

Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 225 (2016) 291 – 302

Procedia
Social and Behavioral Sciences

“Conservation of Architectural Heritage, CAH” 23-27 November 2015, Luxor

Using contingency valuation approaches to assess sustainable cultural heritage tourism use and conservation of the outstanding universal values (OUV) at Great Zimbabwe World Heritage Site in Zimbabwe**Nyasha A. Gurira^{a*} - Patrick Ngulube^b**^{a*} Midlands State University Department of Archaeology, Cultural Heritage and Museum Studies, P. Bag 9055, Gweru, Zimbabwe^{b*} School of Interdisciplinary Research and Postgraduate Studies, University of South Africa, P. O Box 392, UNISA, 0003

Abstract

Sustainable cultural heritage tourism is correlated to conservation use and tourism usage. The case study examines the tourism use of Great Zimbabwe World Heritage Site (GZWH) using the contingency valuation method. It assesses whether there is enough input from tourism use directed towards the conservation of outstanding universal values (OUV). The tourism use is unsustainable, where tourism use is less than conservation use, at the property. The findings demonstrate that the plan used to maintain a balance between conservation and use at GZWH were inadequate and unresponsive to the micro-environment in which it exists. Recommendations for a shift in conservation strategy are made.

© 2016 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

[\(http://creativecommons.org/licenses/by-nc-nd/4.0/\)](http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of IEREK, International experts for Research Enrichment and Knowledge Exchange

Key words : Conservation; Sustainability; Contingency valuation; Tourism use. Outstanding universal value**1. Introduction**

Cultural heritage as part of the cultural economy is recognized for its economic value as an important source of revenue generation through tourism. The World Commission on Culture and Development (WCCD) recognises that “...*Tourism is fast becoming one of the biggest industries in the world and cultural heritage provide much of its life-blood*” (WCCD, 1995). That is supported by Irina Bokova (2011) the Director General of United Nations Educational, Scientific and Cultural Organization (UNESCO), who points out that cultural heritage sites especially those listed as World Heritage sites generate a lot of revenue. There is a need to ensure that, cultural heritage and tourism assume a symbiotic relationship to achieve sustainability of the resource. The exploitation of heritage

* Corresponding author. Tel.: +263773872936; fax: +26354260544.

E-mail address: gurirana@msu.ac.zw

resources brings about as many pitfalls as benefits. Hence, there is a need to adopt sustainable tourism practices when dealing with heritage assets.

Tourism can contribute to the protection and restoration efforts if the right balance is struck between economic gain and negative impacts. In practice, the reality may be elusive (Pederson, 2000:7). Using contingency valuation approaches, this study investigated how the balance between sustainable cultural heritage tourism use and conservation of the outstanding universal values (OUV) at Great Zimbabwe World Heritage Site (GZHS) in Zimbabwe.

1.1 Contextual background

In the past the relationship involving economics, development and heritage was one that was regarded as anatomic. These three components were viewed as irreconcilable as the latter was regarded as deficient on matters of conservation of the cultural resource (Bandarin, 2011:16). Many cultural heritage sites are under threat as a result of development targeted at promoting or enhancing cultural heritage tourism products. For example, in sub-Saharan Africa Robben Island in South Africa and the Victoria Falls in Zimbabwe were threatened by uncontrolled tourism infrastructural development and the effects of mass tourism (Bourges, 2011:8). Thus the introduction of sustainable cultural heritage tourism which seeks to balance the adverse effects of tourism on the cultural heritage and its sustainability cannot be underestimated. The notion of sustainable tourism takes full account of the current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities. Sustainable tourism can be summarized by the equation: Sustainable Tourism = Tourism Use = Conservation Use”.

Cultural heritage tourists are becoming more interested in environmental protection so that cultural resources are utilised in a sustainable way. They are increasingly considering environmental quality as well as the quality of services as factors in their selection of tourist destinations. They favour environmental conservation coupled with simple, efficient and pleasant service. It appears that many tourists now prefer unspoiled and uncrowded destinations (Pederson, 2002). That makes sustainable cultural heritage management important. Great Zimbabwe WHS thus its management and conservation is guided by the World Heritage Centre [WHC] (1972) which underscores a need for the sustainable use of heritage resources and the principle of intergenerational equity.

Great Zimbabwe WHS has a relatively pristine and serene natural environment in terms of a variety and quantity of flora and fauna as compared to the surrounding region. It is the largest and most impressive of the more than 300 Zimbabwe-type dry-stone walled structures scattered all over the southern African region. In comparison, Great Zimbabwe was probably the largest settlement in sub-Saharan Africa and certainly the largest built up area before the advent of colonization at the turn of 19th century (Ngoro, 2005). The architectural components of Great Zimbabwe have been divided into four main zones, namely the Hill Complex, Great Enclosure, Valley Ruins and the Peripheral settlements. The property was given world heritage status in 1986.

