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FOREWORD

NEMA was tasked to come up with guidelines as a practical tool for safeguarding the environment due to massive sand harvesting particularly in lower Eastern and other areas of the Republic of Kenya.

The development of the guidelines was therefore in response to the provisions of part V section 42 (4) of EMCA 1999, which mandated the Authority to undertake the protection and conservation of the environment among other functions.

The guidelines provide procedures to streamline the activity countrywide with a view of making it a sustainable industry that supports economic development for enhanced livelihood while safeguarding the environment.

The pilot of these guidelines was done in Eastern Province and later similar stakeholders consultative meetings were conducted in all other provinces and the input provided used to upgrade the guidelines into this National Sand Harvesting Guidelines. The Guidelines were officially launched on 26th October 2007 by the Minister for Environment and Natural Resources at Mlolongo Township, Nairobi during a stakeholder's forum that comprised owners of lorries, transporters, loaders and land owners. The guidelines have been accepted as applicable, inclusive and friendly to the environment by the stakeholders. It is therefore incumbent upon the players to comply with guidelines to ensure sustainable environmental management.

Riparian Resource Management Associations under section 5 of the guidelines is given the Authority to collect money that will be used for rehabilitation purposes, supporting local social activities and facilitating activities of the Technical Sand Harvesting Committee.

Therefore, the rehabilitation of sand harvesting sites is the responsibility of the Riparian Resource Management Associations using the money collected from sites and transporters. This ensures that rehabilitation is devolved from NEMA and that communities prioritize sites requiring rehabilitation. The monitoring of sand harvesting sites will be done by Technical Sand Harvesting Committee whose secretary is the District Environment Officer.

NEMA will issue the approvals (not licenses) for sand harvesting and transportation free of charge but ensuring that environmental sustainability is assured. NEMA will however continue to offer co-ordination and supervision of this activity to ensure sound environmental management countrywide.

DR. A. MUUSYA MWINZI DIRECTOR GENERAL

INTRODUCTION

Environment Management and Coordination Act (EMCA) 1999 recognise sand as a natural resource used in building and construction industry. It is a building mineral as stipulated also in the mining policy.

Sand harvesting activities have been going on for many decades regardless of the massive environmental degradation these activities cause. Unsustainable scooping of this resource has caused soil erosion especially on the steep gradients as well as development of open gullies that are left after sand is scooped. The

activities have also led to loss of water for livestock and domestic use.

This necessitated the development of appropriate tools for sound management in order to safeguard the environment. The sand harvesting guidelines developed by NEMA provided procedures to streamline the activity countrywide with a view to making it sustainable economic activity that supports development while safeguarding the environment.

These guidelines focus on community involvement in the management of the sand resource by establishing management structures right from the district levels. These include the District Sand Harvesting Committees as well as the Riparian Resource Management units, whose responsibilities are to ensure sound management practices.

THE NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA):

NEMA is established under the Environmental Management and Coordination Act (EMCA) 1999 as the principle instrument of the government for the implementation of all policies relating to environment.

MANDATE

Section 9(1) of EMCA states that: "The object and purpose for which the Authority is established is to exercise general supervision and coordination over all matters relating to the environment and to be the principle instrument of Government in the implementation of all policies relating to the environment.

VISION

National Environment Management Authority (NEMA) vision is to be a world class Environmental Authority that ensures a healthy environment for all.

MISSION

The Mission is to safeguard and enhance the quality of the environment through coordination, research, facilitation and enforcement, while encouraging responsible individual, corporate and collective participation towards sustainable development.

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ARRANGEMENT OF CLAUSES

PART I – PRELIMINARY

- 1. Short Title
- 2. Definition of Terms
- 3. Application
- 4. Technical Sand Harvesting Committee
- 5. Riparian Resource Management Association

PART II - SAND HARVESTING

- 6. Sand Harvesting Sites
- 7. On-farm sand harvesting and Lakeshore/s Sand harvesting
- 8. Riverbed harvesting
- 9. Authority to remove and transport sand
- 10. Hours for harvesting and transportation of sand
- 11. Sale of sand
- 12. Collection of revenue by local authority
- 13. Suspension, cancellation of Approval
- 14. Monitoring restoration of designated sand harvesting sites.
- 15. Arbitration
- 16. Operational Mechanisms

In exercise of the powers conferred by Section 42 (4) of the Environmental Management and Coordination Act, the Director General of the National Environment Management Authority issues the following National Sand Harvesting Guidelines, 2007:

PRELIMINARY

1. Short Title

These Guidelines may be cited as the "National Sand Harvesting Guidelines, 2007

2. Definition of Terms

In these Guidelines:

"District Environment Officer" means an officer of the National Environment Management Authority, in charge of a district;

"Designated site" means any area demarcated and endorsed by the Technical Sand Harvesting Committee for the removal, extraction or scooping of sand;

"Director General" means the Chief Executive of the National Environment Management Authority appointed under Section 10 of the Environmental Management and Co-ordination Act No. 8 of 1999.

