NATIONAL CYCLONE RISK MITIGATION PROJECT-PHASE II

# **SITE SCREENING REPORT**



# **District: Thrissur**

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### **1. INTRODUCTION**

#### 1.1 Context

Preliminary assessment of suitable land (referred to as "sites" in this report) proposed from Thrissur District administration, for construction of Multi-Purpose Cyclone Shelters (MPCS) under the National Cyclone Risk Mitigation Project-Phase II was performed on 21/11/15. The assessment was done in sites proposed as per proforma submitted 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 7 sites, , for construction of Multi Purpose Cyclone shelters at various locations in Thrissur District. The officers from State Project Implementation unit of NCRMP, Tahsildars Village Officers of concerned Taluks and Village Offices visited the sites. The details of the sites visited are as follows:

| Site<br>number | Identification number                 | Place   | Ownership of<br>land    |
|----------------|---------------------------------------|---|-------------------------|
| 1              | NCRMP/KER/TSR/CHA/<br>KADAPPURAM-1    | Revenue land near Village<br>Office, Kadappuram     | Revenue<br>Department   |
| 2              | NCRMP/KER/TSR/ CHA/<br>KADAPPURAM-2   | Old shelter in Fisheries land                       | Fisheries<br>Department |
| 3              | NCRMP/KER/TSR/KOD/<br>AZHIKODE-1      | Revenue land near Village<br>Office, Azhikode South | Revenue<br>Department   |
| 4              | NCRMP/KER/TSR/KOD/E<br>RIYAD-1        | Government land                                     | Fisheries<br>department |
| 5              | NCRMP/KER/TSR/CHA/V<br>ADANAPPALLY-1  | Government Fisheries school                         | Fisheries<br>Department |
| 6              | NCRMP/KER/TSR/CHA/<br>KADAPPURAM-3    | Tsunami Rehabilitation land                         | Revenue<br>Department   |
| 7              | NCRMP/KER/TSR/ CHA/<br>EDAKAZHIYOOR-1 | Land near Primary Health<br>Centre                  | Health<br>Department    |

## **3. DETAILS OF SUITABLE SITES**

#### 3.1 Identification number: NCRMP/KER/TSR/CHA/KADAPPURAM-1

Site: Revenue land near Village Office of

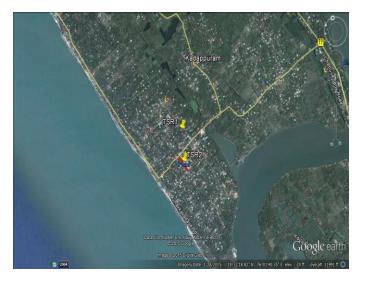
Taluk: Chavakkad Village:Kadappuram Village Survey number: Old 101/4B Panchayath: Kadappuram Ownership: Revenue Department Lat: 10° 32' 21.6" Long: 76° 1' 41.3" (Ref GPS: 689)

#### Observation

- The proposed land (39 cents) is within the Kadappuram village office (Inaugurated on 02/10/07) compound.
- Apart from village office Panchayath water tank /pump room and an old building dilapidated building is situated within the compound.
- The entrance to the site is very narrow and is of approximate width of 2 meters for a distance of 3 meters .Except for this, the site is an ideal one with close proximity to the village office.
   Provision for a new entry to the site is currently not available.
- A water tank within the possession of Panchayath is adjacent to the proposed site. A Panchayath office also functions near the water tank.
- Numerous trees will have to be cut down to facilitate construction.
- The site is 500m away from coastline.
- The site is accessible from Anjangadi road.

#### Assessment

• The site is suitable for construction of MPCS.



1. Aerial view of the site



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2. View of the site at Kadappuram
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3.Entry to the site

#### 3.2 Identification number: NCRMP/KER/TSR/CHA/KADAPPURAM-2

Site: Fisheries Shelter at Kadappuram Taluk: Chavakkad Village:Kadappuram Village Survey number: 116/1 Panchayath: Kadappuram Ownership: Fisheries department Lat: 10° 32′ 11.5″ Long:76° 1′ 39.1″ (Ref GPS: 690)

#### Observations

- The proposed site is located to the west of Government school, Kadappuram
- More than 30 cents of land is available for construction after demolition of two dilapidated disaster shelters and a lavatory adjacent to it. Ownership of the shelter is not clear.
- A family is dwells in one of the shelter.
- The site is at a distance of 350m from the coastline and is in close proximity to vulnerable population.
- The site is accessible from Monnamkallu-Anjangadi road
- The safe bearing capacity of the region is poor on visual observation
- The MPCS could be used as community halls during peace time.
- The site proposed near Village office of Kadappuram is at a distance of 300m from this site.

#### Assessment

• The Site is recommended for construction of MPCS



Aerial view of site



View of the site

#### 3.3 Identification number: NCRMP/KER/TSR/KOD/AZHIKODE-1

#### Site, Revenue alnd near Azhikode Village office

Taluk: Kodungalloor Village:Azhikode Survey number: 298/2 Panchayath: Azhikode Ownership of land: Revenue Department Lat: Long:

#### Observations

- The proposed site is located within the compound of Village Office of Azhikode
- Approximately 20 cents of land is available for construction of MPCS
- The site is directly accessible from Azhikode Chamakkala road
- A shelter built under TRP exists at a distance of 500m from the proposed site which was inaugurated in 2014 and is functional
- The site is 1.2km from coastline.
- MPCS could be used for activities of District Administration during peace time.