While the dry stone walls are the most characteristic features of the monument, they occur together with other structural remains. Dhaka floors are an integral feature of almost all the enclosures at Great Zimbabwe. Common features of the house floors include low benches, fire places. Great Zimbabwe is ascribed as a ‘living heritage’ this is because the leadership of spirit mediums and local chiefs, the practice of the African traditional religion of the Mwari belief system at Great Zimbabwe which demonstrates the sacredness of the site in contemporary times. Other Christian sects also patronize the place for spiritual empowerment (Great Zimbabwe Management Plan, 2012; Ngoro, 2004). The presence of caves, tunnels, huge natural boulders in association with mythical stone carvings of stone birds, snakes and crocodiles at Great Zimbabwe are tangible or physical expressions of the deep-seated spirituality and sacredness of the site.

The natural environment within and around the Great Zimbabwe Estate is important for the survival of the archaeological remains and the understanding of the relationship between the built environment and its setting (Great Zimbabwe Management Plan 2012:39). The natural fauna has to a large extent been eliminated by poaching and other means. Although the flora is not much different from the surrounding areas, it needs to be kept under control, particularly from the invasive lantana camara and guava species (Great Zimbabwe Management Plan

2012:39).

Great Zimbabwe WHS is one of the assets that has given Zimbabwe a competitive edge as it is both a natural and cultural asset with outstanding universal value. Demand for this natural and cultural value is high in the cultural heritage tourism market evidenced by its high ranking of 22 on the cultural tourism competitive market index (Africa Competitiveness Report, 2013). In 1988 the National Museums and Monuments of Zimbabwe (NMMZ) with the assistance of the UNESCO and the United Nations Development Programme (UNDP) developed a Master Plan for Resource Conservation and Development of the Archaeological Resource in Zimbabwe (Collett, 1988). The Master Plan aimed at reducing the dependency on government funding by parastatals and making them more self-sufficient.

The Plan (Collett, 1988) realized the great cultural heritage tourism potential that was in the country at the time and it devised a three tier system plan which was aimed at developing the cultural heritage resources as a visitor attraction in such a way that would not compromise the conservation of the heritage resource. The first tier was conservation of the site and ensuring long term utility, the second focused on income generation through tourism and the last tier was aimed at ensuring benefits were realised by the community and by NMMZ. The three tier system focused on the conservation of the OUV for long term use of the resource. Traditionally, income generation was through entrance fees, sale of souvenirs and refreshments, collection of donations and the provision of accommodation. However, donations and other non-use values have been affected by the current macro-economic environment. Much of the activities at GZWHs especially towards conservation are funded through government grants and its tourism use. The fundamental part of the Plan (Collett, 1988) stressed that the use of the asset was supposed to benefit its conservation. Sustainable use is attained where conservation use and tourism use are at par. To ensure sustainability is achieved it is important to ensure that use is not greater than conservation or vice versa.

The study used a case study approach to assess whether tourism use enhances or maintains the OUV of Great Zimbabwe WHS and calculated the total use value of Great Zimbabwe. The use value was calculated using the hedonic property pricing method. The hedonic property pricing method can be calculated using the formula: the sum of visitor values and the resident values gives the total use value. A willingness to pay (WTP) survey and a valuation of properties around the site was carried out (see, Hidano, 2002, Taylor, 2003). This technique is based on the landmark asset where people living in and around the site derive an amenity benefit which is reflected in the value of their asset (see, Provins, 2008).

2. Determining the use values of Great Zimbabwe WHS

A WTP survey was conducted in combination with an assessment of the state of conservation was done. In determining the use value of Great Zimbabwe WHS the researchers began by calculating the income elasticity of the visitors, this was to show the relationship that exists between income and willingness to pay as cultural heritage is an elastic good depended upon income for its demand. Willingness to pay of the local, regional and international tourists was also calculated together with the WTP of residents living around Great Zimbabwe. Lastly all the findings were combined to estimate the total use value of Great Zimbabwe WHS.

Table 1: Income elasticity for local tourists

Income increments		+100	+150	-50
Income range				
\$250 and below	0,3	0,3	2,33	-0,2
\$250-500	2,544	2,498	2,085	-0,801
\$500 and above	0	0	0	-8,995

Income elasticity of demand measures the percentage change in quantity of visitors divided by the percentage change in income where income will usually be measured in real per capita times. Income elasticity of demand is a numerical measure of the responsiveness of the quantity demanded following a change in income alone. Formula used in this case study is:

$$YED = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

Table 1 indicates the inelastic nature or elasticity of local tourists in different income ranges. It shows how these tourists respond to an increase or decrease in income and how they view Great Zimbabwe WHS as a normal or inferior good. Table 2 illustrates the inelastic nature or elasticity of regional tourists in different income ranges. It shows how these tourists respond to an increase or decrease in income and how they view Great Zimbabwe WHS as a normal or inferior good.

