

Incorporating Gender Dimensions into National Strategy Setting in Chemicals Management

Annexes – Tools and resources for NAP

Annex 2- Tools for Gender Dimensions of NAPs

Note: This Annex contains tools for NAP development)

Annex 2.1 - Government entities, their responsibilities and gender considerations (adapted from NAP Guidance¹)

Government entities and their Responsibilities in NAP development and implementation	Key gender aspects
Environment	
✓ Environmental laws, issues, and regulations	Understand the gender gaps in the provisions of the law. For example, ensure that there are explicit provisions for the inclusion of women in the consultation processes of environmental, social and health impact assessment (ESHIA) and implementation programs.
✓ Environmental impacts	Consider the gendered impacts of ASGM and mercury use in law enforcement strategies. For example, enforcement approaches should be responsive to the fact that women are more liable to burn mercury amalgam in the home because of their reproductive roles.
✓ Promoting alternatives to mercury in ASGM	Consider the specific risks to women and men in promoting alternatives to mercury. For example, there should strategies to address the risk of unintended exclusion of women from benefiting from new alternatives to mercury due to lower capacity (lower levels of literacy, knowledge and skills) to adopt the new methods.
Mining	
✓ Statistics and data on ASGM	Collect data in a gender disaggregated way. This will allow governments to plan interventions for improved participation of women and monitor progress and evaluate impacts.
✓ Mining sector laws and regulations (including formalization of ASGM)	Understand the issues specific to women and men in developing mining regimes, particularly unintended consequences like marginalization of women due to formalization processes which require higher levels of literacy and certain property rights.
✓ Geological surveys	When geological data is made available, ensure that access is equitable between women and men. This can be done through targeted awareness raising programs and interventions to improve knowledge and skills
Finance	
✓ Economic importance of ASGM	Ensure that data is captured in a way that shows the contribution of women. For example, data should be disaggregated by value chain steps so that the economic value of the activities performed by women is evident. This also applies to how women's incomes are used so that the contribution to the well-being of the family is captured.
✓ Formalization of the ASGM sector, including regulation of gold purchases from ASGM miners	The fiscal regimes must consider the role of women and men in the supply chain to guard against exploitation of women because they are more vulnerable. For example, providing gold purchase points that are more

¹ UNEP. 2017. Guidance Document. op. cit.

		accessible to women, reduces the likelihood of them selling to the illicit traders.
✓	Market-based mechanisms for reducing mercury use	Incentives that are market based must be inclusive of women. As these initiatives are novel, they present an opportunity to improve participation by providing appropriate incentives to all actors.
✓	Funding for NAP implementation	The allocation of resources should ensure that activities that support gender equality are adequately funded.
Public Health		
✓	Identification of impacts of ASGM on health of miners, ASGM communities and vulnerable population groups	Collect health data disaggregated by gender. This will ensure the identification of impacts that are specific to women (for example risks of mercury exposure in pregnant women negatively impacting the foetus) and in turn, inform appropriate responses like sensitisation programs on mercury exposure risks, and education on behaviour changes.
✓	Public health strategies related to ASGM and integration of such strategies into wider health sector programming	The health strategies should be developed for a structured response to the practical and strategic gender needs of both women and men. The former allows for immediate action to address urgent needs and the latter is for long-term interventions where the impact may not be immediate. Responses to practical needs are concerned with improving how women and men already working, for example interventions that provide safe places for burning mercury amalgam to reduce the likelihood of women burning it in the home and exposing the family to mercury vapours. Reducing dietary exposure to methylmercury, most commonly through the consumption of fish, is also critical. Strategic needs responses result in systemic change.
✓	Health promotion, advocacy and awareness raising activities including in communities	Ensure gender neutrality in the messaging. Supporting groups that advocate for women's access to appropriate health services. Raising awareness about the specific risks associated with women to mercury because of the gendered roles associated with processing, e.g. bringing, and burning amalgam in the home and the health risks to children when pregnant or breastfeeding.
✓	Detecting, monitoring, and managing mercury intoxication among affected populations	Ensuring that monitoring protocols and instruments are inclusive of both women and men and any other vulnerable groups

Annex 2.2 - The role of different stakeholders to the NAP process and the gender considerations in their involvement (adapted from NAP Guidance)

ASGM Stakeholder Groups	Contribution to	Key gender aspects
Development and Implementation of NAP		
Gold processors		
✓ Have a significant role in mercury exposure/reduction strategies and technological interventions, etc.		Due to their key role in the gold supply chain they are an important consideration for the practical needs of both women and men. For example, they can facilitate access to equipment that reduces mercury emissions, like retorts. They can also be encouraged to have safer occupational health and safety practices such as preventing vulnerable people, (i.e. breastfeeding mothers, children etc.) from entering processing areas where they could be exposed to mercury vapours and other hazards like dust etc..
Community leaders and local government in ASGM areas		

✓ Assist with development and implementation of the Plan within ASGM communities	Ensure that both women and men are represented in the leadership structures and are fully involved
Indigenous groups	
✓ Represent indigenous interests from ASGM operations in indigenous people's territories	With respect to cultural sensitivities, the interests of both women and men should be considered. For example, in some cultures it may be important to have separate forums for women so that the voices of women are heard. In this way the needs of women which may be linked to their reproductive roles are taken into account, for example protecting drinking water sources.
Technical experts in gold mining	
✓ Provide understanding of technical alternatives to mercury use	Democratising technology access should consider that women's rights are human rights and be inclusive. Therefore, the practical and strategic needs of both women and men should be considered in developing and promoting technical alternatives, for example their literacy levels, ergonomics, historical exclusion etc.
✓ Provide training opportunities	Gender equality in the selection of beneficiaries of training opportunities. The structure of training programs should also consider the specific needs of women, e.g. childcare facilities and accessibility as well as time schedules etc.
Technical experts in mining safety	
✓ Consideration of mine safety, slope stabilization, underground mine support, sediment erosion control etc.	Consider the specific issues for women with respect to mining safely. For example, ergonomics of the design of personal protective equipment has to address the sex differences. Also in assigning work consideration must be given to the reproductive roles of women, e.g. breastfeeding pregnancy etc.
Environmental and human health organizations	
✓ Represent public interests in reducing environmental impacts of ASGM and the risks of exposure to the public	Women and men to be included in consultations about environmental impacts of ASGM so that the risks to all are understood and that they are part of the solution. For example, there are gendered impacts to the pollution of water sources, and it impacts women differently from men because of their reproductive roles.
Human rights group in the form of the Human Rights Commission or a human rights advocacy group	
✓ Monitor actions from the perspective of human rights issues about health, women and children rights, etc.	Women's rights are human rights, therefore their inclusion in monitoring social impacts of ASGM should be part of any human rights advocacy initiatives. Human rights advocacy groups will ensure that there is equality in design and implementation of any strategies to reduce mercury emissions, releases, and exposures.
Academic and research organizations	
✓ Provide valuable information and conduct future research, including on effectiveness of measures taken to reduce or eliminate mercury use in ASGM	An evidence base to inform strategies should be inclusive of issues relevant to both women and men. Correct methods that disaggregate data and highlight gender issues should be used.

