

CURRICULUM VITAE



AINUN NISHAT

Adjunct Faculty Member

Department of Environmental Science

School of Environmental Science and Management (SESM)

Independent University, Bangladesh (IUB)

Professor Emeritus, BRAC University, 49 Mohakahli, Dhaka 1212

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29 April 1948

Bangladeshi

EDUCATION

Ph.D. Civil Engineering, University of Strathclyde, Glasgow, U.K. in 1981;

M.Sc in Civil Engineering, BUET, 1975;

B.Sc in Civil Engineering, BUET, 1969;

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

Fellow, Institution of Engineers, Bangladesh

Fellow, National Oceanographic and Maritime Institute, Dhaka, Bangladesh

Fellow, Bangladesh Association for Advancement of Science

OTHER MAJOR RESPONSIBILITIES

Member, Joint Rivers Commission, (1982 to 1999); Advisor (2016-to-date)

Lead Author, WG II, Third Assessment Report, IPCC (1998- 2001)

Member, National Water Council; Member, Executive Comm. (1985- 1999);

Member, National Committee on Science & Technology; Member,

Executive Committee (1985- 2002) ;

Member, National Agricultural Commission (1998- 2002);

Member, Panel of Experts, for planning, design and construction supervision of the Padma Multipurpose Bridge project (2009-todate, cost over \$3.0 billion) with focus of river training component (the Padma carries the combined discharge of the Ganges and the Brahmaputra);

Chairman, Panel of Experts, for advising on **planning, design and construction supervision** of the River Management Improvement Project (RMIP-phase I) (for improvement of the Right Bank Embankment of the Brahmaputra/Jamuna) (2014- to-date), funded by the World Bank

Chairman, Panel of Experts, for advising on **planning, design and construction supervision** of the Coastal Embankment Improvement Project RMIP-phase I (for improvement of the coastal polders in phases) (2014-to-date) being funded by the World Bank.

Member, Panel of Experts, for planning, design and construction supervision of the Jamuna (the Brahmaputra River) Multipurpose Bridge project, focus of river training component (1992- 1999, cost over 1.0 billion dollars)

Member, Panel of Experts, drafting the Flood Action Plan for Bangladesh and supervision of its components (1988-1995, cost over \$150million).

SUBJECTS TAUGHT AND AREAS OF RESEARCH

At under-graduate level at BUET: Hydrology and Irrigation Engineering.

At Post-graduate level at BUET and BRAC University: Principles of Water

Resources Project Planning; River Engineering; Disaster management and Climate Change; Sustainable Development and Governance

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.

Some Other Training

Completed the three-week long short course on Completed Integrated Water Resources Management Planning, organized by IHE, Delft, Holland from April - May, 1996

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

Executive Training Program, Kennedy School, Harvard University, 2007, 2008

LANGUAGES

<u>Language</u>	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
Bengali	Excellent	Excellent	Excellent
English:	Excellent	Excellent	Excellent

KEY QUALIFICATION AND EXPERIENCE

Currently working at BRAC University, one of the leading private universities of Bangladesh, as Professor Emeritus (on honorary basis). He was the former vice chancellor of this university (2010-2014). He is actively engaged in carrying out diversified research projects in the field of climate change and environment with the Centre for Climate Change and Environmental Research, BRAC University. Besides, he also carries out teaching assignments in the fields of Climate Change, disaster management and environment management.

Experienced in international aspects of management of trans-boundary water resources. As a long serving Member of Indo-Bangladesh Joint River Commission, from 1982 to 1999, was very closely involved in the negotiations of the Ganges Water Treaty, finalized and signed in 1996; took part in all the negotiation meetings that took place during this period.

Professor Nishat participated in the Conference of Parties (COP) held in Bali (2007), Copenhagen(2009), Cancun (2010), Durban (2011), Doha (2012), Warsaw(2013) and Paris (2015) as a ‘negotiator’ with the Bangladesh delegation.

