



# ASSESS-HKH

## Pre-selection and pre-classification field trip

India, 02-15.11.2005

### Participants

India: Mr. Arun Kumar, Dr. M. P. Sharma, Mr. Vivek Goel (M. Tech. Env. Engg.), Mr. Joshi, Mr. Ashok Samrat; IIT Roorkee, AHEC, Roorkee, Uttaranchal, India;

Germany: Dr. Christian K. Feld, Dipl. Envir. Sc. Thomas Korte, University of Duisburg-Essen, Essen, Germany

The report summarises the programme and results of a two-week stay of German research persons in north-western India. The field trip followed a previous trip of Prof. Otto Moog and Dr. Subodh Sharma in July 2005.

Both field trips aimed at the identification, pre-selection, and pre-classification of suited sampling sites for ASSESS-HKH in India. During the second field trip, sampling was scheduled, too. However, sampling and even a proper biotic pre-classification were impossible until Nov. 15<sup>th</sup> 2005, since custom problems were encountered addressing the transport of the sampling gear and field equipment (waders, wading boots) via cargo. Fundamental mistakes during the shipping process of a cargo box from Essen to Roorkee were made, the whole equipment was trapped at Indian Airport Customs in Delhi until Nov. 11<sup>th</sup> (see below).

## **General information**

### **Problems with cargo box, recommendations for the future**

In order to transfer more than 40 kg of sampling equipment and literature to India for the long-term stay of Thomas Korte, the equipment was shipped by Lufthansa Cargo. Shipping by cargo seemed to be quick (delivery within 3 working days) and comparatively cheap (240 €). The cargo box was shipped to Dr. M. P. Sharma, IIT Roorkee, a permanent Indian address was required by Lufthansa. Dr. Feld intended to take the box to Roorkee on Nov. 2<sup>nd</sup> directly after his arrival at Indira Gandhi Airport Delhi. Further planning was to return the equipment by Mr. Korte on his departure in late December (20<sup>th</sup>).

First, problems were encountered by Dr. Feld to take the box as he was not mentioned in the shipping address. In order to have his name added on the form, a long-term process of bureaucracy started and could not be stopped. After eight hours and some negotiations with different custom agents and airport staff, a duty of about 40 % was charged for the equipment (19,000 INR). Dr. Feld denied to pay duty for the property of the University Duisburg-Essen. A local Custom Clearance Agency was contacted to proceed with negotiations to get things cleared. Dr. Feld left Delhi airport without any equipment and proceeded to Roorkee.

Recommendations: i) Inform your local partner soon about the content and shipping details of any air or other cargo. If necessary, local clearance agents can be involved early to prevent from fundamental mistakes, which delay custom clearance for weeks. ii) If requested, declare a low value (appr. 50 €) for the equipment, as duties may exceed 40 % of the value. iii) Preferably, the same person should import and export any cargo on his behalf (person must be mentioned in the shipping address). This can be fixed in his/her passport and duties shall not be charged.

Additionally, ask your local (home) custom department to declare any valuable sampling equipment the property of your institute. This declaration form clarifies import and export of devices and shows foreign customers that you do not intend to sell these devices. With this declaration, import and export of devices must not be charged with any fee! The declaration can be translated with identity check.

## **Travel and accommodation**

Travel and accommodation was arranged by IIT Roorkee and provided a convenient stay in Roorkee. IIT Roorkee organised taxis to pick up and drop Dr. Feld and Mr. Korte, hotels for intermediate stays in Delhi, and accommodation on campus guest house of IIT Roorkee. Full service was provided during the whole stay and IIT Roorkee beared all expenses.

Accommodation on campus was very simple and provided very basic Indian standard. Meals were excellent.

