

Report on Prevention & Control of pollution in River Kshipra
An Action Plan for Rejuvenation



Regional Office M.P. Pollution control Board,
Ujjain (M.P.)

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Action Plan for the Rejuvenation of River Kshipra

1. Introduction:-

In Sanatan dharma and Vedic culture, rivers have a unique place. Rivers are treated as mothers. Our rivers are not silent. They speak of their age old experiences. They keep human emotions alive. Our ancestors kept an unending relation with rivers and succeeded in evolving a spiritual dialogue with them as a result of which, these rivers also dedicated themselves in the process of refining humanity.

Our tradition admires, adores and worships the purity and holiness of rivers. Rishis of Vedic period sang verses in praise of these rivers. These verses inspired the successive generation which through their toil realized the dreams of their ancestors and in this way achieved glorious destiny of our civilization and culture.

Though the Western poet hailed the purity of rivers, there is a distinctive difference in the Western and Indian view of rivers.

In England, they praised mighty Thames but they talked of only the utility of the river. Neither do they attached any idea of spiritual meaning to the existence of rivers like we do with Ganga, Yamuna and Narmada that they became lifelines of our collective spiritual, cultural and ancient civilization experience





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Kshipra River, flowing since the times of ancient India to the present age has been witnessing ups and downs of cultural and spiritual evolution as well as rise and fall of dynasties that flourished on its banks.

It originates not out of a mountain cave, but out of the womb of the earth and flows on the surface. Hence sorrows, happiness, expectations and aspirations of common people have been intermingled in its waters. This is the reason; it is called 'Lok Sarita', the river of the masses.

It has been sprinkling its water at the holy feet of Lord Mahakal since time immemorial and has become a living symbol of our faith.

Kshipra is a witness to that great feeling which defines humanity itself after every twelve years when great religious congregation Simhasth Kumbh Mahaparv is celebrated here which is the great spiritual experience of Indian culture.

Kshipra seems to awaken us as a mentor of holiness, penance and conviction to maintain the eternal Indian tradition. Kshipra is a carrier of our evergreen cultural legacy.

Majority of Indian rivers flow towards the south but Kshipra is a 'Uttargami' (north flowing) river. Chambal is a tributary of Kshipra. This fact has been mentioned in the 'Skandpuran' also. Sanskrit literature is full of Kshipra grandeur. We find Kshipra's mention in Yajurveda also. Sanskrit literature is full of Kshipra grandeur. We find Kshipra's mention in Yajurveda also. There a Vedic Rishi has remembered Kshipra calling – '*Kshipre awe payha*'. The river also found a place of honour in Mahabharata, Bhagwat Puran, Brahma Puran, Shiv Puran, Ling Puran and Waman Puran also.

Great poet Kalidas praised Kshipra in words like 'Kshiprawatah Priyatamiva Prarthanachatukarah'. Rishi Vashishtha calls it a river of salvation.

Holy dip in Kshipra during Simhasth Kumbh Mahaparv has a special significance because here the festivals of Kumbh and simhastha both intermingled.

A legend has it that Atri Rishi did rigorous penance for 3000 years at Ujjain. Throughout this period he held his arms upward. When he completed his penance and opened his eyes he saw that two great bands of

light emerging from his body. The first one went to the sky and it is said it converted into the moon and the other band of light went downward to earth and took the form of river Kshipra.

Kshipra is also called 'Somvati'. There is a very famous story in the 'Dasham Skand' of Bhagwat. When Lord Krishna finished his education at 'Sandipani Ashram' he offered his 'Guru Dakshina' to the Guru Patni, the wife of the master Sandipani. She asked him to return her son to life who had drowned in a river.

Lord Krishna obeyed the order of Guru Patni and thus paid Guru Dakshina, the offering a student pays as a token of his gratitude towards his master.

Such legends and stories are part and parcel of the waters of Kshipra. Another interesting legend has it that once Lord Mahakaleshwar was very hungry. Like a holy sage, he went for begging. But he didn't get anything for a number of days. Then he went to his colleague deity Lord Vishnu.. But Lord Vishnu instead of offering alms, showed his index finger. Lord Shiva lost his patience and he pierced the finger with his Trishul. The finger started bleeding profusely. Seeing this, Lord Shiva calmed down and he kept a human skull under the bleeding finger to collect flowing blood in it. When the bowl of skull got filled, blood started overflowing and this led to the birth of river Kshipra.

