Communication Strategy

for the Targeted Groups using

RAC Equipment

Ozone Cell
Department of Environment
Ministry of Environment, Forest and Climate Change

List of Contents

Acronym

CCAC	Climate and Clean Air Coalition
CFC	Chlorofluorocarbon
CTC	Carbon tetrachloride
DOE	Department of Environment
DU	Dobson Unit
EUN	Essential Use Nomination
EXCOM	Executive Committee
GHG	Green House Gas
GWP	Global Warming Potential
HCFC	Hydrochlorofluorocarbon
HFA	Hydrofluoroalkane
HFC	Hydrofluorocarbon
HPMP	HFC Phase-out Management Plan
HBFC	Hydrobromofluorocarbon
MBR	Methyl Bromide
MCF	Methyl Chloroform
MDI	Metered-Dose Inhaler
MOEFCC	Ministry of Environment, Forest and Climate Change
MOP	Meeting of the Parties
MP	Montreal Protocol
MLF	Multilateral Fund
MT	Metric Ton
NOPP	National ODS Phase-Out Plan
NOU	National Ozone Unit
ODS	Ozone Depleting Substances
ODP	Ozone Depleting Potential
PVC	Poly Vinyl Chloride

RAC	Refrigeration and Air Conditioning
RMP	Refrigerant Management Plan
SAP	Scientific Assessment Panel
SBC	Social and Behaviour Change
SBCC	Social and Behaviour Change Communication
SEM	Social-ecological Model
TEAP	Technical and Economic Assessment Panel
UNDP	United Nations Development Programme
UN Environment	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UV-B	Ultra Violet-B
VC	Vienna Convention for the Protection of the Ozone Layer

Executive Summary

The Ozone Cell at the Department of Environment (DoE) is the national focal wing of the DoE under the Ministry of Environment, Forest and Climate Change (MOEFCC) for coordinating activities under the Montreal Protocol (MP) at national and international level. Bangladesh access to the Montreal Protocol on Substances that Deplete the Ozone Layer on 2 August 1990 and approved its London, Copenhagen, Montreal and Beijing amendments in March 1994, November 2000, July 2001 and August 2010 respectively. Bangladesh also ratified the Kigali Amendment to the Montreal Protocol on 08 June 2020 through which high global warming potential refrigerant Hydrofluorocarbons (HFCs) have to be phased down. As a signatory to the Protocol, it is mandatory for Bangladesh to phase out import and consumption of Chlorofluorocarbons (CFCs), Halons and Carbon Tetrachloride (CTC) by 2010, Methyl Chloroform (MCF) by 2015, Hydrochlorofluorocarbons (HCFCs) by 2030 and HFC by 2040 (97.5%).The Ozone Cell of the DoE has been undertaking necessary activities under the overall guidance of the MOEFCC to fulfil the obligations as set out in the Montreal Protocol and its amendments.

Along with these initiatives, social and behaviour change communication (SBCC) is necessary for advocating the users, manufacturers, importers, technicians, and import regulation authority of refrigeration and air conditioning (RAC) equipment and gasses. If consumers are concerned about the specification, and refrigerant gas used in the RAC equipment, it would be feasible to achieve the objectives of gradual withdrawal of Ozone Depleting Substances (ODS). Moreover, sensitizing the importers and technicians for responsible import and use of ODS may have potential in achieving the objective as well. Apart from that, sincerity from the customs department of the Government of Bangladesh (GoB) is also required to identify any ODS entering the country. This communication strategy will address these issues and provide scopes for communication interventions.

This Communication Strategy consists of message and materials development principals and effective utilization of developed messages and materials. The procedure of implementation of this strategy initiated here and guideline provided to utilizing and implementing. The pattern of coordination of communication among partners will help to understand the importance of the strategy, branding and marketing guideline of Ozone Cell to media and policy-makers specifically stated in the strategy to showcase the success stories between these two important players. This strategy is a living document to adopt according to the changes in policies and media channels. To assess the effectiveness of the strategy, it needs be implemented throughout three years. However, to adapt with the ever changing situation of the socio-economic and technological change of the world the strategy would be re-evaluated every year according to the KPIs and monitoring plan. As the Ozone Cell of DoE are the implementers of this strategy, they will also execute the re-evaluation and therefore update it. This communication strategy proposes the minimum and available use of resources

for the Ozone Cell and DoE so that they can implement it themselves or with the help of external specialist. This approach makes it more result oriented in a cost effective way.

The strategy development process is highly participatory. There are scopes of more target audience concentration if adequate time was allocated. None the less the contribution of Ozone Cell is highly appreciated in producing and finalising the strategy.

1. Background of Strategy Development

1.1 Introduction

The Montreal Protocol, finalized in 1987, is a global agreement to protect the stratospheric ozone layer by phasing out the production and consumption of ozone-depleting substances (ODS). ODS are substances that were commonly used in products such as refrigerators, air conditioners, fire extinguishers, and aerosols. The Montreal Protocol has proven to be innovative and successful, and it is the first treaty to achieve universal ratification by all countries in the world. Leveraging this worldwide participation, the Montreal Protocol has spurred global investment in alternative technologies, and placed the ozone layer, which was in peril, on a path to repair.

The Montreal Protocol is designed to phase out production of numerous substances that are responsible for depletion of Ozone layer. It was agreed on 16 September 1987 and came into action on 01 January 1989. It is ratified by all United Nations (UN) members. Bangladesh is also signatory of Montreal protocol including London, Copenhagen, Montreal, Beijing and Kigali amendments. As a signatory to the Protocol, it is mandatory for Bangladesh to phase out import and consumption of chlorofluorocarbons (CFCs), halons and carbon tetrachloride by 2010, methyl chloroform by 2015, HCFCs by 2030 and HFC by 2040 (97.5%). The Department of Environment has been undertaking necessary activities under the overall guidance of the Ministry of Environment, Forest and Climate Change to fulfil the obligations as set out in the Montreal Protocol and its amendments. As an initiative to promptly achieve the milestones Ozone Cell, Department of Environment requires a Communication Strategy to motivate RAC users to this activity.

1.2 Objective

The objectives of developing this communication strategy are –

- Understanding of the behaviour pattern of the target audience;
- Identifying appropriate communication channel and materials to motivate behaviour change.

1.3 Target Audience

- General users of RAC equipment;
- Technicians/Servicing Workshop;
- Importers of refrigerant gases and RAC equipment;
- Manufacturers of RAC equipment;
- Retailer of RAC equipment;
- Customs officials.

