Japan International Cooperation Agency

JICA

REFERENCE MATERIAL FOR GENDER MAINSTREAMING IN THE ENVIRONMENTAL MANAGEMENT SECTOR

Reference Material for Gender Mainstreaming in the Environmental Management Sector

The Japan International Cooperation Agency (JICA) aims to achieve gender equality and women's empowerment through gender mainstreaming in its development projects. Gender mainstreaming in development projects refers to the incorporation of a perspective that promotes gender equality and women's empowerment in all stages of a project (i.e., planning, implementation, and monitoring and evaluation). Gender mainstreaming enhances the effectiveness of the JICA's projects by addressing different issues and needs of the people of any gender and hence contributes to the realization of an inclusive society, where everyone can fulfill their potential. Through gender mainstreaming in the environmental management sector, people of all genders are expected to be able to access and enjoy the benefits of the environmental management infrastructure and services, which will lead them to various socio-economic services and opportunities. Conducting activities in the environmental management sector with a gender perspective not only helps guarantee the human rights of people of various genders, but also promote development effects and enhance sustainability by fully utilizing the potential of women as users, managers, and members of society who contribute to realizing a sustainable society with respect to environmental management.

> **Gender** is a term that refers to socially and culturally constructed attributes associated with being female or male. Many societies not only categorize humans as "female" or "male" based on biological features but also give specific values to each and prescribed their respective roles and behaviors. Thus, gender not only refers to "sex" in a biological sense but also associates sex with specific roles and behaviors expected to women and men by society.

> **A perspective of gender (or gender perspective)** is a perspective that focuses on gender issues, needs, and impacts arising from the different social roles and power relations of women and men in all spheres of the society, including policies, programs, institutions, and organizations. In development projects, this perspective is indispensable to deliver equitable benefits to women, girls and all other beneficiaries regardless of their gender.

Purpose of Reference Material

The Reference Material serves as a guide for all stakeholders of JICA's projects to understand gender issues, the importance of gender mainstreaming in the environmental management sector, and sample methods of how to incorporate a gender perspective into each stage of a project cycle.[i] The Material especially focuses on the following two sub-sectors selected in accordance with JICA's project strategies and priority issues.

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[i] It must be noted that involvement of men is important for addressing gender issues, and also gender issues faced by men must be addressed in the efforts for transforming patriarchy. Capturing and addressing gender issues faced by other genders (other than 'women' and 'men') are also important in gender mainstreaming.

(1) Waste management

Examples of major projects and activities: Improvement of waste management (improvement of management capacity, technological improvement, institutional development, and cooperation among government, the private sector, and residents), realization of a recycling-oriented society

(2) Water environment and atmospheric environment management

Examples of major projects and activities: Measures to address water pollution, sanitation services, development of sewage and wastewater treatment facilities and strengthening of operational capacity, expansion of access and services to sewage treatment and sanitation facilities, and measures to address air pollution.

How to use Reference Material

Chapter 1. Major gender issues and their causes in the environmental management sector

This chapter outlines six major gender issues and their causes that must be understood for gender mainstreaming in the environmental management sector.

(1) Relevant policies and business plans do not properly reflect different perceptions and needs of women and men

(2) Necessary gender perspectives for introducing new technologies are not always considered

(3) [Waste management] Gender-based division of roles is fixed, and women's roles and labor (contributions) are not properly recognized

(4) [Waste management] Participation of women in activities to improve livelihoods or economic activities are limited

(5) [Waste management] There are specific health risks owing to stereotyped gender roles

(6) [Water environment management] There are risks of sexual and gender based violence (SGBV) and difficulties in proper menstrual management owing to limited access to sanitation facilities

(1) Relevant policies and business plans do not properly reflect the different perceptions and needs of women and men

Decision-making bodies that formulate policies and business plans of the waste management, water environment management, and atmospheric environment management sectors are often male-dominated owing to perceptions on a gender-based division of roles, and often do not reflect the needs and voices of women. For women and men to benefit equally, it is necessary to recognize that the division of roles and responsibilities between women and men in society, as well as barriers such as access to and control over resources, and constraints based on culture and religion, differ for women and men, and to accurately identify the needs of women in particular.

For example, male-dominated decision makers may prefer a system that collects household garbage in one location only from the viewpoint of collection efficiency (drop-off point system), while women may prefer door-to-door collection owing to time constraints such as housework as well as outing restrictions that exist in certain cultures and religions. The lack of an accurate understanding of such differences in perceptions could lead to situations that are inconvenient for women.

In addition, women's employment in many countries is limited, especially in the fields of science, technology, engineering, and mathematics (STEM). As a result, the number of female engineers is disproportionately low. This is one of the reasons why most key positions or technical positions in many public/private sectors such as ministries, research institutes, and business entities are held by men. Therefore, women's opinions tend not to be reflected in policies and planning, measures, organizational management, and technology development, resulting in the lack of adequate attention to the current situation and needs of women.

(2) Necessary gender perspectives for introducing new technologies are not always considered

When introducing new technologies, their details, efficacy, and cost-effectiveness often overlook the gender perspectives. This may cause some disadvantages to women's socioeconomic activities. For example, owing to the introduction of technologies that sort waste in a more efficient

way, women may no longer be able to earn cash income from this activity that they engaged in, or a new technology may be used only by men, further reinforcing the fixed division of labor between women and men. There is also a risk that women cannot participate in training after the implementation of technologies, or do not understand the content of such training even if they participate in it.

(3) [Waste management] Gender-based division of roles is fixed, and women's roles and labor (contributions) are not properly recognized

As listed below, a stereotypical gender division of labor is still predominant in waste management in both the formal and informal sectors.

Level/Sector	Women	Men
Households and communities	- Managing of household garbage - Managing of waste and cleaning in communities as volunteers	-
Policy	- Participating in politics to a limited extent - Working as social organizers at the sub-district level (Mongolia)	- Making decision both at the national and municipal levels
Formal sector	- Collecting money for waste services（Nepal） - Street sweeping（This is transforming into an activity for men in Mongolia.） - Owning small-scale enterprises (composting and creating crafts from waste materials business in Nepal, recycling operations in Mongolia and Bhutan）	- Driving trucks, working as loaders - Working as landfill operators; working for mechanical maintenance; working as managers in the public and private sectors - Starting a social business（Bhutan）
Informal sector	- Picking waste at landfills（The poor and rural-urban immigrants) - Waste picking at transfer stations (Nepal and Bhutan) - Working at scrap yards (Bhutan)	- Waste collecting by bicycle（Nepal） - Waste picking on the streets（People living on the street in Mongolia） - Running scrap dealerships; running second-hand shops - Running scrap yards (Bhutan)

Source: Created based on UNEP (2019) Gender and Waste Nexus: Experiences from Bhutan, Mongolia and Nepal.

Women are regarded as responsible for domestic chores and care. Women's role in the household is mostly that of cleaners. Similarly, women are often regarded as being responsible for managing household garbage. Women engage in cleaning, sweeping the streets, and collecting waste firsthand at no cost in many communities. Such "volunteer" work is often recognized as a part or just an extension of domestic chores that women are disproportionately forced to do in the community. In this manner, women's contributions are most often underestimated because existing traditional social practices focus on stereotypical gender roles and on the division of labor, and family members and community residents consider it reasonable.

