

ANSHU KUMAR

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SUMMARY

A Technical Expert with 33+ years of experience in Refrigeration & air-conditioning (RAC) including 20+ years' experience in Montreal Protocol (MP). Expertise under MP includes Management of Projects in Asia & Pacific countries, RAC and custom training, conversion of RAC manufacturing lines, development of proposals, development of vocational curriculum, conduct of HCFCs verification, setting up of reclamation centres, Standard & labelling programme, cold chain set-up and trainings, EVM and VMAT capacity building (UNICEF, India), retrofitting guidelines in RAC domestic and commercial sector, and fisheries vessels, implementation of Institutional Strengthening, HCFC Phase-out Management Plan, HFC Phase-down, and K-CEP projects. Overall worked on Sustainable Development Goals during the career.

EXPERTIZE

- Capacity building
- Development of training material & conduct technical training programs on V-MAT, EVM, CFC/CTC/HCFC Phase-out/Cold Chain Management/solvent usage & Environment Health & Safety (EHS) aspects/Energy/Standards & labelling/retrofitting of fisheries vessels/ice candy plants with low GWP technologies/ reclamation centres.
- Verification, assessment and technical analysis of EVM, CFC/HCFC/HFC at country level
- Conducting data collections, creating inventories, calculating scenarios for greenhouse gas emissions, database management;
- Management of projects by developing a project schedule and team, performing a literature search and analysis, tracking project costs, preparing status report, conducting meetings, communicating issues, and progress to senior management.
- Project planning and acquisition, development of project concepts and full projects related to HCFC Phase out, HFC Phase-down, IS, K-CEP projects.
- Presentations of project results and contributions to international conferences;
- Managed external relationships/coordination with various UN agencies and other international organizations, suppliers, equipment manufacturers, universities, technical institution and research facilities.
- In refrigerator/small commercial appliances - conversion technology support from 134a (HFC) to R600a/R290/HC blends.
- In air conditioners (domestic) - conversion technology support from R-22 to R290.
- Enhancing energy efficiency in refrigerator/air-conditioning production lines.

- Development of training modules for master trainers training for flammable and high-pressure refrigerants.
- Development of curricula for vocational training institutes and modernization of ITIs.
- Training and hands on skills to RAC servicing sector and custom
- Development of international standards for technical training institutes

PROFESSIONAL EXPERIENCE

January 2017 – December 2019 - Technical Advisor (P-4), Montreal Protocol/Chemicals Unit with UNDP, Bangkok Regional Hub, was responsible for the implementation of projects under the Montreal Protocol for countries in the Asia & Pacific regions. The work includes activities related to the implementation of Institutional Strengthening (IS), HPMP, HFC investment projects, Kigali amendment, K-CEP, Energy Efficiency and carried out following major tasks:

- Provided strategic and technical support to UNDP Country Offices in the Asia & Pacific region in project formulation, provide technical support and mobilize technical as well as external assistance to UNDP Asia & Pacific partners for planning, designing and implementing.
- Coordinated with HQ, New York to maintain the pre-qualified consultants' roster for data expertise.
- Provided technical support to the NOU and COs in planning, conducting the survey, quality assurance of survey, project implementation and monitoring.
- Guided and supported CO in the development of prodoc, reports and other administrative tasks including M&E procurement teams.
- Prepared progress reports for submission to Secretariat and HQ as required for countries
- Developed training modules for master trainers training for flammable and high-pressure refrigerants including conversion of old refrigeration appliances to new eco-friendly refrigerants.
- Developed partnership with NOUs and other implementing agencies including UNEP, GIZ, and UNIDO.
- Facilitated consultations with government ministries, policymakers, civil society organizations, donors, development partners, and other relevant stakeholders to discuss and explore related opportunities, challenges, and priorities affecting the environment to identify issues and thematic areas of further analysis.
- Coordinated with MLFS for project submission, negotiation, and approval.
- Worked with MLFS and other bilateral for implementation of MP projects for the region
- Major achievement includes approval of the first project funded by MLFS under the Kigali amendment for the HFC phase-down for Bangladesh and successful completion of the same before the deadline.
- Capacity building of National Ozone Officers, Government counterparts, survey consultants, civil society stakeholders.
- Partnered with knowledge institutions like GIZ Proklima, Germany, NACEN, India for the identification of capacity gaps and development of training strategies to address them.