Was Senior Advisor, Climate Change, Asia Region, IUCN (International Union for Conservation of Nature) (2009-2010). Worked as Country Representative (CR) of IUCN in Bangladesh from 1998 to 2008. As the CR of IUCN, developed the Country Office as a well established institution in the field of natural resources management, working very closely with the government. Supervised many pilot projects on community based wetland management, adaptation to climate change, ecosystem based livelihood support project, etc. Also developed a number of national level strategy and action plans in the field of biodiversity conservation, climate change, desertification, coastal zone management, capacity building for multi-lateral environmental agreements. Led the team that prepared "Freshwater wetlands in Bangladesh: Issues and approaches for Management", published by IUCN in 1993.

Was an academic, for over 26 years, with Bangladesh University of Engineering & Technology (BUET). Was a Professor of Water Resources Engineering of BUET till 1998 when moved to IUCN. Had joined Civil engineering Department of BUET as a Lecturer, Department of Civil Engineering, in 1972. Worked as the first full-time Director of Institute of Flood and Water management (IWFM), BUET, (1982 to 1985). Was Head, Department of Water Resources Engineering (1986 to 1988). Carried out administrative responsibilities as Provost of Titumir Hall (1989-1991), Director Students Welfare (1991-1993), etc.

Guided over 50 theses, at doctoral and masters level. Areas of research and research supervision include issues in water resources project planning and development, environment management, coastal zone and wetland management, disaster management with focus on floods, droughts and storm surges, adaptation to climate change, river engineering and river training.

Adjunct Professor, Institute of Natural Resources Management, University of Manitoba, Canada (2010 to to-date).

Adjunct Professor, IHE, Delft, The Netherlands;

Adjunct Professor, Bangabandhu Sheik Mujibur Rahman Agriculture University, Gazipur, Dhaka (2005 to to-date).

Was a Member of the Committee of Energy and National Resources Development (CENRD) of ECOSOC of the United Nations (1998-2002) and was elected Chair of the Water and Land Use sub-group. This Committee guided the UN system on issues related to Energy and Water Resources management.

Currently Member of Compliance Committee of Kyoto Protocol of United Nations Framework Convention on Climate Change (UNFCCC) (2006 – to-date). Was one of the Lead Authors of Group-II of IPCC in preparation of the Third Assessment Report. Currently a regular member of the delegation of Government of Bangladesh to Climate Change negotiations. Participated in all Conference of Parties (COP) since Bali (COP-13), including Copenhagen (COP 15), Cancun (COP 16), Durban (COP 17), Doha (CoP 18), Warsaw (CoP 19, Paris (CoP 21) .

Was a member of the Bangladesh National Water Council, the policy making body in the water sector. Served as a Member of Agricultural Commission (1998-2002), set up by the government of Bangladesh to revise the policy and strategy in agricultural sector. Was a member of National Council on Science and Technology as well as the National Disaster Management Council. Actively involved in drafting the Arsenic Policy of Bangladesh. Took active part in preparation of Multipurpose Cyclone Shelter Plan (1995), National Conservation Strategy (1992) and National Environment Management Action Plan (1995) for Bangladesh, National Adaptation Action Plan (NAPA) (2005) and Bangladesh Climate Change Strategy and Action Plan (2009).

Close association with leading NGO's in Bangladesh. Involved with BRAC as a Member of the Executive Board. Work closely with Bangladesh Center for Advanced Studies (BCAS), Bangladesh Center for Sustainable Development (CFSD), Bangladesh Unnayan Parishad (BUP), Sammunay, Bangladesh Environmental Lawyers Association (BELA), NGO Forum for water Supply and Sanitation. Have working relationship with the UNDP, World Bank and Asian Development Bank.

Worked for ESCAP in preparation of the Coastal Environment Management Plan in mid-eighties.

As a resource person deliver lectures, regularly at the Bangladesh Public Administration Training Center

(BPATC), Planning Academy, National Academy for Educational Management (NAEM), National Defense Collage and the Armed Forces Staff College at Mirpur, Dhaka, and training programmes organized by the leading NGOS of the country. Participants to these training programs are mid-level and senior government and NGO officials and the topics covered include management of water development projects, issues in water quality, flood and disaster management, environmental concerns, sustainable development, climate change, multilateral environmental agreements, trans-boundary water management, etc.