1.4 Findings from the Data

We have collected data from all the clusters of the target audiences. We intended to identify knowledge level regarding ozone layer, RAC equipment and refrigerant gas, government policies and regulations among targeted groups. `

A total of 32 In-depth Interviews (IDIs) and 20 doer/non-doer analysis were conducted for data collection. The distribution of IDI and doer/non-doer analysis is as below –

Sl	Description	No. of IDI	No. of Doer/Non-doer analysis
1	Refrigerator and AC User	10	10
2	Technician/Service Workshop	10	10
3	AC/ Refrigerator Importer	01	N/A
4	Retail Seller	02	
5	Retail Consumer	02	
6	Customs Officer	02	
7	Mass People	05	

We originally planned 02 IDI from 'AC/Refrigerator Importers' and 02 IDIs from 'Gas Importers'. The reason we could not get all of them because this group of targeted audiences are reluctant to share any business information. We also tried to contact Bangladesh Refrigeration and Air Conditioning Merchants Association (BRAMA) but they were unreachable.

The doer/non-doer analysis reveals that a significant number of users know about the adverse effect of refrigerant gasses on the environment. However, in most cases they are not aware on how it happens. Despite the knowledge level, users make sure their equipment are being serviced by experienced technicians.

On the other hand, most of the service technicians also know about the adverse effects of the refrigerant gases. Those who are trained from various technical institutes are amongst the ones knowing details of ozone cell depletion and green house effects. Moreover, all of them agree better training facilities would enable them to know and work better.

The importers don't usually have any formal trainings or dialogues with policy regulators on topics including import, safe transport of gases. Yet, they have knowledge on this topics. They also import environment friendly gases.

The customs officials have put emphasis on developing technical capacities of the department in recognizing harmful gases and chemicals. They also suggested policy changes to train officials and assist them in implementing the learnings from trainings.

The mass people have only the general information rather than detailed information of the adverse effects of ODS.

2. Findings from Desk Review

Since the adaptation of Montreal Protocol (MP), there has been six amendments. Bangladesh is one of the signatories in the protocol and all of the amendments including the latest Kigali amendment in June 2020. The signatory countries in the latest one are committed to phase down HFCs, a type of refrigerant gases, which have higher global warming potential.

It all started for Bangladesh when the country accessed to the Montreal Protocol on Substances that Deplete the Ozone Layer on 2 August 1990 and approved its London, Copenhagen, Montreal and Beijing amendments in March 1994, November 2000, July 2001 and August 2010 respectively. The country is operating under paragraph 1 of Article 5 of the Montreal Protocol. It is mandatory for Bangladesh to phase out import and consumption of chlorofluorocarbons (CFCs), halons and carbon tetrachloride by 2010, methyl chloroform by 2015, HCFCs by 2030 and HFC by 2040 (97.5%).The Department of Environment (DoE) has been undertaking necessary activities under the overall guidance of the Ministry of Environment, Forest and Climate Change (MoEFCC) to fulfil the obligations as set out in the Montreal Protocol and its amendments. To fulfil Bangladesh's obligation under the protocol, the Government undertook a reconnaissance survey in 1993, based on which the Country Programme was prepared in 1994. The 14th Meeting of the Executive Committee of the Multilateral Fund (MLF) to the Montreal Protocol approved the Country Programme of Bangladesh in September 1994 to support for planning and coordinating all activities related to fulfilling Bangladesh's obligation under the Protocol. It is important to be noted that this support has been provided to all developing Country Parties in the name of institutional strengthening of National Ozone Unit (NOU) or Ozone Cell in biennial basis or in phases, aiming to continue the NOU or Ozone Cell functional and effective.

The Ozone Cell at the Department of Environment (DoE) is the national focal wing of the DoE under the Ministry of Environment, Forest and Climate Change for coordinating activities under the Montreal Protocol at national and international level.

3. General Part of the Strategy

3.1 Guiding Principles

The developed Communication Strategy for the Targeted Group using RAC Equipment utilizes the following guiding principles:

Integrated: Integration within the RAC equipment users and among other target audience so that synergy can be created by strategically using multiple communication channels (mass media, community-based, and interpersonal) to reinforce one another and maximizing impact.

Use of Determinates: A key to change behaviours is developing an understanding of the motivators/catalyst and barriers of social and behaviour change as well as using this information to design activities and messages.

Results-oriented: The effectiveness of the communication strategy will ultimately be determined by outcomes, increased knowledge, and the adoption of positive behaviours verified by research and monitoring.

Client-centred: A client-centred approach involves clients specifically Ozone Cell and DoE to determine their needs and engages them in the process of shaping messages that address those needs. Individuals do not change alone but empowered households and communities play a key role in creating a supportive environment for change and improving their situation by stimulating participation in each target audience segments. This approach will make the communication strategy more suitable for the clients to design their programs.

Participatory: All Stakeholders are involved in every step of the strategic communication process, including program design, implementation, and evaluation.

Audience Segmentation: Audience segmentation is very important as it allows for more tailored messages to audiences and a focus on which target groups are most vulnerable. Analysis are conducted on the type of appropriate messages for each target group, appropriate communication channels to reach the target groups, and accessible services/resources.

Multi-channelled: The use of complementary channels or ways to reach target audiences are shown to increase the effectiveness of the strategy.

Technical Quality: High-quality messages and materials and will be used according to accurate data. Appropriate communication will be used to inform and guide activities. All SBC activities and messages will be synchronized and aligned with relevant government and ministry policies as well as strategies.

Based on Data: Increased attention to evaluation and evidence-based programming by providing data upon which to base decisions. Research has been use through the project cycle and designed to gauge increases in audience knowledge and measure the adoption ofdesired behaviours and determinates of behaviours.

Approaches: Various approaches have been undertaken to increase knowledge, promote essential attitude change, create a demand for information and services, improve skills and a sense of self-efficacy, and advocate for change in others.

Sustainability: Ozone Cell should aspire to create sustainable social change by motivating social, cultural, religious, governmental and other stakeholders to include information, promotion, and advocacy on their agendas, and increasing the capacity of stakeholders to carry out communication activities on their own.

Cost Effective: Resources are focused towards a combination of the most cost effective channels aimed at changing social conditions and individual behaviours.

3.2 Communication Approaches

- Advocacy
- Community Mobilization of business associations of RAC equipment, refrigerant gases, technicians/service workshops
- Interpersonal Communication
- Edutainment (Education-Entertainment)
- Knowledge Management
- E-learning and E-library
- Mass Media
- Social Media

