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# GESI integration activity for SERVIR technical teams

## Part 1

**Dr. Diana West**  
**Emily Adams**

Earth System Science Center, University of Alabama in Huntsville  
SERVIR Science Coordination Office at NASA Marshall Space Flight Center

This slide deck is associated with a series of training materials developed by the SERVIR Science Coordination office to support Gender Equity and Social Inclusion into Applied Earth Sciences. Materials are available at the SERVIR / GESI-eo-training GitHub repository ([link](#))

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# GESI integration activity for SERVIR technical teams

## Part 1

### Objectives:

1. to introduce technical teams to GESI-lens considerations within their service area
2. to help technical teams team members determine key issues and relevant steps for building more inclusive services
3. to encourage the use of the SERVIR service planning process while identifying steps for GESI integration into services

# Activity instructions:

1. Each SERVIR service team will review the GESI considerations across the six domains of the gender analysis as outlined in the two overview slides for each thematic area. (Green - Ecosystems and Carbon Management, Blue - Water Security, Orange - Agriculture and Food Security, Purple - Weather and Climate Resilience, and Yellow - Air Quality and Health)
2. The team will identify the avenues for GESI inclusion for **each gender analysis domain** as they relate to the various parts of the **SERVIR service planning** process. These avenues may involve:
  - collecting gender statistics such as sex-disaggregated socioeconomic data,
  - engaging women's, Indigenous and/or other underrepresented user groups for the service,
  - engaging relevant NGOs or other stakeholders who can capture the needs of underrepresented,
  - conducting a full-scale Gender Analysis using the SERVIR Gender Analysis Tool is needed, or other activities as relevant to the service.

(Note: if the service already exists or is in the process of being implemented, the review remains relevant as additional stakeholders, users, beneficiaries, or ways of making a service more inclusive can nevertheless be identified.)

3. The team will review the activities they determined across all domains, and then make a list of priority steps to be included in the service implementation schedule and budget.

# Review: SERVIR Gender Analysis Domains

<b>1. Rights</b>	Legal and customary	Laws and policies, formal and informal, at various scales
<b>2. Environment</b>	Stressors and vulnerability	Climate-related information
<b>3. Representation</b>	Participation, inclusion and power	Local decision-making impacts
<b>4. Practice</b>	Attitudes, customs and beliefs	Consider cultural norms that may be harmful to some groups
<b>5. Roles and Responsibilities</b>	Division of time, space and labor	Paid and unpaid labor, informal roles, etc.
<b>6. Resources</b>	Access to and control over assets and services	Understanding differentiated reliance on various resources as they relate to #5



Example:

Crop Monitoring Service

# Agriculture and Food Security



Rights

**1. RIGHTS: Legal and Customary** General awareness of legal frameworks and customs in a service region is important both for service design and service implementation

**Significance:** Women often have fewer land rights, and therefore may not have the same access to credit (which usually requires land as collateral), ag inputs, legal protections and decision-making abilities.

**Potential service impacts:** There is growing appetite globally for satellite-based agricultural insurance products. However, if women do not hold land titles, they will be limited in their ability to take up crop insurance.



Environment

**2. ENVIRONMENT: Stressors and Vulnerability** Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.

**Significance:** Households develop various coping strategies in response to environmental stressors causing food shortages. Studies have found that women tend to be most likely to forego meals, and girls are first to be pulled out of schools when a family cannot pay fees. Nevertheless, women also have developed some unique skills in coping with environmental challenges and can be very strong champions for sustainable ag practices.

**Potential service impacts:** Because gender roles often determine agricultural practices, women may have different perceptions of droughts, floods, locusts, and other environmental stressors, and can be key allies in collecting ground data.



Representation

**3. REPRESENTATION: participation, inclusion, and power** Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote inclusive participation and leadership throughout the service.

**Significance:** Women make up 43 percent of the global agricultural working force, and the majority of economically active women in the least-developed countries work in agriculture. At the same time, however, women do not always have representation at the level of farmer associations, local governments, or other decision-making roles.

**Potential service impacts:** Recognizing disparities in representation between men and women can help SERVIR hubs reach out to more diverse stakeholder groups (for example, women's farmer associations), and develop activities that respond to the unique needs and constraints of underrepresented groups.

# Agriculture and Food Security



Practice

**4. PRACTICE: attitudes, customs, and beliefs** Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring impact and sustainability

**Significance:** Many agricultural practices are deeply rooted in broadly held views on gender norms. Introducing innovation or new technology must take these views into account.

**Potential service impacts:** Knowledge of cultural practices and ideas can have significant impact on service delivery and design. For instance, dairy production and commercialization of milk in Kenya are considered masculine activities, and women are often blocked from participating in those food systems, which may impact a service that uses remote sensing to map forage for cattle.



Roles and responsibilities

**5. ROLES AND RESPONSIBILITIES: division of time, space and labor** Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help identify better avenues for communication and engagement, paving way to equitable impacts.

**Significance:** Women and men often perform different tasks in agricultural activities, have different access to information about new technologies such as fertilizers, and have compound responsibilities with family care. Studies also show that women tend to have a keener interest in nutrition, health, and long-term sustainability, while men prefer commercialization.

**Potential service impacts:** Since men and women often tend different crops, mapping maize or other commercial crops usually tended by men will not capture women's crops and may miss potential impacts of environmental stressors and local food security.



Resources

**6. RESOURCES: access to and control of resources and services** Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

**Significance:** This domain is closely linked to all domains, and can be significantly restricted by numerous economic, social, and cultural factors and barriers. Knowing these barriers and restrictions is important to a SERVIR service, to better understand how information gathered through a service can prepare the geographic region impacted by a service for climate shocks and implement resilience-building activities.

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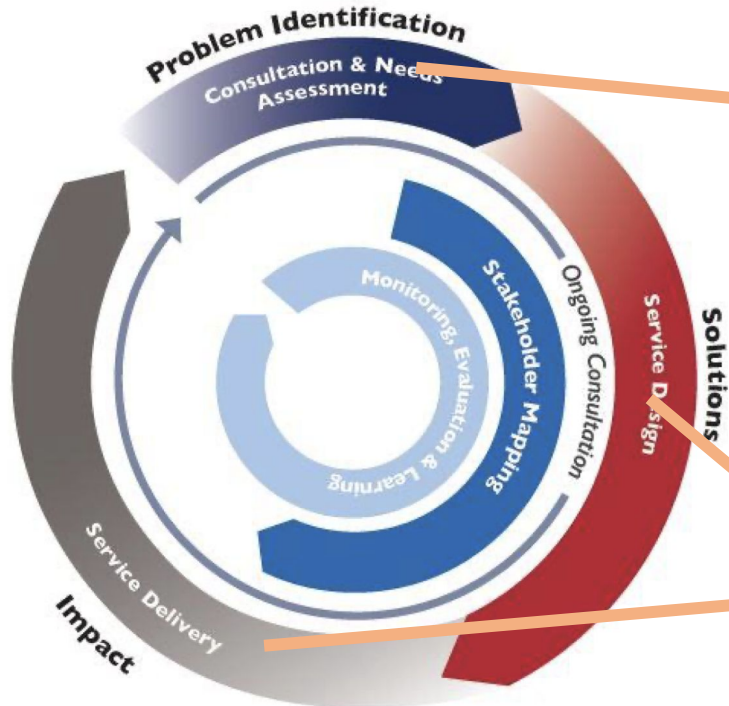
# Agriculture and Food Security

Service name: Crop Monitoring (example)



**RIGHTS:** legal and customary

**General awareness of legal frameworks and customs in a service region is important both for service design and service implementation**



## **Actions:**

- hold women's group and men's group consultations to understand **customary** and **legal** rights of women in the target user and beneficiary groups.
- Conduct desk review of existing literature about land rights in the region.

**Action:** integrate findings and recommendations of consultations and Gender Analysis into **service design** and **delivery**

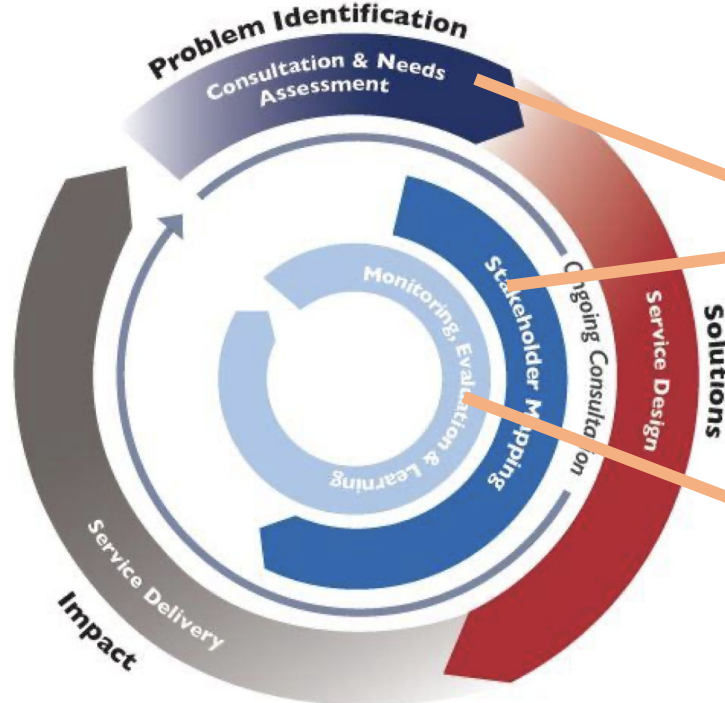


# Agriculture and Food Security

Service name: Crop Monitoring (example)



**ENVIRONMENT:**  
stressors and  
vulnerability



## **Actions:**

- engage a wide array of stakeholders in evaluating needs and recognizing vulnerabilities and coping resources of women and men
- Determine which women's groups that may have unique capabilities and can be implementing partners/champions

