Chapter - 13

Rivers and Lakes of India

The rivers have special significance in India, in context to monsoon climate. Indian culture and civilization developed in the valleys and rivers. Most of the historical cities of India, are situated on the banks of different rivers. Drinking water, electricity, irrigation, inland water transport, industrial utility etc. are types of facilities. The Rivers occupy a very important place in the field of social and economic development of India. The many important industrial and commercial centers also developed on the bank of rivers. In our country monsooni rain shows uncertain supply of water due to variability in amount and time of monsoon. A importance of river water again increases during the years of poor monsoon. Though, in such period the water level of rivers also decreases.

On the basis of origin and drainage, Indian rivers, can be divided into the following categories-

1. Himalayan rivers or rivers of Northern India.
2. Peninsular rivers or rivers of Southern India.
3. Rivers flowing internally

1. Rivers of Northern India:-

The maximum Rivers of North India, are having their origin from the Himalaya Mountain. These Rivers flow throughout the whole year, because they have been originated from the Glaciers of Himalayas. The Rivers of this region, can be divided into three Run off orders.

A. Indus river system

B. The Ganga river system

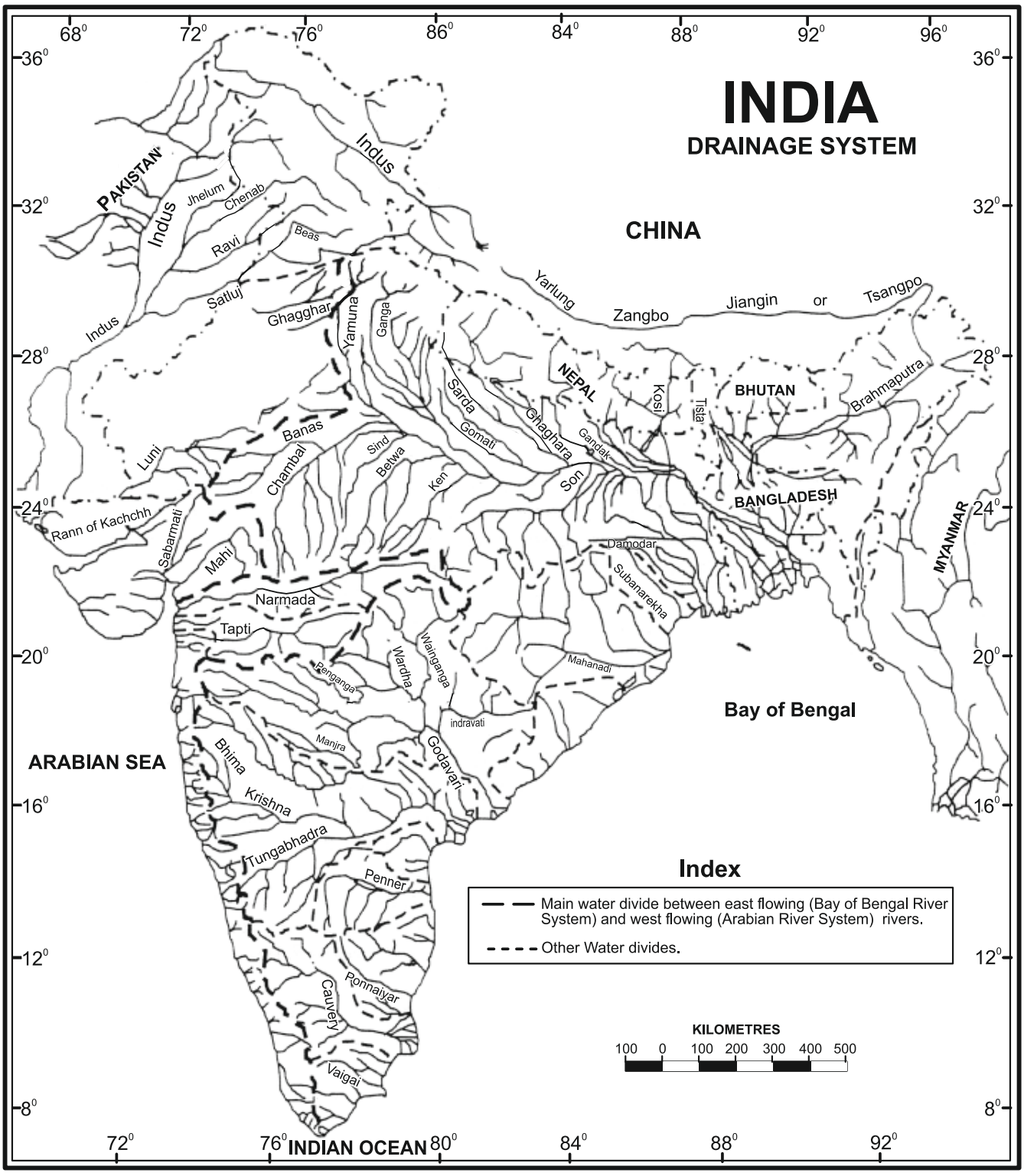
C. Brahmputra river system

(i) Indus river system :-

It includes the Indus river, along with other tributaries Satluj, Beas, Chenab, Ravi and Jhelum. The catchment area of these Rivers, is about 11 lakh and 50 thousand square kilometers. Out of which, about thirty Lakh and 25 thousand kilometer is in India, where as the remaining river area has gone in Pakistan. It means, the upper flowing area and the lower flowing area of River, is in our country and the lower flowing area of the River, goes towards Pakistan. The origin place of satluj River is situated in the “Rakastal” area of the Kailash Mountain, which is in existence near the Mansarovar Lake on the South past hills. On this River, in the Punjab, near Ropad, the Bhakra Nangal Dam is there. On the long path on its way, it falls in Beas River on Jhelum River, the famous tourist city 'Srinagar' is situated.

B. Ganga river system :-

The origin place of Ganga River, comes through “Gangotri” Glacier. At Dev Prayag, the two streams of Alakhnanda and Bhagirathi, get mingled and becomes 'Ganga River'. It enters the ground area, near Haridwar. The main tributary River of Ganga i.e. Yamuna comes out from “Yamunotri”. Like, Chamble, Betwa and Ken etc. which come out from Vindhyachal Mountain, ultimately mingle in 'Yamuna' River. The Yamuna River, gets merged in 'Ganga River' near Allahabad, which is known as 'Prayag' or 'Sangam' from the North Zone, the small Rivers like- Ram Ganga, Gomti, Ghagra, Gandak,



