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GENDER ANALYSIS AND ACTION PLAN FOR MONTREAL PROTOCOL PROJECTS IN CHINA, PERU AND NIGERIA

UNDP Montreal Protocol Unit
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About this document

This Gender Analysis and Gender Action Plan for UNDP Montreal Protocol projects in China, Nigeria and Peru was developed in October 2018 to support the ozone programme and projects in countries at the national and regional levels. It is intended to guide UNDP MPU/Chemicals Regional Technical Advisors, UNDP Country Offices, project teams, consultants, and implementing partners by collecting baseline information on what is currently being done to advance gender equality and what the main challenges and opportunities are, and describing the steps that could be taken to ensure that gender considerations are an integral part of projects that protect the ozone layer. Hannah Strohmeier is the main author of the document.

Executive summary

UNDP commissioned a gender analysis of three projects out of its current ozone portfolio, implemented in Peru, China and Nigeria. The main purpose of the gender analysis was to collect baseline information on what is currently being done to advance gender equality and what the main challenges and opportunities are, including the identification of entry points for future gender mainstreaming in Montreal Protocol projects. The findings are documented in the gender analysis report at hand.

The gender analysis was undertaken between April and August 2018 by an international consultant, with support from UNDP and implementing partners. As a first step, an encompassing desk review of relevant materials was undertaken, followed by discussions with UNDP MPU/Chemicals team members based in Headquarters and the three regions. Further, a total of 59 women and men, including beneficiaries, UNDP country office staff, government representatives, implementing partners and other relevant stakeholders at the national level were consulted through focus group discussions and/or semi-structured individual interviews in Peru, China and Nigeria.

The six overarching, inter-related findings of the gender analysis are:

- ❖ ***Structural barriers and cultural beliefs hamper GEWE, including in areas relevant to the Montreal Protocol.*** Globally, gender inequality continues to persist and women are discriminated against in education, labor market, decision-making at various levels, health, and other spheres of life (UNDP, 2016). They are underrepresented in STEM fields, and continue to experience unequal treatment in essential areas, such as remuneration. This global trend was also found in the three countries studied.
- ❖ ***Women are significantly underrepresented in the refrigeration, air conditioning and foam sectors.*** This finding is related to the above and confirmed by data collected in all three countries subject to this analysis. With regards to the already small number of women engaged in the sector it stands out that only few perform technical jobs and are formally trained engineers or technicians; the majority of women take on roles in other parts of the respective value chains, such as sales, logistics, or human resources. The underlying key reasons for this are mainly related to local structural and cultural inequalities.
- ❖ ***Up to this date, gender equality issues and entry points are hardly addressed/ considered in the ozone project cycle.*** This manifests in various ways, most evidently in the absence of gender equality issues and entry points in project documents, limited efforts to engage women in project-related activities as implementers (e.g., trainers) and beneficiaries, and the vast lack of gender equality results in reporting (e.g., presentation of data disaggregated by sex). Key reasons include women's marginal participation in the sectors in question, the lack of specific reporting requirements on gender equality by the MLF, and the targeted scope of projects.
- ❖ ***Women are frequently portrayed as “vulnerable”.*** The level of awareness of women's contributions to the refrigeration, air conditioning and foam sectors and the value women's economic empowerment can add to the overall well-being of families and communities as a whole

differs greatly between places and interviewees. However, many of those engaged in the sectors are insufficiently aware of women's potential and their roles as important and capable actors of change.

- ❖ ***The (sector-specific) gender competence among project stakeholders is limited.*** Hardly any of the interviewees received recent, encompassing gender training, especially not training focused on the linkages of gender equality issues and the refrigeration, air conditioning and foam sectors. This also applies to the important area of gender-responsive budgeting; stakeholders' knowledge in this area was overall very limited.
- ❖ ***Project stakeholders show commendable interest and will to address gender equality concerns and work towards greater GEWE.*** This, in combination with the MLF's increasing attention to GEWE, constitutes an excellent position to enhance the gender-responsiveness of ongoing and future MLF-funded projects.

Based on these findings a Gender Action Plan for projects will be drafted that facilitates implementation of activities towards enhancing gender equality and women's empowerment.

Acronyms

CFC	Chlorofluorocarbons
CO	Country Office
FECO	Foreign Economic Cooperation Office
FGD	Focus Group Discussion
GAP	Gender Action Plan
GEF	Global Environment Facility
GES	Gender Equality Strategy
GEWE	Gender Equality and Women's Empowerment
GRB	Gender-responsive Budgeting
HAF	Harvard Analytical Framework
HCFC	Hydrochlorofluorocarbon
HPMP	Hydrochlorofluorocarbon Phase-out Management Plan
LVC	Low-volume consuming
MLF	Multilateral Fund for the Implementation of the Montreal Protocol
MPU	Montreal Protocol Unit
MSE	Medium and Small Enterprises
ODS	Ozone-Depleting Substances
RAC	Refrigeration and Air conditioning
SDG	Sustainable Development Goals
SP	Strategic Plan
STEM	Science, Technology, Engineering and Mathematics
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VAW	Violence against women

1 Background and situational context

UNDP is one of the Implementing Agencies of the Multilateral Fund (MLF) for the Implementation of the Montreal Protocol and the Global Environment Facility (GEF). UNDP works with public and private partners in developing countries to assist them in meeting the targets of reducing the use of ozone-depleting substances (ODS) under the Montreal Protocol. In addition, UNDP also helps developing countries reduce and eliminate the emissions of persistent organic pollutants as well as the use and emission of mercury. UNDP's ozone and chemicals programmes are managed by the Montreal Protocol and Chemicals Unit (MPU/Chemicals) within the Sustainable Development Cluster of the Bureau for Policy and Programme Support, with staff located in Headquarters and UNDP Regional Centers/Hubs in Istanbul, Panama City, and Bangkok. Since 1991, UNDP has received over 800 million USD in grants from the MLF, the GEF and bilateral donors to undertake thousands of activities related to ozone and chemicals in nearly 100 developing countries and countries with economies in transition.

A number of factors demonstrate the importance of adopting a gender-responsive approach to the management of chemicals. For instance, gender equality and women's empowerment (GEWE) is an important component of sustainable development. It is both, a sustainable development goal (SDG) on its own (SDG 5) as well as a determinant for achieving all other SDGs. Further, women and men experience differences in physiological susceptibility to (toxic) chemicals, cross-generational transfers to the unborn child, and the resulting health effects as well as the source of exposure to chemicals at the workplace and in daily life (UNDP, 2011). In addition, economies grow faster if women engage in the labour force, and GEWE is good for business (UN Women, 2017). Companies greatly benefit from creating leadership opportunities for women, which is shown to increase organizational effectiveness. It is estimated that companies with three or more women in senior management functions score higher in all dimensions of organizational effectiveness (UN Women, 2017).

Recognizing these and further significant linkages between gender equality issues and chemicals, UNDP produced the publication "Chemicals and Gender" (2011), and a guidance document operationalizing the integration of gender into chemical projects by providing advice and suggesting gender-based outputs, indicators and activities. Further, the Multilateral Fund for the Implementation of the Montreal Protocol (MLF) (2018) recently undertook a desk study for the evaluation of gender mainstreaming that aims at contributing to improved mainstreaming in projects and encouraging MLF stakeholders to explore a more systematic way to include gender relevance in their activities. While the MLF does not yet have a gender policy, the Fund is increasingly promoting the importance of gender in the context of ODS. Building on these developments and recognizing the strong need for further efforts to ensure gender equality is well integrated into the ozone project cycle, UNDP commissioned a gender analysis with a focus on three projects out of its current ozone portfolio, implemented in Peru, China and Nigeria.

2 Focus and purpose

The gender analysis focused on three projects out of the current MPU project portfolio. Implemented in Peru, China and Nigeria these projects target the refrigeration and air conditioning industry, as well as the foam sector:

Country	Title
Peru	Hydrochlorofluorocarbon Phase-out Management Plan (HPMP, Stage 1)
China	Sector Plan for HCFC Phase-out in the Industrial and Commercial Refrigeration and Air Conditioning Sector in China (HPMP, Stage 1)
Nigeria	Hydrochlorofluorocarbon Phase-out Management Plan (HPMP, Stage 1)

The main purpose of the gender analysis was to collect baseline information on what is currently being done to address gender equality issues and what the main challenges and opportunities are, including the identification of entry points for future gender mainstreaming in Montreal Protocol projects. Based on these findings, a Gender Action Plan (GAP) for projects will be drafted that facilitates implementation of activities towards enhancing GEWE in Montreal Protocol projects.

3 Proceeding

3.1 Team

An international consultant undertook the gender analysis. The international consultant was responsible for the development of the assessment methodology, corresponding tools, data collection and analysis, and the preparation of the assessment report and GAP. Throughout this entire process, the international consultant received invaluable logistic and substantive support from UNDP and project staff within the countries visited. Amongst others this included the provision of project documents and other relevant material; sharing of information on gender relations in the respective countries; preparation of mission agendas, set-up of meetings, and organization of in-country travel; and translation of interviews.

3.2 Timeframe and geographical scope

The gender analysis was undertaken over the course of 30 working days between April and August 2018. During this period, the international consultant worked from abroad and undertook missions to Peru, China and Nigeria. Each mission was three-to-four days long and included interviews with relevant staff in the UNDP country offices in Lima, Beijing and Abuja; meetings with implementing partners at the national level; consultations with other relevant stakeholders; and visits to selected project sites in Lima, Shanghai and Lagos, with a focus on interviews with management and employees representing project beneficiaries.

3.3 Methods

In line with the objectives and scope of the gender analysis, a variety of qualitative methods were applied to collect relevant data. These included a desk review of topic-related documents, phone conversations with regional teams, and individual interviews and focus group discussions (FGDs) with beneficiaries and other relevant persons, including UNDP staff and project implementing partners.

3.3.1 Desk review

The desk review of relevant documents included an overview of the MPU project portfolio, as well as the gender-related challenges and gaps, and strengths and achievements. It also provided more nuanced information on the linkages of gender and chemicals in general and gender and ODS in particular, especially with regards to the countries visited. Key documents reviewed as part of the gender analysis include:

- ❖ UNDP MPU project documents
- ❖ UNDP MPU project progress reports
- ❖ UNDP knowledge products on gender and chemicals
- ❖ UNDP Gender Equality Strategy (2014-2017)
- ❖ UNDP's guide to conducting a participatory gender analysis and developing a gender action plan for projects supported by UNDP with GEF financing
- ❖ MLF desk study for the evaluation of gender mainstreaming in the Montreal Protocol Projects and Policies
- ❖ UNIDO guide on gender mainstreaming in Montreal Protocol projects
- ❖ Quantitative and qualitative gender data for China, Peru and Nigeria.