Interpersonal Communication (IPC)	Community Mobilization (CM)	Advocacy	Education Entertainment (EE)	Mass Media (MM), Social Media (SM) Knowledge Meeting (KM) e-learning
One-to-one, small groups and social networks provide an opportunity to talk and discuss issues. This reflective process is one of the most powerful tools for SBCC.	Community participation of the business associations builds awareness, encourages sustainability, and relies on collective efforts to achieve results. CM is essential for desired actions and	Advocacy is needed to influence decision makers at all levels to provide commitment, resources, policies, and organizational support. Advocacy is good for "selling" the benefits of	This communication approach presents opportunities to build on a sense of fun and excitement to give strategic call to action in a light way, engages significant number of audiences, is	FM radio, television, road show, fairs, YouTube, Facebook, influencer engagement, PSA, outdoor branding, and relevant printed materials are among the ways to reach all segments of audience and

	practices to become 'normal behaviour' in the specific community.	behaviours through the use of role models and their power of persuasion and involve influencing groups to provide a supportive environment	versatile, and provides a good avenue for role modelling behaviour.	influence behaviour. Mass media and social media can be closely linked with EE, and reinforce communication efforts.
— Strengthen the skills of government agencies to serve as effective communication and change agents through counselling, use of SBCC tools and other communication activities. — Involve Mosque and Imam groups, and other religious leaders, business association community leaders.	— Implement a coordinated process for participatory planning with users specifically for women inspiring responsible use — Train business association community leaders and equip with communication tool box. — Give the same information at mosque, other religious events and other business association community forums.	— Seek endorsement from local stakeholders and partners at all levels to incorporate the Communication strategy into their work plans. —Lobby for the support of government programs outside Ozone Cell to promote desired behaviour. —Identify community advocates- early adopters who do the specific behaviour and will serve as champions for motivating others — Focus on both who influence behaviour and adopts them.	— Use PSA, social media influencers, comic book series/animated cartoon series, quiz competition to create awareness.	— Broadcast regular celebrity endorsements through TVs and social media to reinforce IPC and community mobilization - Use Social Media platforms for regular dynamic and static contents to ensure outreach of the expected information regarding SBC.

3.3 Message Development

The development of messages is an important process for effective communication. This communication strategy will identify potential message content that needs to be refined and aligned with appropriate channels or/and materials based on the target audience. The communication frameworks indicate content of the message only, not the complete message. This is another exercise of identifying appropriate process of message and material development to finalize message and fit in at appropriate materials. The main feature of the message and materials development phase of the communication strategy is the development of "core" – or base – messages that build upon findings from the qualitative investigation, and seek to promote benefits, address barriers and enhance enabling factors to change behaviour. Messages will focus on the key behaviour for each Strategic Objective and be based on the following principles:

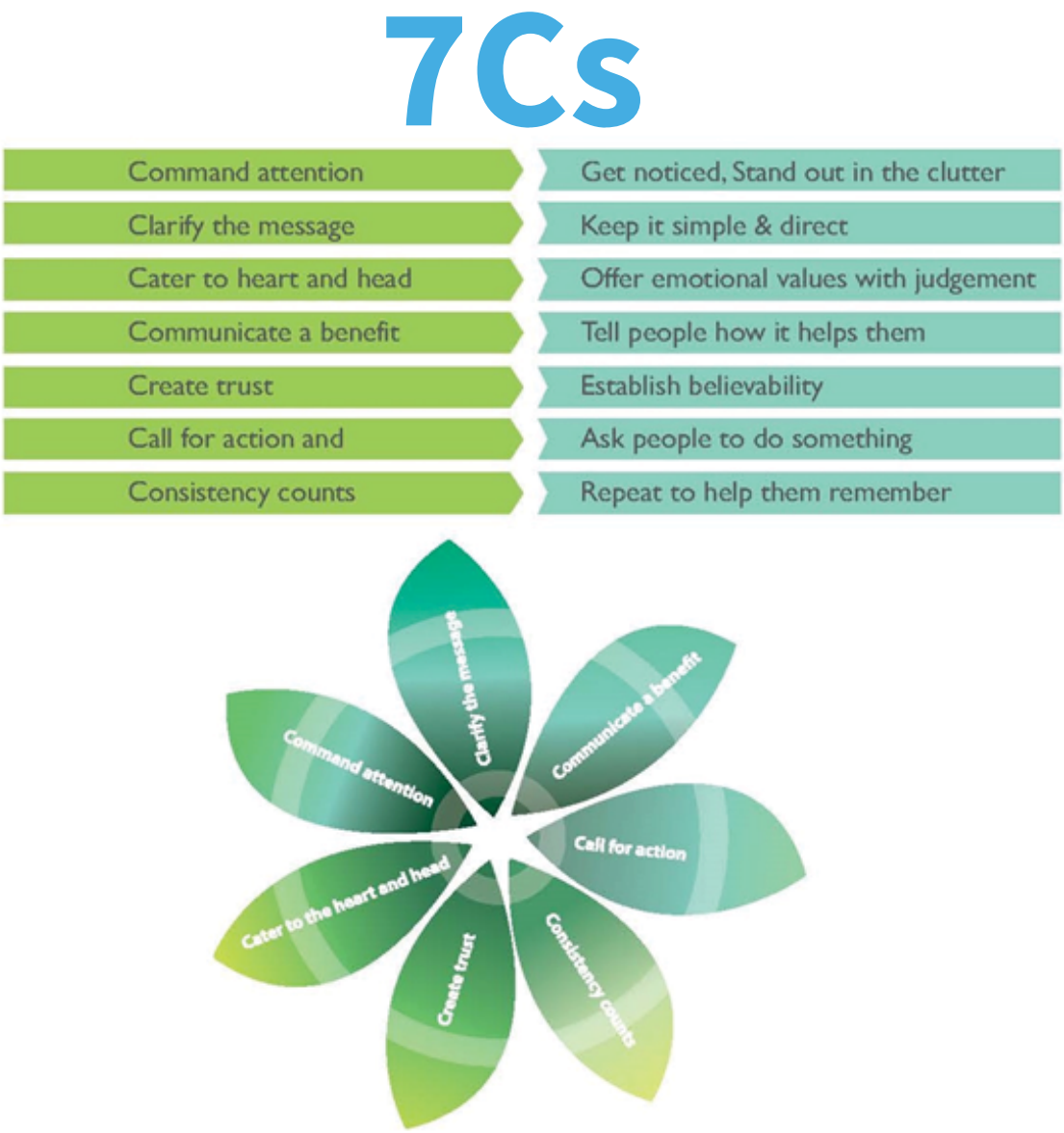

Figure: 7Cs

Since this program is gender responsive and disability inclusive while developing any communication materials for targeted groups, and policymakers the following consideration must be followed:

- Using Gender and disability Sensitive words and terms in communication materials;
- Showing balance representation of different gender, specifically men, women, boys, and girls;
- Accessibility and disability friendly language, sign in messaging;
- Ensure participation and decision making roles by the persons with disability;
- Portraying of positive image and role of women specifically different capability and responsibility that women and girls are contributing in using, purchasing and servicing RAC equipment;

- Portraying the value of equal dignity & respect when showcasing women's role and role of person with disability especially women with disability;
- More use of sex, age, and disability disaggregated information and data in communication materials;
- Avoid showcasing of women in traditional and stereotyped role only;
- Portraying of positive image of men as well, such as, role of men in awareness, or supporting to listen women's voice etc.;
- Place women more as protagonist for audio/visual materials, specifically in voice over.

