BAGMATI RIVER FESTIVAL: CONSERVATION OF DEGRADING RIVER

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Abstract. Over The Bagmati River is the principal river of the Bagmati Basin (ca. 3640km2) in Kathmandu Valley. The river, fed by springs and monsoon rainfall, originates in the north of Kathmandu Valley and drains across the Mahabharat Range to the Gangetic plain. Over the past 20 years, the pressure placed upon Bagmati and other rivers by the ever growing population of the Kathmandu Valley have turned this sacred river into something that is little more than a drain- a convenient disposal system for the solid waste and sewage produced by the people of Kathmandu. In response to the worsening situation of the Bagmati River and in order to alter the biological degradation in it, NRCT had initiated Bagmati river conservation campaign called Bagmati River Festival (BRF) in 2001, in association with some like-minded organizations. The festival comprises of several events including clean-up campaign, public awareness programs, workshops, water sports events etc. In this context we have realized that intensifying the Bagmati River Festival can be the only way to ensure biological, social, religious and political sustainability of the Bagmati River.

BACKGROUND

Bagmati River has its' origin in Bagdwar from the Southern slope of Shivapurilekh, north of Kathmandu basin at an altitude of about 2650m and flows straight to south-west cutting Mahabharat range (Sharma, 1977). Starting from Mahabharat range in the north it flows down to the plains of Nepal in the south and merges into the Ganges in India. The river Bagmati in the Kathmandu valley runs southward and then westwards bordering Kathmandu and Lailitpur districts, then again takes a course towards south after receiving Vishnumati River. Its total length is about 196 km in Nepal and the catchments area of the river is 3610sq. km which is 2.25% of total area of Nepal (Shanker & Kiran, 1976).

The Bagmati is an important tributary of the Ganges and has a catchments area of 3710 km^2 in Nepal. The river rises in the Kathmandu Valley, which comprises just 15% of the area of the Bagmati Basin in Nepal. The basin can be divided into three parts: the Upper Bagmati Basin (662 km2), the Middle Bagmati Basin and the Lower Bagmati Basin. The drainage area of the Bagmati as far downstream as Bhandarikharka (downstream of Chobar) is 662 km^2 (BBWMSIP, 1994).

The Bagmati is not a snow-fed river and most of its water is contributed by runoff. There are 24 main tributaries originating from Mahabharat and Siwalik *Lekh* which fed the river Bagmati (Tuladhar, 1979) and (Pradhan, 1998). But in its way within the Kathmandu valley, it receives only 5 main tributaries as *Monohara Khola, Balkhu Khola, Nakkhu Khola*. The river Bagmati enters in the valley near Sundarijal, flows downward bordering the north-west boundary of Gokarna forest and then flows west wards to Pashupati. There after, it receives Manohara Khola at Shankhamul, Tukucha Khola at Kalmochan Ghat, Vishnumati at Teku dovan and Balkhu Khola at Sanepa. Before reaching Khokana, Nakhu Khola pours water into it near Sundarighat.

Water resources from the Bagmati River System are important for small scale hydro-electricity, irrigation and as drinking water sources. About 82% of water volume is extracted daily from the surface water sources for drinking water supply in the Valley. On the other hand, these rivers are extensively being used as dumping sites for solid wastes, outlets for domestic sewerage and industrial and agricultural effluents. Also, the riverbanks are being encroached upon by slum dwellers without any restrictions from the government. All these negative approaches in addition to uncontrolled and mismanaged growth of urban population are affecting the balance of the riverine ecology. The uncontrolled quarrying of sand has tremendously affected the self-treatment capacity of the rivers.

Following were the researches on Bagmati Rivers which shows its degrading condition. The physico-chemical parameters and biological indicators of Bagmati River have been studied by many researches e.g. Amattya (1977), Shrestha (1980), Khadka (1983), Upadhaya and Rao (1982), Vaidya and Karmacharaya (1986), Khattri (1986), Pradhangana et. al. (1987), Vaidya et al. (1987), Bajracharya et al (1988), Bottino (1988), Sharma (1988), Shrestha (1990), Stanle et al. (1994), Poudel and Upadhaya (1995), Yadav (2002), Chhetri (2006) etc. which shows water quality of Bagmati river is degrading day by day and pollution level increased as river passes through dense settlements. Their researches have shows that in the river of Kathmandu valley, original communities of aquatic fauna have completely

disappeared and two groups of fauna (eg. Tubificids and Chironomids) typically of polluted water have appeared.