In managing recycled waste in the informal sector, the labor between women and men is often clearly divided. The collected waste is separated at home and men sell the waste that can be sold for cash, while women dispose of the waste that cannot be because women tend not to have access to the most financially valuable items. Furthermore, the fact that women are rarely involved in decision-making makes it difficult to correct this situation, and the economic benefits directly

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accruing to women tend to be lower than for men because of stereotyped gender-based roles. In addition, with respect to waste pickers, it is important to consider the potential loss of livelihood due to the change of the rules and regulations, and in such cases, women tend to have more difficulties in finding alternative livelihoods than men.

As mentioned above, most women's work in households and communities is at no cost, and women's labor in the informal sector tend to be underestimated as it is not visualized. Women cannot receive an equivalent value for the socioeconomic contribution that they make, such as the improvement of the environment regarding hygiene and recycling operations. Moreover, the low participation of women at the decision-making level in government and business has made it difficult to formulate policies and measures that would eliminate these stereotyped gender division of labor. It has also rendered it challenging for women to receive a fair evaluation of their roles and work.

The division of labor described above is determined by not only unequal gender social norms, but also a combination of factors such as religion, social class, and ethnicity. For example, in some parts of South Asia, there is a discriminated low caste that has long been responsible for waste collection and disposal as well as cleaning. Thus, as in this case, it should be kept in mind that there are cases where a comprehensive analysis of issues that include other factors is required.

(4) [Waste management] Participation of women in activities to improve livelihoods or economic activities are limited

As mentioned in (3), in projects related to waste management that include reuse and recycling, the fixed gender-based division of roles often results in men being responsible for labor that directly generates economic benefits, and limited participation of women in economic activities. For example, when labor and activities performed by women in the informal sector or in the community are formalized and recognized as wage labor or professional work, they come to be regarded as men's work. In other words, women are often excluded from wage-earning opportunities, although the activities in which they are engaged are the same as those of men. Moreover, status and conditions of employment tend to have a marked gender disparity. In addition, women face more difficulty than men in establishing their own waste management and recycling businesses owing to limited access to microcredit and other forms of financing.

(5) [Waste management] There are specific health risks owing to stereotyped gender roles

While men are more likely to be associated with the works with dangerous materials such as hazardous waste, some women are engaged in dangerous physical work too. For example, women work as waste pickers, collecting valuable materials from waste mixed with hazardous waste at trash disposal sites. Their children may be in proximity to the hazardous waste at this time, and there is concern about such condition's impact on children as well. In addition, if a woman is continuously exposed to pernicious chemicals, the chemicals may remain in her body long afterwards and may be transferred from the mother to the fetus/infant.[1]

(6) [Water environment management] There are risks of sexual and gender based violence (SGBV) and difficulties in proper menstrual management owing to limited access to sanitation facilities

As of 2020, 3.6 billion people worldwide lack access to safe and well-maintained toilets, and 490 million people are forced to defecate in the open on roadsides and grassy areas owing to lack of accessible toilets in their homes and neighborhoods, with 92% of these people living in rural areas.[2] Regarding lack of access to safe toilets, factors that particularly affect the health, safety, and emotional burden of women and girls include (1) unsanitary conditions, (2) difficulty in managing menstruation with privacy and dignity, and (3) the risk of becoming victims of sexual and gender-based violence (SGBV) when using shared toilets with neighboring families or defecating in the open. In addition, related to (2), although the availability of separate toilets for boys and girls in schools is one of the key determinants of girls' continued schooling,[3] it was reported that only 66% of schools worldwide had separate toilets for boys and girls as of 2016, 12% of schools had toilets but not separated for boys and girls, and 23% of schools had no toilets at all. [4]

Chapter 2. Importance of gender mainstreaming in the environmental management sector

Following the gender issues and their causes presented in the previous chapter, this chapter explains the importance of a gender perspective in development projects from two aspects: realization of gender equality and women's empowerment, and increase of development effectiveness. It also outlines international frameworks for achieving gender equality in the environmental management sector.

2-1 Why is gender mainstreaming important in the environmental management sector?

(1) Promoting women's active participation in projects and decision-making processes contributes to the promotion of gender equality and women's empowerment.

In the areas of waste management, water environment management (mainly sanitation), and atmospheric environment management, women are expected to play an important role as agents in promoting activities, both at the household and community levels. However, in many societies, women's participation in the decision-making process is limited owing to stereotyped gender- roles. Consequently, women's ideas are often overlooked in the project's decision-making process. The accurate inclusion of women's needs in policies and projects in the areas of waste management, water environment management (mainly sanitation), and atmospheric environment management, as described in (1) above, by promoting women's participation in the decision-making process is crucial to provide equal benefits to beneficiaries and prevent careless promotion of gender inequality.

As the labor performed by women is often invisible, it is desirable to contribute to the promotion of women's economic empowerment by aiming to eliminate the gender gap as much as possible through the project, after recognizing once again the true value of such labor. In the waste management sector, the labor and activities traditionally performed by women at home or in the community are often implemented for free. However, if a paid system for waste collection, treatment, and recycling is introduced and women are engaged in these services, it will create income-generating opportunities for women.

(2) The quality of life of women and girls will be uplifted through waste management, water environment, and atmospheric environment.

As mentioned in the previous chapter, owing to stereotyped gender-based divisions of roles in society, although women and girls may engage in less physical labor than men, they do engage in dangerous jobs. They include contacting with hazardous waste. They also have to bear the physical burden caused by lack of proper menstrual hygiene management as a result of limited access to sanitation facilities, and face specific health risks that differ from those of men and boys. Environmental improvements in waste management, water and atmospheric environment are expected to eliminate or reduce these risks and improve the quality of life of women and girls.

(3) Project plans that reflect the experience and knowledge of women and the different needs of women and men will increase the effectiveness of the project and ensure its sustainability.

In waste management, water environment management (mainly sanitation), and atmospheric environment management, women's roles and labor are determined based on the gender division of roles in a society and fixed. In this context, project planning that considers the roles played by women, their experience and knowledge, and the different needs of women and men, which have tended to be overlooked, will increase the efficiency and effectiveness of the project, and enable the beneficiaries to equally enjoy the benefits of the project. For example, in many societies, women are often in charge of managing household garbage and routinely responsible for its disposal. As a result, women often have a good understanding of the issues involved in waste management close to home in their communities, and they often have useful knowledge and information on the location of appropriate waste collection sites. In addition, in determining what is waste, how to classify waste, and how to reduce waste for the promotion of the 3Rs, the extensive knowledge and experience of women can be utilized to consider policies, technical solutions, and implementation methods for more efficient waste disposal and management.[5] Moreover, regarding the installation of toilets, while privacy and safety must be prioritized, if the entrance is in a location that attracts public attention, the effectiveness of the project may be limited because women and girls may not use the toilets during daytime.

2-2 International frameworks for to achieve gender equality in the environmental management sector

2-2-1   Waste management
(1)   The Basel, Rotterdam, and Stockholm Conventions[ii]

The Basel, Rotterdam, and Stockholm Conventions (BRS)[6] aim to regulate hazardous chemicals and wastes and protect the environment and people's health from their damage. In July 2012, the executive secretary of the BRS established a Gender Task Team and targets, and an approach to gender mainstreaming was developed within the secretariat. The BRS Gender Action Plan,[7] which was updated in 2019, ensures that gender mainstreaming is one of the actions to be taken by the BRS and its secretariat. The plan highlights the following goals and proposes the secretariat's activities: promoting gender equality in human resources management, conducting training and skill development on gender-related issues, and conducting a monitoring and evaluation of gender mainstreaming actions. The plan also includes partner countries' activities, such as the inclusion of gender actions in programs and projects and the implementation of capacity-building training.