## **Applicability of equipment and material for pre-selection, pre-classification, and sampling; problems and solutions**

On arrival of Dr. Feld at Nov. 2<sup>nd</sup>, IIT Roorkee had started compiling sampling gear and equipment to pre-select and pre-classify sampling sites. An Indian research person, Mr. Vivek Goel, had been employed for the project to co-ordinate any field and lab process. Except for waders/wading boots and binoculars(dissecting microscopes, Mr. Goel had already started to provide, purchase, and order the items listed in the annexes of a draft schedule for the November field trip (see website for annexes on materials and equipment). Therefore, the requested equipment for sampling and all pre-sampling processes are presumably available on time. Waders/wading boots are provided by UDE research persons. For further lab processing, spring steel forceps and dissecting microscopes/binoculars will

be needed. According to Dr. R. C. Trivedi, CPCB Delhi, spring steel forceps cannot be purchased from Indian dealers; there is no dealer available at all. Those forceps should be provided by other Asian partners.

Pre-selection was aided by appropriate maps (appr. 1 : 50,000; 1 : 480,000), but maps did not cover the whole region of interest. Additional roadmaps in combination with expertise of local people aided the identification of suited river reaches. IIT Roorkee provided a GIS lab and is well equipped with GIS files requested for maps on river basin networks, state borders, small hydro power plants, etc. As WWF global 200 ecoregions are provided in GIS format on the internet, a valuable basis for a proper pre-selection of sites and ecoregions was available. See <http://www.worldwildlife.org/science/ecoregions.cfm> for a free download of Global 200 ecoregions. If a GIS is available with Asian partners, they should use the ecoregions to support a proper pre-selection of sampling sites in their country.

### **Applicability of staff**

Research personnel for ASSESS-HKH comprises Mr. Vivek Goel, two technicians and German research persons. Some additional persons may be available, however, at least two additional research persons are needed to provide sufficient manpower during the forthcoming steps (sampling, sorting, identification) in India. IIT Roorkee intends to involve Dr. Akolkar and Dr. Agrawal from CPCB Roorkee to aid the lab work. However, the employment of additional personnel is important to cope with all further steps of the project. The employment should proceed in December at the latest. There may be an opportunity to employ temporary personnel for three month without a contract. To proceed the samples taken during the first sampling season, this time frame is sufficient. According to Mr. Arun Kumar IIT Roorkee had already started to employ two researchers for ASSESS-HKH. Yet, as employment rules and processes prolong the process up to six month, additional personnel is not likely to be provided in 2005. Previously, two applicants were invited for interviews, but did not come.

### **Preparation of field trips - discussion meeting with CPCB members from Delhi**

From Nov. 4<sup>th</sup>-5<sup>th</sup>, a meeting of IIT and CPCB members was launched together with Dr. Feld. CPCB was represented by Dr. Mr. R. C. Trivedi and Dr. Mrs. Pratima Akolkar, who provided invaluable help on the identification of suited sampling sites in Uttaranchal and Himachal Pradesh. As CPCB operates frequent biomonitoring all over India, the pollution status as well as an excellent knowledge on the in-stream fauna was available for many river basins in both Indian states. Dr. Trivedi reported that CPCB started bio-monitoring some years ago. Although, bio-indication has not yet been included in an Indian assessment standard, three different biotic measures are concerned: i) a BMWP index adjusted to the

Indian macroinvertebrate fauna, ii) the Cairns' index (sequential comparison index), and iii) the proportion of production to respiration.

During the discussion, the following stressor-ecoregion combinations were decided: River damming/weirs in the Pine Forest ecoregion (IM0301) and organic pollution in the Upper Gangetic Plains (IM0166). *Note: Initially, the Lower Gangetic Plains (IM0120) were selected as they are shared by India and Bangladesh. However, this ecoregion is limited to the lower Ganga river near the border to Bangladesh in northeast India, which is approximately 900 km east of Roorkee. Therefore, IM0166 was selected, which is also located near Roorkee and, hence, can be easily reached from Roorke. The Upper Gangetic Plains join the Subtropical Pine Forests (IM0301) and the Terai-Duar savannas and grasslands ecoregions (IM0701) southwards.*