✓ Provide training opportunities from ASGM specialists	ASGM training specialization should be developed to cover issues that are important for both women and men. For example, training may focus on the gendered roles of women in ASGM. In many mining communities women are known to have lower literacy levels, it is therefore important to include training that improves capacity to access services like mineral rights applications.
✓ Research and development (R&D) of mercury-free methods	R&D of mercury-free methods should consider the practical needs of both men and women. For example, the ergonomic design of equipment should consider the biological sex differences.
Legal professionals	
✓ Understand national legislation as it relates to ASGM including relevant regulation on mercury use and trade regulation	Ensure that the evidence-base informing mining legal provisions considers both women and men. For example, a gender gap analysis should be included when reviewing existing legislation. The provisions should consider the need to provide equity as well as equality to address historical imbalances. For example, consideration should be given to setting targets for women's participation in ASGM, and this could be regulated through environmental, social and health impact assessments (ESHIA)
Representatives from large scale mining (LSM)	
✓ Contribute to finding innovative solutions and provide insights on mining regulatory issues; potential partnering with small-scale miners on technical improvements to mining practices	The engagement of large scale mining (LSM) with ASGM should be inclusive of both men and women, in designing and implementing partnership solutions.
Other relevant land holders	
✓ Represent interest in land conflicts and in reclaiming impacted lands	Consider that women may not be owners of land but as users they are affected by land conflicts and environmental impacts of ASGM and mercury.
Police and Customs officials	
✓ Understand the role of enforcement	The vulnerability of women to enforcement officers and systems should be considered. This may include use of women law enforcement officers. The role of women to support self-policing/community policing partnerships with enforcement agencies should be considered.
Gold buying agents, gold traders, mercury traders	
✓ Provide insight into market dynamics, and barriers to formalization	Both women and men are important actors in the gold and mercury supply chains, hence understanding their roles is important to addressing barriers to formalization.
✓ Important focal point for community health and emissions	The role of women and men in the gold and mercury supply chains should be considered, e.g. women specific risks when they are gold traders may be linked to purifying gold (with mercury traces) in the home. Women as primary caregivers in many communities can play a central role in disseminating community health information.

Waste management specialists	
✓ Provide insight into available mechanisms to handle mercury wastes generated by ASGM and how to clean/restore contaminated sites	Need to consider the gendered perspective of the location of mercury waste generation, e.g. women specific roles in processing is an important consideration. In addition, they should be equally involved in any waste clean-up initiatives.
Private sector partner (e.g., large-scale mining company or equipment provider)	
✓ Technical capacity	Both women and men should be considered as beneficiaries for technical capacity building. The specific requirements of women which if not addressed would result in exclusion should be considered.
✓ Potential public/private partnership	The voices of women as well as men should be heard in developing and implementing any public, private and community partnerships.
Financial/banking sector	
✓ Small and commercial-sized loans to miners to assist with financing transition towards better practices	Fair access to finance should be considered. This should include how products are designed and any de-risking measures that may be developed. Innovative solutions for financial inclusion should consider the needs of both women and men.
Development organizations, including international NGOs, UN agencies, and bilateral aid agencies	
✓ May help with health, safety, environmental, business development or other aspects	Environmental and social safeguards of development organisations usually include gender equality and are an opportunity to ensure that the needs of both men and women are considered.
Media and communication groups	
✓ Can bring in effective communication strategies and approaches at an advisory level	Communication channels should facilitate equal access to information for both women and men and equal access for their voices to be heard. Communication will be important for dispelling traditional untruths and biases that disadvantage women.
Women's interest groups	
✓ Issues unique to women miners	Include both women and men as targets to collect information about and as facilitators of data collection (using a participatory approach). This sets the stage for both groups to be part of development and implementation of the strategies.
✓ Specific impact of mercury on women and children	Women's roles in the ASGM value chain and their position in society means there are mercury impacts specific to them and because of their primary caregiver role also impacts on children.

Annex 2.3 - Key gender aspects for conducting the different aspects of the national ASGM overview

National ASGM overview aspect	Key gender aspects
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<p>Policy, regulatory and institutional framework analysis</p>	<ul style="list-style-type: none"> ✓ Review gender provisions as part of the mining regime (i.e. policies, laws, regulations, and guidelines) ✓ Include provisions for women or gender equality such as employment and equity targets ✓ Review provisions for benefits such as employment and ownership in the mining regimes, how these provisions are impacting women and men ✓ Review attendant legal instruments e.g. on labour conditions (including requirements on health insurance, workers compensation, remuneration, occupational health and safety etc.), property rights, and determine whether there are any disparities in provisions for men and women ✓ Identify the groups and institutions in the country that have experience in addressing gender issues in ASGM. Ensure that they have a specific role to play, which may be informed by the roles they played in past interventions
<p>Technical and environmental aspects</p>	<ul style="list-style-type: none"> ✓ In collecting information on the structure of the ASGM sector, consider the role of both women and men in the ASGM value chain, in mining communities as members and as leaders ✓ Collect data on ASGM practices covering prospecting, mineral processing (including how much mercury is used and how it is used), and trading (including procuring inputs such as mercury and equipment). The roles of women and men in the value chain must be understood and disaggregated by age and other vulnerable groups like youth etc. ✓ It is important to collect information on the technical and environmental risks related to ASGM practices (with respect to mining, processing etc.) This data should be disaggregated by demographic groups, for example, women, men, children, indigenous peoples, disabled peoples and the aged. ✓ Data should also be collected on any good practices in the field and how both women and men are involved and how they could be involved in further application of these good practices. ✓ Determine whether both women and men have equal access to information on technical assistance. Also determine whether information dissemination channels are sensitive to the needs of both women and men. ✓ The geographic distribution and location of the ASGM activities should be considered with respect to accessibility for women, and potential exclusion because of personal security issues. ✓ Consider the importance of the location of ASGM sites when proximal to residential areas and dwellings as it may impact other non-mineral based livelihoods like agriculture, access to clean water, and air quality and other social considerations particularly when there is miner in-migration etc. ✓ Collect data on livelihoods e.g. ownership, access and control of assets, other social considerations, must be collected disaggregated by gender ✓ Collect spatial data that allows for determination of mercury hotspots, and ascertain how it relates to the productive and reproductive roles of women and men

