The project ‘Biodiversity Conservation and Ganga Rejuvenation’ is an integral part of the Namami Gange programme under the National Mission for Clean Ganga (NMCG) initiative taken up by the Ministry of Water Resources, River Development and Ganga Rejuvenation. The one day ‘Training cum sensitization-workshop’ was organized as a part of the capacity building and stakeholder involvement initiative in order to apprise the Uttar Pradesh Forest Department personnel, representatives of the Gram Panchayats and Non Government Organizations about the aims, objectives and importance of the aforementioned project and to develop a partnership.

Date and Venue

The ‘Training cum sensitization-workshop’ took place on 7th January 2017 at the Brihspati Bhawan, Ch. Charan Singh University, Meerut, Uttar Pradesh. The team from the Wildlife Institute of India (WII), Dehradun, arrived at the venue one day prior, on 6th January 2017, in order to fine-tune the agenda, to coordinate with the concerned parties and to oversee the final preparations for the workshop.

Team

The WII team included Dr. S.A. Hussain, Scientist G, Dr. A.K. Bhardwaj, Scientist, Dr. Ruchi Badola, Scientist G, Dr. Gautam Talukdar, Scientist D, Dr. J.A. Johnson, Scientist D and two research scholars Dr. Pariva Dobriyal, Ms. Vaishali Vasudeva and two resource persons Dr. Pranab Pal and Ms. Sunita Rawat.

Agenda

The sensitization team agreed upon a draft agenda prior to the sensitization workshop, which was approved by the participants, as follows (Annexure 1):

Participants
The ‘Training cum sensitization-workshop’ was attended by the officials of the Uttar Pradesh Forest Department, representatives of the Gram Panchayats and Non Government Organizations. About 100 participants attended the workshop, of which about 30 were village Panchayat representatives ((Annexure 2 (a) - 2 (e)).

**The Sensitization-Workshop**

The event was graced by Shri Mukesh Kumar, Chief Conservator of Forest, Meerut, Government of Uttar Pradesh as the Chief Guest. Shri Lalit K. Verma, Conservator of Forests, Meerut also attended the workshop. Ms. Aditi Sharma, DFO, Meerut welcomed the audience. In his address, Shri Mukesh Kumar spoke about the significance of the Ganga River in the social, cultural and religious beliefs of the people of not only northern India but throughout the country as well as the neighboring countries. He also stressed about the importance and the role of biodiversity conservation in rejuvenating the Ganga River and how the project taken up by WII is not only innovative and scientific but also reliable and self-sustaining. He also talked about the importance of role of forest department in success of the project.

Dr. A.K. Bhardwaj, Scientist G, WII, welcomed all the participants on behalf of WII and expressed gratitude for their presence. He provided a brief introduction to the project entitled ‘Biodiversity Conservation and Ganga Rejuvenation’, which is a part of the Namami Gange programme under the National Mission for Clean Ganga (NMCG) initiative of the Ministry of Water Resources, River Development and Ganga Rejuvenation.

The workshop consisted of two technical sessions. First session was on overview of the project Biodiversity Conservation and Ganga Rejuvenation. During second session group discussions were held on issues faced by local communities residing along the Ganga River and their possible role of in Ganga rejuvenation and conservation of its aquatic biodiversity.

The chair and co-chair of both the sessions were Mr. Mukesh Kumar, Chief Conservator of Forest, Meerut and Shri Lalit K. Verma, Conservator of Forests, Meerut, respectively.

The first technical session comprised of four main speakers i.e. Dr. A.K. Bhardwaj, Dr. S.A. Hussain, Dr. Ruchi Badola, and Dr. J.A. Johnson.