*Addressing the stressors, the initial decision to investigate the impact of river damming/weirs within ecoregion IM0301 was skipped, since i) only very few dammed and stagnated sites were found, ii) those sites showed an impact restricted to only 100–200 m upstream of the dam/weir, and iii) organic pollution was encountered at dammed sites, simultaneously. Therefore, organic pollution was chosen as the main stressor for both selected ecoregions: IM0301 Subtropical Pine Forests and IM0166 Upper Gangetic Plains.*

## **Field trips**

### **General travelling**

A four-wheel-drive car with driver was provided to travel to pre-selected sites. Due to the tremendous traffic conditions on Indian roads, the average speed was about 30–40 km h<sup>-1</sup>. This made travelling to River Uhl valley (Himachal Pradesh) or to River Pindar (Uttaranchal) a 12-hour-trip! Therefore, preferably those sites should be taken into consideration, that are located near Roorkee and provide a comparable quality class. If sites at long distances have to be selected, try to make a sensible selection, i. e. choose three to five sites in that region of interest, so that the total effort justifies the distance to travel. In addition, travelling by car shall preferably take place during the day, as travelling by night is far more dangerous.

### **Site selection**

Two November field trips in addition to the July field trip of Prof. Moog and Dr. S. Sharma yielded a selection of 39 candidate sites for ASSESS-HKH in India (Table 1). This selection covers two ecoregions with at least 17 sites per ecoregion. However, sites of a clearly bad status still lack for IM0301, and reference sites lack for IM0166. The selection is to be completed during the sampling field trips, which currently take place in the Almora Hills. Additional sewage drains are taken into consideration, so that the impact of severe organic

pollution can be detected by benthic macroinvertebrates, even if the drains often fall below the targeted catchment size range of 100–500 km<sup>2</sup> for this stream type.

Table 1: List of pre-selected and pre-classified candidate sample sites of two ecoregions in India. IM0166 = Upper Gangetic Plains; IM0301 = Subtropical Pine Forests. Geographical coordinates are given in decimal degrees.

Waypoint code	WWF global 200			Longitude	Latitude	Altitude	Pre-classification
	ecoregion	River name	Site name				
IS4	IM0166	Ramganga	near Sherkot	78.63672222	29.30944444	238	good
IS5	IM0166	Phikka/Setu	at Phikka	78.79286111	29.30377778	205	moderate
IS6	IM0166	Dehla	upstream of Kashipur	78.94286111	29.20469444	228	moderate
IS7	IM0166	Kosi	at Parttikalar Post	78.04141667	29.15830556		moderate
WP039	IM0166	Dehla	at Kashipur	78.94286111	29.20444444	214	moderate
WP040	IM0166	Kosi	NN	79.13447222	29.39888889	342	moderate
IS3	IM0166	Khoh	upstream dam/weir	78.56494444	29.32294444	262	poor
IS16a	IM0166	Chaiti Nala	upstream paper mill				bad
IS16	IM0166	Chaiti Nala Nagibabad	near Shyampura				bad
IS21	IM0166	Drain	sewage drain				bad
IS22	IM0166	Sewage drain	at Phambur				bad
NN	IM0166	Song	at Rai Wala				not available
NN	IM0166	Markanda	upstream paper mill				not available
NN	IM0166	Markanda	NN				not available
NN	IM0166	Hindan	miscellaneous				not available
NN	IM0166	Karsuni	miscellaneous				not available
NN	IM0166	Khoh	miscellaneous				not available
WP051	IM0301	Pindar Pindar	4 km upstream Tharali	79.55088889	30.03925	1252	high
NN	IM0301	tributary	upstream of Dungri				high
NN	IM0301	Bhilangna	upstream Tehri near Ghansgali				high
NN	IM0301	Nandarkini	upstream of Nandarprajak				high
NN	IM0301	Mandakini	upstream Rudraprayag				high
WP029	IM0301	Lambadug	upstream of weir (H. P.)	76.84486111	32.04072222	1831	high
WP036	IM0301	Thirthan	at Bhumka (H. P.)	77.27597222	31.69580556	1095	high
IS12	IM0301	Ram Gad	at Kaherna (Khaerna)	79.48066667	29.49594444	848	high
IS9	IM0301	Kalsa	east of Kathgodam	79.57891667	29.37269444	1250	good

