Origin, Flow, Forestry, Irrigation, and Philosophy of Narmada River in India.

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Abstract: Exploration has been done for the Riverology of Narmada River. Its origin is at Amarkantak In District Anuppur MP State of India in eat border adjacent to Pendra Road (South Eastern Railway Station) in the border of Chhattisgarh state. Narmada River is called Life-Line of MP and It’s also beneficial to Gujarat and Rajasthan states in India, Nursing water for biodiversity and irrigation.

Key words: Narmada River, Amarkantak, Bhedaghat, Omkarareswar, Indira Sagar Dame

INTRODUCTION: There is socioeconomic importance of Narmada River to give jobs to service of Pilgrimages at Amarkantak, Bhedaghat (Jabalpur), Ran Nagar (District Mandala MP) Omkarareswar, Namawar(Harda MP), etc are main places where Narmada river is a place of pilgrimages tourism. Science of Narmada is a mega river flowing to west side in India through a way of continental drift formed by origin of Satpura, Vindhya and Mekal Mountains Series. There are more studies on Narmada River. Reading, e.g. The life line river of MP and even of Gujarat States as a mega river in central to west India is Narmada River. Authors visited for exploration of geological, Geophysics and Geomorphology of Narmada River Flow. Satpuda and Vindhya Bi Mega Plateaus make a continental drift for Narmada River Flow from Mekal Mega Plateaus. [1] Narmada river flows East in the direction. (Also Tapti River) as a mega river. In the study we could not apply for flowing force meter due to beyond the range [2-3]. But it is just geophysical parameters and sky observation from inset map of geomorphology of the Narmada River Flow [4,5,6] AMARKANTAKATA: Amarkantaka is the City in Anpur District MP. It’s the origin of Narmada Rive. Figure 1 to 3 Represent the Kund’s (Mega Tubs) mad on about its evolving spring from the earth. Amarkantak is located in the state of Madhya Pradesh in India at 22.67°N 81.75°E. It has an average elevation of 1,048 m (3,438 ft).[7] Roads running, through Rewa, Shahadol, Anuppur, Jabalpur, Katni, Bilaspur and Gaurrella connect it. The nearest railway stations are Pendra road and Anuppur. The nearest airport is Bilaspur Airport at the distance of 120 km The Narmada River, also called the Reva is the 5th longest river and overall longest west-flowing river in India. It is also the largest flowing river in the state of Madhya Pradesh. This river flows through the states of Madhya Pradesh and Gujarat in India. It is also known as the "Life Line of Madhya Pradesh and Gujarat" due to its huge contribution to the two states in many ways. The Narmada River rises from the Amarkantak Plateau in Anuppur district Madhya Pradesh. It forms the traditional boundary between North India and South India and flows westwards over a length of 1,312 km (815.2 mi) before draining through the Gulf of Kambhat into the Arabian Sea, 30 km (18.6 mi) west of Bharuch city of Gujarat [8]

METHODOLOGY: An exploration of Origin of Narmada River Amarkantaka started from Ambikapur, Chhattisgarh state. Crossing Renu river on NH 43 in Surajpur District and Hasdeo river in Manendragarh district of in the northern Mahanadi Basin Reached Philosophical society Ledari Manendragarh.[6 a,pln] Figure1 from Google map represents both rivers. An inset road map is depicted in Figure2. Manendragarh Crossing Shri Shiddha Baba Hill [7 ],we entered MP State. We left NH 43 at Jhiriyatola Village and took Pendra Road by left turn on HS 08 and crossing Marwahi and Kotmi Towns reached Pendra. Then Took Kewanchi road to Amarkantaka After Kewanchi observed Kabir Chabutara, Here is also a spring, (It is suggested that, Narmada came here for Kabeerism). After 20 minutes observation did drive car then reached Amarkantaka. Geological, Geographical and Philosophical study has been performed. A full day pilgrimage and study made and returned from Jaleshwardham Road. Downed Mekal hill and reached Pendra Road SER (Gaurella) There we made night halt with authors homes. Next day on SH08 penda Manendragarh road coming 90 Km Then seen a small river ever spring in a plane earth at Kerha Baba Dhaam between Majhaoli Dhanoli Villages in Kotma Tahasil of MP. Authors did there Night halt then next day returned Lab at Ambikapur.
**Observation and Result:** Figure 3 represents the slope downing the car on the slope of the Mekal hill to reach Pendra road via Jaleshwar from Amarkantak. Figure 4 and Figure 5 are Tesla meter or Geological magnetometer at Narmada River Origin is 135 µT. And on the road taking reading and photography (Figure 12), it is 1. Thus Geo magnetic force 30 µT helps to flow west side. Figure 6 is the north view and Figure 7 is the south view of Gate of Narmada origin at Amarkantaka on Mekal mountain. West side of Figure 6-7 there is a Kund-3 of medium size. Where, visitor took bath as depicted in Fig 10. Then after change and rituals of Plant power Sandal on forehead and shoes off, enter into Narmada kund. There Kund 1 is on west side coming continue spring east side into Kund 2 Narmada ji flows eastward only 70 meters than underground appears to westward as kusd3 at 200 meters.