Table 2: Income elasticity for regional tourists

Income increments	+50	+100	+150	-50
Income range				
\$250 and below	3,759	1,873	1,25	-2,999
\$250-\$500	10	4,997	6,667	0
\$500 and above	1,5	0,75	6,667	-1,5

Table 3: Income elasticity for international tourists

Income increments	+50	+100	+150	-50
Income range				
\$1000-2000	16.378	10.9025	7.2727	-19.092
\$2001+	0	0	0	0

Table 3 demonstrates that the inelastic nature or elasticity of international tourists in different income ranges. It shows how these tourists respond to an increase or decrease in income and how they view Great Zimbabwe WHS as a normal or inferior good. Generally all categories of tourists are of the opinion that touring Great Zimbabwe is a normal good affected by income elasticity.

2.1 Willingness to Pay (WTP)

In determining the WTP a marginal demand curve graph was used where A and B were plotted, with WTP was calculated as A+B which is the area under the graph. P_H is the maximum entrance fee that a tourist is willing to pay. P_M is the ruling entrance fee which in this case is \$5. P_0 means entrance is free. The same graph was plotted for the three categories of tourists and results show the WTP of all three categories of tourists. Table 4 shows that the income elasticity of willingness to pay, the current entrance fees charged by the NMMZ and the amount that each of the three groups of tourists is willing to pay for access and provision of services at Great Zimbabwe WHS.

Table 4 Income elasticity of willingness to pay

Data	Local	Regional	international
Income elasticity of WTP	0,526	0,244	4,4326
Current entrance fee charged	\$5	\$10	\$10
Average WTP	\$6	\$9,461	\$19,56

According to the research results the income elasticity of willingness to pay for locals is generally inelastic meaning that the willingness to pay for locals is relatively unresponsive to the changes in income. The regional tourists also seem to be less responsive to the changes in income thus making them inelastic to the willingness to pay. However international tourists show a relatively elastic trend in their income elasticity of willingness to pay. The average WTP for the locals is \$6 compared to the ruling entrance fee of \$5 which indicate an understated price of \$1. On the other hand the price for the regional tourists is overstated by \$0,539 because they are willing to pay \$9,461 but they are being charged \$10. The international tourists are being undercharged by \$9, 56 as they are willing to pay \$19, 56 but are being charged \$10 by Great Zimbabwe.

2.1.1. Willingness to Pay (WTP) for residents

According to valuations by Great Zimbabwe real estate agents the sum of willingness to pay for residents is \$80 500 where average willingness to pay for each resident is \$23. This figure was derived from a valuation of properties around Great Zimbabwe this is inclusive of commercial, farming and residential properties.

2.1.2. Hedonic property pricing method application

In determination of the use value is the formula is the sum of visitor value plus sum of resident value thus (Sum of WTP which is locals plus WTP foreigners plus WTP residents). The estimated total use value of Great Zimbabwe is **US\$480 174**. This estimated use value indicated that there is a high use value of Great Zimbabwe WHS as compared to its conservation. The overall budget for conservation is **\$86 826** is budgeted for conservation in 2014 at Great Zimbabwe WHS. Thus the current situation is one that is unsustainable were the use value of the WHS is not at par with its conservation. Using the current budgeted amount for conservation of the WHS it would take five and a half years for the NMMZ to match the estimated use value of Great Zimbabwe with its current conservation budget. Thus the equation at Great Zimbabwe is where,

“Tourism Use > Conservation Use”,

The total revenue generated at Great Zimbabwe in 2014 is **\$330 944, 38** from tourism receipts with **\$170 000** generated by the small business unit. Of the revenue generated from tourism receipts **26%** is directed towards the conservation of the WHS.

2.2 Multi- criteria condition assessment of the OUV, `at Great Zimbabwe WHS

A multi criteria assessment was used to assess the state of conservation at Great Zimbabwe WHS. This was informed by the OUV of the WHS.




2.2.1. Dry Stone Walls




The research focused on the dry stone wall found at the WHS as a whole looking at the Great Enclosure, Hill complex, Central valley ruin and central ridge ruin and peripheral settlements guided by the Great Zimbabwe management plan (2012). There are a total 90 walls at Great Zimbabwe WHS of the total a sample of 30 walls were assessed, these targeted known problem walls and stabilized walls.