Waypoint code	WWF global			Longitude	Latitude	Altitude	Pre-classification
	200 ecoregion	River name	Site name				
WP046	IM0301	Kosi	at Dadhymkhola, upstream of upper weir	79.63241667	29.69969444	1213	moderate
WP049	IM0301	Gomti	at Baijnath (Visnhu temple), upstream of weir	79.61511111	29.90683333	1121	moderate
WP054	IM0301	Sarju	upstream Chaktaryiar (Kapkot)	79.89847222	29.9555	1042	moderate
WP055	IM0301	Sarju	upstream Bahradi	79.90497222	29.96922222	1092	moderate
WP056	IM0301	Gomti	in Bageshwar, upstream of confluence with Sarju	79.77052778	29.83619444	862	poor
WP052	IM0301	Sarju	in Bageshwar upstream of confluence with Gomti, Baghnath temple	79.77286111	29.83758333	873	poor
WP057	IM0301	Sarju	downstream of confluence with Gomti	79.77341667	29.82175	848	poor
WP045	IM0301	Kosi	upstream Almora, black-yellow bridge near Bhowali, east of Nainital,	79.62522222	29.63155556	1140	poor
IS14	IM0301	Niglad Nala	cremation site	79.51216667	29.39038889	1637	poor
IS13	IM0301	Niglad	at Kaichi temple	79.50994444	29.4255	1348	poor
NN	IM0301	Pindar	downstream of Tharali				not available
IS11	IM0301	Kosi	in Almora	79.48066667	29.49594444	890	moderate
NN	IM0301	Yamuna and tributaries	at Dakpathar				not available

Table 2: List of all sites visited during the field trips from Nov. 6<sup>th</sup> until 11<sup>th</sup>, 2005 in India with waypoint code (WP), geographical coordinates, and time. Date and time (GMT +1:00) can be used to assign photographs to sites. Indian time = GMT +5:30. Geographical coordinates given in degrees, minutes, and seconds.

WP	Name	Lat (N)	Long (E)	Alt [m]	Date	Time (GMT +1:00)
27	R. Uhl at Tikkan	31°58'06.9''	76°53'17.8''	1586	6-11	12:10, 13:30, 13:55
28	R. Uhl, Barot Dam	32°01'15.1''	76°50'42.6''	1826	6-11	
29	R. Lambadug upstream of weir	32°02'26.6''	76°50'41.5''	1831	6-11	15:10, 15:30, 15:35
30	R. Uhl upstream of Barot Dam	32°02'19.5''	76°50'29.8''	1825	6-11	16:05
31	R. Uhl 2 km downstream Barot Dam	32°01'39.5''	76°50'58.5''	1832	6-11	16:25
31A	R. Uhl 2 km downstream Barot Dam	32°01'38.0''	76°50'59.3''	1797	6-11	16:30
32	Hotel Mayfair, Mandi	31°42'29.1''	76°55'58.2''	755	6-11	
33	Hindi Temple, way to Larji	31°41'30.4''	77°07'45.8''	795	7-11	08:15
34	Confluence Sanj with Tikkan	31°43'29.3''	77°13'07.0''	1037	7-11	09:30
35	R. Thirthan	31°42'33.2''	77°15'10.7''	1035	7-11	10:25
36	R. Thirthan at Bhumka	31°41'44.9''	77°16'33.5''	1095	7-11	10:35
37	R. Thirthan, overview photograph	31°42'15.7''	77°15'33.9''	1102	7-11	11:05
38	Canal south of Mandi	31°33'18.9''	76°54'05.4''	838	7-11	13:10
42	R. Gola near Haldwani	29°16'49.6''	79°32'43.6''	576	9-11	17:15
43	R. Kosi in Almora	29°29'44.0''	79°28'41.9''	882	9-11	19:10
44	Hotel in Almora	29°35'49.6''	79°39'24.1''	1600	10-11	6:30, 6:45
45	R. Kosi near Almora, (bridge yellow-black)	29°37'53.6''	79°37'30.8''	1140	10-11	07:45
46	R. Kosi at Dadymkhola	29°41'58.9''	79°37'56.7''	1213	10-11	8:25, 8:40
47	R. Kosi at Bhaktola	29°41'46.9''	79°38'08.8''	1212	10-11	8:55, 9:00
49	R. Gomti at Baijnath (Vishnu Temple)	29°54'24.6''	79°36'54.4''	1121	10-11	12:25, 12:45
51	R. Pindar 4 km upstream Tharali	30°02'21.3''	79°33'03.2''	1252	10-11	17:00
52	R. Sarju in Bageshwar (Baghnath Temple)	29°50'15.3''	79°46'22.3''	873	11-11	6:30, 6:50
54	R. Sarju near Kapkot	29°57'19.8''	79°53'54.5''	1042	11-11	08:40
55	R. Sarju upstream of Bharadi	29°58'09.2''	79°54'17.9''	1092	11-11	09:30
	R. Gomti in Bageshwar, upstream of confluence					
56	with Sarju	29°50'10.3''	79°46'13.9''	862	11-11	11:50, 12:05
	R. Sarju downstream of Bageshwar (after					
57	confluence with Gomti)	29°49'18.3''	79°46'24.3''	848	11-11	11:11