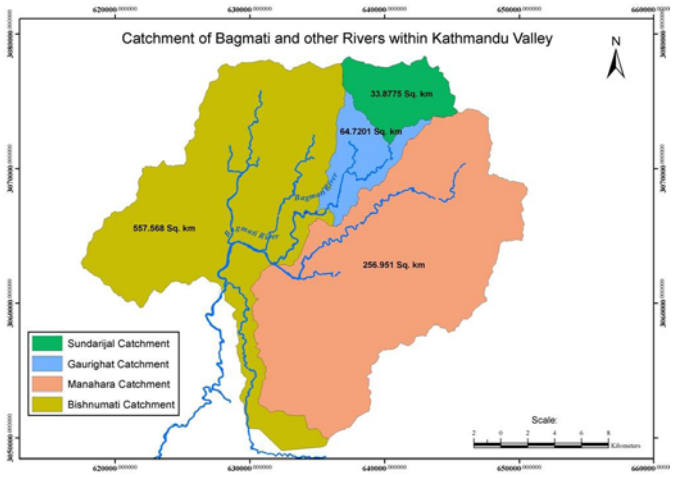

Figure 1: Catchment of Bagmati and other Rivers within Kathmandu Valley. (Sharma (Poudyal), 2009).

Table 1: Details of Bagmati Rivers and its tributaries (length, elevation, origin) Pradhan B. (2005)

Name	Length (km)	Elevation (m)	Origin
Bagmati	35.5	2732	Shivapuri Bagdwar
Bishnumati	17.3	2300	Shivapuri Tarebhir
Bosan	6.1	1800	Pokhari Bhanjyang
Dhobi Khola	18.2	2732	Shivapuri Danda
Godawari	14.8	2200	Phulchoki Danda
Hanumante	23.5	2000	Mahadev Pokhari
Indrawati	16.8	1700	Dahachowk Danda
Indrayani	7.0	2000	Bhangari Danda
Kodaku	14.9	2000	Tleshwor Danda
Mahadav	9.2	2000	Aale Danda
Manamati	6.1	2000	Bhangari Danda
Manohara	23.5	2375	Manichaur Danda
Matatirtha	5.0	2000	Matatirtha Danda
Nagmati	7.9	2443	Shivapuri Danda
Nakhu	17.6	2200	Bhardue Danda
Samakhusi	6.4	1350	Dharampur East
Sangla	10.7	2000	Aale Danda
Syalmati	4.8	2200	Shivapuri Danda
Tribeni	10.7	1700	Bhirkot
Tukucha	6.4	1325	Maharajung

DRIVERS OF THE DEGRADATION OF BAGMATI RIVER – A PROBLEM

Drivers are any natural or human induced factor that directly or indirectly causes a change in the ecosystem. A direct driver influences ecosystem processes and therefore can be identified and measured to some degree of accuracy. Indirect drivers are more complex and operate from a distance, influence direct drivers and can seldom be identified through direct observation of an ecosystem. Following are the drivers which are contributing in degradation condition of Bagmati River.

Population Growth. Population is one of the fundamental driving forces shaping the water environment in the Kathmandu valley. Kathmandu, the capital city, is the mean urban centre and dominates in terms of concentration of population and economic activities, it has been growing at a very high annual rate in excess of 7% (Nippon Jogesuide, 2002). This has increased water demand, sewage and disposal to river.

Over the last two decades, the Kathmandu Valley has witnessed unprecedented growth in population and in the number of new housing structures. The population of Kathmandu Valley increased from 1,107,370 in 1991 to 1,647,092 in 2001 (Source: CBS 2003 b) with an average annual growth rate of 4.71%. The Valley's population density increased from 1230 in 1991 to 1830 persons per square kilometer in 2001, an increment of 49 % . The Valley's share of the urban population is 60.5 % as compared to only 13.9 % for Nepal. The core urban area alone has a population of about one million (995,966) with population density of 10,265 persons/sq.km(Sharma (Poudyal), 2009). A study carried out in 2003 by Lumanti, a local NGO, revealed that there are 64 squatter settlements in the valley with an estimated population of 14500. Most of these settlements are located along river banks and on steep slopes. Squatters have occupied not only public land but also private land and there have been conflicts between squatters and owners.