[Goals]
- Support staff in adequately understanding the BRS's actions and issues regarding gender equality.
- Develop a baseline on gender-related issues and measure progress in achieving Gender Action Plan objectives and implementing activities.

[ii] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Stockholm Convention on Persistent Organic Pollutants.

- Ensure that the secretariat's programs and projects are planned and implemented from a gender equality perspective.
- Promote the consideration of gender issues in hazardous chemicals and waste management at the national and regional levels.
- Support staff in achieving a sustainable work-life balance.

(2) Minamata Convention on Mercury

The Minamata Convention established a ban on mercury mines and comprehensive regulations of all the processes of producing products using mercury, including mercury emission into the air and mercury waste management, so that the risks to people's health and environment are not increased. The preamble of the convention refers to being "aware of the health concerns, especially in developing countries, resulting from exposure to mercury of vulnerable populations, especially women, children, and, through them, future generations." Moreover, Annex C Artisanal and small-scale gold mining shows concerns regarding the exposure of children and women of child-bearing age to mercury. In January 2021, the BRS secretariat produced a gender road map of the Minamata Convention on Mercury that assesses the approach currently taken by multilateral environmental agreements and United Nations agencies. They also proposed a list of prioritized actions to be undertaken by the secretariat, parties, conference of the parties, and other stakeholders, as well as programs and projects to ensure gender mainstreaming.[8] The road map refers to the following actions as the highest priority within the secretariat: the appointment of a gender focal point, the establishment of a secretariat-based gender working group, the development of a gender plan of action, the development of codes of conduct and anti-discrimination policies regarding gender equality, and the incorporation of gender activities into work plans.

2-2-2   Management of the Water and Atmospheric Environment
(1) UN-Water

There is no single UN agency with jurisdiction over water issues; over 30 UN agencies and international organizations (members) have implemented the Water, Sanitation and Hygiene (WASH) Program.

UN-Water coordinates the programs and projects of these UN agencies and international organizations working on water and sanitation issues, harmonizes the activities of its members and partners (Green Climate Fund, conservation NGOs, associations of the sector) in a comprehensive manner, and supports member countries in sustainably managing water and sanitation. UN-Water has compiled technical advice for its members and partners, which has contributed to the development of Sustainable Development Goal 6 (SDG 6) "Ensure availability and sustainable management of water and sanitation for all." UN-Water has identified 13 priority water issues, including climate change, natural disasters, and WASH; gender is one of those fields.[9]

2-2-3   Common to all sectors
(1) The 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs) (2015)

Gender equality and women's empowerment are considered a prerequisite for achieving the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. In other words, gender equality and women's empowerment are the means to realize all 17 goals and 169 targets, and actions for achieving gender equality and women's empowerment are required.

Among the 17 goals, Goal 5, which addresses gender equality and women's empowerment, aims to empower women and eliminate gender-based discrimination and build a society in which all people equally enjoy their rights and opportunities, and share responsibilities. The following is a list of targets of Goal 5, which is related to the environmental management sector. Relevant points are highlighted in orange.

- 5.1 End all forms of discrimination against all women and girls everywhere.
- 5.2 Eliminate all forms of violence against all women and girls in the public and private.
- 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies (…).
- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights.
- 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

The table below shows other Goals, Targets and Global indicators relevant to both the environmental management sector and gender equality and women's empowerment, except for Goal 5.

Goal	Target	Global indicator
3. Ensure healthy lives and promote well-being for all at all ages	3.3 By 2030, end […] water-borne diseases […].	(No indicator is set for waterborne infections)
	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to household and ambient air pollution 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene 3.9.3 Mortality rate attributed to unintentional poisoning
6. Ensure availability and sustainable management of water and sanitation for all	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women	6.2.1 (a) Proportion of population using (a)safely managed sanitation services (b) a hand-washing facility with soap and water

	and girls and those in vulnerable situations	
	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of domestic and industrial wastewater flows safely treated 6.3.2 Proportion of bodies of water with good ambient water quality
	6.4 By 2030, […] substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time 6.4.2 Level of water stress
	6.5 By 2030, implement integrated water resources management at all levels.	6.5.1 Degree of integrated water resources management
11. Make cities and human settlements inclusive, safe, resilient and sustainable	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities 11.6.2 Annual mean levels of fine particulate matter in cities
12. Ensure sustainable consumption and production patterns	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, […] and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.2 (a) Hazardous waste generated per capita (b) Proportion of hazardous waste treated, by type of treatment

*: Highlights in orange indicate relevance to achieving gender equality and women's empowerment.
Reference: Prepared based on the information
https://www.mofa.go.jp/mofaj/gaiko/oda/sdgs/statistics/index.html (Accessed April 20, 2022)

(2) Agenda 21

At the United Nations Conference on Environment and Development (Earth Summit) held in Brazil in June 1992, Agenda 21, a concrete action plan to achieve sustainable development for the twenty-first century, was adopted. Agenda 21 is a set of action principles for the twenty-first century to implement the principles set forth in the Rio Declaration on Environment and Development adopted at the Earth Summit. The agenda aimed to address various problems regarding

environmental destruction and transform society into a sustainable one. In the agenda, "Section 24: Global Action for Women for Sustainable and Equitable Development" of "Chapter 3: Strengthening the Role of Major Groups" states that effective implementation of the programs provided for in international conventions and elsewhere for full, equal, and beneficial participation of women in all development activities is based on their active involvement in economic and political decision-making and is crucial for the successful implementation of the agenda.[10]

(3) United Nations Environment Assembly

At the United Nations Conference on Sustainable Development (Rio+20) in 2012, it was decided to hold the United Nations Environment Assembly (UNEA) as a measure to strengthen the United Nations Environmental Programme (UNEP), with the participation of all countries instead of the Governing Council, which had consisted of 58 member countries. UNEA's first meeting was held in Nairobi in June 2014.[11] At its fourth meeting in 2019, UNEA adopted Resolution 4/17 on Promoting Gender Equality and the Human Rights and Empowerment of Women and Girls in Environmental Governance, and the UNEP Secretariat reported on the progress of Resolution 4/17 at UNEA in 2021. Progress was reported in five areas including "Gender Mainstreaming at the Organizational Level" and "Gender Mainstreaming at the Program Level." Five lessons learned were also reported, including "capacity building of project managers and staff is key to making further improvements to address gender" and that "the gender marker has proven to be a useful benchmark for measuring the quality of UNEP projects, and to further improve gender markers, including better incorporating SDG 5."[12]

(4) Discussions on "Environment and Women" at international conferences

The importance of a gender perspective in the environment was first proposed at the Third World Conference on Women (Nairobi Conference) in 1985. At the Fourth World Conference on Women (Beijing Conference, 1995), the environment issue was listed as one of the 12 critical issue areas, along with poverty, education, and health. The Beijing Declaration adopted at the conference stated the following about the environment and women:

> Eradication of poverty based on sustained economic growth, social development, environmental protection and social justice requires the involvement of women in economic and social development, equal opportunities and the full and equal participation of women and men as agents and beneficiaries of people-centered sustainable development (Article 16 of the Beijing Declaration)

In addition, the UN Special Session on "Women 2000: Gender Equality, Development, and Peace for the 21st Century" (2000) confirmed that women bear significant environmental risks; that policies and measures with a gender perspective are essential for environmental management; and that there is a need for greater awareness of the link between the environment and gender by national governments and civil society.

Furthermore, the first World Conference on Women in the Environment, held in Nairobi in 2004, declared the need for gender equity and a cleaner and safer environment, as well as efforts to improve community livelihood.