A brief description of sites visited during the July field trip has already been given by Prof. Moog and Dr. S. Sharma (see protocol of their field trip on the webpage [www.assess-hkh.at](http://www.assess-hkh.at)).

A description of the sites visited during the November field trips is given below in Table 2.

Table 3: Brief description of sites visited during the November field trip.

Waypoint code	Description
WP027	River Uhl at Tikkan, alt.: 1586 m; site affected by residual flow of less than 10 %; hydropower station and dam (Barot Dam) upstream of site, hydromorphological status: high-good, slight extensive land use (terraces), valley forested (deciduous trees); Baetidae, Caenidae, Trichoptera, few red Chironomidae, no comprehensive biotic pre-classification possible
WP028	Water abstraction at Barot Dam, River Uhl, alt.: 1822 m, more than 90 % water abstracted at dam, water is diverted into River Beas → abstraction to another river basin; complete Uhl basin downstream of Barot Dam is affected by water abstraction, no biotic pre-classification possible
WP029	River Lambadug upstream of water abstraction (weir at mouth to River Uhl), small hydro power plants planned for the section, but site is currently of high to good quality, land use extensive, high substrate and current diversity, no biotic pre-classification possible
WP030	River Uhl upstream of Barot Dam, low substrate diversity, straightened, reinforced banks (concrete), alt.: 1839 m, electrical conductivity (ec): 120 µS/cm, no ferrosulfid reduction, estimated quality class: moderate; no biotic pre-classification possible
WP031	River Uhl 2 km downstream of Barot Dam, alt.: 1818 m, little residual flow, no biotic pre-classification possible, ec: 130 µS/cm,
WP036	River Thirthan at Bhumka (near Bridge), alt.: 1098 m, estimated quality: high, ec: 125,5 µS/cm, no biotic pre-classification possible
WP039	River Dehla near Kashipur, sandy river bottom, large sand and silt bars, waste disposal on river bed, low flow conditions, hydromorphological status: good; filamentous algae present, likely organically impacted, open defaecation present, no biotic pre-classification possible
WP040	River Kosi with dam, water abstraction present to Canal (Ramnagar), two canal outlets upstream of dam, ec: 277 µS/cm, organic pollution presumed, site possible upstream of dam, no biotic pre-classification possible
WP041	River Bohr near patrol station, ec: 505 µS/cm, alt.: 389 m,