<p>Health aspects</p>	<ul style="list-style-type: none"> ✓ Collect data on the mercury exposures and health impacts on ASGM miners and communities and if they are gendered and why. This should include health hazards that are specific for women ✓ Gender disaggregated data about levels of access to health care services and health seeking behaviours should be collected ✓ Collect data on access and the quality of health care services (facilities and personnel, including for prenatal and postnatal care) and their capacity to diagnose and manage ASGM and mercury related conditions, including conditions that may be specific to women. ✓ Determine the level of awareness of the health impacts of mercury and specific conditions for women and children. ✓ Identify local knowledge that could be applicable to mitigate health impacts of mercury (and improve general occupational health and safety) and the potential role of both men and women in the dissemination/promotion of this knowledge ✓ Identify any pre-existing data on health impacts of ASGM and mercury exposure and ascertain whether its gender perspective can be determined. This can include risk assessments (including assessment of exposure to different types of mercury compounds, elemental mercury, methylmercury etc.), biomonitoring etc.
<p>Socio-economic aspects</p>	<ul style="list-style-type: none"> ✓ Data on the size of the ASGM sector (both formal and informal) should be collected and disaggregated by gender. ✓ Collect data on the participation of women and men for ongoing inclusivity interventions (e.g. affirmative action). ✓ Ensure that there is an understanding of where women and men play roles and whether and how they are gendered, and the risks associated with both. ✓ Gender disaggregated data about levels of education, and access to education and other social services should be collected. ✓ Economic data such as incomes of miners, living standards (poverty levels), livelihoods e.g. ownership, access and control of assets (human, social, financial, natural and physical), other social considerations must be collected disaggregated by gender. ✓ Determine the leadership roles of women and men, and whether they are equal and if not why. Determine if there are women's organisations relevant to ASGM and their levels of capacity. ✓ Establish if there are any groups in the country that have experience in addressing gender issues in ASGM, and what roles they can play given their history and experience in addressing gender issues ✓ Try to find and include existing gender studies, note some relevant ones may not necessarily be about ASGM but contain information relevant to understanding gender issues in the sector. ✓ Determine, what gender specific information gaps exist and how these can be addressed

Annex 2.4 - Key gender aspects of a NAP logframe

Logframe element	Purpose	Gender aspects
Impacts	Set out the high-level objectives of the NAP to indicate the desired impact of the NAP (there will only be a % of attribution to the NAP) towards the long term impacts (beyond the life of the NAP project).	<p>The NAP impact statement should explicitly include the gender aspect of the objective. This should be reflected in the impact indicators and their targets.</p> <p>Example: <i>Eliminate mercury use in the ASGM sector to reduce emissions and releases of mercury into the environment and exposure to humans (both women and men).</i></p>
Outcomes	Set out the mid-level objectives of the NAP to indicate the outcomes the NAP would like to achieve as a direct result of its outputs during the life of the project.	<p>The NAP outcomes should explicitly state the gender aspects to be achieved. This should be reflected in the outcome indicators and their targets.</p> <p>Example: <i>Higher degree of uptake of mercury-free methods in ASGM by both women and men.</i></p>
Outputs	Set out the short-term objectives of the NAP to indicate the outputs the NAP would like to achieve as a direct result of its inputs in the short-term.	<p>There should be some outputs whose objectives are directly addressing gender aspects. This should be reflected in output indicators and their targets.</p> <p>Example: <i>Models that enhance uptake of mercury-free technologies by women and men in ASGM are developed and implemented</i></p>
Inputs	These are the resources put towards each element of the NAP and will allow the sponsor to determine the return on investment (therefore able to adapt resource allocation and priorities).	<p>There should be a clear statement of the resources being put towards the gender aspects of the NAP (largely reflected in monetary form). It should be possible to see if there is equitable allocation of resources to the gender aspects of the NAP.</p> <p>Example: <i>Support the development of models that enhance uptake of Hg-free technologies by women and men that improve their gold recovery.</i></p>
Indicators	To show progress is being made towards the objectives of the NAP. Indicators are set for impacts, outcomes, and outputs.	<p>The NAP should have indicators to measure achievement of the gender aspects of the objectives at all levels of the logframe. This should also be reflected in the target metrics.</p> <p>Examples:</p> <ul style="list-style-type: none"> - <i>Impact indicator: Decrease in emissions and releases from ASGM by both women and men</i> - <i>Outcome indicator: Increase in use of mercury-free methods by both women and men in ASGM</i> - <i>Output indicator: Increase in models that enhance uptake of Hg-free technologies that improve recoveries for women and men miners</i>

Baseline	Baseline status of each indicator of the NAP.	The baseline data collected as part of the National ASGM overview should have included gender aspects and where appropriate the data would have been disaggregated by gender.
Targets	Intended level of achievement to be attained for each indicator of the NAP. These can be set according to NAP milestones.	Where appropriate the NAP indicator targets should include the gender aspects and allow for gender disaggregation. Example: <ul style="list-style-type: none"> - <i>Impact target: % reduction in amount of mercury emissions and releases by women and men in ASGM</i> - <i>Outcome target: % increase in use of mercury free methods by both women and men</i> - <i>Output target: % increase of models that enhance mercury-free technologies available to women and men</i>
Milestones	Period markers in the lifecycle of the NAP where measurements of the metrics for each indicator will be undertaken to measure progress towards the project objectives.	These can be every 3 months or whatever time spacing is appropriate
Measurement plan	Collection of data to measure progress towards targets of NAP indicators. It will facilitate planning for: <ul style="list-style-type: none"> • What should be measured • How it will be measured • When it will be measured (intervals) • By whom the measurement will be done. 	The metrics to be measured should allow for collection of data on gender aspects and gender disaggregation of data where possible. A participatory approach (including both men and women miners and community members where possible) in implementing aspects of the measurement plan would be good practice.

