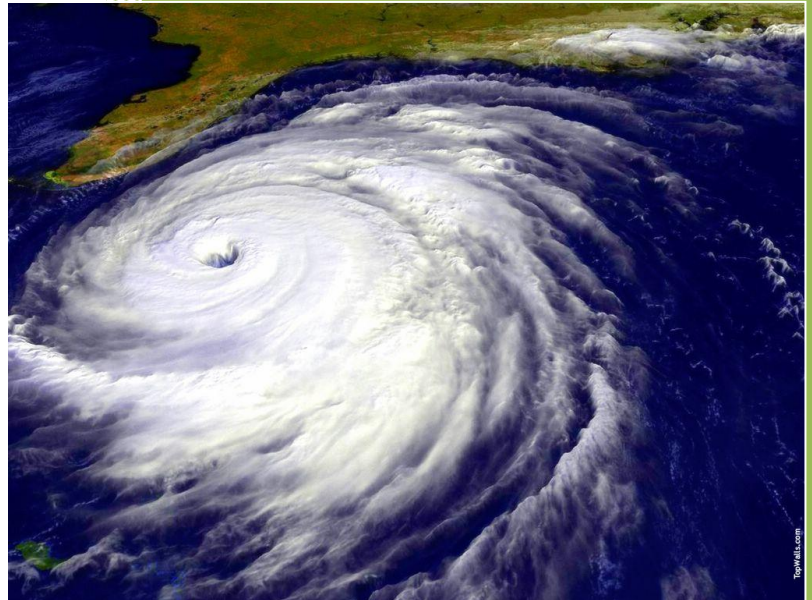


NATIONAL CYCLONE RISK MITIGATION PROJECT-PHASE II KERALA

SITE SCREENING REPORT



District: Kozhikode

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1. INTRODUCTION

1.1 Context

Preliminary assessment of suitable land (referred to as “sites” in this report) proposed from Kozhikode District administration, for construction of Multi-Purpose Cyclone Shelters (MPCS) under the National Cyclone Risk Mitigation Project-Phase II was performed on 20/11/15. The assessment was done in sites proposed as per proforma submitted via Email dated 20/11/15 and 30/06/14 from the District Administration. Sites which were not proposed in the prescribed proforma but potentially suitable for construction of MPCS were also assessed for suitability upon suggestion from the Officials.

1.2 Objectives

- Confirm site details such as titles description, site boundaries and area available for construction;
- Identify land use of the proposed site and the nearby areas;
- Assess the suitability of site for construction;
- Identify the environmental and social feature of the region;
- Document site history;
- Discuss with the officials and identify specific issues relevant to the site, if any;
- Mark the site using GPS for GIS based studies.

1.3 Scope of Works

- Review of documents with the District administration held on the land (Toposketch, Field Map Plan, Basic Tax Register);
- Document locally obtained information about the site;
- Document photographs of the site;
- Assessment of the data and preparation of a draft report;
- Review of site screening report by SPIU.

2. OVERVIEW

The District Administration suggested a total 5 site, in the prescribed proforma, for construction of Multi Purpose Cyclone shelters at various locations in Kozhikode District. The officers from State Project Implementation unit of NCRMP, Deputy Collector, Disaster Management, Tahsildar of Quilandy Taluk and Kozhikode Taluk, Village Officers of Thikkodi, Kasaba, Nagaram and Beypore and Assistant Engineer of District Nirmithi Kendra visited the sites. Details of sites which were not proposed in the prescribed proforma but potentially suitable for construction of MPCs were also documented upon suggestion from the Officials. The details of the sites visited are as follows:

Site number	Identification number	Taluk, Village, Survey Number, Place	Ownership of land
1	NCRMP/ KER/ KZK/ QUI/ THIKKODI-1	Koilandy, Thikkodi, Survey number: 82/4C1, Panchayath land near G.V.H.S.S, Payyoli	Thikkodi Grama Panchayath
2	NCRMP/ KER/ KZK/ QUI/ THIKKODI-2	Koilandy, Thikkodi, Survey number 82/4C2, Ground of G.V.H.S.S, Payyoli	Education Department
3	NCRMP/ KER/ KZK/ KOZ/ KASABA-1	Kozhikode, Kasaba, Survey number: T.S 17-17-737/3, Revenue land near Kasaba Village office	Revenue Department
4	NCRMP/ KER/ KZK/ KOZ/ NAGARAM-1	Kozhikode, Nagaram, Survey number: T.S 7-12-193, Corporation land, Nagaram	Kozhikode Corporation
5	NCRMP/ KER/ KZK/ KOZ/ NAGARAM-2	Kozhikode, Nagaram, Survey number: T.S 14-3-109, Revenue land, Nagaram	Kozhikode Corporation
6	NCRMP/ KER/ KZK/ KOZ/ BEYPORE-1	Kozhikode, Beypore, Survey number: T.S 156, Revenue land, Beypore	Revenue Department