3.3.2 Discussions with UNDP MPU/Chemicals team at HQ and regions

Prior to the missions, phone conversations were held with the UNDP MPU/Chemicals team in HQ and the UNDP Gender team as well as the UNDP MPU/Chemicals team members based in the three regions located in Panama City, Istanbul, and Bangkok. These conversations aimed at gaining an overview and initial insight into gender mainstreaming in the context of the selected projects. They also served as a measure to tap the valuable knowledge and experience of UNDP staff and consultants working on ozone projects at the regional level. The UNDP MPU/Chemicals regional teams received a questionnaire prior to the call, which guided the conversation.¹

3.3.3 Individual interviews and focus group discussions in countries

Individual interviews and FGDs were further important sources of information for the gender analysis. Within UNDP, project staff as well as gender focal points were interviewed. Government counterparts as well as other relevant stakeholders, such as representatives from unions and associations, were interviewed, too. In Peru and Nigeria, the analysis also entailed interviews with officials from the Ministry of Women and Vulnerable Populations, and the Ministry of Women Affairs and Social Development, respectively. With regards to beneficiaries, at least one FGD with senior managers, and one with female and male employees was held in each of the countries visited.

¹ The questionnaires are presented in the Annex.

All FGDs and semi-structured interviews were conducted with the support from questionnaires designed for the purpose of this gender analysis. The questionnaires are based on the so-called 'Harvard Analytical Framework' (HAF)², but had to be significantly adjusted to the specific project context and sector, respectively.³ The HAF is one of the earliest as well as most widely used gender analysis tools.

The below tables represent the people formally consulted through individual semi-structured interviews and/or focus group discussions in the countries visited.

Country	Category	Entity/Position	Male	Female	Total
Peru	Beneficiaries	Trained technicians (joint FGD with women and men)	3	9	12
		Senior management Trane Peru	1	1	2
	Government representatives	Ministry of Production	0	2	2
		Ministry of Women and Vulnerable Populations	0	2	2
	UNDP staff	Gender Focal Point	0	1	1
		Project staff	1	1	2
	Other relevant stakeholders	Sociedad Nacional de Industrias	0	1	1
	TOTAL		5	17	22

Country	Category	Entity/Position	Male	Female	Total
China	Beneficiaries	Employees Hanbell (separate FGD with women and men)	5	5	10
		Senior managers Hanbell	2	2	4
	Government representatives	Foreign Economic Cooperation Office	0	2	2
	UNDP staff	Gender Focal Point	1	0	1
		Project staff	1	0	1
	Other relevant stakeholders	China Refrigeration and Air-conditioning Industry Association	1	0	1
	TOTAL		10	9	19

Country	Category	Entity/Position	Male	Female	Total
Nigeria	Beneficiaries	Senior managers and supervisors Vitapur	2	1	3
		Senior managers Lange & Grant/Sparkle &	5	1	6

² The HAF is also the basis for UNDP's Guide to Conducting a Gender Analysis and Developing a Gender Action Plan for projects supported by UNDP with GEF financing.

³ The questionnaires are presented in the Annex.

		Crystal.			
	Government representatives	Ministry of Environment (National Ozone Office)	2	0	2
		Ministry of Environment (Department of Climate Change, Gender Office)	1	0	1
		Ministry of Women's Affairs and Social Development	1	1	2
	UNDP staff	Gender Focal Point	0	1	1
		Project staff	1	2	3
	TOTAL		12	6	18

4 Findings

The gender analysis generated a number of overarching findings; these came out of the desk review and/or conversations with UNDP MPU/Chemicals team in HQ and in the regions, and variations thereof were observed during the three missions. In addition to these overarching findings, the analysis revealed project-specific findings. These refer to the sector-specific gender relations in the locations visited, gender-related challenges and gaps, and gender equality-related achievements and strengths of the respective projects.

4.1 Overarching findings

Six overarching, inter-related findings came out of the gender analysis:

Structural barriers and cultural believes hamper GEWE, including in areas relevant to the Montreal Protocol. Globally, gender inequalities continue to persist and women are discriminated against in education, labor market, decision-making at various levels, health, and other spheres of life (UNDP, 2016). In Peru, women spend around twice as much time as men with unpaid reproductive tasks related to the household. This unequal distribution of work has far-reaching impacts, including on girl's school enrollment and drop out, respectively, as well as women's participation in the informal and formal economy. The limited data available show for instance that 52% of male and 32% of female students or graduates aged 15 to 29 studied STEM in 2011. Disaggregated by STEM field, 30% of men and 9% of women under the age of 30 years were enrolled in architecture, engineering and related fields at that time (APEC & USAID, 2016). Another key area where gender inequalities manifest is Peru's labor market: about 35% of Peruvians share the opinion that in times of job scarcity, men should be prioritized (UNESCO, n.d.), and women's average income in the country remains about one third less than that of men (Oxfam, 2015). Similarly, patriarchic structures in Nigeria prevent many women from acquiring a formal education; instead, care giving and household chores are seen as their preliminary tasks (Makama, 2013). While there is an overall high labor force participation of women in China, women earn about 35% less than men for similar work, and few women are represented in leadership positions ("Women in the workforce", 2017).

Women are significantly underrepresented in the refrigeration, air conditioning and foam sectors. This finding is closely related to, and in parts a product of, the situation outlined above and as such not surprising. Data collected in all three countries subject to this analysis confirm this situation, and facilitate a more detailed analysis: for instance, with regards to the already small number of women engaged in the sector it stands out that only a few perform technical jobs and are formally trained engineers or technicians; the majority of women take on roles in other parts of the respective value chains, such as sales, logistics, or human resources. This, too, is largely a product of structural and cultural barriers. Specifically, science, technology, engineering, and mathematics (STEM) occupations are largely understood as “men’s domains”, including due to the “dirty” environment of workshops and production halls. Women, if they engage in the labor market, are rather expected to engage in employment that centers on soft skills, such as communication. Aside from these reasons, physiological factors are frequently cited as argument for women’s marginal representation. This is especially the case with regards to the refrigeration and air condition sector, where lifting of heavy equipment is required from technicians. These reasons also help explaining why women make up the majority of staff in some Ministries and Associations, such as the Foreign Economic Cooperation Office in China (FECO) and the China Refrigeration and Air-Conditioning Industry Association (CRAA). Finally, there is a reported lack of awareness among women about the sector and employment options in this field, respectively, which also impacts their representation, and the persisting gender imbalance in the sectors in question, respectively.

Up to this date, gender is hardly considered in the ozone project cycle. This finding was expected, too. It manifests in various ways, most evidently in the absence of gender references in project documents, limited efforts to engage women in project-related activities as implementers (e.g., trainers) and beneficiaries, limited cooperation with stakeholders working on GEWE (e.g., Ministries and NGOs), and the vast lack of gender references in reporting (e.g., presentation of data disaggregated by sex). One key reason is that Montreal Protocol projects focus first and foremost on protecting the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion. Thus, the link to gender equality issues and gender-differentiated impacts, respectively, is not as obvious and oftentimes overlooked. Indeed, many of the common entry points for gender mainstreaming (e.g., the creation of conducive working conditions in companies, such as flexible working hours and childcare services, and targeted efforts to recruit female engineers) are oftentimes beyond the direct scope of Montreal Protocol projects, which makes the intervention more challenging. Women’s marginal participation in the sectors in question and the lack of gender-related reporting requirements by the MLF complicate the situation further.

Women are frequently portrayed as “vulnerable”. The level of awareness of women’s contributions to the refrigeration, air conditioning and foam sectors and the value women’s economic empowerment can add to the overall well-being of families and communities as a whole differ greatly between places and interviewees. However, it stands out that women are frequently labeled as (physically) not strong enough to work as a technician/engineer, and unable to work long hours, including at night, and especially not in “dirty” environments, such as workshops. Many of those engaged in the sectors are insufficiently aware of women’s potential and their roles as important and capable actors of change. This situation, too, is related to prevailing gender stereotypes and barriers as outlined above.

The (sector-specific) gender competence among project stakeholders is limited. The gender analysis revealed that most project stakeholders, including UNDP staff and government counterparts, possess basic gender competence. However, hardly any of the interviewees received recent, encompassing gender training, especially not training focused on the linkages of gender and the refrigeration, air conditioning and foam sectors. As a consequence, gender is vastly interpreted as a topic concerning women only, and activities towards GEWE focus exclusively on quantitatively measurable results, such as number of women participating in workshops. Stakeholders' knowledge is also very limited in the important area of gender-responsive budgeting. This presents a challenge given the recurring argument voiced by stakeholders that gender mainstreaming was costly and required additional funding.

Project stakeholders show commendable interest and will to address gender equality concerns and work towards greater GEWE. In addition to an overall openness towards gender mainstreaming, stakeholders requested gender training with the objective to learn about (sector-specific) gender equality concerns and possible remedies. This, in combination with the MLF's increasing attention to GEWE, constitutes an excellent position to enhance the gender-responsiveness of ongoing and future MLF-funded projects.

4.2 Project-specific findings

4.2.1 Peru

Project overview (based on original project document)

Project title: Hydrochlorofluorocarbon Phase-out Management Plan (HPMP, Stage 1)

Peru, with an estimated population of 29.55 million inhabitants, is a low-volume consuming (LVC) Party to the Montreal Protocol. Peru has phased out the consumption of all ODS except for HCFCs. The consumption of CFCs was phased out in 2007.

On behalf of the Government of Peru UNDP submitted to the 68th meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP). The total cost add up to US \$1,111,557, consisting of US \$986,035 plus agency support costs of US \$69,022 for UNDP, and US \$50,000 plus agency support costs of US \$6,500 for UNEP. These costs account for the implementation of activities that will enable the country to comply with the Montreal Protocol's 10 per cent reduction step in HCFC consumption by 2015.

The proposal for stage II of the HPMP has been submitted to the Executive Committee in 2017.

Women's roles and gender relations in the ICR sector

As outlined above, gender stereotypes and inequality are widespread in Peru, including with regards to women's education, economic autonomy and engagement in the labor market, as well as their involvement in decision-making at various levels. This also manifests in the refrigeration and air conditioning sector, where women are highly underrepresented. Those few women that are engaged in the sector work mainly in areas such as marketing, logistics, and sales, where their capacities and skills are highly valued. For example, out of the 1200 technicians that are registered with the association for technicians in service, only 40 are women. In line with this, enterprise owners rarely receive applications from female technicians:

"During the 20 years I have this company I employed women, but I have never received an application from a female technician. I know about 12, but they don't apply, I have them because other companies closed down for instance." (Male manager, Lima)

It stands out though that among the few women working as technicians in the sector, many seem to be successful and highly motivated, appear self-confident and proud to work as a technician or in a related profession. In most cases they chose their profession because someone else in the family – usually fathers or brothers – have similar jobs. This raised their interest and awareness of the option to study engineering or receive vocational training in this field of work:

"I was influenced by my older brother, he owns a company and told me to study this, so that I can be independent. I kept saying 'no', but this was because I was against him. I started studying nursing just to go against my brother. However, there was no technician around and I could repair things, so I came back to Lima and studied this and started working with my brother. I am very passionate about my work up to this date." (Female technician, Lima).

