UNDP (2010) consider children to be fourteen times more vulnerable than adults during disasters. The World Education Forum's Dakar Framework for Action; Education For All (EFA) (UNESCO, 2000) acknowledged that natural hazards pose significant challenges to countries meeting the EFA goals.

The significance of ECE to individual educational attainment and the attainment of the EFA goals is well documented and asserted to as explained above. The occurrence of annual floods and flood associated hazards in the Barotse Flood Plains is a matter of fact. There was need to find out how the newly introduced ECE was being offered and to a vulnerable clientele; 3 to 6 years of age, within the Barotse Flood situation.

III. RESEARCH OBJECTIVES

The main objective of the study was to explore the provision of ECE in the flood situation of the Barotse Flood Plains in Mongu District, Western Zambia.

The specific objectives of the study were:

- To establish the circumstances in which ECE is provided in the flood situation of the Barotse Flood plains in Mongu District
- To identify the challenges faced in the provision of ECE in the flood situation of the Barotse Flood Plains in Mongu District

IV. SIGNIFICANCE OF THE STUDY

The study is of great significance for it has added to available academic information on the provision of education in flood disaster areas especially the Barotse Flood Plains as it relates to ECE.

The study has further provided information to stakeholders on the circumstances surrounding the

provision of Education in the Barotse Flood Plains in general and ECE in particular.

The fact that education has been provided in the Barotse Flood Plains since the 1800s created an implication that education provision and accessing at the newly introduced ECE in public schools may not be problematic owing to the established scholarly position of the Friend Metaphorical Vision (Namafe, 2006). The study has helped to interrogate the Friend Metaphorical Vision as regards the newly introduced ECE.

V. . CONCEPTUAL FRAMEWORK

The Ministry of General Education adopted the Outcomes-Based Education (OBE) Approach moving away from the Behavioral Approach (CDC 2013, p. 16). The object of the approach is to link education to real life experiences as it gives learners skills to access, criticize, analyze and practically apply knowledge.

There are three items on which the Outcome Based Education (OBE) Approach is judged from. These are the Inputs to the Education System, what happens within the Education system (Educational Process) and the outputs from the education system. Inputs to the Education System include learners, teachers, educational resources like books, facilities etc. The Inputs interact to give an output. In other words, the Inputs to the education system undergo an educational process to produce quality education. Thus, the education Output is a function of how the inputs interact (Kombo 2004). When there is an occurrence that negatively affects the Inputs or the Education process/ interaction, the output is negatively affected.

The people in any community evolve mechanism to cope with any occurrence that would counter the effect of the suspected occurrence. Similarly, the

indigenous people in the Barotse Flood Plains have evolved adaptation strategies on how to survive in the floods. It is from the adaptation strategies were the provision of education has benefitted such that education has been provided amidst the flood situation for a long time now; since the late 1800s when the first missionaries arrived. It is from the same adaptation strategies that the Friend Metaphorical Vision towards the Barotse Floods evolved (Namafe, 1992; 1996; 2004).

This conceptual Framework posits that the Barotse Floods have an effect on education inputs or on the education processes or on all of them to consequently compromise the quality of educational output. The implication of the fore stated is that the Barotse Floods creates difficult circumstances in which ECE is provided. The difficult circumstance through which ECE is provided would arise through the destruction of the educational inputs or when the educational inputs are rendered unusable due to the floods.

The difficult circumstance through which ECE is provided can also arise through the disturbance to the interaction of the educational inputs; education process. The conceptual framework also acknowledges that the inhabitants of the Barotse Flood Plains have evolved means of surviving within the floods; the adaptation strategies. The fact that the people have continued to live in the Barotse Flood Plains and that education has been provided within a flood circumstance since the late 1800's is an indication that people have a way of surviving within the flood situations which are hereby considered as adaptation strategies.

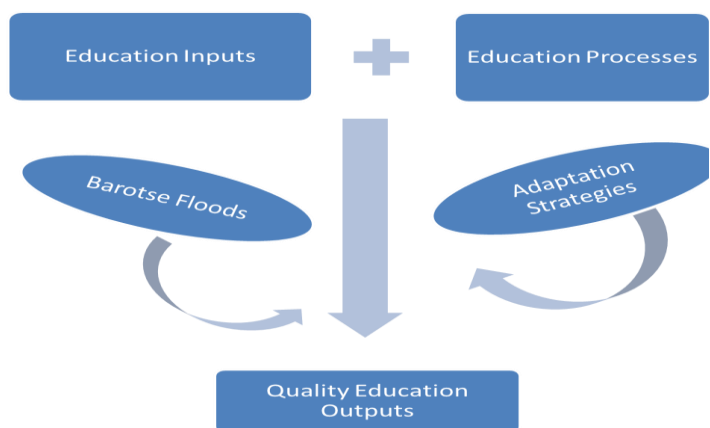
The adaptation mitigation strategies are the prime movers of the notion on the 'Friend' Metaphorical Vision. The metaphorical vision of the floods by the Barotse people looks at the floods as a friend. It

considers the Barotse flood water as a garment such that when the Barotse Flood Plains are not flooded with water, they are considered to be naked.

It is hereby noted that ECE was just introduced recently in the mainstream MoGE (CDC, 2013). The circumstances that prevailed prior to the introduction of ECE in public schools may affect ECE differently or may not. The applicability of the adaptation strategies to contain the Barotse Floods and consequently guarantee quality education outputs at ECE level needed to be subjected to scientific interrogation. This is especially that ECE is designed for children aged between 3 and 6 years, an age group prone to a lot of vulnerabilities

Below is a diagrammatic presentation of the conceptual framework.

Figure 1: Conceptual Framework



VI. RESEARCH METHODOLOGY

The Research design that was used was exploratory so as to adequately get the perceptions, practices

and experiences of the provision of ECE within the flood circumstance in the Barotse Flood Plains.

