

#### 4. STUDY AREA:

**Narmada River** is the fifth largest river in India and the largest west flowing river of Indian peninsula. It is known as the life line of Madhya Pradesh and Gujarat. Originating from Amarkantak (situated at 20° 40' N, 80° 45' E), in District. Shahdol of Madhya Pradesh, the river travels a distance of 1312 km, before meeting Arabian sea situated at 21° 43' N, 72° 57' E. in gulf of Cambay in Gujarat, out of which 1077 km is in the state of Madhya Pradesh covering the districts of Shahdol, Dhindori, Mandla, Jabalpur, Hoshangabad, Harda, Khandwa, Khargone, Barwani, Dhar and Jhabua. Narmada river is an inter-state river. 32 kms in common boundry between M.P. and Maharastra and another 40 kms between the border of Maharastra and Gujarat. The river flows through Gujarat state for a length of 161 kms.

For ease of study, the entire river stretch in Madhya Pradesh was divided into three zones i.e. Eastern, Central and Western Zones. The Eastern Zone includes 14 sampling sites where as both Central and Western Zone includes 8 sampling sites each. The Eastern Zone extends from origin point to Berman Ghat, Narsinghpur, Central Zone represents Hoshangabad region and Western Zone extents from Omkareshwar to Koteswar (Nisarpur).



### **Sampling sites of Eastern zone:**

1. Origin of Narmada (Kund, Amarkantak)
2. Ramghat (Amarkantak)
3. Graveyard (D/S Stop Dam)
4. Kapil Van (Amarkantak)
5. Kapil Dhara (Amarkantak)
6. Dindori ghat
7. Jogi Tikaria (Near Dindori)
8. Raptapul Ghat (D/S Road Bridge), Mandla
9. Chiri Ghat (Near Mandla)
10. Bargi Reservoir U/S (Near Maikal Resort)
11. Bargi Dam D/S (Jabalpur)
12. Saraswati Ghat, Jabalpur
13. Jhansi ghat, Shahpura
14. Barmanghat (Near Narsingpur)

### **Sampling sites of Central zone :**

1. Ram Mandir (Bandrabhan)
2. Jarrapur (Near Budni)
3. Tawa river
4. Narmada river, Tawa confluence
5. Goalgaon (Near Budni Ghat)
6. Mangalwara Ghat (Hoshangabad)
7. SPM Nalla U/S(Hoshangabad)
8. SPM Nalla D/S (Hoshangabad)

### **Sampling sites of Western zone :**

1. U/S Omkareshwar Dam
2. Nagarghat D/S Omkareshwar dam
3. Mamleshwar ghat D/S Omkareshwar dam
4. Khedighat (Mortakka)
5. Mandleshwar, D/S Dam
6. MPT Hotel (Maheshwar)
7. Rajghat, Badwani
8. Koteswar ghat, (Nisarpur)

## **PHOTOGRAPHS SHOWING SAMPLING LOCATIONS**

**EASTERN ZONE:**



**Plate 1: Origin Point of River Narmada  
Amarkantak**



**Plate 2: Ramghat,  
Amarkantak**



**Plate 3: Graveyard, Amarkantak**



**Plate 4: Kapilvan,  
Amarkantak**



**Amarkantak  
Plate 5: Kapildhara, Amarkantak  
Dindori**



**Plate 6: Jogi Tikaria,  
Amarkantak**



**Plate 7: Dindori Ghat, Dindori  
Mandla**



**Plate 8: Raptapul Ghat,**



**Plate 9: Chiri Ghat, Mandla**



**Plate 10: Bargi Dam Up stream**



**Plate 11: Bargi Dam Down stream  
Jabalpur**



**Plate 12: Saraswati Ghat,**



**Plate 13: Jhansi Ghat, Shahpura Narsinghpur**



**Plate 14: Barman Ghat,**

**CENTRAL ZONE:**



**Plate 15: Ramnagar, Bandrabhan**



**Plate 16: Jarrapur, Budni**



**Plate 17: Goalgaon, Budni Ghat Hoshangabad**



**Plate 18: SPM Upstream,**



**Plate 19: SPM Downstream, Hoshangabad**



**Plate 20: Mangalwara Ghat, Hoshangabad**



**Plate 21: Before confluence of Tawa River**



**Plate 22: After of Tawa River**

**WESTERN ZONE :**



**Plate 23: Omkareshwar Upstream**



**Plate 24: Nagar Ghat, Omkareshwar**



**Plate 25: Mamleshwar Ghat, Omkareshwar  
Mortakka**



**Plate 26: Khedi Ghat,**



**Plate 27: Kasrawat, Mandleshwar  
Maheshwar**



**Plate 28: MPT Hotel,**



**Plate 29: Rajghat, Badwani  
Nisarpur**



**Plate 30: Koteswar,**