"My father was a painter, but then a technician. We started to support him, bought equipment for him. I don't have any older brothers, I was the oldest daughter so I started studying at Senati Institute." (Female technician, Lima).

Many interviewees reported that during their time at University ten to twenty years ago they were the only woman in their class/year. Common issues they faced include the lack of privacy to change clothes and discrimination from some of their male peers. While the situation has significantly improved over time, including at the Instituto Senati as one of the main institutes to study engineering, some of these sentiments still persist. Some female technicians for instance reported facing challenges in getting hired given society's persisting perception of this being a job for men. One frequently mentioned reason for this stereotype is the physical strength required for the job; it involves lifting heavy machinery. While most men seem to hold on to this argument, women in the sector reportedly cope well:

"It was difficult at the time. I only weight 45kg and the equipment was so heavy to carry. But I did it. I needed to have a heavy body to carry things (...). I still have clients that don't trust me. Sometimes I arrive and they look at me. But when they see my hands they realize they are rough because of work." (Female technician, Lima)

Most women interviewed have families and combine productive and reproductive work. None of the interviewees reported that their workplace has supportive provisions in place, such as childcare options or flexible working hours. While this is not always easy, many women found ways to manage this situation, especially with support from their spouses, parents and siblings who support them with childcare:

“When I had my child I stopped working for four months, then I continued. I always coordinated with my husband and my maid; my husband supports me a lot with the baby. The baby is now 22 years old. Sometimes I took my child to work and clients were always fine with that. I put him somewhere to play and had a lunch box for him.” (Female technician, Lima)

With regards to respective laws and/or company policies towards such provisions, one male interviewee in a leadership position in a large enterprise reported that in his perception based on experience in the sector, such regulations would make it even harder for women to get hired, as managers will likely interpret it as an additional investment without return:

“There is no law to protect women, except for maternity leave, this is the only difference. But if there were more laws it would be worse, women would not be hired.” (Male manager, Lima)

Men’s perception of women working in the sector differs. While none of the men interviewed voiced concerns regarding women’s competence and skills some, especially those in management positions, were critical regarding their flexibility and availability to undertake certain components of the job, such as traveling to support customers across the country, and working over hours late at night. Some men also highlighted that while they are supportive of their female colleagues, machismo culture remains widespread in the country, including regarding women’s engagement in the sector:

“One time I had to send someone across Peru, and women with children can’t just go and do that. So, I hired a man. What if you have to stay at a client until 2am, a married woman cannot do it, a single woman yes, but not someone with a family. This structure has to be changed (...). The problem is not at knowledge level or the lack of a bathroom, we can address this and open an area, it is mentality, men are allowed to develop themselves, men can go for a week and leave the family, but women can’t. If you want to change this, you have to change the culture. I would also not put a man on a front desk for sales.” (Male manager, Lima).

This understanding also manifests with regards to career development options for women. By default, managers send men to trainings and similar events, while special efforts are needed to ensure women are informed and granted access to such initiatives. Overall, women’s contributions to the sector remain undervalued, and the potential the sector bears to contribute to GEWE, for instance through economic empowerment, largely untapped. The fact that some women are not aware of their rights and/or feel uncomfortable in claiming their role as key actors complicates this situation further.

While women are underrepresented in the applied sector, women outnumber men in the Dirección de Gestión Ambiental de Industria (15 women, 8 men). Women are also well represented in senior and leadership positions in the Ministry.

Project-specific gender gaps and challenges

The project document does not include any reference to gender equality issues, neither in the narrative nor with regards to baseline or other data included. The only data available on women and men's involvement in the project is documented in the 2017 progress report. This report disaggregates the total number of seminar and workshop participants by sex: out of the 1204 beneficiaries that attended 12 seminars, 171 were women – a share of 14%; out of the 630 beneficiaries that attended 15 workshops, 76 were women – a share of 12%.

Despite the lack of references to gender equality issues in the project document, some efforts were undertaken to mainstream gender into project activities (see next section). Overall, however, efforts towards more equal participation and benefitting of women and men, such as ensuring that gender is mainstreamed in training content, and achieving gender-balance among trainers/consultants recruited through the project are marginal.

One key reason for this situation is that stakeholders perceive the interrelation of gender and chemicals as complex and the integration of gender considerations as challenging. The limited availability of quantitative and qualitative data reportedly complicates gender mainstreaming efforts further, especially given stakeholders' limited capacity and skills in this area. Stakeholders also highlighted the difficulty in measuring project impacts on women and men at a larger scale, given the very technical nature of the project understood as reducing pollution.

The UNDP country office (CO) achieved the silver award in the last Gender Equality Seal certification process, which indicates an overall good performance with regards to GEWE. However, while two staff are working on GEWE in the CO in Lima, the time they are allocating to gender-related work as per their Terms of Reference (ToRs) is very limited. As a consequence the cooperation between gender focal points and ozone project staff has so far been marginal. This is also the case regarding cooperation with other relevant stakeholders, such as the Ministry of Women Affairs and NGOs working on gender: up to this date formal collaborations with the Ozone Unit are absent.

Project-specific gender strengths and achievements

Globally, Peru is one of the countries that are most advanced with regard to gender mainstreaming in ozone projects. Although gender is not formally integrated into the project document, the 2017 progress report presents data on seminar and workshop participants disaggregated by sex. Stakeholders confirmed the importance of gender equality and their commitment to implementing project activities in a gender-responsive manner; especially national counterparts in the Ministry of Production highlighted their awareness of the matter.

Indeed, it is possible to consider gender equality issues during project implementation and reporting even though the project document does not include any references to gender. One major achievement

that came out of stakeholders' commitment is that out of the fifteen workshops, one was held exclusively for women refrigeration technicians. Initiating the workshop required special efforts with regards to the identification of female candidates who are rarely registered in the database commonly used to select beneficiaries. The UNDP publication "Past Successes and Future Opportunities: Case Studies from the UNDP Portfolio and Innovative Approaches to Cooling Without Warming" elaborates on this activity (see text box).

The workshop had a multiplying effect. First, the event provided women with access to training in a conducive set-up; women reported that they feel at times more comfortable in trainings attended by a larger share of female participants. Second, it facilitated the establishment of an active network of female technicians. Women continue utilizing this network to exchange experiences and information, including on further capacity building and job opportunities. The gender analysis, which included a FGD with men and women beneficiaries, confirmed that women found this workshop as very useful and an overall great success. This initiative sets precedence, as no other Article 5 country (at least in Latin America) has successfully implemented such an activity.

Text Box: Training Women on RAC Good Practices

Since 2016 Peru has been conducting workshops for Refrigeration and Air conditioning (RAC) technicians. While the workshops were successful, few women in the RAC business participated. So the National Ozone Unit and UNDP conducted a workshop on RAC good practices and handling of natural refrigerants for women only. Fernando del Castillo Uribe, UNDP consultant and specialist in RAC, conducted the workshop and said: "It was very interesting to have a workshop exclusively for women RAC technicians, most with practical experience, and who welcomed being trained in these new technologies. In our experience, women who are dedicated to RAC are very detail-oriented – activities that require fine motor skills such as for electrical wiring. They are also very careful in following all safety guidelines, especially important with flammable new refrigerants".

A workshop participant, Iris Vega Valverde, said in 1982 she decided to pursue a RAC career at an institute in Chiclayo in northern Peru. "When I studied I had only one female classmate, the others were men. Today the RAC sector is essential for the lives of millions of people around the earth with many specialties".

Peru is complying with the HCFC phase-out schedule, implementing an import authorization system for the entry of HCFCs into the country and a programme to raise awareness and training for technicians. RAC technicians are of vital importance since they have to maintain the equipment and prevent leakages. Unfortunately, educational institutions that teach this topic in Peru advertise technical courses in a way to capture the attention of men. Through images that include only men, schools discourage women from participating. The 35 female participants were very satisfied with the trainer who answered all their questions and advised them in practical exercises. Participant reviews at the end of the workshop will help organizers replicate the workshop in Peru and in other LAC countries.

Source: UNDP (2017). Past Successes and Future Opportunities: Case Studies from the UNDP Portfolio and

Another achievement is that the UNDP gender focal point was involved in the development of stage II of the HPMP. Further, while Government officials in the Ozone Unit did not receive formal gender training, they are consulting with other Units on their experiences in addressing gender issues and good practices in gender mainstreaming, respectively. This is supported by a recent request within the Ministry to collect data in sex-disaggregated format, including data related to the project at hand.

Summary table: Linking project activities with gender gaps and achievements

Outcome	Activity	Gender gaps	Gender achievements
	<p>Technical assistance and training for the refrigeration and air-conditioning servicing sector.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Introduction of alternative technologies and technical assistance to introduce new types of refrigeration systems based on low global warming potential (GWP) and zero ODP refrigerants for large end-users; ^[1]_{SEP} • Issues related to the introduction of natural refrigerants such as flammability or toxicity, and required modifications of the related normative framework; ^[1]_{SEP} • Conservation and conversion plans for large HCFC consumers. It includes training of engineers on reducing HCFC-22 use by improving systems design; training of technicians on equipment conversions; and raising awareness on potential energy and refrigerant savings that can be achieved by better servicing practices; and ^[1]_{SEP} • Sustainable use of cleaning agents. It includes distribution to 	<ul style="list-style-type: none"> • No systematic, regular engagement of women in seminars and workshops/ efforts towards greater gender-balance among participants • No systematic efforts to ensure gender is mainstreamed into technical assistance, seminars and workshops (e.g., through special sessions on gender and its relation to the sector; use of gender-responsive training materials, such as visuals/photos reflecting men and women, presentation of sex-disaggregated data where applicable) • No systematic efforts to recruit women as trainers and achieve greater gender-balance among consultants/ experts hired through the project 	<ul style="list-style-type: none"> • Dedicated efforts to identify and approach female technicians • Planning and implementation of one dedicated, successful workshop held exclusively for female technicians

	technical schools of equipment to recycle cleaning agents used for flushing during servicing. The technical schools will initiate a pilot project for the national manufacturing of such equipment.		
	<p>Project implementation and monitoring.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Implementation and monitoring of project activities; • Progress in HCFC replacement technologies and trends in the local ODS market; and • Preparation of annual and other progress reports. 	<ul style="list-style-type: none"> • Lack of consistent gender mainstreaming in project activities throughout implementation (e.g., in training-related activities) • Lack of consistent quantitative and qualitative reporting on gender (e.g., presentation of data in sex-disaggregated format where applicable; capturing of women and men's perceptions/feedback on project activities) 	<ul style="list-style-type: none"> • Some progress reports (i.e., 2017 annual report) present selected data in sex-disaggregated format (i.e., male and female workshop participants)

5.2.2 China

Project Overview (based on original project document)

Project title: Sector Plan for HCFC Phase-out in the Industrial and Commercial Refrigeration and Air Conditioning Sector in China

China is a non-LVC Party to the Montreal Protocol. During the 64th Meeting of the Executive Committee, Sector Plan for HCFC Phase-out in the Industrial and Commercial Refrigeration and Air Conditioning (ICR) Sector in China (Stage-I), addressing 2013 and 2015 targets, was approved by the Executive Committee with UNDP as the implementing agency. Total approved funding was USD 61,000,000. The China Stage I HPMP – ICR Sector comprises of a combination of interventions such as technology transfer investments, policies and regulations, technical assistance, training, awareness and communications and management, coordination and monitoring to be implemented over five years from 2011 to 2016. Upon successful completion, the plan will result in sustainable reductions of 465 ODP tones of HCFC consumption in the ICR sector by 2015, contributing to China's compliance with the 2013 and 2015 control targets for Annex-C, group-I substances (HCFC) under the Montreal Protocol. In addition, the project will result in direct CO₂-equivalent emission reductions of about 7.66 million tones annually. The implementation of the project will follow the rules and procedures of the National Execution. The Performance Based Payment Mechanism will be applied for the implementation.