Waypoint code	Description
	site presumably organically polluted, coarse substrates do not fit Upper Gangetic Plains, no biotic pre-classification possible
WP042	River Gola near Haldwani, alt.: 576 m, organically polluted due to lake outlets of Nainital and Bhimtal lake, ecoregion IM0301; no biotic pre-classification possible
WP043	River Kosi in Almora, alt.: 882 m, site of good or moderate status, no biotic pre-classification possible
WP045	River Kosi near Almora, at black-yellow bridge, alt.: 1140 m, organic pollution present, estimated moderate quality, no biotic pre-classification possible
WP046	Kosi at Dadymkhola, alt.: 1215 m, weir with stagnation present, ec: 125 $\mu$ S/cm, weir 1,5–2 m, foam present, land use terraces with application of compost and fertilizer, little water abstraction also present (small pumps for irrigation purposes), two sites possible to investigate the impact of river damming, however organic pollution must not be significant to detect the impact of river damming; no biotic pre-classification possible
WP047	River Kosi at Bhakhtola, second weir downstream of 1 <sup>st</sup> weir at Dadymkhola, alt.: 1209 m, water abstraction present but of minor impact, removal of mineral material, weir 1,2 m, ec: 125 $\mu$ S/cm, no biotic pre-classification possible
WP048	River Kosi upstream of Someshwar, catchment nearly 100 km <sup>2</sup> , temporary river, irrigation system present, water abstraction, weir 1 m, alt.: 1476 m, no biotic pre-classification possible
WP049	River Gomti at Baijnath (Vishnu Temple), alt.: 1121 m, organic pollution, weir present, solid waste present, ec: 103 $\mu$ S/cm, no biotic pre-classification possible
WP050	River Pindar 2 km upstream of Tharali, alt.: 1238 m, ec: 155,6 $\mu$ S/cm, upstream of a cremation site, little land use only, likely of reference status, comparable to River Uhl in Himachal Pradesh, high current and substrate diversity, Lepidostomatidae, Heptageniidae, Ephemerellidae, Baetidae, Chironomidae, Leptoceridae, Brachycentridae, Coleoptera, candidate site of high-good status, supposed best available site in Almora Hills
WP051	River Pindar 4 km upstream of Tharali, supposed high-good status, high current and substrate diversity, ec: 156 $\mu$ S/cm, alt.: 1253 m, Ephemerellidae, Philopotamidae, <i>Micrasema</i> sp., Baetidae, Heptageniidae, Glossosomatidae
WP052	Sarju in Bageshwar, Baghnath Temple with cremation site, upstream of confluence with River Gomti, alt.: 871 m, solid waste and organic pollution present, <i>Hydropsyche</i> sp., no biotic pre-classification possible

Waypoint code	Description
WP053	River Sarju upstream of Bageshwar, reference like but with deep pool sections, upstream of confluence with small drain, no biotic pre-classification possible
WP054	River Sarju near Kapkot, upstream of Chaktaryia (village), small drains from settlements cause moderate organic pollution, alt.: 1044 m, ec: 212 $\mu$ S/cm, site of moderate-poor quality, organically polluted, no biotic pre-classification possible
WP055	River Sarju upstream of Bharadi (upstream of Kapkot), organic pollution present, pollution status unclear (moderate?), alt.: 1092 m, ec: 207 $\mu$ S/cm, no biotic pre-classification possible, <u>no reference sites were available at River Sarju!</u>
WP056	River Gomti in Bageshwar 100 m upstream of confluence with River Sarju, alt.: 861 m, estimated quality: good-moderate(-poor?), but very low ec: 92,5 $\mu$ S/cm, much solid waste, open defaecation, organic pollution very likely, water odour present, no turbidity, water abstraction present, no biotic pre-classification possible
WP057	River Sarju downstream of Bageshwar, supposed quality status: moderate-poor, alt.: 849 m, ec: 230 $\mu$ S/cm, no foam, no odour, no biotic pre-classification possible

The photographs of all sites will be made available for a free download at [www.assess-hkh.at](http://www.assess-hkh.at). However, since the photographs require very much web space, they will be available for a limited time period (two weeks). Please check the website (internal download) frequently if you're interested in the photographs.