**Table 1: Kunds at the Origin of Narmada River**

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Position</th>
<th>Size</th>
<th>Area</th>
<th>Depth</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Middle</td>
<td>smallest</td>
<td>05x10 meter Sq</td>
<td>01 meter</td>
<td>observation</td>
</tr>
<tr>
<td>2</td>
<td>East Side</td>
<td>Biggest</td>
<td>60x60 meter Sq</td>
<td>10 meter</td>
<td>Prayer</td>
</tr>
<tr>
<td></td>
<td>Beside Kund 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>West Side</td>
<td>Medium</td>
<td>10x10 meter Sq</td>
<td>2 meters</td>
<td>Only Bath without shampoo</td>
</tr>
<tr>
<td></td>
<td>Across road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure1: Mahanadi basin  Figure2: road map  Figure3: slope to Mekal hill  Figure4: origin 135 µT

Figure 5: 65 µT in west side  Figure 6: North view of Gate  Figure 7: North view of Gate

Figure 8: Kund 1  Figure 9: Kund 2  Figure 10: Kund 3
ORIGIN AND FLOW OF NARMADA: The source of the Narmada is a small reservoir, known as the Narmada Kund. It is located at Amarkantak on the Amarkantak Plateau in the Anuppur District on Shahdol zone of eastern Madhya Pradesh. The river descends from Sonmuda, then falls over a cliff as Kapildhara waterfall and meanders in the hills, flowing through a tortuous course crossing the rocks and islands up to the ruined palace of Ramnagar. Between Ramnagar and Mandala, (25 km) further southeast, the course is comparatively straight with deep water devoid of rocky obstacles. The Banger joins from the left. The river then runs north–west in a narrow loop towards Jabalpur. Close to this city, after a fall of some (9 m (29.5 ft)), called the Dukh dhara, the fall of mist, it flows for (3 km) in a deep narrow channel through the magnesite limestone and basalt rocks called the Marble Rocks; from a width of about 90 m above, it is compressed in this channel of (18 m), only. Beyond this point up to its meeting the Arabian Sea, the Narmada enters three narrow valleys between the Vindhya scarps in the north and the Satpura range in the South. The southern extension of the valley is wider at most places. These three valley sections are separated by the closely approaching line of the scarps and the Satpura hills.

The eastern portion of the range receives more rainfall than the western portion, and the eastern range, together with the Eastern Ghats, constitute the eastern highlands moist deciduous forests ecosystem region. The seasonally dry western portion of the range, together with the Narmada valley and the western Vindhya Range, are within the Narmada valley dry deciduous forests. This mountain range serves as a natural border between Maharashtra and Madhya Pradesh states. The Narmada and the Tapti are major rivers that drain into the Arabian Sea. The Narmada originates in eastern Madhya Pradesh (India) and flows west across the state, through a narrow valley between the Vindhya Range and spurs of the Satpura Range. It flows into the Gulf of Kambhat. The Tapi (also known as Tapti) follows a shorter, parallel course, between 80 and 160 kilometers (50 and 100 miles) south of the Narmada, flowing through the states of Maharashtra and Gujarat to drain into the Gulf of Kambhat. Table 2 represents the flow of Narmada river in a rift of Satpura and Vidhya Mountain series make slope as represented in altitude column.