The target population for the study included Teachers Resource Center Coordinator in the District, school administrators of all the public primary schools in the Barotse Flood Plains in Mongu District. All the teachers handling ECE in public primary schools in the Barotse Flood Plains in Mongu District were part of the target population. All Community members around the schools in the Barotse Flood Plains in Mongu District were also part of the target population.

The sample size was 81. The distribution of the sample was 04 ECE School teachers, 72 community members 04 school administrators and 01 Teachers Resource Center Coordinator. The sample size was as indicated in Table 1.

TABLE I. RESPONDENTS ACCORDING TO CATEGORIES

Respondents	ECE Teachers	School Administrators	Teachers Resource Center Coordinator	Community Members	Total
Number of respondents	04	04	01	72	81

The schools in the Barotse Flood Plains of Mongu District were 11; 09 established schools and 02 community schools. Out of all the schools, 04 schools were sampled. The 04 school administrators were 01 from each sampled school. The ECE teachers were also 01 from each school. From the 72 community members that were part of

the target population, 18 were sampled from each of the 04 schools.

The schools, the school administrators and the teachers were sampled purposively. Purposive sampling was used because the targeted respondents were the only ones that could provide the required information. The type of purposive sampling that was used in this regard was stakeholder sampling. The head teachers and the class teachers for ECE were noted as stakeholders and had to participate in the study via purposive sampling. Similarly, the District Teachers Resource Center Coordinator was a critical stakeholder in the analysis of the issue under study.

The members of the community were sampled using convenience sampling. Convenience sampling is a type of Purposive sampling that selects participants based on their readily and easily availability for the study (Taherdoost, 2016, p. 22).

The instruments that were used to collect data were interviews, observations and document review. In depth interview schedules were used to collect data from Key Informants; the Teachers Resource Center Coordinators, school administrators and the ECE teachers.

Documents that were reviewed included class registers, assessment records, and minutes of meetings etc. Data was also collected through participant observations by conducting transect walks or movements around the area of the study. Observations were recorded on observation protocols. Focus Group Discussions were conducted.

VII. PRESENTATION AND DISCUSSION OF FINDINGS

A. Demographic Information

The number of public primary schools that participated in the study was 04. Of the 04 schools, 02 were running from ECE to Grade 9 while the other 02 schools were running from ECE to Grade 7. The total number of participants in the study was 81. The participants included 04 school administrators; 01 per school, and 04 ECE class teachers; 01 per school. From each school 18 community members were part of the study i.e. 72 community members.

The respondents according to categories are presented in the table below:

TABLE II. RESPONDENTS ACCORDING TO CATEGORIES

Site	Administrators	Class Teachers	Community members	Teachers Resource Center Coordinator	Total
1.	01	01	18	NA	20
2.	01	01	18	NA	20
3.	01	01	18	NA	20
4.	01	01	18	NA	20
5.	NA	NA	NA	01	01
Total	04	04	72	01	81

B. Circumstances in the Barotse Flood Plains

The period in which the floods occur in the Barotse Flood Plains and affect the way of life of the

people was explained to be in phases from the start to the end.

The terms Njimbela, Kulusa, Kubayula, Kutiba, Kuungumana, Muubuko/ Mwiiteko, Kuwa and Kuoma/Kukala as used by the respondents are indicative of the phases of the Barotse Floods from the start to the end when the Flood Plains are dry.

TABLE III. PHASES OF BAROTSE FLOODS ACCORDING TO MONTHS

Aug									
Jul.									
Jun.									
May.									
Apr.									
Mar.									
Feb.									
Jan									
Dec.									
Nov.									
	Njimbela	Kulusa	Kubayula	Kutiba	Kuungu	Muubuko o/	Kuwa	Kukala/ Kuoma	

PHASES OF THE BAROTSE FLOODS

During the January/ February period, the Barotse Flood Plains undergo a flood phase called **Kulusa**. Most of the parts of the rivers and streams that had dried such as the sand beaches that could have been exposed during the dry season become immersed in water. Water levels in the stream and rivers increase to almost reach the river banks. The children may be able to move and only seek help when they come to the crossing points of rivers/ streams etc.

Kubayula is when the river banks burst and the water spreads all over the Barotse Flood Plains. This time people have to wad in water along the paths to the crossing points of rivers and streams where they would cross using dugout canoe. The ECE children have to go to school in that arrangement of wadding in water along the path, cross the river/stream using a dugout canoe and continue wadding till they reach school. After school they return using the same mode.

Kutiba occurs when the whole flood plain is fully flooded. At that time, it is just not possible to wad. Moving from any location in the flood plains requires the use of a dugout canoe. The process of the increase of the water level does not occur suddenly. It is always a gradual occurrence until the time the water level reaches its climax for that particular year. At this point in time, only people who have dugout canoes can move from one point to another in the flood Plains. During the process of gradual but continuous increase in water level, the height of the water is far above the level of the grass and the plains look like a vast lake with a possibility of waves.

When the water level reaches its climax, it takes time to recede. The water level remains static which is called **Kuungumana**. During this time

the grass grows to overtake the level of the water. At that time, one cannot paddle by crisscrossing through the plains because the outgrown grass will not allow. Paddling will require moving the dugout canoe through specific paths and following the streams and rivers. The paddling is with difficulty and that not everyone has a dugout canoe means that movement is heavily impaired.

The next phase of the floods is called **Muubuko** or **Mwiiteko**. This is the period when there is a sudden increase in the water level. The water level increases within a week.

The water increases beyond the level of **kuungumana** stage. Within a week, it increases then after a week it begins to recede and it will recede continuously (FGD 7/School No. 4).

During this time the difficulties of movement are the same as during the **Kuungumana** phase of the floods. This happens around months of April and May. It is hereby observed that the whole of term one is difficult for the learners under Early Childhood Education in the Barotse Flood Plains.