- Contributed to organizing a global workshop on Green Supply Chain Workshop for Cooling Without Warming Held in Jakarta in 2018
- Identified critical partners in Asia & Pacific to promote awareness and build the capacity of partners and actively facilitates effective collaboration within the UN family, e.g. RASSS – India, BRAMA – Bangladesh.

October 2015 – December 2016 - Technical Consultant with UNEP, ROAP Bangkok and carried out activities related to IS and HPMP for 16+ Asia Pacific countries (Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, DPR Korea, Fiji, India, Iran, Lao PDR, Nepal, Maldives, Malaysia, Pakistan, Sri Lanka). Summary is as below:

- Managed projects by developing a project schedule and team with National Ozone Units
- Preparing small scale funding agreements (SSFAs) and status report
- Organizing and participating in network meetings, communicating issues, and progress to senior management.
- Organizing border dialogue for Nepal for curbing ODSs smuggling across border.
- Organizing master trainers in RAC servicing sector workshops in Asia
- Organizing Custom officer's training at NACEN, India.
- Establish reclamation centres
- Prepare and print awareness material for RAC servicing sector
- Worked with MLFS and other bilateral for implementation of MP projects for the region
- Authored a e-publication "Good Servicing Practices in the Refrigeration and Air-Conditioning Sector for HCFC Phase-out - Guide for Trainers"
- Provided technical expertise in development of e-media for RAC servicing sector.
- Preparation of project completion (PCR) reports and submission to Secretariat.

January 2014 – October 2015 - Worked as Consultant during the period and served as below:

- With Ozone Cell, India for UNEP's HPMP component and MDI related work including awareness and training workshops, customs training, coordination of project between the government and UNEP
- As International trainer for HVAC trainings under the Montreal Protocol projects for UNEP and UNDP. Conducted master trainers' workshop in Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, DPR Korea, Fiji, Georgia, India, Iran, Lao PDR, Nepal, Maldives, Malaysia, Pakistan, Sri Lanka. The workshop mainly focussed on refrigeration & air-conditioning "Good service practices in RAC servicing sector" including recovery, recycling, reclamation and retrofitting.

January 2012 – December 2013 - Worked as a Technical Consultant with UNEP, ROAP Bangkok and carried out activities related to Institutional Strengthening and HPMP for 19+ Asia Pacific countries. Summary is as below:

- Developed HPMP and IS proposals
- Prepared SSFAs (agreements between Govt and UNEP)
- Developed training materials for RAC trainings
- Held discussions with NOUs and prepared implementation plans for training for trainers, technicians and Customs
- Organised and conducted trainings for master trainer and technicians on "Good

Service Practices”

- Developed interactive training materials for RAC servicing sector including AV media
- Organized border dialogue
- Published an e-book on “Good Service Practices” for RAC servicing centre

November 2006 – December 2011 (leave from Government of Punjab for business) –
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Freelance Consultant and the summary is as below:

UNICEF – CAPACITY BUILDING of Government Stakeholders

- Completed VMAT activity at Jaipur (Rajasthan) India under contract with UNICEF, Delhi. The contract was awarded to APT Progress and I was part of the team.
- Completed VMAT activity at Bhopal (Madhya Pradesh) India under contract with UNICEF, Delhi. The contract was awarded to APT Progress and I was part of the team.
- Completed VMAT activity at Gandhi Nagar (Gujrat), India under contract with UNICEF, Delhi. The contract was awarded to APT Progress and I was part of the team.
- Completed VMAT activity at Pune (Maharashtra) India under contract with UNICEF, Delhi. The contract was awarded to APT Progress and I was part of the team.
- For Cold Chain, EVM-UNICEF activity, the development of retrofitting of old plants/equipment was initiated by me.
- Delivered in lot of workshops organized by UNICEF and MoHFW.

CAPACITY BUILDING

- Developed a syllabus for RAC Technicians for Bhutan and conducted master Trainers workshop for the new vocational course.
- Nepal’s Hotel Industry on Climate & Energy Efficiency Benefits from HCFC Phase-out, “Alternative refrigerants and good servicing practices”
- Training of Trainers (ToTs) for CFC/CTC Phase out Trainers in Asia.
- Ozone Cell, MoEF&CC, India & UNDP-SPPU, for Open Type Compressor (Ice Candy Plant) retrofitting with low GWP alternatives for India.
- Delivered Master trainers’ workshop for Nepal RAC trainers.
- Delivered Master trainers’ workshop for DPR Korea RAC trainers in DPR Korea and later in India.
- Capacity Building of sales force of Air-conditioners. Worked as accredited Trainer for Bureau of Energy Efficiency India for two years (only for Standards and Labelling program in RAC Sector) in India. Trained almost 4000+ salespersons. This is to reduce energy demand & reduce global warming.
- Navy & Army for early ODSs phase-out.
- For Set up Refrigerant Reclamation Centres at Sri Lanka, India, Maldives and Nepal.
- For Setup of reclamation centre at Indian Railways.