3. DETAILS OF SUITABLE SITES

3.1 Identification number: NCRMP/KER/KZK/QUI/THIKKODI-2

Site2: Ground of G.V.H.S.S, Payyoli

Taluk: Quilandy

Village: Thikkodi

Survey number: 82/4C2

Panchayath: Thikkodi

Ownership: Education Department

Lat: 11° 30' 14.6" Long: 75° 37' 34.9" (Ref GPS: 683)

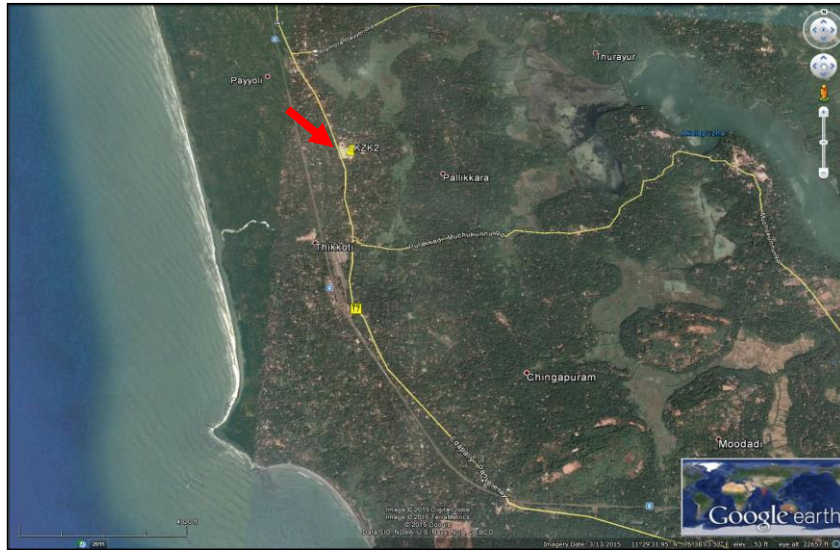
Observations

- The proposed site is a barren land to the rear side of the playground of G.V.H.S.S, Payyoli with direct access from a side road that is 100m away from National Highway.
- The plot is regular and doesn't affect the functioning of the school in anyway.
- Approximately 20 cents of land is available for construction.
- The MPCS could be used for school activities as well as Community hall.
- The safe bearing capacity of the soil is reasonably good on visual observation.
- The site is at a distance of 1.5Km from the High Tide Line.
- The District Administration has reported that a vulnerable population that figures to 800 from the locality may have to be accommodated in the shelter during an event of emergency.

Assessment

- Details of the site have to be furnished from the District Administration in the prescribed proforma with the consent of the school authorities.
- **The site is suitable for construction of MPCS.**