Urban Growth and Expansion. Urban area has increased by 7% of the total Kathmandu Valley surface area over the period between 1984 and 1990 (Halcrow Fox and Associates, 1991). Within the same period the Forest coverage is about 224sq.km; settlement with sparsely distributed cultivated land and core settlement or built up area is nearly equal this is about 89sq.km. About 2% of the total area has been declared as conservation area. Rivers and ponds occupied about 5% of the total land.

The rapid urbanization in the Valley has led to over-concentration of population and an increase in economic activities side-by-side the encroachment of land by squatter settlements or informal dwellers along the periphery of the Bagmati river basin (Sharma (Poudyal), 2009).

Kathmandu valley urban population increased from 47.4% in 1961 to 60% in 2001. The main component

Table 2: Population Status of Kathmandu valley CBS (2002), ICIMOD/UNEP/MoEST (2007)

Census Year	Total	Urban	Rural	Population density (Ind/sq.km.)	Average annual growth of urban population
1920	306,909	-	-	341	-
1952/54	410,995	196,777	214,218	457	-
1961	459,990	218,092	241,898	511	-
1971	618,911	249,563	369,348	688	1.36
1981	766,345	363,507	402,838	852	3.86
1991	1,105,379	598,528	506,851	1229	5.11
2001	1,158,234	995,966	585,268	1759	5.22

Table 3: Numbers of Settlements and population

Year	No of Settlements	Population
1985	17	2134
1988	24	3665
1990	29	4295
1992	33	6355
1996	47	8927
1998	49	10,323
2000	61	11,862
2003	64	14,500

of the rapid growth of urban population in the valley is migration. For instance, between 1981 and 1991the valley's urban population increased by over 82%, in which migration accounted for 59%, the largest ever since the 1950s. This rapid urbanization consequence to the increase in solid waste generation and increase in level of pollution etc.

Agricultural Development. Between 1984 and 1994, he valley's urban area increased from 3,096ha to 8,378ha and 5,282ha of fertile agriculture land were lost to urbanization (MOPE 1999). Valley's prime agricultural land has declined from 63% to 56% (IUCN, 1995). According to the Kathmandu Valley town development committee of 2001, cultivated area covers highest percent of land about area of 302sq.km.

Solid Waste. A 2005/06 study by the JICA team estimated the unit generation rate (UGR) of solid waste—the volume of solid waste per capita per day—to be about 0.416 kg/day-capita Final Report: Bagmati Conservation/ Restoration Project; Suresh Sharma, Nepal. 26 in KMC. Based on this estimation, the total quantity of waste generation within the Valley (including all five municipalities) is 435 tons per day. In line with the Kathmandu Valley Mapping Program (KVMP), waste sampling analysis carried out by a few studies has revealed that the waste density is around 0.225 ton/cubic meter. Regarding the waste composition, a significant proportion, 65-75%, comprises biodegradable waste (from organic origin) and 10-12% plastic waste among the non-biodegradable components.

STATUS OF THE BAGMATI RIVER

It is found that the water quality of tributaries of the Bagmati River outside the valley is found to be good and can be used for a variety of purposes. River water quality at different sections of the Bagmati River is presented in the following table.

Table 4: Water properties at different places

S.No	Location	Distance (km) Bagdwar = 0	pH	Con (µmos/cm)	TDS (mg/l)	DO (mg/l)	COD (mg/l)	NH_3 (mg/l)
1	Gokarna		7.6	70	56	6.7	21.6	0.16
2	Gaurighat		6.5	360	288	<0.5	273.6	16.8
3	Shankhamul	26.875	7.1	410	328	<0.5	90	18.6
4	Sundarighat	32.875	7.1	740	592	<0.5	378	42.8
5	Chovar		7.1	720	576	<0.5	367	38.8
6	Khokana	39.375	7.4	600	480	<0.5	108	36.0
7	Kulekhani dovan before		7.9	440	352	6.4	80	19.7
	Kulekhani dovan after		6.9	600	480	5.6	-	-
8	Khokojar Taldhunge		8.0	220	176	7.3	10.3	ND
9	Banchare, kayan khola	136.625	8.5	180	144	8.0	19	0.04
10	Karmaiya	144.2	8.3	200	160	7.2	6.5	0.02
11	Bramhapuri		8.2	230	184	8.4	66.0	0.21
12								

Source : WECS/NESS, 1997.

The amount of dissolved oxygen (DO) and Biological Oxygen Demand (BOD) in water is one of the most commonly used indicators of a river health. Figure 1 shows the quality of water in terms of BOD_5 and DO before Sundarijal headwater and after Sundarighat end point.