The findings confirm that the period that the floods take and in which they affect the way of life especially ECE is close to eight months. The findings also reveal that the floods that occur in the Barotse Plains do not happen abruptly but gradually from late December and early January reaching the climax in April. The floods then begin to recede in May and the plains are totally dry around July to August.

LEARNERS' ACCESS OF SCHOOL

Between January and February, the ECE learners have to wad in water from ankle high, knee high and sometimes up to waist high to get to the river

or stream crossing point. After crossing the river or stream using a dugout canoe, they continue wading in the water up to their destination.

The very small [young] pupils are not able to wad in the waters. Their

height puts them on the disadvantage because water that is knee high

for older people may be waist high for the learners. That makes

accessing ECE difficult (FGD 4/School No. 2; DTRCC).

In such instances the parent or an elderly sibling has to carry the ECE learner on the shoulder or back as he/she wads in the water to get to the crossing point of the river or stream. The ECE learners who cannot find such help will have to remain at home and miss school especially that it is a heavy task for a parent to take the child to school and go and collect the child later in the day when the same parent has to run around and fend for the family given the poverty levels in the province in general and the flood plains in particular.

Throughout the months of February and March, the water levels continue to rise in the entire Barotse Plains until it is no longer possible to wad but one will require to use a dugout canoe from their villages to any destination. Not all the villages are near the mound where the school is built. To get to the school one has to use a dugout canoe. Not every person has a dugout canoe. People have to rely on other people's dugout canoes to move from one point of the plains to the other.

In that circumstance, the children that go to school and whose parents do not have dugout canoes will have to team up with children whose parents have a dugout canoe so that they could chance a ride. The ability of the family that has a dugout canoe to

accept to carry other people's children is mostly dependent on the capacity of the dugout canoe.

Given the situation that possession of a dugout canoe is somewhat a luxurious status; those that do not have dugout canoes will have to withdraw their children from school until the floods are over or until they are a bit old enough to face the hardships of accessing school in the flood setup. The situation is even worse for children of single mothers and/or teenage mothers.

The access of ECE was said to be difficult in the Barotse Flood Plains given the obstacles that arise from the start of the floods, during the floods, the period of time the flood is receding up to when the Barotse Flood Plains are fully dry in June to July or August of the year.

TEACHERS COMFORT

Teachers found it rather difficult to live comfortably during the floods. The water levels were said to be closer to the school such that the school becomes a small island. One of the major complications that makes stay at the school in the plains difficult is sanitation. The village mound where the school is built becomes submerged in water such that even the pit latrines are literally in water.

Though the teachers could not confirm abandoning the school during the floods, the description of the sanitation situation at the school during the floods pointed to an environment not being very habitable. Apart from sanitation there are red ants and water reptiles like snakes that also come to seek refuge from the floods on the school mound.

For all these hardships that we undergo, the education system does not pay us rural hardship allowance. In Zambia, Rural

hardship allowance is paid based on the distance from the town and not the hardships you endure in your execution of duty (Teacher No. 2)

This means that the amount of hardships encountered by a teacher at a particular location of work does not make one qualify for rural hardship allowance. If the location of the station/school is less than a given number of kilometers from the town center, the teachers there would not qualify to receive rural hardship allowance no matter how much hardships they endure. The nonpayment for hardships encountered undermines the application of the worker to duty in circumstances of hardships.

When it comes to modes of transport used during the floods the teachers like the residents use dugout canoes. The schools were not in possession of institutional dugout canoes nor fiber boats. This meant that the teachers had to seek help from the locals; requesting for a dugout canoe or seeking a lift when traveling to any place within the plains or when going to the district headquarters. Such things were said and noted to lead to the stay of the teachers to be punctuated by discomfort and reduced input to duty.

The effect of the Barotse Floods on the comfort of the teachers at the place of work was found to be negative. The floods can thus cause a perennial shortage of qualified staff. The teachers become very restrained to apply themselves fully as they deliver the lessons because it requires them to operate in a dump and flooded situation.

The aspect that suffers as the physical space reduces and is unsafe for ECE is child play. Child play is significantly pronounced as an important aspect of ECE. Regardless of the place, the

children should have time for leisure and play. In view of the reduced space due to the flood, child play which is a critical component of the implementation of ECE is impaired. The teacher fails to apply himself fully and carry the child play. Most of the material that needs to be handled is not handled to the fullest. The syllabus is bound not to be exhausted as it should have been if there was no flood.

EDUCATIONAL EQUIPMENT

A lot of equipment is required for the teaching of ECE children. The children have to learn through play which is integrated into the subjects that constitute the curriculum at ECE. Floods impact negatively on the equipment that is supposed to be used for ECE teaching and learning.

Though we do not even have a standard play park, the floods turn the school into an island such that space for child play becomes inadequate. The few improvised play park equipment becomes unusable for most of the flood period due to the ground that is marshy (Administrator No. 2/TRCC).

Considering that the need for play that the learners should involve themselves, yet the floods result in the little available equipment for child play unusable, child play is heavily stifled. Other equipment includes books, mats and any other materials that are mostly paper and / or wooden. Such materials were said to be susceptible to becoming wet and or being eaten by termites. In such instances, the books, documents and other equipment have to be packed in such a way that they are not damaged and be made use of after the floods.

Due to the ground that is wet because of long period of floods, the foundations of the permanent structures are rendered shaky while the pole and mud buildings require to be replaced to be thoroughly refurbished to be fit for use after the floods. The impact of the floods on the infrastructure goes beyond the flood period. When the walls of the pole and mud classroom for example fell off during the rain and floods, the learners will have to make do with the cold wind during the cold season that comes immediately after the floods.

Zambian studies and reports on floods revealed the destruction of equipment. The Famine Early Warning System Network (2007) report attributed to damaged infrastructure such as bridges, culverts and classroom blocks and toilets. Although bridges and culverts are not applicable in the Barotse Flood Plains, but the destruction of classroom blocks and toilets is in line with the findings of this study. This study holds that it was just that the Famine Early Warning System Network (2007) was done before ECE was made compulsory in public primary schools, otherwise the destroyed infrastructure could have included things like play parks that constitute a major part of ECE education equipment.

