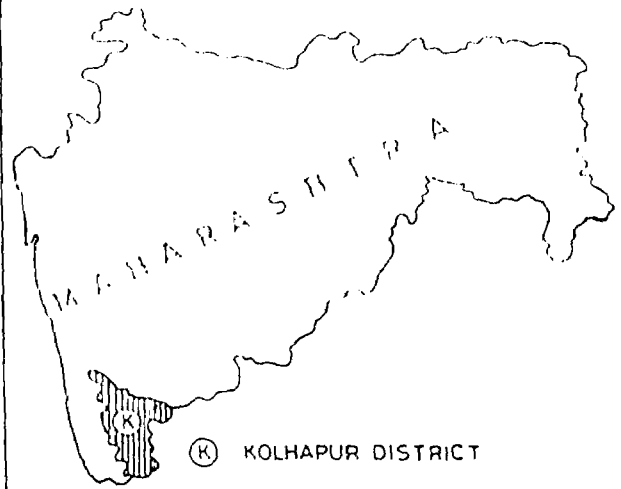
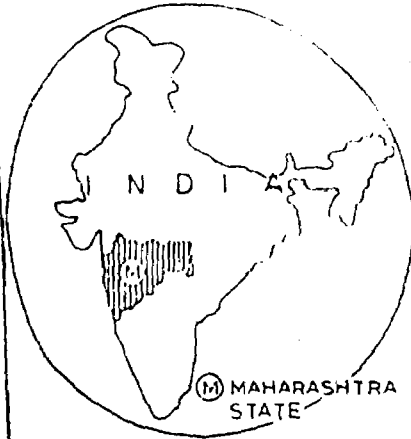


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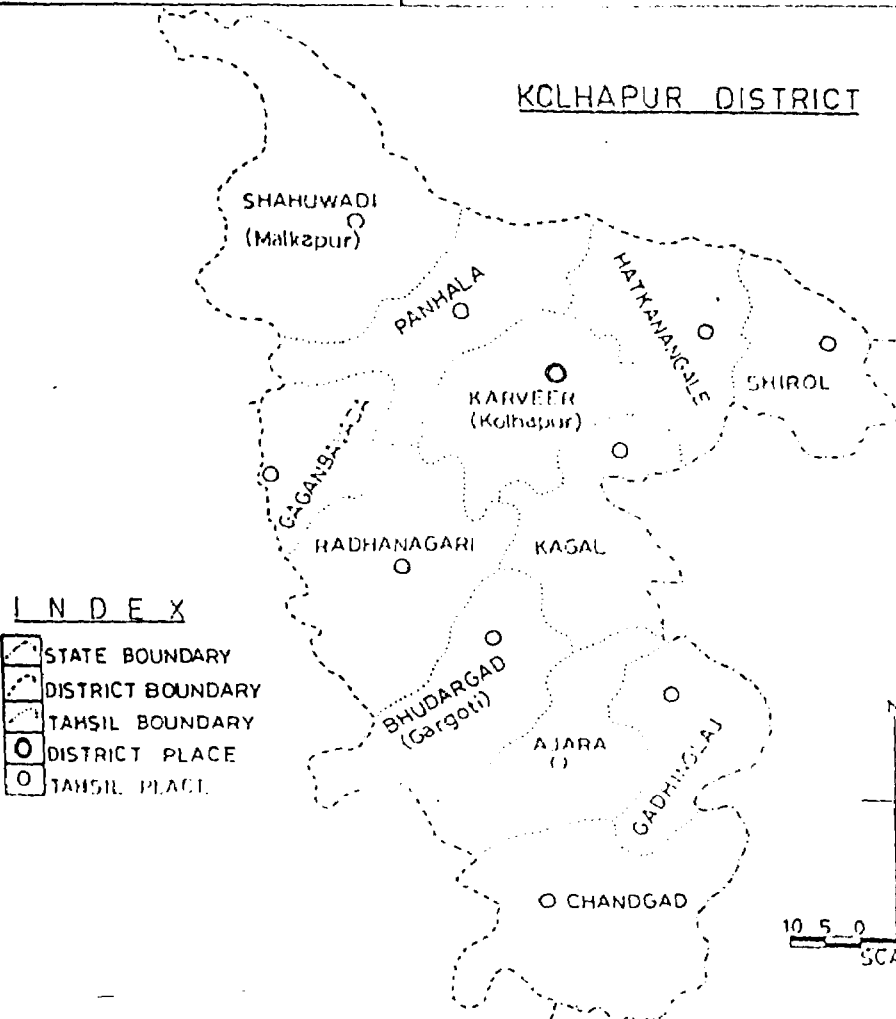
STUDY AREA