Table 2 Riverology of Narmada River

<table>
<thead>
<tr>
<th>Serial No</th>
<th>Places</th>
<th>State</th>
<th>GPS</th>
<th>Altitude</th>
<th>Distance travelled</th>
<th>depth</th>
<th>Population get job by Narmada river</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Amarkantaka</td>
<td>Anuppur</td>
<td>22.6749N, 81.7591E</td>
<td>1048 m</td>
<td>00 km</td>
<td>1.00m</td>
<td>8,416</td>
</tr>
<tr>
<td>2</td>
<td>Bhedaghat</td>
<td>Jabalpur</td>
<td>23.1256137N, 79.8126191E</td>
<td>353 M</td>
<td>300 km</td>
<td>30 m</td>
<td>10,640</td>
</tr>
<tr>
<td>3</td>
<td>Omkareswar,</td>
<td>Khandawa</td>
<td>22.2417739N, 76.149389E</td>
<td>193 M</td>
<td>950 Km</td>
<td>50 m</td>
<td>12,560</td>
</tr>
<tr>
<td>4</td>
<td>Indrassagar</td>
<td>Mundi</td>
<td>22.2872N, 76.4719E</td>
<td>180m</td>
<td>1077 Km</td>
<td>100m</td>
<td>16,660</td>
</tr>
<tr>
<td>5</td>
<td>Gulf of Kambhat</td>
<td>Gujarat</td>
<td>22.1668N, 72.4198E</td>
<td>00 m</td>
<td>1.312 km</td>
<td>600m</td>
<td>1,000</td>
</tr>
</tbody>
</table>

IRRIGATION BY DAME ON NARMADA: The Narmada River, also called the Reva and previously also known as Narbada, is the 5th longest river and overall longest west-flowing river in India. It is also the largest flowing river in the state of Madhya Pradesh. This river flows through the states of Madhya Pradesh and Gujarat in India. It is also known as the "Life Line of Madhya Pradesh and Gujarat" due to its huge contribution to the two states in many ways. The Narmada River rises from the Amarkantak Plateau in Anuppur district Madhya Pradesh. It forms the traditional boundary between North India and South India and flows westwards over a length of 1,312 km (815.2 mi) before draining through the Gulf of Kambhat into the Arabian Sea. 30 km (18.6 mi) west of Bharuch city of Gujarat.
It is one of only two major rivers in peninsular India that runs from east to west (longest west flowing river), along with the Tapti River. It is one of the rivers in India that flows in a rift valley, bordered by the Satpura and Vindhya ranges. As a rift valley river, the Narmada does not form a delta; Rift valley rivers form estuaries. Other rivers which flow through the rift valley include the Damodar River in Chota Nagpur Plateau and Tapti. The Tapti River and Mahi River also flow through rift valleys, but between different ranges. It flows through the states of Madhya Pradesh (1,077 km and Maharashtra, (74 km) A actually along the border between Madhya Pradesh and Maharashtra (39 km) and then the border between Maharashtra and Gujarat (74 km) and in Gujarat (161 km) 281 Dames and 48 Canals are made for drinking and irrigation. Even Narmada gives water for Chhipra river at Ujjain and Hiran River at Bharuch Gujarat for their Pilgrimage, Drinking and irrigation Facilities. Figure 14 represents Bhedaghat Jabalpur Figure 15 represents Omkareshar in Khandawa MP and figure16 represents Indira Sagar Dame in MP which is larger type of dame. [12-16]

PHILOSOPHY OF NARMADA:: At one time, a marine ravine penetrated the very centre of Peninsular India through a narrow inlet along the present valley of Narmada. During this time India was divided into two halves by narrow strips of marine transgressions and there was no land communication between the Peninsular and northern India. Along the Narmada Valley, several patches of sediments have been deposited which contains ancient remains of animals.

There are many stories about the origin of the Narmada River. According to the Reva Khand, the Narmada was created from Shiva's perspiration while he was performing penance on Mount Riksha. Due to this, the Narmada River is known as Shiva's daughter

CONCLUSION:

Narmada river flows eastward only 0.5 meters from Kund 1 to Kund 2 then, it goes underground and appears to westward as kund 3 at 200 meters cross the road . This movement simulates one cycling to be ever flow west ward. Sanatani mythology is made to be love with river Sonbhadra, but he (Sonbhadra) confused and loved Johila river. So Narmada Decided to remain unmarried and flow opposite of common rivers and thus flows east to west. Earth Science reveals that Narmada flows east to west through rift caused by northern Sapura Plateau and southern Vidyha Plateau. While the east direction of Naramada river originn is Mekal Plateau. Continental drift made by Satpura Mountain range and Vidyha Mountain range make the slope and Mekal plateau uplift is the cause of flowing west Direction of Narmada River.

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REFERENCE:

3. Divya Mahar, Durgesh Mahar and H D Mahar; Biodiversity and hydrothermal application of hot water spring Tatapani (HWST) Balrampur, Ambikapur, Chhattisgarh, India © 2022 IJRTI | Volume7, Issue 11 | ISSN: 2456-3315, International Journal for Research Trends and Innovation (www.ijrti.org)


