

CONTRIBUTION OF CHILD LABOUR TO ENVIRONMENTAL DEGRADATION IN LUKOBE WARD IN MOROGORO MUNICIPALITY, TANZANIA

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ABSTRACT

The purpose of this paper is to explicate the contribution of child labour to the occurrence of environmental degradation in Tanzania using Lukobe ward in Morogoro municipality. It is based on the data collected from fifty respondents aged between 7 to 17 years who are engaged in various activities for survival in the community. The data were collected through questionnaires, observations, documentary reviews and interviews. The major findings were as follows: child labour has been taking place in areas such as brick making, tree cutting, and charcoal making, fetching water, farming, charcoal vending and honey extraction. All these activities have led to deforestation and disappearance of both trees and animal species. Areas that were left bare succumbed to erosion leading to formation of gullies and destruction of roads as well as houses causing predominance of poverty. Apart from environmental degradation, child labour also led to disruption of children's schooling through truancy and absenteeism. It is recommended that Morogoro municipal authorities should stop illegal activities like tree cutting and charcoal making. By-laws should be enacted and enforced to ensure that child labour does not take place and people carry out activities in a legal way. Furthermore, fines should be instituted for those who break the laws and regulations. Lastly, education for changing people's beliefs and attitudes has to be provided.

Key descriptors: *Child labour, livelihood activities, environmental degradation, deforestation*

1.0 An overview of child labour

The problem of labouring children or child labour has gained increasing attention over the last three decades or so. Not that the phenomenon is a new one. Historically, in most countries whether part of the "advanced" industrialized world or the poor countries of the South, children at work has been an on-going social concern (Hindman, 2009). Often there is a distinction made between children's work and child labour, where the former is an acceptable activity in which the child "learns" and is "socialized to adulthood" with all the desired responsibilities of the "good citizen", while the latter term is applied to abusive conditions of work where the child is without rights and is highly exploited (Boyd, 1994). Also, the International Labour Organization – ILO (1999) defines child labour as “the economic exploitation of children in hazardous work sites and occupations; the type of work and working environment which puts at stake children’s education, health, social development and even their lives. Child labour is work carried out to the detriment of the child and in violation of international law and national legislation.” Elaborating further on the difference, ILO (2013) argues that there is need to distinguish between child labour and child work; child work is involving a child in doing various family and community activities as part of socialisation, by giving due consideration to the child’s ability and best interest. While child labour is making a child perform tasks that are beyond his/her capacity, and denying his/her basic rights. Other scholars are not concerned with that distinction, to them labouring children work, they are child workers, and the ideological associations with "accepted children's work" serves often to cloud the issues of labouring children (Lavalette, 1994)

At the outset, a child worker is to be viewed as dependent, disadvantaged and in a weak position within the labour market or within work relations, even within the household. As such, child workers are highly exploitable, in most cases with little or no

negotiating power (Boyd, 2000). Our contention, however, is that a child is from time to time capable of being an active agent towards his or her own empowerment. We are defining a child worker as any person working under the age of 18 years and particularly between 5 to 14 years. We are also aware that in most discussions of labouring children, no distinction is made between the work of boys and girls. A gendered consideration of child labour has yet to be given full attention even by feminists. Nieuwenhuys' work (1989 and 1994) is a notable exception.

1.1 Global Context

While child labour is to be viewed as a global problem, in that children at work is a worldwide condition, the socio-economic context for the recent increase in the number of children working requires elaboration. Child labour is not just limited to the poor countries of the world; it is rather a part of the life of poor sectors in all societies (Hindman, 2009). However, it is in the poorest countries of the "developing world" that the worse features of child labour are to be found. And, it is our view, that the global economic context for this phenomenon, as a highly vulnerable, marginalized sector of the labouring poor, with little or no protective mechanisms except often moral outrage, will only be exacerbated in the coming years.

The conditions of all labouring people but particularly those who are structurally disadvantaged (i.e. women, children, minorities and migrants) in our current societal contexts are directly and adversely affected by the continued consolidation of neo-liberal policies promoted as the panacea for our contemporary economic ills (Boyd, 1994). As is well-known, neo-liberal models of economic development were systematically adopted by many countries during the 1970s and the 1980s' world recession, and have gained increasing legitimacy as other possible alternatives to capitalism have collapsed. The adverse consequence of this dominant mode of thinking can be seen variously in all parts of

the world (ILO, 2001). What we are asserting in this paper on is that, in the past three decades, the conditions and nature of labouring children have witnessed, and will continue to witness, increased immiseration in the present global economic context.

The statistics as revealed by the International Labour Organization (ILO) estimate that one in four children between the ages of 10 and 14 work in the Third World. Children constitute about 16.1 percent of Brazil's workforce. An estimated 25.8 percent work in Nigeria. But the highest number of child workers is to be found in the countries of Asia. India has an estimated 44 million children working; Pakistan's estimates range from 7.5 million to 10 million child labourers. In Indonesia, conservative estimates claim that almost 3 million children work between the ages of 10 and 14 years. These are simply the reported estimates of the most visible elements of child labour. The number of illegal and unreported child labourers would no doubt increase these figures considerably (ILO, 2001).