Women's roles and gender relations in the ICR sector

Many women in urban China engage in the labor market. Men however largely dominate the ICR sector. In addition to traditional gender roles that see women in sectors such as finance, the major reason mentioned for this is that women do not enjoy “dirty” work environments, such as workshops, and are unable to perform the heavy lifting of machinery. Further, most solvent enterprises are located in rural areas. Women with a University degree usually seek employment in cities, not least as it is considered unsafe for women to stay until late in the evening in remote areas. Men who engage in such jobs are oftentimes long-term workers who stay there for most of the time. As a consequence, enterprises such as Hanbell, one of the beneficiary companies, reported to receive very few applications from female engineers in the first place.

Women make up 13% of the workforce in Hanbell. These women are largely responsible for non-technical tasks, such as administration, sales, legal affairs and human resources; with regard to those women interviewed, none worked as an engineer. Women also take on important management positions in companies, including Hanbell, where currently 25% of the senior managers are women. In Hanbell, 80 men and 15 women are working specifically on project-related issues.

Most women working for Hanbell chose this job because the factory is close to their home. The factory offers good benefits, such as a shuttle bus, ensures a safe and conducive working environment for women, including through a no-nightshift policy, and pays a competitive salary. Given that the enterprise does not offer childcare services, women with children usually receive support from their own or their husbands' parents to facilitate engagement in the labor market. Hanbell does provide the option for women to finish work one hour earlier until their child is one year old – a measure greatly appreciated by its female employees. When asked about common challenges women face in the sector, or areas where improvements could lead to an even better work environment, women interviewed reported none.

Men reported they welcome women working in the sector, including as engineers or technicians. With regards to the special precautions Hanbell offers to women, such as the no nightshift policy, they perceived these as appropriate. Men said that while they have not received any targeted gender training, senior management at times mentions the importance of gender equality in meetings. Further, they referred to posters on the enterprise's premises that raise awareness. This, they reported, is mainly due to China's history of son preference and the shifting mindset, which Hanbell supports.

Similarly to Peru, women make up the majority of staff in FECO. As a consequence, FECO is currently aiming at hiring more men, which presents a challenge given that recruitments are based on an entry exam in which women frequently outperform men. Women currently hold about one third of the leadership positions in FECO. Likewise, with currently 20 women and 15 men, women make up the majority of staff in CRAA, a non-profit organization that serves as a breach between the Government and enterprises. Women are represented in all departments, including the International Department and the Technology Department. CRAA also employs female engineers, one of the Association's Heads is

a woman, and women hold two out of the five additional leadership positions in the Association. CRAA aims at hiring more men, but receives significantly more applications from women.

Project-specific gender gaps and challenges

The project document does not include any reference to gender equality issues, neither in the narrative nor with regards to baseline or other data included. This is also the case for project reports; none of the data up to this date has been collected and reported in sex-disaggregated format, and qualitative reporting on gender is absent, too. Likewise, no special attention has been paid to ensure that gender equality issues are considered in the implementation of main project activities, such as trainings. There were also no targeted efforts made to promote gender parity in project implementation and management structures.

Project stakeholders themselves reported their gender knowledge and skills in mainstreaming in general and in the project context in particular to be very limited. The UNDP gender focal point in China has been hired recently and, as per his ToRs, focuses on LGBT issues rather than the provision of gender mainstreaming support to other Units and projects, respectively. Thus, here is currently no collaboration between the gender focal point and project staff. There is also no collaboration between the project team and other relevant stakeholders, such as NGOs working on gender equality issues; efforts towards such collaboration have up to this date not been undertaken.

Project-specific gender strengths and achievements

As mentioned above, no specific attention has been paid to ensure that gender is mainstreamed into project activities. Thus, specific strengths and achievements cannot be reported. However, stakeholders showed commendable interest and will to address this situation. This includes the request for gender training. Stakeholders also made some initial suggestions what they could do right away, such as paying attention to gender balance among training participants, and ensuring that women and men are aware and have access to these. Further, the beneficiary company visited, Hanbell, has some measures in place that support women in the workplace as described above; however, these achievements are not directly linked to the project.

Summary table: Linking project activities with gender gaps and achievements

Outcome: Low carbon and other environment sustainable strategies and technologies are adapted widely to meet China's commitments and compliance with Multilateral Environment Agreements

Output	Activity	Gender gaps	Gender achievements
China's HCFC compliance targets for 2013 and 2015 achieved through ICR HPMP implementation	<p>Investment projects: conversion of compressor; conversion of air-conditioner and refrigeration equipment production lines as stipulated in the HPMP.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Completion of project implementation plan; • Signature of conversion contracts with beneficiary enterprises; • Completion of conversion to HCFC free alternatives. 	<ul style="list-style-type: none"> • This activity provides very little opportunities for gender mainstreaming (potential entry points include awareness raising of the importance of GEWE among beneficiary enterprises, and making work towards GEWE within enterprises a selection/cooperation criteria) 	No specific attention has been paid to mainstream gender into this activity
	<p>Technical assistance.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Completion of plan for technical assistant activities; • Technical assistance in implementing project component; • Development and enforcement of policy and regulations; • Development and implementation of technical standards; • Project monitoring and progress reporting on annual basis; • Verification on 2013 and 2015 targets achievement; • Contingency. 	<ul style="list-style-type: none"> • No gender mainstreaming into technical assistance activities (e.g., systematic, regular engagement of women in seminars and workshops/ efforts towards greater gender-balance among participants; ensure gender is mainstreamed into technical assistance, seminars and workshops, e.g., through special sessions on gender and its relation to the sector, use of gender-responsive training materials, such as visuals/photos reflecting men and women, presentation of sex-disaggregated data where applicable) • No gender mainstreaming into development and enforcement of policy and 	No specific attention has been paid to mainstream gender into this activity

		<p>regulations (e.g., through ensuring that women are participating in the development process)</p> <ul style="list-style-type: none"> • No consistent quantitative and qualitative reporting on gender (e.g., presentation of data in sex-disaggregated format where applicable; capturing of women and men's perceptions/feedback on project activities) 	
	<p>Project management and monitoring.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Monitoring project implementation; • Providing technical, financial and operational management; • Project progress reporting and coordination support. 	<ul style="list-style-type: none"> • Lack of consistent gender mainstreaming in project activities throughout implementation (e.g., in training-related activities) • Lack of consistent quantitative and qualitative reporting on gender (e.g., presentation of data in sex-disaggregated format where applicable; capturing of women and men's perceptions/feedback on project activities) • Lack of gender-responsive budgeting 	<p>No specific attention has been paid to mainstream gender into this activity</p>

5.2.3 Nigeria

Project overview (based on original project document)

Project title: Hydrochlorofluorocarbon Phase-out Management Plan (HPMP, Stage 1)

Nigeria is categorized as a Non-Low Volume Country (Non-LVC) and historically, ODS and specifically HCFC consumption has occurred in the foam, refrigeration and AC manufacturing, and in the refrigeration servicing sector. The HPMP will address all these areas.

Consistent with the recommendations of ExCom guidance on HPMPs, a staged approach to the HPMP is taken based on a consumption baseline to be determined by the average consumption officially reported in 2009 and 2010. It involves presentation of a high-level long-term strategy directed to meeting the 2020 (35% baseline reduction) and 2025 (67.5% baseline reduction) phase-out targets and ultimately, the complete elimination of HCFC consumption in 2030. However, within this overall strategy, the primary focus of the HPMP has been on the actions required to achieve the immediate phase-out targets of a 2013 freeze at the baseline level, and for 2015 the subsequent 10% reduction of the baseline. The combination of these two steps is presented as “Stage 1”.

Women’s roles and gender relations in the foam sector

In Nigeria men dominate the foam and refrigeration and air-conditioning sectors, too. Indeed, stakeholders reported there are few women graduate engineers in the foam sector with one in a managerial position based in Lagos. All registers and databases used to contact project beneficiaries, for instance to issue invitations for trainings, list men only. Among the main causes mentioned for this situation are the specificity of the sectors: while women enroll in STEM fields at Universities, they rather engage in fields such as accounting and business management or seek jobs as teachers after having completed their education. Further, some interviewees reported that the perception prevails that women don’t belong in the foam and refrigeration and air-conditioning sectors, not only but also due to the heavy physical labor attached to it and the “dirty” work environments in workshops. Patriarchy also plays a strong role. As a representative from the respective workers’ association believes and put it:

“We don’t just allow women to work like that. If my wife would say she wants to go and work in the sector I could probably not allow it; she has other commitments.” (Male association representative, Abuja)

Based on the interviews undertaken, gender stereotypes are prevalent. Amongst others, some interviewees considered men to have greater interest and higher intellect with regards to technical areas. Women on the other hand were perceived as easily distractible and turning off when it comes to science:

“One guy asked me a question once I could not answer. This would not happen with a woman.” (Male supervisor, Lagos)

The employment ratio in the beneficiary companies visited confirms the dominance of men in the sector. Currently, 30 men and five women constitute the workforce of the enterprise Lange & Grant/Sparkle & Crystal. Similarly, Vitapur employs 60 staff in their Lagos Branch. Out of these, only three are women, and only one works as an engineer. With regards to the male/female application ratio for technical positions, Vitapur senior managers observe that the vast majority of applicants are

men, too, and if women apply, they are on average less qualified for the job. However, another aspect plays into this, too: the interviews with senior managers revealed that they perceive hiring additional women as problematic with regards to pregnancy-related absence and leave. From their point of view, employing more women would not make any sense, as the salary during women's maternity leave is paid by companies.