"EMCA, 1999" means the Environmental Management and Co-ordination Act, 1999

"Riparian Resource Management Association" means an Association registered by the Department of Social Services; established under Clause 5 of these Guidelines.

"Sand" means sedimentary material finer than gravel and coarser than silt with grains between 0.06mm and 2mm in diameter and includes stones, coral, earth and turf but does not include silica sand.

"Sand harvesting", means the removal, extraction, harvesting or scooping of sand from designated sites.

"Sand dealer" means any person(s) approved to harvest, remove, extract, scoop, transport or sell sand as provided for under Clause 6 of these Guidelines so long as such quantity of sand exceeds 2 tonnes.

"Technical Sand Harvesting Committee" means a committee composed of persons drawn from the District Environment Committee and co-opted members from the local community to oversee sand harvesting activities in the district; established under Clause 4 of these Guidelines.

3. Application

These Guidelines will apply to all sand harvesting activities in Kenya. This will ensure sustainable utilization of the sand resource and proper management of the environment.

4. Technical Sand Harvesting Committee

- (1) Each District Environment Committee (DEC) will appoint from among its members, a Technical Sand Harvesting Committee to advise and make recommendations to the DEC on sand harvesting activities in the District.
- (2) Membership to the Technical Sand Harvesting Committee (TSHC) will include at least 2 gazetted members of the (DEC).
- (3) The TSHC appointed under sub-clause (1) above will co-opt such members not more than 5 as follows:
 - a) 2 Representatives from each Riparian Resource Management Association;
 - b) 1 representative of transporters;
 - c) 1 local provincial administrator; and
 - d) Any other interested or affected party (1 such person) as may be deemed necessary.
- (4) The District Environment Officer will be the Secretary.
- (5) The TSHC shall appoint one of their members to be chairperson
- (6) The District Environment Committee in consultation with the Director General will prescribe the terms of reference and rules of procedure for the District Technical Sand Harvesting Committee.

The Technical Sand Harvesting Committee (TSHC) will:

- 1. Be responsible for the proper and sustainable management of sand harvesting within the District in respect of which it is appointed.
- 2. Be responsible for the designation of authorized sand harvesting sites on riverbeds, lakeshores, seashores, farms, Government or Trust land, subject to the provisions of the Constitution of Kenya, Government Land Act, Trust land Act and Mining Act, Forest Act and any other relevant legislations, and define the extent of each Riparian Resource Management Association's area of operation.
- 3. Perform any functions as may be prescribed by the District Environment Committee.

The Technical Sand Harvesting Committee will report to the respective District Environment Committee and its operations will be guided by the following environmental and social considerations.

4.1 Environmental Considerations

The Technical Sand Harvesting Committee will ensure that:

- a. Sand dam(s)/ gabion(s) are constructed in designated sand harvesting sites;
- b. Where more than one sand dam/ gabion is to be constructed, they shall be at most 200 metres apart;
- c. Lorries will use designated access roads only to sand harvesting sites;
- d. Designated sand harvesting sites are rehabilitated appropriately by the Riparian Resource Management Association, county council and approved dealer under close monitoring and supervision by the Technical Sand Harvesting Committee in compliance with EMCA, 1999;
- e. Sand harvesting or scooping is restricted to the riverbeds with no harvesting allowed on riverbanks to avoid widening of rivers;
- f. It specifies the area of sand harvesting and the depth to which the harvesting will be done.
- g. The requirements of an environmental impact assessment/environmental audit pursuant to the Environmental Management and Co-ordination Act No. 8 of 1999 have been fulfilled.

4.2 Social Considerations

The Technical Sand Harvesting Committee will ensure that:

- a. Sand loaders are over 18 years of age residing within the local community.
- b. Approved sand dealers will pay a negotiated and agreed wage to sand loaders.
- c. The loaders will organize themselves into recognized groups with clear operational structures for their self regulation. The Riparian Resource Management Association will oversee the operations of the loaders.
- d. Approved sand dealers are encouraged to support local community projects in consultation with the Riparian Resource Management Association.
- e. Subject to the Local Government Act, local authorities are encouraged to invest proceeds of sand cess in environmental conservation activities and local community projects in the District.