LOCATION MAP






KOLHAPUR DISTRICT

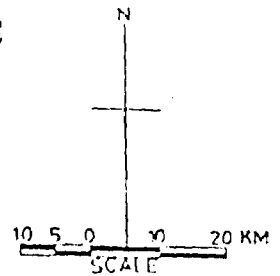


KOLHAPUR DISTRICT



INDEX

-  STATE BOUNDARY
-  DISTRICT BOUNDARY
-  TALUK BOUNDARY
-  DISTRICT PLACE
-  TALUK PLACE



MAP-1

FIG-1

**TABLE 1 : MORPHOMETRIC FEATURES OF RAJARAM,
KOTITIRTH AND RANKALA LAKES**

Parameters	Rajaram	Kotitirth	Rankala
1. Length at full capacity (l) m	1100	1000	1400
2. Surface area at full capacity (A^0)m ² x 10 ⁶	0.22	1.2	1.05
3. Volume of lake at full capacity $V_0 = m^3 \times 10^6$	0.79	2.4	4.26
4. Mean Depth (V_0/A_0)	3.60	2	4.06
5. Mean Bread that full capacity ($\bar{b} = \frac{A_0}{l}$) m	200	100	750
6. Shore line at full capacity m	3800	3500	4450
7. Shore line development $Dt = L_0 \left(= \frac{L_0}{2V \times A_0} \right)^{-1}$	2.286	-	1.22
8. Index of lake permance (V_0/ A_0)	203	-	952

Inland fresh water resources were found to be affected in different ways by various kinds of human activities as a result of which nowadays, lakes in Kolhapur are found to be subjected to great amount of ecological stress and strain in terms of pollution and ecocrisis. Taking this view into consideration an ecological survey of Rajaram, Kotitirth and Rankala has been performed. These lentic water bodies are located in and around the Kolhapur city. Rankala and Kotitirth are centrally situated in the city area while Rajaram is situated just outside the city area.

- **About Kolhapur City**

Kolhapur city is situated as 15° to 17° North latitude and 73° to 74° East longitude. It also enjoys a moderate climate with temperature rarely dropping below 15°C and occasionally rising above 38°C . Kolhapur receives fairly a good amount of rainfall about 135 cm/ annum. It is a city of great antiquity which has been able to maintain it's ancient celebrity and distinction. The name of city was 'Krostu', it was also known as 'Karaveer Puri'. The ancient temple of Mahalaxmi was constructed during the 12th century. The city was surrounded by several lakes which were filled up and land was brought under urban uses (Maharashtra State Gazetteers, 1960).

कोल्हापूर महापालिका हद्द दर्शविणारा नकाशा.