**Action:** integrate sex-disaggregated approach to monitoring impacts

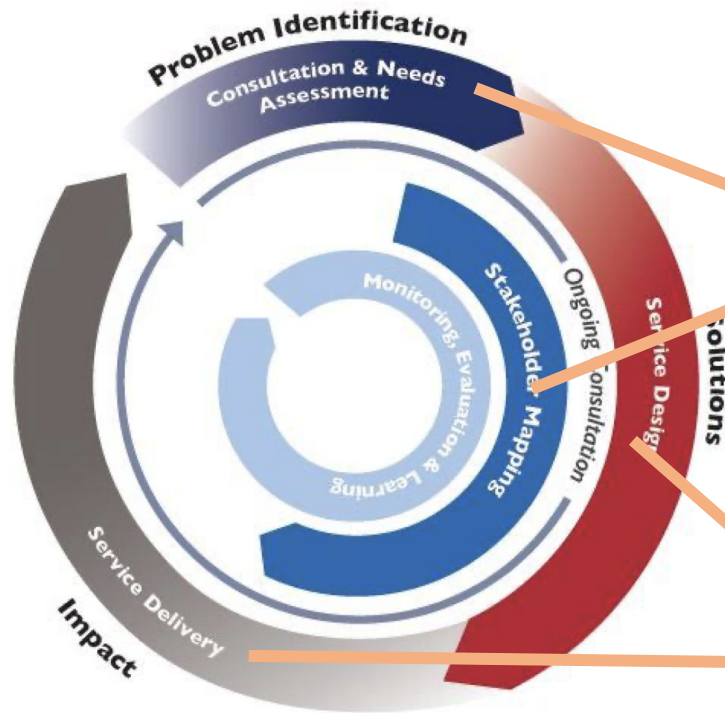
**Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.**

# Agriculture and Food Security

Service name: Crop Monitoring (example)



**REPRESENTATION:**  
participation,  
inclusion, and  
power



## Actions:

- engage a wide array of stakeholders, seeking out representation from underrepresented groups
- Collect primary data to understand how women and men are involved in the processes of decision making and planning at the *household* and *communal* levels

**Action:** integrate findings of the Gender Analysis into **service design** and **delivery**

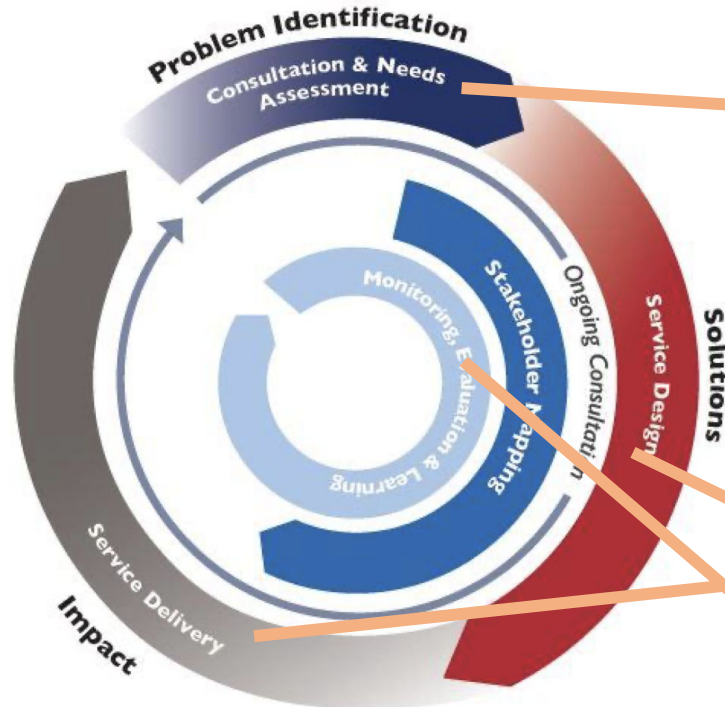
Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote **inclusive participation** and **leadership** throughout the service.

# Agriculture and Food Security

Service name: Crop Monitoring (example)



**PRACTICE:**  
attitudes, customs  
and beliefs



## **Actions:**

- Collect primary data on practices, customs and beliefs through focus group discussions, key informant interviews, and stakeholder consultations.
- Determine if any gender-related gaps in service delivery may occur; work with stakeholders to identify potential solutions to these gaps

**Action:** integrate findings (regardless of whether a full GA was conducted) into **service design** and **delivery**

**Action:** integrate sex-disaggregated approach to monitoring impacts

**Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring **impact** and **sustainability**.**

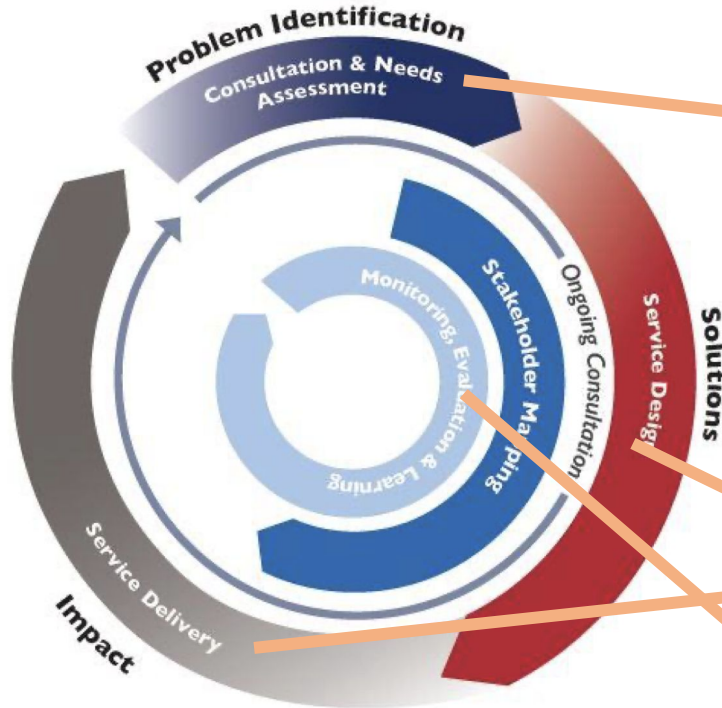
# Agriculture and Food Security

Service name: Crop Monitoring (example)



**ROLES AND RESPONSIBILITIES:**  
division of time,  
space and labor

Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help a SERVIR service team identify better avenues for communication, engagement, and equitable impacts.



## **Actions:**

- Collect primary data on practices, customs and beliefs through focus group discussions, key informant interviews, and stakeholder consultations.
- Determine if any gender-related gaps in service delivery may occur; conduct a Gender Analysis if gaps are identified

**Action:** integrate findings (regardless of whether a full GA was conducted) into **service design** and **delivery**

**Action:** integrate sex-disaggregated approach to monitoring impacts

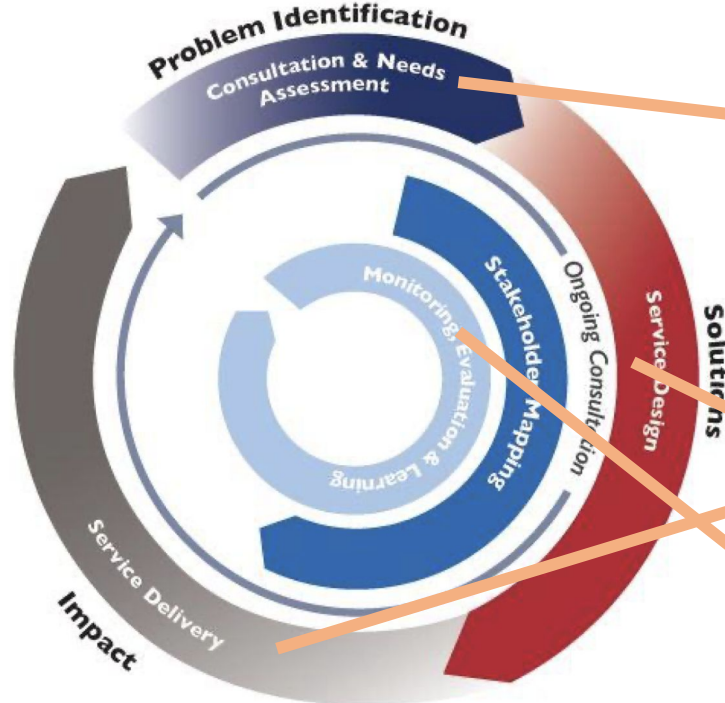


# Agriculture and Food Security

Service name: Crop Monitoring (example)



**RESOURCES:**  
access to and  
control of resources  
and services



## **Actions:**

- engage a wide array of stakeholders, seeking out representation from underrepresented groups
- Analyze potential barriers to service uptake among diverse stakeholders. Explore ways of circumventing or eliminating the barriers with the stakeholders.

**Action:** integrate findings and recommendations into service design and delivery

**Action:** integrate sex-disaggregated approach to monitoring impacts

**Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.**

# Ecosystem and Carbon Management



**1. RIGHTS: legal and customary** General awareness of legal frameworks and customs in a service region is important both for service design and service implementation

**Significance:** Understanding women's and men's relative rights to land, forest, and finance has major implications for natural resource management as land rights are politically some of the most contentious areas with differentiated impacts. For example, gender inequalities within land tenure and ownership reinforce deep gender inequalities in the Voluntary Carbon Market, including related benefit sharing schemes and decision-making processes.

**Potential service impacts:** Development of a decision-support framework for carbon management will require a thorough understanding of gender and intersectionality in order to not exacerbate inequalities.



**2. ENVIRONMENT: stressors and vulnerability** Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.

**Significance:** Environmental stressors are often experienced differently by women and men; for instance, according to UN estimates, 80% of Indigenous people displaced globally by climate change are women. Additionally, systematic disenfranchising of Indigenous groups creates significant tensions around land use, and indigenous women are often on the forefront of environmental activism.

**Potential service impacts:** In tracking land cover change, understanding how environmental stressors create compound vulnerabilities, such as migration and increased risks of Gender Based Violence (GBV), will lead to a more meaningful impact analysis.



**3. REPRESENTATION: participation, inclusion, and power** Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote inclusive participation and leadership throughout the service.

**Significance:** Women from forest-dependent communities play a key role in the management of natural resources, and yet they are frequently marginalised from decision-making roles. They are also often excluded from the benefits of climate investment finance, and programs like REDD+ have been systematically critiqued for exacerbating gender inequalities.

**Potential service impacts:** Creating trainings specifically targeted for Indigenous women can help them better advocate for inclusion in carbon monitoring and associated market opportunities, as well as build on their unique knowledge and skills.



# Ecosystem and Carbon Management



Practice

**4. PRACTICE: attitudes, customs and beliefs** Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring impact and sustainability.

**Significance:** Natural resource management is deeply embedded in culture and beliefs; in many rural and Indigenous societies, the management of natural resources is instilled in their cultural values.

**Potential service impacts:** Understanding gender-specific differences in land use and natural resource management practices is a crucial part of long term sustainability and developing effective approaches to land restoration and conservation.



Roles and responsibilities

**5. ROLES AND RESPONSIBILITIES: division of time, space and labor** Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help identify better avenues for communication, engagement, and ensure equitable impacts.