2.2.1.1. The Great Enclosure

Overall analysis at the great enclosure indicates evidence of human intervention to curb the major structural problems. This indicates the dedication of the NMMZ to counter stability problems at the particular area. The abundance of restoration and reconstruction efforts shows the level of concern by the NMMZ towards maintaining and enhancing the architectural values associated with the great enclosure. Table 5 shows the Great enclosure, the structural problems evident on the walls, restoration history and wall pictures

Table 5: Great enclosure, structural problems evident on the walls, restoration history and wall pictures (Pictures taken by first author)

Great Enclosure wall number	Foundation	Structural problems	Conservation history	Intervention	Wall picture
17	soil	shearing, splits, gradual collapse	Restored wall in 2012	Monitoring damecs strain gauge	
18	soil	Inward leaning	Restored wall	Damec Strain gauges , colour coding	
19	soil	splits	Previously restored wall	Colour coding	




Conical tower	soil	Bulging, toppling, poor bonding, voids	Excavations done by archaeologists in the past	Monitored by observation with a theodolite	
Conical tower Upper section	soil	toppling,		Trimming of trees to reduce their effect on the tower	
5	soil	none	Restored 2012	Colour coding	


2.32.2.1.2. Hill Complex, Central Valley Ruins and Central Ridge Ruins

The Hill Complex is another major structure at Great Zimbabwe. This aspect is another element of the monument demands great attention as it is believed to be a part of the sacred aspects related to the WHS. Walls at the complex show a great deal of intervention and an effort towards monitoring. The walls at the hill complex show a lot of effort towards restoration walls, 23, 18 and 28 all restored walls (see Table 6). Efforts to ensure that future restorations of problem walls are adequate include the use of colour coding and damec strain gauges. Other methods used to monitor walls is the use of glass wire tale, tales and theodolites to measure changes in the distance from the wall to a marked point. Table 6 identifies structural problems, conservation history and wall history.

The Central Ridge Ruins are also an important part of the Great Zimbabwe WHS, the ridge shows efforts of restorations by NMMZ. The Ridge Ruins are close to the Central Valley Ruins, this area generally shows major structural problems and decay. There is however evidence of monitoring on the recognized problem walls. In presenting the picture at Great Zimbabwe WHS, these four platforms are the areas were efforts toward conservation are focused. They show a clear effort by the NMMZ to preserve the outstanding universal architectural value of the WHS.

Table 6: The Hill Complex, Central Valley Ruins and the Central Ridge Ruins (Pictures taken by the first author.)

Hill Complex wall number	Foundation	Structural problems	Conservation history	Intervention	Wall picture
23	Soil and rock outcrop	Cracks and poor bonding	Wall under close monitoring	Damecs strain gauge	
Central Ridge Ruins Wall 18	Soil	Splitting, poor bonding, cracks (major cause root action)	Restored wall	Damec Strain gauges ,	
Central Ridge Ruins Wall 28	Rock outcrop and soil	Splits, poor bonding, root action by trees	No restorations	Wall under close monitoring and has been photographed	

Wall 28 side view	Rock outcrop and soil	Splits, poor bonding, root action by trees	No restorations	Wall under close monitoring and has been photographed	
-------------------	-----------------------	--	-----------------	---	--

2.2.1.5 Conservation Equipment and technical staff

Interviews with curatorial staff and technical staff revealed that the equipment used in conservation was now out-of-date. They highlighted that since 2008 there has been limited purchase of conservation equipment. The budget for conservation equipment according to the curators is limited and is exhausted by maintenance equipment. At the present moment the department has one camera and has been carrying out documentation with one camera. They also have one theodolite for measuring wall movement. In terms of technical support the whole of NMMZ is serviced by one surveyor and a student attaché in the department. This according to stone masons at the WHS is a cause for concern as it slows down progress in regards to monument conservation work.

2.3. Dhaka/ dagga Structures

The researcher also carried out observations of the state of conservation for dhaka/dagga structures which also contribute to the overall OUV of the WHS. Efforts by the NMMZ conserve the structures include thatching and the use of back filling. According to the curator Archaeology at the WHS conservation of these structures is problematic as there is little knowledge about their composition and this impedes reconstruction. Dhaka/dagga structures at Great enclosure show evidence of conservation efforts with the structures newly roofed. At the hill complex the Dhaka structures are still under threat as some remain exposed with very little to nothing being done in regards to their conservation. Figure 1 and 2 depict the dhaka/dagga structures at the hill complex and at the Great enclosure. Overall conservation of dhaka structures is still a grey area at Great Zimbabwe with little research being done to try and ensure adequate conservation. According to the curators, the conservation centre is not functional as experiments to determine interventions are not being conducted due to financial challenges. Funding for research projects is limited with conservation getting only a 26% allocation from the tourism use at the site.



Figure 1: An exposed hut floor in the Hill Complex



Figure 2: A roofed hut structure at the Great enclosure

2.4 Observations on natural environment

The conservation of the natural environment is a critical component of the conservation of the OUV of the WHS. It is this natural environment which adds value to the site as a tourist attraction. Thus there is a need for maintenance of the environment. The greatest threat to this environment is the invasive species which if left to grow causes damage to the walls and the setting. *Lantana Camara* and guavas tree growth are the major problems at Great Zimbabwe. According to the Curator this has been a major challenge at the site and funding to address this issue has not been fruitful based on the already limited funding for conservation. A larger part of the conservation budget according to the curators is spent on seasonal labour for clearance of roads and cutting down over grown trees. In a letter to the Executive Director of the NMMZ, a prominent Zimbabwean archaeologist raised concern on the growth of guavas and lantana (see Figure 3). He noted that the staff at the site was even pruning the guavas. Pruning of these trees shows lack of appreciation by staff of the dangers posed by the guavas. Overall the environment is under serious threat from Lantana and guava invasion and the natural fabric of the site is slowly being compromised. According to the curators at the WHS they have launched an application with UNESCO for assistance with this problem and are still awaiting approval. They seek both technical and financial assistance to counter this challenge.