Fig:1. A lorry Transporting Sand

5. Riparian Resource Management Association

- (i). The DEC will establish such number of local Riparian Resource Management Associations (RRMA) as is necessary which will be registered by the District Social Services Office.
- (ii). Each Riparian Resource Management Association so established and registered will be responsible for sustainable management of sand harvesting activities in its area of operation.
- (iii). The factors to be considered in the establishment of RRMAs will include:
 - (a) Drainage network of the river, lakeshore, seashore or other designated sites along which sand harvesting activities are carried out.
 - (b) Inclusion of interest groups.
 - (c) Viability and sustainability of the Association(s).
- (iv). Each RRMA will be composed of the following members elected by interested community:
 - (a) Riparian landowners
 - (b) 2 women representatives who are not riparian land owners
 - (c) 2 youth representatives who are not riparian land owners
 - (d) 2 elders who are not riparian land owners
 - (e) 2 religious leaders
- (v). Each RRMA will be charged with, among other things, the following responsibilities:
 - (a) Ensuring that before sand harvesting activities are commenced, Environmental Impact Assessment is undertaken in accordance with the provisions of EMCA, 1999.
 - (b) Ensuring that annual Environmental Audits are conducted for closed and active sites.

- (c) Sustainable management of sand harvesting along riverbeds, lakeshores and seashores and other designated sand harvesting sites.
- (d) Collection of revenue from sand dealers along riverbeds lakeshores and sea-shores and other designated sand harvesting sites.
- (e) Allocation and transmission of at least 10% of the revenue collected to the Technical Sand Harvesting Committee to facilitate its operations.
- (f) Allocation of part of the revenue collected from sand dealers for community projects.
- (g) Ensuring rehabilitation of the sand harvested sites and other environmental damage associated with harvesting and transportation of sand within its area of operation.



Fig: 2. Stakeholders Consultive Meeting

PART II - SAND HARVESTING

6. Sand Harvesting Sites

- (i). The Technical Sand Harvesting Committee will designate and document sand harvesting sites from time to time.
- (ii). The sand-harvesting site will be clearly demarcated by the TSHC in consultation with RRMAs.
- (iii). No person will harvest sand from any area not designated as a sand harvesting site by TSHC.
- (iv). Each designated sand harvesting site will have an environmental management plan (EMP) to guide in the rehabilitation of the sites.

7. On-Farm Sand Harvesting and Lakeshore/ Seashore Sand Harvesting

On-farm Sand harvesting and Lakeshore/Seashore Sand Harvesting will be carried out as follows:

- (a) Scooping/ harvesting of sand should not exceed six (6) feet in depth.
- (b) Designated sand collection sites should be at least 50 metres from the riverbanks or dykes for on-farm sand harvesting.
- (c) Scooping /harvesting should be done concurrently with restoration of areas previously harvested. Such restoration will be undertaken with guidance from the Technical Sand harvesting Committee.
- (d) The scooping/harvesting should be strictly open-cast harvesting.
- (e) Where underground tunnelling or extraction of sand is to be undertaken, appropriate extraction technology should be applied to safeguard human safety.

8. Riverbed Harvesting

- (a) Sand harvesting from any riverbed shall be undertaken in a way that ensures adequate reserve of the sand is retained to ensure water retention.
- (b) Sand harvesting will not be allowed on any riverbanks.
- (c) Loading of sand will be done in the designated harvesting sites through controlled access points.
- (d) No sand harvesting shall take place within 100 metres of either side of any physical infrastructure including bridges, roads, railway lines, dykes, among others.



Fig: 3. Riverbed Sand Harvesting

9. Authority to Remove and Transport Sand

- 1) Any person who wishes to remove and/ or transport sand will fill an application form available at the District Environment Office.
- 2) Upon the approval of the application, the District Environment Officer will issue the applicant with an approval document.

- 3) The period of the validity of the approval to remove and/ or transport sand will be indicated in the approval document.
- 4) No person will remove or transport sand, or cause sand to be removed or transported, unless such person is in possession of the relevant approval.
- 5) Where a vehicle is used for the transport of sand the approval document will remain in the custody of the driver while the sand is on transit.
- 6) The approval document issued will be made available to any public officer upon request for verification.