Annex 2.5 - Key gender aspects of the policy, regulatory and institutional framework for the NAP

Minamata Convention Annex reference	Strategic objectives	Challenges being addressed	Key gender aspects
Para. 1(c) - Steps to facilitate the formalization or regulation of the artisanal and small-scale gold mining sector	i) To facilitate ASGM formalisation by having the appropriate policies and legal instruments	- Inadequate capacity in regulatory and support institutions	<ul style="list-style-type: none"> - Ensure that the capacity building of institutional frameworks includes gender competencies and caters for inclusivity. - Ensure that women and men are involved in the development of adequate regulations and programs on understanding environmental hazards and how to prevent them. - Ensure that institutions have the capacity to deliver suitable training in environmental management for all levels of literacy to address the issue of women having lower levels of literacy.

		<ul style="list-style-type: none"> - Informal operations of the ASGM sector 	<ul style="list-style-type: none"> - Ensure that policies and strategies cater for both the practical (i.e. addressing immediate requirements) as well strategic (i.e. for systemic change) needs of women and men. - Make sure that formalization approaches do not promote procedures and types of organizations that may further push women miners out of the value chain.
		<ul style="list-style-type: none"> - Criminality sometimes associated with the sector 	<ul style="list-style-type: none"> - Ensure the security of women and other vulnerable groups by keeping track of influxes of migrant miners through registration.
		<ul style="list-style-type: none"> - Lack of unambiguous and appropriate legal provision 	<ul style="list-style-type: none"> - Align strategies with relevant national policies and legal instruments on gender equality and women's empowerment. - Consider policy level targets for equal participation of men and women, supported by appropriate policy and regulatory provisions and programmes. - Align with regional and international protocols on gender to ensure good gender practices.
		<ul style="list-style-type: none"> - Limited involvement of the local authorities in management of the ASGM sector 	<ul style="list-style-type: none"> - Build gender competencies into local authority structures when decentralising the regulation of the sector.
		<ul style="list-style-type: none"> - Limited access to mineral resources 	<ul style="list-style-type: none"> - Consider issues of property rights for both women and men, facilitate fair access to minerals through application procedures that respond to women's needs like lower levels of education etc.
Para. 1(f) - Strategies for managing trade and preventing	ii) To manage mercury trade to limit its diversion	- Illegal mercury supply/trade, sometimes associated with	- Ensure that there are actions to stop exploitation of women by mercury traders. For example, women may be caught in debt traps that result in them depending on mercury traders for inputs on credit

the diversion of mercury and mercury compounds from both foreign and domestic sources to use in artisanal and small scale gold mining and processing	to use by ASGM from both within national borders and across borders (international and regional)	strong criminal syndicates	in exchange for the gold produced, resulting in them not getting a fair price for the gold. -
		- Inadequate legal framework to address the poor management of mercury	- Ensure that women are consulted when legal frameworks for mercury management are developed. The legal provisions will be more robust as they will cover the experiences of women as well.
		- Mercury availability through regional flows, resulting from poor regional cross-boundary collaboration	- Ensure that women's groups are included in cross-border collaborations to address illicit flows of mercury. This will ensure that opinions of women are taken into account in identifying and implementing regulatory solutions.
Para. 1(g) - Strategies for involving stakeholders in the implementation and continuing development of the national action plan	iii) To involve stakeholders in the NAP implementation process	- Existing communication gap between ASGM and key institutions	- Consider interventions supporting capacity in good governance of women's organisations to give them a voice. - Consider the needs of women and men for accessing training and information. For example it may be necessary to have communication channels dedicated to women.
		- Limited organisation of the ASGM sector to act as point of contact for broad and inclusive engagement	- The national NAP coordination should provide a safe space for women to voice their opinion and enhance capacity; this may mean having a gender subcommittee through which issues of gender are coordinated for the NAP process.
		- Inadequate capacity in regulatory and support institutions	- Ensure that the capacity building of institutional frameworks includes gender competencies and caters for inclusivity.

Annex 2.6 - Key gender aspects of the technical and environmental component of the NAP

Minamata Convention Annex C reference	Strategic objectives	Challenges to be addressed	
<p>Para. 1(b) – Actions to eliminate:</p> <p>(i) Whole ore amalgamation;</p> <p>(ii) Open burning of amalgam or processed amalgam;</p> <p>(iii) Burning of amalgam in residential areas; and</p> <p>(iv) Cyanide leaching in sediment, ore or tailings to which mercury has been added without first removing the mercury;</p> <p>Para. 1(c) Steps to facilitate the formalization or regulation of the artisanal.</p> <p>Para. 1(e) - Strategies for promoting the reduction of emissions and releases of, and exposure to, mercury in artisanal and small-scale gold mining and processing, including mercury-free methods.</p>	<p>i) To reduce of mercury emissions and releases from ASGM</p>	<p>- Prevalent and unregulated use of mercury use in processing gold with mercury</p>	<p>- Ensure that both women and men participate fully in activities to reduce mercury emissions and releases. For example, ensure equal access to equipment and training on mercury free methods.</p> <p>This is particularly important in trying to eliminate the worst practices, ensure both women and men receive the correct training suited to the roles that they perform</p>
		<p>- Widespread emissions and releases to the environment</p>	
		<p>- Poor mercury use practices in relation to gold processing with mercury in ASGM sector, including the worst e.g. whole ore amalgamation, open amalgam burning, and cyanidation of mercury containing gold processing tailings</p>	
	<p>ii) To identify and promote the use of mercury free processing technologies</p>	<p>- Limited availability of mercury-free processing methods</p>	
		<p>- Limited knowledge and skills on using mercury free processing methods</p>	<p>- Run training programs to improve the skills of both women and men in using mercury free processing methods</p>
		<p>- Lack of knowledge on the benefits of mercury free processing</p>	<p>- Promote greater use of mercury-free technologies, by ensuring that women are made aware of the improved efficiencies of new processing methods which can result in better gold recoveries and higher grades, thus increasing their incomes.</p>
		<p>- Pressure from mercury suppliers to continue to use mercury</p>	<p>- Provide financial resources targeted at helping women transition from mercury techniques, so that that they are not dependent on the credit provided by mercury dealers</p>