Chapter 3. Mainstreaming gender perspective in project cycle

Gender mainstreaming in a project means integrating a gender perspective in all the stages of the project: planning, implementation, monitoring, and evaluation. This Reference Material presents the following five practical steps to mainstream a gender perspective in a project.

- **Step 1 "Social and gender analysis":** Conduct a social and gender analysis. Specifically, identify gender issues through analyzing related policies, structures, organizations, and different experiences, challenges and needs of women and men in the region, in view of promoting gender equality and women's empowerment.
- **Step 2 "Formulation of an activity plan":** Formulate a plan of activities to address the gender issues identified at Step 1.
- **Step 3 "Setting gender indicators":** Set quantitative and qualitative indicators to objectively measure the effects of the activities.
- **Step 4 "Implementation and monitoring with a gender perspective":** Establish a gender-responsive implementation structure. With a gender perspective, implement activities, and monitor the progress, results, and impacts (unexpected positive and negative effects of project implementation).
- **Step 5 "Evaluation with a gender perspective":** Evaluate implemented activities that had incorporated a gender perspective, and their results and impacts.

The table below shows the five steps for gender mainstreaming applied in three project phases: project formulation phase, project implementation phase, and after project completion. Step 1 to 3 fit into the project formulation phase, Step 4 is the project implementation phase, and Step 5 is the phase after project completion. Although a gender perspective must be incorporated throughout all phases, it is particularly important to mainstream a gender perspective in the project formulation phase (Step 1 "Social and gender analysis" to Step 3 "Setting gender indicators").

Project formulation phase			Project implementation phase	After project completion
Step 1 Social and gender analysis	Step 2 Formulation of an activity plan	Step 3 Setting gender indicators	Step 4 Implementation and monitoring with a gender perspective	Step 5 Evaluation with a gender perspective

The following table indicates where to refer in the Reference Material according to the project cycles of technical cooperation, Official Development Assistance (ODA) loan and ODA grant.

Scheme	Project cycle	Where to refer in the Reference Material
Technical Cooperation	At the time of preparing the Terms of Reference (TOR) for the data collection survey, detailed design study and basic design study	Step 1 (Analysis)
	At the time of drafting Main Point Discussed in the Record of Discussion (R/D) (activities related to gender), PDM, and Ex-Ante Evaluation document	Step 2 (Activity planning), Step 3 (Indicators)
	At the time of preparing the TOR of the project, implementing the project, and reviewing a monitoring sheet	Step 4 (Implementation and monitoring)

ODA loan	At the time of preparing the TOR for the data collection survey and Preparatory Survey, and drafting Project Planning Documents (1)	Step 1 (Analysis)
	At the time of preparing Minutes of Discussion (M/D), Project Planning Document (2)/(3), Records of hearings, and drafting Ex-Ante Evaluation document	Step 2 (Activity planning), Step 3 (Indicators)
	At the time of supervising the project and reviewing Project Status Report	Step 4 (Implementation and monitoring)
ODA grant	At the time of preparing the TOR for the data collection survey and Preparatory Survey, and drafting Project Planning Record (1)	Step 1 (Analysis)
	At the time of preparing Minutes of Discussion (M/D), Project Planning Document (2)/(3), and Ex-Ante Evaluation Document	Step 2 (Activity planning), Step 3 (Indicators)
	At the time of supervising the project and reviewing Project Monitoring Report	Step 4 (Implementation and monitoring)

Details of Steps 1 to 5 are explained in the following sections.

Step 1. Social and gender analysis

The first thing to perform in gender mainstreaming of a project is to identify gender issues through social and gender analysis. Specifically, a survey is to be conducted to collect and analyze gender-disaggregated data and related information in the target countries and areas to understand the current situation and issues of each gender. It is especially important to understand 1) behaviors and actions of people of different genders and their beliefs and values, 2) social and cultural norms and practices affecting those people, and 3) issues that they face based on their gender.

The table below is a "List of Survey Items and Contents for Social and Gender Analysis" to be referred to when preparing a survey. It shows exemplary survey items with respective survey questions. When a survey content is related only to a specific sub-sector, the name of the sub-sector is shown in a square bracket, "[sub-sector]". The list also includes 'Basic information' that helps better understand the current situation and issues related to gender in the sector and the sub-sectors. Furthermore, since every project is expected to contribute to Goal 5 of the SDGs, including the elimination of sexual and gender-based violence (SGBV), it is desirable to collect and analyze a wide range of data; thus, the survey items include those related to Goal 5. It should be noted that these survey items and contents are examples. Thus, in accordance with the purpose and scope of the project, survey items and contents should be modified or added.

List of survey items and contents

Survey items	Survey contents
Policies and systems	
Status of gender issues in the waste management, water environment management, and atmospheric environment management sectors in relevant laws and policies, and measures taken	• Status of gender relations and gender issues in laws, policies, strategies, and action plans in the waste management, water environment management, and atmospheric environment management sectors • Status of gender issues in the waste management, water environment management, and atmospheric environment management sectors in relevant policies and measures taken to promote gender equality
	💡 Check not only policy documents in the sector, but also how gender issues in the waste management, water environment management, and atmospheric environment management sectors are positioned in relevant policies for gender equality promotion formulated by ministries and agencies in charge of promoting gender equality
Laws and regulations related to land ownership	Do the relevant laws and regulations (such as Civil Code, Land Registration Law Act) guarantee equal rights to women regarding ownership and use of land? Do relevant customary laws (such as land ownership and inheritance, head of household and freedom of movement) also guarantee equal rights for women?
	💡 Keep in mind that even though statutory law is gender equal, there is gender-based discrimination in the customary law applied simultaneously.
Labor law	Regulations on active employment of women (such as fixed percentage) and application of equal wages for women and men
Organizational structure	
	How gender equality and women's empowerment is being promoted throughout the institutions and organizations involved in the implementation of the project

Gender mainstreaming policies and systems at the executing agencies	What kinds of systems have been established and what efforts are being made for gender mainstreaming? (e.g., whether or not there is a person in charge of promoting gender mainstreaming) Status of women's participation in decision-making (e.g., percentage of female executives and managers) Status of the implementation of gender training for executives and staff
	💡 <u>Even if there are no female managers, it is desirable to hear from female staff members in relevant departments</u> about the status of implementation of gender-related activities. In addition, since increasing the number and retention of female technical workers is important, it would be helpful to identify their needs as well.
Gender balance of staff	Gender balance of staff (general, technical, managerial etc.) (by number, percentage, and age)
Employment and training of female engineers, status of their ability and skills	Existence of female engineers with the necessary abilities and skills, the number of female engineers, and the reason if there are fewer female than male engineers Existence of measures to increase the number of female engineers (e.g., quota system), and if any, the details of such measures Issues and needs faced by female engineers Existence of capacity-building mechanisms that meet the needs of female engineers, and if any, their details
Response to harassment and SGBV cases	Ways to identify and handle harassment and SGBV incidents at construction sites, and the existence of reporting channels
💡 As for the targeted executing agency, depending on the progress of decentralization and privatization, <u>information should be collected not only on the central supervisory ministries</u>, but also on, for example, <u>subordinate organizations, public institutions, and private companies responsible for operations and customer service of related facilities</u>	
Collaboration with specialized gender organizations	Existence of any collaboration such as with the Ministry of Women's Affairs, Ministry of Gender, in the implementation of the project, and if any, the kind of collaboration
Gender equality efforts by other donors and NGOs	
Support from other donors, international organizations, NGOs	Support for gender issues in particular (existence and content of approaches)
Initiatives of the private sector	Activities that address gender issues
Status and issues in the target area	
Gender norms	Women's freedom of mobility and the range in which they can go
Sexual and gender-based violence (SGBV)	Number of SGBV incidents within the region/community (by location, form, age of perpetrator/victim, and gender etc.)
Segments requiring special attention	• Number and percentage of female-headed households • Number and percentage of poor households (by gender) • Number and percentage of other vulnerable groups (by class, ethnicity, religion, migrants etc.)
	💡 Depending on the diverse attributes of women (age, class, ethnicity, religion, disability, education, family/household type, <gender of the head of the household, marital status, number of children> income level) the situation, issues faced, needs, and impacts of the development projects are different. Therefore, it is important to understand the women that are in the project target area.
Gender division of labor	
Waste management	[At home and the community] Main person in charge of household waste management Existence of stereotypes on who should manage household waste (is it considered a women's role?)

