

## **CURRICULUM VITAE**

**AINUN NISHAT**

Country Representative, IUCN-Bangladesh

Currently I am working as Country Representative, IUCN - The World Conservation Union. Before joining IUCN I was an academic for over 26 years with the of Bangladesh University of Engineering & Technology (BUET); and, I had been actively involved in professional activities both inside and outside Bangladesh. My areas of work and interest are water resources development and management, river training, environment management, coastal zone and wetland management, and disaster management with focus on floods, droughts and storm surges.

As a Professor of Water Resources Engineering of BUET, I had taught two courses at undergraduate level - Hydrology, and Irrigation and Flood Control. At post-graduate level, I had taught "Water Resources Project Planning", a course I had developed for Bangladeshi students. In this course I brought in social, economic, institutional and technical considerations in water resources management and emphasized on issues related to sustainability. I also taught a course on River Engineering at both post graduate and under graduate levels. I have guided about 20 post graduate thesis work, and topics included performance evaluation of completed projects, environmental impact assessment, development of better understanding on participatory planning, and planning and design fish friendly hydraulic structures etc. Institute of Flood Control and Drainage Research (IFCDR) is one of the research Institutes of BUET and I had set it up as its first full-time Director between 1982 to 1985. I was also Head, Dept. of Water Resources Engineering between 1986 to 1988.

I have working relationship with the World Bank and Asian Development Bank. I have worked for ADB in Malaysia and Philippines I have been involved in projects sponsored by the Dutch and Canadian governments. I was a Member of the Panel of Experts (POE) for 4.8 km long Jamuna Multipurpose Bridge Project which was funded by the ADB, WB and OECF. The same POE is looking after the feasibility of the Padma Bridge. I was also a Member of the POE, which supervised the implementation of the Flood Action Plan ( FAP). I had worked ESCAP in preparation of the Coastal Environment Management Plan in mid-eighties. I was one of the Lead Authors of Group -II of IPCC in preparation of the Third assessment Report on Climate Change.

I was a Member of the Committee of Energy and National Resources Development (CENRD) of ECOSOC of the United Nations. This Committee guided the UN system on issues related to Energy and Water Resources management.

I am actively involved with the Arsenic Mitigation Project of the Public Health Engineering Department, funded by the World Bank as a Member of the Technical Advisory Group.

I was activity involved in preparation of National Conservation Strategy (NCS) and National Environment Management Action Plan (NEMAP) for Bangladesh. I had prepared the report on water resources sector for NCS. I have interests in land use planning and wet land conservation. I led the team which prepared "Freshwater wetlands in Bangladesh: Issues and approaches for Management", published by IUCN in 1993.

I have close association with several leading NGO's in Bangladesh. I am a Member, Executive Committee, BRAC. I have worked very closely with Bangladesh Center for Advanced Studies (BCAS), Bangladesh Center for Sustainable Development (CFSD), Bangladesh Unnayan Parishad (BUP), Sammunay and Bangladesh Environmental Lawyers Association (BELA). I am a regular resource person in the training programming in the field of environment and water management run by leading NGOS of the country.

As a resource person I deliver lectures at the Bangladesh Public Administration Training Center (BPATC), Planning Academy, National Academy for Educational Management, Armed Forces Staff College at Mirpur, Dhaka. Participants to these training programs are mid-level and senior government and NGO officials and the topics covered by me include evaluation of completed projects, environmental impact assessment of water development projects, issues in water quality, flood and water management, disaster management and environmental concerns of Bangladesh etc.

I have experience about international aspects of water management. As a Member of Indo-Bangladesh Joint River Commission, I was very closely involved in the negotiations of the Ganges Water Treaty, finalized and signed in 1996. I am a member of the Bangladesh National Water Council, the policy making body in the water sector. I served as a Member of Agricultural Commission, set up by the government of Bangladesh to revise the policy and strategy in agricultural sector. I am also a member of National Council on Science and

Technology.

