

EDUCATION	Ph.D. in Physics (Oceanography), Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in Oceanography, October 1988. Recipient, Carroll L. Wilson Award for post-doctoral research, October 1988. B.Sc. in Chemistry, Colorado State University, June 1977. National Merit Scholar. Undergraduate Studies, Miami University, Oxford, Ohio. National Merit Scholar.		
MEMBERSHIP OF PROFESSIONAL SOCIETIES	Life Member, Asian Society for Environmental Protection		
OTHER TRAINING	M.A. counselling psychology, City University (Washington USA), 2010.		
COUNTRIES OF WORK EXPERIENCE	Afghanistan, Indonesia, Bangladesh, Viet Nam, Nepal, Canada, U.S.		
LANGUAGE AND DEGREE OF PROFICIENCY			
	Speaking	Reading	Writing
English	Mother tongue	Mother tongue	Mother tongue
French	Poor	Good	Poor
Bengali	Fair	No	No
EMPLOYMENT RECORD			
FROM 2012	TO Present		
EMPLOYER	Self-employed		
POSITION HELD	Independent Consultant		
DESCRIPTION OF DUTIES			
	Provide environmental management consulting services to international clients.		
ASSIGNMENTS			
FROM Nov 2012	TO Present		
A.	Project Preparation Technical Assistance, Main River Flood and Bank Erosion Risk Management Program (RFERM), Bangladesh (Asian Development Bank TA-8054). RFERM aims to sustain incomes and livelihoods of people along project area reaches of the three main rivers of Bangladesh (Jamuna, Ganges, Padma). Objectives are to enhance resilience to flood and riverbank erosion by strengthening the flood and riverbank erosion management system, including institutions, knowledge, and integrated, sustainable non-structural and structural risk mitigation measures at priority erosion sites. As Environment Specialist , responsible to (i) prepare Project environmental assessment and review procedure; (ii) prepare subproject selection checklist and verify subproject selection; (iii) confirm environmental safeguard categorization of		

	selected subprojects; (iv) prepare TOR for and supervise preparation of required environmental impact studies, to include local stakeholder consultations, identification of potential impacts, recommendation of mitigation measures, preparation of environmental monitoring and management program (EMMP) including cost estimates; (v) assess agencies' capacity to prepare environmental studies and implement EMMPs, and propose capacity development plan and implementation arrangements; and (vi) support environmental assessment document review and approval process.
FROM Aug 2012	TO Present
B.	Engineering and Supervision Consulting Services (ESCS), Water Resources Development Project (WRDP), Afghanistan (Asian Development Bank Grant 0167). WRIP is a USD180 million medium-term water resources and irrigation development program for Afghanistan financed by an ADB Multi-Tranche Financing Facility (MFF). As ESCS Environmental Safeguards Specialist , responsible for: (i) screening investments for compliance with WRIP environmental criteria; (ii) preparing environmental impact assessments and studies; (iii) preparing environmental management plans (EMP) and monitoring arrangements; (iv) recruiting an NGO to monitor EMP implementation; (v) assisting Implementing Agencies (IAs) to create and operate an environmental management and monitoring system; (vi) assisting IAs and stakeholders to mitigate negative impacts; (vii) assessing the environmental legal/regulatory framework and recommending improvements; (viii) providing training and developing tools to build IAs capacity for environmental management; (ix) identifying environmental issues related to water resources, especially irrigation, development.
FROM 2011	TO 2012
EMPLOYER	Ministry of Environment and Sustainable Development, Government of Alberta
POSITION HELD	Cumulative Effects Assessment Specialist
DESCRIPTION OF DUTIES	
C.	Regional Strategic Environmental Assessment, South Athabasca Oil Sands Subregion of the Lower Athabasca Regional Plan Area. Canada . The proposed Regional Strategic Assessment is a two-year CAD 2 million joint federal-provincial investigation of social, environmental, and economic outcomes of an area with massive energy development potential. Study includes technical investigations and modelling of environmental impacts and mitigation options; community engagement with multi-stakeholders, First Nations, and Metis; and regional planning leading to the development of cumulative effects regulatory frameworks. As Technical Lead, Environmental Assessment Team , responsible to prepare the project concept paper, project management plan, and related documents, initiate project risk assessment, begin data assembly, and participate in federal-provincial Project Management Committee meetings.