	Entity responsible for community cleaning and primary collection of waste Existence of customs and norms that assume that community cleaning and primary collection of waste are a women's role Existence of wage payment for community cleaning or primary collection of waste [Formal and informal] Roles of women and men in waste management (formal and informal) Gender gap in wages and employment conditions, if any, and the reasons for such differences Gender differences, if any, in health risks attributable to waste management, and the nature and causes of these differences Existence of waste pickers, wages and employment conditions (by gender and age) Existence of gender role differences within the group of waste pickers (e.g., gaps in access to high-value waste)
	If, in the process of assessing the actual situation of waste management, it is discovered that some children are engaged in child labor, especially hazardous labor, urge the counterpart government to take immediate and appropriate actions.
Water environment management (sanitation)	Existence of hygiene education at the household level; if it exists, the person who conducts it
Information and knowledge	
Waste management	• Gender gap in information and knowledge (including access) on waste management • Gender gap in information and knowledge (including access) on hazardous waste
Water environment management	• Gender gap in information and knowledge (including access) on water environment • Gender gap in information and knowledge (including access) on appropriate hygiene behavior water environment
Atmospheric environment management	• Gender gap in information and knowledge (including access) on atmospheric environment
Capacity enhancement	
Participation in training	• Participation rate in capacity building courses and training (by gender and age) • Participation of women in technical training • Existence of restrictions to participate in training based on division of roles by gender
Participation in decision-making	
Waste management	• Degree of women's involvement in the decision-making at home • Women's participation in community gatherings and women's right to voice their opinions • Degree of women's participation in the decision-making in waste-related enterprises and degree to which women's needs and benefits are reflected in the decision-making • Breakdown of decision-making groups within the waste picker group (by gender)
Participation in economic activities	
Status of women's entrepreneurship in the waste management sector	• Number of entrepreneurs starting businesses in related fields (e.g., recycling) (by gender), and reasons why women are less likely to do so (social norms, limited access to finance)
Support needs	
Gender perspectives when outsourcing construction work	• Possibility to actively employ women (fix percentage) • Legal basis for applying equal pay for women and men

	• Considerations for female workers (e.g., separate toilets and rest areas for women and men)
Gender perspectives during resettlement	• Status of the use of land and resources by gender • Means of livelihood and income by gender
	💡 When construction of facilities is highly likely to involve resettlement, it is necessary to check who has land ownership and use rights as the basis for compensation, and then consider how compensation will be provided to female-headed households that do not have ownership rights.
Construction sites (for infrastructure only)	
Employment and working environment of construction workers	• What is a percentage of construction workers by gender? • What are the reasons if female workers are fewer than male? e.g., gender norms, including fixed gender division of labor, specification of eligibility for men only in recruitment and/or any requirements that look neutral but exclude women indirectly in the local contexts, and risks of SGBV for engaging in construction. • Do female construction workers face challenges? What are they? e.g., restrooms/toilets and/or changing rooms set up only for men use, gender harassment to the women by their co-workers and/or residents near the sites, and lack of a reporting system for those issues. • Is there any culture or custom for paying less to women even if they engage in same work as men? (wage discrimination)
SGBV risks	• Have female construction workers and/or local women near the construction sites experienced SGBV?

[Tips on survey methodology]

Social and gender research methods include literature review, interviews (including Key Informant Interviews and Focus Group Discussions), field observations, and inspections. It is also useful to use "gender analysis tools" (referred to the attached list of reference materials at the end of the document) specifically developed to gain more accurate understanding of gender relations, such as gender division of roles and labor, and access and control over resources. Other points to be considered in conducting surveys are as follows.

* Interview both women and men to see if there are differences in their perceptions.
* When forming groups for interviews or discussions, carefully assess if target groups should be gender-mixed or single-gender. It depends on the cultural practices and social norms of the target country/area as well as the content and purpose of the information to be gathered. If women have difficulties expressing their opinions in front of men, it is desirable to interview women and men separately. On the other hand, mixed group discussions may provide the participants with an opportunity to deepen their discussions while understanding each other's perceptions.
* Girls and boys may also have different needs and perspectives, thus make an effort to collect their voices.
* For sensitive contents such as SGBV, it is preferable that staff of local NGOs with experience and expertise conduct individual interviews rather than group interviews. Carefully protect anonymity and confidentiality of the respondents.

In order to identify gender issues based on the collected data and information, the following points should be taken into account during the analysis.

- Division of labor: Are there any stereotyped gender division of labor?
- Access: Are there any gender disparities in the access to resources, services and the benefits derived?
- Control: Who manages and owns resources and services? Who controls benefits (are there any gender-based biases)?
- Decision making: Are there any gender-based biases in participation in decision-making?
- Organizational capacity: Do relevant institutions have policies, experience, and capacity to promote gender equality and women's empowerment?
- Sexual and Gender-Based Violence (SGBV): Are there any SGBV within the scope of the environmental management sector?
  (Example: the risk of SGBV owing to lack of toilets in safe places)

In addition, to ensure the project help the promotion of gender equality and women's empowerment, consider the following points:

- Will the benefits from the planned project be equally enjoyed by all beneficiaries regardless of gender? If there are any possibilities that they may not be equally beneficial to all, what are the reasons? What should be done to make them equally beneficial?
- What are the entry points for eliminating inequalities, such as gender-based prejudices, and social, cultural, and institutional constraints, and further promoting gender equality in a society?

Against the gender issues identified in Step 1, Step 2 and the subsequent Steps propose effective activities and present some points to keep in mind during implementation: Step 2 lists up gender-responsive activities for helping develop Activities section of a Project Design Matrix (PDM) (see "List of Effective Activities for Solving Gender Issues" in Step 2), and Step 4 introduces tips for the implementation of the activities set in Step 2.

Step 2. Planning gender-responsive activities

In order to address gender issues identified in the previous Step, an activity plan needs to be developed and reflected in the PDM. In planning activities, it is important to take into account all three of the following aspects.

(1) Actions to strengthen agency of women and girls (Agency)

Actions to empower women and girls to overcome their relatively disadvantaged positions through strengthening their capabilities and increasing their opportunities.

(Examples: acquiring knowledge on hazardous wastes, training on facility maintenance, training of female engineers, and promotion of women's participation in the decision-making process)

(2) Actions to change people's mindset, attitudes and behaviors (Relations)

Actions to transform gender power relations by addressing patriarchal social norms, people's attitudes and behaviors.

(Examples: raising awareness on the roles and contributions of women at the household and community levels, and conducting activities (training and campaigns) to raise gender awareness and understanding targeting local influential people and the women and men around them)

(3) Actions to transform policies and institutional mechanisms (Structure and systems)

Actions to review and develop relevant policies and institutional mechanisms to promote gender equality and women's empowerment.