Map 13.1 : Drainage System of India

Kosi and Mahananda on the one hand and from South River 'Son' etc., get mingled up in one big River and this is known as 'Ganga River', which enters in Bangladesh near Farraka. Here, this is called 'Padma River'. Later this river merge with Bhramputra River, before falling into the bay of Bengal and forms a delta. The famous delta of Ganga-Bhramputra is called "Sunder van", which is the biggest delta of the world.

C. Bhramputra river system :-

The 'Bhramputra' River originates from Kailash mountain near Mansarovar Lake, situated in Tibbet. This River flows in the North direction and reaches as far as the North face of Himalaya. Here it is called as "Sangopi River". From this it flows towards South direction and afterwards it gets curve in West direction, continues to flow in 'Assam'. Ultimately merges into 'Ganga', while entering Bangladesh. It has many tributary Rivers, like Dibang, Lohit, etc. also merge into Ganga, but reaching from the opposite directions and on its right Bank, the Rivers which mingle ultimately, as tributary Rivers- are Bhareli, Sabans Siri, Manas etc. Rivers like Dibang, Lohit, Kapili, Dhansiri, Buri Dihing etc. fall on the left Bank of the main River. It carries a lot of soil, while flowing in the way. In the delta part, the Ganga-Bhramputra river, get divided in the channels of Madhumati, Padma etc.

There is a map of drainage system of Rivers in India

2. The Rivers of South India:-

The quantity of water decreases, in the Rivers of South India, in the summer season Maximum Rivers flow from the West to East. The maximum Rivers of South fall in the bay of Bengal and remaining some Rivers fall in the 'Arab Sagar'. In South India, Rivers can be divided mainly into two categories-

A. Rivers falling in to the Bay of Bengal and

B. Rivers falling in to Arab Sagar

The Rivers falling into the Bay of Bengal:-

The maximum Rivers of Peninsular Plateau get out from the West and fall into the Bay of Bengal. The main Rivers of this area are, like- Damodar, Godawari, Krishna, Kaveri, Bhima, Maha River. Tungbhadra and Pennar. Some of them are described as under:-

A. Kaveri River:-

It originates from the 'Durg' District of Karnakata. The Kaveri River, is called as 'The Ganga River of South India'. The water of this river, has become a reason of dispute between Karnakata and Tamil Nadu. The fertile District of Tanjavur is situated in the delta of Kaveri River, which is called as 'Garden of South'.