Banks of Kshipra have been witnessing so many religious congregations over the ages, though Kshipra today is not what it has been described in our ancient literature. It doesn't have that great flow and it has become polluted to a great extent. But for the first Simhasth Kumbh Mahaparv of new millennium, People of Ujjain are determined to free the Kshipra of pollution and maintain its flow as a result of this the river seems to be shimmering with happiness on being restored its pristine glory.

Kshipra has surrounded the city of Ujjain from three sides. It enters the city through south-eastern end and then it establishes intimacy with every

nook and corner of the city before taking beautiful turns at 'Triveni' and at the road leading to Chintaman Ganesh temple.

Then it is blessed at the Mahakal and Harsiddhi temples. In front of Lord Mahakal its waves seem to be dancing and when it reaches towards Durgadas' Chhatra at Chakra Tirth, It reminds us of the world famous Manikarnika 'ghats' of Kashi.

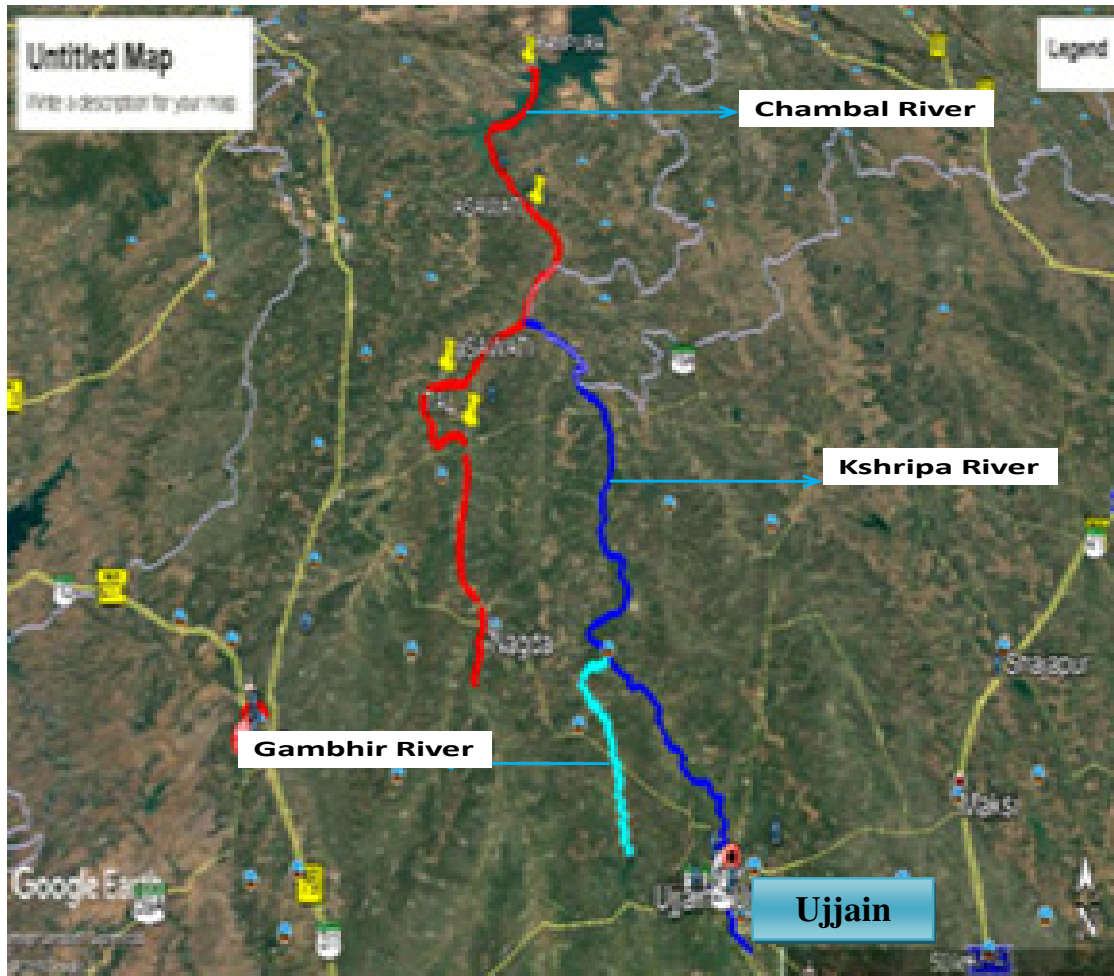
Then it passes by Bhartrihari cave, Peer Machhinder, Garha Kalika and Kal Bhairav, and telling glimpses of Sandipani Ashram and Ram Janardan Mandir, it reaches Mangalnath.