Characterizing Child Work

But our concern is not just the scale of the phenomenon; it is also the conditions and nature of the work that children perform and its impact on the environment that requires our attention. Within the context of the pressures brought on by the dominant global economic context, child work activities can be divided into four broad types with varying degrees of abusive conditions of work relations:

1. ***direct employment in industries*** where children are often sold at the young age of 4 or 5 years by their parents and work with little or no pay, such as in matchstick factories (Kothari, 1988), gem polishing (Burra, 1988), carpet making (Juyal, 1987 and Gulrajani, 1994) and the garment industry. While the employment of child labour in these industries is not new, its nature changes in the current global economic context. The highly competitive nature of

industries as exporters of consumer goods has been one of the explanations for using child labour as the cheapest of labour. As the international call for boycotts of goods produced from child labour intensifies (see Lee-Wright, 1990), there is growing evidence that such labour is driven underground or disguised in order not to undermine the profits of these industries from consumers, particularly in the Western countries. Both the state and capital often collude in covering up the use of child labour.

2. ***agricultural farm labour*** where often child labour constitutes part of family labour and is not even acknowledged as work (see Reynolds, 1991). Again, this type of child labour pre-dates neo-liberal economic reform policies. However, the effects of these policies worsen the condition of child labour on the farms and have, in many cases, forced child labour from the farms to the urban centres in search of any kind of work, most often the most demeaning. In South Africa, 43 per cent of farm labourers are actually women and children, classified as casual workers (see 1993 Anti-Slavery Report on South Africa).
3. ***informal sector activities***, such as child prostitutes, street vendors, petty thievery and begging. The presence of "street children" in all urban centres has reached alarming proportions (see Gunther, 1992 and Scheper-Hughes, 1994 for Brazil and Chatterjee, 1992 for India). Here also we would place the deplorable abuse of children working as the camel-jockeys from Pakistan, India, Bangladesh and Sri Lanka (Goonesekere, 1993) who are bonded to racing-camel owners in the Middle East.
4. ***household or domestic labour*** where children work for long hours often without any remuneration. The myth that the child is less exploited in the household has long been challenged. The use of "house-boys" or "house-girls", often child migrants from the countryside to the urban centres, as exploited domestic servants has been

documented in every region of the world (see for example, Munyakho, 1992).

5. Each of these different work-types for the child worker has a specific genesis in the historical and economic context of the societies involved. It is not my intention to conflate these differences. Certainly, some types of work are less exploitative than others. As well, in some circumstances, particularly war situations and dire family poverty, children view themselves as fortunate if they are able to work. One of the dilemmas faced by those concerned with the problem is how to weave the rights of the child as a person in a real social context with the fact that the working child is one of the most disadvantaged of persons within society, through lack of education, lack of basic literacy, minority status, poverty and no real protective mechanisms that can be enforced.

Responses to Child Labour

As has also been well documented in the literature that, there has been active resistance to child labour over the many years of its existence. That reaction has taken the legislative route both nationally and internationally, variously to protect children, to eliminate children from the workforce, to regulate their work hours, to give them organized access to schooling, to monitor their conditions of work and so on. More often than not, even though most countries have national legislation about child labour, there is little or no effective mechanism for monitoring or enforcing these stated rights. Countries that are poor and are increasingly struggling to meet basic needs seldom have the required infrastructure to monitor the rights that they agree to. In that circumstance, NGOs have increasingly been identified as the avenue to redress the exploitative conditions of child labour (ILO, 2001; Hindman, 2009).

What appears to be an effective resistance are those groups that have emerged out of a more organic connection with child labour. These are the advocacy groups which have sprung up in many parts of the world, especially over the last decade, such as the Bonded Labour Liberation Front in Pakistan or the Foundation for Slum Child Care in Bangkok. Formerly exploited child workers themselves have taken an increasingly active role in eliminating or improving the conditions of child workers (Boyd, 2000).

Other international institutionalized forums of resistance to exploited child labour have also been established in recent years: the newly established ILO Programme for the Elimination of Child Labour; the Defence for Children International, founded in 1979 as an international movement for the rights of the child; the UNICEF International Child Development Centre (referred to as the Innocenti Centre) established in Florence in 1988; as well as Street Kids International and Streetwise International, are some examples (ILO, 2001).

In the scientific literature, what makes the issue of child labour complex are the assumptions implied or stated about "work", about "childhood" and about the niceties of "socialization to adulthood". While there is no unified view internationally about child labour, there does appear to be a clearer understanding that the phenomenon is complex and that redressing the situation requires a variety of responses (Boyd, 1994). Debates about how to deal with the issue have shifted in recent years from outright abolition of child labour (i.e. no one under 14 years should work), to improving the conditions under which children work, while giving them access to meaningful skills training and education, especially literacy (ibid). The prevailing position on the situation of child labour at this moment by activists, policy-makers and researchers appears to be that complete elimination is not realistic; it will just drive the children underground and worsen their conditions of work. Intervention in extreme cases, such as

removing bonded children directly from the work site, is increasingly being practised by activists. However, the combination of protection and regulation in order to "humanize" the employment of children appears to be a dominant trend (see the ILO document "Inter-departmental Project on the Elimination of Child Labour" [1992] which outlines their modes of intervention at this stage).