EXPERIENCE RECORD:

July 2014 to till date: Professor Emeritus, BRAC University, Dhaka

July 2010 to July 2014: Vice Chancellor, BRAC University, Dhaka

August 2009 to July 2010: Senior Advisor, Climate Change, Asia Region, IUCN (International Union for Conservation of Nature)

May 1998 to August 2009: Country Representative, IUCN Bangladesh.

April 1985 to May 1998: Professor, Department. of Water Resources Engineering, BUET, (Head of Department, 1986-1988).

January 1982 to April 1985: Director, Institute of Water and Flood Management, BUET.

October 1981 to January 1982: Associate Professor, Department. of Water Resources Engineering, BUET.

Sept 1975 to October 1981: Assistant Professor, Department. of Water Resources Engineering, BUET

June 1972 to September 1975: Lecturer, Department of Civil Engineering, BUET;

August 1970 to June 1972: Assistant Engineer, Design Directorate, Bangladesh Water Development Board, Dhaka

March 1970 to August 1970: Jr. Engineer, with a Consulting Engineering Firm

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 been 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.

LIST OF PUBLICATIONS

(A) BOOKS / PROCEEDINGS

1. Nishat, A., & Mukherjee, N. (2013). Climate Change Impacts, Scenario and Vulneribility of Bangladesh. In R. Shaw, F. Mallick, & A. Islam, Climate Change Adaptation Actions in Bangladesh. Springer:Japan.
2. Nishat, A., & Mukherjee, N. (2013). Sea Level rise and its impact in coastal areas of Bangladesh. In R. Shaw, F. Mallick, & A. Islam, Climate Change Adaptation Actions in Bangladesh. Springer:Japan.
3. Nishat, A., Mukherjee, N., Hasemann, A. & Roberts, E., 2013. Loss and Damage from the Local Perspective in the Context of a Slow Onset Process: The Case of Sea Level Rise in Bangladesh. Country Case Study. Dhaka: CDKN, ICCCAD, Germanwatch, MCII, UNU-EHS Centre for Climate Change and Environmental Research (C3ER), BRAC University.
4. Nishat, A., Mukherjee, N., Roberts, E. & Hasemann, A., 2013. A Range of Approaches to Address Loss and Damage from Climate Change Impacts in Bangladesh. Country Working Paper. Dhaka: CDKN,ICCCAD, Germanwatch, MCII, United Nations University-UNU EHS Centre for Climate Change and Environmental Research (C3ER), BRAC University.
5. M. Zaman, A.K. Biswas, A.H. Khan and A. Nishat (editors), 1983, River Basin Development; Tycooly Publishers Ltd., Dublin
6. A.Nishat, Z.Hussain, Monoj K.Roy and Ansarul Karim; 1992, Freshwater Wetlands in Bangladesh: Issues and Approaches for Management, IUCN, Gland, Switzerland.
7. A. Nishat , Enamul Huq, Mahfuzullah and Munuruzzaman, 1998 " Poribesh Sabdakosh" a guide book in Bengali on words used in environment al studies, Center for Sustainable Development, Dhaka
8. Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "Red List of Threatened Animals of Bangladesh", IUCN Bangladesh Country Office.
9. Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "Red Book of Threatened Mammals of Bangladesh", IUCN Bangladesh Country Office
10. Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000,"Red Book of Threatened Amphibians and Reptiles of Bangladesh", IUCN Bangladesh Country Office
11. Mahmud-ul Ameen, Md. Anwarul Islam, Ainun Nishat (editors), 2000,"Red Book of Threatened Fishes of Bangladesh", IUCN Bangladesh Country Office
12. Md. Anwarul Islam, Mahmud-ul Ameen, Ainun Nishat (editors), 2000, "Red Book of Threatened Birds of Bangladesh", IUCN Bangladesh Country Office
13. Ainun Nishat, Mir Waliuzzaman, Shehrina Tabassum (editors), 2000,"National Forum on Multi-stakeholder Sustainability Planning in Bangladesh", IUCN Bangladesh
14. Ainun Nishat, Mohammed Riazuddin, Raquibul Amin, A. R. Khan (editors), 2000,"The 1998