Figure 3: Guava growth on the environment and lantana growth. (Picture taken by first author)

2.5 Conservation of the intangible values

The researcher asked local communities whether they are involved with the conservation of the site. The questionnaires indicated 68% of the respondents denied involvement with the conservation of the site. When asked whether they participated in restoration exercises they also denied involvement. An interesting point raised by Chief Mugabe was that, “*restoration of the walls was not complete, he said there is a need carry out traditional ceremonies together with those restorations as the site was a sacred place.*” According to the NMMZ the technical staff the stone masons are members of the local community and so communities are involved in the restoration processes at the WHS.

Interviews with other chiefs and head men revealed that involvement in regards to conservation was through the local committee board who are active towards ensuring that there no stray cattle from the locals coming into the WHS, they also assist in the creation of the fire guard and control of veld fires. The local committee board is also consulted in regards to the intangible values found at the site. Minutes from the board confirmed that the local committee is a tool for countering human action which poses a threat to the site. At the present moment a case in point where communities at Great Zimbabwe are being asked to assist in the restoration of the Mujejeje which is a sacred entrance to Great Zimbabwe WHS.

2.5.1. Mujejeje and community conservation

Mujejeje is the sacred entrance to the Great Zimbabwe ruin, it is believed to be associated with the Nemanwe totem. It is a part of their oral history. The Mujejeje entrance is believed to be the entrance to the site. Legend has it that upon entry to the WHS in the past visitors were expected to pick a stone and chant words while drawing a line across the rock surface and deposit a stone at one end of the entrance and similarly when leaving they were expected to repeat the process. According to the locals this was a way of controlling visitors and had a spiritual significance to the people. In 2012 the Mujejeje was vandalized and destroyed prior to this destruction a young men and a spirit medium were spotted carrying out rituals at the location, Currently the NMMZ is trying to persuade the local community to participate in its restoration as was once done at Nyakasikana place. In this case the local community together with the NMMZ held a traditional ceremony to try and resuscitate the hot spring which had been vandalized by the white colonialist. In the case of Nyakasikana the rituals done there were said to have worked but subsequently the spring dried up again. In the restoration of the Mujejeje the NMMZ wanted the communities to carry out rituals for its restoration however community cooperation is limited. Due to ownership wrangles the question remains who leads the process and who does what and what needs to be done.

According to the curator for ethnography ownership squabbles at the WHS hinder locals from being given access to carry out ritual practices. Subsequently this has left the intangible values at risk as communities have restricted access for rituals and in some cases are denied access. According to Chief Mugabe the spiritual and sacredness of the WHS is slowly eroding away. According to Chief Murinye “Great Zimbabwe lost its spiritual and sacred values during the colonial period and with independence the control mechanism used by the NMMZ perpetuated the ideals of the colonial regime were access for rituals at the site is still restricted”. Heard men Nemanwe also argued that, “*Sevaridzi venzvimbvo tinofanira kukwanisa kuita mabira edu asi ikozvino nepamusana pekurambidzwa kuita mapira edu, taanenzira dzimwe dzekupira nadzo tongotarisa toti veMuseums ngavaite*” (translation: as the rightful owners of the place we should be able to carry out our traditional rituals but because of these restrictions we now have other ways of carrying out our rituals we will simply look and see at the NMMZ people are doing it). These chiefs stress that as rightful owners of the WHS through traditional ownership rights they should be given access to perform rituals at the site. They agree that this access should be limited but should at least allow them to carry out rituals annually. In a letter directed to the NMMZ asking for permission to carry out a ritual, a local traditional healer

Mbuya VaZarira from the Mugabe clan was denied access based on the fact that a similar ritual had been carried out two years before.

Interviews with the NMMZ revealed that access to carry out rituals at the WHS is granted by the Ministry of Home Affairs and is beyond their control. According to the NMMZ staff rituals at Great Zimbabwe WHS were last conducted in 2012. Overall the issue of access to the site for ritual purposes is still a thorny issue at Great Zimbabwe WHS, where locals feel that their rights as heritage owners are not being recognized. The desecration of the Mujejeje is a typical case of the value of community involvement in conservation. The focus on conservation at Great Zimbabwe WHS is still monumental and it ignores the intangible aspects associated with the WHS though it acknowledges its existence. This creates a credibility gap in the overall conservation of the WHS.