Kathmandu urban area, analyzed from 1988 to 1999 (UNEP 2001). The water at the latter site, particularly since 1994 is highly polluted, as indicated by the high value of BOD5 and low value of DO, as a result of the high concentration of domestic and industrial effluent. Some 21,000 kg of domestic sewage is discharged daily into the Bagmati river from Kathmandu valley's, cities-42% of the total BOD load produced. The total industrial BOD load discharged directly into the river is 3,151 kg per day (CEMAT, 2001)

Quality of water at Sundarijal in the foot hill is still good, it has DO values of 7.6 mg/lit (KAPRIMO 2007). According to the report, DO and BOD are two internationally recognized indicators for water quality. The 5mg/lit DO values are assumed as thread risk level (KAPRIMO, 2007), this is a minimum value of water for good water quality. Qualities of water presume to be better as the level of DO increases. Adversely qualities of water presume worst as level of BOD increases. Maximum desirable BOD level for drinking and aquatic life; bathing and agriculture are respectively is 4mg/lit., 6mg/lit and 10mg/lit. as recommended by (BBWMSIP5, 1994). Trend of BOD based on KAPRIMO (2007) increasing as river flows down towards the city core.

Sampling Site	Parameters					
	Dissolved Oxygen (mg/litre)	Oxygen Saturation (%)	BOD (mg/litre)	COD (mg/litre)	Faecal Coliform (MPN)	PH
Sundarijal	8.38	96.1	2	20.2	7	7.62
Gokarna	8.51	103.8	4.5	23.5	--	7.15
Gaurighat/Gujeswori	7.56	93	5.5	28	5×10)2	7.06
Tilganga	4.2	43	35	134.4	5.4×10)6	7.19
Sankhamul Dovan	2.25	28.5	120	268.8	2.2×10)6	7.24
Sankhamul Ghat	2.55	31.5	35	179.2	--	7.26
Thapathali	2.15	27.5	117.5	694.4	2.2×10)6	7.18
Teku Dovan	1.85	20.5	80	280	1.1×10)6	7.25
Balkhu	2.45	30.5	97.5	224	--	7.23
Chovar	5.95	75	42.5	112	1.1×10)6	7.31

Table 5: Different parameters measures at different sites of Bagmati River. KAPRIMO Sampling Report, November, 2007.

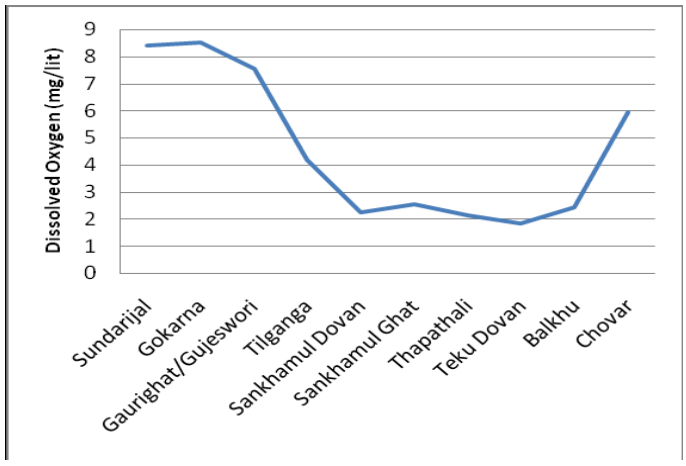

Figure 3: DO (mg/lit) at different spot. KAPRIMO Sampling Report, November, 2007.