	iii) To develop and disseminate improved occupational health and safety practices	- Poor occupational, safety and health standards at ASGM sites	- Consider the needs of both men and women in upgrading occupational health and safety practices. This should also consider the special needs of women for personal protective equipment (e.g. one piece overalls are not suited to women). - Have interventions that target the roles that specifically involve women as these may be overlooked. For example, women are known to burn mercury amalgam in the home, it is therefore important to understand how and why this happens and craft specific messages to raise their awareness about the health hazards
		- Limited understanding of the OHS hazards including mercury by responsible authorities	- Ensure that appropriate authorities are trained to understand the risk associated with mercury emissions and releases and how these manifests differently for women and men. They need to have the capacity to craft appropriate responses for women and men ASGM, for example advocating for child care services for women miners so they do not take children to mine sites where they can be exposed to mercury, or advocating for other means of support for pregnant women so that they don't expose fetuses to mercury
	iv) To develop training programs to improve the skills of miners and capacity building in the use of appropriate technologies	- Limited skills to use mercury-free technologies	- Consider the needs of both men and women in the mechanization processing facilities and the introduction of mercury free methods. This should consider gender sensitive disincentives and incentives for behaviour change. For examples, improved incomes and more equal access to mineral deposits and productive assets for women would be an incentive adopt new mercury-free technologies.
		- Lack of incentives for miners to change to mercury free technologies	
		- Limited uptake of mercury free gold processing technologies	
	v) To make improvements in mechanisation for more efficient and	- Limited access of equipment, which may be due to limited access to finances for acquisition of equipment	- Ensure that options for technical advancement are accompanied by financing solutions accessible to both women and men. For example, consider hire purchase schemes with concessionary interest rates, centralised processing facilities, and supporting savings clubs for equipment buying.

	viable ASGM operations	- Limited knowledge and skills to use mechanical equipment	- Build capacity of both men and women to operate equipment. Training programs should be structured for the appropriate levels of education, and the scheduling should consider the needs of women, e.g. reproductive roles etc.
Para. 2 - Use or introduction of standards for mercury-free artisanal and small-scale gold mining and market-based mechanisms or marketing tools.	vi) To disseminate information on the business case for more efficient processing technologies	- Lack of incentives for miners to change to mercury free technologies - Limited capacity of responsible authorities and other stakeholders to promote efficient processing technologies. They may not have the knowledge, finances etc. to develop and implement awareness raising programs.	- Ensure that the needs of both women and men are considered in designing incentives to transition mercury-free methods. This may include security interventions to protect women from mercury dealers and getting them out of debt and bondage traps - Provide relevant authorities and stakeholders with train-the-trainer programs tailored for both women and men miners. This will build their capacity to promote efficient technologies and advocate for the business case. - They will also be able to support capacity building of both women and men miners so that they are fully capable to manage or administer newly formed mining associations, cooperatives etc. which may be needed to support the formalization process, which is at the core of the mercury reduction approaches.

Annex 2.7 - Key gender aspects of the health component of the NAP

Minamata Convention Annex C reference	Strategic objectives	Challenges to be addressed	Key gender aspects
Para. 1(b) Actions to eliminate: (i) Whole ore amalgamation; (ii) Open burning of amalgam or processed amalgam; (iii) Burning of amalgam in residential areas; and (iv) Cyanide leaching in sediment, ore or tailings to which mercury has been added without first removing the mercury.	i) To reduce the exposure of ASGM miners and communities to mercury	- Worst practices in mercury use, for example open burning of amalgam, whole ore amalgamation, and cyanide leaching of mercury bearing gold tailings	- Ensure that both women and men are supported to use cleaner gold extraction methods. This may mean better handling of mercury (e.g. stopping the worst practices), and/or introduction of mercury free methods. - There should be affirmative action in removing women from work that has a high risk of exposure to mercury, particularly pregnant and breastfeeding women

		<ul style="list-style-type: none"> - Lack of reliable laboratory for mercury testing 	<ul style="list-style-type: none"> - Ensure women have equal access to testing services
		<ul style="list-style-type: none"> - Exposure to vapours and methylmercury through the food chain (for example, carnivorous fish in mercury contaminated rivers tend to also be contaminated with mercury, and if consumed by humans can lead to mercury poisoning) 	<ul style="list-style-type: none"> - Ensure women (as primary caregivers) are aware of the dangers of consuming fish that is contaminated with mercury - Interventions to help women who are pressured into taking and burning amalgam in their homes - Support women as primary caregivers to keep children away from the ASGM sites. For example, child care facilities could be provided. - Ensure that there are steps to improve access to antenatal and postnatal care for women working in isolated ASM areas. This should incorporate assessing risks to mercury exposure and supporting treatment
<p>Para. 1(h) - A public health strategy on the exposure of artisanal and small-scale gold miners and their communities to mercury.</p>	<p>ii) To review and implement a public health strategy, including the gathering of health data on the impacts on miners and communities</p>	<ul style="list-style-type: none"> - Lack of a strategic approach to management of health issues associated with ASGM and mercury. 	<ul style="list-style-type: none"> - Ensure that the public health strategy has clear objectives that address the strategic needs of women and men. - Women as well as men must be consulted in the development of the public health strategy - In the M&E framework of this strategy include indicators and targets that measure gender equality performance, including disaggregated data where appropriate
		<ul style="list-style-type: none"> - Lack of data on the current and historical health impacts of mercury exposure 	<ul style="list-style-type: none"> - Health monitoring must be implemented equally for women and men.
		<ul style="list-style-type: none"> - Lack of data on health seeking behaviours of 	<ul style="list-style-type: none"> - Ensure that there is an understanding of the health seeking behaviour of both men and women miners