**Significance:** Women labor practices are often distinct from men's: for instance, they are often responsible for providing fuel for cookstoves and therefore play an important role in the charcoal value chain. Men, on the other hand, tend to dominate transportation and marketing of charcoal.

**Potential service impacts:** Without understanding the gendered labor dynamics, responsibilities, and resource uses, we cannot adequately address deforestation caused by charcoal production. For example, educating communities about the environmental consequences of charcoal use must entail women's group outreach, as they are predominantly responsible for cooking.



Resources

**6. RESOURCES: access to and control of resources and services** Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

**Significance:** Access to financial markets, transportation, education, services and communication is heavily gender-dependent. Commercial ventures and market opportunities are often not available to women unless an effort is made to provide equitable, gender-responsive services. Conversely, women may have better access to informal lending support structures, such as table-banking groups and other community support systems.

**Potential service impacts:** A carbon monitoring service that was designed without regard for diverse beneficiaries may deepen the financial gap and may lead to increased vulnerability of the most underserved social groups.

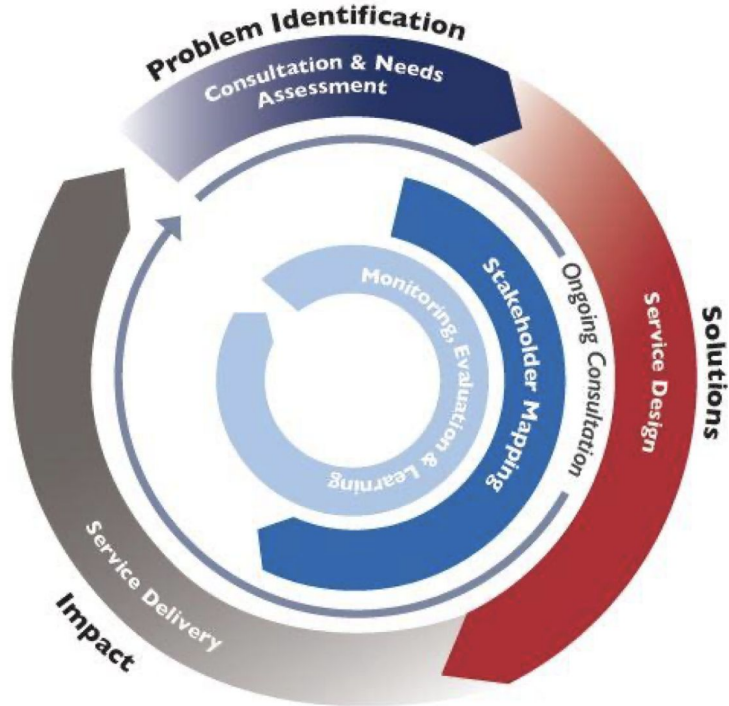
# Ecosystem and Carbon Management

Service name:



**RIGHTS:** legal and customary

**General awareness of legal frameworks and customs in a service region is important both for service design and service implementation**

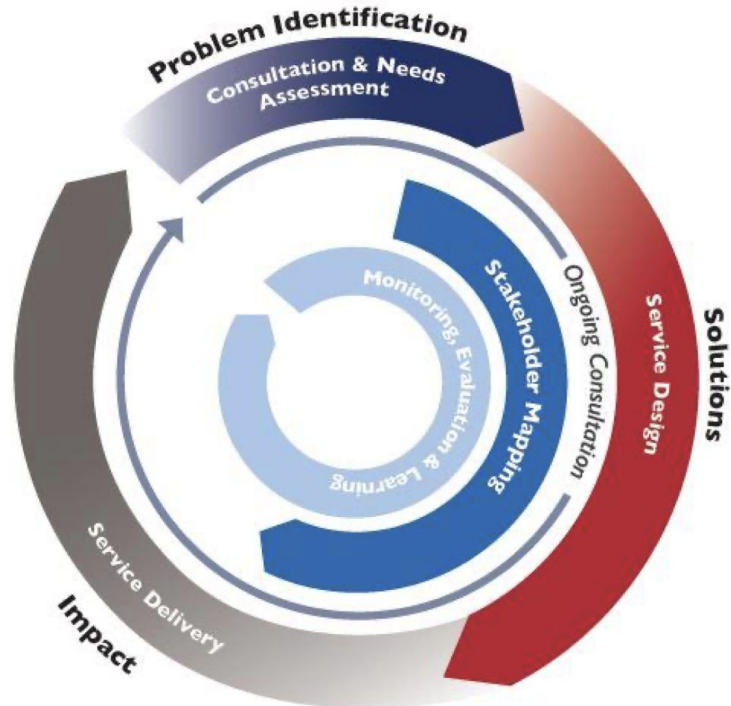


# Ecosystem and Carbon Management

Service name:



**ENVIRONMENT:**  
stressors and  
vulnerability



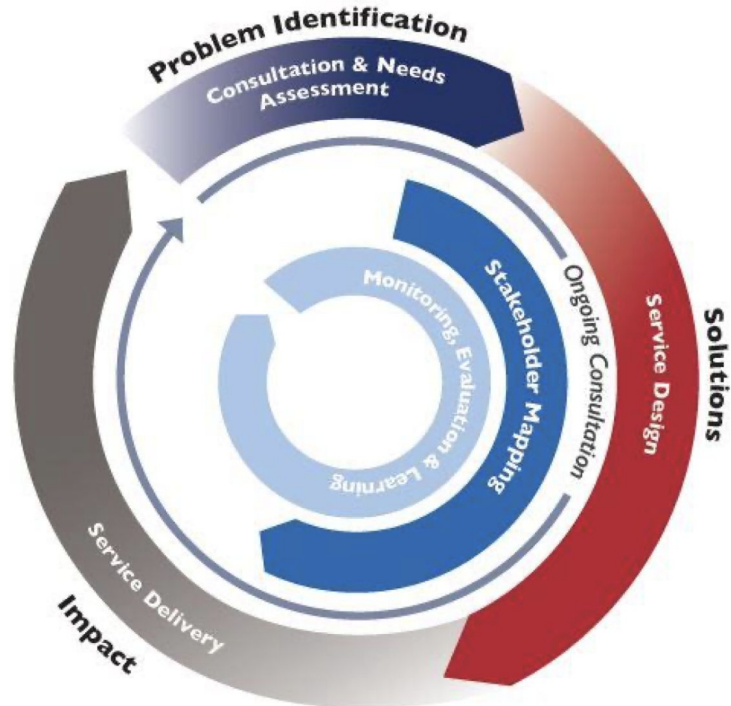
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# Ecosystem and Carbon Management

Service name:



**REPRESENTATION:**  
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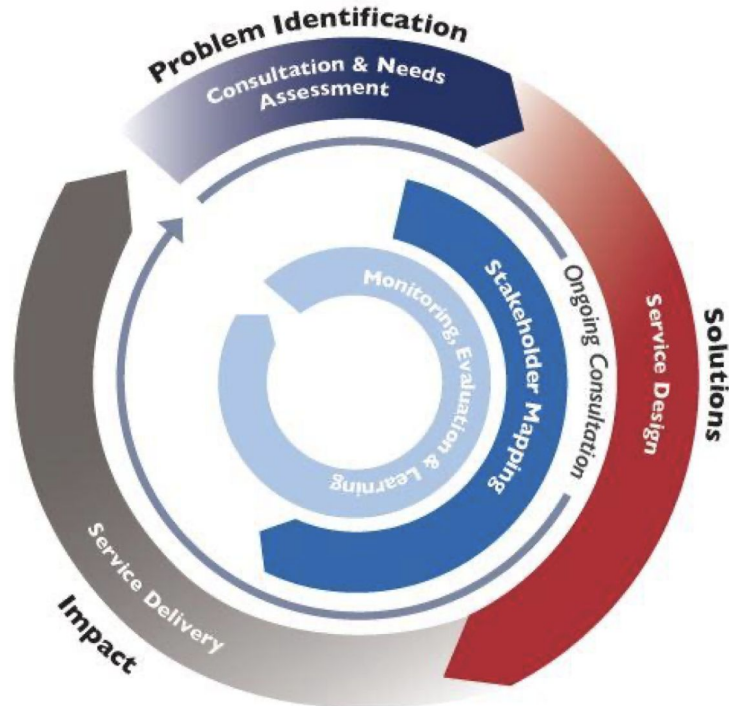
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# Ecosystem and Carbon Management

Service name:



**PRACTICE:**  
attitudes, customs  
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Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring **impact** and **sustainability**.

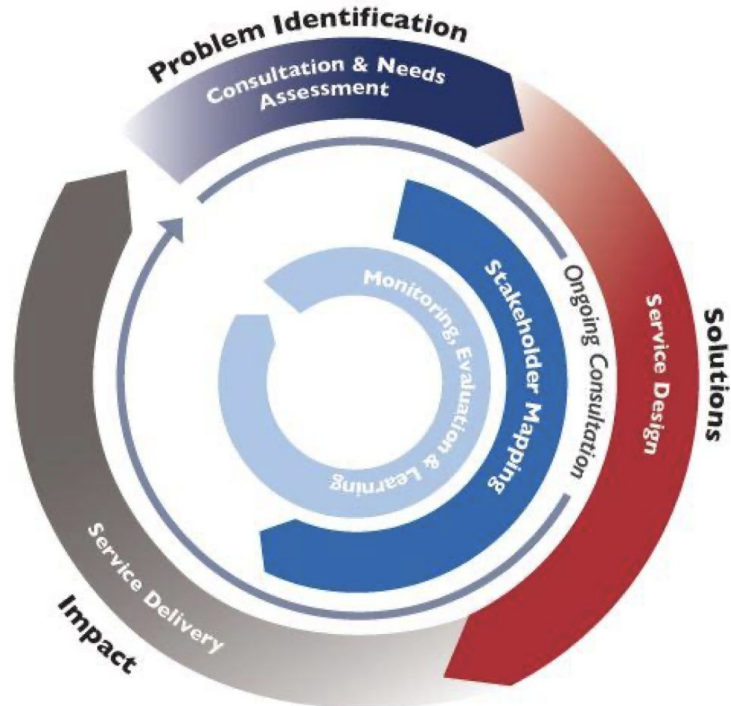


# Ecosystem and Carbon Management

Service name:



**ROLES AND RESPONSIBILITIES:**  
division of time,  
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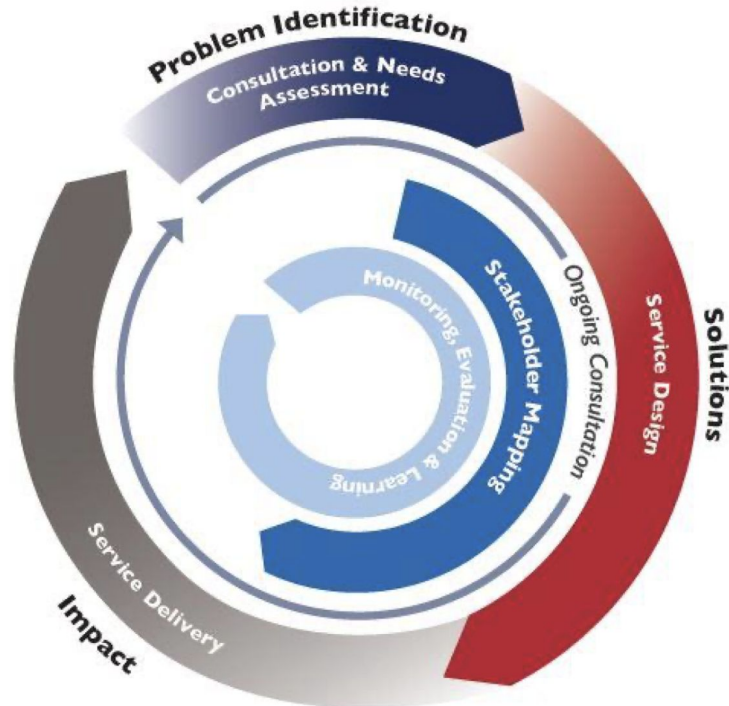


# Ecosystem and Carbon Management

Service name:



**RESOURCES:**  
access to and  
control of resources  
and services



Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

# Water Security



**1. RIGHTS: legal and customary** General awareness of legal frameworks and customs in a service region is important both for service design and service implementation

**Significance:** the gender gap in agricultural water resource management stems from the gender division of labour and gender norms in society, which allocate many water-related responsibilities to women while conferring most water-related rights to men. Water governance policies often fail to take into account women's and men's multiple water needs and their gender-specific constraints, where water allocation mechanisms give priority to agricultural, industrial and power production at the expense of household needs.

**Potential service impacts:** Evaluate potential beneficiaries of a water mapping service from the perspective of differentiated labor, requirements, and in conjunction with land rights and constraints.



**2. ENVIRONMENT: stressors and vulnerability** Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.

**Significance:** It is well-documented that women and girls often suffer greater impacts of floods, droughts, and associated food insecurity, and the effects are compounded by social inequalities. Women's roles as primary water collectors requires that they walk miles each day for clean water for their families, affecting their physical safety, health, economic opportunity, safe childbirth, and education.

**Potential service impacts:** Recognizing the specific and often increased vulnerabilities of women in conjunction with water resources is vital at all stages of service planning process. Engaging more women as stakeholders, holding focus groups discussions, and tapping into women's specific knowledge can help build a more sustainable service.



**3. REPRESENTATION: participation, inclusion, and power** Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote inclusive participation and leadership throughout the service.

**Significance:** Many countries have laws that limit women's land rights and local laws favor male ownership of natural resources, which prevent women from gaining access to water, especially for economic purposes. These laws also prevent women's abilities to serve on water management commissions which often have ownership requirements.

**Potential service impacts:** Because of their primary roles in household care and water collection, women have unique perspectives on water availability and can contribute to ground data collection. It is essential to collect more and better data that is disaggregated by sex and takes into account the intersectionality with other factors (such as class, ethnicity or wealth).

# Water Security



Practice

**4. PRACTICE: attitudes, customs and beliefs** Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring impact and sustainability.

**Significance:** Customs and beliefs can have significant impact on water security for women; for instance, issues of hygiene, absence of women-specific hygiene facilities, menstruation-specific customs (such as menstrual huts) and the exclusion of girls from education can both augment women's water needs and marginalize them socially. Understanding social norms around water use can create pathways for more inclusive stakeholder engagement

**Potential service impacts:** Opportunities for gender-responsive services that recognize women's specific needs and vulnerabilities, engage women as champions, and collaborate with other programs (for example, WASH) that engage with water and sanitation.



Roles and responsibilities

**5. ROLES AND RESPONSIBILITIES: division of time, space and labor** Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help identify better avenues for communication, engagement, and ensure equitable impacts.

**Significance:** Women and girls worldwide are primarily responsible for gathering household water and will have to walk farther and farther to do so when water becomes scarce. They may face compounded stress in conflict zones and are at higher risk of GBV.

**Potential service impacts:** Understanding the effects of floods on women's journey to collect water can be the basis of a gender-responsive service that helps women identify sources of water.



Resources

**6. RESOURCES: access to and control of resources and services** Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

**Significance:** Women's literacy rates are often lower, and they may have limited access to technology. This has an impact on how warning information is disseminated through a community and what actions men and women may take in the face of an impending disaster. Without access to warning systems, or mobility and transportation options, women are often at higher risk of death from floods and have less information about impending droughts.

**Potential service impacts:** Gender-responsive notification systems can have a significant impact on safety. How a warning is disseminated should be closely evaluated. Appropriate anticipatory actions should be gender sensitive.

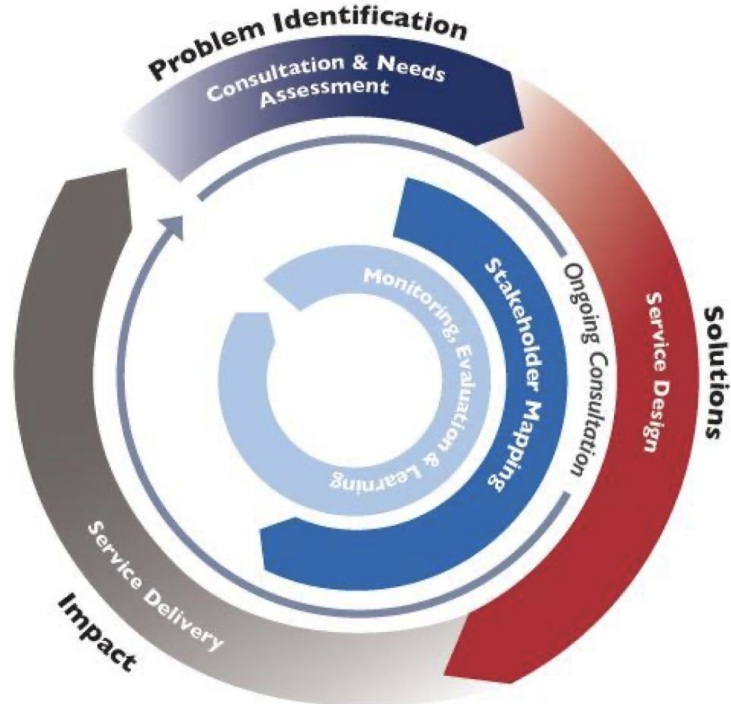
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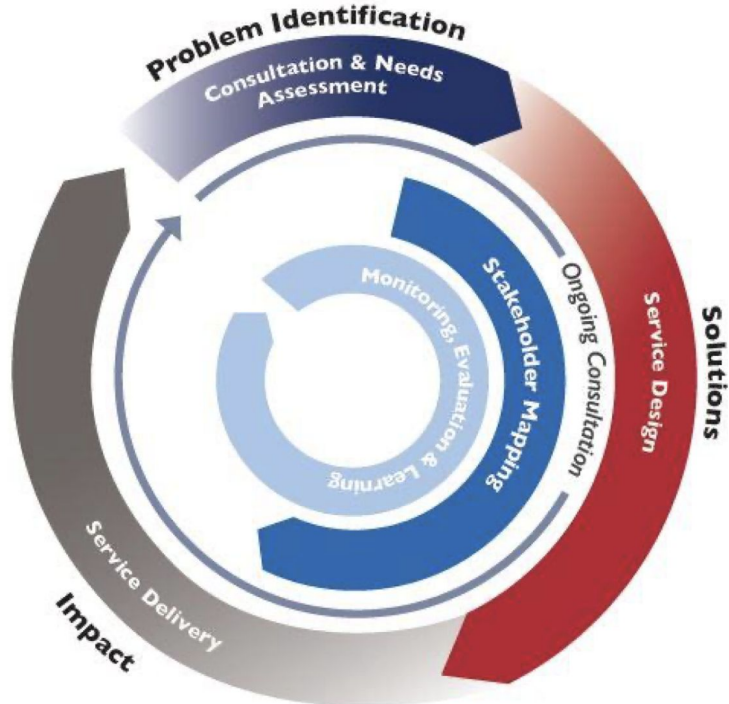
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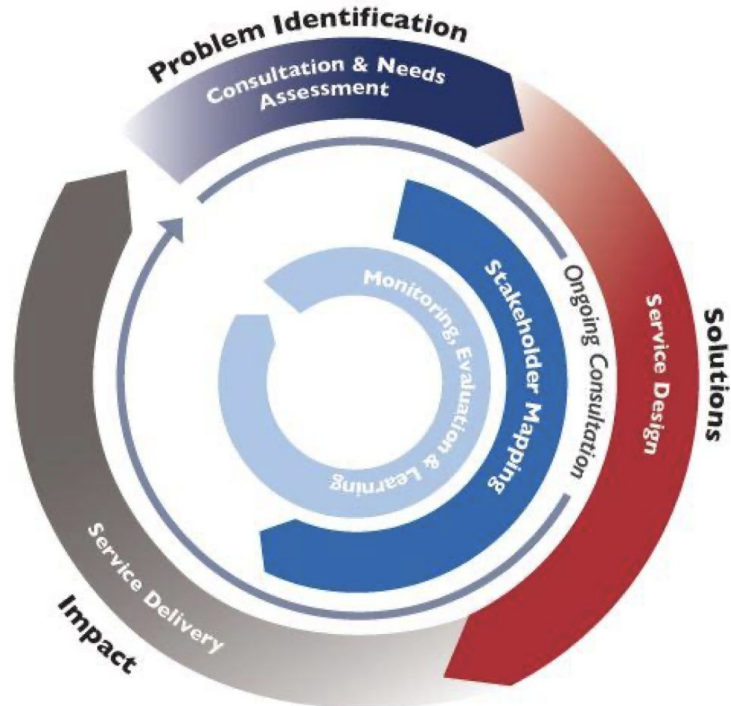