1. Aerial view of the site at Payyoli. 2. View of the site





3.View of the site at Payoli

3.2 Identification number: NCRMP/KER/KZK/KOZ/KASABA-1

Site3: Revenue land near Kasaba Village office

Taluk: Kozhikode

Village: Kasaba

Survey number: T.S 17-17-737/3

Corporation: Kozhikode

Ownership: Revenue land

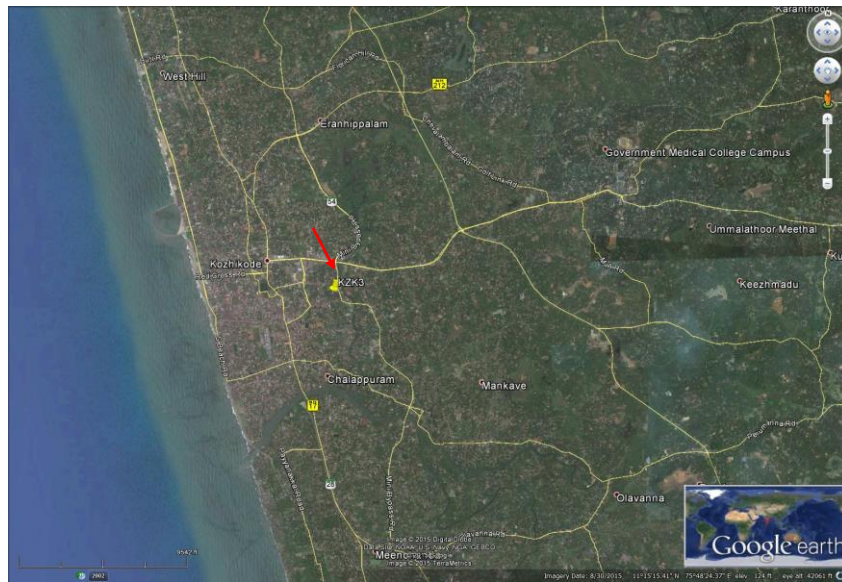
Lat: 11° 15' 13" Long: 75° 47' 27.8" (Ref GPS: 684)

Observations

- The proposed site is within the Taluk Office compound of Kozhikode.
- Two dilapidated disaster shelters as well as one dilapidated survey school building has to be demolished to facilitate new construction.
- Approximately 35 cents is available for construction of MPCS
- The site is around 2km from the coastline.
- The MPCS could be used for various purposes of the District Administration as well as training for Survey staff.
- The dilapidated buildings are being used as store houses for obsolete election materials which has to be disposed off by the Revenue authorities
- Branches of some trees has to be cut to facilitate construction
- The safe bearing capacity of soil is good on visual observation
- The District Administration has reported that a vulnerable population that figures to 2800 from the locality may have to be accommodated in the shelter during an even of emergency

Assessment

- **The site is suitable for construction of MPCS**



1 and 2: Aerial view of the site near Taluk office.





3. Dilapidated Shelters in the proposed site



4. View of the site from access road

4. DETAILS OF UNSUITABLE SITES

4.1 Identification number: NCRMP/KER/KZK/QUI/THIKKODI-1

Site1: Panchayath land near G.V.H.S.S, Payyoli

Taluk: Quilandy

Village: Thikkodi

Survey number: 82/4C1

Panchayath: Thikkodi

Ownership: Panchayath

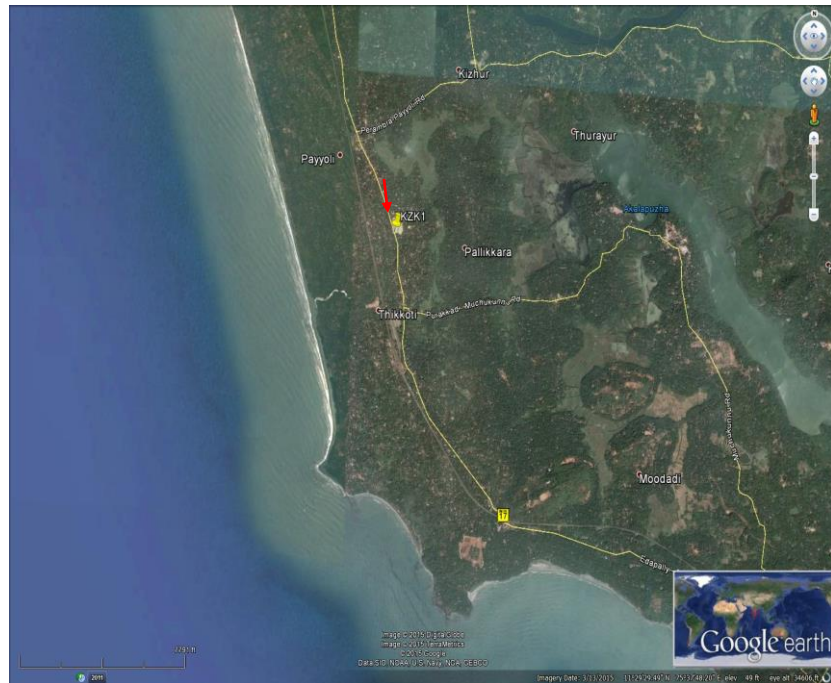
Lat: 11° 3' 15.6" Long:75° 37' 32.5" (Ref GPS: 682)

Observations

- The proposed land is barren land adjacent to National Highway and belongs to Thikkodi Panchayath.
- The proposed site shares borders with the school playground of GVHSS, Payyoli.
- Any construction in this land will lead to loss of the school playground.
- There will be restriction in construction of MPCS due to possible widening of National Highway.
- Proposal for construction of Panchayath office is expected in the proposed site.