	<p>iii) To train health care workers to improve service delivery to miners and host communities</p>	<p>miners and host communities</p> <ul style="list-style-type: none"> - Limited capacity of health workers and facilities in detecting mercury poisoning - Undetected mercury health impacts - No capacity and skills to treat mercury poisoning 	<p>and develop appropriate outreach strategies</p> <ul style="list-style-type: none"> - Implement capacity building that improve the competencies of health workers to deal with detection of mercury poisoning in both women and men. For women this should include possible exposure while breastfeeding children and when pregnant- . - Ensure that women receive the same opportunities as men in accessing testing and other health care facilities, this may mean affirmative action to respond to the unique practical needs of women. - Ensure that there are measures to address the high incidents of injuries to men to safeguard their health.
<p>Para. 1(j) - Strategies for providing information to artisanal and small-scale gold miners and affected communities</p>	<p>iv) To develop programs to raise awareness about the health impacts of mercury and limit exposure</p>	<ul style="list-style-type: none"> - Exposure of vulnerable populations in and around mine sites to mercury emissions and releases 	<ul style="list-style-type: none"> - Ensure that there is targeted messaging for women to address their special circumstances, e.g. literacy levels, reproductive responsibilities, their role in bringing children to ASGM sites.
		<ul style="list-style-type: none"> - Lack of awareness about the health risk associated with exposure to mercury 	<ul style="list-style-type: none"> - Ensure that awareness raising programs are developed to raise the awareness of both women and men about the health risks of exposure to mercury.
		<ul style="list-style-type: none"> - Limited resources to develop and implement programs to raise awareness of mercury exposure impacts on health 	<ul style="list-style-type: none"> - Ensure that both women and men miners in communities are involved in designing and implementing awareness raising programs. In addition to optimising resources this will ensure

			that the messages are appropriate and there is better buy-in for behaviour change.
		- Limited awareness of alternative gold processing methods	- Ensure that the awareness raising programs also include information about how to pursue other livelihood options for both women and men. This may include women only programs to provide inputs, skills etc.
		- Lack of communication programs with appropriate messaging for miners and community members	- Relevant authorities and other stakeholders must develop communication programs on all health initiatives.

Annex 2.8 - Key gender aspects for the socio-economic component of the NAP

Minamata Convention Annex C reference	Strategic objectives	Challenges to be addressed	Key gender aspects
Para. 1(i) - Strategies to prevent the exposure of vulnerable populations, particularly children and women of child-bearing age, especially pregnant women, to mercury used in artisanal and small-scale gold mining	i) To prevent exposure to mercury of vulnerable populations, particularly children and women	- Exposure of vulnerable populations in and around mine sites to mercury emissions and releases	- Ensure that child-bearing women are assigned low risk roles - Ensure that sensitisation campaigns include both women and men
		- Encroachment of ASGM activities into community settlements increasing risk of exposure for vulnerable peoples	- Develop community outreach programs that have messaging that is gender inclusive.
		- Mushrooming of informal settlements around new mining sites such as rush sites with no governance structures to manage unacceptable behaviours of miners	- Develop local governance interventions to protect in communities (particularly vulnerable people) near rush from unacceptable behaviours increase the risk of exposure to mercury.

		<ul style="list-style-type: none"> - Orphaned children seeking livelihoods 	<ul style="list-style-type: none"> - Make sure that strategies for keeping children in school are developed and implemented - Advocate for the provision of childcare facilities for women to prevent children being brought to mining sites
		<ul style="list-style-type: none"> - Mothers with children in need of a livelihood 	<ul style="list-style-type: none"> - Ensure that training of women miners for alternative livelihoods is facilitated
Para. 1(j) - Strategies for providing information to artisanal and small-scale gold miners and affected communities; and	ii) To provide information to ASGM miners and affected communities	<ul style="list-style-type: none"> - Low levels of awareness of miners on mercury effects on human health and environment 	<ul style="list-style-type: none"> - Community outreach programs should have messaging that is gender inclusive. For example, the messaging should include information that is relevant and useful to women miners and community members. - Sensitisation campaigns should include both women and men
		<ul style="list-style-type: none"> - Mining communities not included in formal social structures for access to social services 	<ul style="list-style-type: none"> - Include women and men from mining communities in social interventions.
Para. 2 - Use or introduction of standards for mercury-free artisanal and small-scale gold mining and market-based mechanisms or marketing tools	iii) To develop and implement interventions to build the resilience of miners and host communities to economic shocks that might drive risk behaviour	<ul style="list-style-type: none"> - Inefficient and non-viable mining operations 	<ul style="list-style-type: none"> - Support provision of technical services to improve efficiencies and therefore viability of ASGM operations
		<ul style="list-style-type: none"> - Limited livelihood options for women and children 	<ul style="list-style-type: none"> - Support alternative livelihood development - Support social network development - Make social services available to women and men from mining communities
	iv) To support development and implementation of interventions for	<ul style="list-style-type: none"> - Limited finances make it difficult for miners to transition to mercury free technologies 	<ul style="list-style-type: none"> - Ensure both women and men benefit equally from access to finance interventions.

	accessing finance and alternative livelihood		- Consider supporting women only savings club to improve access to capital to invest in mercury free technologies
		- Lack of finance because traditional financial institutions consider ASGM high-risk	- Introduce de-risking measures that target both women and men. For example, credit guarantee funds inclusive of both women and men, can increase the lending appetite of banks.
		- Low financial literacy and financial exclusion makes it difficult for miners to save and diversify from mining by investing in other livelihoods	- Consider using an affirmative action approach for women to improve participation in financial literacy training to counter the challenge of low literacy levels
		- Ethical standards are costly to implement	- Ensure that ethical market-based frameworks have gender equality as a standard to encourage (through disincentives and incentives) the inclusion of women