#### Assessment

- A functional shelter already exists within 500m from the site, however, the site can be considered for construction of MPCS
- The site may be considered for construction of MPCS



1. View of site at Azhikode 2. View of approach road from the site



## 4. DETAILS OF UNSUITABLE SITES

| 4.1 Identification number: | NCRMP/KER/TSR/KOD/ERIYAD-1  |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|
| Taluk                      | Kodungalloor  |  |  |  |  |  |
| Village                    | Eriyad  |  |  |  |  |  |
| Ownership                  | Government  |  |  |  |  |  |
| Observation                | • A functional shelter already exists in the site                         |  |  |  |  |  |
|                            | <ul> <li>Need for demolition of existing building is not seen.</li> </ul> |  |  |  |  |  |
| Assessment                 | The site may not be considered for MPCS                                   |  |  |  |  |  |



Building existing in the site

| 4.2 Identification number: | NCRMP/KER/TSR/CHA/VADANAPPALLY-1  |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|
| Taluk                      | Chavakkad   |  |  |  |  |  |
| Village                    | Vadanappally  |  |  |  |  |  |
| Ownership                  | Government  |  |  |  |  |  |
| Observation                | • The site is within the compound of<br>Fisheries School                  |  |  |  |  |  |
|                            | • Less than 10 cents of land available for construction                   |  |  |  |  |  |
|                            | • The school campus has limited space for future developments             |  |  |  |  |  |
|                            | <ul> <li>Open space in the compound of school<br/>will be lost</li> </ul> |  |  |  |  |  |
| Assessment                 | The site may not be considered for<br>MPCS                                |  |  |  |  |  |



View of site at Vadanappally

| 4.3 Identification number: | NCRMP/KER/TSR/CHA/KADAPPURAM-3          |
|----------------------------|---|
|                            | INCRIMITY KERY ISIN CHAY KADAFF ORAMI-S |

Taluk Chavakkad

Village Kadappuram

Ownership Revenue

Observation

• The site is within the compound of Tsunami Rehabilitation Colony

- A functional shelter is existing in the site
- Need for demolition or new shelter is not seen

Assessment

# The site may not be considered for MPCS



View of site at Kadappuram

| 4.4 Identification number: | NCRMP/KER/TSR/CHA/EDAKAZHIYOOR-1   |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|
| Taluk                      | Chavakkad  |  |  |  |  |  |
| Village                    | Edakkazhiyoor  |  |  |  |  |  |
| Ownership                  | Health Department  |  |  |  |  |  |
| Observation                | • The site is within the compound of<br>Primary Health Centre of Edakazhiyoor    |  |  |  |  |  |
|                            | <ul> <li>Possibility of National Highway<br/>widening is seen.</li> </ul>        |  |  |  |  |  |
|                            | • Effective land available for construction after widening is less than 10 cents |  |  |  |  |  |
|                            | • Ownership of land is not clear.  |  |  |  |  |  |
| Assessment                 | The site may not be considered for<br>MPCS                                       |  |  |  |  |  |



View of site at Edakazhiyoor

#### 5. ASSESSMENT

#### 5.1 Assessment criteria

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

- 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 atleast 15 cents of land available for construction were only 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

|       |                                      |   |                    |                                    |                                  | Assessm         | ent crite   | ria               |   |                               |              |             |      |
|-------|--------------------------------------|---|--------------------|------------------------------------|----------------------------------|-----------------|---|-------------------|---|-------------------------------|--------------|-------------|------|
| SI no | Site details                         |   | Necessity for MPCS | Area available for<br>construction | Proximity to sea/Water<br>bodies | Foundation cost | Accessibility to<br>transportation and basic<br>amenities | Ownership of land | Clearances required for<br>social/archaeological/envir<br>onmental issues | Requirement for<br>demolition | Legal issues | TOTAL SCORE | RANK |
|       | Identification number                | Place   | 15                 | 15                                 | 15                               | 15              | 10  | 10                | 10  | 5                             | 5            | 100         |      |
| 1     | NCRMP/KER/TSR/<br>CHA/ KADAPPURAM-1  | Revenue land<br>near Village<br>Office,<br>Kadappuram | 10                 | 10                                 | 8                                | 7               | 7   | 8                 | 7   | 4                             | 3            | 64          | 2    |
| 2     | NCRMP/KER/TSR/<br>CHA/ KADAPPURAM-2  | Old shelter in<br>Fisheries land                      | 10                 | 9                                  | 7                                | 7               | 8   | 7                 | 6   | 3                             | 2            | 59          | 2    |
| 3     | NCRMP/KER/TSR/KOD<br>/ AZHIKODE-1    | Revenue land<br>near Village<br>Office,<br>Azhikode   | 2                  | 2                                  | 4                                | 7               | 8   | 8                 | 4   | 2                             | 4            | 41          | 2    |
| 4     | NCRMP/KER/TSR/KOD<br>/ERIYAD-1       | Government<br>land                                    | 2                  | 1                                  | 5                                | 6               | 2   | 2                 | 2   | 2                             | 2            | 24          | 3    |
| 5     | NCRMP/KER/TSR/CHA<br>/VADANAPPALLY-1 | Government<br>Fisheries<br>school                     | 2                  | 1                                  | 5                                | 6               | 2   | 2                 | 2   | 2                             | 2            | 24          | 3    |
| 6     | NCRMP/KER/TSR/<br>CHA/ KADAPPURAM-3  | Tsunami<br>Rebailitation<br>land                      | 2                  | 1                                  | 5                                | 6               | 2   | 2                 | 2   | 2                             | 2            | 24          | 3    |
| 7     | NCRMP/KER/TSR/<br>CHA/ EDAKAZHIYOOR- | Primary<br>Health                                     | 1                  | 1                                  | 5                                | 7               | 2   | 2                 | 2   | 2                             | 2            | 24          | 3    |

| 1 | Centre |  |  |  |  |  |  |
|---|--------|--|--|--|--|--|--|
|   |        |  |  |  |  |  |  |

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