(Examples: introduction of a quota system [13] for women at the executive level in organizations, incorporation of women's needs and gender perspectives into policies in the water resources sector)

These three aspects are interrelated, and it is necessary to work on all these three when promoting gender mainstreaming activities to address the identified gender issues. For example, the promotion of women's participation in the decision-making process given as an example in (1) above, is by itself an activity that aims to increase women's agency. However, simultaneously, as illustrated in (2) above, it is difficult to achieve this goal without raising gender awareness among local leaders and men and gaining their understanding on the role women play both at home and in the community, and based on these, achieve an understanding on the significance of women's participation. Without it, even if it can be achieved temporarily, sustainability may not be ensured. In addition, if results of the promotion of women's participation are confirmed, they should be incorporated into waste management, water environment management, and atmospheric environment management policies of the target country, and such activities should be promoted in projects by parties other than JICA.

Below are the examples of effective activities to tackle gender issues.

List of useful measures to address gender issues

Identified gender issues	Useful strategies and measures (example)
Policies and systems	
Efforts to address gender issues are not included in laws and policies related to the environmental management sector	☐ Lobby legislators and policy makers through counterparts (C/Ps) to include measures that address gender issues in environmental management-related laws and policies
It is not possible to understand the differences of the situations in which women and men are placed in environmental management because data and information required to understand these situations are not collected separately for women and men	Collect gender-disaggregated data in baseline surveys, etc., from the policy (macro) level to the village/household (micro) level. ☐ Check statistical information in related sectors such as agriculture, education, and health.
Organizational structure	
Low awareness of gender issues among executives and staff	☐ Conduct gender training for executives and staff (e.g., training for executing agency executives and staff to acquire gender awareness, knowledge, and skills related to urban water supply and sanitation (ADB Fiji project[iii])) ☐ Introduce a quota system to increase the number of female executives (e.g., 30% of the audit committee members of the Water Corporation are assigned to women (ADB Georgia project[iv]))
	💡 Since the introduction of a quota system and active promotion of women's employment are matters related to the personnel of the executing agencies, it is expected that there can be cases where it will be difficult to actively incorporate them in the project. ADB's efforts are helpful in this regard, and as in the Georgia project mentioned above, ADB clearly positions these as activities that should be undertaken within the project's gender action plan and in many cases specific quantitative targets are set.
	💡 Gender training covers the following: what is gender; the impact of gender bias on organizational operations and systems; the significance of gender mainstreaming (e.g., sound organizational operations, improved project results and sustainability); creating action plans to promote gender mainstreaming; and response to harassment and SGBV.
Gender mainstreaming and gender issues are not adequately addressed.	☐ Conduct level-specific gender training (see examples of activities above). ☐ Encourage C/Ps on developing strategies/plans and securing budgets for gender mainstreaming (e.g., developing gender strategies for promoting and monitoring gender equality inside

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[iii] It refers to ADB's Urban Water Supply and Wastewater Management Program in Fiji in 2016. For details, please refer to the project's summary (https://www.adb.org/projects/49001-002/main) and the gender action plan formulated in the project (https://www.adb.org/sites/default/files/project-document/216536/49001-002-gap.pdf) respectively

[iv] It refers to ADB's Sustainable Water Supply and Sanitation Sector Development Program in Georgia between 2021 and 2025. For details, please refer to the project's summary (https://www.adb.org/projects/51132-002/main) and the gender action plan formulated in the project (https://www.adb.org/sites/default/files/project-documents/51132/51132-002-gap-en.pdf), respectively.

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		executing agencies, developing guidelines/tools for implementation, and ensuring that budgets for promoting gender mainstreaming in their projects are secured by executing agencies (ADB Fiji case))
	💡	In promoting gender mainstreaming in executing agencies, it is important to secure a budget from the viewpoint of feasibility. It is necessary to fully understand the financial situation of the executing agencies and the possibility of budgeting, and to discuss budget allocation with the counterpart government from the project design stage.
Female executives and managers are few, making it difficult for women's voices to be reflected in organizational decision-making	☐	Develop a human resource plan with a gender perspective to increase the number of female executives and managers (Examples: formulation of personnel plans, including evaluation and management systems, with the aim of increasing the number of female executives and managers; introduction of personnel databases by gender.) (ADB Georgia project)
	☐	Introduce of a quota system to increase the number of female executives and managers (see examples of initiatives above)
	☐	Strengthen the capacity of female executives and managers (e.g., at least 30% of participants in training for technical, financial, administrative, and leadership skills acquisition should be women) (ADB Georgia project)
	☐	Conduct consultations to reflect women's voices (e.g., at least two consultations for planning, design, operation, and maintenance of water supply and sanitation projects, with at least 30% of participants being women) (ADB Georgia project)
Women in technical positions are few	☐	Encourage to hire female engineers, introduction of quota system (Example: at least 10% of new technical posts created by the implementing agency were allocated to women (ADB Fiji project))
	☐	Strengthen the capacity of women in technical positions (e.g., identify training needs of female engineers and technical staff; make sure that at least 30% of participants in training for technical, financial, managerial, and leadership skills acquisition are women; and at least 50% of participants in Communication and Information Technology (ICT) related training are women) (ADB Georgia project)
	☐	Create a comfortable work environment for women (e.g., childcare facilities, childcare leave) (e.g., implementation of networking events for female engineers and staff (ADB Georgia project))
	☐	Conduct trainings of female students in collaboration with universities and vocational training schools (e.g., 50% of internship placements for students graduating from undergraduate programs in STEM fields are allocated to female students; educational institutions encourage female students to apply (ADB Georgia project))
Lack of clarity in response to harassment and SGBV	☐	Clarify how to prevent and identify harassment and SGBV in the workplace and put into practice by staff
	☐	Clarify mechanisms and procedures for responding to cases of harassment and SGBV (e.g., establishment of a grievance mechanism on matters including sexual harassment, and assignment of female staff (ADB Fiji project))
	☐	Implement training on prevention of harassment and SGBV
Gender division of labor		
	☐	Charge fees for women's unpaid work (e.g., waste collection and

Providing unpaid work at home (such as collection of waste and cleaning) and the community is perceived as a role for women	cleaning at the household and community level). ☐ Employ women actively for paid jobs ☐ Conduct gender awareness training for the community. ☐ Promote policy makers' understanding of the division of household chores and women's contributions in the family.
	💡 Gender awareness-raising conducted by men's groups to men on gender roles and women's roles is also effective.
Women-specific health risks related to hazardous waste, and hazardous work, (depending on the work in which they are engaged)	☐ Provide protective measures (masks, goggles, protective clothing, etc.) ☐ Provide training and follow-up on hazardous waste and hazardous work to local residents (women and men) who are engaged in waste collection ☐ Strengthen government control over hazardous work
Gender disparities in the number of formal sector workers and conditions of employment	☐ Promote women's employment ☐ Correct of gender disparity in wages and employment conditions (e.g., presentation of gender-responsive employment such as equal opportunity in employment for women and men, employment conditions, and equal pay for equal work (ADB Fiji project))
Women in the informal sector do not earn enough income	☐ Promote understanding of women's work in the informal sector among policy makers. ☐ Compensate or provide support for economic activities to enable women in the informal sector to earn an income commensurate with their work.
Information and knowledge	
Women's experience and knowledge are not reflected in the project plan	☐ Conduct gender-specific hearings or public consultation.
Participation in decision-making	
Women cannot participate in decision-making at the community level	☐ Promote participation of both women and men in community decision-making. ☐ Allocate a certain percentage of representatives and members of committees and leadership positions to women.
Needs	
Limited access to safe toilets	☐ Conduct gender-specific hearings or public consultations such as on facility location, specifications, design ☐ Formulate facility installation and design plans that consider the needs of different genders ☐ Conduct satisfaction surveys by gender (in ex-post project phase)
Technologies that meet women's needs are not introduced	☐ Add "Benefits for women" to the criteria for introducing new technologies. ☐ Strengthen the capacity of female executives and managers so that gender perspectives are reflected in decision-making (e.g., leadership training to instill the importance of developing and introducing technologies that meet women's needs within the organization) ☐ Promote employment of female engineers and strengthen their capabilities.
Women without land ownership rights (especially female-headed households) are not compensated	☐ Provide compensation benefits that are not household-based. ☐ Consider livelihood improvement support as an alternative for female-headed households that cannot receive compensation
Poor families, including female-headed ones, cannot afford the usage rates	☐ Establish and introduce low rates of usage fee for poor households, including female-headed ones
Construction of infrastructure	