3. What is the use value at Great Zimbabwe WHS?

The current use of Great Zimbabwe WHS is unsustainable with results indicating that the use value of the WHS is higher than the conservation use. The current tourism use of GZWHS is estimated is **US\$480 174**. yet the overall budget for conservation is **\$86 826** as of 2014. Based on the current budget for conservation it would take GZWHS five and half years to equal the estimated tourism use value. Though the idea of putting a price tag to heritage is difficult, the use of contingency valuation method is an avenue for estimation. *“Well-managed tourism can assist in conserving important natural and cultural assets and traditions through the proper economic assessment of the total value of these resources and generating income for their maintenance and improvement”* (Klamer and Throbber, 2000). This estimation allows for carefully planning where heritage managers are informed of the estimated cost of use of the heritage resource. This information is vital to conservation planning and budgetary implications as it allows practitioners and those responsible authorities to allocate adequate funds for conservation practice as this a major priority in achieving sustainability. This estimation also allows for considerations of other ways to achieve sustainability. This points to the need for considering non-use values were conservation is also aided by donations, bequests and good will (Murato *et al*, 2002). At My Son Sanctuary WHS in Vietnam non-use values have provided a major source of income and have significantly contributed to funding the conservation agenda. The exploitation of non-use values in the current macro-economic environment in Zimbabwe were such factors as sanction are overweighing is problematic. Non-use values in the context of the current macro-environment cannot be relied upon there is a need to try and come up with other strategies that ensure that sustainability is attained. The measure for attaining sustainability should not be based on monetary measures alone as it often fails to capture the cultural values associated with heritage.

3.1 Maintenance or enhancement of the OUV attached to the site: A multi criteria condition assessment (MCA)

WHS conservation is guided by an intrinsic understanding of the values that are attached to the site. This places emphasis that all conservation should respect the values that are attached to the site both the tangible and the intangible values, this based on the unique nature of the cultural heritage. Conservation should be holistic in approach and aim to incorporate all the important attributes of the site and its characteristics. An evaluation of the conservation of these values and whether they are being enhanced or maintained or even lost through use as a tourist attraction was done using guided observation so as to assess the state of conservation of the OUV. In this case the cause and effect relationship should be considered. This relationship however in the context of GZWHS can be difficult to ascertain however any negative changes in the OUV can have a negative impact on tourism thus conservation efforts should be holistic and not confined to the effects of use. The measure for sustainability should also be assessed by looking at the conservation of the cultural values outside the economic paradigm (Thorsby 2001, 2007 and Klamer and Throbber 2000). A MCA approach enabled assessing efforts towards conservation of the values or in the case of GZWHS it's OUV. The main driving force behind conservation is to ensure that the OUV is maintained and enhanced through its tourism use. Conservation action is informed by the OUV of the WHS, it is this OUV that should guide conservation planning and activities.

Conservation should be holistic and not over emphasize one value over the other. There is also the need to guard against over emphasis on monumentality or leaving out the intangible aspects. The current situation at Great Zimbabwe reflects all these aspects are not being put into consideration.

2.63.1.1 Drystone Walls

Current efforts in the conservation of the architectural value at GZWHS is commendable though it still has its challenges in regards to the equipment and technical support needed for conservation. At the present moment the concerns over the state of conservation of the walls by the stone masons is justified considering the fact that the entire conservation budget for the used 26% of the revenue generated in 2014 towards conservation. The availability of equipment for conservation of the dry stone walls is also alarming as the equipment is what enables conservation to occur and in the case of dry stone walls restoration is governed by the availability of photographs to support the practice, the absence of cameras for use impedes conservation. This means that such activities such as condition assessments are with limited progress and that such things as measurement of wall movement by using theodolites is limited as there is only one theodolite and one surveyor serving not just Great Zimbabwe alone but other monuments of a similar nature found in the country. According to UNESCO report (2013) on the state of preservation at Great Zimbabwe WHS, adequate financial resources need to be provided to ensure the sustained implementation of conservation, maintenance and monitoring activities and skilled staff needs to exist to mitigate the progressive deterioration of the heritage resource. Thus there is a need for NMMZ to consider other more practical cost cutting measures so as to enhance efforts on conservation. The directorate acknowledges that currently revenue generated from Great Zimbabwe supports a lot of its operational activities and that the limited funding from government has led to this 26% allocation.

In essence revenue generated is used for funding other projects this why NMMZ is making an effort to increase the revenue generated from the WHS as it is a major tourist attraction Efforts to increase their funding base was in plight for survival of the institution and its operations. This approach is commendable as it realized the need to increase the use of the WHS. This increase in use will also enable more efficient means of meeting operational costs. The problem however of lack of conservation funds will not be adequately addressed. There is a need for NMMZ to actively engage government authorities in regard to management planning for the WHS. They need to be made aware of the implications of the current conservation allocation and that implication on continual use if an enhanced conservation budget is not applied. At Mapungubwe government officials are a part of the stakeholders in the management planning process and so are aware of the need for adequate conservation.