C. Challenges faced in ECE Delivery

The difficulties faced by the girls were put in thematic categories. The categories included the presence of facilities for MHM in the schools, attitudes on MHM issues and the clash of tradition and school environment.

CHALLENGES FACED BY LEARNERS

Floods were said to have a very big negative effect on the attendance of the learners. Some of the villages are very far from the school such that getting to the school is very strenuous. The ECE

learners have to walk long distances. The problem is compounded when the floods come in. It becomes very challenging for the ECE learners.

The challenge during **Kulusa** phase is that the ECE learners need to walk along the paths to the crossing point of the streams and other water bodies. At the crossing points, the learners require the use of dugout canoe to get to the other side of the stream. It was found that there is no public canoe for use by travelers nor is there a sandaula; a person to carry out the task of paddling people across the river/stream.

During the **Kubayula** phase, the ECE learners have to wad in water along the paths to the crossing points of rivers and streams where they would cross using a dugout canoe. The ECE children have to go to school in that arrangement of wadding in water along the path, cross the river/stream using a dugout canoe and continue wadding till they reach school. After school they return using the same mode. The ECE learners are too young with increased vulnerability to face such challenges of wading in water. This means that the parents have to take part in carrying their children on the back or the shoulders and wad through the waters.

The **Kutiba** phase entails that moving from any location in the flood plains requires the use of a dugout canoe. The implication is that ECE learners have to be paddled in dugout canoes from the village to the school. The first challenge in this regard is the fact that not every parent has a canoe. It means that parents who have no canoes have a challenge in having their children access school. Some parents have to seek help from other parents within the village or in neighboring villages.

The phase when the water level remains static is called **Kuungumana**. Paddling by traversing the

plains becomes difficult. It requires moving the dugout canoe through specific paths and following the streams and rivers. The paddling is with difficulty and that not everyone has a dugout canoe means that movement is heavily impaired. The challenge still remains lack of canoes and the inability of the ECE learners to get to school. In the presence of a canoe the challenge becomes the strain that the parents have to undergo to paddle the children to school and collect them after school on a daily basis.

The next phase of the floods called **Muubuko** or **Mwiiteko** has challenges of movement the same as during the **Kuungumana** phase of the floods. This happens around the months of April and May. It is hereby observed that the whole of term one is difficult for the learners under ECE in the Barotse Flood Plains.

The other phase called **Kukala**. The challenges were said to arise when the water is not enough, to move in a dugout canoe across the plains is unpractical yet following the river is not possible because the river/stream/canal does not lead to everyone's destination. It means that ECE learners have to walk in muddy paths, sometimes wadding up to the crossing point, cross the river/stream/canal and continue the wading in muddy paths to the school.

It is hereby observed that the Barotse Floods occur in phases and affect the people's way of life over a long period of time. The Barotse floods affect Education in general and ECE in particular for close to eight months. It was indicated that when mobility was impaired thus, it contributed to the poor attendance of the learners in school at ECE level.

Some parents were said to be able to make arrangement to have their children stay with a

relation or family friend residing near the school during the floods. This would help the children attend school regularly and increase attendance. It was nonetheless emphasized that such arrangements were practical for elderly children and not those of the ECE age range.

The arrangement of letting children stay with a relation who stays near the school so as to attend school regularly thereby sidestepping the challenge paddling, wadding in the water as well crossing the streams/rivers/canals was seen as not worthwhile for ECE learners. The respondents felt that the age of 3 to 6 years has high vulnerability and always requires the attention of the actual parent

For those that have dugout canoes, some were said to manage to paddle their ECE children to and from school though it proved difficult at some point. In the end, the child would end up being withdrawn from school to allow the child to grow on a little bit.

This was said by one of the administrators as one of the causes for the children starting primary school education when they are older than seven years of age. Furthermore, the community members stated that the children's desire to go to school diminishes during the floods. When the floods are over, the children were said to have a lot of interest in going to school. As soon as the floods started, the dislike would begin to creep in. Generally, the floods were seen to take a toll on the learner attendance, participation and ultimately learner performance. The zeal to continue with school in such a circumstance diminishes over time.

The challenge of crossing the rivers/streams/canals

For the learners who have to cross the rivers/streams and canals, the challenge of crossing impairs the access to ECE. The reason is that there are no longer sandaula at crossing points of rivers/streams/ canals as it used to be in the past.

The concept of Sandaula has been in existence among the people of Barotseland now Western Province, especially in the Barotse Flood plains where there are rivers and streams requiring to be crossed when people are travelling from one place to another. It was revealed that in the olden days, Sandaula was self-appointed and earned a living by paddling people across the river or stream. The travelers actually paid for the service to the Sandaula.

It was found that in the recent past years, the Sandaula was recruited through the local authority to help people cross the river and stream at specific identified crossing points. In that regard, learners that came from places where they had to use the route where there is a Sandaula benefited from the service. That increased the period of good attendance prior to the time that walking and wadding is impossible. The period when the Sandaula was recruited and paid by the local authority was long before ECE was introduced.

The respondents revealed that currently, the local authorities do not employ Sandaula's. This means that the situation has gone back to the olden days when a Sandaula was self-appointed and earned a living through the payment made by the travelers. Given the poverty levels in the province and the Barotse Flood Plains in particular; the Western Province is rated to have the second highest poverty levels; at 80.4 percent, of the 10 provinces of Zambia (CSO, 2012), not every parent can afford to pay for the child to cross the stream or river. Such a situation results in reduction in attendance by the learners even before the **Kutiba** (fully flooded) phase of the Barotse floods. In some

instances, it makes the young ECE learners fail to come to school until the floods are over.