B. Mahanadi river:-

It originates from the Raipur District of Chattisgarh state. On this River, the Hira Kunda Dam has been built up. The Delta of this place is very fertile.

C. Krishna River:-

It originates from the Western area, nearby Mahabaleshwar. The Anicut has been constructed near Vijaywara, on the Krishna River, and Canals have been spread out for the supply of water meant for Agriculture etc. This falls into the bay of Bengal, while forming a Delta area in the surrounding land.

D. Godawari River:-

This is the biggest River of Peninsular Plateau area. This River originates from the western valley of Triyambkum plateau, which is near Nasik, in the state of Maharashtra. It has more width in the last part of River. It creates the Delta of Triangle size.

The Rivers falling in the Arabian Sea:-

The Rivers, which fall in the Arabian sea, amongst them, the main Rivers are 'Narbada' and 'Tapti'. Narbada is the longest river. This River originates from Amarkantak, and flows in the 'Bhrans' Valley. In this River, there are few

remarkable and delectable scenes, near Jabalpur, in the 'Bharaghat area' there are beautiful rocks of marble and waterfall of Kapildhara. The 'Tapti' River get out from the Betul District of Madhya Pradesh state. Rivers like Mahi and Sabarmati also fall in the Arabian sea like Tapti river.

THE LAKES OF INDIA

There are many Lakes in India. They are different from each other, from the point of view of their shape and other characteristics, merits and demerits both. Most of the Lakes are permanent, but in some Lakes, water appears in the rainy season only. Some of the Lakes are natural which have come into existence due to Air, Rivers and Human Activities, whereas as some Lakes have been built up by glaciers which are known as temporary lakes.

Most of the fresh water lakes are situated in the Himalayan Region. Due to Rocks and Soil, when the way of Glacier becomes narrow, they are fall water of Glacier. The mostly lakes of this category filled up work, are situated in Himalaya, in which Dal Lake, Nainital, Nokuchiya Tal and Bhimtal are the important Lakes. The surface of land went down in the old period, and as such the Wooler Lake of Kashmir, came into being. After the end of Volcano, when it became cool, the Rainy water came out from the mouth of volcano, and thus, the Lonar Lake got its birth in Maharashtra. On the Banks of River, the sea currents make the Sand Dunes and get separated the water area from the sea. Such Peculiar lakes are available in the coastal areas of India, in a good number. The Chilka Lake of Orrisa, Pulicut Lake of Nailore and Koleru Lake of Andhra Pradesh are the examples of such Lakes. In the low lands of desert of western Rajasthan, lakes are form due to the accumulation of rain water. There are many large size saline water lakes in Rajasthan such has Sambhar, Didwana, Lunkaransar and Pachpadra Lakes. In Rajasthan these are called Talai or Dhand. In the year 1893, in the way of Alaknand River, some parts of the Hilly area of lower side, came downwards, and as such the 'Gohana Lake' got its existence. In the plain regions, in the absence of lowering part, the River flows in Shrimp size slowly, than the Lakes come out, like Charadan or the shape of the nail of cows and when floods come, the water is poured in such Lakes. In the middle Valley of Ganga and Bhramputra Rivers, such Lakes are available.

THE RIVERS OF RAJASTHAN

Chamble is the only River in Rajasthan which flows through out the year. In this state, the Aravalli Hills work as great water divide.

The drainage system area, can be divided into three parts:

A. The Arabian sea drainage system

B. The Bay of Bengal drainage system

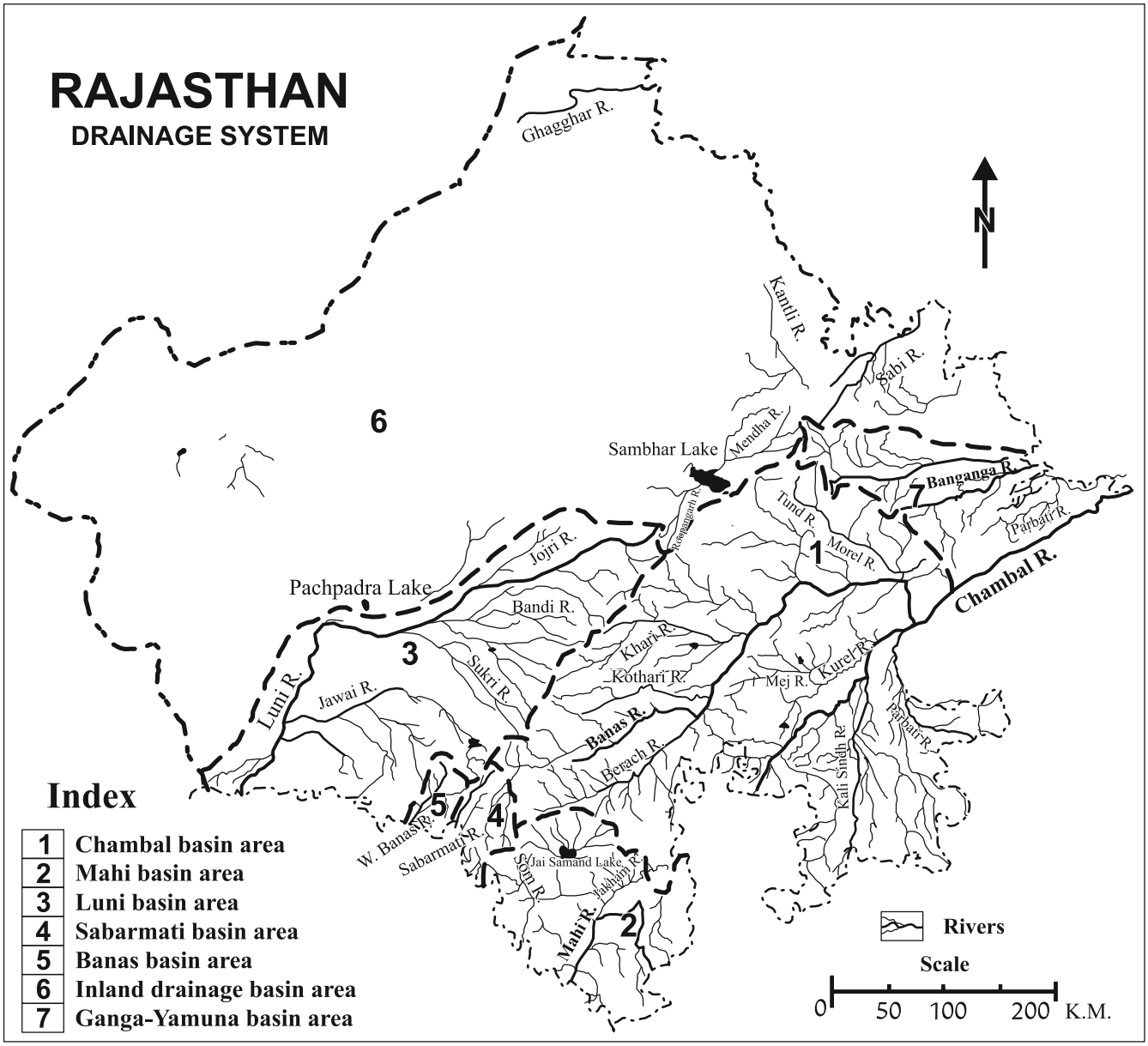
C. The Inland drainage system

A. The Arabian Sea Drainage System :-

This field is related to the River Mahi and Sabarmati. The Mahi River gets out from the place 'Minda' of the mountains of Vindhiyachal, situated in 'Dhar' district, of state of Madhya Pradesh. This falls in the Gulf of Khambat. This location creates a border between Dungarpur and Banswara and on the banks of 'Som' and 'Jhakam' in the confluence point, the Fair of Beneshwar is organised emery year. On this River, near Banswara, the dam of Mahi Bazar Sagar has been constructed. The Tributaries Rivers of this main River, are Som, Amba, and Jhakam etc.

B. The Bay of Bengal Drainage System :-

All the Rivers connected to this field, are merged in the 'Yamuna River'. The related Rivers, to this field are- Chambal, Banas, and Baanganga. The Chambal River gets out from the Janapav hills, which is nearby to Mahu of Madhya Pradesh state. This enters in Rajasthan through the touching area of Chittorgarh to Madhya Pradesh Border, it runs through Chittorgarh, Kota, and Sawai Madhopur gets merged in Yamuna River in Muradgang of Uttar Pradesh.