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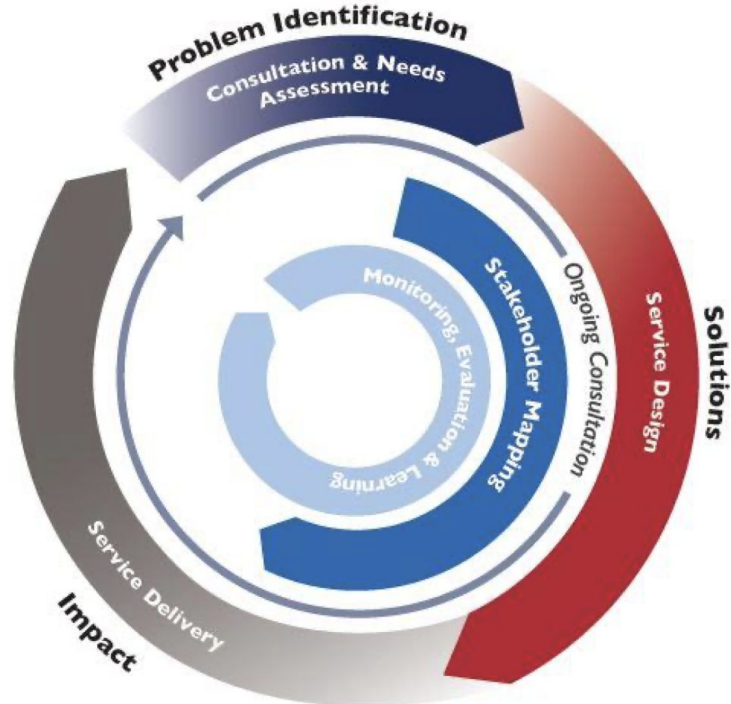


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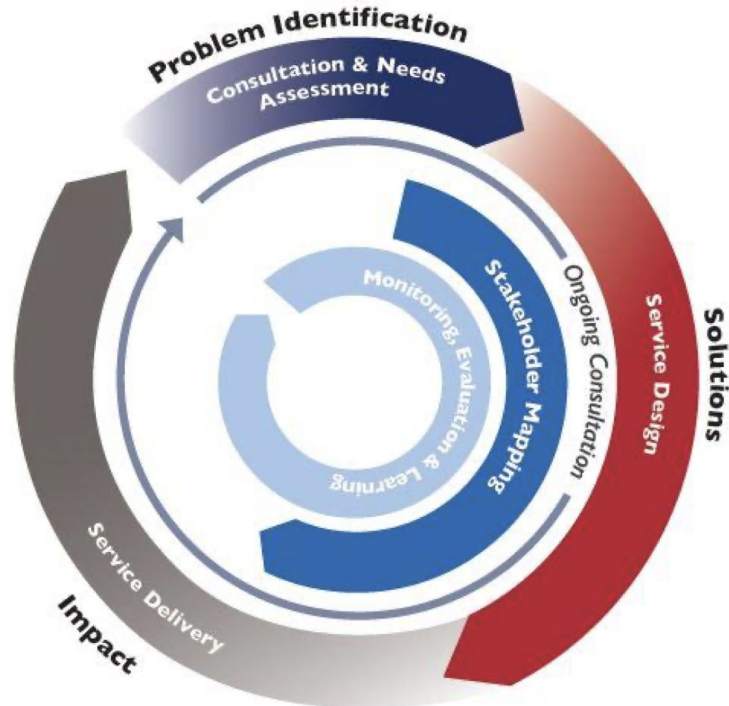
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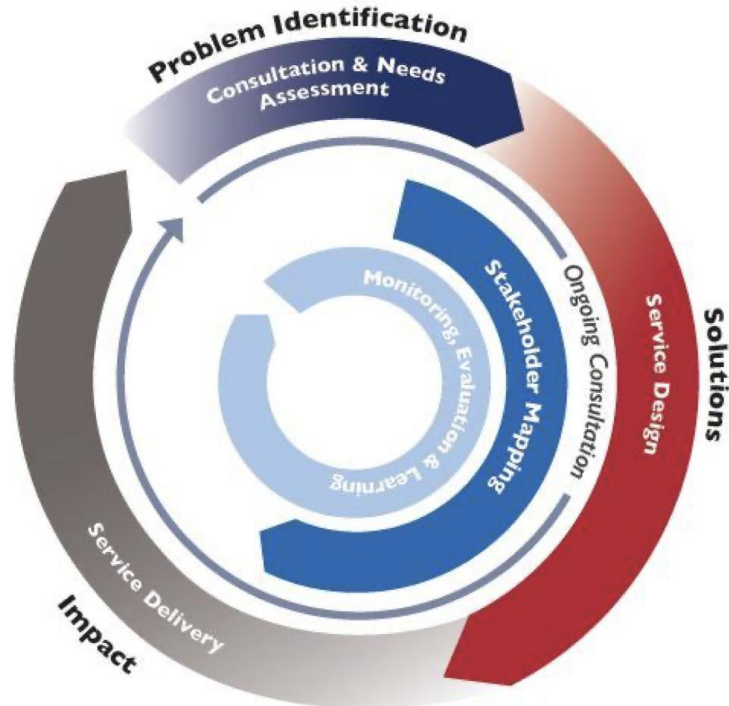
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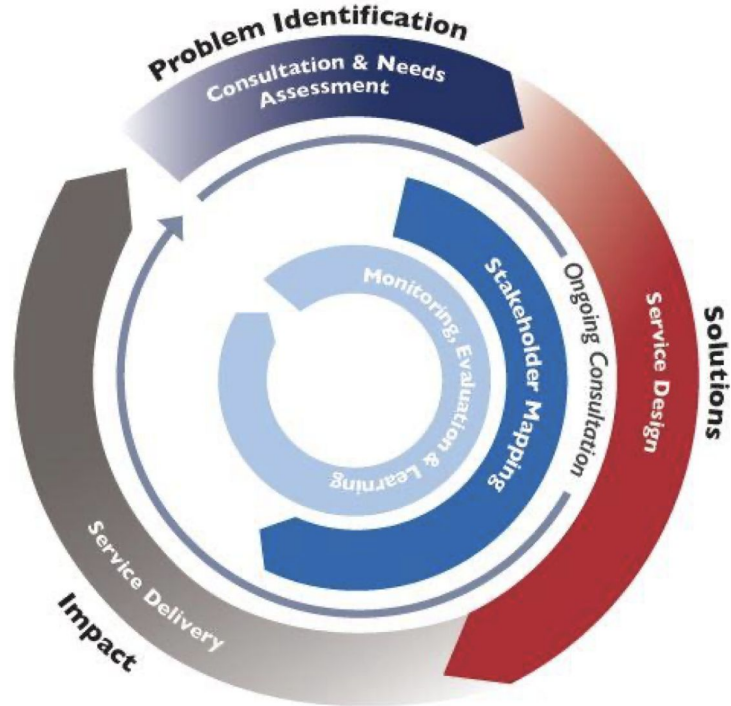
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**RIGHTS:** legal and customary

**General awareness of legal frameworks and customs in a service region is important both for service design and service implementation**





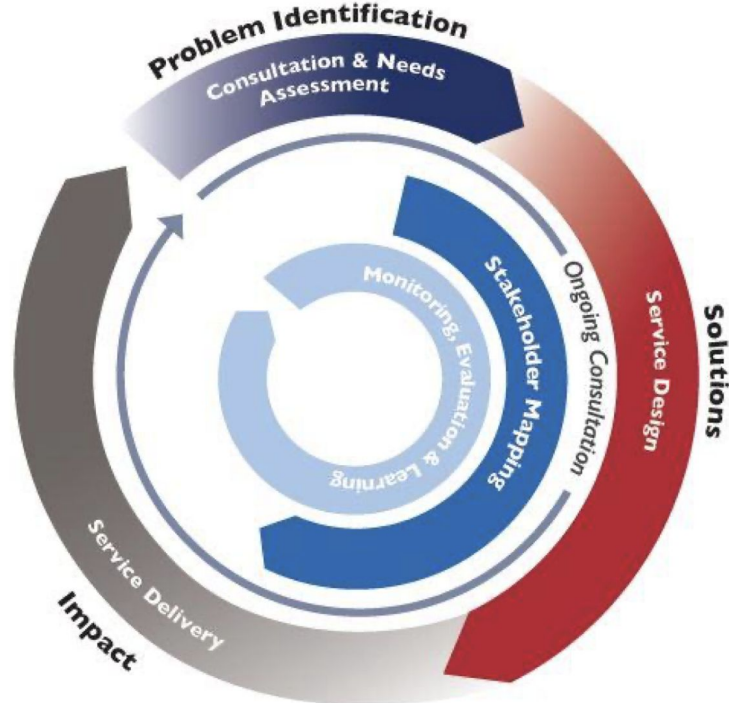
# Agriculture and Food Security

Service name:



**ENVIRONMENT:**  
stressors and  
vulnerability

Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities **adapt** and **cope** with changes to the environment.

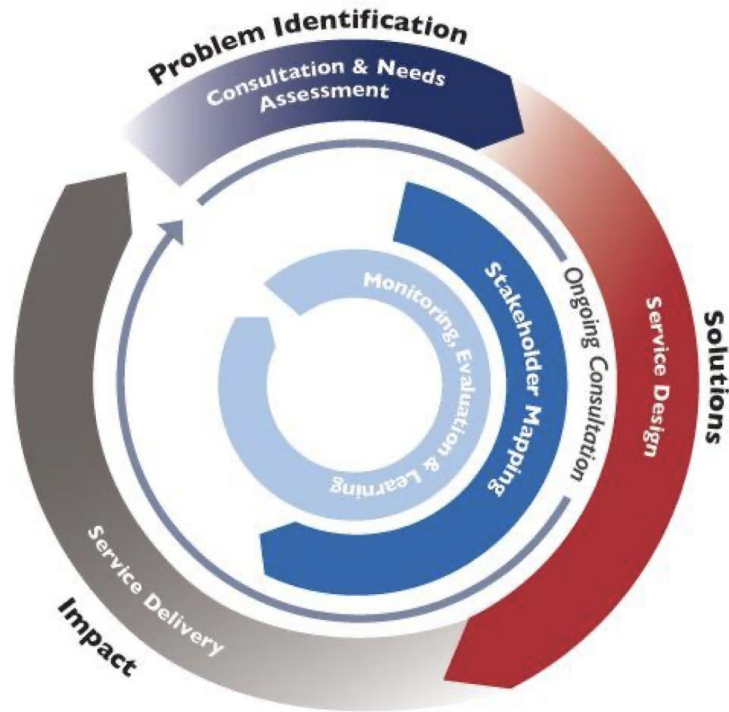


# Agriculture and Food Security

Service name:



**REPRESENTATION:**  
participation,  
inclusion, and  
power



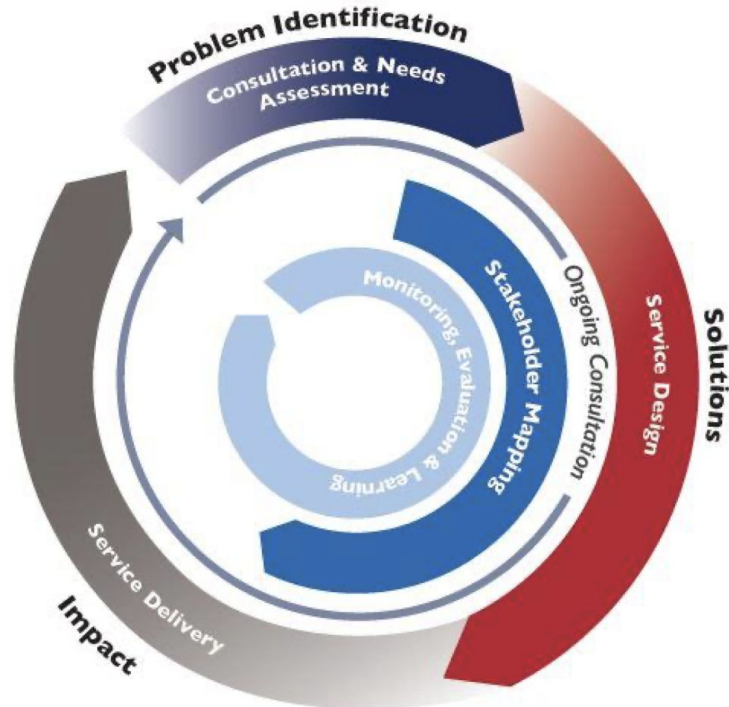
Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote **inclusive participation and leadership** throughout the service.

# Agriculture and Food Security

Service name:



**PRACTICE:**  
attitudes, customs  
and beliefs



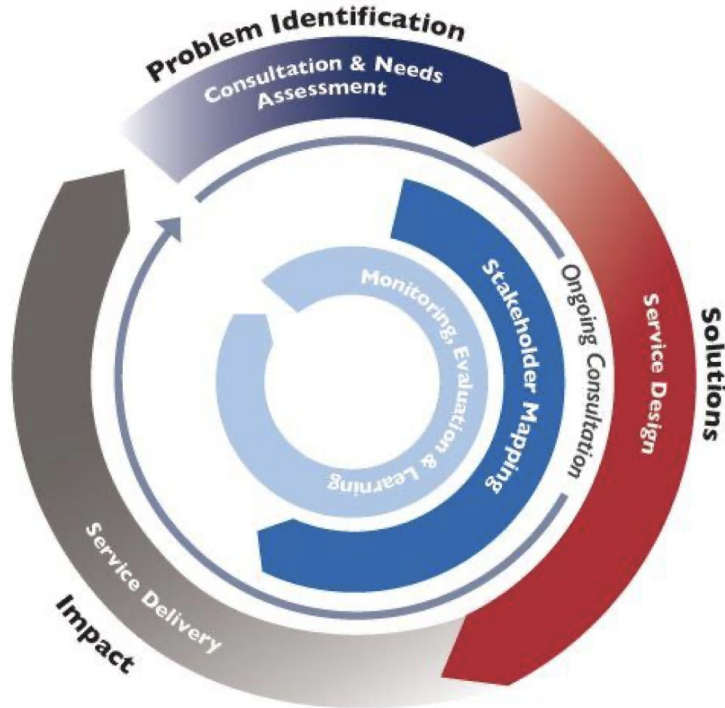
Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring **impact** and **sustainability**.

# Agriculture and Food Security

Service name:



**ROLES AND RESPONSIBILITIES:**  
division of time,  
space and labor



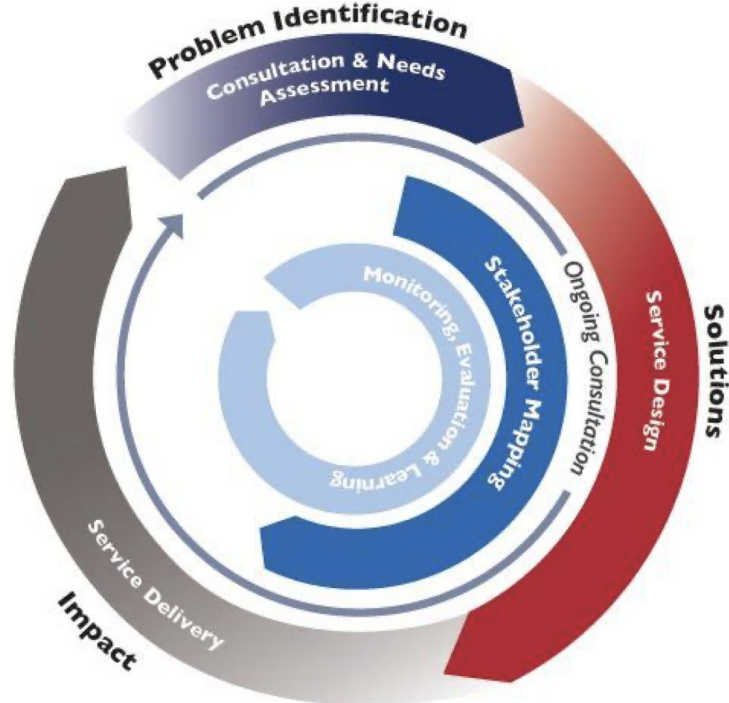
Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help a SERVIR service team identify better avenues for **communication, engagement, and equitable impacts.**

# Agriculture and Food Security

Service name:



**RESOURCES:**  
access to and  
control of resources  
and services



Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.



# Weather and Climate Resilience



**1. RIGHTS: legal and customary** General awareness of legal frameworks and customs in a service region is important both for service design and service implementation

**Significance:** Women often have limited land rights, hold fewer land titles, and may be excluded from legal or customary inheritance laws. When faced with climate shocks, men are more likely to migrate to urban areas for work, which has different effects on both women's and men's vulnerability: while women may face compound threats from heavy work burden and social risks, men may end up in poor living and working conditions and face significant health threats.

**Potential service impacts:** understanding land rights, migration patterns, and differentiated impacts for men and women will offer a more holistic view of climate impacts, and will have implications for anticipatory action.



**2. ENVIRONMENT: stressors and vulnerability** Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.

**Significance:** Studies have shown that women and men tend to perceive and experience climate change impacts differently. For instance, men typically have access to farming on different land from women and may be therefore interested in different climate information. Women may also have unique adaptation systems: for instance, in the Upper West region of Ghana, men have few options for local employment, unlike women, who engage in selling firewood, making shea butter or soap.

**Potential service impacts:** SERVIR's weather and climate resilience modeling efforts offer many different variables, ensembles, time-scales, etc. Consider which variables end up in the service design itself, and how that information is described.



**3. REPRESENTATION: participation, inclusion, and power** Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote inclusive participation and leadership throughout the service.

**Significance:** Representation and cultural expectations around participation are an important consideration during consultations and needs assessment. In many cultures, women will not speak in mixed-gender meetings. Seniority of individuals (male or female) may also play a role on whether or not they may speak. Similarly, men may be less willing to share sensitive information around women. Timing of the meetings is an important consideration for women and men as they have different obligations and time availability.

**Potential service impacts:** Women-only and men-only focus group discussions and consultations held at a time convenient for them should be part of any focus group activity.

# Weather and Climate Resilience

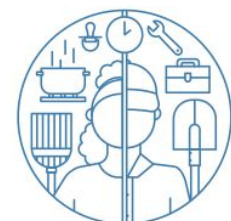


Practice

**4. PRACTICE: attitudes, customs and beliefs** Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring impact and sustainability.

**Significance:** Women are often responsible for gathering water, firewood, or forage. This gives them a unique perspective on the environment as they may be more likely to notice fluctuations in water levels, drought indicators like wild fruit production, or insect behavior. Customs or beliefs can also impact seasonal predictions: in a community in Burkina Faso, for instance, women believe it will be a good season if, after the first rains, the black insect larvae have totally filled their nests with dirt.

**Potential service impacts:** Consider how this information supports ground validation efforts.



Roles and responsibilities

**5. ROLES AND RESPONSIBILITIES: division of time, space and labor** Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help identify better avenues for communication, engagement, and ensure equitable impacts.

**Significance:** Seasonal and sub-seasonal forecasting can influence what crop or variety a farmer may choose to plant that year. Studies show that women's labor and resource constraints can lead them to plant, weed, and harvest much later in the season than men, which leads to lesser yields. Women and men also grow different crops, and keep different livestock, such as chickens, rather than the cattle more typical of men.

**Potential service impacts:** Seasonal onset data, length of season and likely amount and timing of precipitation may not be useful to women unless their specific priorities, such as livestock or crop priorities, and constraints are captured.



Resources

**6. RESOURCES: access to and control of resources and services** Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

**Significance:** Women often have less access to media for climate or weather information, yet may receive information from other sources, such as informal social groups or religious gatherings. They are also less likely to have access to certain technologies, such as heavy farm equipment and transportation

**Potential service impacts:** Understanding differentiated access to resources is important in climate vulnerability assessments, as well as in services that aim to provide communication tools or hazard notifications.