In our view, the exploitation of children and other structurally disadvantaged groups must be addressed in the wider economic and social context in which the labouring poor find themselves, that is the global context of neo-liberalism. Until that context is fully grasped, children will continue to be exploited.

1.2 Child labour in Tanzania

Child labour is an alien concept in Tanzania (ILO, 2001). As in many other African traditional societies, it came with the introduction of the money economy and the monopolistic and often cut-throat capitalistic competition - whose main motive has been the maximisation of profit: thus the cheaper the labour, the bigger the profits (Krutikova, 2006). In fact, in Tanzania child labour has its roots going back to the colonial era, when children were employed to facilitate the expansion of the colonial economy (URT, 2009). One of the first pieces of legislation on child labour was The Employment of Women and Young Persons Ordinance of 1940. The Ordinance prohibited the employment of children in industrial undertaking (section 91), in other sectors children could be employed on a daily wage, on a day to day basis provided that each night they returned to the place of residence of their parents or 80 guardians (section 4). The above mentioned prohibition was not totally protective to the child since the Governor was given power to exempt any industrial undertaking from the provisions of the law. However, the interest of the colonial power which was to assist big farm owners, who employed a large number of children, was preserved by not restricting child labour (URT, 2001).

1.3 Causes of child labour

Tied directly to poverty, child labour remains an extremely serious issue throughout Tanzania (Krutikova, 2006). The problem of child labour relates not to the fact that children are working per se but rather that work may interfere with their development in a number of ways. In a wage - labour situation, long hours without enough rest, limited nutrition and lack of a nurturing environment may severely limit both physical and mental growth of a child. The working environment itself also hinders the growth and development of a child labourer, for instance where lighting is poor, the air is polluted, or the work itself is hazardous. Unscrupulous employers might also abuse the child and this may involve mental abuse, which breaks the child's spirit, in addition to physical abuse (ILO, 2001; URT, 2009).

Poverty is the single biggest factor forcing children to work; many child labourers are their families' source of income. Child labour entails a denial of fundamental human rights on the one hand, and immeasurable long term costs to society, on the other; the lack of educational opportunities, substandard educational facilities, the direct and hidden costs of education and the low quality of education offered, all combine to perpetuate the problem of child labour (Krutikova, 2006). Other causes of child labour according to (ILO, 2001) include the following:

- (1) **Entrenched social and cultural practices:** Equally important contributory factors are long-standing and resistant attitudes and practices that are often accepted uncritically. e.g. emphasis on educating boys at the expense of girls.
- (2) **Adventure:** It has been noted that some children are engaged in labour because they want to make their own living (money).
- (3) **Group Influence:** Some of the children become child labourers because of group influence e. g. tea picking, street vendors, domestic work or even prostitution.

- (4) **Decay of Society Morals:** Strong family ties which used to bind the society together are no longer there, for example children whose parents are dead or separated are left to struggle on their own for survival hence persistence of child labour.
- (5) **Lack of proper and systematic parental care:** This compels children to child labour.
- (6) **Cost sharing:** The policy of cost sharing in schools has forced some children to engage in child labour as the only alternative to generate money needed in paying for basic needs at school.
- (7) **Weak economy:** Tanzania faces an economic crisis. Rising poverty is driving more and more children into the labour market.
- (8) **Health threats:** The AIDS epidemic has contributed to the rising population of street children and child labourers.
- (9) **Regulatory measures:** Lack of effective enforcement of regulatory measures, has been the cause for easy exploitation of children.
- (10) **The removal of subsidies on education:** This has contributed to a situation whereby about 30% of all 10-14 year old are out of school.
- (11) **Retrenchment:** Retrenchment which is a result of astute government economic policies has compelled most parents to enlist the contribution of their children to supplement the reduced meagre family incomes.

2.0 Child labour and livelihood

Child labours and searches for livelihood are so related though the latter is wider than the former concept. Also, it has to be borne in mind that some children are forced into child labour for the sake of attaining survival (ILO, 2007). Children who are engaged in child labour are usually denied of their rights to education, planning for the future and work long hours for poor wages. Normally, their mental and psychological development is harmed

by such bad working conditions (ILO, 1999). In Tanzania, child labour is practiced in commercial and subsistence agriculture, mining and quarrying, and in the informal sector, including domestic sector (ILO, 1999). In general, there are at least four basic factors contributing to child labour in Tanzania: a) Economic liberalization measures that involved transformation of socio-economic policy from socialist to liberalized market economy; b) urbanization and social disintegration of the traditional family system, c) poor school environment and d) other factors including the HIV/AIDS epidemic, that in some families has claimed the lives of parents and guardians who were the chief breadwinners. The results are that children are left without proper care, a situation often leading orphans to be bread winners for their siblings and sometimes their grandparents. It is through child labour that they can feed those family members left behind when their parents die through HIV/AIDS. Thus, they assume adult roles and are involved in the struggle for survival at an early age.