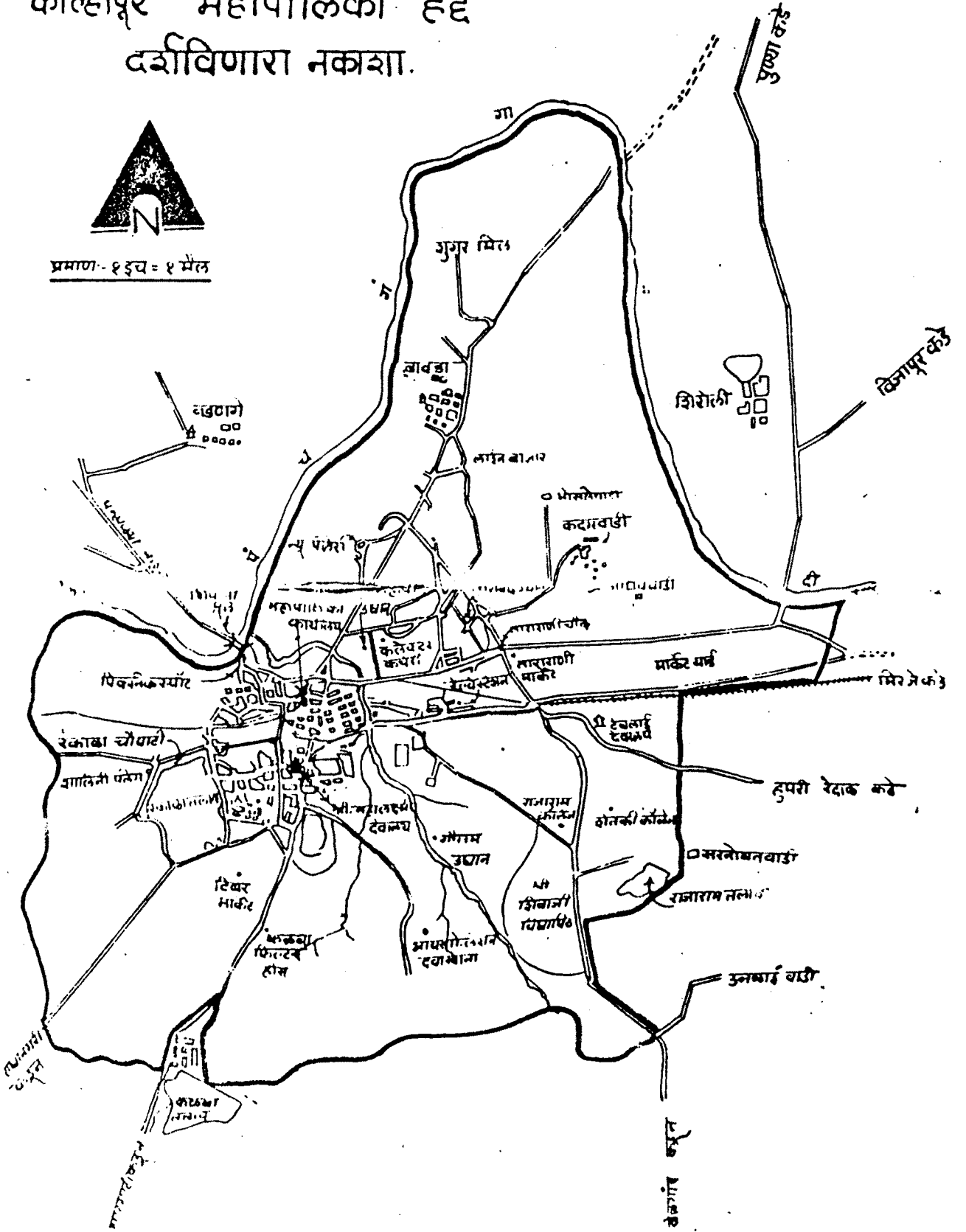


FIG-2

Location of Rajaram Lake.