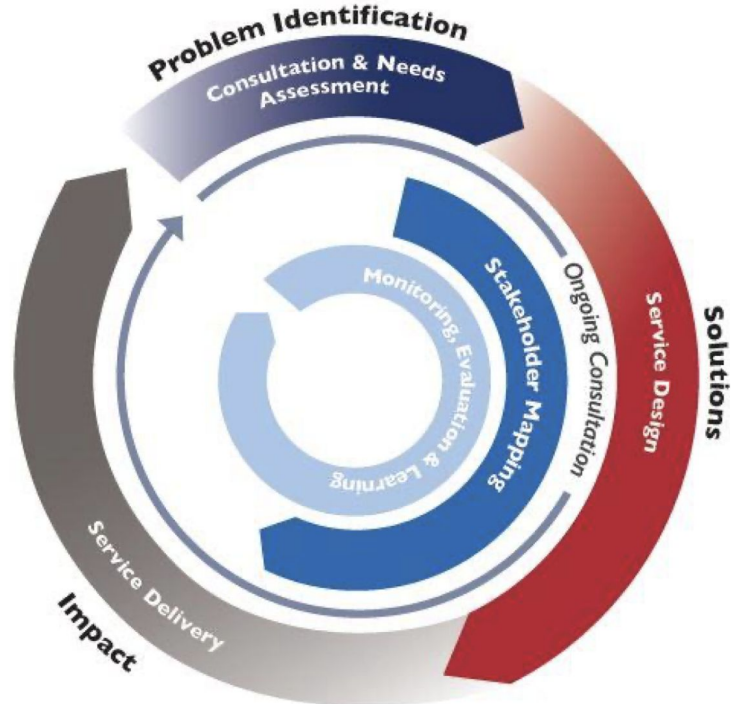
# Weather and Climate Resilience

Service name:



**RIGHTS:** legal and customary

**General awareness of legal frameworks and customs in a service region is important both for service design and service implementation**

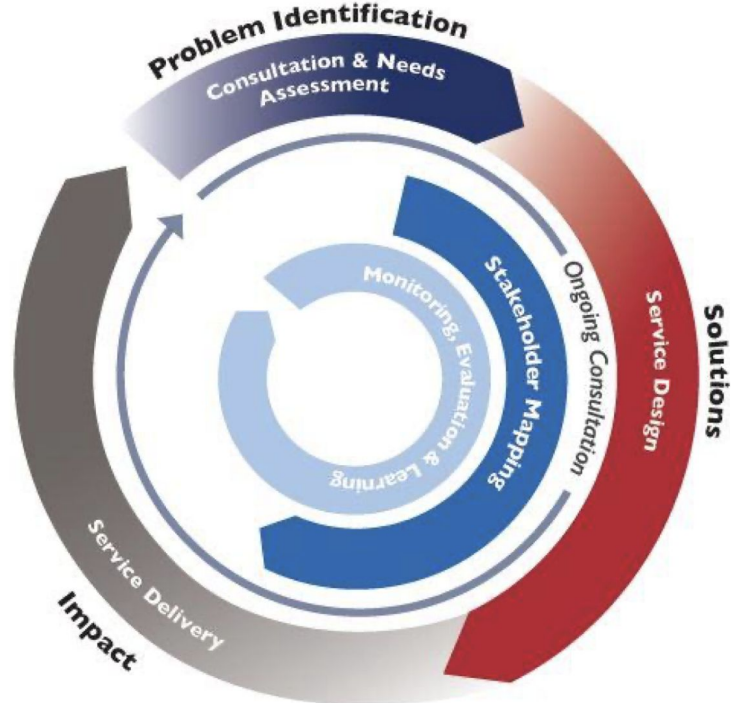


# Weather and Climate Resilience

Service name:



**ENVIRONMENT:**  
stressors and  
vulnerability



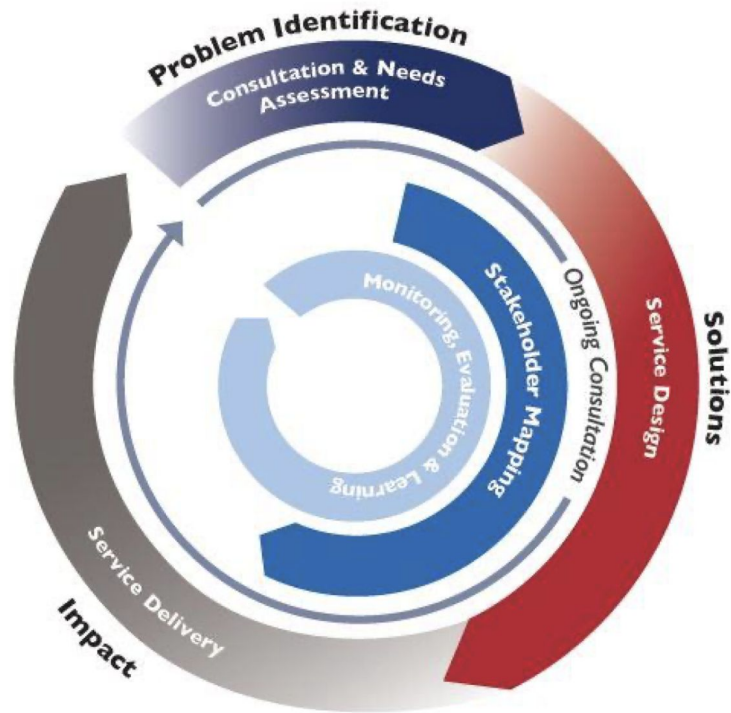
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# Weather and Climate Resilience

Service name:



**REPRESENTATION:**  
participation,  
inclusion, and  
power



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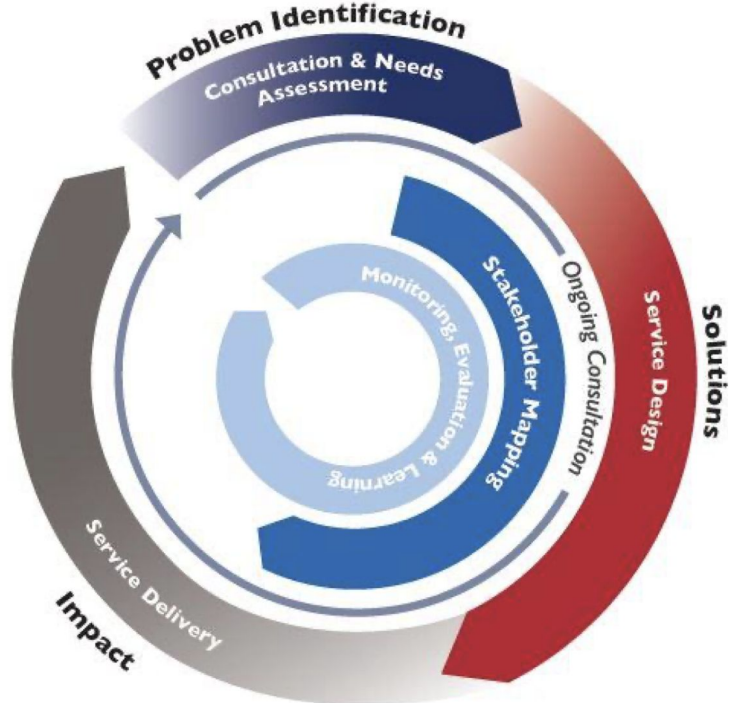


# Weather and Climate Resilience

Service name:



**PRACTICE:**  
attitudes, customs  
and beliefs



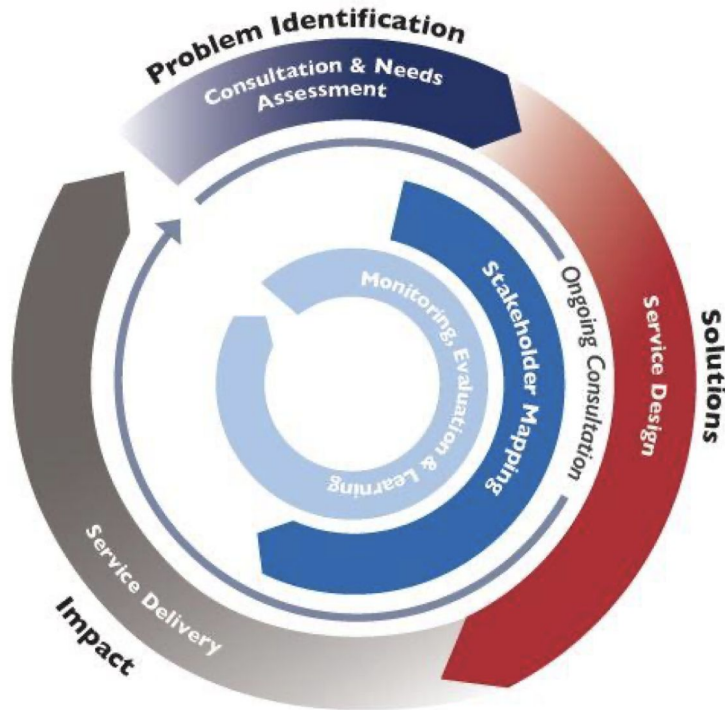
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# Weather and Climate Resilience

Service name:



**ROLES AND RESPONSIBILITIES:**  
division of time,  
space and labor



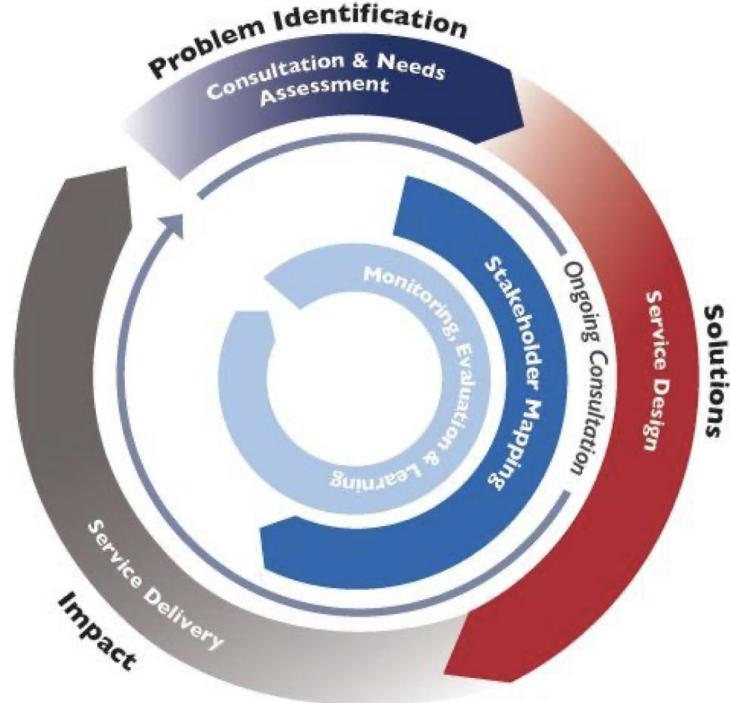
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# Weather and Climate Resilience

Service name:



**RESOURCES:**  
access to and  
control of resources  
and services



Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

# Air Quality and Health



Rights

**1. RIGHTS: legal and customary** General awareness of legal frameworks and customs in a service region is important both for service design and service implementation

**Significance:** Policies on air quality, such as limits on industrial emissions or crop burning regulations can have gendered effects and differentiated effects for various social groups. Women-specific concerns - such as issues around cooking fumes, – are rarely addressed by policy-makers and programs.

**Potential service impacts:** It is important to identify ways to present and share scientific data relevant to different gender and social groups. Additional advocacy may be required to bring them to policy-makers.



Environment

**2. ENVIRONMENT: stressors and vulnerability** Recognizing differentiated impacts of issues related to the environment on communities will help to better understand how members of communities adapt and cope with changes to the environment.