**Technical Session 1: Overview of the Project**

The technical session 1 started with a presentation by Dr. S.A. Hussain on ‘Rare and endangered fauna of Ganga River: Conservation issues’. He discussed about the biogeographic zones i.e. Western Himalayas, Upper Gangetic Plain, Lower Gangetic Plain, East Coast that come under the mainstem Ganga River. He highlighted the representative habitats and fauna of the Ganga River i.e. Gharial (*Gavialis gangeticus*), Golden Mahseer (*Tor putitora*), Gangetic Dolphin (*Platanista gangetica gangetica*), Otter (*Lutrogale perspicillata*), Turtle (*Batagur kachuga*), Resident and migratory birds, Mugger (*Crocodylus palustris*), Saltwater Crocodile (*Crocodylus porosus*). He stressed on the conservation status
of aquatic mammals in which the status of Gangetic dolphin is endangered whereas smooth coated otter is vulnerable. In case of obligate breeding birds Sterna acuticauda (Black bellied tern) is under endangered category whereas in case of reptiles Batagur kachuga (Red-crowned roofed turtle) and Batagur baska (River terrapin) fall under critically endangered species. In case of fish, Golden Mahseer is under the endangered category. He highlighted about the protected areas along the Ganga River in five states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal). He discussed about the factors affecting the biodiversity of the Ganga River i.e. reduced water availability, water pollution, unsustainable resource extraction, habitat loss, decline in prey-base, poaching of wildlife. He ended his presentation on stressing upon one point that is lack of appropriate actions might result in permanent loss of the conservation dependent species.

An overview of the project “Biodiversity Conservation and Ganga Rejuvenation” was presented by Dr. Ruchi Badola. In her presentation, she highlighted on the social, ecological, cultural and economic importance of the Ganga River. She also pointed out the challenges that the Ganga River is facing such as construction of hydropower projects, water abstraction, changes in ecology of river and diversion of water. Dr. Badola also emphasized on the significant role of the different stakeholders at international, national, state and regional level in this project. For the successful implementation of the project, an interdepartmental approach wherein all the departments are working in synergy as well as the various policies and Acts are undertaken. A basin level approach can be used wherein different aspects like- waste water, solid water, industrial fluid abatement and restoration of biodiversity can be worked out together. Dr. Badola emphasized on strengthening of the community participation in this project. She stressed that being the facilitators and key players we have a significant role in achieving the main goal of the project that is planning a scientific aquatic species restoration plan by involving multiple stakeholders. She gave an overview and expected outcome of the six components of the project that WII has undertaken i.e. (i) Establishment of Ganga Aqualife Conservation Monitoring Centre, (ii) Planning Aquatic Species Restoration for Ganga River, (iii) Capacity Building of Forest Department and other Stakeholders, (iv) Establishment of Rescue and Rehabilitation Centres, (v) Community Based Conservation Programmes for Species Restoration in Ganga River and (vi) Nature Interpretation and Education for Biodiversity Conservation of Ganga River.

The sessions were concluded by questions and suggestions from all the participants on the biodiversity conservation and Ganga Rejuvenation and the ways to strengthen the project in Uttar Pradesh with their active involvement. Proper conduction of socio-ecological studies, encouragement of more awareness generating activities, gaining social support especially from eastern Uttar Pradesh, polluted water from tanneries should be treated and used from irrigating the agricultural fields nearby were few suggestions given by the participants at the workshop.

**Technical Session 2: Group Discussion**
After group discussion, a representative from each group presented the key challenges and solutions discussed. Following key challenges and solution have been discussed during the second technical session:

**Challenges for wildlife**

1. Illegal hunting of fishes in the river, leads to decline in their population, hence not enough catch for local fisherman community.
2. Fishing nets being used these days, often capture non target animal species.
3. Chemicals are sometimes used to kill fishes which are also harmful for other aquatic organisms.
4. Effluents released by factories located on river bank, directly into Ganga, pollute the water and make the survival of wildlife difficult. Some of the Sewage treatment plants and effluent treatment plants are not working efficiently.
5. Religious and cultural festival celebrations put a pressure on the river.
6. Cremation on the river bank and immersion of half burnt bodies and dumping of dead animals affects the river health adversely. In addition, people also immerse idols and religious waste.
7. Increasing tourism has led to increased plastic and polythene waste on Ganga Ghats.
8. Thousands of unwanted animals are left unattended on river banks, which become a nuisance for farmers, villagers, and also destroy habitats and eggs of turtles, crocodiles and Gharials.
9. Illegal agriculture on the river banks is also responsible for wildlife habitat destruction.
10. Identification of people responsible for it and taking appropriate action is a difficult task.
11. Illegal sand mining is a major problem in the area, affecting the river banks.
12. The boundary of forest is unclear, which creates management problems.
13. Lack of lower working staff is hurdle faced by the management in the area.
14. Lack of resources like steamers and weapons makes it difficult to catch the fish hunters.
15. There is lack of knowledge, awareness and skills among local people in the area of wildlife conservation.

