



Himalayan Rivers Series - 3 Tons (Tarnsa)

2011



A group of IIT-educated professionals established People's Science Institute (PSI) in DERA ASONA to bring activities which help rural communities to rehabilitate themselves, harvest rain water, develop water resources and revive mountain systems. We also study the environmental flow requirements of trees and monitor water quality.

Himalayan rivers and their associated watersheds are precious natural heritage. PSI has actively supported campaigns to save pristine stretches of these rivers. In 2011 these efforts led to the cancellation of several ill-considered hydropower projects in the Himalayan states. The 136 km stretch of river Bhauruchi (Garwa) from Gasmath to Unarhathi has been declared an ecologically sensitive area by the Government of India.

Your generous support is essential for the effectiveness of our efforts to conserve Himalayan rivers. All donations to PSI are deductible under section 80G of the Income-Tax Act.



people's science institute



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River Tons (Tansa) is the largest tributary of River Yamuna and the western most of all the major rivers in Uttarakhand. About half its length, from Danti to its confluence with the Yamuna near Dak Pathar, forms the boundary between Uttarakhand and its neighbour Himachal Pradesh. It is perhaps the most pristine major river in Uttarakhand.

The Tons is formed by the merging waters of several streams and its geography can be confusing. The main stem Har-ki-Dun Gad emerges from the Jambhar glacier, west of the Swargarohini peak (6250m above sea level), into the lush Har-ki-Dun meadow lands. The Bainsara Gad, originating east from the Bainsara conch glacier, joins it just upstream of Soema village (see map on the back page). According to the Survey of India maps, Har-ki-Dun Gad meets the Supin river flowing from the west at Sarikat to form the Tons. But local people also refer to the river stretch downstream of Sarikat as the Supin. They say that it is river Supin that joins river Raptin, coming from Himachal Pradesh, at Netwar and thereafter it is called the Tons.

South of Netwar, river Tons flows past the market settlements of Moti and Harol – home of the famous temple of Mahasu Devta, revered in the region as a dispenser of justice. Further downstream the Puhar and Gori rivers flow in from Himachal Pradesh at Danti and Sataun respectively. With several other mountain streams joining the Tons along its 140 km length, it has almost twice as much water as river Yamuna at their confluence.

River Tons' catchment area is about 2500 sq km. Its upper catchment lies almost entirely within the Govind National Park (950 sq km) established in 1955, about half of which is snowbound. Netwar is the gateway to the National Park. Over 50 km upstream lie the alpine meadows of Har-ki-Dun valley. From Taluka onward the area is accessible only by foot or porters. The Park is home to a wide variety of mammals including the Himalayan Black and Brown bears, snow leopards, tahr, musk deer and birds like the chukar, trogon and monal pheasant.

The Tons valley is Mahabharata country. The Pandavas are said to have ascended into heaven from the aptly named Swargarohini peak. Local communities claim that Karnai's temple in Dewa village (pictured above) is the only one dedicated to him in Uttarakhand. Polyandry is not uncommon, again a tradition traced back to the Pandavas.

Sal, pine and deodar forests are located at successively higher altitudes throughout the valley. Silver birch, rose trees and rhododendron bushes are seen in the upper catchment. Habitations are relatively few but large. Most houses and temples are built in the traditional earthquake-safe manner with wooden tie-bands. The local people depend on natural resources for their livelihoods and most families combine subsistence agriculture with livestock rearing.

The pristine Tons river system is now threatened by a series of hydroelectric projects. In addition to already existing dams at Chibbro and Khodri, 25 new projects are proposed on the Tons and its tributaries. Eleven large projects (21 MW to 600 MW) are planned for the Tons, the Raptin and the Supin. These diversion structures will dry the river bed for several kilometers, downstream of each dam and up to the power house. They will destroy the river's ecosystem and prevent it from fulfilling other natural functions like transporting sediments, land forming and self-cleaning.

Smaller projects (<3 MW) are planned inside the Govind National Park right up to the uppermost reaches on the Har-ki-Dun Gad, Bainsara Gad, Ohra Gad, Venasa Gad and Supin Gad. The construction activity for these projects including building approach roads and establishing labour camps inside the National Park threatens its fragile ecology. These pristine wildernesses need to be protected from such ill-conceived projects.

Ecological scientists, nature lovers and local communities must rescue our rivers from the engineers who control them today. Ecological science courses should be included in engineering curricula across the country so that we have more sensitive decision-makers tomorrow. Protecting riverine ecosystems and their catchments requires us to move away from being a consumerist society to one that nurtures nature and people. Our economic development goals must also shift from consumption driven growth to growth based on caring for our human and natural resources.

People's Science Institute invites you to feast on the natural vistas of the Tons Valley presented in this calendar and to join its efforts for conserving the precious natural heritage that are our rivers.





Jamdhag Glacier, left of centre, is the origin of Har-ki-Dun God, one of the main mountain streams that form river Tons.

sun	mon	tue	wed	thu	fri	sat
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

january
2011





Barasu Gad, a glacier-fed stream is a tributary of Har-ki-Dun Gad.

sun	mon	tue	wed	thu	fri	sat
		1	2 <small>Valentine's Day</small>	3	4	5
6	7	8	9	10	11	12
13	14	15	16 <small>Valentine's Day</small>	17	18	19
20 <small>World Water Day</small>	21	22	23	24	25	26
27	28					

february
2011





A view of the pristine upper reaches from the bridge at Seema village on the Tons.

sun	mon	tue	wed	thu	fri	sat
		1	Eid-ul-Fitr 2	3	4	5
6	7	Husseini Raza 8	9	10	11	12
13	14	15	16	17	18	19
20	21	Kullu 22	23	24	25	26
27	28	29	30	31		

march
2011





Earthquake safe houses with wooden horizontal tie-bands are typical of the Tons valley.

sun	mon	tue	wed	thu	fri	sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

april
2011





Women of Sour village in the mid-reach harvesting wheat.

sun	mon	tue	wed	thu	fri	sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

may
2011





Crossing the Tons swollen with glacier melt.

sun	mon	tue	wed	thu	fri	sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

June
2011





Clear blue water in the middle reach of the Tors just upstream of Mori.

sun	mon	tue	wed	thu	fri	sat
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23 <small>Leave for Mori</small>
24	25	26	27	28	29	30

july
2011





Land forming sand and debris on a stretch downstream of Mori.

sun	mon	tue	wed	thu	fri	sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

august
2011





Deadhaz, silver birch, rosa and rhodendron bushes are visible in a profusion of species just before entering the Har-ki-Dun valley.

sun	mon	tue	wed	thu	fri	sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

september
2011



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River Tons is a life-support system for animals too.

sun	mon	tue	wed	thu	fri	sat
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

october
2011



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River rafting is a popular adventure sport in the stretch upstream of Hanoi.

sun	mon	tue	wed	thu	fri	sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

november
2011





River Tons at its confluence with the Yamuna just upstream of Dak Pathar.

sun	mon	tue	wed	thu	fri	sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

december
2011



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