10. Hours for Harvesting and Transportation of Sand

- i. No person will harvest, extract or scoop sand between the hours of 6pm to 6am.
- ii. No person will transport sand between the hours of 8pm to 6am.

11. Sale of Sand

- (1) The Technical Sand Harvesting Committee may provide minimum pricing guidelines for sale of sand within the district, but such prices shall take into consideration the requirements of the Restrictive Trade Practices Act and the market forces of the day.
- (2) Any person who sells sand will be required to issue a receipt to the purchaser and keep records of such for periodic inspection by the relevant authorities.
- (3) An appropriate proportion of the sand sales proceeds will be devoted to the rehabilitation of the designated sand harvested sites.

12. Collection of Revenue by Local Authority

Subject to the Local Government Act, these Guidelines do not prevent the local authority from receiving revenue or cess owed to it from sand harvesting activities.

13. Suspension and Cancellation of Approval

- (1) Where a District Environment Officer has reasons to believe that an approved dealer or a transporter of sand has undertaken activities in violation of the conditions that may be attached to the approval document, the Officer may suspend, or cancel the approval after giving notice of such intended action.
- (2) Any person who is aggrieved by the decision of the District Environment Officer under sub-Clause (1) may within 7 days of notification, appeal to the Technical Sand Harvesting Committee.
- (3) The decision of the Technical Sand Harvesting Committee may further be appealed to the District Environment Committee.

14. Monitoring Restoration of Designated Sand Harvesting Sites

The Technical Sand Harvesting Committee will monitor the rehabilitation of all designated sand harvesting sites and their adjacent environment (access roads, riverbanks, catchment areas among others) to ensure environmental sustainability.

15. Arbitration

1. In the event of any disagreement regarding access, ownership, benefit sharing, management approaches in sand harvesting the District Environment Officer will convene the Technical Sand Harvesting Committee to deliberate on the grievances and make appropriate resolution.

2. Any person, who is aggrieved by the resolution of the Technical Sand Harvesting Committee in Clause (1) above, may within 7 days from the date of the resolution appeal to the District Environment Committee.

(3) Any person who is aggrieved by the decision of District Environment Committee may further appeal to the National Environment Tribunal (NET).

16. Operational Mechanisms

The effective implementation of these Guidelines is based on the following operational mechanisms:

- a) Sand harvesting dealers will comply with the provisions of these Guidelines.
- b) Sand harvesting dealers will comply with the provisions of laws which may in one way or the other touch on sand harvesting activities and/or the management of environment.
- c) Sand harvesting activities will only be undertaken within the designated sites
- d) The respective Riparian Resource Management Association, County Councils and approved sand dealers will restore the harvested sites and adjacent environment during harvesting and /or closure of the sites.
- e) The respective Riparian Resource Management Associations, County Councils and approved sand dealers will plough back part of the revenue collected from harvesting activities to local community projects and environmental conservation.
- f) The respective Riparian Resource Management Associations will ensure access to the designated sand harvesting sites.
- g) Sand dealers will comply with the designated hours for sand harvesting activities (excavation, scooping and transportation).

ISSUED ON THISDAY OFYEAR......2007

DR. A. MUUSYA MWINZI DIRECTOR GENERAL NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY



APPENDICES

FORM 1

APPLICATION TO HARVEST SAND

(TO BE FILLED BY INDIVIDUAL(S), REGISTERED GROUP(S), GOVERNMENT AGENCIES, ETC)

APPLICATION NO. NEMA/....

<u>PART 1</u>

PERSONAL INFORMATION

Name: (Individual/ Group)
ID /Registration. No.:
No. of members::
Address:
Physical Address:
Contact Tel. No.:

DETAILS OF THE PROPOSED SAND HARVESTING SITE

Division
Location
Sub-Location
Village(s)
Name of designated site (river/lakeshore/seashore)
On farm harvesting
Name of land owner
Title Deed/ Allotment No
Land size

Environmental conditions

1. Accessibility:

- i) Is there a public road to the site (yes/ No)
- ii) If yes, what is the condition of the road?
- iii) If no, how will the site be accessed?.....
- 3. Condition of the site (river banks/lakeshore/seashore/farm)
- 4. Have you conducted EIA/EA? Yes/No.....
-

PART 2: FOR OFFICIAL USE AS DESIGNATED

(COMMENTS FROM THE FOLLOWING OFFICES SHOULD BE SOUGHT BEFORE APPLICATION IS CONSIDERED BY THE RELEVANT DISTRICT ENVIRONMENT COMMITTEE)