There is also a need for a clear policy on what amount of the revenue generated should be used for conservation as was done at My Son WHS. The current framework used by the NMMZ Collett (1988) does not adequately address this issue. This has left the institution at the mercy of government grants as its policies are unclear in regards to its conservation needs. This necessitates the need for revision of the Collett plan as it no longer responsive to the current micro-environment in which it exists. Donations were a reality in 1988 which aided in the conservation of the WHS, but changes in the macro-environment require policies that are based on self-sustenance. In order to adequately achieve a sustainable balance between conservation and use there is a need to create clear policies which recognize the implications of the current micro-environment. According to Porter (2004) strategies can only be effective when they are responsive to their environment.

3.1.3 Dry stone walling conservation and communities

As aforementioned the efforts towards dry stone wall conservation are commendable though due to the nature of dry stone wall architecture where there is no established foundation the structural problems are recurrent. According to the locals however the continual collapse of walls even after restoration is an indication of the lack of attention to the spiritual component to the walls. According to local communities at the WHS the fact that the restorations are not supported by rituals and traditional ceremonies contributes to the collapse of the walls. Heritage according to Muzzouri (2000) in the context of Africa does not practice eco-apartheid implying, in the context of Africa even a tree has a soul. In the case of the walls at GZWHS the implication is that the walls have a soul and it is this critical component which being ignored in their conservation. The ascription of this intangible values to the walls implies there is a need to also conserve this intangible fabric to the walls as it forms a part of the wall. In summation the conservation of the walls at Great Zimbabwe WHS is incomplete without rituals and traditional ceremonies augmenting restorations at the site. The practicality of carrying out rituals with every restoration however is not plausible it might be best to adopt an annual ritual which allows for these ceremonies to be done so as to ensure that

the tangible as well as intangible aspects of the walls.

3.1.4. Dhaka/dagga structures conservation and the centre conservation for research

The conservation of *dhaka/dagga* structures in Zimbabwe in general still possess major problems where very little is known in regards to the chemical composition of the *dhaka/dagga* which limits the ability of the responsible authority towards conservation actions were backfilling and thatching become more plausible solutions. At GZWHS these efforts towards conservation are apparent. Lack of knowledge on *dhaka* structure conservation has left the institution with very few options but to allow nature to slowly take course with little to no research in the area. Though the institution has a budget for research, according to interviews conducted only \$5500 was used for research in 2014. This low use also indicates that research is an area that is lagging behind in the institution yet is key to feeding into the conservation agenda. There is a need to incentivize staff to carry out research projects that aid the conservation of the WHS. The use of the conservation centre is limited in terms of research or experiments done at the WHS, though the original focus at the centre was that it was to enable experimentation on conservation aspects. There is definitely a need to enhance conservation efforts for *dhaka/dagga* structures. A potential avenue for research is tapping into the local knowledge on the construction of *dhaka/dagga* structures combined with experimentation so to ascertain chemical composition. The conservation centre is in fact that right place for this type of research hence the need to resuscitate activities at the centre.

2.73.1.5. Natural Setting

The invasion of Great Zimbabwe by guavas and *lantana camara* is a serious threat to the natural setting and the overall OUV of the WHS. The effect of these species is that they affect vegetation growth for other plant species and eventually invade the area. Thus there is a need to curb and fight these species. There is a need to underscore that it is the combination of this natural setting with the cultural elements that give Great Zimbabwe its competitive advantage and thus the need to ensure its protection. At Great Zimbabwe WHS the current budgetary constraints have left the staff literally unable to deal with the issue and seeking both technical and expert assistance. Seasonal labourers from the community are employed to help maintain this natural setting.

According to the curatorial staff the conservation budget is exhausted by seasonal labour in an effort to maintain the environment. Budgetary constraints are a major part of the cause for concern. This is one area where the need for participatory approaches toward the management of the WHS could be a solution. Participatory approaches call for the inclusion of local communities in the management and conservation of the WHS as partners. In this instance communities are actively engaged in conservation not as employees but as owners who realize the threat posed to their heritage and actively engage in routine maintenance of the WHS fighting against the invasive species. This approach however is only applicable where communities' ownership rights are respected and development takes a human based approach, presently communities at Great Zimbabwe are acknowledged as stakeholders an approach which is anchored in the Collett plan. In 1988 debates in community participation were still at their preliminary stages assisted by the WHC of 1972. At present with addition of the 5th C as Community in heritage management calls for recognition of community rights as mandatory where traditional links are evident. (see Drisko, 2012, Rossler, 2012) Regardless of the contestations at the ownership there is a need to assert that these communities are involved in the management of their heritage and rightfully benefit from it as is stated in the Zimbabwean constitution. At the Mijikenda Kaya Forest in Kenya a participatory approach has been regarded as the best model for conservation of the Kayas (Abungu and Gichiri, 2012). A similar approach and shift in strategy might aid in the conservation of Great Zimbabwe WHS. According to Galla (2012) there is a relationship that exists between communities, cultural heritage and tourism and this is an avenue that enables the achievement of sustainable tourism. In this case he says the use of the integrated management system is key to realizing the goal of sustainable tourism use. In the integrated approach the governing authority should recognize community ownership rights and incorporate communities at all levels of decision making as partners in management. This approach according to Pederson (2002) should allow for sharing benefits from tourism with the local community and should enable a negotiated forum for the agency and the community where transparency is a major concern to show that benefits accrued are distributed fairly and that conservation is a primary concern.