FROM 2000	TO 2011
EMPLOYER	Self-employed
POSITION HELD	Independent Consultant
DESCRIPTION OF DUTIES	
	Provide environmental management consulting services to international clients.
ASSIGNMENTS	
FROM Mar 2010	TO Jul 2010
D.	Monitoring and Evaluation Support Consultant, Emergency 2007 Cyclone Recovery and Restoration Project (ECRRP), Bangladesh (IDA). ECRRP is a USD109 million project developed after 2007 Cyclone Sidr that addresses cyclone rehabilitation and recovery and long-term disaster preparedness. As Environmental Safeguard Management Expert , responsible for (i) environmental safeguard-related elements of ECRRP monitoring and evaluation (M&E) databases and progress reporting; (ii) supervision of ECRRP compliance with its Environmental Management Framework, and of ECRRP components (Coastal Embankment Rehabilitation and Multipurpose Shelter Reconstruction) with their Environmental Management Plans; (iii) recommendations and follow-up to address any noncompliance issues.
FROM Mar 2009	TO Jul 2009
E.	Preparing the Water Resources Development Project (WRDP), Afghanistan (Asian Development Bank TA No. 7088). Project Preparation Technical Assistance (PPTA) to prepare a Multi-Tranche Financing Facility (MFF) for a USD180 million medium-term water resources and irrigation development program for Afghanistan. Deliverables consist of a Strategy and Road Map, Policy Framework, Investment Plan with Financing Plan, feasibility studies for the three Tranche 1 subprojects (USD80 million), and Project Development Facility design. As Environment Specialist , tasked to prepare an Initial Environmental Evaluation (IEE) and Summary IEE for the Tranche 1 subprojects, and for the MFF, an Environmental Assessment and Review Framework (EARF) and Cumulative Impact Environmental Assessment (CEIA).
FROM Sep 2007	TO Nov 2007
F.	Earthquake and Tsunami Emergency Support Project (ETESP), Roads and Bridges Sector, Project Preparation Consultant Phase II (PPC2) Aceh Province, Indonesia (Asian Development Bank). ETESP is a USD 290 million multi-sectoral post-disaster reconstruction and rehabilitation grant that was put in place after the Dec 2004 Indian Ocean tsunami. As the PPC2 Environment Specialist , prepared two subproject Initial Environmental Examinations (see http://www.adb.org/Documents/ETESP/2007/Ulee-Lheue.pdf).

FROM Jun 2006	TO Nov 2006
G.	Special Assistance for Project Formation, Small Scale Water Resources Development in Greater Mymensingh, Bangladesh (funded by Japan Bank for International Cooperation). Technical assistance to prepare a JPY 5 billion (USD 42 million) participatory small-scale water resources project for the northeastern region of Bangladesh. As Environment and Social Considerations Specialist , assessed environmental dimensions of potential Project investment options; prepared four subproject IEEs; and designed the Project environmental and social management framework.
FROM Jan 2002	TO May 2002
H.	Instructor, Human Geography - Landscapes & Human Settlements (The King's University College, Canada)
FROM Mar 2000	TO Jun 2000
J.	Red River Basin Water Resources Management Project, Viet Nam (for ADB). ADBTA No. 2871-VIE addressed basin-based integrated water resources planning and management for the Red River basin (RRB), through (i) support for the creation of a National Water Resources Council and a RRB Organization; (ii) development of basin environmental and social management system elements to enhance information and decision support of agencies with RRB water resources management responsibilities; and (iii) implementation of several studies of selected priority integrated water resources management issues in the basin. As Task Manager, Land & Water Management Study , I was responsible for a study of selected land use / water management issues in the RRB including the northern mountain provinces. I mobilized and led a team of three Vietnamese specialists (land use, water resources development, and public participation/social scientist), supported by geographic information system (GIS) and database specialists, to undertake extensive literature review; assembly, review, and analysis of basin statistics; field visits using basic rapid rural appraisal techniques including stakeholder consultation; presentation of two workshops to the Project Working Group composed of officials from RRB water resources planning agencies; and preparation of the study final report.
FROM 1989	TO 2000
EMPLOYER	Northwest Hydraulic Consultants Ltd.
POSITION HELD	Senior Environmental Management Specialist, Environmental Services Division with right of private practice.
DESCRIPTION OF DUTIES	
	Coordinate environmental input to nhc's international projects, and provide input to nhc projects in the Asia-Pacific region. Based in Asia for eleven years (1989-94, 1997-2001, and 2002-3), and in Canada for seven+ (1994-97, 2001-2, 2003-).