Livelihood refers to means for securing the basic necessities - food, water, shelter and clothing- of life. In other words they refer to a set of activities, involving securing water, food, fodder, medicine, shelter, clothing and the capacity to acquire above necessities working either individually or as a group by using endowments (both human and material) for meeting the requirements of the self and his/her household on a sustainable basis with dignity. The activities are usually carried out repeatedly (Oxford Dictionary of English, 2010). For instance, a fisherman's livelihood depends on the availability and accessibility of fish. For this matter, child labour can be categorised as a livelihood activity for children who perform it as they are forced to engage in it for survival purposes.

3.0 Child labour and environmental degradation in Tanzania

The green of Tanzania is disappearing through the process of deforestation and the extermination of wildlife whose survival

depended on them. Wildlife that was found throughout the forests and open places was previously only in danger of a few hunters, compared to the 21st century exploitation by poachers. Tree cutting was prevalent and necessary during the colonial period, in order to pave way for large plantation agriculture system, grazing, industrial and urban sites development, mining, fishing and infrastructure development. For example, in 1900's, railway development in Morogoro necessitated tree cutting, in order to obtain sleepers that were used in building railway lines. Bush clearing by means of fire was sometimes performed, which often ended up killing reptiles, insects and birds (Groude, 1986). Tanzania has for many centuries benefited from forests as an economic resource, soil protector, regulator of hydrological cycle, carbon natural reserve tanks and natural pools on biodiversity. Apart from being oxygen producers, Ruffo (2002) states that over 60% of edible wild plants found in Tanzania are good for medicine. Such plant advantages are currently endangered by child labour activities at Lukobe Ward in Morogoro Municipality.

3.1 Environmental Degradation

Gutek (1993), Okidi (1995), UNESCO (1977) and the United Republic of Tanzania (URT) (2004), define environment as being the total ecological and biosphere of the globe. Biosphere is the place where living organisms dwell. Based on that understanding, the definition of environment goes on to include elements such as the physical and natural resources, land, human beings, water, plants, animals, fish, livestock, wildlife, air, and the places we live as individuals, communities, nations and the global at large. A school is for example a community and an environment by its own nature which always needs to be environmentally friendly (GreenCom, 2000).

Environmental degradation is the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the extinction of wildlife. It is

defined as any change or disturbance to the environment perceived to be deleterious or undesirable (Johnson *et al.*, 1997). For the purpose of this study, the definition of environmental degradation includes all planned and unplanned, as well as intended or unintended activities that destroy or put at risk human beings and indeed all living things. In addition, it involves all activities that deploy, paint, or change nature from its original state, and lead to new and ugly outlook or poor health. Normally, environmental destruction is found where deforestation, soil erosion, air and wind pollution, desertification, fire burn, presence of plant and animal species, general resource depletion, loss of biodiversity and change in habitat take place (Chertow, 2001). At the surface level, other degrading environmental issues include lack of latrine facilities, uncollected and contaminated carcasses, and waste accumulation over and across towns or other places (GreenCom, 2000).

This study then presents and discusses the problem of environmental degradation caused by child labour in various areas at the Lukobe Ward in the Morogoro Municipality in Tanzania. It finally puts forward recommendations for future interventions to slow down the situation and suggests ways on how the area can retain its earlier pleasant environment.

4.0 Child labour in Lukobe Ward in Morogoro Municipality

The researchers were interested in exploring the age, education level, and sex of children who were engaged in child labour as well as the respective reasons. The findings were as follows:

4.1 Age of respondents engaged in brick making

As far as the children engaging in brick making was concerned, their age distribution was as summarized in Table 1 as follows:

Table 1: Distribution of brick layers respondents by age (N= 50)

Age category in years	Frequency	Percentage (%)
7 – 9	1	2
10 – 12	2	4
13 – 15	15	30
16 – 17	32	64
Total	50	100

Table 1 show that thirty two (64%) respondents in age category of 16 – 17 were engaged in brick making activities. Among the respondents, age 13-15, 30% were engaged in brick making. One (2%) was under the age category 7 – 9 years. Two (4%) children with age category 10 – 12 years were involved in the brick making activities. Personal observations reveal that respondents with age categories of 7 – 9 and 10 – 12 were involved in fetching water for making the bricks. It can be deduced from the results that the chances for the children to be in school was denied as they spent their time in laying bricks.

4.2 Education level for children engaging in brick making

Furthermore, the researchers explored about the education levels for children making bricks. Primary education was however divided into two levels: Primary education (a) level which accounts for respondents still attending primary education (standard 1 – 7) and primary education (b) for respondents who have completed primary education (seven years of primary schooling). The results show that 32 respondents (64%) had primary education (b), five (10%) were still attending primary school education (primary education (a)). The total number of respondents under primary education was then 37 (74%). Those respondents who had no formal education were 12 (24%) and only

one (2%) had secondary education. The total for adult education, vocational training and others was zero. Table 2 provides further illustration.