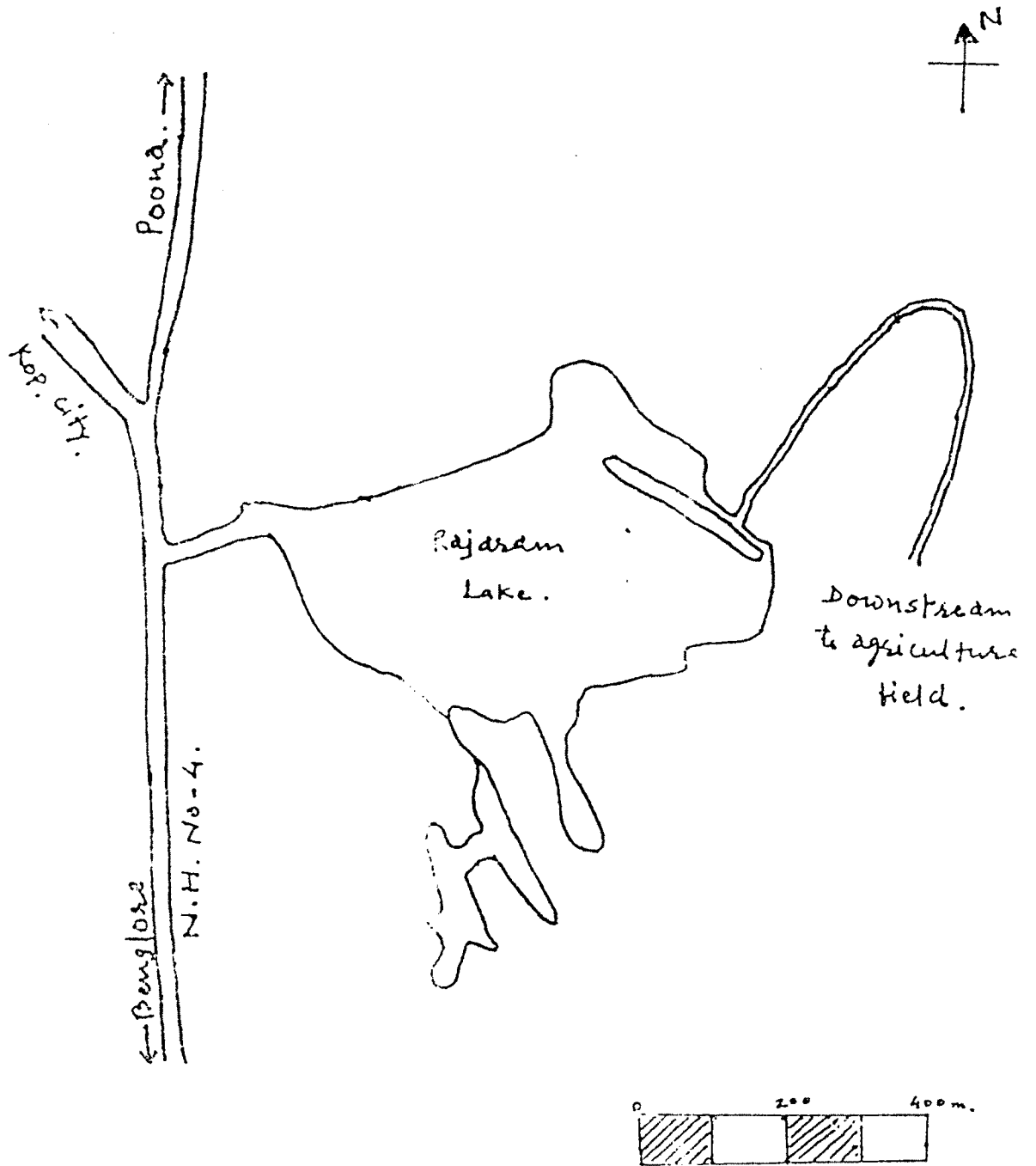


FIG-3

- **Rajaram Lake**

At the south-east edge of Kolhapur city (latitude $16^{\circ}42'$ East, Longitude $74^{\circ} 14'$ North) and at the height of 631 meter from mean sea level Rajaram lake is situated, near Shivaji University campus.

The construction of this lake was started in 1921 by His Highness Shahu Maharaj of Kolhapur state for the purpose of irrigation and city water supply. The construction was completed in 1928.

It is having mostly sandy soil and rich with shells. It is devoid of any macrophytes as well as any vegetation around it. Typical valley location of the lake makes, it prone to an excessive in flow of run off from surrounding areas, buildings, barren land, somewhat agricultural fields.

On the opposite side of the lake 'Sarnobat Wadi' is situated. People of that area continuously use this water body for cloth, washing, bathing etc.