I have carried out a number of evaluations of completed water development projects. I have prepared a guideline, to screen small-scale water projects before they are selected for transfer to local community.

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Date of birth : 29th April, 1948

Nationality : Bangladeshi

Education : B.Sc. Engg. (Civil) & M.Sc. Engg from Bangladesh Univ. of Engineering and Technology (BUET)

Ph.D.in Civil Engineering from University of Strathclyde, Glasgow, U.K. in 1981; Title of Ph.D. thesis: "A Study of alluvial channels in regime".

Professional Affiliations : Fellow, Institution of Engineers, Bangladesh

Senior Fellow, Bangladesh Institute of Development Studies, Dhaka

Fellow, National Oceanographic and Maritime Institute, Dhaka, Bangladesh

Fellow, Bangladesh Association for Advancement of Science

Member, National EIA Association Bangladesh.

Selected Trainings : Completed the three-week long short course on

## Completed

*Integrated Water Resources Management Planning*, organized by IHE, Delft, Holland from April 29 - May 19, 1996

Completed the three week long short course on *Disaster Management*, organized Disaster Management Center, Oxford, U.K. in October 1993.

## Employment Record

May 1998 to date	:	Country Representative IUCN The World Conservation Union Bangladesh Country Office
April '85 - May 1998	:	Professor, Dept. of Water Resources Engineering, BUET, (Head of Department, 1986-1988 ).
January '82 - April '85	:	Director, Institute of Flood Control and Drainage Research, BUET, Dhaka.
October '81 - Jan. '82	:	Associate Professor, Dept. of Water Resources Engineering, BUET.
Sept '75 - October '81	:	Assistant Professor, Dept. of Water Resources Engineering, BUET.
June '72 - September '75	:	Lecturer, Dept. of Civil Engineering, BUET;
August '70 - June '72	:	Assistant Engineer, Design Directorate Bangladesh Water Development Board, Dhaka.
March '70 - August '70	:	Jr. Engineer, with a Consulting Engineering Firm

## Other Major Responsibilities:

Member, Indo-Bangladesh Joint Rivers Commission (JRC), from 1982 to 1999.

Member, National Water Council; also Member of its Executive Committee.

Member, National Committee on Science & Technology (NCST); also Member of its Executive Committee.

Presently serving as Member, Agricultural Commission, which will recommend policy reforms in agricultural sector.

Lead Author, Working Group-II, Third Assessment Report, IPCC

## Subjects Taught and Areas of Research

At under-graduate level : *Hydrology and Irrigation Engineering.*

At Post-graduate level : *Principles of Water Resources Project Planning and River Engineering.*

Areas of research and research supervision include issues in water resources project planning and development, studies in the fields of environmental impact assessment, engineering for mitigation of natural hazards and studies related to operation and maintenance of water development and water conservation project.

### List of Publications

#### (a) Books / Proceedings

M. Zaman, A.K. Biswas, A.H. Khan and A. Nishat (editors), 1983, *River Basin Development*; Tycooly Publishers Ltd., Dublin

A.Nishat, Z.Hussain, Monoj K.Roy and Ansarul Karim; 1992, *Freshwater Wetlands in Bangladesh: Issues and Approaches for Management*, IUCN, Gland, Switzerland.

A. Nishat , Enamul Huq, Mahfuzullah and Munuruzzaman, 1998 “ *Poribesh Sabdakosh*” a guide book in Bengali on words used in environmental studies, Center for Sustainable Development, Dhaka

Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "*Red List of Threatened Animals of Bangladesh*", IUCN Bangladesh Country Office.

Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "*Red Book of Threatened Mammals of Bangladesh*", IUCN Bangladesh Country Office

Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "*Red Book of Threatened Amphibians and Reptiles of Bangladesh*", IUCN Bangladesh Country Office

Mahmud-ul Ameen, Md. Anwarul Islam, Ainun Nishat (editors), 2000, "*Red Book of Threatened Fishes of Bangladesh*", IUCN Bangladesh Country Office

Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "*Red Book of Threatened Birds of Bangladesh*", IUCN Bangladesh Country Office

Ainun Nishat, Mir Waliuzzaman, Shehrina Tabassum (editors), 2000, "*National Forum on Multi-stakeholder Sustainability Planning in Bangladesh*", IUCN Bangladesh

Ainun Nishat, Mohammed Riazuddin, Raquibul Amin, A. R. Khan (editors), 2000, "*The 1998 Flood: Impact on Environment of Dhaka City* " IUCN Bangladesh Country Office

Nishat, A., Waliuzzaman, M., Ahmed, J. (eds). (2000) Proceedings of the Consultative Workshop on Linking People with Nature: Biodiversity Conservation Strategy for the Himal Region; IUCN Bangladesh Country Office.

#### (b) Papers and Publications

*Defining the Banklines of the Brahmaputra Jamuna River using Satellite Imagery;*

Proceedings of Third International Conference on River Flood Hydraulics; edited by J Watts; HR Wallingford, 1997 ( with A.Hassan, I.Hoque, P.A.K.Huq, T.C.Martin, and C.Thorne )

*Influence of nose Angle on sediment distribution at channel bifurcation*; Proceedings of Third International Conference on River Flood Hydraulics; edited by J Watts; HR Wallingford, 1997 ( with G.M.T.Islam and M.R.Kabir)

*Changing Role of Flood Response and Preparedness in Flood hazard Mitigation in Bangladesh*; Proceedings of Third International Conference on River Flood Hydraulics; edited by J Watts; HR Wallingford, 1997 ( with M.F.Bari)

*Local Level Planning of Small Water Resources Schemes in a Developing Country*, in 'Water Resources Planning and Management', V.P.Singh and B. Kumer editors, Kluwer Academic Publishers, 1996, pp 63-71.

*Development and Environment in Bangladesh : Past approach, Present concerns and Future Issues*; in 'Bangladesh Past Two Decades and the Current Decade', Q.K.Ahmed (editor), Academic Publishers, Dhaka, 1994, pp 85-119.

*An alternative approach for prediction of channel geometry in alluvium*, in 'River Flood Hydraulics', edited by W.R.White and J. Watts., John Wiley & Sons. U.K. (with M.A.Matin and D.I.H.Barr), 1994

*Bangladesh Flood Action Plan: A critical Review*; Proceedings of Second US-ASIA Conference on Engineering for Mitigating Natural Hazards Damage; University of Hawaii at Manoa, June 1992.

*Fresh water wetlands in Bangladesh : Status and Issues*, in 'Freshwater Wetlands in Bangladesh: Issues and Approaches for Management', A.Nishat, Z.Hussain, Monoj K.Roy and Ansarul Karim (editors), IUCN, 1992

*Engineering against Disaster with reference to Floods*, Hazard Assessment and Mitigation with a focus on Floods, Commonwealth Science Council, London, 1990.

*Performance of completed projects : Why do they not attain the projected benefits*; Asian Regional Symposium on Modernization and rehabilitation of Irrigation and Drainage Schemes, Asian Development Bank & Hydraulic Research, February 1989 (with S. K. Chowdhury).

*Impact of Water Management Project on Open Water Fishery : A case study*, Proceedings of the International Seminar on Regional and Global Environmental Perspectives, Dhaka, March 1989.

*Development of Coastal Area of Bangladesh and Green house effect : Hydrological Setting and Technical Considerations*; Proceeding of International Conference on Greenhouse effect and Coastal Area of Bangladesh, Dhaka, 1989.