Table 2: Distribution of brick layers respondents according education level (N = 50)

Level of Education	Frequency	Percentage (%)
Primary Education(a)	5	10
Primary Education(b)	32	64
Secondary Education	1	2
Non formal education	12	24
Vocational Training	0	0
Others	0	0
Total	50	100

During the oral interviews, the question of age and level of education was further carried out by asking the respondents to mention the prime reasons that made them work in the brick making industry. Their responses are summarized in Table 3 below.

Table 3: Reasons given by respondents for working in the brick making industry (N = 50)

S/N	Reason	Frequency	Percentage (%)
1	Coping strategy with respect to employment shortage	20	40
2	Coping strategy with respect to food shortage	11	22
3	Keep the skill practiced as brick making is a traditional work	2	4
4	Raise money to enable buying own building materials	3	6
5	Collect money to pay secondary education school fees	1	2
6	Collect money to pay vocational training college fees	2	4
7	Collected money and pay dowry and marry	1	2
8	Collect money and buy a plot for farming cash	8	16

S/N	Reason	Frequency	Percentage (%)
9	crops Earn money in order to buy clothes for parents and themselves	1	2
10	Earn money and travel to other places to look for greener pastures	1	3
Total		50	100

4.3 Age of respondents who prepare charcoal

Apart from brick making, the researchers also explored the ages of the respondents engaging in charcoal making. The age distribution of respondents engaged in charcoal preparation is presented on Table 4 below.

Table 4: Distribution of respondents engaged in charcoal preparation by age (N = 50)

Age category in years	Frequency	Percentage
7 – 9	0	0
10 – 12	0	0
13 – 15	15	30
16 – 17	37	70
Total	50	100

The result reveals that out of the 50 respondents engaged in cutting trees for charcoal preparation, 37 (70%) were at the age category of 16 – 17. Over one fourth of the respondents numbering 15 (30%) was of the age between 13 – 15 years. The study shows no respondents in the age category in years 7 – 9, and 10 – 12 engaged in charcoal preparation activities. Respondents attributed this to the distance of the place where trees were found for cutting and preparing charcoal. They explained that to go and prepare charcoal one needed to walk 15 – 20 kms where trees are found. So, respondents below the age of 13 – 15 years found it difficult to walk up to that long distance and do the business. There were thus forced to disengage in charcoal preparation.

4.4 Education level of respondents employed in preparing charcoal

Another parameter that was investigated was the education level of each respondent employed in charcoal preparation in the study area. The results are summarized on Table 5 below.

Table 5: Education level of respondents employed in preparing charcoal (N = 50)

Education level	Frequency	Percentage (100%)
Primary education(a)	0	0
Primary education (b)	32	64
Secondary education	5	10
Adult education	0	0
Non Vocational education	13	26
Others	0	0
Total	50	100

Table 5 depicts that, no respondents with primary education (a) and adult education levels as involved in preparing charcoal in the study area. The majority of the respondents, that is 32 (64%) had primary education and 13 (26%) were those whose level of education was non-vocational. Five (10%) respondents had secondary education. No respondent with adult education, or still in primary school was employed in preparing charcoal. During the interviews, respondents clearly stated that the majority of them had completed primary school education due to the fact that the primary school they were attending was now nearby, unlike to previous years when Lukobe area had only one school. Previously truancy, abstention and dropout were the order of the day for many pupils at Lukobe primary school. Dropout and absenteeism problems are similar to other places in the country that were surveyed by ILO in 1999 (ILO, 1999).

4.5 Age of respondents employed as charcoal vendors

Charcoal vending was another parameter that was dealt with in the study. The researchers therefore asked the respondents who engaged themselves in charcoal vending to state their ages. The results were as illustrated on Table 6 below:

Table 6: Distribution of charcoal vending respondents by age (N = 50)

Age category in years	Frequency	Percentage (%)
7 – 9	0	0
10 – 12	1	2
13 – 15	10	20
16 – 17	39	78
Total	50	100

Table 6 shows that none of the respondents aged 7 – 9 years was engaged in charcoal vending business. One (2%) of the charcoal vendors belonged to 10 – 12 years age category, and 10 (20%) were in 13 – 15 years age category. The majorities of the respondents were with advanced age that is 16 – 17 years and numbered 39 (78%). Respondents who were not doing so reported that charcoal vending business required the vendor to be consistently involved in the business otherwise one could lose the buyers. Thus, it was not possible for them to do as they had sometimes to attend school or do other jobs that were light to them. Vending charcoal made them go around places and their respective school teachers would see them and thus be victims of corporal punishment when they went back to school.

4.6 Education level of charcoal vending respondents

The education level of charcoal vendors was studied and the results are reported on Table 7 below.