- Employers tend to hire men over women for construction work of infrastructure.
- Women face challenges in the working environment.
	☐ Promote women's employment as construction workers through, for example, setting a percentage of women among all employees (a quota system).
	☐ Promote/arrange a female-friendly working environment, such as
	  ➤ equal pay for equal work regardless of their gender,
	  ➤ ensure privacy and safety for women through different ways, including setting up separate toilets for women and men (and possibly all-user toilets), separated break space for women and men, and lighting for nighttime work; and
	☐ Write down above in an agreement with a contractor.

Risks of SGBV increase among female construction workers and local women around the site during a period of construction.	☐ Take safety measures at the sites, including education of gender equality and women's empowerment as well as human rights to construction workers. ☐ Write down prevention and responding to Sexual Exploitation, Abuse, and Harassment (SEAH) in an agreement with a contractor.

Good practices in gender mainstreaming

      The following shows good practices in gender mainstreaming relating to two or three of the above aspects.

Example of other donors' activities 1: Asian Development Bank (ADB) Ebeye, (Ebeye Solid Waste Management Project), Marshall Islands, 2021 to 2028

Project summary: This is a loan project to establish a sustainable and effective solid waste management system on the island of Ebeye through (1) the construction of a high-temperature incinerator and collection site, (2) upgrading and replacement of solid waste management facilities by the local government, and (3) strengthening the organization to provide sustainable solid waste services. (Reference URL: https://www.adb.org/projects/53082-001/main?msclkid=82a0f776d0d611ec8e8f6f302577108d）

Activities with a gender perspective

● Actions to strengthen agency of women and girls (Agency)
  - Conduct on-the-job training for female staff on solid waste management and their technical roles.
  - Conduct knowledge acquisition and awareness-raising events on the 3Rs and waste separation for 80% of local residents (half of whom are women).
  - Provide training on menstrual management and hygiene to 80% of high school girls in the target area.
● Actions to change people's mindset, attitudes and behaviors (Relations)
  - Provide awareness training for construction workers to prevent SGBV such as sexual exploitation and harassment of women.
● Actions to transform policies and institutional mechanisms (Structure and systems)
  - For management positions such as solid waste manager in local government, half of the candidates should be women.
  - Establish and implement lower rates for poor households, including female-headed ones, in the solid waste management cost framework.

| | - Develop and implement waste collection and disposal project plans from a gender perspective. |
| (Reference URL: https://www.adb.org/sites/default/files/project-documents/53082/53082-001-gap-en.pdf) |

Step 3. Setting gender indicators

After considering activities with a gender perspective, indicators (gender indicators) will be set to measure expected results (changes) of such activities. When setting indicators, set quantitative indicators as much as possible to objectively assess the status of the changes. If it is difficult to set quantitative indicators, qualitative indicators can be set to measure the progress of change. Examples of gender indicators are indicated below.

List of gender indicators

Policies and systems
☐   Relevant policies and plans that incorporate gender perspectives (type and number)
☐   Relevant policies and plans that incorporate gender perspectives (contents)
☐   Gender action plans that have been developed
Organizational structure
[Gender mainstreaming activities]
☐   Strategies and plans for gender mainstreaming (contents)
☐   Increased budget for gender mainstreaming
[Gender training for executives and staff]
☐   Number of gender training sessions for executives and staff
☐   Number of training participants (by gender and age)
☐   Changes in gender awareness after training (comparison of pre- and post-questionnaire results)
[Female executives]
☐   Increase in the number and percentage of female executives
☐   Percentage of quota to increase female executives (planned and actual)
☐   [Female staff and technical staff]
☐   Increase in the number and percentage of female staff and engineers
☐   Percentage of quota for active employment of women (planned and actual)
☐   Personnel policy for active employment of women (contents)
[Work environment]
☐   Decrease in the number of female retirees
☐   Satisfaction level of female employees regarding work environment
[Strengthening the capabilities of female technical staff]
☐   Technical training for female technical staff (number of times held, number of participants)
☐   Participation in various training programs (male/female ratio)
☐   Identified training needs of female technical staff
[SGBV in the workplace]
☐   Number of reports of SGBV in the workplace (by type)
☐   Number of incidents of SGBV in the workplace (by type)
☐   Training on SGBV (number of times conducted, number of participants, by gender)
☐   Changes in staff's understanding and awareness regarding SGBV
Gender division of labor
[Participation of women in technical training]
☐   Increase in the number and percentage of female residents who participated in technical training
☐   Technology acquired by women
[Gender awareness training to communities]
☐   Number of training sessions
☐   Number of training participants (by gender and age)
☐   Changes in gender awareness after the training (comparison of pre- and post-questionnaire results)
[Employment of women]
☐   Number and percentage of women employed by the project
Participation in decision-making

☐ Increase in the number and percentage of female members and leaders in health committees	
☐ Percentage of quota for active participation of women (planned and actual)	
Related data	
☐ Type and number of gender-related data obtained (for understanding the situation and issues)	
Needs	
☐ Gender-specific needs incorporated into facility planning	
☐ Satisfaction levels by gender	
Project evaluation and impacts	
[Benefits for Women]	
☐ Number and percentage of female project beneficiaries	
☐ (Waste management) Time spent on waste management at the household level	
☐ (Waste management) Changes in women's health status	
[Impacts]	
☐ Increase in residents' understanding of the roles that women play in their families and communities	
☐ Increase in the number and percentage of women and men who value women's abilities	
☐ Increase in the number and percentage of women active as leaders in their communities	
☐ (Waste management) Increase in the number and percentage of jobs created for women	
☐ (Waste management) Decrease in income inequality between women and men	
☐ (Waste management) Number of women entrepreneurs who start their own businesses in related fields	

Indicators for infrastructure development

Subsector	Infrastructure type	Sample indicators
Waste management	Waste collection and transportation vehicles, containers, inspection and repair equipment for collection and transportation vehicles	☐ Target population for collection (by gender)
	(Recycling) Collection facility for valuables	☐ Cash income obtained by collecting and selling valuables
Management of water environment	Sewage treatment facilities	☐ Sewage treatment population (by gender)
	Public toilets, hand-washing facilities, plumbing for hand washing water	☐ Number of beneficiaries (by gender and age) ☐ Number of users (by gender and age) ☐ Women's and girls' concerns about safety and privacy when using restrooms

Step 4. Gender responsive project implementation and monitoring

A project should also include actions to respond to situations of the stakeholders of different gender, including their gender issues and needs identified in Step 1.