*Review of Assessment of ground water Resources in Bangladesh : Quality and Quantity*, Irrigation Engineering and Rural Planning, Japan, vol-17, 1989

*Future Water Resources Development in Bangladesh : An overview of National Water Plan;* Proceeding of Symposium on "Food Strategies in Bangladesh", Bangladesh Institute of Development Studies, October 1988.

*Post project appraisal of a major flood control, drainage and irrigation project in Bangladesh,* Proceedings of Irrigation System Evaluation and Water Management Conference, Univ. of Southampton and Wuhan University of Hydraulic and Electric Engineering, China ; September 1988 (with F. Ahmed and P. Thompson).

*Evaluation of Flood Control and Drainage Components of Chandpur Irrigation Project.* Proc. of Seminar on Floods and Bangladesh, Institution of Engineers, Bangladesh, Dhaka, October, 1987, (with F. Ahmed).

*Development and applicability of a water flow prediction function,* Bangladesh Journal of Water Resources Research, Vol. 7, No. 1, December 1986.

*Water Quality: Problems and Needs for integrated control in Bangladesh,* Regional Symposium on Water Resources Policy in Agro-Socio-Economic Development, Dhaka, August 1985.

*Some Considerations for selection of projects for EIP projects.* Proceedings of Seminar on "Small Scale Water Development Schemes" Bangladesh Water Development Board, February 1985.

*Case Study of Delta Development Project of Bangladesh Water Development Board;* paper presented at the Seminar on Self-reliance and Role of aid-for-development, BUET, 1984.

*Management information coordination for improved irrigation practice,* presented at Seminar on Information for improved irrigation planning and management, BUET, March, 1984.

*Engineering Survey of WFP-Aided Food-For-Works Program in Bangladesh,* The Bangladesh Development Studies, Vol. XI, No. 1&2 March-June, 1983.

*Process of sedimentation in Coastal Areas;* paper presented UNDP/UNESCO sponsored Seminar on Geology, Sedimentology, Erosion and accretion in Mangrove areas: Forest Department, 1882, Dhaka.

*Appropriate Technologies for Micro-hydro, Development in Bangladesh,* Energy Policy Studies, Center for Policy Research, Dhaka University, November 1982.

*Consideration for coordinated water resources activities in Bangladesh,* 27th convention of the Institution of Engineers, Dhaka, December, 1982.

*A contribution to regime theory relating principally to channel geometry,* Proc. Institution of Civil Engineers, U.K., Vol. 6, Part-2, September 1980 (with DIH Barr and M. K. Alam).

*Evaluation of constraints to efficient utilization in small scale irrigation schemes in Bangladesh,* National Seminar on Water Management and Control at Farm Level, FAO,

Rangoon, 1977 (with Dr. S.I. Bhuiyan).

*Problems to irrigation in newly formed lands in the coastal areas of Bangladesh*  
Proceedings of National Seminar on Irrigation and Water Management in Bangladesh,  
Planning Commission, Govt. of Bangladesh, 1977 (with S.A. Wasimi).

*Efficiency constraints in deep tubewell irrigation schemes-A study of Narshindi Area*,  
21st convention of Institution of Engineers, Bangladesh, December, 1976.

**(c) Technical reports**

*"Hydrologic and Hydrometeorologic study of a typical Haor (Lake) area for optimum land and water resource utilization-- a study of Hakaluki Haor of Sylhet"* ; Research Project sponsored by the University Grants commission 1977 (with S.I. Bhuiyan, M. Miah and A. F. M. Saleh).

*"Development of a computer based Water Resources Information System : An experience from Philippines and Thailand"*, Department of Water Resources Engineering, BUET, April 1982 (with S.K. Chowdhury).

*"Report on Problem arising from formation of shoals at the offtake of the river Gorai"*, Ministry of Irrigation, Water Development and Flood Control, Govt. of Bangladesh, 1982 (with A.M.M.G.Kibria and Nurul Huda).