SURVEYS

- Surveyed HCFC consumption data for railway's & compilation for “HPMP Plan for HCFC Phase Out” supporting UNIDO project for transport sector (Railways).
- Survey, evaluated and shared results with NOU, Government of India and UNDP after visiting 256 refrigeration & foam industry.

PROJECTS

- Drafted HPMP (HCFC) Phase-out plan for RAC service sector project for Sri Lanka Govt.

GIZ PROKLIMA

- Worked as Consultant in “CTC Phase Out in India” Project sponsored by GTZ Proklima (2006-2010)
- For six states of North India to survey the actual CTC users at ground level. Then compilation of collected data & capacity building for the same industry for CTC phase out & Environment Health & Safety.
- CFC Phase-out in India, Organizer for Six States of North under “National CFC Phase-out Project” (NCCoPP) in India. Almost trained more than 4500 technicians of North India for CFC phase-out.
- India was committed to phaseout CFCs in 2010. Due to some challenges with production sector, an emergency programme (preparedness planning) was framed for country for RAC servicing sector, to which I contributed a lot and ultimately CFC phase-out in service sector was completed 17 months in advance.

OTHERS

- Moderator and Key speaker in India Panel at Brussels (Belgium), Tokyo (Japan), Bangkok (Thailand) and Vienna (Austria) for bringing Natural Refrigerant and enhancing Training activities in RAC servicing sector faster into market.

August 1994 – December 2011 – worked under Directorate Technical & Industrial Education, Punjab as an Instructor for Refrigeration & Air Conditioning. Started Hi-Tech Training Institute, Mohali in collaboration with GTZ-DGET & Punjab Govt. and taught Industrial Automation subject to Graduate/Post Graduate/Diploma students apart from RAC Instructor.

August 1987– August 1994 - Worked with Military Engineering Services (Civil Service) for RAC (HVAC) Sector. Especially Central Air-conditioning, Window & Split ACs, Refrigerators & other allied refrigeration equipment. Procurement, Service & operations.

August 1985 – August 1986 - Worked for one year in Expo Machinery Ltd. (Kelvinator of India) in RAC appliance Sales/Service at Chandigarh looking after Punjab, Chandigarh, Himachal Pradesh and Jammu & Kashmir.

EDUCATION

- Ph. D. Environmental Science
- Master’s in Business Administration – International Business (on-going)
- Master of Philosophy in Environmental Science
- Master of Arts in English
- Post Graduate Diploma in Public Relation & Advertising
- Diploma in Electrical Engineering
- CTI (Vocational Instructor Course) in Refrigeration & Air Conditioning Trade (India Topper)
- ITI (NCVT) in Refrigeration & Air Conditioning (State Government Topper)
- Certified Trainer for Industrial Automation (Pneumatics, Electro-pneumatics, Motor Controls & Programmable Controls)
- Certified trainer for Application of the Natural Refrigerants Propane (R290), Carbon Dioxide (R744) and Ammonia (R717) for Commercial Refrigeration System

SKILLS

- Language: English, Hindi, and Punjabi – Excellent in written, spoken and understanding
- Computer: Proficient in MS Office family and other RAC software
- Used to ATLAS, SPSS and STATA software
- Automisation in commercial refrigeration and air-conditioning (HMI/PLCs)

PUBLICATIONS/PAPERS

- “Refrigeration and The Environment: Issues and strategies for the future”
- "Implementation of Effective Training Assessment Tool (ETAT) in RAC sector CFC Phase out in India: A Case Study"
- “Good Servicing Practices in the Refrigeration and Air-Conditioning Sector for HCFC Phase-out - Guide for Trainers” for UNEP and it has been launched on UNEP website as an e-book. Can be had from <https://www.unenvironment.org/ozonaction/resources/publication/good-servicing-practices-phasing-out-hcfc-refrigeration-and-air-conditioning>

SPECIAL NOTE:

I completed the PhD successfully and received the provisional certificate. However, later there was a conflict between Government and the University. The legal case is in the court and the final degree has not yet been awarded. It will be awarded once the court case is cleared.



(ANSHU KUMAR)