3. Conclusion

The greatest problems that are evident at Great Zimbabwe is the current conservation and use plan that is being

employed at the WHS. The plan was devised in 1988 in an environment where non-use values were aiding conservation and where communities were stakeholders and they were recognized as beneficiaries and management and conservation was prioritized based on budgetary constraints and conservation only concentrated on one avenue mainly monumentality and ignored the living heritage the plan also fails to explicitly express how much investment should be made to ensure we the present generation can adequately use the resource and pass it down to future generations. It also is also lacking in terms of the how to achieve the overall goal of sustained use it sets out the parameters of use but barely addresses the budgetary implication of conservation. The use of the same plan and ideals in the twenty first century is clearly evidenced by the problems faced in managing the WHS. This plan is no longer responsive to the environment in which it exist and the realities faced by the responsible authorities. Conservation planning should be re-evaluated to respond to the environment in which it exists. The current management plan used at the WHS perpetuates the ideals of Collett (1988) and so is also inadequate in addressing the problems faced at the WHS. Only through a shift in planning can the notion of a sustainable balance in use and conservation be achieved to enhance and maintain the OUV at Great Zimbabwe WHS. A continuation of current practice will see architectural values both dry stone walls and dhaka/dagga structures and the intangible elements of a living heritage lost with time.

3.2 References

- Africa Competitiveness Report, 2013. *Assessing Africa's Competitiveness in an International Context*, Geneva: World Bank.
- Borges, M.A, Carbone, G, Bushell, R. and Jaeger, T. (2011). Sustainable tourism and natural World Heritage: Priorities for action. Gland, Switzerland: IUCN.
- Collet, P., 1988. *A Master Plan for resource conservation and development*. Harare: UNDP and UNESCO Project Zimbabwe.
- Drisko, 2012. World Heritage and globalization: UNESCO's contribution to the development of global ethics. *Community Developmnet through World Heritage*, 29 July, pp. 16-26.
- Galla, A. 2012. *Benefits beyond borders*. 1st ed. London: Cambridge.
- Hidano, N. 2002., *The economic valuation of the environment and public policy: A hedonic approach.*, Edward Elgar, Cheltenham., United Kingdom
- Klamer and Throbber., 2000, pp. 130-145., in *Paying for the past: the economics of cultural heritage* . Klamer, Arjo and David Throsby, 2000. World Culture Report, 2000. Paris: UNESCO publishing,
- Human Rights Declaration In Droste, B., 2012. World Heritage and globalization: UNESCO's contribution to the development of global ethics. *Community Developmnet through World Heritage*, 29 July, pp. 11-15.
- ICOMOS, 1999. *International Cultural Tourism Charter*. Mexico, International Council of Monumnets and Sites.
- Murato S, Kontolean, A, and Danchev A, 2002., Preserving cultural heritage in transition economies: a contingent valuation study of Balcian Monestries, Navrud S, and R Ready (eds) *Valuing cultural heritage: applying environmental valuation techniques to historic buildings, monuments and artefacts*. Edward Elgar Publishing Ltd, Cheltenham, UK, pp. 68-86.
- Ndoro, W., 2005. *Your monument Our Shrine the preservation of Great Zimbabwe*. 2nd : ICCROM; Rome.
- Pederson, A., 2002. *Managing tourism at World Heritage Sites*. 1ST ed. Paris: UNESCO
- Provins A, Pearce D, Ozdemirouglu E, Murrato S and Morse-Jones S., 2008. Valuation of historic environment : the scope of using economic valuation in the appraisal of heritage related projects, *Pogress in Planning*, 69(4), 131-175.
- Porter, M., 2004. *How competitive forces shape strategy*. 4 ed. Chicago: Harvard Bussiness Review.
- Rosler, M., 2012. Partners in site management. A shift in focus: heritage and community involvement. *Community Developmnet through World Heritage*, 29 July, pp. 27-32.
- Thorsby D, 2003., 26-31, Economic and Cultural Value in the Work of Creative Artists in Avrami E, Mason R and Thorsby D, 2007. The Value of Heritage., Heritage Economics Workshop ANU, 11–12 October 2007
- Thorsby D, 2001. Economics and Culture., United Kingdon, london, Cambridge press
- WHC. 2007. Proposal for a 'Fifth C' to be added to the Strategic Objectives., Paris, UNESCO World Heritage Centre. (WHC-07/31.COM/13B.)
- WHC, 2013. Operational Guidelines. *WHC Operational Guidelines*.