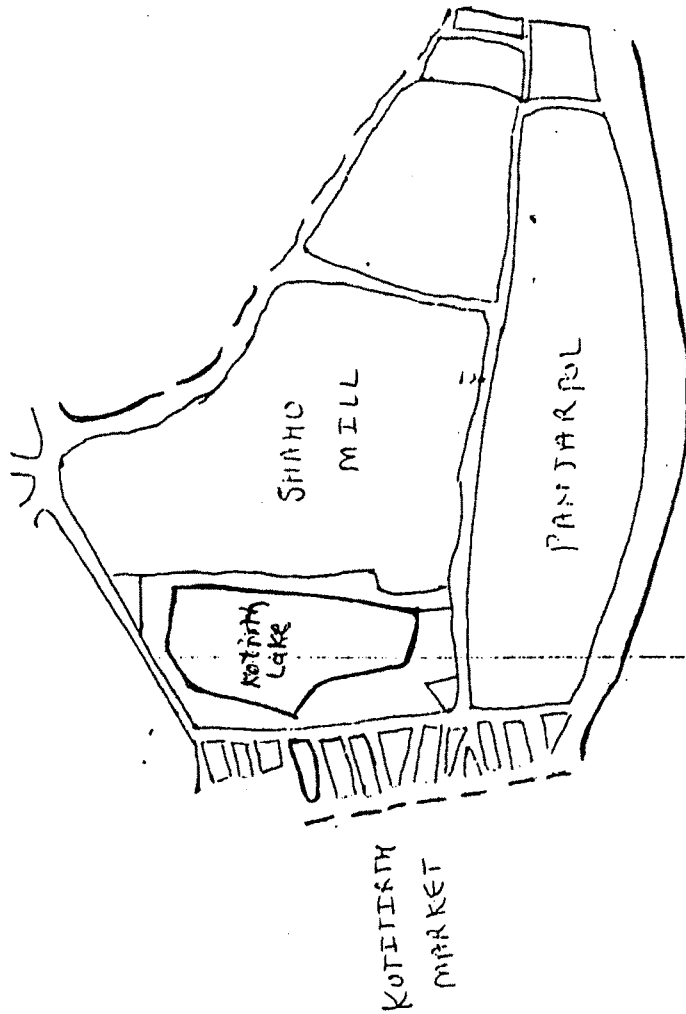
- **Kotitirth Lake**

This lake is situated in the middle portion of the city and surrounded by large number of squatter settlements. There is a big cotton mill namely Shahu Textile Mill on the Northern bank of the lake, whose effluents are released in lake. There is a small temple of