Table 7: Education level of charcoal vendors (N = 50)

Level of Education	Frequency	Percentage (%)
Primary education (a)	0	0
Primary education (b)	35	70
Secondary education	11	22
Adult education	0	0
Non vocational education	0	0
Others	4	8
Total	50	100

The results show that 35 (70%) of charcoal vending respondents had primary school education. Those with secondary school level of education were 11 (22%). There was none who was still pursuing primary school education, adult education or non – vocational education was involved in the business of charcoal vending. However, four (8%) of the respondents reported that they were taught by their friends how to read and write and had never gone to any formal schooling system as they didn't want to be labeled as adult education attendants. Moreover, they reported that adult education is not operating in their area that is why they decided to ask friends to teach them how to read and write only.

4.7 Sex of children involved in brick making

The researchers also were interested in knowing the sex-proportion of children involved in brick making. The results are summarized on Table 8 below.

Table 8: Responses regarding sex of brick layers (N = 50)

Sex	Number of respondents	Percentage (%)
Male	42	84
Female	8	16
Total	50	100

Table 8 shows that the 42 respondents (84%) asserted that male children were involved more than female children in brick making. It is only eight (16%) who said it was female children who were involved more. Therefore, it means that more male children than their female counterparts were engaged in brick making in the study area.

4.8 Age of respondents involved in firewood collection

As already noted, trees in the study area are cut for several uses. Since the government has had prohibited illegal cutting of trees nationwide, the established collection of firewood for domestic household use and cash earning is done by the people in the area very carefully and secretly. We however observed bundles of firewood carried downward from the Lukobe forest to town and counted only those bundles with 20 – 50 pieces which were normal firewood loads. Table 9 summarizes age of the respondent involved in firewood collection.

Table 9: Age of firewood collectors respondents (N = 50)

Age category	Frequency	Percentage (%)
7 – 9	5	10
10 – 12	6	12
13 – 15	15	30
16 – 17	24	48
Total	50	100

Table 9 shows that all age categories in years of respondents were involved in firewood collection for household use and cash income. Those respondents whose age ranged between 7 – 9 years were 5 (10%). The number increased very slightly when respondents reached the age of 10 – 12 years and numbered 6 (12%). Those of age between 13 and 15 were 15 (30%) of them. Those whose ages were between 16 – 17 years were the majority. They were 24 (48%). Again, as a respondent advanced in age he/she became actively involved in the business of firewood collection that led to environmental degradation in the area. The firewood collected was sold and the money was given to parents who in turn could use it to buy food, school uniforms, meet other school expenses. Children below category 16 – 17 collected firewood from short distances ranging between 1 and 2 km from their homes, while those 16 – 17 years group collected firewood from a distance of up to 3km or beyond that distance sometimes for household use and selling in order to earn income. In fact, the firewood collected by children was bought at very low prices by people who ordered for them who in turn used them for household use or resold them more expensively. Making children look for firewood and in turn buying the firewood at a very low price was exploitative, oppressive and hence part and parcel of child labour.

4.9 Education level of respondents collecting firewood

Table 12 presents results of education level of respondents engaged in firewood collection. The results reveal that 43 (86%) respondents collecting firewood for domestic and income earning had primary school education. Those respondents who were still in primary schools were only 5 (10%) while those who had secondary school education were 2 (4%) only. None had adult or non – vocational education level.

Table 10: Education level of respondents collecting firewood (N = 50)

Level of education	Frequency	Percentage (%)
Primary education (a)	5	10
Primary education (b)	43	86
Secondary education	2	4
Adult education	0	0
Non – Vocational education	0	0
Others	0	0
Total	50	100

4.10 Sex of children collecting firewood

Sex-proportion of children involved in firewood collection was also investigated. The question was which sex of children is involved more in collecting firewood? The results are summarized on Table 11 below.

Table 11: Responses on sex-proportion of children collecting firewood (N = 50)

Sex	Number of responses	Percentage (%)
Male	13	26
Female	37	74
Total	50	100

Table 11 reveals that both categories (male and female) were collecting firewood. The table further shows that females children are more involved in firewood collection than their male counterparts. It can be seen from the table that those who said it is female children were 37 (74%) and those who said it is male children were 13 (26%). Thus, the number of females collecting firewood was greater than the number of males. This is ascribed to the perception that firewood collection is the task that has to be

undertaken by women or girls in most of the African societies (Boyd, 1994).

4.11 Age of respondents involved in cutting trees for materials for building houses and non – fuel uses

Researchers also asked the respondents engaged in cutting trees for building houses and non-fuel uses to mention their ages. The results are as illustrated on Table 12 as follows:

Table 12: Distribution of age of respondents involved in cutting trees for building materials (N = 50)

Age category in years	Frequency	Percentage (%)
7 – 9	0	0
10 – 12	0	0
13 – 15	1	2
16 – 17	49	98
Total	50	100

Table 12 presents the distribution of ages of respondents involved in cutting trees to be used as building materials for houses and non – fuel uses. The results shows that 49 (98%) respondents were involved in cutting trees for building materials and non – fuel uses, and one (2%) who was not involved was of the age between 14 – 15 years. There was no respondent involved in cutting trees for building materials and non – fuel uses belonging in other age groups.