ASSIGNMENTS	
FROM Mar 1997	TO Jan 2000
K.	Beneficiary Participation and Project Management, Bangladesh (for ADB, International Fund for Agricultural Development and Government of the Netherlands). GON/IFAD funded Technical Assistance supporting an ADB sector loan for planning and implementing 400 small-scale water resources subprojects in western Bangladesh (Rajshahi, Khulna, and Barisal Divisions and Faridpur District) by Local Government Engineering Department (LGED). TA aims to improve beneficiary participation, enhance management systems, and expand staff training. As Environment Specialist , responsible for TA's environment component: design and establish Project environmental and social management systems, including developing an MIS/reporting system to support the production of appraisal, IEE, and environmental management action plans for each of the Project's 400 subprojects.
FROM Jan 1999	TO May 1999
L.	Environmental Baseline Characterization and Stakeholder Consultation for Environmental Impact Assessment, Exploratory Gas Drilling, Bangladesh (for Occidental of Bangladesh). As Environment Specialist , mobilized and led a six-person team to characterize regional and site-specific social conditions, stakeholder concerns, and terrestrial/aquatic environment. Team members included a deputy task manager, agronomist/soil scientist, ecologist, sociologist, and GIS analyst. Work included water and soil collection for analysis at international and local laboratories; stakeholder information and consultation campaign; preparing baseline EIA chapters; and reviewing EIAs submitted by other consultants.
FROM Dec 1998	TO Feb 1999
M.	Naryanganj-Narsingdi Irrigation Project, Bangladesh (for Bangladesh Water Development Board). 14-month feasibility and design consultancy for a proposed flood control, drainage, and irrigation project on 24,000 ha (population 400,000) in the eastern periurban zone of Dhaka city. As Environment Specialist , responsible for EIA and environmental impact assessment related investigations.
FROM Jun 1997	TO Jul 1997
N.	Initial Environmental Examination, Aquaculture Development Project Appraisal, Bangladesh (for IFAD). AqDP aims to improve aquaculture in the southwestern region of Bangladesh. As Environment Specialist , led a two-member team in undertaking a literature review and field visits using rapid rural appraisal techniques, and prepared the IEE document, including detailed recommendations for project design changes to improve environmental outcomes.
FROM Apr 1997	TO Apr 1997
P.	Fact Finding Mission, Red River Basin Water Resources Management, Viet Nam (for ADB). Three-person Fact Finding Mission to design the

	proposed technical assistance project entitled "Red River Basin Water Resources Management," that addressed institutional development and capacity building related to integrated water resources planning in the Red River basin. As Environment Specialist , attended ADB-Government of Viet Nam meetings, collected information required by ADB project officer, participated in discussions about the design of the proposed TA, and contributed to the aide-memoire.
FROM 1995	TO 1996
Q.	Capacity Building in the Water Resources Sector, Viet Nam (for ADB). Advisory TA to the Ministry of Agriculture and Rural Development. TA supported capacity building and human resources development initiatives to promote more cost effective and sustainable development of water resources infrastructure, at national, provincial and district levels. Specific objectives were to: (1) Support modernization of planning and design methods, and improved environmental performance of irrigation and drainage projects; (2) Improve irrigation system operation; (3) Develop improved understanding of socio-economic and gender issues; and (4) Provide training and technology transfer. As Environment Specialist assisting the Water Environment Bureau of the Ministry of Water Resources, reviewed institutional arrangements for environmental management, assessment, and management; designed an water quality monitoring programme and recommended water quality lab equipment and training to be procured with ADB loan funds; and assessed existing pesticide regulatory measures and domestic water quality guidelines.
FROM 1994	TO 1995
R.	Irrigation Rehabilitation Project, Viet Nam (project preparation funded by CIDA INC and Northwest Hydraulic Consultants Ltd.) Study (14 months). Prepared six irrigation subprojects for inclusion in the World Bank's proposed Irrigation Rehabilitation Project; (ii) strengthen irrigation institutions and (iii) provide staff training. As Environment Specialist , advised on environmental assessment and environmental mitigation planning for each of the irrigation subprojects.
FROM 1992	TO 1994
S.	Northeast Regional Water Management Plan (NERP), Flood Action Plan Item 6, Bangladesh (for Canadian International Development Agency). Regional water resources planning exercise (CDN\$10 million) with pilot implementation activities, part of the World Bank-coordinated Flood Action Plan (FAP) for 2.4 million ha region. Main output of Phase I (1992-4) was Regional Plan for water resources development, consisting of a strategy for regional water management development through 2015, and a portfolio of 45 structural and non-structural projects. As Environment Specialist , responsible for environmental planning, assessment, and management (EPAM), water quality issues, wetland resource studies, environmental institutional analysis, consultation, capacity building, and training, and management of the project environmental team (six long-term Bangladeshi consultants and three expatriate short-term consultants).