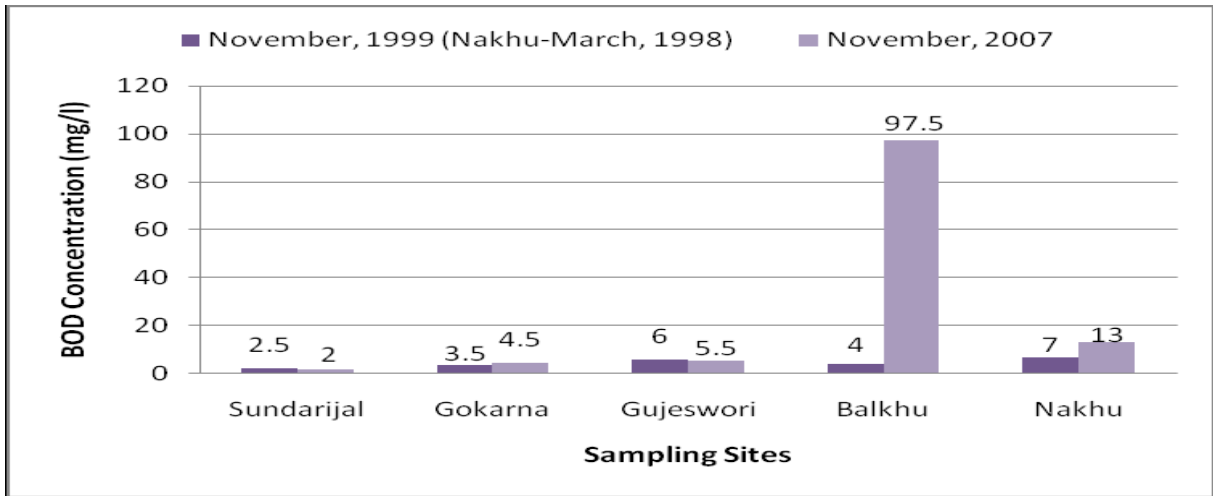

Figure 4: Showing BOD Concentration at different sites along Bagmati River. KAPRIMO Sampling Report, 2007.

The chart in Figure shows the BOD concentration at different sampling points along the Bagmati River. At Sundarijal, the BOD shows a decrease of 0.5 from the 1999 level, which is mainly due to delineation of the buffer zone on both sides of the river, followed by community awareness programs and river clean-up activities.

A recent study on water-flow and water quality has indicated a very alarming situation and classified most parts of the rivers within Kathmandu valley excessively polluted. The pollution of these rivers has deeper impacts on overall urban environment and human health. However, experiences from China, shows that it is possible to restore and conserve polluted rivers such as Nanjing Qinhuai River, if there is a will and determination to do so. The Bagmati River is currently used for different purposes, including: (1) the major sources for municipal, industrial, and irrigation water for Kathmandu Valley; (2) cultural and religious practices; (3) disposal of water borne effluent and deposition of solid waste along the banks; (4) extraction of sand, (5) spaces for public infrastructures e.g. roads and water tanks, and (6) preferred zones for squatters and other encroachments. However, there is a serious lack of planning, regulations, enforcement, and implementation of appropriate and effective programmes (KAPRIMO, 2007).

Initiation of Bagmati River Festival - A Solution. The Earth Summit held in Rio de Janerio, Brazil, from 3 to 14 June 1992 included a topic entitled "Promoting Education, Public Awareness and Training" in chapter 36 of Agenda 21. It is necessary to increase public awareness about the effects of human activities on the environment. Thus public awareness can be one of the tools to control the degrading condition of the Bagmati River.

For the last ten years, one such effort in generating awareness about the Bagmati's plight "Bagmati River Festival", *the festival of 21st century* has been put forward by the Nepal River Conservation Trust (NRCT). NRCT is a non profit organization that was established by a group of concerned river guides and environmental professional who were alarmed by the ecological, social as well as cultural damage that was wreaking havoc on Nepal's river.

The Bagmati river festival was started in 2001 to provide a platform for all interested individuals and organizations to express their concerns and provide solutions to overcome the plight of this holy river.

Bagmati River Festival. In response to the worsening situation of the Bagmati River and in order to alter the biological degradation in it, NRCT had initiated Bagmati river conservation campaign called Bagmati River Festival (BRF) in 2001, in association with some like-minded organizations. The festival aimed to provide a platform for all interested individuals and organizations to express their concern and provide solutions to overcome the plight of this holy river. Since then, BRF is being organized on an annual basis and today, the number of active partner organizations has crossed over hundreds. Also, over four-hundred institutions have participated in this event so far, since its inception in 2001. The partner organizations includes many I/NGOs, I/GOs, academia, research and development organizations, business houses, local clubs, media, actors, singers and music bands, conservation campaigners and civil society. Government organizations like Nepal Tourism Board, Sustainable Tourism Network, Kathmandu Metropolitan City, different Ministries and

some I/NGOs along with donor communities, corporate and media houses etc. are providing minimum funding and technical support to organize, the events included in the BRF. The festival has attracted people of all age, groups (School children to university graduates and job holders to retired professionals) and from a variety of professions. The two and half month festival is formally launched every year on June 5th to mark the World Environment Day (WED) and continues till the third or fourth week of August depending on Nepali calendar, it ends on Nagpuja, a holy festival of Hindus.