Map 13.2 : Drainage System of Rajasthan

On this River Dams like- Gandhi Sagar, Rana Pratap Sagar, Jawahar Sagar and Kota Beraj are constructed. The 'Banas' River originates from the place known as "Bheroka Math", near by Kumbhalgarh. This is also called as "Hope of Jungle", this river, merged in the Chambal River near Rameshwar, of Sawai Madhopur district. On this River, the famous "Bisalpur Dam" has been constructed. The other Rivers like Berath, Gambhiri, Kothari, Khari, Parvati, Kali Singdh, are also covered by this Runoff field.

C. Inland Drainage System :-

In this field, such Rivers exist, which begin from some place, but do not reach to sea- they become invisible while flowing for few months, at any time. Such Rivers are Luni, Kantli, Kakni, Ghaggar, Sabi, Mendha etc. The Luni River originates from 'Nag-pahar'. This River disappears in the Rann of Kutch. The 'Mendha

River' falls in Sambhar Lake in Rajasthan.

Saraswati River

According to Righved, the Saraswati River, which is the best among all Rivers, the best among the mothers and Goddesses, originates from Rupan glacier of Shivalik. This glacier after reaching till "Addibadri", gets changed into water and takes the form of streams, which ultimately, while following the plain areas of land, become River.

The Saraswati River related to Vedic and Puran period, has come into being, by mixing the water of two streams- from Tributary Rivers- Dashwati and Hiranyawati, which flew in the middle part of the way of Satlaj and Yamuna River's belt, but due to effect of Geological activities under the land and new developments, the streams of the water, slipped towards West in the period of times this River and become invisible.

It has been revealed by the investigation, done by ISRO, that the streams of water and existence of water in a good quanitity in Brambh Lake of Kurukshetra. The Lakes of the shape of half moon of Pahva and the underground water streams visibly following in the ways of Punjab, Haryana and from North West Rajasthan to Pakistan till Ghaggar-Hkara-Nara are the proofs of the underground presence of Saraswati River. So, till the waterflow is, in existence in underground space, by that time the proper use of such life providing 'water' should be used in a proper ways, so as to develop the surrounding areas and good health & wealth will be add in surrounding areas.

On the basis of early archaeological proofs, the Harrapan culture, was given the name of Indus Valley civilization. It is estimated that there were many ancient settlements on the banks of vedic river saraswati which might be older than the ancient settlements found on banks of indus river.

The Lakes of Rajasthan

The Lakes of Rajasthan can be divided into two categories, from the point of view of water:

A. Saline Water Lakes

B. Fresh Water Lakes

A. Saline Water Lakes :-

In the category of Saline water, the main Lakes are Sambhar, Deedwana, Lun Karansar and Pachpadra Lakes. Sambha Lake is the biggest Saline water Lake of India. This Lake is situated near Phulera of Jaipur District. In this Lake, Rivers- like Mendha and Roopangarh are putting there water.