CHALLENGES FACED BY TEACHERS

The teachers found the Barotse Flood Plains not very appealing. Many times, the teachers that were serving at the schools were those that have lived in the plains before. Each school that fell in the sample had a teacher who originated from a village within the Barotse Flood Plains. In that regard the teachers never stay for long at the schools before they sought to be transferred to schools in town or schools on the upper land. That way the schools remain being manned by few teachers. In such circumstances the section that suffered most was ECE. The reason is that the ECE section is new and most of the teachers are Primary School Teachers and are not trained in handling the ECE learners. This is especially that despite the hardship of living in a flooded place, the distance of the schools from the town did not qualify them to be paid rural hardship allowance. The schools end up being understaffed leading to negative impact on the learning.

Completion of planned work and the syllabi was found to be another issue that was blamed on the floods. As the floods increased the attendance became poor. Over time those that would maintain the impetus of going to school would also become erratic in attendance. The situation would reach levels where going ahead with teaching becomes unpractical due to attendance levels.

The records in the schools were in tandem with the views of the teachers, the school administrators and the community members as regards the attendance of the ECE learners during the flood times. As the floods start it was evident, that the attendance would start reduce gradually. As the floods reached their peak the attendance would reduce to very low

levels that teaching would actually be unrealistic to go ahead. The children would just not come in numbers as they would when there are no floods.

It was reported and evident from the registers looked at in the schools that the attendance reduced with rise of the water levels. In the first phase of the floods in the year attendance was seen to reduce. As the flood got to the second phase, the attendance was observed to reduce further to a situation described by the ECE teachers as being poor. The attendance turned into very poor as the flood graduated to the climax called Kuungumana.

School Administrators were very categorical on the closure of schools during floods. They never close schools at their own volition but have to wait for instructions from the supervisors after assessments have been done through various stakeholder institutions especially the Disaster Management and Mitigation Unit (DMMU) under the office of the Vice President. By the time instruction to close the school due to floods is given, which does not happen every year, most of the learners will have stopped coming to school a month or so before.

If attendance begins to be a poor a month or so before the closure of the school, it therefore means that the effects of the Barotse Floods on education especially ECE is more than assumed or it is indicated. Worth elaboration is the report carried in the Rapid Flood Impact Assessment done in Shangombo in 2009. The report revealed that Mutomena Basic School was closed on 10th March, 2009 and Sipuma Basic School was closed on 6th March, 2009. The report also revealed that Sipuma School was also closed in 2008 during the same period of the year (DMMU, 2009).

The dates given are about four weeks before the schools go for April holiday. Mutomena and Sipuma schools are outside the Barotse Flood

Plains; the biggest plains in the Western Province. It can be conjectured that the magnitude of the floods that caused closure of the two schools in 2009 was smaller than the floods that occur in the Barotse Flood Plains. Therefore, attendance can be said to be poor long before the schools are formally closed.

The teaching itself within a flood circumstance was mentioned to be another challenge. ECE teaching and learning being play oriented requires enough space for outdoor play of the children. The daily routine of an ECE session was said to suffer a lot due to floods. There are a lot of activities that are lined up in a daily lesson at ECE level. Some activities require sitting on the floor mat with the teacher to share and interact before breaking into groups in which some activities are done on the ground given the play nature of ECE. During the floods, the ground is wet and damp throughout. That way most of the aspects that constitute learning are undermined except for one school which was reported to have received land reclamation activities by UNICEF to raise the height of the mound on which the school is built.

D. Effects of Barotse floods on ECE

There was considerable agreement on the understanding that the Barotse floods have a negative effect on the education in the Barotse Flood Plains. When ECE was not part of the schooling system in public schools, the children still suffered to attain education. The Famine Early Warning System Network (2007) report read in part that

the impact of the floods on education in terms of attendance rates was mainly attributed to damaged infrastructure such as bridges, culverts and classroom

blocks and toilets (Famine Early Warning System Network 2007).

Education was actually attained amidst hardships ranging from wading in water, being in school with wet clothes on and soaked books to submerged school premises, submerged pit latrines, sharing habitat with reptiles like snakes among others.

In instances when the floods become very high, the education authorities were said to have closed the school to allow for the water levels to go down. This is in line with the Reports produced by the Disaster Management and Mitigation Unit under the office of the Vice President which indicate that schools close during the floods. The DMMU report revealed that Mutomena Basic School was closed on 10th March, 2009 and Sipuma Basic School was closed on 6th March, 2009. The report also revealed that Sipuma School was also closed in 2008 during the same period of the year (DMMU, 2009). From the reports, the closure of schools is mostly done in the month of March; close to the peak of the floods and the recess (holiday) of the schools in April. This implies that the children have two or three weeks of loss of learning.

However, the community saw it from another angle;

For people who are not familiar with this place, they will simply say the school closed for only two or three weeks. They do not know that actually, movement becomes difficult as early as January and February.

Meaning loss of learning is actually for about two or three months (FGD No. 3/ School No. 2)

It is hereby observed that the 2008 and 2009 closure of Mutomena and Sipuma schools happened at the time that ECE was not offered in public schools. Therefore, it is concluded that if ECE was offered at that time, ECE would have closed earlier, given the vulnerability of the ECE children. School attendance by the children becomes erratic and sometimes the children stop going to school before the official closure of the school due to floods.

Due to the erratic attendance and later on inability by the children to attend school due to floods puts the children on the disadvantage as compared to those on the upper land. This is because the children in the Barotse plains lose out on the preparatory aspect for Grade school.

The resultant negative effect of the Barotse Floods on the preparatory aspect of the children for grade school which is the manifest function of ECE coincides with the finding in Conteh (2015) which concluded that floods to a large extent disrupts education outcomes.

The school environment becomes very inhabitable. As the water level increases, it comes to a point where the school is just like a small island. The same school premises that becomes that small is where the pit latrines are built as well as boreholes are sunk. The possibility of contamination is very high. The effect of such an environment on the successful implementation of ECE programs is very negative.