Assessment

- The effective land available after widening of National Highway and Panchayath requirements is not adequate for construction of MPCS.
- An alternate site which is preferable over the proposed site was identified within 10m from the proposed site.
- **The site may not be considered for construction of MPCS**



1 and 2: Aerial view of site at Payyoli





3.View of the site from an abutting road

4.2 Identification number: NCRMP/KER/KZK/KZK/NAGARAM-1

Site 4: Corporation land in Nagaram

Taluk: Kozhikode

Village: Nagaram

Survey number: T.S 7-12-193

Corporation: Kozhikode

Ownership: Kozhikode Corporation

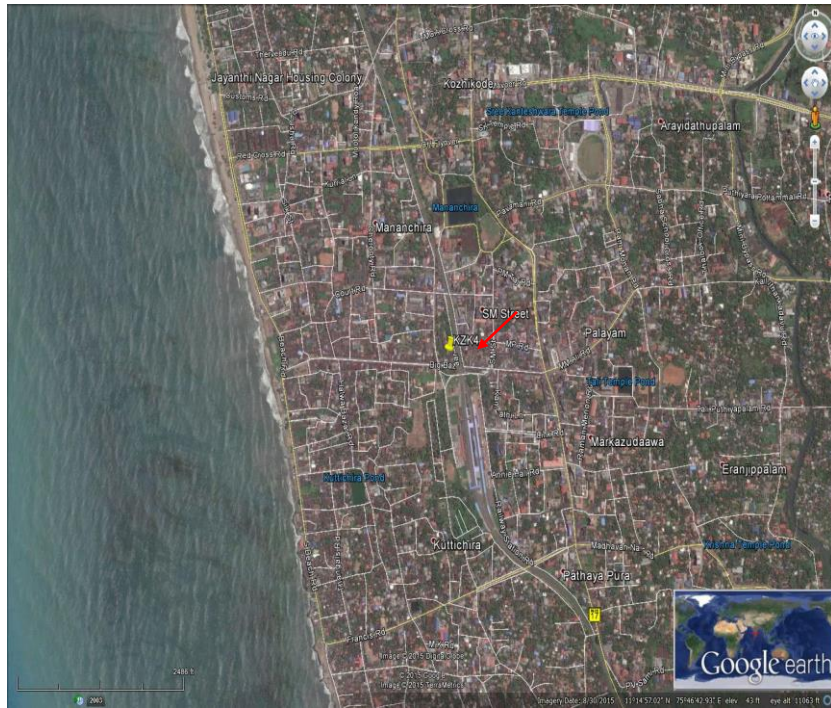
Lat: 11° 14' 57.2" Long:75° 46' 46.7" (Ref GPS: 686)

Observations

- The proposed site is located in the commercial center of Kozhikode
- An area of 27.8 cents is available for construction
- One dilapidated building said to function as a school previously and a lavatory exists in the site. These buildings have to be demolished for construction of MPCS
- The proposed site shares boundary wall with Mosque and police Quarters.
- The ground water level is very high in the region
- The safe bearing capacity of the soil appears to be low on visual observation requiring costly foundation
- The proposed site is 800m from the coastline.

Assessment

- **The site may not considered for construction of MPCS**



1and 2: Aerial view of the site





3:View of dilapidated building in the site. Mosque near to site can be seen.