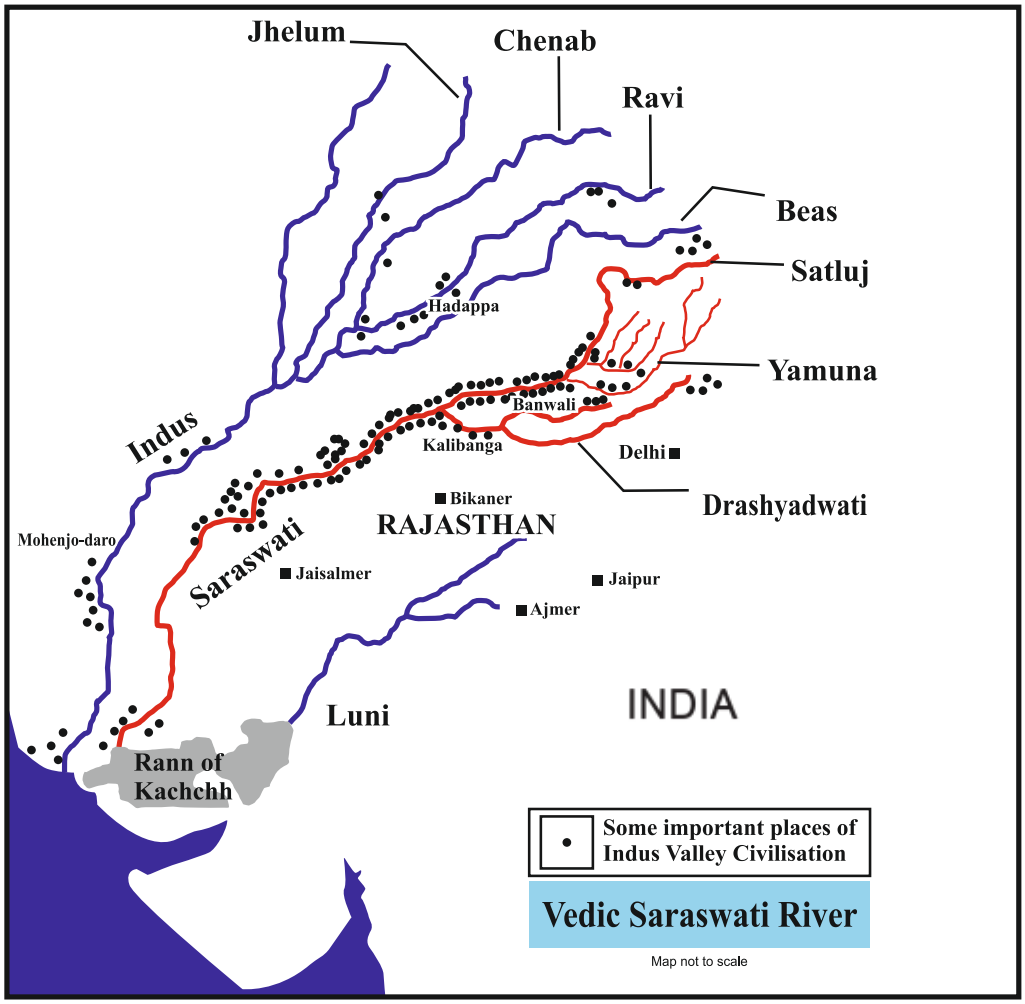
The Deedwana Lake is situated in the South part of Deedwana city. Here big plants are established for the manufacturing of Sodium and Sulphet. In Bikaner District the Lunkaransar Lake and in Barmer District the Pachpadra Lakes are situated. Other Lakes are like Falodi, Kanvoud, Kachor etc.

B. Fresh Water Lake

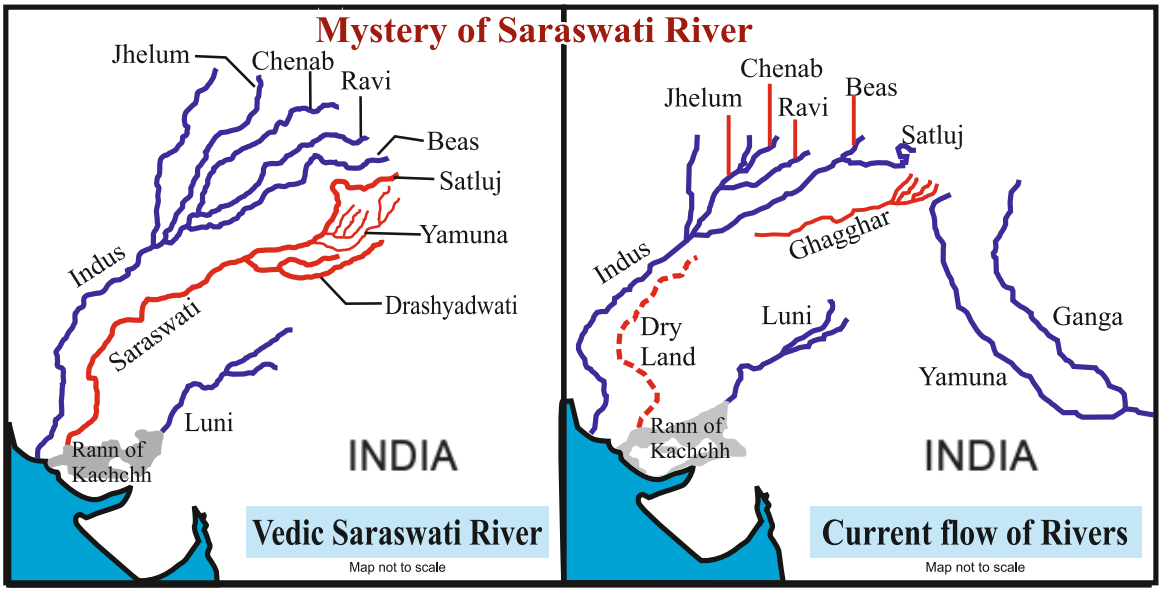
In Rajasthan state a number of fresh water lakes are available, out of them the following are-more important i.e Jaismanad, Rajsamand, Pichola, Annasagar, Pushkar, Sillyseeth, Udai Sagar, Fateh Sagar, Janasagar, Nakki, Kaiylana Lakes. Jaisamand Lake is the biggest artificial Lake of Rajasthan, this is situated near Udaipur District. It has many islands inside the lake. The name of the biggest island is 'Baba Ka Bhagra', and the smallest Island's name is 'Pyari'. It is very important for the tourists.