The demoralization of the teachers and the learners takes the toll for a major part of the year such that it would not be practical to equate it to the output of school on the upper land. As the flood disturbs the school calendar in that manner the completion of the work planned for the term, year and the contents in the syllabus suffers. In the second term teachers have no choice but to re-do most of the work that they should have covered in the first

term. That means that they will not be able to complete the syllabus.

The length of the floods, from the start to the end was the reason that respondents gave for most of the children starting school later than seven years of age. The parents would prefer to allow the children to grow up a little bit so that they are able to wad in water and mud. They would have acquired the skills of surviving in the floods before they start school. With the introduction of ECE were the clientele is between 03 years and 06 years. The Barotse Floods affect the provision of ECE in the Barotse Flood Plains in that it results in children starting school later than the acceptable age.

E. Kuomboka and ECE

Kuomboka is an activity in which the inhabitants of the Barotse Flood Plains move to the upper land during their floods. This activity has punctuated the way of life of the inhabitants of the people in these plains since the 17th century (Sikayomya, 2010). Over the years, the activity has evolved into world class traditional ceremony attracting people from all over the world.

The movement of the people together with their property; domestic animals inclusive, is signaled by the departure of the King; the Litunga, from the plains to the upper land. It was stated that in the olden days, when the Litunga left for the upper land, the people followed suit and so did the social institutions like schools.

The schools that are found in the Barotse Flood Plains had buildings on the upper land. This meant that when time for Kuomboka came, as soon as the Litunga migrated to the upper land, the subjects followed suit and so did the schools. The learners would continue learning on the upper land and return to the Barotse Flood Plains when the water

level receded. It is hereby stated that there used to be Educational Kuomboka

Over the years, Kuomboka has turned into a commercial activity in which the migration of the Litunga has assumed commercial significance while most of the people remain in the plains through the flood season. It is more of a ceremony and not the movement of the people from the flood plains to the upper land. It was said to have become a ceremonial show of what used to happen in the olden days when the people and their King; the Litunga, migrated from the wet and flooded settlements in the plains to the drier lands.

People no longer migrate to the [forest] upper land when floods come. They instead struggle within the flood situation and wait for the water level to recede. We cannot say the Litunga migrates because he does not stay in the flood plains like the previous one. He gets to the palace in the plains a few days before the ceremony.

In essence, there is no Kuomboka; in the truthful meaning of the term Kuomboka, that takes place in the Barotse Flood Plains. If there was a benefit that Kuomboka had on the provision of education in the Barotse Flood Plains prior to the introduction of ECE in public primary schools, it cannot apply to ECE now. The reason is because Kuomboka is no longer the migration of the Litunga and his people together with their animals from the plains to the upper land.

The schools no longer migrate to the upper land during the flood season. The schools in the Barotse Flood Plains no longer have infrastructure on the upper land as it used to be. The implication is that the school children have to attend school within the flood situation. The teachers equally have to conduct their duties within the flood circumstance.

Much as the people indicate that they are used to live in the plains amidst floods, they are quick to mention that their children miss out on education

during the floods. The people are used to the situation in the plains and do not prefer to migrate. This is what Namafe (2010), Banda et al (2015) call the 'friend' approach to the floods by the indigenous people in the Barotse Flood Plains. Nonetheless, the 'friend' in the name of the Barotse Floods is not friendly to the education provision and accessing, especially ECE.

F. The 'friend' Metaphorical Vision and ECE in the Barotse Flood Plains

Each community is understandably known to seize upon a particular metaphor that it uses to comprehend a phenomenon which they find themselves in. The inhabitants of the Barotse Flood Plains have a metaphor they have picked to understand and survive within the flood situation. Namafe (1992, 2006, 2010) and Banda et al (2015) show that the inhabitants of the Barotse Flood Plains look at floods as a 'friend' i.e. they have a friend metaphorical vision on floods. They have evolved means of survival such that when the Barotse flood Plains are not flooded they consider the plains as undressed and when the floods come, they say the plains are dressed in an expensive garment. This is evident from the poem eulogizing the floods in Sibetta (1983) translated in Namafe (2006).

Unlike other parts of the unitary Republic of Zambia which takes the floods as a marauder (as shown by the office of the vice presidents practice in the Disaster Management and Mitigation Unit), the people of the Barotse Flood Plains in Barotseland (now Western Province) consider their floods as a friend and handle the floods with a friend approach (Namafe, 2006).

The long-time provision of education has been in flood situation. The mechanisms of adapting to the floods may have included the manner of handling

education within floods. In that respect, the 'friend' in the name of Barotse Floods; the Barotse Floods being friendly, may have held true when ECE had not been introduced in public primary schools.

Given the age range for the clientele of ECE in Zambia; 3 to 6 years of age, the friend metaphorical vision fails to apply in as far as the findings of this study are concerned. The ECE learners are too young to be able to wade in the waters and face the hustle of crossing the rivers when there is no Sandaula at the river crossing points. The friend approach fails for ECE from that vantage point.

The findings reveal that attendance reduces drastically to a situation described as very poor attendance during the climax of the floods. Much as the Friend approach is upheld for the people inhabiting the Barotse Flood Plains, it fails for ECE provision in this regard. The argument being that the floods makes it difficult for the children to access the much emphasized ECE the way children growing up outside the Barotse Flood Plains could. This study has also revealed that the zeal of the learners to go to school and later to learn diminishes as the flood levels increases. In some instances, the parents would prefer to withdraw their children to enable them to grow a little bit so as to be able to face the hardships of accessing education in the flood's circumstances.

Teacher motivation was noted as another factor. The teachers have to make do with surviving in the flooded situation; the school become submerged many times, the pit latrines flood, wading in water from the house to the class and worse still struggling for dry land with water reptiles like snakes and water monitors. Much as the indigenous people may have a friend approach to the Barotse Floods but the effects of the floods on the teachers comfort as they execute their duties at ECE level

makes the Friend Metaphorical Vision of the Barotse Floods not applicable to ECE.