This is very important that, content needs to be rephrased according to the character of the material and detailed out for different interventions. After putting the message in any material, pre-testing among target audience, technical review, sharing with gatekeeper and stakeholder is mandatory and that pre-testing and sharing need to be methodical with the incorporation of feedback to ensure effectiveness of the message and materials.

3.4 Materials Development and Effective utilization

The materials proposed in this communication strategy are meant to work in synergy with existing materials in Bangladesh in order to support and complement interpersonal communication as well as community mobilization activities. These materials are the conduit for messages focusing on the key behaviour for each targeted groups of RAC equipment users. The field analysis identified existing materials and gaps. According to materials character, messages need to be incorporated and ensure the target audiences focus.

Effective utilization is required to ensure return on investment. A plan for the dissemination of materials and interventions will be phased-in according to the program implementation plan. Periodic monitoring by program person will ensure effective utilization. Every material or tool require guideline for utilization. Frameworks need to be analysed while producing materials.

Integration with other programs communication: Integration with other programs of the Department of Environment needs to be exercised and programs representative may identify the scope for integrating other program objectives in their respective tools and activities. And this exercise will allow them to repeatedly explore the possibilities in future to integrating other program behaviour in their own tools and activities. All relevant programs need to find all possible ways to incorporate other project behaviour in their own tools and activities to create maximum impact on social and behaviour change through the communication strategy. This needs to be continued in all existing behaviour and upcoming social and behaviour change activities.

3.5. Core Components of the developed Communication Strategy

Advocacy: Advocacy will seek to ensure that government remains strongly committed to implementing the Montreal Protocol and its amendments including Kigali amendment. Policy advocacy through round tables will inform senior politicians and administrators how rational use of policies can create risk informed gender focused and disability inclusive implementation of policies, and will outline actions to take to improve guideline and policies in this regard. Program advocacy will target opinion leaders at the community level through orientation meetings on the need for local action. Media advocacy in newspaper, TV and radio and social media will strengthen the relevance on the public agenda, and will encourage the media to cover success stories related topics regularly to raise awareness at all level. Involving private sectors will create motivation and influence responsible use of RAC equipment and refrigerant gasses.

SBCC: Social and Behaviour Change Communication (SBCC) will aim to change knowledge, attitudes, intentions and practices among the targeted groups. It will appropriately inform more people who are decision makers at home in procuring and servicing RAC equipment. For this SBCC, multi-channel approach will be followed involving print, outdoor, electronic, and social media.

Community Mobilization: Community mobilization (CM) will bring together members of business associations and other stakeholders to strengthen their participation in implementing various policies to reduce ODS. Social mobilization will generate dialogue, negotiation and consensus among a range of players that includes decision-makers, the media, NGOs, opinion leaders, policy-makers, and the private sector. Seminars, workshops, rallies, road shows etc. will be arranged to orient local influential people and increase awareness on responsible use, maintenance, and import of RAC equipment.

3.6 Communication Strategy for Targeted Groups Using RAC Equipment may lead to follow the steps of SBCC

To design strategic communication programs that are appropriate for public awareness JHU/CCP- Johns Hopkins University/Centre for Communication Program developed a theoretical framework termed the steps to Behaviour Change. It consists of five major stages of change which are: Knowledge, Approval, Intention, Practice and Advocacy.

Five steps associated with the process of behaviour change -

Knowledge: To make target audience aware on risk regarding using CFC, HCFC, HFC along with other ODS.

Approval: To respond favourably to the disseminated messages through different media.

Intention: To be convinced about not using ODS in form of refrigerant gasses.

Practice: To start using RAC equipment responsibly.

Advocacy: Acknowledge personal benefit of the responsible use of RAC equipment and advocate same the practice.

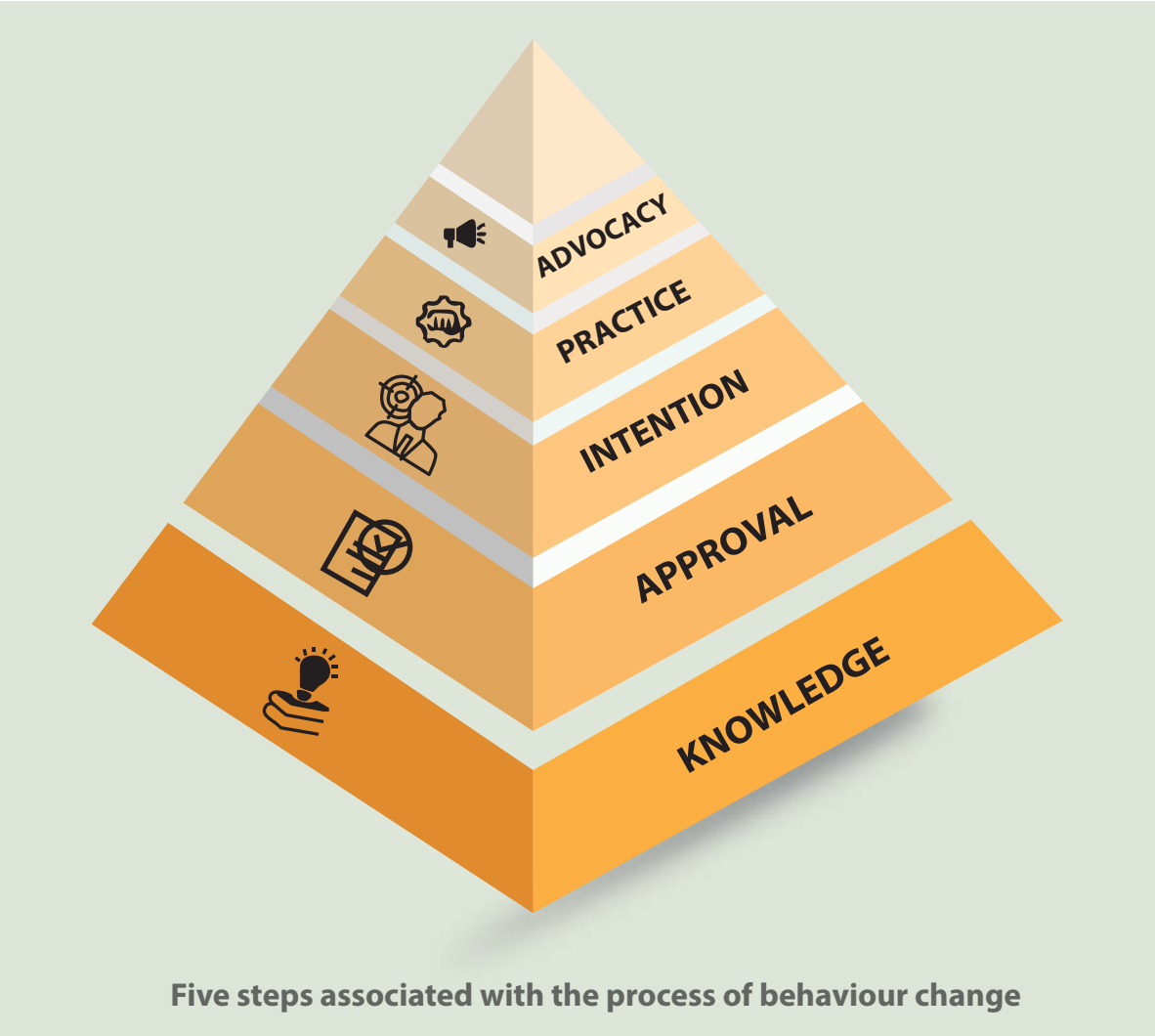

Figure: KAIPA Model

We have introduced social-ecological model (SEM) to determine the stages and types of intervention to be executed for achieving the intended result. The following steps are associated with SEM –

Individual: The communication interventions should be designed in such a way so that individuals can take informed decisions while procuring RAC equipment. It is crucial to increase the general knowledge level of our targeted groups. While there are scopes of group based decisions, an informed and knowledgeable person can logically motivate the discussion.