The festival comprises of several events including clean-up campaign, tree plantation program, heritage walk, rafting for public, press/media dunga daud, corporate dunga daud, poetry, drama, essay and photography competition at school levels, Bagmati eco-challenge, training on waste management to several groups of women living along the bank of the Bishnumati/ Bagmati river, school students' kayak race, professional down river kayak race, Bagmati friendship float, students' theatre program, technical workshop on Bagmati/Bishnumati river, sharing scientific findings about the river, public exhibition on various activities done by the partner organizations, Bagmati conservation campaigns and rallies, anti-plastic campaigns, women for Bagmati cycle rally, exhibition of environmental models prepared by the students of high schools, live music concerts etc.

The unique feature of the Bagmati River Festival is that, it is probably the only model in world that gives an equal opportunity to interplay science, sports, conservation education, recreation, music, religion and social activities to produce synergy in conservation and gives a unique opportunity to interact among peoples of different areas and professions. As a result one canasily notice the contribution made by the festival to save the sacredness of the Bagmati River. The volume of waste dumped in the river and riverbank is relatively less in comparison to the population growth and level of awareness among the stakeholders is increasing. The biggest achievement of the Bagmati River Festival is that, it has somehow managed to develop a common and active alliance of over hundred like-minded organizations and has gained an identity as the "Festival of the 21st Century". Since, the population in the valley is growing rapidly, the amount of daily waste generation has almost doubled in last one decade and due to the lack of proper waste management system, again Bagmati is becoming the ultimate dumping destination of the majority of these wastes. In this context we have realized that intensifying the Bagmati River Festival can be the only way to ensure biological, social, religious and political sustainability of the Bagmati River (Mahat, Chhetri, & Ale, 2007).

We have been celebrating different kinds of Jatras/festival from decades like Bhotojatra, Ghodejatra, Machhindranath jatra, Indrajatra and many more jatras. But in this 21st century, we want to introduce a totally different festival, Bagmati River Festival-The festival of 21st Century. Bagmati River is sacred to all religion and it the not only the responsibility of a particular organization to look after it but in fact the time has come for every one of us to work together for the conservation of this river.

BRIEF DESCRIPTION OF BRF (2001-2010)

Bagmati River Festival 2001. Nepal River Conservation Trust (NRCT), in partnership with the Friends of the Bagmati (Friends), organized the 1st Bagmati River Festival, a project that attempted to draw maximum public attention to the critically degraded condition of the Bagmati River, and provide a platform for action.

Bagmati River Festival 2002. Nepal River Conservation Trust (NRCT) and Friends of the Bagmati (FOB) jointly organized the 2nd Bagmati River Festival 2002 in the Bagmati River. The festival was supported by All Nepal River Guide Association, Bagmati Sewa Samittee, and Rotary Club Yala and is promoted by Nepal Tourism Board (NTB). The festival was basically divided into three sessions.

1. Kayak Race from Sundarijal to Gujeshori
2. Rafting from Tilganga to Shankamul
3. Environmental/schools/music programme at Shankamul

Bagmati River Festival 2003. The NRCT in association with the Forum for Management and Research -Nepal (FERN), the Co-organizer of this festival organized the 3rd Bagmati river festival on August 23, 2003. Over 25 river guide and more than 100 rafting enthusiasts, environmentalists, tourists, journalists and satirists donned face masks and traveled through a section of Bagmati River, following right the heart of Nepal's capital. This excursion aimed to draw attention to the river's sorry state, and urged the community and the government to take necessary actions immediately.

Bagmati River Festival 2004- With association of more than 50 co-organizers NRCT took the Bagmati river festival this year to greater heights. From a one-day festival the previous three years to a three-month long 4th Bagmati river festival-2004 was a big leap. Starting from the 5th June- World Environment Day with a Puja and a Clean up campaign at Pashupati and ended with a Kayak race and cultural program on 21st August. Over 50 of river guide and more than rafting enthusiasts,

environmentalists, tourists, journalists, school, college, university students, corporate houses and hundreds of local people participated in the festival creating the much needed awareness about the dismal state of the Bagmati.

Bagmati River Festival 2005. The World Environment Day was the auspicious occasion chosen to inaugurate 5th BRF. More than 100 participants from several schools, colleges, locals and journalists gave hands to whip up the rubbish from the heavily polluted Bagmati River. The cleanup campaign of the Bagmati was from the Aryaghat-Pashupatinath to the Tilganga Eye Hospital stretch. The series of conservation programs, cleanup programs, river rafting, kayaking were organized throughout the festival.