Realizing that ECE requires a lot of equipment for use especially that it is child play related, the destruction of the equipment can cause the paralysis of ECE provision. The floods end up destroying the equipment that is supposed to be used for teaching and learning. That way the Barotse Floods cannot be considered as friend to ECE provision. The 'Friend' Metaphorical vision cannot be applied in as far as the provision of ECE is concerned.

G. Barotse Floods and ECE from Conceptual Framework point of views

The Outcome Based Education (OBE) indicates that the inputs (learners, teaching and learning materials, teachers, infrastructure etc.) interact and undergo an educational process through which quality education is an outcome (CDC, 2013; Kombo, 2004). The education process; interaction of the education inputs or the inputs themselves can be affected by occurrence that would lead to poor quality education outcome. In this regard, the Barotse Flood is seen as an occurrence that would lead to poor quality education outcome.

The people in any community evolve mechanism to cope with any occurrence that would counter the effect of the suspected occurrence. Similarly, the people in Barotse Flood Plains have evolved adaptation strategies on how to survive in the floods. It is from the adaptation strategies were the provision of education has benefitted such that education has been provided amidst the flood situation for a long time now. It is from the same adaptation strategies that the Friend metaphorical vision towards the Barotse Floods may have evolved (Namafe, 1992; 1996; 2004).

This study confirms that the people that inhabit the Barotse Flood Plains have had a way of coping with the Barotse Floods since the introduction of school education.

However, this study reveals that the adaptation strategies employed do not take care of ECE. Considering that ECE was recently introduced in public schools in general and in the Barotse Flood Plains in particular adaptation strategies to counter the effects of the Barotse Floods and consequently guarantee quality education have not yet been evolved.

In view of the Outcome Based Education (OBE), the driving force is the availability of the inputs. The inputs include learners, teaching and learning materials, teachers, infrastructure etc. the inputs ought to be present and be able to interact for the educational process to occur. This study establishes that learner attendance becomes poor as the floods increase in magnitude.

The closure of the schools when the floods reach a certain level removes the major input; the learners and the teachers from the equation of Outcome Based Education (OBE) and also puts off the educational process completely.

It also establishes that the teachers are not motivated whilst some of the equipment for ECE becomes unusable due to the Barotse Floods.

The adaptation strategies that have been made use by the indigenous people to survive within the flood situation and to warrant the understanding of the Friend Metaphorical vision on floods fails to facilitate the availability of the inputs and the interaction of the inputs (educational process) to guarantee quality education outcomes. Actually, there were no adaptation strategies in as far as ECE provision is concerned in Barotse Flood Plains.

The age range of the learners at ECE; 3 to 6 years, is too small an age range to withstand the flood hardships within a context of adaptation strategy.

H. Barotse Floods on Early Childhood Education as a Children's Right

The World Conference on Education For All (EFA) in Jomtien, Thailand, in 1990 which pledged to provide primary education for all children and massively reduce adult literacy by the end of the decade. The conference never mentioned ECE. Ten years later, the Dakar Framework of Action on Education For All; 2000, goal number 1 of the conference included the item on ECE. It undertook to emphasize, expanding and improving comprehensive Early Childhood Care and Education (ECCE), especially for the most vulnerable and disadvantaged children.

Early Childhood policy developments are actually informed by the UN Convention on the Rights of the Child (UNCRC) of 1989 (UN Committee on the Rights of the Child, 2005). The UNCRC is one of the most reliable instruments for policy development concerning the young children of the world. It confirms the children's right to survival and development which is actually in tandem with the mandate of Early Childhood Education. The right to survival and development is a substantive principle within the convention in article 6.

In the Zambian setup in general and Barotse Flood Plains in particular, the attainment of UNCRC remained a pipedream when ECE remained under the Ministry of Local Government and other private individuals. It meant that not all children accessed ECE before 2013.

Given the circumstances in which education is provided in the Barotse flood plains as shown in the findings of this study, the attainment of the UNCRC remain a pipedream in the Barotse Flood Plains. The period in which the learners at ECE have to miss learning is too long for them to be put at the same level with other learners who do not

face inhibition of the magnitude of the Barotse Floods. The period of disruption of learning starting from January each year to the end of the floods around July August is too much to guarantee genuine ECE and attainment of the UNCRC.

The Zambia National Implementation Framework (MOE, 2007, p. 37) indicates and recognizes the importance of early years of life as a foundation for human development and lifelong learning; a period that enhances children's readiness for schooling, reduces repeat cases and failure rates, and enables women to work and participate in development activities while children are being cared for. The Barotse Floods; from the vantage point of the period in which they affect the provision and access of ECE, undermines the importance of ECE as a foundation for human development and lifelong learning. The understanding is that ECE prepares the children for grade school. If the learning at ECE is undermined, the abilities of the learners as they get into Primary School will equally be compromised.

The undermining of the attainment of the UNCRC for the children going to ECE School in the Barotse Flood Plains becomes immense as the parents have to wait for their children to reach a particular age at which the children can maneuver with the flood hardships as they seek school education.

The UNCRC as one of the most reliable instruments for policy development concerning the young children of the world faces the hurdle in the name of the Barotse Floods. The children's right to survival and development; a substantive principle within the UNCRC in article 6, which is actually in tandem with the mandate of ECE is stifled by the Barotse Floods.

VIII. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

This study concludes that the right to ECE for the children growing up the Barotse Flood Plains is greatly compromised.

ECE is provided amidst the flood situation annually. The effects of the Barotse Floods on provision and accessing of ECE are felt as early as January each year. The effect of the Barotse Floods on ECE is complete towards the end of July or early August of every year. Therefore, the effects of the Barotse Flood on ECE take a period close to eight months.