Annex 4 - Resources related to ASGM and Mercury Management

Annex 4.1 - Voices of women and men miners

Title	Source	Year	Content Type	Geographic focus
Meet Modestine: How the AFECOR Project Supports Access to Savings and Credit (Not a miner but participates indirectly by selling supplies/clothes to miners)	IMPACT: https://youtu.be/p9QgPx00bAU	2019	Video	Democratic Republic of Congo
Meet Furaha How the AFECOR Project Supports Access to Savings and Credit	IMPACT: https://youtu.be/WNeT_EUjhJ0	2019	Video	Democratic Republic of Congo
Golden girls: The hidden role of women in Africa's artisanal mines (Nakacho)	International Development Research Centre (IDRC): https://www.idrc.ca/en/stories/golden-girls-hidden-role-	2017	Article	Uganda

	women-africas-artisanal-mines			
The women miners at Puerto Jobo	Alliance for Responsible Mining (ARM): https://www.responsiblemines.org/wp-content/uploads/2017/10/Community-story-women-barequeras.pdf	2017	Article (PDF)	Colombia
Senides Lucumi, mineral selector	ARM: https://www.responsiblemines.org/wp-content/uploads/2017/12/CommunityStories_-_SenidesSu%C3%A1rezENGL.compressed.pdf	2017	Article (PDF)	Colombia
Lina: Her love for mining is a family tradition	ARM: https://www.responsiblemines.org/en/community-story-lina-maria-vergara/	-	Article	Colombia
Mercedes Arias Martínez, between coffee and gold (small scale mining - not ASM)	ARM: https://www.responsiblemines.org/en/community-story-mercedes-arias-martinez/		Article	Colombia
Doris Cuatin (a small-scale miner (SSM) miner with the Cooperativa Coodmilla LTDA)	ARM: https://www.responsiblemines.org/en/community-stories-doris-cuatin/		Article	Colombia
COMMUNITY STORIES: Yurani Carabalí Vergara	ARM: https://www.responsiblemines.org/en/community-story-yurani-carabali-vergara/		Article	Colombia
Perú: Nieves Villavicencio A transformation story	ARM: https://www.responsiblemines.org/en/community-story-nieves-villavicencio/		Article	Peru
Katanga, Democratic Republic of Congo (DRC); Men's voice relating to expressions of masculinity in the ASM sector.	"Work and Masculinity in Katanga's Artisanal Mines" Aug 2014. Jeroen Cuvelier. Africa Spectrum 2/2014: 3-26	2014	Quotations in research paper	DRC
Papua New Guinea (PNG): Women in ASGM highlighting the need to be recognised, overcome patrilineal cultural rules in accessing assets, the burden of dual roles (productive and reproductive, poor ergonomics), OHS injuries, and pressured by need	"A good business or a risky business: Health, safety and quality of life for women small-scale miners in PNG". 2018. Danellie Lynas. Chapter in: Between the Plough and the Pick Informal, ASM in the Contemporary	2018	Quotations in research paper	PNG

to burn amalgam in the home to meet immediate cash needs.	World. Australian National University Press			
Gender equality - Voices and empowerment for a mercury-free Colombia (Igualdad de género: voces y empoderamiento para una Colombia libre de mercurio) [Tells the story of jancheras and is a reminder that there are many different types of ASM and activities performed by women]	GEF- Global Opportunities for Long-term Development (GOLD) Project Team	2020	Article	Colombia
Women wrote open letters to their national President: expressing their wishes; this includes being consulted, wanting to participate in mining, getting fair prices for their minerals, capacity building, being respected and not being subjected to GBV, access to social infrastructure, self-determination and demanding their rights.	Women in Extractives Tanzania. https://womeninminingtz.blogspot.com/2014/06/tawoma-supporting-disadvantaged-in.html https://womeninminingtz.blogspot.com/search/label/Women%20Quotes https://womeninminingtz.blogspot.com/search/label/Women%20Stories	2014	Text in Blog	Tanzania
Quotes from women who talk about the motivation for entering mining (a better life, no alternative livelihood, escaping a hard life etc.), and the strategies and tactics they use to prosper in the business, like giving sexual favours, women miners associations, relatives. Some women managed to navigate the gendered conditions in mining. Social networks are used to navigate the mining environment.	"Necessity or choice: women's migration to artisanal mining regions in eastern DRC" Marie-rose Bashwira and Gemma van der Haar Canadian J. of Afr. Studies 2020	2020	Test in publication	DRC
Success story. Fighting barrier of women's inclusion in artisanal mining sector. (A group of five women in Kwekwe are reaping the benefits of working as a group, commonly referred to as a syndicate)	PACT	2018	Article	Zimbabwe

Success story. From Ashes to beauty. (The story of Mthandazo Women's Mining Association, showing women's courage and hard work, facing hostility in the form of gender-based violence, sexual abuse, labelling, unequal access to finance and marginalization)	PACT	2018	Article	Zimbabwe
Women Gold collectors- Provides an overview of the work of women gold collectors in ASM mines in Ponce Enríquez, Ecuador.	CIRDI		Presentation	Ecuador
African women in artisanal and small-scale mining- stories and voices.	UN Economic Commission for Africa (UNECA)	2015	Article	Democratic Republic of Congo, Ghana, Guinea, Tanzania, and Zambia.
Promoting-Women's-Participation-in-Extractive-Industries- Has women voices in mining.	UN Women	2016	publication	Global
Voice of Mongolian women miner on impact of Human rights approach to formalisation and empowerment.	https://asmhub.mn/en/news/my-time-in-artisanal-mining-sector	2018	Article	Mongolia

Annex 4.2 - Case studies

Organization	Title	Country	Type of ASM
IMPACT / AFECCOR	Artisanal Mining Women's Empowerment Credit & Savings [Themes: Access to finance] (https://impacttransform.org/en/work/project/artisanal-mining-womens-empowerment-credit-and-savings/)	Democratic Republic of Congo	Gold
Solidaridad	Improve the economic and social position of women in gold mines [Themes: A tactic for mainstreaming gender into ASM mines by hosting sensitization workshops at mines] (https://www.solidaridadnetwork.org/news/improve-the-economic-social-position-of-women-in-gold-mines)	Ghana / Tanzania	Gold
IMPACT	Women in Artisanal & Small-Scale Mining in Central and East Africa	DRC, Uganda and Rwanda	gold
Solidaridad	The Golden Line	Tanzania and Ghana	gold
Solidaridad, Red Social	Pallaqueras entre piedras y oro. Diagnóstico participativo en las regiones de Arequipa, Ayacucho y Puno	Peru	Gold
Solidaridad	Línea Base Socioeconómica de Mujeres Mineras en Bolivia	Bolivia	Gold