4.12 Sex of children involved in tree cutting for building materials and non-fuel uses

Respondents were also asked to indicate the sex-proportion of children involved in cutting tree for building materials and non-fuel uses. In this study building materials refer to sticks, poles, pit latrine poles and ropes. Hard timber trees species were the most

cut trees used for poles. The responses were as indicated in Table 13 as follows:

Table 13: Sex-proportion of children involved in tree cutting for building materials and non – fuel uses (n = 50)

Sex	Number of respondents	Percentage (%)
Male	46	92
Female	4	8
Total	50	100

According to Table 13, 46 respondents (92%) said that male children are more involved in tree cutting for building materials and non-fuel uses while only 4 (8%) said that female children were more than male children. It can then be deduced from the table that more male children than their female counterparts are involved in tree cutting for building materials and non-fuel uses. This is in accordance of cultural distribution of gender roles in Tanzania society where tree cutting for building materials is taken as a task to be done mainly by males.

5.0 Impact of child labour on the environment in Lukobe ward

The impact of various activities in which children were illegally involved was explored through questionnaire, interviews, observation and documentary review, the following were the results:

5.1 Brick making

Respondents were asked to count bricks they made on each working day for 30 days worked at the site/hole in order to determine land destruction at each area surveyed. Table 16 presents the average number of bricks made per age cohort per day during the peak period of September. It was found that the

respondents aged 10 – 17 years, degrade the land through brick making at places not allocated for brick making by the Village Administrative authorities more than any other age cohort group. Respondents reported that the speed of soil erosion at the brick making sites was so fast that holes were widening and deepening during every brick making season. At the beginning usually a hole is started with a radius of 4 meters wide and 5 meters deep. A year later that radius doubles and sometimes triples. The fertile soil for gardening is taken away for brick making. The results are illustrated by Table 14 as follows:

Table 14: Number of bricks made by respondents per month of September 2010 and 2011 (N = 50)

Age	Brick making	
	2010	2011
7 – 9	-	-
10 – 12	-	-
13 – 15	6,000	7,500
16 – 18	15,000	17,400
Total	21,000	24,900

The widening and deepening of the holes caused brick making to be strenuous because the respondents had to take the unbunt bricks a long distance for drying them. Withered grasses to cover the bricks to protect them from breaking due to direct sun light effect are now found at a distance when compared to the time when a hole was first started. Table 15 presents the area coverage destroyed by brick makers at the end of each brick making season at Lukobe Ward.

Table 15: Area coverage destroyed by brick makers by square metres by 2010 and 2011

Hole	2010	2011
	Sq m	Sq m
Nguvu Kazi	85	216
Mzembe	115	320
Tumbaku	230	381
Ngerengere	171	398
Total	731	1,517

Table 15 further shows that, for the year 2010 – 2011 depletion of the farming area has increased by 786 sq m due to the removing of the soil through brick making activities. If the annual increase continues, say another ten years, there will be 7,860 sq m of land depleted at the surveyed area through brick making. Furthermore, each child cuts down two trees from the forest for burning laid bricks, making a total of 728 trees a year leading to deforestation. Thus, food shortage is likely to happen at Lukobe Ward, since the arable land for agriculture is yearly reduced.

5.2 Tree cutting activities for charcoal making

Respondents engaged in preparing charcoal claimed that the minimum number of trees cut in order to prepare one full big bag of charcoal called Lumbesa is close to twenty seven *milama* trees. This is due to the fact that nowadays only small sized such trees are found in the area, otherwise, only fifteen trees are enough to fill a sack. For one to make a profit from charcoal preparation job he/she needs to have at the end 15 – 35 full bags; that is an average of 25 bags per tunnel. One can calculate therefore, the 42 respondents cut 675 trees per month, 4050 trees at each September and that is about 6.75 hectares that are destroyed at each year in September.

Experienced charcoal vendors usually carry two bags per trip, everyday, laying a total of 12 bags a week excluding Sundays. For the 50 respondents involved in charcoal vending, a total of 600 sacks are carried by bicycle means out of Lukobe to other areas every week. Each vendor then carries 324 trees to town and elsewhere, 1296 trees per month and 7,776 trees per half a year. This alone exemplifies why trees for charcoal burning are today found at a distant place from Lukobe Township. People cut trees everyday and then walk to wherever they are found regardless of distance. In addition, during the period of conducting the study, Lukobe Ward experienced extended rainy periods, making the work of preparing charcoal rather difficult. Charcoal was sold at an exorbitant price of Tshs 30,000/= per sack. No wonder, that, charcoal dealers took that advantage and continued to do the job, Thus trees continued to be cut and forest depleted at a speedier rate, welcoming desert land features at the area. Due to bare surfaces in various places at Lukobe ward gullies have been created and even making some places difficult to pass with cars.