FIG-4

a map showing Kotliyah Lake & Shahu mill & Panjarol area

Scale
1 inch = 660 feet



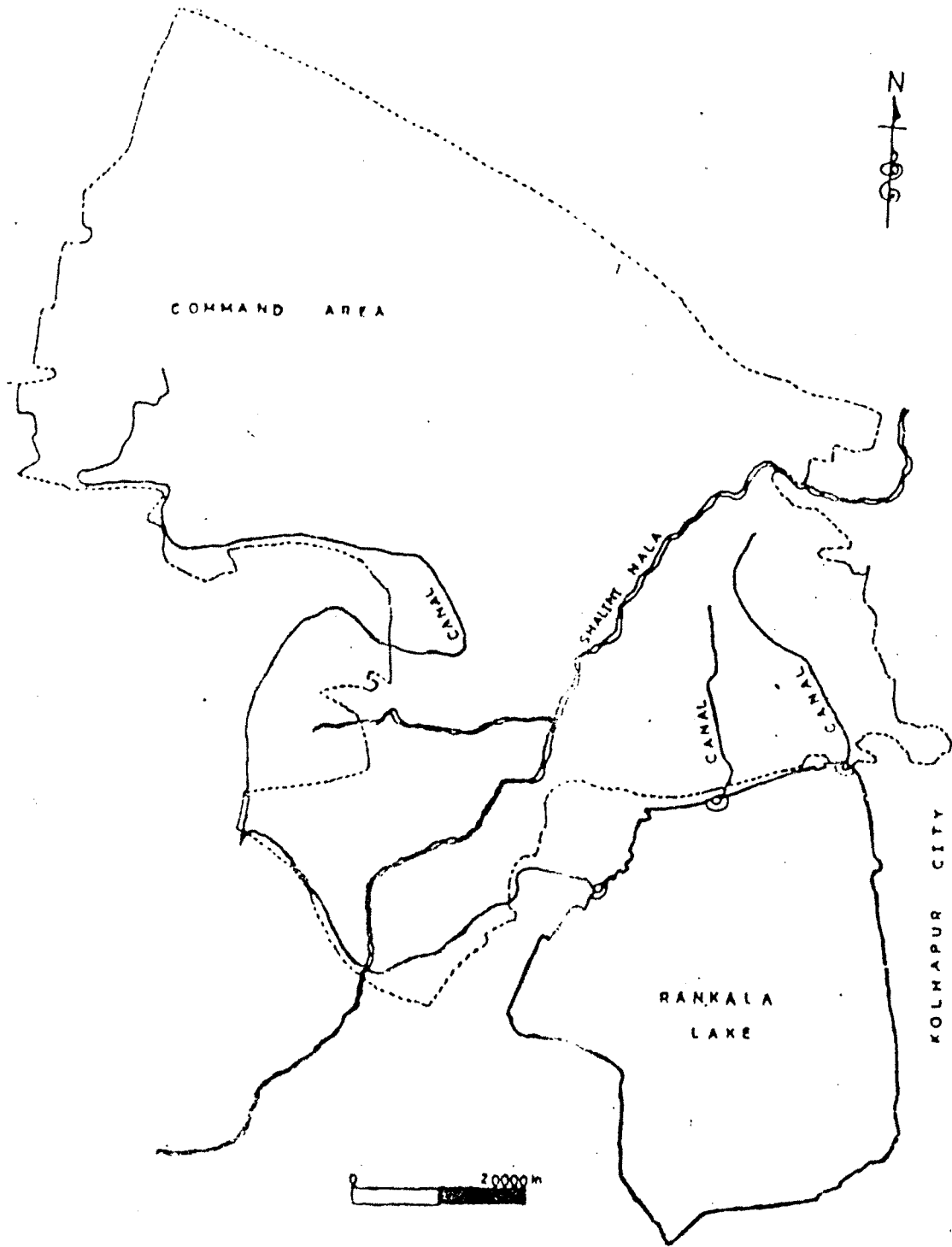
Mahadeva on the Western side called as 'Koteshwar Temple'. On the eastern side of lake, there is a temple of 'Swami Samarth'.

The macro and microphyte population is very high because of not only the cotton mill waste but tremendous human pressure like cloth washings, cattle washing and also the disposal of raw waste added lot of nutrients into the lake every day.

In the vicinity of the lake there are number of metal industries, the complex is known as Udyam Nagar and on the other side the slum area settled around the lake. The water of Kotitirth is not used for drinking. The water is used only for cloth washing, animal washing etc.

- **Rankala Lake**

Of all the places of interest in Kolhapur, Rankala is most popular and referred to as the Marine Drive of Kolhapur city. It is situated at the South Western part of the city. It is of 115 years old and on the northern bank of the lake stands the beautiful Shalini Palace lending additional charm to the lake. On the eastern side and slightly in the lake stands the Sandhya Math. Near Rankala Tower is the Rajghat, a flight of broad steps leading to water. It is now used for bathing and washing. It is also use by dhobis for washing clothes and residents of the neighbourhood use it for bathing and washing.



LOCATION MAP OF RANKALA LAKE

Fig **FIG-5**

The lake water is now mainly used for recreational purposes, such as fish culturing, domestic uses, boating, bathing, cleaning and washing. To add extra beauty to Rankala, two years ago New Udyan were constructed at the back of old Rankala.

The lake is getting eutrophicated because of large amount of organic matter dumped into it through human activities. The main cause of pollution problem is aggravated invasion by water hyacinth *Eichhornia crassipers*, *Chara* and *Hydrilla* etc. Dead aquatic weed undergo decomposition and contribute sufficient quality of organic matter to the lake.

Morphometric features of all the three lakes have been given in Table - 1.