Bagmati River Festival 2006. NRCT and the Sustainable Tourism Network (STN), the main organizers and Nepal Tourism Board (NTB), as a promoter of the festival in association with the various co-organizers, taken the Bagmati River Festival this year also to greater heights. This year NRCT added some new programs like fund raising concerts and started its course from 2nd June 2006. But the inauguration program was on usual day i.e. 5th June; the festival coincided with the World Environment Day with a puja and mantra chanting ceremony.

Bagmati River Festival 2007. 7th BRF was introduced with new events like Bagmati Dunga Daud: School Challenge, Bagmati Dunga Diplomacy, and Bagmati Live Aid. Partner organization was increased in 7th festival which helps to build supplementary aspect in public awareness. The festival was marked in 5th June as usual and concluded with Bagmati Live Aid and Friendship Float on 25th August. The festival was promoted by Nepal Tourism Board (NTB)

Bagmati River Festival 2008. High Power Committee of Government of Nepal for Bagmati River Pollution, showed their deep concentration to our festival and they wanted to adopt Bagmati River festival as a Bagmati Peace Festival. With an agreement made with high Power Committee we only participated in the program organized by them but we were given authority to organize water sports in the month of August. But before our program announcement they made agreement with other organization for water sports and we planned for new programs like Hike for Bagmati, and Run for Bagmati along with previously organized Bagmati Live Aid. For these all program made a partnership with Himalayan Expedition, National Trust for Nature Conservation (NTNC) and Nepal Tourism Board (NRCT) was Promoter.

Bagmati River Festival 2009. 2009 was the ninth episode of Bagmati River Festival. This year High Power Committee for Bagmati did not show interest to organize the festival but they remain in our team as a supporter. We made continue all the components of river festival from 5th June to 22nd August.

Bagmati River Festival 2010. 10th episode of 21st Century festival, Bagmati River Festival was inaugurated by Aani Choying (Singer) on 5th June, marking world environmental day. This year we added new programs like Cycle Rally on the bank of Bagmati River, Hike for Bagmati along with Tourism College Students. Newly established corporate house i.e. Mega Bank Pvt. Ltd. came forward to make title sponsorship agreement for Bagmati Jal Jatra (festival) as a Mega Bagmati Jal Jatra (Festival). Final day of the program always includes Bagmati Live Aid (Concert) where different reknown artist perform their arts. This was great achievement for NRCT this year. Finally the program was concluded on 21st August. High Power Committee for Integrated Bagmati Civilization came forward as an organizer along with NRCT.

MAJOR ACHEIVEMENTS

- Established as a convenient and most effective platform to exercise different approaches to promote sustainability of Bagmati (a network of networks).
- A festival of all religions, age groups, professions, communities… (Image of a "common")
- A festival of all I/NGOs, I/GOs, CBOs, corporate', diplomats, clubs, initiatives etc. (working in Bagmati).
- Grew conservation awareness at all levels of a society. (An open school)
- An extensive media coverage (Radio, TV, Print & Electronic) (sensitization & Institutionalization of the agenda)
- A place where a wide range of issues can interplay;

-Tourism: Heritage walk, Rafting, Cycling etc.
-Sports: Cycling, Rafting, Kayaking, Marathon etc.
- **Capacity Building:** Training to the river bank communities and competitions among the school children.
-Conservation Initiatives: Bird watching, Clean-ups, Plantation
-Entertainment: Food festivals, concerts etc.
-Demonstration: Workshops, Exhibitions,
-Religious Aspects: Gathered a wide range of people from different religions to a same place and promoting Bagmati River Festival as a festival of 21st century.
-Promoting interactive society: Facilitate to interact among different classes of a society

-**Strengthening Social bond:** Blood donation

- Common platform to share ideas and to show how one can contribute to "Save the Bagmati"? (Action-hub, experimentation and demonstration site)
- Slow down the rate of degradation of the Bagmati River with respect to other factors influencing in (in parts)
- A big push to conservation and environmental movement in Nepal, particularly in case of rivers.