The one woman engineer working in Vitapur showed high levels of motivation and commitment to her work. However, she perceived the combination of productive and reproductive work as a challenge:

"I have two bosses. One at home, my husband, and one here. Both are very supportive. I have to be very disciplined. I have to wake up early, and I have two nannies, and part of my salary goes to them. I supervise them with my phone. It would be good if companies offered childcare, as it is sometimes difficult to leave my children at home with strangers. I don't have an issue with working with men, but sometimes it is difficult to catch up with them, because they only think 'work'. We think 'work' and 'home' and split our brains." (Female engineer, Lagos)

Nevertheless, the two beneficiary enterprises visited undertake some measures to address the situation. For instance, Vitapur actively tries to offer internships to girls and young women to facilitate access to the sector; in some occasions they also offer positions following these internships. However, up to this date none of the women accepted the offer.

Lange & Grant/Sparkle & Crystal company board includes members that are running an NGO working on GEWE, especially women's entrepreneurship. Thus, the company cooperates with this NGO in the area of women's economic empowerment through skill building and income-generating activities. Vulnerable women, such as previous drug addicts and single women, receive training in producing foam-based goods, including handicrafts, bags, shoes, and furniture. Some of the women trained have meanwhile started their own business.

The National Ozone Office is the implementing partner. Currently, three men and one woman work in this office.

Project-specific gender gaps and challenges

Again, the project document does not include any reference to gender, neither in the narrative nor with regards to baseline or other data included. This is also the case for project reports; none of the data up to this date has been collected in sex-disaggregated format, and qualitative reporting on gender is absent. No special attention has been paid to ensure that gender is considered in the implementation of main project activities, such as trainings, or the hiring of women to achieve gender balance among trainers and other project posts.

The UNDP CO has a gender focal point. While joint work took place with regards to other environment projects, no mainstreaming efforts were undertaken with the ozone project team. The main reason

mentioned is the lack of interest of the MLF and the absence of related reporting requirements. Currently, there is also no collaboration between the ozone team and other relevant stakeholders, such as the Ministry of Women and Social Affairs, and/or NGOs working on gender.

Gender mainstreaming capacity among stakeholders in general and in the context of ozone projects in particular is rather low. Neither government counterparts nor UNDP staff in Nigeria have recently received gender training, especially not training with references to the sector, or related important topics, such as gender-responsive budgeting.

Project-specific gender strengths and achievements

As in China, no specific attention has so far been paid to ensure that gender is mainstreamed into project activities. Thus, specific strengths and achievements cannot be reported. However, stakeholders showed commendable interest and will to address this situation. This includes the request for gender training. Stakeholders also made some initial suggestions what they could do right away, such as paying attention to gender-responsive monitoring and evaluation and the collection of sex-disaggregated data, respectively. Further, the beneficiary companies visited implement measures to support women's access to the sector through internships, and women's economic empowerment through trainings, respectively. However, these activities are neither linked to the foam sector nor to the project directly.

Summary table: Linking project activities with gender gaps and achievements

UNDAF Outcome: By 2017 Nigeria's environmental vulnerability to negative effects of economic activities, urbanization and climate change is reduced through the efficient use of natural resources, a reformed regulatory framework aligned with Nigeria's international commitments, enforced at Federal, State and local levels by strengthened institutions, private sector and population that are environmentally conscious and taking action towards environmental sustainability		
UNDAF Output: A comprehensive national regulatory framework is developed in line with ratified international protocols and its implementation supported for the sustainable management of Nigeria's natural resources including land, water, air, oil, biodiversity, natural habitats and extractive industries		
Activity	Gender gaps	Gender achievements
Implementation of PU foam sector plan. This includes: <ul style="list-style-type: none"> Completed and functional upgrade system house as well as production and use of Methyl Formate as alternative in the Foam sector 	<ul style="list-style-type: none"> This activity provides very little opportunities for gender mainstreaming (potential entry points include awareness raising of the importance of GEWE among system houses) 	No specific attention has been paid to mainstream gender into this activity
Reduction of HCFC Consumption Ratio in the Foam Sector. This includes:	<ul style="list-style-type: none"> No gender mainstreaming into workshops (e.g., systematic, regular engagement of 	No specific attention has been paid to mainstream gender into this activity

<ul style="list-style-type: none"> • Retrofitting of two high-pressure dispensers and two foam dispensers at Vitapur • Conduct specific number of trials at system houses • Finalize the selection and implementation process in downstream plant conversion (KOMA) • Finalize the conversion process and commissioning of the Methyl Formate (MF) Plant in Lagos • Conduct inception meeting / workshop of stakeholders in MF Technology development in six geo-political zones and support conversion (MOA with KOMA) • Finalize trials with Rigifoam for the Systems Houses 	women in workshops/ efforts to reach out to eligible women/ towards greater gender-balance among participants; gender mainstreaming into workshops, e.g., through special sessions on gender and its relation to the sector, use of gender-responsive training materials, such as visuals/photos reflecting men and women, presentation of sex-disaggregated data where applicable)	
Project monitoring and reporting	<ul style="list-style-type: none"> • Lack of consistent quantitative and qualitative reporting on gender (e.g., presentation of data in sex-disaggregated format where applicable; capturing of women and men's perceptions/feedback on project activities) 	No specific attention has been paid to mainstream gender into this activity

5 Challenges and limitations

Overall, the gender analysis was concluded successfully and by and large in line with the planned proceeding. Nevertheless, some challenges occurred, and the analysis has limitations. These include:

The intersection of GEWE and chemicals in general and ODS in particular is understudied and efforts to address this situation are in their infancy. Both quantitative and qualitative data in this area are limited; for instance, robust data on women and men's representation in relevant sectors at the global and national level are not available, neither are systematically collected testimonies from women on their experiences in the sector. Thus, it is challenging to embed the findings of this gender analysis in a broader context, and compare and contrast results in a meaningful manner.

Limited time in the countries visited to undertake interviews, especially with women and men as project beneficiaries. The time allocated for each country visit was three to four days. In China and Nigeria, this included in-country travel, which required a significant amount of time. Especially in China the time spent with management and employees from the enterprise benefitting from the

project was very limited. This impacts the quantity and quality of the collected data as well as the generalizability of the findings.

Challenges related to interpretation and translation of interviews and documents. Especially in Peru and China, UNDP staff kindly interpreted interview questions and answers from the respective local language into English and back⁴, and translated key messages of relevant documents into English. However, such proceeding poses a common problem in research and provides significant space for bias. Factors, such as gender of the interpreter and his/her role in the project can influence data collection and impacts both the reliability and generalizability of the findings.

Limitations of qualitative research and selection of interviewees: The analysis applied a qualitative approach, and Government counterparts, enterprise representatives, or UNDP staff selected interviewees and FGD participants. Both impact the generalizability of results.

6 The way forward

The main purpose of this gender analysis was to collect baseline information on what is currently being done on gender and what the main challenges and opportunities are, including the identification of entry points for future gender mainstreaming in Montreal Protocol projects. Towards this end a desk review of relevant materials was undertaken, followed by discussions with UNDP MPU/Chemicals teams based in HQ and the regions. Further, a total of 59 women and men, including beneficiaries, UNDP country office staff, implementing partners and other relevant stakeholders were consulted through FGDs and/or semi-structured individual interviews in Peru, China and Nigeria.

The gender analysis findings show that project staff and implementing partners are committed to enhancing GEWE. While some activities towards this end have been implemented, the gender analysis revealed a strong need to enhance gender mainstreaming efforts at all levels; currently, women are significantly underrepresented in the sector and up to this date, gender has hardly been considered in the project cycles.

Responding to these findings, a GAP will be developed. This plan will be based on the identified gender challenges and entry points for mainstreaming. It will utilize the suggestions from stakeholders and beneficiaries collected during the analysis, and draw from lessons learned and good practices from related sectors and projects. The GAP will complement this analysis report and include annual outputs to facilitate implementation of activities that promote GEWE.

⁴ For the FGD with men and women beneficiaries in Lima a professional interpreter was contracted.

Annex

Guiding questions for phone conversations with UNDP MPU/Chemicals team

- ❖ In your point of view/current knowledge, what are the key gender challenges in your projects?
- ❖ What have you so far done to address these / where do you stand regarding the gender mainstreaming process?
- ❖ What have partners/project stakeholders done to address gender issues?
- ❖ Where do you see suitable entry points for gender mainstreaming?
- ❖ What is your capacity/level of knowledge regarding gender mainstreaming in sector-related projects (and that of your partners/other project stakeholder)?
- ❖ Are gender statistics being collected in MLF-funded projects?

Guiding questions for interviews with UNDP country office staff, project implementing partners and relevant stakeholders

- ❖ In a brief summary, what are the project's goals and what are the main activities to achieve these?
- ❖ What are typical roles women and men take on in the sector?
- ❖ What are key reasons for women's underrepresentation in the sector?
- ❖ With reference to project activities or related initiatives, what has been done up to this date with regard to gender equality and women's empowerment (e.g., collection of sex-disaggregated data; targeted efforts to hire female trainers etc.)?
- ❖ In your opinion, what are achievements and strengths of the sector/project with regard to gender equality and women's empowerment?
- ❖ Based on your knowledge/experience, what are the main gender weaknesses/gaps of the sector/project with regard to gender equality and women's empowerment?
- ❖ Based on your knowledge/experience, what are the key barriers that lead to the gender inequalities you described (e.g. specific cultural norms/beliefs, restrictive laws etc.)?
- ❖ What entry-points/opportunities do you see to address these barriers and the gender weaknesses/gaps within the sector/project?
- ❖ What potential risks could such an increased focus on women/gender equality bear (e.g. power imbalances within the household that could put women at risk)?
- ❖ Is there any collaboration with gender focal points, Ministries/Departments for gender/women's Affairs, and/or other stakeholders working on the topic (e.g., NGOs)? In what way? If not, why?
- ❖ How many women and men are employed in your Ministry/Department?
- ❖ What is your/your colleagues' level of knowledge / understanding of gender equality and women's empowerment?
- ❖ Have you received any general gender training, and/or targeted training on gender and chemicals/ozone depleting substances?

- ❖ Is there anything else you would like to share with me in this context?

Guiding questions for beneficiaries (enterprise representatives / management teams)

- ❖ How many women and men are employed in your enterprise?
- ❖ What kind of jobs do women and men take on in your enterprise?
- ❖ What are typical jobs for women and men in the sector?
- ❖ In your opinion, what are the key challenges related to gender equality in the sector/your enterprise?
- ❖ Have you undertaken any specific measures to address these? What were these, and what was the result?
- ❖ What else could/should be done to achieve greater gender equality (e.g., balance in management teams)?
- ❖ What are barriers in implementing such activities?
- ❖ What is your/your colleagues' level of knowledge / understanding of gender equality and women's empowerment?
- ❖ Have you received any general gender training, and/or targeted training on gender and chemicals/ozone depleting substances?
- ❖ Is there anything else you would like to share with me in this context?