COMMENTS FROM TECHNICAL SAND HARVESTING COMMITTEE

SIGNED:
TSHC CHAIR.....SECRETARY....
PART 3: FOR OFFICIAL USE BY DISTRICT ENVIRONMENT COMMITTEE (DEC)
APPROVED/NOT APPROVED VIDE MINUTE NO. OF
(DATE).....REMARKS:

SIGNED:

CHAIRMAN DATE

SECRETARY DATE

ATTACHMENTS

- i) Photocopy of group registration certificate/ID
- ii) Photocopy of title deed/allotment letter for own-farm.



APPROVAL TO HARVEST SAND

(TO BE ISSUED TO INDIVIDUAL(S), GROUP(S) OF INDIVIDUAL(S) (REGISTERED GROUP(S),

GOVERNMENT AGENCY ETC)

APPROVAL NO. NEMA/

THIS IS TO CERTIFY THAT

	of P. O. Box	
Tel	. No ID/ REG No	
has	this (Month),	
20	(Year)	
bee	en granted an approval to harvest sand in the area as described below	
As	further set out in Application No. NEMA/	
And	whose area of jurisdiction falls under	
For	a period of (Not exceeding one (1) year)	
Sul	oject to the following conditions:-	
1.		
2.		
3.		

4.	
SIGNED AND STAMPED	
DISTRICT ENVIRONMENT OFFICER	
DISTRICT	DATE



APPLICATION TO TRANSPORT SAND

(TO BE FILLED BY INDIVIDUAL, REGISTERED GROUP, COMPANY)							
APPLICATION NO. NEMA/							
PART 1							
PERSONA	L DETAIL	S					
Name							
ID			PIN				
GROUP/CC) MPANY I	REGISTRAT	ION NO				
Address							
Tel							
Physical ad	dress						
DETAILS C	N TRANS	SPORTATIO	N OF SAND				
Destination		(Place	where	sand	is	being	taken)
Detail of th	e vehicle	:					
	i) Registr	ation No					
	ii) Make a	and model					
	iii) Tonna	ige					
SIGNED							

DISTRICT ENVIRONMENT OFFICER...... DATE

Attachments:

- i) Copy of valid logbook
- ii)Copy of company/group registration certificate
- iii) Copy of ID



APPROVAL TO TRANSPORT SAND

(TO BE ISSUED TO SAND TRANSPORTERS)

APPROVAL NO. NEMA/

THIS IS TO CERTIFY THAT

M/S					ID/PIN/RE	G.NO	
		of P. O. Box					
Tel							
Has	this			day	of		
(MON	ТН)		20	(YE	AR)		
been	granted this permi	t to transport	sand in the a	area as desc	ribed below:		
As	further	set	out	in	Application	No.	NEMA/
And w	hose area of juris	diction falls u	nder		(Name of lo	ocal authority)	for a period
of							
(NOT	(NOT EXCEEDING THREE (3) MONTHS)						
Subje	ct to the followin	ng conditions	5				

1.	
2.	
3.	
4.	

SIGNED & STAMPED

DATE

DISTRICT ENVIRONMENT OFFICER



SUSPENSION/CANCELLATION OF APPROVAL TO TRANSPORT SAND (TO BE ISSUED TO SAND TRANSPORTERS)

NOTICE IS HEREBY GIVEN TO

M/S	ID/PIN/REG.NO
of P. O. Box	Tel
whose Approval No	issued on
(Day)	(Month)(Year)
to transport sand from	(designated sites)
in	. (District)
Is hereby suspended for 1 Month OR	
Cancelled for 3 months with IMMEDIA	TE EFFECT
for the following reasons:	
1	
2	
3	
4	
SIGN:	
DISTRICT ENVIRONMENT OFFICER	
	DATE
OFFICIAL STAMP	



SUSPENSION/CANCELLATION OF APPROVAL TO HARVEST SAND

NOTICE IS HEREBY GIVEN TO

M/S	ID/REG.NO
of P. O. Box	Tel
whose Permit No	issued on
(Day)	(Month)(Year)
to harvest sand from	(designated site)
in	(Division and District)
Is hereby suspended for 1 Months)	
OR	
Cancelled with IMMEDIATE EFFECT	
for the following reasons:	
1	
2	
3	
SIGN:	
DISTRICT ENVIRONMENT OFFICER	
	DATE
OFFICIAL STAMP	