Then it takes turn to Siddhavat and after that surrounds Kaliadeh Palace. At Kaliadeh Palace, it takes so many beautiful turns, which are worth seeing. Then it comes to the centre of the town and pays obeisance to Lord Mahakal at Mahakal Temple. The banks of 'ghats' which witness beauty of Kshipra has become immortal in the golden pages of ancient history of India.

These spellbinding banks of Kshipra have many ancient temples, which seem to tell the glory of Kshipra.

Pious, sacred and full of religious significance, the river Kshipra is in fact salvation-granting Ganga of Malwa on the banks of which famous Simhasth Kumbh Mahaparv, the great religious congregation, takes place every twelve years.

Kshipra is not merely a river; it is a living symbol of faith, believe and inner experience of Millions of devotees across the Globe. Millions of Devotees comes here and aspire for salvation by taking holy dip in this sacred "Kshipra River". Mythological references have it that a few drops of "AMRIT" (Nectar) -the mortal drinks of the Gods-spilled into the sacred river during the conflict between the Gods and demons. Bearing this legend, the holy river has been flowing like 'Amrit Dhara' (the stream of nectar or ambrosia) and because of this holy men, sages and sadhus feel gratified by taking holy dip in this sacred river.



Measure taken by different government agency to minimize pollution in Kshipra River:-

1. The central government sponsored Rs. 332.50 Crore **AMRUT YOUNA** in which all city Sewer line are connected to main line & which will be treated in 92.5 MLD STP at Surasa village so the river quality will improve. The Municipal Co-orporation Ujjain vide their letter no.4621 Dated 26/10/2018 informed that the above scheme will be completed upto 2020. The detailed of above scheme are also enclosed as per **Annexure – 1**.
2. NVDA informed vide their letter no.3507 Dated 27/10/2018 that the Project of Rs. 138.98 Crore has been awarded to JMC (Project) India Ltd. Mumbai to bring Narmada water through pipe line of length of 72 Kms. from village Ujjaini Distt. Indore to Gaughat (Water supply intake