Flood: Impact on Environment of Dhaka City " IUCN Bangladesh Country Office

15. 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) CONFERENCE PROCEEDINGS AND OTHER PUBLICATIONS

16. Nishat, A., Mukherjee, N., Ali, S. S., Khan, A. S., Khanum, R., & Rahman, S. (2013). Is livelihood insecurity resulting from impacts of Climate Change leading to enhancement in migration to urban areas in the coastal region of Bangladesh? In M. Roy, D. Hulme, S. Guy, F. Jahan, S. Hashemi, A. Nishat, et al. (Ed.), *ClimUrb* (pp. 1-28). Manchester, UK: Manchester University.
17. An Assessment of the International Mechanisms for Water Negotiations in the Ganges-Brahmaputra-Meghna System, Internal Negotiation, Volume 5, 2000, Page 289-310, Kluwer Law International, The Netherlands.
18. 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)
19. 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)
20. 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)
21. 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.
22. 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.
23. 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
24. 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.
25. 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
26. Engineering against Disaster with reference to Floods, Hazard Assessment and Mitigation with a focus on Floods, Commonwealth Science Council, London, 1990.
27. 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).
28. 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.
29. 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.
30. Review of Assessment of ground water Resources in Bangladesh : Quality and Quantity,

Irrigation Engineering and Rural Planning, Japan, vol-17, 1989

31. 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.
32. 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).
33. 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).
34. Development and applicability of a water flow prediction function, Bangladesh Journal of Water Resources Research, Vol. 7, No. 1, December 1986.
35. Water Quality: Problems and Needs for integrated control in Bangladesh, Regional Symposium on Water Resources Policy in Agro-Socio-Economic Development, Dhaka, August 1985.
36. Some Considerations for selection of projects for EIP projects. Proceedings of Seminar on "Small Scale Water Development Schemes" Bangladesh Water Development Board, February 1985.
37. 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.
38. Management information coordination for improved irrigation practice, presented at Seminar on Information for improved irrigation planning and management, BUET, March, 1984.
39. Engineering Survey of WFP-Aided Food-For-Works Program in Bangladesh, The Bangladesh Development Studies, Vol. XI, No. 1&2 March-June, 1983.
40. 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.
41. Appropriate Technologies for Micro-hydro, Development in Bangladesh, Energy Policy Studies, Center for Policy Research, Dhaka University, November 1982.
42. Consideration for coordinated water resources activities in Bangladesh, 27th convention of the Institution of Engineers, Dhaka, December, 1982.
43. 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).
44. 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).
45. 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).
46. Efficiency constraints in deep tubewell irrigation schemes-A study of Narshindi Area, 21st convention of Institution of Engineers, Bangladesh, December, 1976.

(C) TECHNICAL REPORTS

47. "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).
48. "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).

49. "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).
50. "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
51. "A summary of available sediment data in Bangladesh" Report 02/85, Institute of Flood Control and Drainage Research, BUET, October 1985.
52. "A review and analysis of Hydrological gauging stations in Bangladesh" Report 01/86 IFCDR, BUET .
53. "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).
54. 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).
55. Report on "Water Supply Source Study for Five District Towns in Bangladesh" Prepared for Public Health Engineering Department, Govt. of Bangladesh, 1985 (with others).
56. Report on Large Water Development Projects in Bangladesh; Prepared for UNDP in connection to Agriculture Sector Review, 1989.
57. Report on Flood Policy for Bangladesh, Worked as a member of UNDP-GOB Team in preparation of the report in 1989.
58. Report on Flood Action Plan for Bangladesh ; Worked as a member of the World Bank's study team, 1989.
59. Report on Water sector and Infrastructure sector for the Report on Bangladesh 2020, being prepared by World Bank, Dhaka; 1997
60. Bangladesh Water Sector Strategy Report, 1997; Worked as a member of the World Bank's study team, 1997.