PACT	Reducing mercury's risks among women miners in Zimbabwe With women miners, Pact & partners build an ethical gemstone supply chain from the ground up	Tanzania, Zimbabwe	Gemstones and gold
IIED and IGF	Skills Building for Women in Artisanal and Small-Scale Mining	Mongolia, Zambia and Zimbabwe	
CIRDI	Women gold collectors	Ecuador	gold
CIRDI	ASM access to finance	Indonesia	gold
UNDP	Women Empowerment. Mining a Fortune	Zimbabwe	gold
WWF	A Rapid Risk Assessment on Mercury Exposure and Accumulation in Four Indigenous Communities in the Southern Rupununi Region, Guyana	Guyana	gold
IIED, IISD and IGF	Women in Artisanal and Small-Scale Mining: Interventions for greater participation	Madagascar, Tanzania, Uganda	Tin, gemstones
Danellie Lynas	A good business or a risky business: Health, safety and quality of life for women small-scale miners in PNG ²	PNG	gold
PACT	ZAAMP Empowering women in mining—her story	Zimbabwe	gold
Gender Resource Facility	The Gender Dimensions of Tin, Tantalum and Tungsten Mining in the Great Lakes Region	Great Lakes Region	3Ts and gold
GEF-UNDP	Development of a financial product to be used in the Artisan and Small-Scale Gold Mining sector - ASM. Case report from a Gender Perspective.	Ecuador	gold
SDC	Artisanal and small-scale miners survey report	Mongolia	Gold, fluorspar, coal
World Bank	Resources and Resourcefulness: Gender, Human Rights and Resilience in Select Artisanal Mining Towns of Eastern Congo	DRC	Gold, 3Ts.

Annex 4.3 - Other Relevant Tools and Resources

Tool/Resource	Organisation	Date	Areas of focus
Gender Dimensions of Artisanal and Small-Scale Mining A Rapid Assessment Toolkit	World Bank	2012	Understanding the social, economic, and environmental aspects of ASM is essential for governments, nongovernmental organizations, mining companies, and researchers to be able to contribute to positive socioeconomic and environmental outcomes from this sector. This Toolkit—including the detailed analytical framework and instructional modules—is a unique instrument to guide research and researchers to ask the right questions and come to a gender-sensitive understanding of ASM activities.
UNEP Gender Marker	UNEP	2016	This is a coding system that tells the user how well gender is integrated into a project document. This link hosts the article collection available at:

² Lynas, D. 2018. op. cit.

			https://drive.google.com/drive/folders/0B-nbHeF2bGUMY2NFTE5KeVZ6YjQ .
UNITAR Socio-economic ASGM Research Methodology	UNITAR	2018	This socio-economic ASGM research methodology mainly covers the socio-economic aspects of the ASGM overview. It provides a suggested approach for collecting and analysing data in the ASGM sector.
Estimating Mercury Use and Documenting Practices in Artisanal and Small-scale Gold Mining (ASGM)	UNEP	2018	This guidebook and toolkit have been designed to assist governments, civil-society organizations, and the private sector of countries in preparing a National Action Plan (NAP) for reducing mercury use in artisanal and small-scale gold mining (ASGM) as required for applicable parties under Article 7 of the Minamata Convention on Mercury.
Handbook for Developing National ASGM Formalization Strategies within National Action Plans	UNITAR and UNEP	2018	The official guide on developing national level ASGM formalisation strategies and NAPs
WHO Guidance for Identifying Populations at Risk from Mercury Exposure	IOMC Geneva	2008	
Implementing Gender-Responsive Due Diligence and ensuring the human rights of women in Mineral Supply Chains	Women's Rights and Mining ¹ and the OECD Secretariat	April 2019	Human rights of women in the mineral supply chains (The commitments made in the statement can be used to highlight areas of focus whilst mainstreaming gender as part of the NAPs process)
Delvedatabase.org	Delve	April 2020	Global ASM Data
Guide on Gender Mainstreaming Environmental Management Projects	UNIDO	2015	A guide to mainstreaming gender in chemicals management programs
Mainstreaming Gender in UNDP-GEF Projects on Chemicals and Waste	UNDP/GEF	2017	Guide on gender mainstreaming in chemicals management programs
IMPACT's Gender assessment toolkit	IMPACT	to be ready in September 2020	IMPACT is developing Gender Assessment tools to provide step-by-step guidance on integrating gender and human rights into mineral policies and projects, including those that support the formalization of the artisanal and small-scale (ASM) mining sector.
Unlocking opportunities for women and business: A Toolkit of Actions and Strategies for Oil, Gas, and Mining Companies	IFC	2018	Working equitably with men and women—within the company, as suppliers, and in host communities—makes strong business sense. This toolkit presents detailed, step-by-step guidance for companies to work towards this goal in each of these areas. Some of these tools have been custom written for this toolkit; others draw on the wealth of guidance that has been developed by the World Bank Group: some tools are adapted from publicly available materials for use in the gender-and-OGM

			context; and some were designed specifically for OGM companies. The toolkit is a modular, customizable guide that includes four tool suites focused on different issues.
Encyclopaedia of Gender and Mining https://womenandmining.org/wp-content/uploads/2019/04/Encyclopedia-.pdf	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	2019	This encyclopaedia offers a snapshot of some of the key actors, initiatives and programmes in the field of gender and mining. It is intended as a living document, there to help practitioners gain an overview of the sector and potentially ideas for projects or collaborations, rather than as a comprehensive document setting out the definitive list of who is who in the field.
Plataforma Integral de Minería a Pequeña Escala (ENG)	Solidaridad	2017	Carried out within the framework of the project "Artisanal Mining responsible for the reduction of poverty and the promotion of sustainable rural development", also known as a project "Oro Justo", currently executed by the Solidaridad and Red Social organizations with the support from the European Union, "Pallaqueras. Between stones and gold" is an investigation that explores the experience of women who work in artisanal mining as sorters of mineral and shows the results of the participatory diagnosis carried out with their own pallaqueras from nine organizations in the regions of Arequipa, Ayacucho and Puno: a experience that allowed generating a space for dialogue about their personal careers, projecting a collective identity that is supported in the decision to organize and in the elaboration of proposals that allow their social recognition as workers of a productive activity.
10 Steps for Gender Sensitive OSH Practice	ILO	2013	Guide on mainstreaming gender in OSH practice