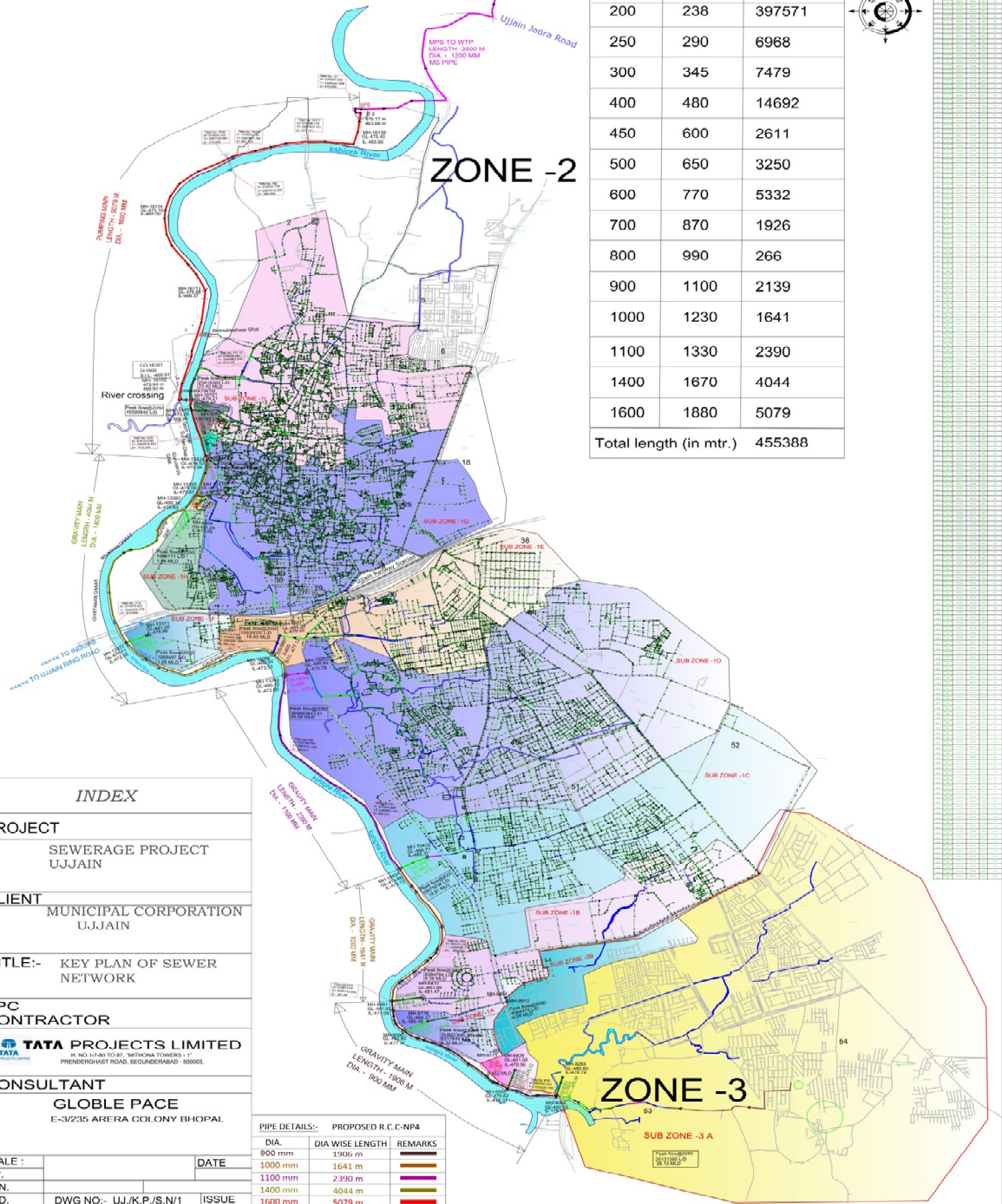
point of Ujjain). The work is in progress & likely to complete in the month of January 2019. This project is help to avoid water losses during release of water in Kshipra river through Narmada - Kshipra Link. Letter is enclosed as per **Annexure – 2**.

3. Kshipra is non- Perennial river therefore it is necessary to release Narmada water from Narmada- Kshipra link project (432 crore scheme started during simhasth 2016) into Kshipra maintain river quality of IS 2296- 1982 Class - 'B' Category.
4. The Forest Department Ujjain has planted more than 1 Lacs tree in the flood plain zone & surrounding of Kshipra river. The details of scheme & plantation done is informed vide their letter no.5970 Dated 26/10/2018. Further Rs 50 crore plantation scheme is in progress & likely to complete upto 2020. enclosed as per **Annexure– 3**.
5. In ujjain mostly industry are situated in Maxi Road industrial area about 45 water polluting tiny & SSI industries are there. They are having partial/ appropriate control measures but found outside discharge complaints. Total generating of industrial effluent is about 29.71KID & domestic is 46.35 KLD. CETP has proposed to collect all waste water in a collection tank/sump well. It is also proposed to joint to the sewer line & STP which is commission under Amrut Yojna project by Municipal corporation Ujjain. The sewer line is passing very closed to the industrial area. The CETP scheme will be initiated after allotment of land from District Industry center Office and permission from competent authority. The necessary survey work of CETP will take at least three month while after allotment of land the project will be executed in three year time.The details of industry & effluent generation quantity from Maxi Road industrial area, Ujjain are enclosed as per **Annexure – 4**.
6. Devotees come to Ujjain to take holy deep in Kshipra River particularly at Ramghat throughout the year on different occasion. The people also come to Ujjain for Pind Dan to get Moksha. During this activity flower, and other Pooja Samgri is flown in to the River. Nirmalya pits proposed

at Ghat. Concrete & tiles fixing in the bed of River Kshipra along with treatment of waste water through rapid sand filter followed by chlorination/ Ozonization. The planning area is from Narsingh Ghat to Choti rapat of Ramghat in stretched of 200 meter in length 30 meter width. The tentative first stage estimate is of Rs. 40 Crore. The detail proposal will be prepared in three months by Municipal Corporation Ujjain and after sanction from competent authority plan will be executed in two year time at Ram Ghat details are enclosed.