Guiding questions for beneficiaries (FGDs with men and women)

- ❖ What was your motivation to join this sector?
- ❖ What is your position/role in the enterprise/sector?
- ❖ How does a regular working day look like for you?
- ❖ What do you enjoy about your work?
- ❖ What are challenges you face in your work – in general, and with regards to gender (e.g., combining productive and reproductive work)?
- ❖ What does gender equality and women's empowerment mean for you?
- ❖ Have you received any general gender training, and/or targeted training on gender and chemicals/ozone depleting substances?
- ❖ Is there anything else you would like to share with me in this context?

References

- "Women in the workforce". (2017). Women in the workforce: China. Retrieved 20 August, 2018, from <https://http://www.catalyst.org/knowledge/women-workforce-china>
- APEC, & USAID. (2016). Women's economic participation in Peru: Achieving APEC Priorities for Gender Equality n.p.
- Human Rights Watch. (2017). Peru: Events of 2016. Retrieved 24 August 2018, 2018, from <https://http://www.hrw.org/world-report/2017/country-chapters/peru>
- Makama, G. A. (2013). Patriarchy and gender inequality in Nigeria: the way forward. *European Scientific Journal*, 9(17), 115-144.
- Oxfam. (2015). Inequality in Peru: Reality and risks. Lima: Oxfam.
- Rozas, P. T. (2017). Has progress been made in the promotion of women's political participation in Peru? Retrieved 24 August, 2018, from <https://http://www.idea.int/news-media/news/has-progress-been-made-promotion-women%E2%80%99s-political-participation-peru>
- UN Women. (2017). Facts and figures: Economic empowerment. Retrieved 6 August, 2018, from <http://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures - notes>
- UNDP. (2011). Chemicals and gender.
- UNDP. (2016). Gender Inequality Index (GII). Retrieved 20 August, 2018, from <http://hdr.undp.org/en/content/gender-inequality-index-gii>
- UNEP. (2018). Desk study for the evaluation of gender mainstreaming in the Montreal Protocol projects and policies.
- UNESCO. (n.d.). Peru: Gender Indicator. Perception of gender equality. Retrieved 21 August, 2018, from <https://en.unesco.org/creativity/peru-gender-indicator-perception-gender-equality>

Gender Action Plan

This Gender Action Plan (GAP) aims at advancing gender equality and women's empowerment (GEWE) in MPU projects. The GAP is based on gender challenges and entry points for mainstreaming as identified by a detailed gender analysis of three selected projects implemented in Peru, China, and Nigeria. It reflects suggestions from stakeholders and beneficiaries collected during the analysis, and draws from lessons learned and good practices from related sectors and projects.

Based on the above, the first part of the GAP suggests four overarching actions that apply to all three projects. Subsequently, the GAP outlines tailored gender outputs and activities for each project based on the respective project log frames, followed by a section on financing gender outputs and activities. It also recommends some additional actions to address the identified gender gaps in each project.

In its second part, the GAP provides an overview of things to remember as well as some additional, more generic advice how to mainstream gender into MPU projects. This also includes an overview of useful resources for stakeholders to support gender mainstreaming efforts throughout the project cycle of ongoing and the planning of future projects.

Part 1: Project-specific recommendations

The following sub-sections propose gender outputs and activities specific to the selected projects implemented in Peru, China and Nigeria, and reflections on how to finance these. In addition, and based on findings from the gender analysis, all three projects are strongly encouraged to implement the following four overarching actions:

1. Organize gender trainings for project stakeholders, including UNDP project staff, government counterparts and further implementing partners. The gender capacity among project stakeholders was overall found to be limited. This presents a major barrier with regards to effective gender mainstreaming, thus training is strongly recommended. The training should capture some basic information on GEWE (e.g., key gender concepts and terminology), and especially the linkages of gender and the respective sectors (i.e., foam sector and refrigeration and air-conditioning sector). In addition, basic training on gender-responsive budgeting is recommended, to address the commonly raised argument that gender mainstreaming required large amounts of (unavailable) additional funding. Further, the training should provide stakeholders with information on women's economic empowerment and the benefits thereof, especially for private sector enterprises. This will be of great help with regards to advocacy and awareness raising efforts related to GEWE with private sector partners/beneficiaries.

2. Establish collaborations with colleagues and external stakeholders working on gender equality and women's empowerment. This includes regular consultations with UNDP Gender Focal Points, relevant ministries (e.g., Ministry of Women and Vulnerable Populations in Peru, and Ministry of Women

and Social Affairs in Nigeria), and national, regional, and local NGOs. Formalizing these collaborations, for instance through inviting representatives from relevant ministries to join Project Boards and/or Steering Committees, will help a great deal in mainstreaming gender effectively.

3. Link project activities with wider efforts towards GEWE implemented by UNDP and other relevant stakeholders, especially UNIDO, UNEP, but also UN Women. Currently such efforts are rare, thus leaving valuable opportunities for capacity building, but also advocacy and awareness raising of women's vulnerabilities and contributions to Montreal Protocol-related sectors untapped. For instance, collaborations with project teams engaged in GEF-funded projects will likely be beneficial. Should there be GEF-funded trainings for project staff on gender and climate change for instance, MP project staff could explore the opportunity to join. Although centered on different issues, GEF projects and GAPs attached to these can be used as examples, given GEF's comparatively strict guidelines on gender mainstreaming. Further, events such as International Women's Day and respective CO activities/celibrations, can serve as an opportunity to advocate for women's engagement in STEM fields and MP project activities.

4. In addition to integrating gender considerations into project activities, ensure that gender is also considered internally, i.e., throughout human resource processes. This includes for instance efforts towards gender-balance among staff and consultants recruited as part of the projects, and making a certain level of gender competence a requirement in ToRs and/or interview processes.

Peru

Project: Hydrochlorofluorocarbon Phase-out Management Plan (HPMP, Stage 1)

Based on the identified gender gaps and challenges, and building on previous successes, the following actions are recommended:

Project Outcome	
Project Activities	Gender outputs and activities
<p>Technical assistance and training for the refrigeration and air-conditioning servicing sector.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Introduction of alternative technologies and technical assistance to introduce new types of refrigeration systems based on low global warming potential (GWP) and zero ODP refrigerants for large end-users; • Issues related to the introduction of natural refrigerants such as flammability or toxicity, and 	<p><u>Output:</u> Gender is adequately incorporated into technical assistance and training.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Implement efforts towards greater gender balance among recruited experts/trainers (e.g., through inclusion of provisions in ToRs that women are encouraged to apply); • Implement efforts towards greater gender balance among training/workshop participants (e.g., through targeted invitation of women

<p>required modifications on the related normative framework; ^[1]_{SEP}</p> <ul style="list-style-type: none"> • Conservation and conversion plans for large HCFC consumers. It includes training of engineers on reducing HCFC-22 use by improving systems design; training of technicians on equipment conversions; and raising awareness on potential energy and refrigerant savings that can be achieved by better servicing practices; and ^[1]_{SEP} • Sustainable use of cleaning agents. It includes distribution to technical schools of equipment to recycle cleaning agents used for flushing during servicing. The ^[1]_{SEP} technical schools will initiate a pilot project for the national manufacturing of such equipment. 	<p>included in database on women technicians established in 2017);</p> <ul style="list-style-type: none"> • Integrate gender considerations in trainings and training materials (e.g., through; presentation of sex-disaggregated data and visuals of women and men where applicable; presentation of different effects of chemicals on women and men); • Implement specific training/workshop for women (follow-up on successful workshop for women held in 2017).
<p>Project implementation and monitoring.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Implementation and monitoring of project activities; • Progress in HCFC replacement technologies and trends in the local ODS market; and • Preparation of annual and other progress reports. 	<p><u>Output:</u> All reporting (e.g., quarterly and annual reports) captures gender-related progress/impact on men and women, and respective challenges in quantitative and qualitative ways.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Collect quantitative data in sex-disaggregated format (e.g., on workshop participants); • Where applicable, collect qualitative data from women and men related to project activities and impact (e.g., capacity needs, perception of workshops); • Implement efforts towards gender-balance among recruited consultants for M&E purposes (e.g., mid-term and final evaluations); • Ensure consultants and project personnel engaged in M&E have the required gender competence to reflect on progress and challenges related to gender, and how this connects with achieving the overall project results.

Peru was found to be a country where efforts towards gender mainstreaming on ozone projects are comparatively advanced. Building on previous successes, and based on further findings from the gender analysis, the following further actions are recommended to the extent the project context allows:

- Address gender stereotypes that continue to prevail and present a barrier regarding women's engagement in the sector. Specifically, the gender analysis revealed that many men doubt that women, especially when having a family, can fully participate in the labor market. Further, women's contributions to the sector are overall undervalued. Opportunities to counteract such stereotypes include making awareness raising and advocacy work an integral part of collaborations with private sector representatives. Drafting and disseminating success stories about women engaged in the sector is another good practice.
- Support efforts towards enhancing women's confidence, including engaging in leadership positions. The gender analysis found that many women in Peru are not aware of their rights and/or feel uncomfortable in claiming their role as key actors. Identifying female role models in the sector / champions will help women, especially young women, to gain more confidence and raise their awareness of employment opportunities in the sector.

HPMP II Peru: Initial gender approach

In Peru, HMPM II will commence in the near future. The CO prepared a draft of the expected gender approach, which is yet to be approved. This approach is reflected in the table below. The highlighted passages reflect suggestions from the gender consultant how this approach could be extended.

OUTCOME	ACTIVITY	EXPECTED GENDER APPROACH
1. Program for HCFC consumption phase-out in refrigeration and air conditioning sectors	1.1 Project for the implementation of refrigerant recovery and recycling centers.	Identify opportunities to promote active participation of women with technical knowledge and training on alternatives to HCFCs and HFCs. Also, to handle machinery or managing such centers.
	1.2 Projects for the application of good refrigeration practices and procedures in the use of hydrocarbon refrigerants.	It is expected to promote women's participation jointly with the group of women that attended the Workshop for women technicians in 2017.
	1.3 Technical assistance for end users in adoption of non-ODP, low-GWP technologies and refrigeration and air conditioning equipment conversion.	<ul style="list-style-type: none"> • Ensure technical assistance / trainings entail a gender component (e.g., a dedicated session on GEWE; presentation of data in sex-disaggregated format where applicable); • Utilize the opportunity of strengthening the formal education technical institutes and promote women's engagement in the sector
	1.4 Project for the implementation of a training program for refrigeration and air conditioning technicians.	

	1.5 Project for the strengthening of formal education technical institutes.	(e.g., through targeted advocacy events on GEWE and its linkages to the sector).
2. Programme for Public Awareness to promote the Phase-out of HCFC.	2.1 Project for promoting the HCFC phase out in the Republic of Peru.	<p>Perhaps here will be many ways and options to involve women in different aspects of awareness campaigns, from people directly working in RAC sector to volunteers supporting specific activities. Furthermore, women will be included into promotional material such as posters, brochures, etc.</p> <ul style="list-style-type: none"> • Ensure that campaign/ promotion materials and events are reach women and men (e.g., disseminate material at Universities and through the roster of women technicians); • Ensure that campaigns/ promotion materials highlight the importance and benefits of GEWE, including in the RAC sector (e.g., through featuring some success stories from women technicians).
3. Programme for Monitoring and Project implementation	3.1 Technical assistant and project management.	<p>TBD</p> <ul style="list-style-type: none"> • Where applicable, ensure data is collected in sex-disaggregated format and presented as such in all project reporting; • Ensure that recruitment procedures under the project are undertaken in a gender-responsive manner (e.g., making an effort to achieve gender balance among contracted consultants and staff, making gender competence a requirement in ToRs).