## Schedule for further activities

### Sampling of 34 sites within two ecoregions

The majority of sampling sites has been defined during the November field trips in both ecoregions IM0166 and IM0301. Directly after Dr. Feld's return to Germany, Thomas Korte started sampling the previously selected sites. The first sampling field trip started on Nov. 16<sup>th</sup> to the Almora Hills. During this and following sampling field trips, additional sites have been pre-selected with special emphasis on polluted sites in the Subtropical Pine Forests and reference sites in the Upper Gangetic Plains. Sampling of the third ecoregion to be sampled in India, the Temperate Broadleaved Forests (IM0403), is postponed to a later date, since the ecoregion delineation should be clarified before. Currently, it is not clear, where IM0301 borders on IM0403 and, thus, the separation of both ecoregions is unclear.

## **Recruitment of additional resource persons in India**

At the moment, the Indian resource team is lead by the German resource person Thomas Korte. After December 20<sup>th</sup>, when Thomas Korte will leave India and return back to Germany, MSc Vivek Goel will be responsible for the coordination of sampling, sorting and further lab processing. Two additional technicians are designated to aid field and lab procedures. However, it is strongly recommended to employ at least two additional persons to aid proper and quick sample processing and sorting in India. In order to meet the sampling time frame that was defined during the kick-off meeting, it is further recommended to constitute a second field team.

Additional help with field and lab work may also be provided by members of the Central Pollution Control Board (CPCB) in Delhi. It has been already planned that Dr. S. Agrawal and Dr. (Mrs.) Akolkar participate sampling field trips and sorting training at AHEC in Roorkee.

## **Reminder for Deliverable 7 and half-yearly report to BOKU Vienna**

AHEC Roorkee is responsible for Deliverable 7 (“Pre-classification scheme for ecological status, list of impacted sites for investigation, and field work plan.”), which is delayed. It was strongly recommended to prepare and deliver Deliverable 7 soon, as the report is urgently required by the coordinator to keep deadlines with the European Commission. Further delay will have impact on the project’s progress and funding. Dr. M. P. Sharma replied that Asian partners themselves are late with the delivery of their material needed for Deliverable 7. However, the task is to compile the information and plans addressing the pre-selection and pre-classification of sampling sites. Independent of what has been achieved so far, it is inevitably necessary to document these achievements. If compilations of sampling sites have not been completed, at least the regions to be sampled, the ecoregions, the stressors, and the presumed quality classes in the regions should be summarised in a table with a brief description.

Besides Deliverable 7, the Indian partners are reminded to meet also the deadline for the half-yearly report that is due to delivery to Brussels. Templates and descriptions can be found on the website (internal downloads).

## **Completion of BD request for participants to Dhaka meeting**

Dr. M.P. Sharma and Mr. Vivek Goel are going to participate the next project meeting in Dhaka, Bangladesh, in December 2005. Both are reminded to reply to the Bangladeshi questionnaires regarding travelling and accommodation. Please confirm your participation as soon as possible, since the organisation team in Bangladesh needs this information soon!

## **Preparation of public and University information events, invitation of the public, announcement of events in newspaper**

During the stay of the German resource persons public information events were not held. This was due to the time constraints during the pre-selection of sampling sites. Therefore, public information events need to be held later on during sampling, or after. Even if those events were previously scheduled in parallel to sampling, it is not clear at the moment, whether the information events can be held during the first sampling programme. The field teams face long-term sampling efforts with unexpected long distances to travel between sampling sites. Therefore, a clear focus is laid on sampling itself, and information events may be postponed and held after sampling. Independent of when information events take place, it is recommended to inform and invite the targeted people soon. This can be reached, for example, by telephone calls, newspaper announcements, or flyers. You may use existing public flyers to invite the public during sampling.

Essen, Nov. 22<sup>nd</sup> 2005, revised: Nov. 30<sup>th</sup> 2005

Dr. Christian K. Feld