The Rajsamand lake is situated near Kankroli. This Lake was constructed by Maharana Raj Singh in 1962 A.D. The South part of the Lake is famous by the name of "Navchoki". Here on the stone blocks of Marble, 25 inscription are engraved, on which the history of Mewar and the details about the construction of Lake, are engraved in Sanskirt language. These inscription are published on record for the people.

The Pichola Lake, is situated in Udaipur. This



Map 13.3 : Vedic Saraswati River and some important places of Indus Valley Civilisation



Map 13.4 : Drainage area of Vedic Saraswati River and Current Drainage pattern in this

Lake was constructed, in the Rule of Rana Lakha. The Annasagar Lake is situated in Ajmer city. This Lake was constructed by the Grandfather of Prithvi Raj Chouhan in 1137 A.D. His name was Anna Ji. On the bank of Lake, the "'Barah Dari" and Dolat Bag by Janhagir, was constructed. The Pushkar Lake is a very famous religious place, where the temple of world fame Lord 'Bhrama' is situated. The Silised Lake is in Alwar, where the fisheries business is done. Kolyat Lake is in Bikaner District.

Here, in the Ancient period, there was a Hermitage of Kapil Muni. The Janasagar Lake is situated near 'Badi' in Udaipur District.

Important Points

1. In the River Valleys different civilizations, have flourished.
2. In our country, the Rivers can be divided in three drainage pattern, like- North Indian Rivers, South Indian Rivers and Inland flowing rivers.
3. In India, in reference to monsoon climate, the Rivers have significant place.
4. The rivers flowing from Himalayas are Sindu, Ganga and Brahmputra.
5. Rivers orginating from Aravali are Banas, Luni, Sakhi and Sabamati.
6. Kantali, Sabi, Kakni & Ghaggar, are main rivers.
7. Vanish before reaching sea area's confluence point. The Fair of Beneshwar is held Bhil tribe on the confluence of Mahi, Som and Jakham.
8. The main Saline water lakes in Rajasthan are Sambhar, Didwana, Pachpadra, and Lunkaransar.
9. Luni is the main inland river.

Objective Type Questions

1. The origin of Satluj River is :

   (a) Rakshathal (b) Satluz tal

   (c) Kamal tal (d) Ram tal

2. We see the inclination of the peninsular plateau in:

   (a) In the structure

   (b) In the volume of water

   (c) From the Angle of water flow

   (d) In the volume of Soil

3. Which is not the inland flowing river

   (a) Mantha (b) Meda

   (c) Kakni (d) Parvati

4. The largest Fresh Water Lake is:

   (a) Rajsamand (b) Jaisamand

   (c) Sambhar (d) Pushkar

Very Short Answer Type Questions

1. Write the name of the place of origin of Ganga River.
2. Which place is called as 'The orchand of South'?
3. On which river is the Kapil Dhara water fall situated ?
4. Which mountain divides the drainage system, of Rajasthan into two parts?
5. Write the names of Saline Water Lakes.
6. Which place is called as place of hundred platforms?
7. Which civilization flourished on the Bank of Saraswati River?

Short Answer Type Questions

1. Write the names Tributaries of 'Bhramputra' River system.
2. Compare the Rivers of Southern and with Northern India.
3. Write about of Rajathan that fall into Arabian Sea.

4. Describe the river of Rajasthan that fall into Bay of Bengal.
5. Write about river system which fall into Arabian Sea.
6. Write about Saline Water Lakes of Rajasthan.

Essay Type Questions

1. Describe the drainage system of rivers of northern India.
2. Describe the drainage system of rivers of South India and complete them with the rivers flowing in northern India.
3. Write an essay on "Saraswati River".

Mark in map

1. Show the Rivers of Ganga river course, in the map of India.
2. Show the rivers, which fall in the Arabian Sea in map of India.
3. Identify and shoe Saline water lakes and fresh water lakes in the map of Rajasthan.

The answers of objective type questions:-

1 (A) 2 (C) 3 (D) 4 (B)