4: View of main road from the site

4.3 Identification number: NCRMP/KER/KZK/KZK/NAGARAM-2

Site 5: Revenue land in Nagaram

Taluk: Kozhikode

Village: Nagaram

Survey number: T.S 14-3-109

Corporation: Kozhikode

Ownership: Kozhikode Corporation

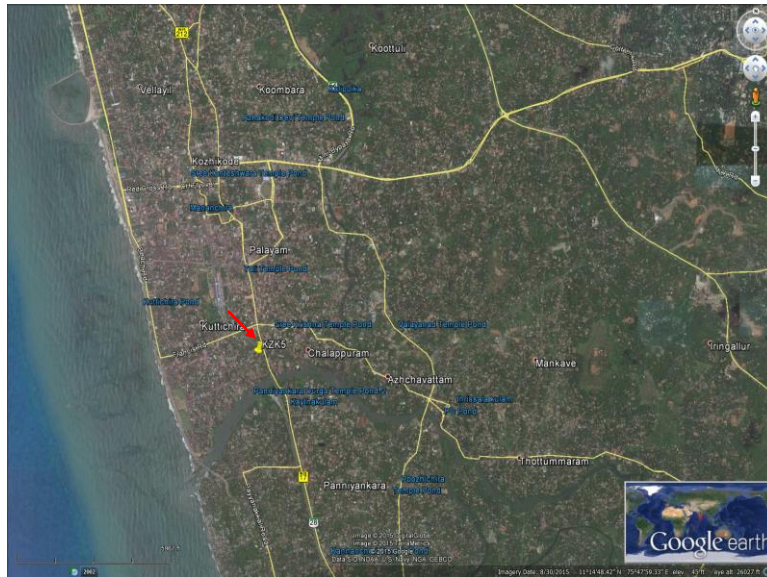
Lat: 11° 14' 23.1" Long: 75° 47' 7.1" (Ref GPS: 687)

Observations

- The proposed site is adjacent to the Police station and 24 cents of land is available for construction
- Disparity noticed in the Ownership of the land as to whether the title holder is Revenue or Police Station, Nagaram
- The site has also been proposed for construction of police Quarters.
- Coconut Plantation exists in the site.
- A manned railway crossing and railway line is 80m to the east of the site.
- The site is 1km from the coastline.
- Direct access to the site is not possible.

Assessment

- **The site may not be considered for construction of MPCS**



1 and 2 Aerial view of the site at Nagaram





3: View of site. Parking shed of Police station be can be seen



4: Police station adjacent to the site

4.4 Identification number: NCRMP/KER/KZK/KZK/BEYPORE-1

Site 6: Revenue land, Beypore

Taluk: Kozhikode

Village: Beypore

Survey number: T.S 156

Corporation: Kozhikode

Ownership: Revenue

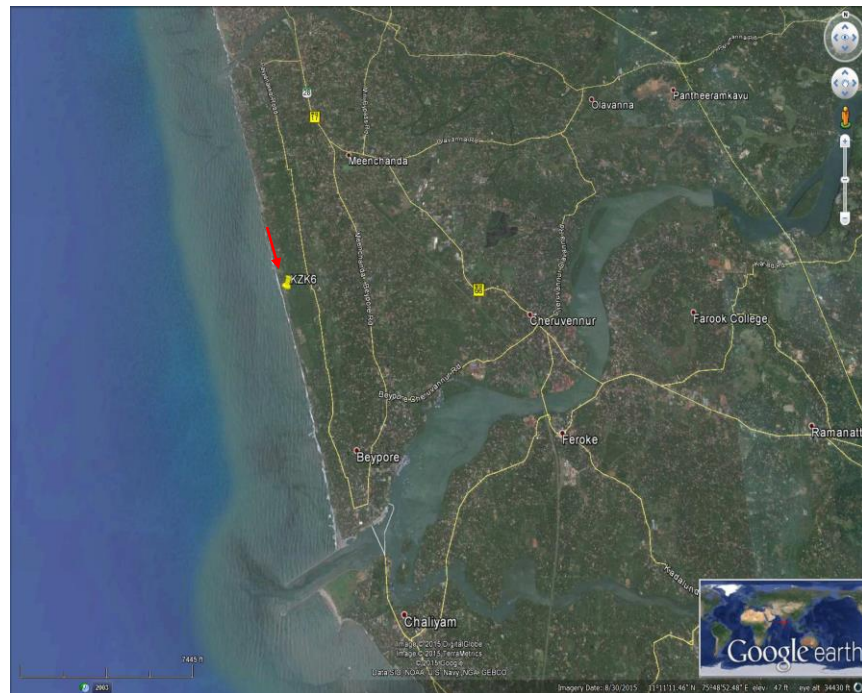
Lat: 11° 11' 35.8" Long: 75° 47' 31.3" (Ref GPS: 688)

Observations

- The proposed site has close proximity to the sea (around 50m). The site clearly falls in the non-development zone of CRZ
- More than 30 cents of land is available for construction of MPCS.
- A mosque is situated adjacent to the site
- The access road is narrow and transportation facility is limited.
- An MPCS in this location of will be at high risk during an event of disaster.