China

Based on the identified gender gaps and challenges, the following actions are recommended:

Outcome: <i>Low carbon and other environment sustainable strategies and technologies are adapted widely to meet China's commitments and compliance with Multilateral Environment Agreements</i>		
Output	Activity	Gender outputs and activities
China's HCFC compliance targets for 2013 and 2015 achieved through ICR HPMP implementation	<p>Investment projects: conversion of compressor; conversion of air-conditioner and refrigeration equipment production lines as stipulated in the HPMP.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Completion of project implementation plan; • Signature of conversion contracts with beneficiary enterprises; • Completion of conversion to HCFC free alternatives. 	<p><u>Output:</u> Beneficiary enterprises are sensitized on GEWE</p> <p>Activity:</p> <ul style="list-style-type: none"> • Communicate the importance of GEWE in the context of the ICR sector (e.g., through provision of information material, and/or formal gender training).
	<p>Technical assistance.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Completion of plan for technical assistant activities; • Technical assistance in implementing project component; • Development and enforcement of policy and regulations; • Development and implementation of technical standards; • Project monitoring and progress reporting on annual basis; • Verification on 2013 and 2015 targets achievement; • Contingency. 	<p><u>Output:</u> Gender is adequately incorporated into technical assistance</p> <p>Activities:</p> <ul style="list-style-type: none"> • Implement efforts towards greater gender balance among recruited experts/trainers (e.g., through inclusion of provisions in ToRs that women are encouraged to apply); • Implement efforts towards greater gender balance among training/workshop participants (e.g., through targeted invitation of women); <p>Integrate gender considerations in trainings and training materials (e.g., through; presentation of sex-disaggregated data and visuals of women and men where applicable; presentation of different effects of chemicals on women and men).</p>

		<p><u>Output:</u> All monitoring and reporting (i.e., annual reports) captures gender-related progress/impact on men and women, and respective challenges in quantitative and qualitative ways.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Collect quantitative data in sex-disaggregated format (e.g., on workshop participants); • Where applicable, collect qualitative data from women and men related to project activities and impact (e.g., capacity needs, perception of workshops); • Implement efforts towards gender-balance among recruited consultants for M&E purposes (e.g., mid-term and final evaluations); • Ensure consultants and project personnel engaged in M&E have the required gender competence to reflect on progress and challenges related to gender, and how this connects with achieving the overall project results.
	<p>Project management and monitoring.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Monitoring project implementation; • Providing technical, financial and operational management; • Project progress reporting and coordination support. 	<p><u>Output (same as above):</u> All monitoring and reporting captures gender-related progress/impact on men and women, and respective challenges in quantitative and qualitative ways.</p> <p>Activities (same as above):</p> <ul style="list-style-type: none"> • Collect quantitative data in sex-disaggregated format (e.g., on workshop participants); • Where applicable, collect qualitative data from women and men related to project activities and impact (e.g., capacity needs, perception of workshops); • Implement efforts towards gender-balance among recruited consultants for M&E purposes (e.g., mid-term and final evaluations); • Ensure consultants and project personnel engaged in M&E have the required gender competence to reflect on progress and challenges related to gender, and how this

		connects with achieving the overall project results.
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Based on further findings from the gender analysis and in addition to the above activities, the following actions are recommended to the extent the project context allows:

- Advocate among beneficiary companies for the employment of female engineers/women in technical positions. The gender analysis showed that the beneficiary company visited (Hambell) has provisions in place towards gender-friendly work-environments, and welcomes employing women, including in management positions. However, a gendered division of labor was found internally in terms of men being largely engaged in technical jobs, while women work in sales, legal affairs, and human resources. Targeted efforts from the company to encourage qualified female engineers to apply may help addressing this divide.

Nigeria

Based on the identified gender gaps and challenges, the following actions are recommended:

UNDAF Outcome: By 2017 Nigeria's environmental vulnerability to negative effects of economic activities, urbanization and climate change is reduced through the efficient use of natural resources, a reformed regulatory framework aligned with Nigeria's international commitments, enforced at Federal, State and local levels by strengthened institutions, private sector and population that are environmentally conscious and taking action towards environmental sustainability.	
UNDAF Output: A comprehensive national regulatory framework is developed in line with ratified international protocols and its implementation supported for the sustainable management of Nigeria's natural resources including land, water, air, oil, biodiversity, natural habitats and extractive industries.	
Activity	Gender outputs and activities
Implementation of PU foam sector plan. This includes: • Completed and functional up-grade system houses as well as production and use of Methyl Formate as alternative in the Foam sector	This activity provides very little opportunities for gender mainstreaming.
Reduction of HCFC Consumption Ratio in the Foam Sector.	<u>Output:</u> Gender is adequately incorporated into workshops.

<p>This includes:</p> <ul style="list-style-type: none"> • Retrofitting of two high-pressure dispensers and two foam dispensers at Vitapur • Conduct specific number of trials at system houses • Finalize the selection and implementation process in downstream plant conversion (KOMAJ) • Finalize the conversion process and commissioning of the Methyl Formate (MF) Plant in Lagos • Conduct inception meeting / workshop of stakeholders in MF Technology development in six geopolitical zones and support conversion (MOA with KOMAJ) • Finalize trials with Rigifoam for the Systems Houses 	<p>Activities:</p> <ul style="list-style-type: none"> • Implement efforts towards greater gender balance among recruited experts/trainers (e.g., through inclusion of provisions in ToRs that women are encouraged to apply); • Implement efforts towards greater gender balance among training/workshop participants (e.g., through targeted invitation of women and establishment of a database on women technicians/ engineers); • Integrate gender considerations in trainings and training materials (e.g., through; presentation of sex-disaggregated data and visuals of women and men where applicable; presentation of different effects of chemicals on women and men).
<p>Project monitoring and reporting</p>	<p><u>Output:</u> All monitoring and reporting captures gender-related progress/impact on men and women, and respective challenges in quantitative and qualitative ways.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Collect quantitative data in sex-disaggregated format (e.g., on workshop participants); • Where applicable, collect qualitative data from women and men related to project activities and impact (e.g., capacity needs, perception of workshops); • Implement efforts towards gender-balance among recruited consultants for M&E purposes (e.g., mid-term and final evaluations); • Ensure consultants and project personnel engaged in M&E have the required gender competence to reflect on progress and challenges related to gender, and how this connects with achieving the overall project results.

Based on further findings from the gender analysis and in addition to the above activities, the following actions are recommended to the extent the project context allows:

- Establish a roster/database of female engineers/technicians. Currently, such a roster does not exist (not least given the fact the number of women in these fields is small), and existing registers used to reach out to beneficiaries list men only. It will be helpful to have a roster/database of female engineers/technicians, including to facilitate women's increased participation in and benefitting from project activities. The roster/database could be developed in collaboration with relevant stakeholders, such as associations/societies (e.g., the Society of Women Engineers), and the Ministry of Women Affairs and Social Development.
- Engage with the formal education sector (e.g., Universities, High Schools), advocate there for women's engagement in STEM fields, and raise students' awareness of and trigger an interest in the opportunities for women in the foam sector. As the gender analysis showed, women enrolled in STEM/engineering programs rarely chose to join this particular sector, including due to cultural reasons as well as a lack of awareness of and interest in this field of work.⁵
- The gender analysis revealed that for the few women engaged in the sector, combining reproductive and productive work is a challenge, especially with regards to childcare options. At the same time, private sector representatives voiced some difficulties that come with hiring women, such as being obliged to pay salaries during their maternity leave. As part of the work with private sector enterprises it is thus important to highlight the benefits of hiring women, including in leadership positions. It is also important to emphasize the need for conducive work environments that attract women, such as flexible working hours. Such provision should be formalized, for instance in the form of internal gender policies/strategies.
- The gender analysis also revealed that strong gender stereotypes prevail, including regarding women's intellectual capacity in technical fields of work. Hence, working with beneficiary enterprises should also entail awareness raising of managers regarding women's capacities and skills, and efforts towards addressing these stereotypes. Organizing formal gender training, especially for managers, will be helpful in this regard.

Financing gender outputs and activities

Currently, the MLF has no separate budget to fund gender outputs and activities. It is thus important to highlight that some of the proposed interventions can be integrated in ongoing and future project processes at low-cost or no cost. Examples include (but are not limited to) efforts towards achieving gender parity among personnel recruited through projects, making gender competence a requirement for consultants and project personnel (e.g., those contracted to undertake assessments), the incorporation of gender equality issues and entry points in trainings and capacity building initiatives, efforts towards achieving gender parity among training participants, establishing collaborations with stakeholders that work on gender equality and women's empowerment (e.g., Ministries and local NGOs), and gender-responsive reporting (e.g., collection of sex-disaggregated data).

Other activities, especially the organization of targeted gender events, the preparation of specific knowledge products on gender, and the hiring of gender experts to deliver targeted gender training

⁵ This activity can be implemented in the context of the HPMP work and/or within the scope of the Institutional Strengthening project in the country on MP.

and/or support gender mainstreaming efforts throughout the project cycle or specific phases thereof, require additional funds. The estimated costs for gender experts to carry out these tasks vary depending on the scope of the envisioned work, his/her qualifications, and the potential need to travel to the duty station. One option to reduce costs with regards to training is to collaborate with colleagues involved in GEF projects: should there be GEF-funded trainings for project staff on gender and climate change for instance, MP project staff could explore the opportunity to join and/or cost share. The respective trainer may also be able to add some specific sessions on MP-related sectors.