Regional Office, Ujjain has issued letter to concerned government department in reference to NGT Case No. OA 673/2018 is enclosed as per **Annexure – 5**.

Prop STP



Inner Dia. (mm)	Outer Dia. (mm)	Length (m)
200	238	397571
250	290	6968
300	345	7479
400	480	14692
450	600	2611
500	650	3250
600	770	5332
700	870	1926
800	990	266
900	1100	2139
1000	1230	1641
1100	1330	2390
1400	1670	4044
1600	1880	5079
Total length (in mtr.)		455388

<i>INDEX</i>			
PROJECT			
SEWERAGE PROJECT UJJAIN			
CLIENT			
MUNICIPAL CORPORATION UJJAIN			
TITLE:- KEY PLAN OF SEWER NETWORK			
EPC CONTRACTOR			
 TATA PROJECTS LIMITED <small>H. NO. 11/40 TO 141, NETWORK TOWERS - I, PRIYADRIGHAST ROAD, SECTOR 44/ND, Gurgaon - 122003.</small>			
CONSULTANT			
GLOBLE PACE E-3/235 ARERA COLONY BHOPAL.			
SCALE :			DATE
DIV.			
DRN.			
CHD.	DWG NO:- UJ./K.P./S.N/1		ISSUE

PIPE DETAILS:-		PROPOSED R.C.C-NP4
DIA.	DIA WISE LENGTH	REMARKS
900 mm	1906 m	
1000 mm	1641 m	
1100 mm	2390 m	
1400 mm	4044 m	
1600 mm	5079 m	

2. Water Quality- The River Kshipra stretch from Triveni to sidhwat Ujjain declared by CPCB as polluted river stretches. River Kshipra enters Ujjain near Triveni sangam where its meets river Khan which flows from Indore. Mostly the river Kshipra quality is of IS 2296- 1982 Class 'D' Category, but whenever the water is released in River Kshipra through Narmada- Kshipra Link Project the river quality becomes is of IS 2296- 1982 Class - 'B'. Comparative Chart of result of Kshipra river at different location are enclosed as per **Annexure -6**. Similarly ground water sample were also collected in Ujjain city. The results of ground water sample from different location are enclosed as per **Annexure – 7**.

3. Proposed Short Term and Long Term Action plan for Rejuvenation of River Kshipra:-

Sl.	Action plan for rejuvenation of river Kshipra	Organisation/ Agency Responsible for Execution of the Action plan	Time Target	Present Status
1.	Industrial Pollution Control			
	(a)Inventorisation of the industries in the catchment area of River Kshipra covering assessment on aspects relating to status of consents under water & Air Acts and Authorization, Effluent Generation, ETP capacities and final mode of effluent discharges	MPPCB	Within three months	Water polluting industry covered under different Environmental Acts

	(b) Action against the identified industries in operation without consents under water & Air Acts/Authorization under the H & OW (M& TM) Rules, 2016 as amended.	MPPCB	Within three months	All water polluting industries are already covered under different Environmental Acts
	(c) Action against the industries not install ETP or ETPs exist but not operating or ETP outlet or treated effluent is not complying to the effluent discharge standards or norms	MPPCB	Within three month	
	(d) Action against the red cat. Industry for installation of OCEMS and not transferring data to CPCB and MPPCB	MPPCB	Within three month	Such type of industry are not situated in Ujjain
	(e) Small scale/tiny and service providing unit located in urban or semi urban limits like Auto service stations to have a minimum provision of O & G traps	MPPCB	Within three month	Notice serve to different auto service station & most of them have installed minimum provision of O & G traps

	(f) Prohibition of Burning of any kind of waste including agro residues	State Gov. / District/ local Authorities	Within three month	Action already taken by local Administration for burning of waste.
	(g) Direction to all the industries which are observed to be not in operation or closed or temporarily closed to remain close till further order from MPPCB.	MPPCB	Within three month	
	(h) Estimation of Industrial effluent generation and the existing CETP capacity and to arrive gap between the industrial effluent generation and the existing treatment capacity	MPPCB	Within three month	No existing CETP
	(i) Channelization of industrial effluent to CETPs for ensuring treatment to comply with the discharge standard	MPPCB /District Collector /DIC/Municipal corporation Ujjain	Within six month	No existing CETP
	(j) Identification of suitable site within Industrial estates,	State Government/ MPPCB /District	Within two years	