The Barotse Floods do not occur abruptly. The floods occur in phases. The terms Njimbela, Kulusa, Kubayula, Kutiba, Kuungumana, Muubuko/ Mwiiteko, Kuwa and Kuoma/ Kukala as used by the respondents are indicative of the phases of the Barotse Floods from the start to the end when the Flood Plains are dry with Kuungumana being the climax of the flood season. This means that the floods negatively affect the provision of ECE for two terms in the three terms in a year.

The mounds on which the schools are built are many times submerged in water or only small portions remain surrounded by the water. This means that most of the equipment used for ECE teaching and learning gets destroyed by the flood water. In instances when the equipment for learning and teaching is not destroyed, they are rendered unusable due to the flood situation. The equipment includes play tools, and classroom teaching and learning materials.

As the water level increases and gets closer to the school mound, habitability of the plains becomes

very difficult for teachers. Sanitation and hygiene become much compromised for both the teachers and the learners. The pit latrines become flooded. The teachers get unmotivated by the flood situation. Attendance of the learners reduces as the floods increase until when the children fail to come to school. The Barotse Flood Plains negatively affect the attendance of the ECE learners.

The 'Friend' Metaphorical Vision that is espoused by scholars as being the comprehension of Barotse Floods by the people that inhabit the Barotse Flood Plains does not apply to the newly introduced ECE yet. The age range for the clientele at ECE is not able to face the hardships of the floods as they access education.

The Kuomboka activity in which the people inhabiting the Barotse Flood Plains together with their King of all the Barotse people; the Litunga, move from the plains to the upper land during the floods is now a commercial ceremony. People no longer move to the upper land. Therefore, institutions of social service like schools no longer move to the upper land. The, would have been, benefit of the Kuomboka in terms of schools and continuation of the learning during the floods does not apply to the present-day situation. Thus, ECE provision suffers distraction before and during the floods.

The Conceptual Framework for this study posited that Outcome Based Education is based on three major issues; the Inputs to the Education System, what happens within the Education system (Educational Process) as well as the outputs from the education system. In an ideal situation, the interaction of the inputs during the educational process results in quality education. A hindrance on either the inputs or the educational process threatens the outcome of quality education as an

output. The Barotse floods, like any flood, negatively affect the inputs to the education system as well as the education process itself.

The findings of this study establish that the inputs and the educational process are negatively affected by the Barotse Floods. The inputs to education that are negatively affected include the learners, the teachers, the teaching and learning equipment like books, toys, play parks etc. it is either the education inputs are not available due to floods or they rendered unusable due to floods or they are actually present but the inputs fail to interact (educational process) to yield quality ECE results.

Challenges in the provision of ECE in the Barotse Flood Plains

Most of the villages are very distant from the school. Moving to and from school require wading in water, crossing rivulet, streams and ox bow lakes or paddling through and through. The ECE learners are too young to wad in water for long distances. The ECE learners are too young to paddle dugout canoes. They have to be escorted to school by being carried on the shoulder or on the backs of the elderly. The task of escorting the learners to school is very tedious. Even if the household had a dugout canoe, that canoe could not only be used for school activities. The same canoe is needed for other activities like setting fishing nets and attending to other socioeconomic needs of the family. That way the ECE learners would miss school or stop school until when the floods will have receded.

The lack of Sandaula at river crossing points makes it difficult for the ECE learners to travel to and from school. Though there are people who engage themselves in earning a living by paddling travelers across the rivers at a fee, not every parent is able to pay for the child to cross the river five days a week

for the whole term. Thus, many parents would prefer to withdraw their children from ECE up until they are a bit old enough to withstand the pressures.

The length of the impact of the floods in the Barotse Flood Plains is long. As early as January, movement for the ECE learners is difficult. The floods affect the provision of ECE for a period close to eight (08) months. This means that two terms of the three terms in an academic year are characterized by distracted education provision at ECE level in the Barotse Flood plains.

The other challenge is unmotivated staff handling ECE section as the flood situation in the location where this study was conducted does not make the teachers qualify for rural hardship allowance as a condition of service. Generally, some teachers find it difficult to live in the Barotse Flood Plains due to the floods and the hardships that come with the floods.

The completion of the syllabus for the levels of ECE is greatly impaired. It means that the learners go to the next level of school education not fully prepared for the level.

The mounds where the schools are built are not very high. The situation is such that even when the water level is not all that high, the schools become easily submerged.

The attainment of the UNCRC in terms of acquiring the relevant education rooted in well-organized ECE is threatened by the effects of the Barotse floods. The preparatory aspect of education promised through ECE becomes unattainable for the learners in the schools in the Barotse Flood Plains. In view of the significance of ECE to realization of the UNCRC, the Barotse Floods are seen to stifle the attainment of the UNCRC.

Recommendations

From the foretasted conclusions, this study recommends that:

The mounds where the schools are built be subjected to land reclamation. More earth must be added to the mounds so that they become high and wide so that they are not easy to be submerged. When the mound becomes wide and big, more space is created to accommodate other required equipment for ECE like play parks.

The communities that are distant from present schools, traditional leaders and education authorities consider identifying some mounds to open satellite ECE centers near the villages to reduce the distance covered by walking, wadding or paddling. The satellite ECE centers would operate semiautonomous but administratively attached to established primary schools within the Flood Plains. The children will attend their ECE at those centers and progress to the main schools when they are a bit old enough to face the challenges of the Barotse Floods.

The authorities that be; at traditional, local government and MoGE, should find a mechanism of ensuring that the learners do not fail to go to school because of lack a person responsible of paddling travelers across the river. The Sandaula should be a public responsibility at least for school going children.

The government should consider a way of motivating the teachers in the Barotse Flood Plains so that they enjoy working from there. This may include restructuring the criteria of teachers qualifying for Rural Hardship Allowance. It would be well if qualification for Rural Hardship Allowance was determined by the hardships and not the number of kilometers from the town.

Quantitative research should be conducted to bring out matters to do with attendance of ECE learners, completion of the syllabi, ages of learners at ECE level to provide a comparative base for the findings of this study.

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