Assessment

- **The site may not be considered for construction of MPCS**



1 and 2: Aerial view of the site at Beypore





3:View of the site



4:View from of sea from the site

5. ASSESSMENT

5.1 Assessment criteria

The following criteria were considered in assessing the suitability of proposed site for construction of MPCS:

- 1. Necessity for MPCS:** Aspects such as vulnerable population near to the proposed site, Availability of shelters within 1km radius of the site, Capacity and condition of such shelters, Population that will have access to the MPCS during an event of emergency, History of relief camps in the area etc were considered.
- 2. Area available for construction:** Sites which have at least 15 cents of land were considered. The effective area available for construction after provision for setbacks applicable as per Building rules was only taken into consideration.
- 3. Proximity to sea:** Sites within 10km distance from coastline were only considered. Those sites which fall beyond 500m from High Tide Line were preferred. The sites within 200m from the coastline were not preferred and sites that do not require CRZ clearance were given priority.
- 4. Accessibility to basic amenities:** The accessibility of site from nearby main roads, proximity of site to water supply, power, sewer etc were considered in selecting the site.
- 5. Ownership of land:** Land in possession with Revenue Department was preferred to that in possession with Education Department, Fisheries Department, Local Self Government Department and others.
- 6. Foundation cost:** Terrain of land, bearing capacity of soil on visual observation, drainage pattern in the region, maximum flood line etc was considered.
- 7. Requirement for demolition:** Sites that did not require any demolition to facilitate construction of MPCS were given priority. However, in sites that required demolition, the state of existing building, ownership of the building etc were taken into account.
- 8. Clearances required for social/archaeological/environmental issues:** Sites adjacent to archaeologically, religiously important structures were avoided. Sites with issues of Illegal

tenants and any social concerns particular to the region were also avoided. Sites close to water bodies/Environmentally sensitive regions were not preferred.

- 9. Legal issues:** Sites with legal issues regarding ownership, extent and boundaries of land and sites committed and finalized for other project etc were given less priority in the assessment.

5.2: Ranking

Each criterion was given a score depending on the importance of the criteria in screening the sites. Depending on the scores, the sites were categorized into three categories:

1. Rank 1: Score: 71-100: Highly recommended for construction of MPCs
2. Rank 2: Score: 41-70: Recommended for construction of MPCs
3. Rank 3: Score: below 40: May not be considered for construction of MPCs

5.3 Site assessment

SI no	SITE IDENTIFICATION NUMBER	Assessment criteria										
		Necessity for MPCs	Area available for construction	Proximity to sea	Accessibility to transportation and basic amenities	Ownership of land	Foundation cost	Clearances required for social/archaeological/environmental issues	Requirement for demolition	Legal issues	TOTAL SCORE	RANK
	Score	15	15	15	10	10	10	10	5	5		
1	NCRMP/ KER/ KZK/ QUI/ THIKKODI-2*	10	15	10	10	10	8	10	5	5	83	1
2	NCRMP/ KER/ KZK/ KOZ/ KASABA-1	15	15	10	10	10	10	5	2	4	81	1
3	NCRMP/ KER/ KZK/ QUI/ THIKKODI-1	8	2	10	5	2	8	2	2	1	40	3
4	NCRMP/ KER/ KZK/ KOZ/ BEYPORE-1	8	8	0	0	4	10	2	5	3	40	3
5	NCRMP/ KER/ KZK/ KOZ/ NAGARAM-1	5	10	0	3	10	2	2	2	2	36	3
6	NCRMP/ KER/ KZK/ KOZ/ NAGARAM-2	5	5	5	4	2	5	2	5	2	35	3

*Details not available in proforma

Total score	Rank	Status of recommendation
Between 71-100	1	Highly Recommended
Between 41-70	2	Recommended
Below 40	3	May not be recommended