**Solutions**

1. Responsibilities must be clearly defined for each villager and Panchyat member to achieve the goal of conservation of Ganga River so that work can be done smoothly.
2. A team consisting of experts from Panchayati Raj, Forest Department and wildlife should be there to train the local villagers and conduct regular awareness programmes to ensure involvement of local communities.
3. Cleaning of banks must be done regularly.
4. Electric crematoria or gas based crematoria should be set up to reduce the demand of wood from forests.

5. Plants of religious significance such as Neem, Peepal, Tulsi can be planted on banks so that people do not pollute the area, and also enhance aesthetic value of Ghats.

6. Awareness is of prime importance. Workshops and seminars must be conducted regularly by a wildlife expert, as the village people have little knowledge on the subject. School students must be sensitized.

7. NGOs and spearhead teams should be formed to sensitize people in villages regarding importance of aquatic wildlife.

8. Strict action should be taken on illegal activities such as sand mining, river bank agriculture, large scale fishing.

9. Local communities should be motivated through small incentives like certificates, emolument.

10. Rescue centers should be set up and provision of vet-ambulance and wildlife experts should be made available to help distressed aquatic species.

11. Local communities must be encouraged to practice organic farming that address the issue of pollution due to agriculture run-off.

12. There must be separate teams for survey and resolving issues of disputed forest boundaries.

13. People with technical expertise and skills can be very helpful in conservation of wildlife.

The session was ended by a vote of thanks by Dr. A.K. Bhardwaj. He appreciated the efforts and active involvement of the Uttar Pradesh Forest Department and representative of Village Panchayats and NGOs during the sensitization workshop.

PROGRAMME SCHEDULE

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<tr>
<th>7th January, 2017</th>
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<tbody>
<tr>
<td>0900- 0915</td>
<td>Registration</td>
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<tr>
<td>0915- 0930</td>
<td>Welcome Address- Ms. Aditi Sharma, DFO, Meerut</td>
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<tr>
<td>0930- 1030</td>
<td>Project Overview: Biodiversity Conservation and Ganga Rejuvenation- Dr. A.K. Bhardwaj, Scientist G, WII</td>
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<td>1030-1100</td>
<td>Tea</td>
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<td>1100-1200</td>
<td>Rare and endangered fauna of Ganga River: Conservation issues- Dr. S.A. Hussain, Scientist G, WII</td>
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<td>1200-1300</td>
<td>Challenges face by Ganga River- Dr. Ruchi Badola, Scientist G, WII</td>
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<td>1300-1400</td>
<td>Lunch</td>
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<td>1400- 1600</td>
<td>Group Discussion</td>
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<tr>
<td>1600-1630</td>
<td>Vote of Thanks- Dr. A.K. Bhardwaj, Scientist G, WII</td>
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PHOTO GALLERY

Chair, co-chair and participants at the workshop

Dr. A.K. Bhardwaj Scientist G, WII, introducing the aims and objectives of the sensitization workshop
A group of participants discussing the issue and challenges in their areas

MEDIA COVERAGE
सभके सहयोग से ही निर्वल हो सकती है गंगा

जीवन छोड़ने की वजह तत्त्वज्ञानी अमिताभ बच्चन ने कहा, "गंगा की संधारन के लिए हमें सहयोग करना होगा।"

गंगा के निर्मल होने के लिए हमें सहयोग करना होगा। यह सबके सहयोग से ही हो सकता है।

लेटेस्ट हिंदुस्तान जीवन, 8 जानवरी 2017

Sunday times of India, 8th January 2017