Interpersonal: Informed individuals would motivate others through interpersonal communication. If we can create a knowledge base for individual level, it will result increasing knowledge in interpersonal level as well. These communication might be based on group knowledge sharing or communication interventions. Usually in the context of of Bangladesh, RAC

equipment procuring, capacity building in servicing of RAC equipment, and work process of customs officers have lots of scopes of interpersonal discussions and knowledge sharing. There are requirements of communication interventions which will instigate group discussions.

Community: In the context of this communication strategy, we have identify segregated communities of targeted audiences. However, there are very few or no interlinkage among these communities. Because of only the business association communities of RAC equipment importer-manufacturer-seller, refrigerant gas importers, and servicing centre owners have interconnections. We have identified the channels to create communication and knowledge sharing among the above mentioned communities. The communities can achieve intended result by using message and material proposed in the matrix.

Organization: There are various organizations involved with this communication strategy. Ozone Cell is the primary user. They will design communication interventions as per guidelines provided in this strategy. Ozone Cell is a part of DoE. Collaboration and sharing with other departments of DoE with similar activities will compliment Ozone Cell's interventions. As per the strategy, DoE will finalize a systematic learning and sharing process according to Ozone Cell's requirements. The Ministry of Environment, Forest and Climate Change (MOEFCC) is responsible for implementing policies that are necessary to facilitate Ozone Cell in reducing ODS from the country. MOEFCC is also responsible to build capacity of the Customs Department in recognizing ODS and take necessary steps to stop illegal substances from entering the country. We have suggested communication materials for the relevant authorities and stakeholders to sensitize them in creating synergy.

Policy: The Government of Bangladesh has adopted Montreal Protocol and it's all the amendments to reduce ODS. Among the change making agents from the GoB's side, customs official play a vital role in implementing import policies. We have proposed communication materials and interventions to develop capacity of these officials. Moreover, materials of information flow in the ports and dialogues with business association communities are proposed as well.

SOCIO-ECOLOGICAL MODEL

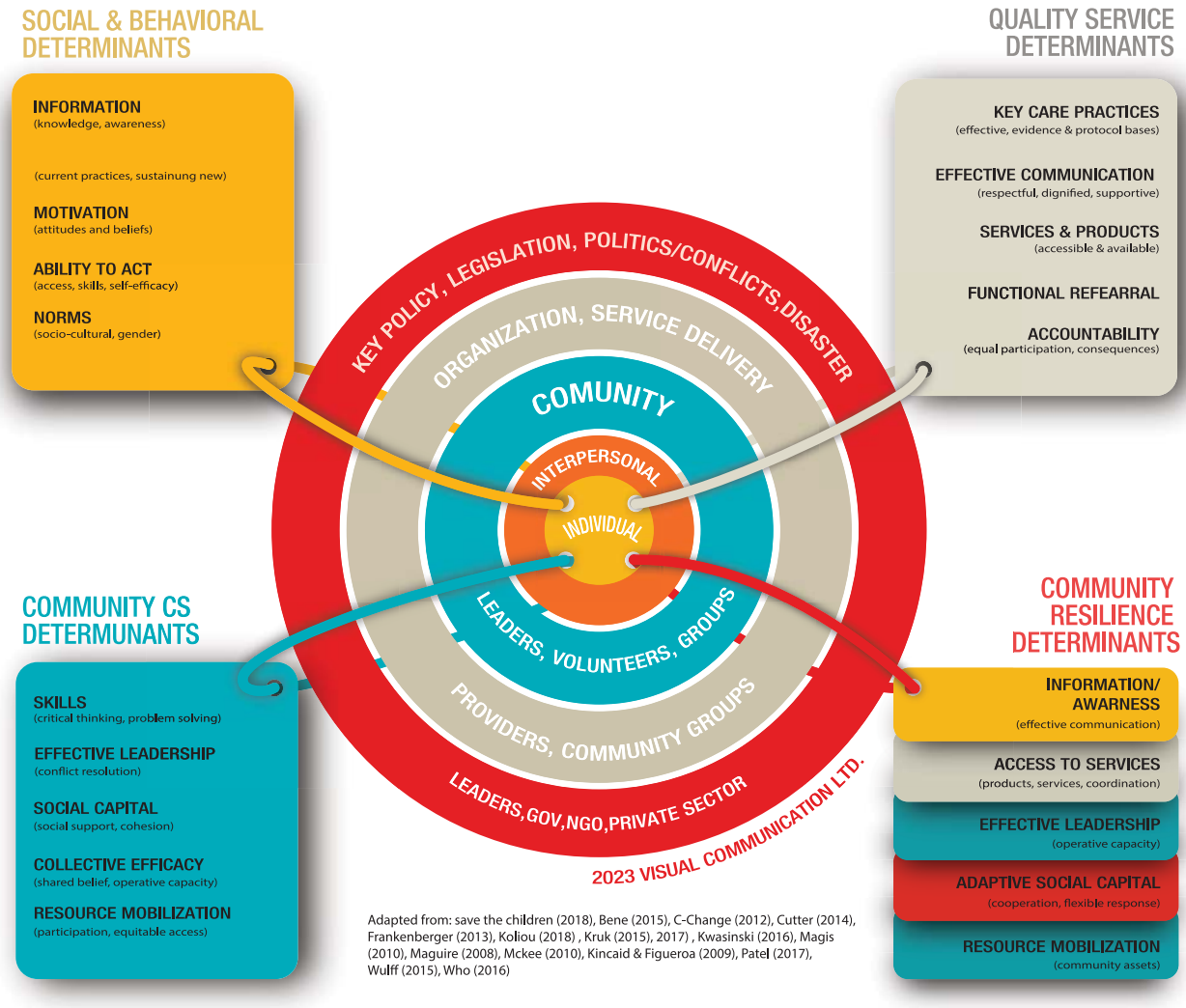

Figure: SEM Model

3.7 SMART Approach for Communication Strategy

Globally practiced SMART approach for formulating the Communication Strategy Execution Plan according to the strategy.