*"Engineering evaluation of World Program aided Food For Works Program 1981-82"*, Bangladesh Institute of Development Studies, Dhaka and International Food Policy Research Institute Washington D.C., July; 1983

*"A summary of available sediment data in Bangladesh"* Report 02/85, Institute of Flood Control and Drainage Research, BUET, October 1985.

*"A review and analysis of Hydrological gauging stations in Bangladesh"* Report 01/86 IFCDR, BUET .

*"Report of the Task Force on the Draft Final Report on the National Water Plan Project"* Ministry of Irrigation Flood Control and Water Development, Govt. of Bangladesh, September 1985 (with Amjad H Khan and others).

Report on *"Erosion of River Banks and Recommendations for Works of Protection to Caissons 1,2 and 11 of the East-West Interconnector Project, Jamuna River Crossing"*, prepared for Bangladesh Power Development Board, 1984 (with others).

Report on *"Water Supply Source Study for Five District Towns in Bangladesh"* Prepared for Public Health Engineering Department, Govt. of Bangladesh, 1985 (with others).

Report on *Large Water Development Projects in Bangladesh*; Prepared for UNDP in connection to Agriculture Sector Review, 1989.

Report on *Flood Policy for Bangladesh*, Worked as a member of UNDP-GOB Team in preparation of the report in 1989.



Report on *Flood Action Plan for Bangladesh* ; Worked as a member of the World Bank's study team, 1989.

Report on *Water sector and Infrastructure sector* for the Report on Bangladesh 2020, being prepared by World Bank, Dhaka; 1997

*Bangladesh Water Sector Strategy Report, 1997*; Worked as a member of the World Bank's study team, 1997.

#### Selected Consultancy Works

Worked as Consultant (Flood Control Engineer) for Asian Development Bank from 15th May 1989 to 15th July 1989. Contract No. CPCS/89-167; Project-Semerak Rural Development Project, Malaysia. As Consultant I was responsible for review and updating the previous feasibility study in terms of components (flood control and drainage, and irrigation) and cost. I also proposed the project implementation schedule and worked with the Team Leader in finalization of the final report.

Worked as Consultant (Irrigation/ Civil Engineer) for Asian Development Bank from 31st January 1988 to 22nd March 1988. Contract No. -CAS/S/88-009. Project. Sorsogon Integrated Area Development Project, Philippines. As Consultant I was responsible for making recommendations on project components pertaining to irrigation, flood control, road development and health services. I also worked with Team Leader of in preparation of proposals for project implementation and project management.

Worked as Consultant (Water Resources Engineer) for Agriculture Sector Review (BCD/87/023-OPE), a UNDP sponsored project in Bangladesh. Period of work: June 1988 - September 1988. As a consultant I was responsible for reviewing and evaluating Bangladesh's experience with flood control, drainage and irrigation projects planned and implemented by Bangladesh Water Development Board. I evaluated the technical potentials of ground water utilization. I also prepared a report on Flood Control for future water resources development.

Worked as Specialist for Bangladesh Flood Policy Study, a UNDP sponsored project in Bangladesh; period of work December 1988 to May 1989. Made contributions in finalization of the report has been in the areas of flood preparedness, flood protection engineering and flood forecasting, and river mechanics river engineering.

Worked as a member of a team of experts formed at the Department of Water Resources Engineering, BUET for "Review and optimization of planning and design of irrigation and drainage system of Teesta Barrage Project" of Bangladesh Water Development Board (BWDB). This project is sponsored by BWDB and final reports are due in December 1988. I have been involved in reviewing the hydrological studies, and irrigation and drainage planning.

Worked as Water Resources/Civil Engineer for Bangladesh Institute of Development Studies in their project entitled "Local level planning and development - Scope, strategies, institutional reforms and policy instruments", The project was sponsored by Planning Commission. My report was submitted in March 1987. The report evaluated the existing organizational and administrative framework for local level planning,

mainly for rural physical and social infrastructure building at Upazila level. Case study of two selected Upazila was undertaken and a framework to be adopted for local level planning was recommended.