Recommendation for future. Following are some of the recommendations for the future:

i. Strengthen to the network of networks.
ii. Priority should be given to "Image of Commons" by concern bodies.
iii. At all level of society, awareness program should be maximize.
iv. Inclusion of more effective events and program for massive participation.
v. Replication of idea of Bagmati River festival to the other degrading rivers of Nepal.
vi. Restore the sacredness of Bagmati River for the our offspring and offspring's offspring by establishment of treatment plants.
vii. Formation of consortium of like minded organizations

Development of annual calendar of the event by Government

ix. Finally cash the lesson learned and move towards the safe way.

x. Construction of more Sewerage/Wastewater Treatment Plants

xi. Strong Coordination and clear-cut responsibility among inter-agencies

xii. Efficient Management of Solid Waste

xiii. Relocation of Squatter Settlements and Slums

xiv. Ban on haphazard and uncontrolled Quarrying/ Sand mining activities

CONCLUSION

The steadily increasing population and related solid waste dumping in the rivers, discharge of industrial effluents together with direct discharge of domestic sewage have made the Bagmati River and its tributaries excessively polluted. The river's capacity to purity itself by means of interaction between biotic and abiotic characteristics of the river tends to zero (GoN/NTNC (2009)). We have been celebrating different kinds of Jatras/festival from decades like Bhotojatra, Ghodejatra, Machhindranath jatra, Indrajatra and many more jatras. But in this 21st century, we want to introduce a totally different festival, Bagmati River Festival-The festival of 21st Century. Bagmati River is sacred to all religion and it the not only the responsibility of a particular organization to look after it but in fact the time has come for every one of us to work together for the conservation of this river. NRCT aims to provide a common platform to all these organizations so that they can work jointly towards the conservation to gain a common goal of maintaining the integrity of the river. Moreover, it is necessary for us to introduce this festival in the yearly calendar so as to celebrate this festival from national level.

Table 6: BRF's Program Diversity and Stakeholders

	Events	Site	Major co-organizers and participants	Remarks
1	Clean-up campaigns	Pashupati, Shovabhagawati, Tilganga area, Thapathali, Kupondole, Teku, Chovar…	Partner I/NGOs, community organizations, clubs, Aama Samuha, media, corporate houses, schools and universities, student societies…	Since 2001
2	Heritage Walk (Xpact & General)	Teku-Thapathali…	Locals, Expatriates, students, media, I/NGO representatives…	Since 2004
3	School art, essay and poetry competitions, stage drama, amateur photography,	Schools and the closing venue, usually Thapathali	School children	Since 2001
4	Plantation	Kupondole, Thapathali…	Students, media, I/NGO representatives, corporate houses, local clubs, aama samuha…	Since 2001
5	Hike for Bagmati	Chobhar-Shankhamul	Partner clubs, schools and universities, student societies…	Since 2008
6	Waste management training (mainly composting)	Teku, Thapathali…	Locals, clubs, aama samuha and partner NGOs	Since 2004

7	Cycle rallies for women and men	SVS	Partner I/NGOs, clubs, corporate houses, universities…	Since 2004
8	Technical workshop on Bagmati River	NTB hall	students, media, I/NGO representatives, universities, student societies…	Since 2004
9	Bagmati Kayak Clinic	Taudaha	School children and interested others	Since 2001
10	Dunda Daud School Challenge	Sundarijal-Jorpati, Tilganga-Thapathali… SVS	School students	2007
11	Down River Kayak Race	Sundarijal-Jorpati, Tilganga-Thapathali… SVS	NARA, HRGAN and partner corporate houses	Since 2001
12	Bagmati Live Aid	Teku, Shankhamul	Partner I/NGOs, community organizations, clubs, Aama Samuha, media, corporate houses, schools and universities, student societies, musical bands, ministry	2007
13	Nature Hike	SVS	Different societies and clubs, expatriates, students, media, music professionals, I/NGO, representatives, universities, student societies…	Since 2006
14	Bird Watching	Sundarijal, …SVS	Partner I/NGOs, different societies and clubs, expatriates, students, media, music professionals, representatives, universities, student societies…	Since 2004
15	Eco-Challenge (Cross country Race, Cycling and Rafting)	Chovar-Balaju-Sundarijal-Gokarna	Partner I/NGOs, different societies and clubs, expatriates, students, media, music professionals, representatives, universities, student societies…	Since 2004
16	Let's Walk with Bagmati	Bank of the Bagmati River	Partner NGOs, clubs, local societies, expatriates, students, media, music professionals, representatives, universities, student societies…	Since 2004
17	Environmental Exhibition	Bank of the River	Partner NGOs, clubs, local societies, universities etc…	Since 2004

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