Set Objectives were SMART as mentioned below:

Specific: Defining what is to be accomplished in terms of specific steps of Communication among targeted groups.

Measurable: Quantifying objectives by indicating numerical or percentage change expected.

Appropriate: Defining indicated changes that are locally and culturally acceptable.

Realistic: Avoiding objectives that are beyond the scope of available resources and unrealistic to communication efforts.

Time Bound: Identifying the time frame in which changes should be achieved.

3.8 Determining the KPI

Since the import of HCFC requires relevant licences and permits in Bangladesh, it is not possible to import these gases legally by any random importer. Yet, HCFC can be still found in local market. It can be assumed that these gases are imported as 'false declaration' of HFC gases through customs. The main reason behind this is the comparatively lower price of HCFC gases.

Moreover, Bangladesh is not manufacture of ODS. The manufacturing facility of ODS are still operating. In a developing country like Bangladesh, it is almost impossible to stop importing ODS if the manufacturing is not stopped. In this circumstance, appropriate Key Point Indicators (KPIs) can be set one year after the proposed communication interventions. A KAP (Knowledge, Attitude, Practice) study to determine the awareness level after the interventions, would pave the way for setting up appropriate KPIs. The KAP study would be done in following steps to identify the knowledge level –

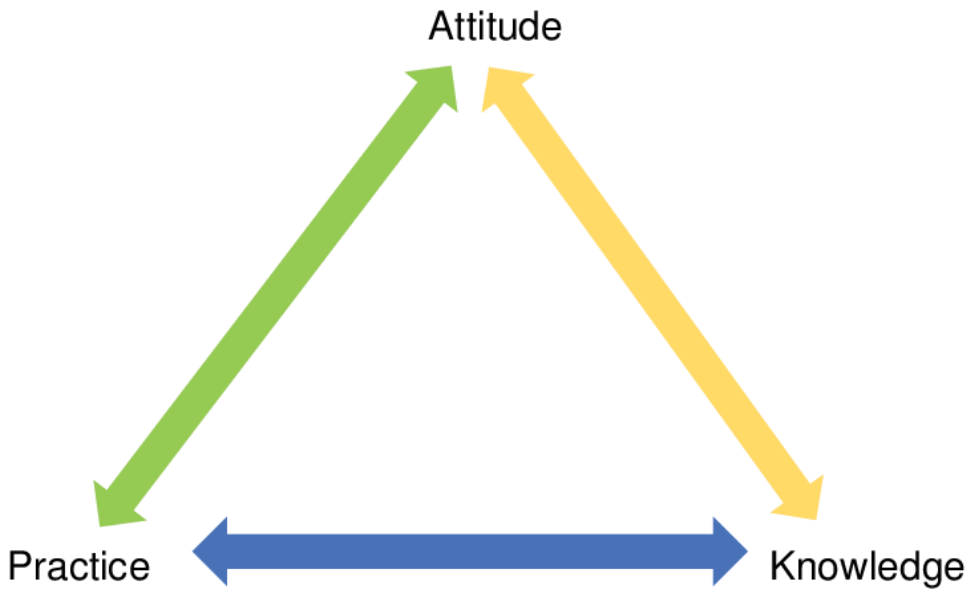

Figure: KAP (Knowledge, Attitude, Practice)

Knowledge: Through the KAP study, the increased knowledge level of both the stakeholders and target groups needs to be assessed. The questionnaire would be designed to identify if the sample population was exposed to the communication intervention by the Ozone Cell. It will also assess the difference between the new and existing knowledge of the target audience.

Attitude: The study will assess if the target audience and stakeholders believe and rely on the newly acquired knowledge on ODS.

Practice: Whether the target audience are practicing the knowledge regarding ODS and RAC would be determined. The percentage of practicing the behaviours should also be identified.

Based on the KAP study, the overall awareness level would be identified. Then the KPI could be set accordingly.

3.9 Theory of Change and KPI

A theory of change is essential to set the goal of communication intervention and a successful KAP study afterwards. The result from the KAP study is necessary to set KPI and identify the outcome.

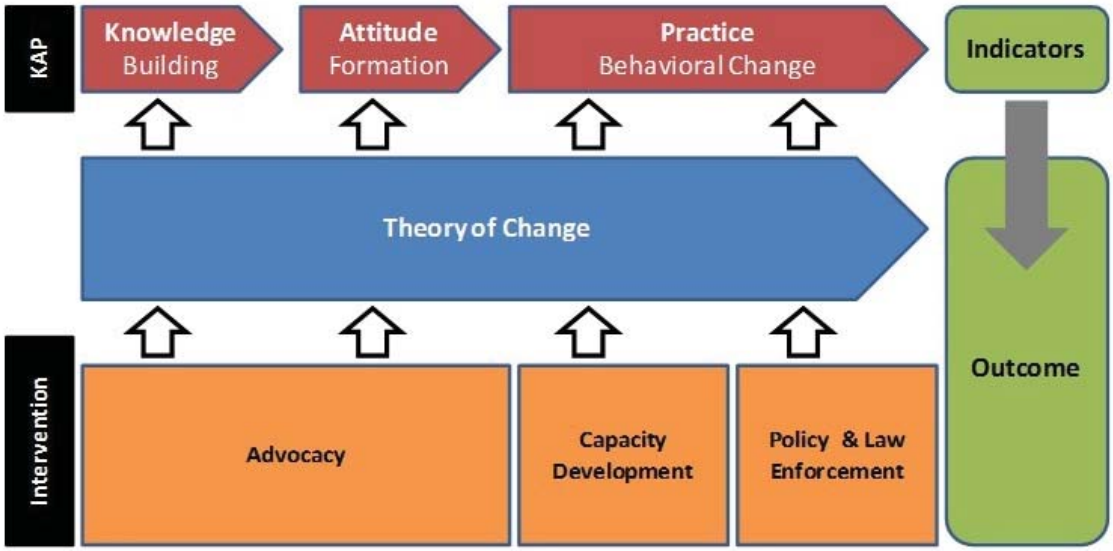

Figure: KPI and Theory of Change

We have identified the theory of change for this communication strategy as following -

If RAC equipment users are aware on ODS,

and If RAC technicians are trained to provide servicing in safe manner,

and If policymakers are determined to increase capacity of customs department and officers in identification of ODS,

Then phase out of HCFC and phase down of HFC is possible in the intended timeline.