5.3 Wildlife extinction in the area

Lukobe Ward used to be one of the bushes and forested areas in Morogoro Municipality. In the near past, the Mgulu wa Ndege Forest was for example the home of different wildlife species including baboons, squirrels, civet cats and monkeys. When tree cutting began for obtaining building materials the wildlife began disappearing. The respondents were asked to give information on the availability of such wildlife in the study area for the past two years, 42 respondents (84%), said there is a fast extinction rate of such animals. Only 6 (14%) said the rate of wildlife excitation in the Lukobe Ward at a slow pace. The responses regarding wildlife extinction pace are indicated in Table 16 as follows:

Table 16: Respondents views on Wildlife excitation status (N = 50)

Status	Frequency	Percentage (%)
Slow	6	12
Fast	42	84
Don't know	2	4
Total	50	100

The respondents commented that wildlife including swine, gazelle, hyena, rock rabbits and some reptiles, are no longer seen wondering at Lukobe Ward area. No foot prints of such animals can be seen at the area these days. Birds such as francolins, crested, cranes, and guinea fowl to mention a few are no longer found at the study area. Also, tortoises are an example of endangered animals in the area.

The respondents were again asked to mention the causes for wildlife extinction. The causes for wildlife extinction at the study area are summarized on Table 17 below.

Table 17: Causes for animal extinction at Lukobe Ward (2009 – 2011) (N = 50)

Reason	Frequency	Percentage (%)
Fire outbreak		
(a) Honey extraction		
(b) Firewood searching	37	74
(c) Easy wildlife catching		
(d) Cigarette/Tobacco smoking		
(e) Land division problem		
Food (meat)	10	20
Income earning	3	6
Total	50	100

The majority of the respondents, that is 37 (74%), ascribed to fire outbreaks as the major cause of killing of wild animals in the area. Fire outbreaks are also started by children in the process of honey extraction, firewood collection, animal chasing, cigarette/tobacco smoking and solving land demarcation problems. This reason accounted for 74% of the respondents and only 10 (20%) respondents were of the opinion that they killed wildlife in order to provide meat for them. Lastly, wildlife was killed in the area for income generating purpose. At present, it is very rare to see wildlife in the area when compared to twenty years back, when wildlife crossed through Lukobe Corridor area to and from Mikumi National Park to Wami Mbiki National Park area.

6.0 Conclusion and recommendations

6.1 Conclusion

Based on the above findings of the study, it is very clear that child labour at Lukobe Ward is causing environmental degradation since children are being used to work in activities that cause environmental degradation. Children are engaged in making bricks, cutting trees for charcoal making and vending, building materials, chasing animals and killing them for food and income earning, as well as honey extraction. These activities from time to time result in soil erosion, fire outbreaks that devastate trees as well as creeping and root plants useful to human, birdlife and wildlife survival. Moreover, the ecoforest system is disturbed and destroyed leading to environmental destruction. Child labour at Lukobe Ward has curtailed the existence of varieties of plants, insects and wildlife species that people earlier depended on during food shortage seasons. With the impact of child labour on the environment and bearing in mind that there are possibilities of the respondents to continue doing so, the ward is even more likely to turn to semi-desert in the near future if the problem is not contained. Age, lack of education, absence of vocational education and job opportunities, poverty, child exploitation and

lack of respect for mother earth are some of the factors that cause children to engage themselves in environmental destructive activities at Lukobe Ward of Morogoro Municipal Council. Finally, the negative impact of child labour on the environment at Lukobe Ward can be generalized to other places in Tanzania, where children are engaged in similar activities with similar oppressive psychological and socio-economic conditions in Tanzania.

6.2 Recommendations

The following recommendations are put forward based on the findings and conclusions discussed in the study. First, immediate measures need to be taken by the Morogoro Municipal authority to curb the situation by enforcing its by-laws that prohibit unlawful practices of cutting trees, making bricks at unspecified places, the illegal extraction of honey, as well as chasing and killing of birds and wildlife at the area. Briefly, the Municipal Council needs to use its respective organs dealing with law enforcement in order to redeem the situation.

Second, the Municipal Council in collaboration with eco-tourism stakeholders should plant trees, develop forest schemes and turn Lukobe and Mgulu wa Ndege Mountains into tour sites or a sanctuary, in which case the conservation of the area will be a necessity, a lawful and an income generating asset will be in place. Ultimately, the area will be saved from environmental destruction currently being done by children and will therefore be conserved.

Third, there should be open development education and other activities that will help change the children from their current beliefs that the activities they are currently engaged in are the only avenues for sustaining their lives. Future development needs to be halted and contained, and children in the area should be taught to take the contextual challenges of their age and economic

conditions passively and seriously. They should strive to join regular or vocational education rather than depend on environmental degradation activities for incomes. Such positive thinking and moves will help them get the skills and proper continuing education instead of depending on the environment for the survival.

Finally, since child labour is as partly the struggle of the children to supplement their family incomes and survival, programmes that are to disengage them from work need to be planned and implemented, and alternative means of income are sought for their families and themselves too. In this way, those children who dropped out of school be taken back to school and start to see the value of education – primary, secondary as well as vocational. In all types of education to be provided to such children, the curriculum should infuse environmental psychology education courses that would guide them to value and respect the environment.

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