FROM Jun 1989	TO May 1990
T.	Project Preparation and Environment Advisor, Preparation of the Northeast Regional Project, Bangladesh (for CIDA, Bangladesh Water Development Board, and SLI/NHC Joint Venture). Prepared Technical Assistance Project Pro Forma, the project document required by the Government of Bangladesh for project processing, CIDA Management Plan, the final CIDA project document prior to project approval, and designed the project's environment component as the Environment Advisor (June/July 1989) on the twelve-person Inception Mission.
FROM 1992	TO 1992
U.	Water Sector Program Planning, Monitoring, and Review Project, Indonesia , (for CIDA). The PPMR project (June 1992 to June 1995) was responsible to monitor and review all CIDA's current projects in the water sector in Indonesia, and to prepare a sector plan for future investments. In June 1992, my tasks were (1) to finalize the Inception Report based on inputs from a five-member Inception Team and (2) to review eleven water resources and institutional strengthening subproject proposals submitted to PPMR by one of its monitored projects, the Water Sector Technical Cooperation Fund, against detailed CIDA/GOI criteria.
FROM 1989	TO 1992
V.	Small Scale Water Control Structures III, Bangladesh (for CIDA). Environment Advisor : designed and implemented SSWCS III's environment component, including preparation of initial environmental examinations for subproject feasibility studies.
FROM 1991	TO 1991
W.	Small Water Resources Project Evaluation Mission, Viet Nam (for Bread for the World, a German non-governmental organization). Mission was an evaluation of BfdW's involvement in Viet Nam's water sector. Site visits to 17 proposed/ongoing projects and discussion of 35 prospective projects in five provinces in north and central Viet Nam were undertaken. Project types included dam/reservoir and weir-type hill irrigation; hydropower; pumped irrigation and drainage; salinity intrusion control on coastal rivers; repair of typhoon damage to existing large-scale surface water irrigation schemes; and coastal dune stabilization. Project costs ranged from US\$10,000 to US\$500,000 total, with BfdW providing from US\$10,000 to 100,000. As Environmental Specialist , participated in a series of stakeholder consultations at completed and proposed projects to identify / asses biophysical and socioeconomic aspects of projects, including: water quality impacts of agrochemicals and water abstraction; cropping patterns, cultural practices, and crop diversity; soil conservation/erosion measures including afforestation; role and management of existing indigenous water control structures; and impacts of projects on adjacent areas. Co-author of final report commenting on each individual project and on overall BfdW development assistance strategy.

FROM 1988	TO 1988
EMPLOYER	Independent Researcher
POSITION HELD AND DESCRIPTION OF DUTIES	
X.	(1) Impact of Climate Change on the Bengal Delta of Bangladesh (undertaken with funding from Massachusetts Institute of Technology Carroll L. Wilson Secretariat. (2) Environmental Implications of the Proposed East Rapti Irrigation Project for Royal Chitwan National Park, Nepal (in association with Bangladesh Centre for Advanced Studies). Results published by Asian Wetland Bureau Newsletter. (3) Global/Regional Sea Level Rise Predictions and Strategic Implications (for the Office of the Geographer, Department of State, USA).
FROM 1988	TO 1988
EMPLOYER	Dalhousie University and Bedford Institute of Technology, Halifax, Nova Scotia, Canada .
POSITION HELD AND DESCRIPTION OF DUTIES	
Y.	<i>Post-Doctoral Fellow.</i>
FROM 1982	TO 1988
EMPLOYER	Physical Oceanography Department, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts USA .
POSITION HELD AND DESCRIPTION OF DUTIES	
Z.	Graduate Research Assistant. Undertook research on ocean general circulation. Participated in three major oceanographic expeditions (Barbados-Brazil, Azores-Brazil, Mauritius-southern Africa)