	Execution and Commissioning of Adequate Capacity CETPs	Collector /DIC/Municipal Corporation Ujjain.		
II	Sewage Treatment And Disposal Plant			
	(a) District wise estimation of total sewage generation existing treatment capacities, quantum of disposal of sewage presently through drains and the gaps in sewage treatment capacity	Municipal corporation Ujjain	Work is already in progress & likely to complete within 2 years	Beside present 52 MLD sewage treatment at sadawal Ujjain and another STP of 92.5 MLD Capacity under AMRUT YOJNA is being Proposed at village Surasa. Details are as per annexure -1
	(b) To undertake measurement of flow of all the drains presently contributing pollution load in river Kshipra and to formulate detailed project report (DPR) for each drain and	Municipal corporation Ujjain	Sewer Work is already in progress & likely to complete within 2 years. Concrete and Tiles fixing work at Ram	

	corresponding town		Ghat. Details are as per annexure -8	
	(c) Proper design, execution of STPs with full utilisation capacity	Municipal corporation Ujjain	Work is already in progress & likely to complete within 2 years	
	(d) Channelization including diversion of sewage generated from household/town ship/villages to sewer lines/ interception of all the drains presently carrying sewage and for ensuring proper treatment through the upcoming STPs	Municipal co- corporation Ujjain	Work is already in progress & likely to complete within 2 years	
	(e) Ensuring automobiles service station and Hotels/Restaurants particularly located on road side should have a treatment system and levy of fine	MPPCB and Local Authorities	Within three month	Notice issued for installation of control measures.

	case found violations.			
II	Ground Water Quality			
I				
	(a) Sealing of contaminated hand pumps and found to be unfit for drinking purpose by the public	State Government/PH ED/ Municipal corporation Ujjain	Within three months	
	(b) Supply of potable water to the affected communities in the identified critical blocks	State Government/PH ED/ CGWA	Within three months	
	(c) Carrying assessment of ground water survey for quality and to identify over exploited	CGWB/ State Government/PH ED	Within six months	
	(d) To conduct periodic surprise inspection of the industry to rule out any forceful injection of industrial effluents into groundwater resources	MPPCB	Within three months	
	(e) All the industry should be directed to obtain NOC from the CGWB and action against the unit in operation without obtaining of NOC from CGWA	MPPCB/ CGWA/ CGWB/PHED	Within three months	
	(f) To ensure rain water harvesting by the	CGWA/ CGWB/ CGWA/	Within three months	Condition of Rain

	industrial, commercial and other institutions and groundwater recharging with only clean water be encouraged by CGWA/ CGWB	PHED/Municipal corporation Ujjain		water Harvesting is being incorporated in building permission issued by Municipal Corporation Ujjain
IV Flood Plan Zone (FPZ)				
	(a)Plantation in Flood Plain Zone (FPZ)	State Forest Department	Within three Years	In this monsoon season about 1laks tree were planted in the Bank of Kshipra River. Details are as per annexure -3
	(b) Checking encroachments in the FPZ of river Kshipra	District/Local administration	Within three months	

	(c)Prohibition of disposal of municipal plastic and biomedical waste particularly in drains	Local administration	Within three months	1. Polythene carry bags has been already Prohibited by the Local Administration 2. Biomedical waste generated by Hospital were collected by M/s Hoswin Incinerator Ltd. Indore & Dispose are per rule
	(d) Notification of Flood Plain Zone FPZ	State Government	Within three months	Detailed of Notification of Flood plain zone FPZ are desired from

				concerning agency available information are as per Annex. 3
V	Environmental Flow (E-Flow) and Irrigation Practices			
	(a) Measurement of flow of river Kshipra and records maintained	Water resource Department	Within three months	
	(b) To conserve water and good irrigation practices to be adopted by the farmers by organizing mass awareness programmes and through media in vernacular language	M.P. Water resource Department and Agriculture Departments.	Regularly	

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