The following presents an example/orientation for a budget of a 3-day gender training that will benefit project stakeholders in all three countries, and the preparation of a short publication on gender mainstreaming and project-related success stories, delivered by an international expert with a minimum of five years of work experience at a daily rate of 550USD/day:

Activity	Budget line	Costs (USD)
3-day in-country gender training	Conceptualization of training and preparation of tailored training materials (4 working days)	2,200
	Implementation of training on site (3 working days)	1,650
	Preparation of workshop report (1 working day)	550
	Travel budget, including DSA	3,000
	Miscellaneous (e.g., health insurance)	200
		Total: 7,600
Preparation of publication	Desk review of relevant existing material (3 working days)	1,650
	Collection of quantitative and qualitative data and visual material (photos etc.), interviews with project stakeholders and beneficiaries on site, (3 days)	1,650
	Drafting of publication, including basic design and one revision (7 working days)	3,850
	Travel budget, including DSA	3,000
	Miscellaneous (e.g., health insurance)	200
		Total: 10,350

Part 2: Things to remember and some additional advice

Gender mainstreaming into the project cycle

To improve development results it is crucial to mainstream gender into all phases of the project cycle. This includes the implementation of gender-responsive assessments during the project formulation phase (e.g., through ensuring gender balance among assessment teams, the inclusion of questions in assessment procedures that explore women and men's vulnerabilities, capacities, and roles and responsibilities, and consulting male and female beneficiaries, as well as GEWE stakeholders), and especially the integration of gender references in project documents. It is well possible to mainstream gender into project activities even when the project document does not include references to GEWE. However, the risk that gender is not adequately considered throughout project implementation, monitoring, reporting and evaluation is much higher if references to GEWE are missing in narratives and log frames of project documents. It is also important to ensure that sufficient financial resources are allocated to facilitate mainstreaming and affirmative action if need be. Reflecting on women and men's participation in and benefitting from projects in quantitative and qualitative ways is key in quarterly, annual and any other project reporting.

Representation of women

Women are frequently portrayed as vulnerable, including in sectors related to the Montreal Protocol. The level of awareness of women's contributions to the economy and the value women's economic empowerment can add to the overall well-being of families and communities as a whole is oftentimes limited among project stakeholders and beneficiaries. It is thus important to not only highlight women's vulnerabilities and needs, but also their capacities and skills, as well as their roles as actors of change. Aside from including some language in project documents, suitable options towards this end include the preparation of success stories and testimonies from individual women and/or groups of women, as well as the presentation of available macro-level data, for instance on women's significant contributions to GDP, and the effect of women's education on household welfare.

Advocacy and awareness raising

In addition to the preparation of sector-specific knowledge products on GEWE, advocacy and awareness raising are important measures in addressing structural and cultural barriers. Typical occasions suitable for the implementation of such measures include global, regional, and national conferences and commemorations, such as the International Day for the Preservation of the Ozone Layer. The organization of side events on GEWE and dissemination of respective knowledge products are two good practices for advocacy and awareness raising at such events.

Development of gender policies/strategies for enterprises

Combining productive and reproductive work is oftentimes challenging for women. At the same time, hiring women is perceived as coming at a high cost by many managers: companies in most countries are expected to pay salaries for women while they are on maternity leave, which poses a particular challenge for small and medium-scale enterprises. As part of the work with the private sector it is thus helpful to emphasize the benefits of hiring women, including in leadership positions. It is also very important to emphasize the need for conducive work environments that attract women, such as flexible working hours. Recommending and supporting the development of internal gender policies is good practice.

Set-up of networks / online platforms

It has proven very useful in numerous different settings and sectors to establish networks / online platforms for women to connect. One example is the whatsapp group chat women technicians established in Peru, after they met at the workshop organized especially for them as part of the MP project. Through this chat they exchange experiences and inform each other about job opportunities. Similar initiatives were implemented in other countries and sectors. In their work with beneficiaries, project stakeholders can encourage the set-up of such networks / online platforms, and inform women about the positive benefits thereof.

Gender concepts and terminology

It is important to be clear about relevant gender concepts and to use the respective jargon correctly throughout all phases of the project cycle. Oftentimes, ambiguous language is used, including in written documents related to projects. The table below provides a brief overview of key concepts and terminology that can be used to address this situation.

Gender refers to feminine and masculine; it denotes certain behaviours, activities, roles and responsibilities, opportunities and attributes considered appropriate for men and women by a given society at a certain point in time. Gender determines what is valued in women and men, what they are allowed to do and what is expected from them. Gender also refers to relationships between women and men, as well as the relationships between men and the relationships between women. These relationships, attributes and opportunities are socially constructed and learned. Hence, they are flexible, can change over time and differ across societies (1).

Gender equality refers to equal responsibilities, opportunities, and rights of women and men. However, “equality does not mean that women and men will become the same but that women’s and men’s rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women’s issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centered development” (1).

Gender equity is very much related to the concept of fairness. It considers women and men’s different needs, capacities and interests in the allocation of and access to any resources, services and goods. It also addresses imbalances in benefits available to women and men (2). Gender equity can

include equal treatment as well as different treatment of men and women that is considered equivalent regarding benefits, opportunities, rights and obligations (1).

Gender mainstreaming is the chosen approach of the United Nations system and international community toward realizing progress on women's and girl's rights, as a sub-set of human rights to which the United Nations dedicates itself. It is not a goal or objective on its own. It is a strategy for implementing greater equality for women and girls in relation to men and boys. Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a way to make women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality (1).

Gender-sensitive activities consider gender norms, roles and relations but do not address inequalities generated by these. While gender-sensitivity indicates gender awareness, no significant remedial action is undertaken (3)

Gender-responsive activities respond to the inequalities in the lives of women and men within a given social setting and aim to remedy these (3).

Additional results and indicators

The table below outlines results and indicators that address commonly observed gender gaps in the environment sector, including projects related to the Montreal Protocol. Once adjusted to the specific context, these results and indicators can be used for the formulation of project documents and/or further GAPs.

Result	Indicator
Gender-responsive human resource management (recruitment focused)	<ul style="list-style-type: none"> ❖ Nr and % of male and female consultants/experts/technical assistants etc. recruited through the project ❖ Nr and % of applications received from women and men ❖ Nr of efforts undertaken to encourage women to apply ❖ ToRs include gender competence as requirement (yes/no) ❖ ToRs include provision that encourages women to apply (yes/no) ❖ Gender competence was tested as part of interview/test (yes/no) ❖ Nr and % of women and men in recruitment panel ❖ Nr and % of women and men in management/leadership positions ❖ Database with women experts established (yes/no) ❖ Work environments are gender-friendly (yes/no) ❖ Efforts undertaken to encourage stakeholders/partners to recruit women (yes/no) ❖ ...
Documents prepared under the project are gender-responsive (e.g. policies, strategies, training materials, knowledge products)	<ul style="list-style-type: none"> ❖ Number of gender-responsive assessments ❖ Number of specific gender assessments ❖ % of data collected in assessments disaggregated by sex ❖ Nr and % of women and men interviewed in assessments ❖ Assessment team included gender specialist (yes/no)

	<ul style="list-style-type: none"> ❖ Nr and % of gender-specific questions included in assessments ❖ Nr of gender references in text (e.g., policies, strategies) ❖ Nr and % of women and men involved in development of document ❖ Nr of associations/networks/stakeholders focusing specifically on GEWE were consulted throughout the process ❖ Nr and % of graphic material in document that portrays women and men ❖ Presented data is disaggregated by sex (yes/no) ❖ Good practices and lessons learned on gender are documented (yes/no) ❖ ...
Gender-responsive knowledge management/dissemination	<ul style="list-style-type: none"> ❖ Nr of gender-specific content disseminated (e.g. through online platforms, TV, radio) ❖ Nr of specific gender events held (e.g. trainings, workshops, discussions, round tables) ❖ Information on women and men's media use available (yes/no) ❖ Nr of women and men that received/accessed information ❖ ...
Gender-responsive capacity building (for gender-responsive training material see above)	<ul style="list-style-type: none"> ❖ Nr and % of male and female participants ❖ Nr and % of specific trainings on gender ❖ Nr and % of trainings that include targeted session on gender ❖ Nr and % of trainings undertaken in collaboration with gender focal points/gender experts/gender departments ❖ % of time dedicated to gender in trainings ❖ Nr and % of women presenting in trainings ❖ Data presented in trainings is disaggregated by sex (yes/no) ❖ Trainers have gender competence (yes/no) ❖ ...
Work environments are gender-friendly	<ul style="list-style-type: none"> ❖ Nr of private sector partners sensitized on the need for gender-friendly work environments ❖ Flexible working hours possible (yes/no) ❖ Child care facilities available at the work place (yes/no) ❖ Separate washrooms / changing rooms for women and men available (yes/no) ❖ Transport for women and men available to workplace (yes/no) ❖ ...
Enhanced economic empowerment of women	<ul style="list-style-type: none"> ❖ Nr and % of women and men in formal employment (by sector and type) ❖ Nr and % of women and men in leadership positions ❖ Nr and % of women and men trained ❖ Nr and % of enterprises owned by women and men ❖ Nr and % of enterprises managed by women and men ❖ Nr and % of women and men trained on gender, and the importance and benefits of women's economic empowerment ❖ Evidence that perception of women's empowerment has changed (e.g. testimonies, interviews) ❖ ...
Enhanced understanding of GEWE among beneficiaries	<ul style="list-style-type: none"> ❖ Nr and % of women and men who received training on gender/human rights

	<ul style="list-style-type: none"> ❖ Evidence that women are more aware of their rights (e.g. through interviews/testimonies) ❖ Evidence that men are supportive of GEWE (e.g. through interviews/testimonies) ❖ Nr and % of reported cases of discrimination / gender-based violence ❖ Nr and % of women and men in formal employment ❖ Nr and % of women and men attending University / studying STEM fields ❖ ...
...	...

Useful resources for gender mainstreaming

There are plenty of useful resources that help development stakeholders in understanding the link between gender and environment, and provide support in gender mainstreaming. This includes tailored guidebooks and other written documents, as well as online trainings. The below list reflects some of the most relevant resources, and project stakeholders are strongly encouraged to utilize these, especially in the absence of formal gender training opportunities:

UNDP, Chemicals and Gender

http://www.undp.org/content/undp/en/home/librarypage/environment-energy/chemicals_management/chemicals-and-gender.html

UNIDO, Guide on Gender Mainstreaming: Montreal Protocol Projects

https://www.unido.org/sites/default/files/2015-02/Gender_Guide_MP_0.pdf

UNIDO, Guide on Gender Mainstreaming: Environmental Management Projects

https://www.unido.org/sites/default/files/2015-02/Gender_Environmental_Management_Projects_0.pdf

UNEP, Gender and Environment: Support Kit for UN Environment Staff

https://wedocs.unep.org/bitstream/handle/20.500.11822/25348/Gender_Environment_Kit.pdf?sequence=1&isAllowed=y

UN Women, The UN Women Gender and Economics Training Manual

<http://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2017/un-women-gender-and-economics-training-manual-en.pdf?la=en&vs=5651>

UN Women, “I Know Gender” Free Online Training Modules (esp. Modules 1-5, 7, and 15)

<https://trainingcentre.unwomen.org/portal/#selfpaced>

UNCC: Learn, Open online Course on Gender and Environment

<https://www.uncclearn.org/open-online-course-gender-and-environment>

References

1. UN Women. Glossary n.d. [cited 2016 3 February]. Available from: <https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=C&sortkey=&sortorder=>
2. CAAWS. What is gender equity? 2013 [cited 2016 9 February 2016]. Available from: <http://www.caaws.ca/gender-equity-101/what-is-gender-equity/>.
3. Cadondon K, Heller B, Strohmeier H. Guide on gender mainstreaming: Environmental management projects Vienna: UNIDO, 2015.