4. Communication Matrix

Aim: What are we trying to achieve?	Reducing use of HCFC, HFC, and other ODS				
SEM Level	Individual	Interpersonal	Community	Organization	Policy
Influencer to achieve the behaviour determinates	- General users RAC equipment - Technicians	- Family, friends, neighbours, and co-workers of RAC users - Servicing workshops - Retailers	- Importers of RAC equipment and refrigerant gases - Manufacturers of RAC equipment	- DoE - MoEFCC - Ozone cell - Customs	- GoB - Refrigerant gas import policy - Montreal Protocol
Actions: Actions of SBC contribute to the success of the goal.	- Awareness - Increase in the knowledge level	- Knowledge sharing practice, peer learning, and mentoring	- Decision making of the business associations - Creating interlinkage between associations	- Implementing communication strategy - Coordination between different programs of DoE - Collaboration with Bangladesh Customs and Port Authority	- Implementation of Montreal Protocol -
Communication Activities					
Advocacy			- Engagement by religious leaders in religious worship	— Train officials to incorporate the Communication strategy into their existing work process.	- Develop Communication Material (Policy Brief, Guidelines, Reports)

				—Lobby for the support of government programs outside Ozone Cell to promote desired behaviour. - Identify early adopters who do the specific behaviour and will serve as champions for motivating others - Focus on both who influence behaviour and adopts them.	
Interpersonal Communication	Comic book series	Informational brochures	- Informational brochures - PSA/TVC to motivate TG so that they service their Air Conditioning equipment twice a year, one during summer, second during winter.	E-resource on MP, ODS, and other issues	

Community Mobilization			- Arrange dialogues between business associations and Ozone Cell		
Mass media	Documentary, PSA, animated series, mega signboard		Quiz competition		Media roundtable
Social media	Reel, Tiktok, and Youtube, Influencer Engagement	Reel, Tiktok, and Youtube, Influencer Engagement	Reel, Tiktok, and Youtube, Influencer Engagement	National Campaign on Reducing use of ODS and Responsible Use of RAC Equipment	

5. Stakeholder Analysis

Stakeholder Groups	Stakeholder Names	OC's objectives of engagement	Levels of Contribution	Methodologies of engagement
Relevant gov't authorities	Policymakers (MOEFCC, DoE, Ozone Cell, Customs Authority)	To prepare and enforce a framework to support the phase-out of HCFCs and phase-down of HFCs.	High	Roundtable discussion.
		Preparing and enforcing a policy to increase capacity of customs officials and port facilities.		
		Plan to introduce yearly servicing policy of RAC equipment.		
Business association communities	RAC equipment importer-manufacturer-retailer, refrigerant gas importers, and servicing centre	To ensure CFC is not being used. Compliance to the phase-out of HCFC	High	Round table discussion; Informational brochure; Dialogue with policy makers; Reels, TikTok, YouTube.
		Ensuring regular training and safety measures of technicians		
		Capacity building according to the growing needs of RAC equipment procurement and servicing.		
Law Enforcement	Custom Officers	To enhance capacity of ODS identification at ports.	High	Informational brochures; Training workshops.
		Capacitate customs officers and inspectors		

6. Conclusion

In conclusion, the development and implementation of an effective communication strategy are pivotal to accelerating the phase-out of ozone-depleting substances (ODS) in Bangladesh and ensuring the success of the Montreal Protocol's objectives. By tailoring our messaging to resonate with the concerns and interests of RAC users, we can effectively convey the urgency and importance of this endeavour. Through clear and concise educational content, we will empower individuals and businesses with the knowledge they need to make informed decisions and transition to ODS-free technologies.

Embracing a multi-channel approach, we will utilize a diverse range of communication platforms to reach a wider audience and create a ripple effect of awareness and action. Our collaboration with key stakeholders, including environmental organizations, industry associations, and government bodies, will amplify our message and facilitate a collective effort towards a sustainable future.

By leveraging behavior change techniques and recognizing the positive actions of those who actively participate in the phase-out process, we will inspire a sense of ownership and responsibility within the community. Regular monitoring and feedback mechanisms will allow us to fine-tune our strategy, ensuring its continuous effectiveness and resonance.

As we embark on this journey to safeguard the ozone layer and protect our environment for generations to come, we are committed to the principles of sustainability and long-term engagement. Through persistent efforts and unwavering dedication, we can make a meaningful contribution to the global mission of healing our planet and leaving a legacy of responsible stewardship.

Together, we have the power to translate the promise of the Montreal Protocol into a reality, catalyzing positive change and nurturing a brighter, healthier future for Bangladesh and beyond.

7. Annexure

7.1 In-depth Interview (IDI) Questionnaires

General User of Refrigerator & AC (RAC)

Name	
Occupation	
Workplace	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. Do you have refrigerator and air conditioner at home?
2. How many refrigerators and air conditioners do you have at home?
3. Do you have any idea about the gas used in them (refrigerators and air conditioners)?
4. Do you know about the harmful effects of chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC), hydrofluorocarbon (HFC) etc. gases?
5. How much do you know about the ozone layer?
6. How ozone depletion harms people and nature?
7. Did you know which cooling gases play a relatively minor role in ozone layer depletion and global warming?
8. Did you keep these facts in mind while buying AC or refrigerator?
9. Does your house use AC of proper capacity according to the size of the room?
10. Do you regularly service the AC/Refrigerator?
11. Do you ensure that the technician/service center is aware of the gas while servicing the AC or fridge?
12. What advice would you give to someone looking to buy a new fridge or AC?

Technician/Service Workshop

Name	
Title	
Workplace/Institution	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. How many years have you been doingthis job/running the service center?
2. Have you received any formal training for this job?
3. From where and how long did you get the training?
4. How many fridge-ac servicing jobs do you do daily?
5. How many of these are related to gas and how many ot her servicing?
6. Which gas do you use to refill?
7. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
8. Does the gas ever leak while working?
9. What precautions are taken to prevent gas leakage?
10. Do you have any idea about the adverse effects of gas leakage on the environment?
11. How much do you know about the ozone layer?
12. Do you know how ozone depletion harms people and nature?
13. Did you know which cooling gases play a relatively minor role in ozone layer depletion and global warming?
14. Were these subjects included in your training?
15. Do you think there should be a separate training on just these topics?
16. What advice do you give to those who receive servicing from you to be fully informed and cautious about gas?
17. What advice do you give to someone looking to buy a new fridge or AC?

Importer of Refrigerator/AC (RAC) Equipment

Name	
Title	
Workplace/Institution	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. How many years have you been doing this business?
2. Are you a member of the importer's association?
3. What equipment do you mainly import?
4. What training have you received on importing and safe transportation of specific products?
5. Have you received any training on what equipment cannot be imported?
6. Are changes in the import policy of refrigerators, ACs actually informed to you by the government or training arrangements?
7. What is the amount of refrigerator-ac imported and sold annually?
8. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
9. How aware are those who collect refrigerators and ACs from you about their proper use?
10. How much do you know about the ozone layer?
12. Do you know how ozone depletion harms people and nature?
13. Did you know which cooling gases play a relatively minor role in ozone layer depletion and global warming?
14. Do you think there is any training needed to make importers aware?