In monitoring, gender-disaggregated data and gender indicators set in Step 3 help understand the implementation status of the activities, including the participation rates of women and men, and assess if the expected results are being achieved.

If unexpected gender issues have been identified during the monitoring, effective solutions should be formulated, assessed on the compatibility with the project scope and progress, and added in the project as new activities. Where the situation allows, it is desirable to revise project plans, such as Project Design Matrix (PDM) and Plan of Operation (PO) accordingly.

The table below illustrates points to keep in mind during project implementation and monitoring.

Points to remember for gender-responsive project implementation and monitoring

Category	Points to remember
Implementation system	● Except where there is a specific reason, check the gender balance of the Counter Part (C/P) and consider measures to achieve balance if there is a bias. ● Conduct gender training for C/Ps, project staff, and Japanese experts prior to and during project implementation. If lack of gender understanding and awareness is found during the training, consider ways to continuously raise awareness. ● When hiring project staff, let them know clearly the clauses prohibiting sexual harassment and sexual exploitation of beneficiaries, and have them sign a consent form. ● Japanese experts should fully understand the culture and customs of the target country/region, raise awareness of sexual exploitation, abuse, harassment in the field of international cooperation, and remind each other to be self-aware and to avoid unintentional discriminatory words and actions. ● Establish consultation services and channels available to all concerned parties to address SGBV and harassment. ● Assign international and local gender specialists as required.
Implementation of activities	● When facilitating trainings or other participatory activities, set time and location to facilitate the participation of women who are busy with household chores and care work. In addition, pay attention not to increase the burden of labor and responsibilities on any particular person or group. ● If the literacy rate among women is low, devise ways to convey information and skills through training and technical guidance (e.g., explain using illustrations and photographs instead of texts, conduct group learning), and continuously monitor participation to ensure that those who need the information and skills are attending the training. ● Create an environment that would be easier for women to participate and to speak up, considering factors such as member composition and the way meetings are conducted, so that women are always included in the decision-making process and their voices are reflected. ● Pay attention to the diversity among women, since women also face different circumstances, challenges, needs, and impacts from development projects depending on their age, social class, ethnicity, disability, education level, and family/household type. ● Involve and promote understanding among boys, men, and local residents. ● If gender norms and discrimination are strong at the project site, enhancing the understanding and cooperation of influential community leaders, religious leaders, and others will be particularly important.

Monitoring	- When participation in project activities and benefits from these activities are disproportioned to either men or women without justifiable reasons, identify the causes and factors and consider necessary measures. (e.g., participation in training, lower percentage of women in employment compared to men) - Check that the time and place of activities are set so that women who are busy with household chores and care work can easily participate in the activities. Also, check whether participation in activities is increasing the burden on specific persons/groups. - If gender differences in understanding or practice of training are observed, identify and address the causes. - In case there are any positive or negative impacts that were not anticipated at the planning stage, consider ways to expand positive impacts and minimize negative impacts.

In the evaluation phase, project achievements, implementation process, outcomes, and impacts should be assessed with a gender perspective, while evaluating the project in accordance with a prescribed project evaluation framework (ex-post evaluation) and evaluation methodology (DAC six evaluation criteria). When identifying the outcomes and impacts, attention needs to be paid to signs of emerging outcomes and impacts as well as already achieved outcomes and impacts. If there is difference in benefits received by women and men, details of the difference and its causes should be analyzed.

It should be noted that during the evaluation, whether be it quantitative or qualitative, gender-disaggregated data and information should be collected, whenever possible, and analyzed. When conducting interviews, attention should be given to gender balance and attributes of the survey participants. Group formation (either single-gender or mixed-gender) will be decided depending on the content of the interview. Gender composition of an evaluation team should also be decided after thorough consideration.

The following shows gender-responsive evaluation questions listed in accordance with the DAC six evaluation criteria

Check points for gender-responsive evaluation

OECD DAC 6 evaluation criteria	Check points
Relevance	Development policies and needs of the target country - Are the gender-responsive activities of the project consistent with priorities of gender equality policies and policies on management of the waste, water environment, and atmospheric environment sectors? Inclusion of people with special needs - Do specific gender or groups occupy the majority of beneficiaries? - Prior to beneficiary selection, was information collected from women and women's groups? - Did the project promote the participation of female-headed households, women with disabilities, and elderly women? Appropriateness of the plan and approach - Have methods been taken that do not exclude certain gender groups? - Did the project take an approach to benefit diverse people? - Have methods been taken that ensure no increase in the workload of a particular gender group? Did the project made any revision based on the monitoring results?
Coherence	Coherence between global goals and initiatives such as SDGs and global norms and standards - Did the gender-responsive project activities align with global initiatives (e.g., SE4All, etc.)? - Did the aforementioned activities contribute to achievement of global goals such as SDGs (e.g., Goal 7: Affordable and clean energy)?
Efficiency	- Have the knowledge and experience of women, girls, and women's groups been utilized? (e.g., have efforts been made to communicate technical information through women's groups?) - Are the training participants in Japan and the third countries gender-balanced?
Effectiveness	- Did the gender-responsive activities achieve the expected results?

	–	Did the aforementioned activities contribute to achievement of the project objectives and outcomes?
Impact	–	Did the gender-responsive activities facilitate positive impacts? (e.g., women's leadership, equal participation in all decision-making processes, supporting government review systems, improved mechanisms to capture women's perspectives and reduce domestic violence and SGBV against women. etc.)
	–	If there are any negative impacts, are there any differences in impacts depending on people's attributes such as gender and age?
	–	Have there been any changes in the general perception or actual situation of women's economic, social and political participation?
Sustainability	–	Will women and girls be able to continue their activities without difficulty?
	–	Management of the waste, water environment, and atmospheric environment sectors
	–	Will women and girls be able to participate in the environmental management-related activities continuously and contribute to the sustainability of project effectiveness?
	–	Will the role and contribution of women and girls in the community and households be recognized and will there be continued cooperation between women and men in the management of the waste, water environment, and atmospheric environment sectors?
	–	Will relevant agencies keep implementing gender mainstreaming?
	–	Will relevant agencies keep facilitating women's participation in decision-making?
	–	Will the voices of women and girls continue to be reflected in policies, measures, and institutions of the management of the waste, water environment, and atmospheric environment sectors?
	–	Will activities with gender perspective be reflected in the management of the waste, water environment, and atmospheric environment sectors?
	–	Will activities with gender perspective be reflected in the budget of the management of the waste, water environment, and atmospheric environment sectors?

Regarding effectiveness (outcomes), impact, and sustainability, identify how gender-responsive activities have contributed to the promotion of gender equality and women's empowerment, taking into account the three aspects of agency, relations, and structure and systems (see Step 2). Specifically, "agency" refers to what women have become able to do as a result of the implementation of the activities (including not only their own abilities but also changes in the external environment surrounding the women). "Relations" refers to how the activities have helped transform the gender relations among stakeholders and in societies. As for "structure and systems," the scope of evaluation includes how the activities have been integrated into policies and systems, as well as operational policies and plans of the implementing agencies, and how gender equality has been promoted in the organization. If a negative impact is identified, lessons learned should be extracted as much as possible for reflecting in future projects.

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[13] A quota system is one of the methods taken with the aim of achieving substantial equal opportunity by quotas, such as providing special opportunities within a certain range to those who are disadvantaged due to social or structural discrimination. For example, gender quotas in the political field are a system of allocating the ratio of women or men to women on the basis of gender, with the aim of correcting gender disparities in the legislature. There are mainly three categories as follows (Reference: Website of the Cabinet Office.
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