Worked as a Member of Panel of Experts to advise the Jamuna Multipurpose Bridge Authority, Bangladesh on feasibility study, design works and implementation of the Jamuna Multipurpose Bridge project (cost of construction is about (\$950 m). Since April 1986, till completion of the project, this Panel had participated in guiding the consultants in carrying out various studies, and reviewing the reports being produced for the project. I was responsible for hydrological, hydraulic, river morphological and river training aspects of the project.

Worked as a Member of Panel of Experts, Flood Plan Coordination Organization, Ministry of Water Resources. This Panel guided the implementation of the Flood Action Plan (FAP). Since January 1991, when FAP was launched, I have been involved in preparation of TOR of various components of the plan, monitoring progress of work and advising various study teams. The project was completed in 1995.

Worked as a member of the inter-disciplinary team responsible for preparation of "National Environment Management Action Plan for Bangladesh", This study was carried out for the Ministry of Environment and funded by the UNDP in 1991.

Worked as member of the Inter-disciplinary team of specialists drawn from Bangladesh University of Engineering & Technology and Bangladesh Institute of Development Studies which formulated a Master Plan for construction of Multi-purpose Cyclone Shelters in the coastal belt of Bangladesh. This project was sponsored by the Planning Commission and funded by the UNDP and administered by the World Bank. I was the Leader of the Group responsible for Planning and Implementational Issues.

#### International Experience

January 26-31, 1992, Dublin, Ireland, Attended the Dublin Conference on Water and the Environment Organized by the UN, preparatory to Earth Summit to be held in Rio de Janeiro, in June 1992. I worked as a Rapporteur of the conference.

October 8-9, 1989 - Attended a meeting at London with ODA, London and World Bank to finalize the agenda for the December 1989. International meeting on Flood Action Plan for Bangladesh as a member of Govt. of Bangladesh delegation.

October 11-13, 1989 - Attended the meeting of the World Bank team and the Govt. of Bangladesh (GOB) at Washington D.C. for finalization of the Flood Action Plan for Bangladesh, as a member of GOB delegation. This report was placed before the international community in December 1989 at London and was duly approved. The Flood Action Plan is presently under implementation.

From December 1981 to November 1999, served as a Member, Indo-Bangladesh Joint Rivers Commission, a permanent commission which is responsible for sharing and development of waters of the rivers, which are common to both India and Bangladesh. I have attended over 20 meetings of the main commission, held at Ministerial level. I have participated in all technical level meetings that were held during the period.

November 1985 - November 1987 - As Member, Joint Committee of Experts (JCE)

formed by the Govt. of India and Govt. of Bangladesh to formulate recommendations to the two governments on matters related to common rivers. I have attended all meetings (about 12) of the JCE.

October 1988 - December 1989, Member, Joint Task Force for recommendation of a joint flood control program; this task force was formed by the Governments of Bangladesh and India and the report of the task force has been finalized and submitted.

November 1988 - November 1989, Member of the Joint Experts Committee formed by the HMG of Nepal and Govt. of Bangladesh to make recommendations on flood control measures and harnessing the waters of common rivers. The committee held 4 meetings alternately at Kathmundu and Dhaka and the report was submitted in November 1989.

November 1988 to April 1989 - Member of the Joint Study Team formed by the Govt. of China and Govt. of Bangladesh to make recommendation on flood control program in Bangladesh. Visited China over a period of 3 weeks to see various flood control projects in the Yellow River, the Yantse river, and the Pearl river basins. The report of the Team was being submitted.

October 1981 - Visited Philippines and Thailand under a Ford Foundation grant to study development of water resources information system and preparation of national water plan.

April - May 1985; Visited Egypt, Italy, Hungary, U.S.A., West Germany and Thailand to study the works of various international rivers commission; sponsored by USAID.