Importer of Refrigeration Gas

Name	
Title	
Workplace/Institution	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. How many years have you been doing this business?
2. Are you a member of the importer's association?
3. Which gas do you mainly import?
4. What training have you received on gas import and safe transportation?
5. Have you received any training on which gases cannot be imported?
6. Is the change in gas import policy officially informed or training?
7. How much gas is imported and sold annually?
8. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
9. Does your organization import CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gases?
10. How aware are the traders who collect gas from you about their proper use?
11. How much do you know about the ozone layer?
12. Do you know how ozone depletion harms people and nature?
13. Do you know which gases play a relatively minor role in ozone layer depletion and global warming?
14. Do you always import this type of gas?
15. Do you know of any importer importing or proposing to import non-approved gas?
16. Do you think any training is needed to make all importers aware?

Consumers at the Retail Level

Name	
occupation	
workplace	
contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. Do you have a refrigerator and air conditioner at home?
2. How many refrigerators and air conditioners do you have at home?
3. Do you have any idea about the gas used in them?
4. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
5. How much do you know about the ozone layer?
6. How ozone depletion harms people and nature?
7. Do you know which gases play a relatively minor role in ozone layer depletion and global warming?
8. Did you think about these facts before buying an AC or refrigerator?
9. Does your house use AC of proper capacity according to the size of the room?
10. Do you regularly service the AC-refrigerator?
11. Do you ensure that the technician/service center is aware of the gas while servicing the AC or fridge?
12. Did you consult someone before buying a new fridge or AC? What did he suggest?

Seller at the Retail Level

Name	
Occupation	
Workplace	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. How many years have you been involved in selling refrigerators and air conditioners?
2. How many refrigerators and air conditioners do you sell daily?
3. Do you have any idea about the gas used in them?
4. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
5. How much do you know aboutthe ozone layer?
6. How ozone depletion harms people and nature?
7. Do you know which gases play a relatively minor role in ozone layer depletion and global warming?
8. Do you inform the buyer of this information during the sale of AC or refrigerator? Or give any other information?
9. What do you advise the buyers to use AC of proper capacity according to the size of the room?
10. Do you advise customers to do regular servicing?
11. Do you put trained technicians in touch with buyers?
12. Anyone who wants to buy a new fridge or AC comes for advice? What do you advise them?

Customs Officer

Name	
Occupation	
Workplace	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. How many years have you been working at customs?
2. Have you received training on what types of gases or chemicals require special precautions or should be held at customs?
3. Any ideas regarding the identification of controlled substances in the Montreal Protocol and what the next steps will be?
4. Do you know whether these gases enter the country illegally? Does any importer import such gas with wrong information?
5. What steps to take with wrong information?
6. Do you have any regular meetings with the importers of Refrigerator - AC (RAC) and Gas?
7. Do you have any opinion/suggestions on the current import policy regarding the import of Refrigerator - AC (RAC) and Gas?
8. Do you have any recommendations to stop the import of goods controlled by the Montreal Protocol and reduce the consumption of these goods in the country?

General Public

Name	
Occupation	
Workplace	
Contact no	
Place of interview	
Date and time	
Name of interviewee	

Please provide your thoughtful feedback on the following questions

1. Do you have a refrigerator and air conditioner at home?
2. Thinking of buying an AC-fridge recently?
3. Have you consulted someone if you are thinking about it? What advice have you received?
4. Do you have an idea about the gas that is used in AC-fridge?
5. Do you know about the harmful effects of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), HFC (Hydrofluorocarbon) gas?
6. How much do you know about the ozone layer?
7. Do you know how ozone depletion harms people and nature?
8. Did you know which cooling gases play a relatively minor role in ozone layer depletion and global warming?
9. Will you keep these facts in mind when buying an AC or refrigerator in the future?

7.2 Doer/Non-doer Analysis

Refrigerator and AC (RAC) users

Serial	Question	The answer	
		yes	no
01	Do you know what type of gas is used in your AC or refrigerator?		
02	Do you know that these gases are harmful to the environment?		
03	Do you refill AC gas regularly?		
04	Gas refill done from an authorized service center or through local technicians?		

Refrigerator & AC (RAC) Servicing Technician

Serial	Question	The answer	
		yes	no
01	Do you know what kind of gas is used in AC or refrigerator?		
02	Do you know the environmental damage caused by these gases?		
03	Do you give any advice to customers regarding AC and refrigerator gas? (Note – Knowing which gas to use is recommended)		
04	Have you learned the work of servicing from an authorized institution? Or learned to work with a local technician?		

7.3 Estimated Budget on Communication Intervention for RAC Equipment Users

2023 (July-December), 2024, 2025 and 2026

SL	Description	Quantity	Unit Price (BDT)	Total Price (BDT)
1	Communication Strategy Development	1	580,000.00	580,000.00
2	**Content Design, Development & Production** *(Brochure, Poster, Leaflet) in cooperation with UNEP, the activity could be done.*	Lump-sum	550,000.00	550,000.00
3	**Audio-Visual Documentation (TVC/PSA, Docu-drama)** *(In cooperation with UNEP, the activity could be done)*	Lump-sum	800,000.00	800,000.00
4	Stakeholder Workshop	6	250,000.00	1,500,000.00
5	**Print & Electoronic Media Outreach** *(With the help of Ministry of Information, the activity could be done.)*	-	-	-
6	**Social Media Outreach** *(In cooperation with UNEP & DoE's Ozone Cell, the existing content will be posted on Website, Facebook, and YouTube)*	-	-	-
Sub-total Cost				**3,430,000.00**
VAT @ 15%				514,500.00
Grand Total Amount in BDT				**3,944,500.00**
Grand Total Amount in USD				**35,696.83**

In Words: BDT. Thirty Nine Lac Forty Four Thousand Five Hundred Only. / USD. Thirty-Five Thousand Six Hundred Ninety-Six Dollars and Eighty-Three Cents Only

Note: USD 1 = BDT 110.5 (Exchange rates may change)

7.3 Breakdown of Yearly Distributed Activities

2023 (July-December), 2024, 2025 and 2026

SL	Description	Distribution Year
1	Communication Strategy Development	2023 (July-December)
2	Brochure Design, Development & Production *(In cooperation with UNEP, the activity could be done)*	2024
3	2 Stakeholder Workshop	
4	Audio-Visual Documentation (TVC/PSA) *(In cooperation with UNEP, the activity could be done)*	
5	Poster Design, Development & Production *(In cooperation with UNEP, the activity could be done)*	2025
6	2 Stakeholder Workshop	
7	Audio-Visual Documentation (Docu-Drama) *(In cooperation with UNEP, the activity could be done)*	
8	Leaflet Design, Development & Production *(In cooperation with UNEP, the activity could be done)*	2026
9	2 Stakeholder Workshop	

Note: Print, Electoronic and Social Media outreach could be done in cooperation with UNEP and, DoE's Ozone Cell, and Ministry of Information.

SGDs ADDRESSED

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