**Significance:** Daily exposure to high levels of air pollution are a fact of in many regions and gendered labor roles may expose men and women differently to pollutants. Indoor air pollution is a heavily understudied area where women have greater risk due to exposure to cooking fuels and pollutants such as PM 2.5. Lack of adequate housing, mobility and employment increase vulnerability to the health effects of pollution.

**Potential service impacts:** understanding gender-differentiated impacts, different impacts for various Indigenous groups, impacts based on location of labor (i.e. city vs. country, outdoor vs. indoor) is highly significant for alert systems and warning platforms.



Representation

**3. REPRESENTATION: participation, inclusion, and power** Analyzing gender gaps and opportunities in participation, inclusion, and power dynamics in decision-making can help to promote inclusive participation and leadership throughout the service.

**Significance:** When members of underrepresented groups, such as women, children, persons with disabilities or Indigenous communities, are not represented among decision-makers, their needs and vulnerabilities are not captured and their unique challenges may not be addressed by a service, policy, or an activity.

**Potential service impacts:** ensuring that diverse groups of stakeholders are consulted may also require additional education for communities to understand the differentiated risks of poor air quality on different groups. Empowering women as “clean air catalysts” is one approach which aims to empowering them as leaders driving clean air action.

# Air Quality and Health



Practice

**4. PRACTICE: attitudes, customs and beliefs** Understanding attitudes, customs, and beliefs supports efforts to respect local customs, helping build trust with stakeholders and ground approaches within the local context, ensuring impact and sustainability.

**Significance:** Many practices can lead to increased vulnerability related to air quality. However, there exists a serious gap in local, city-specific, gender-disaggregated data on the impacts of air pollution from specific sources, including variations by age, socio-economic status and occupation.

**Potential service impacts:** service-specific practices can be an important source of additional information if examined with a gender lens. For instance, in West African fishing communities, smoking fish is part of women's job and exposes women to additional health risks due to the air they inhale. Collecting this data should be part of all services.



Roles and responsibilities

**5. ROLES AND RESPONSIBILITIES: division of time, space and labor** Understanding the gendered dynamics behind different kinds of labor and leisure activities, access to spaces, information, or technology can help identify better avenues for communication, engagement, and ensure equitable impacts.

**Significance:** Air quality is a domain where differentiated and intersectional impacts are strongly correlated to labor tasks, roles, and household responsibilities. The worst air quality tends to be associated not only with lower income and more polluted areas, but also studies find that some of the worst air quality is found in homes where solid fuels are used for cooking. Roles and responsibilities have everything to do with an individual's exposure to pollutants.

**Potential service impacts:** Air quality alert systems have to account not only for outdoor, but also for the indoor air quality risks. Understanding the differentiated impacts based on roles and labor tasks performed is key to effective service design.



Resources

**6. RESOURCES: access to and control of resources and services** Understanding the differentiated reliance on material, social, cultural, and political resources helps ensure that a service does not take away from livelihoods, erode traditional and cultural resource use, or exacerbate barriers to access.

**Significance:** Much of the world's population still lacks adequate resources for understanding the dangers associated with poor air quality. Inequities in representation, access to resources such as education, advocacy about more sustainable practices, or tools for mitigating risks result in continued erosion of health for all social groups. Giving women more resources for increasing visibility

**Potential service impacts:** resource limitations in understanding air quality impacts should be studied for all relevant social groups. Representation alone may not ensure knowledge as scientific knowledge may not be locally available.



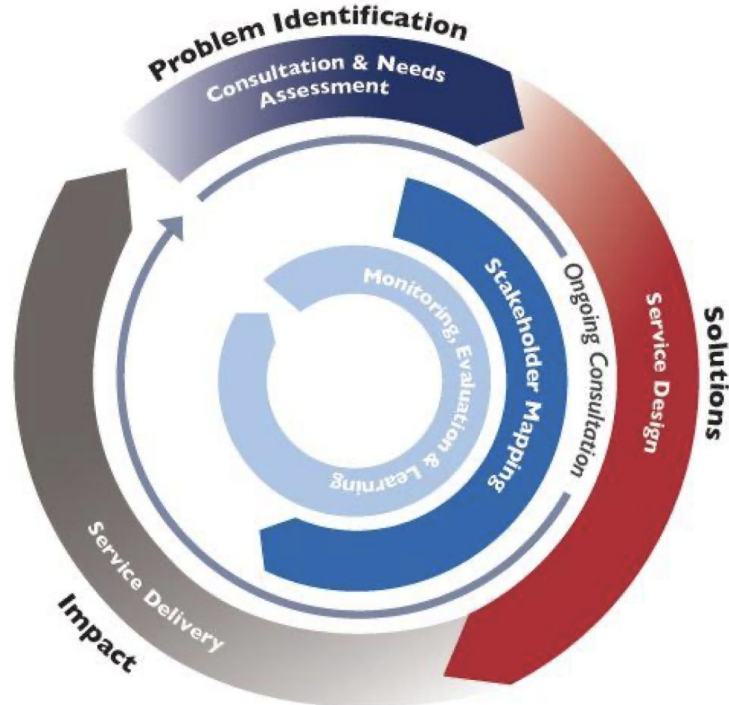
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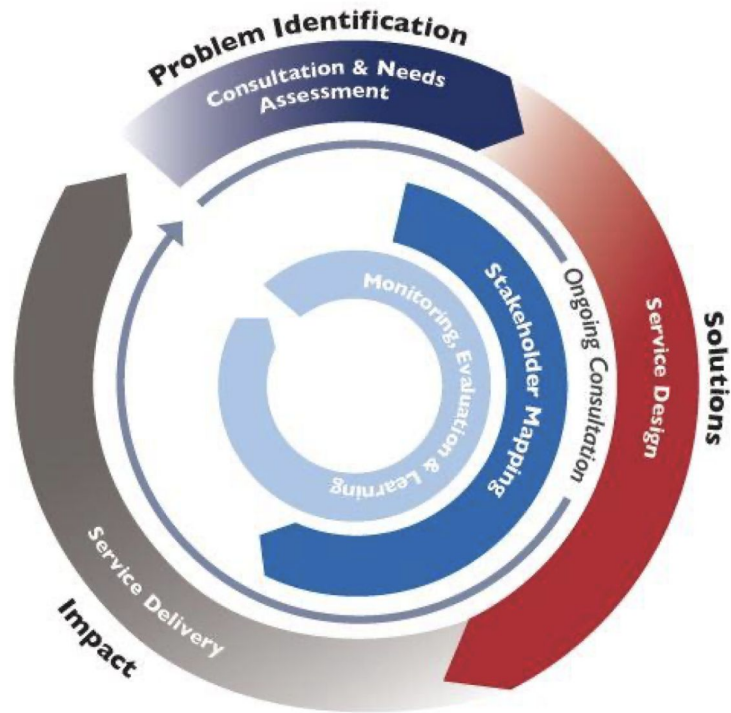


# Air Quality and Health

Service name:



**REPRESENTATION:**  
participation,  
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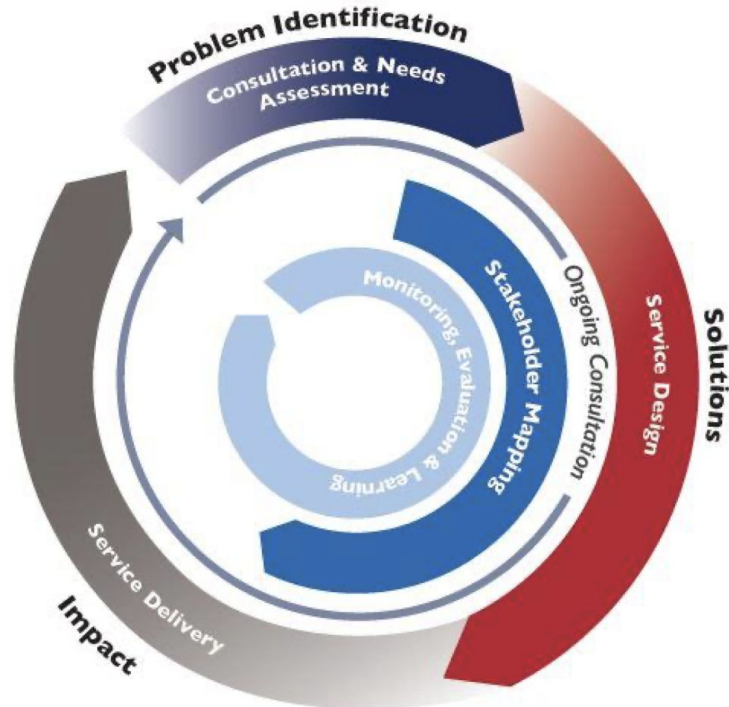
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# Air Quality and Health

Service name:



**PRACTICE:**  
attitudes, customs  
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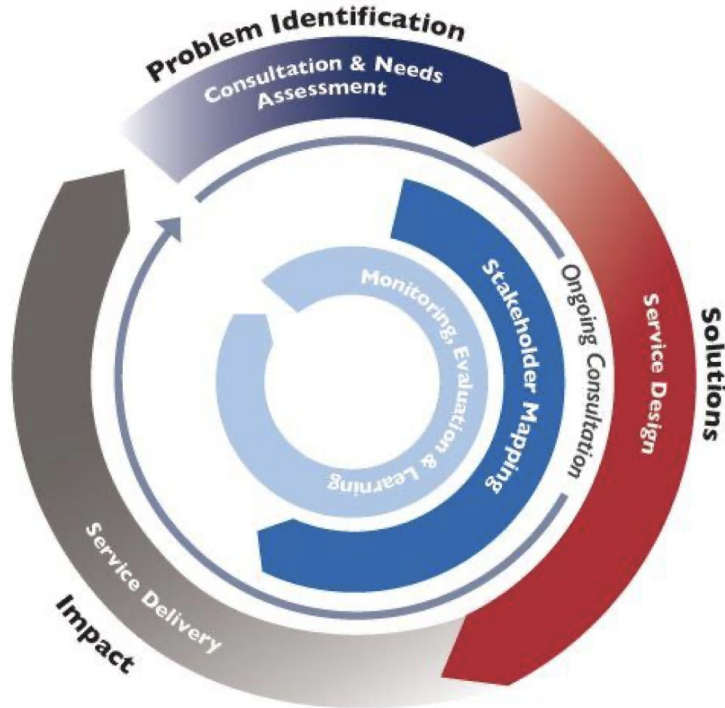
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# Air Quality and Health

Service name:



**ROLES AND RESPONSIBILITIES:**  
division of time,  
space and labor



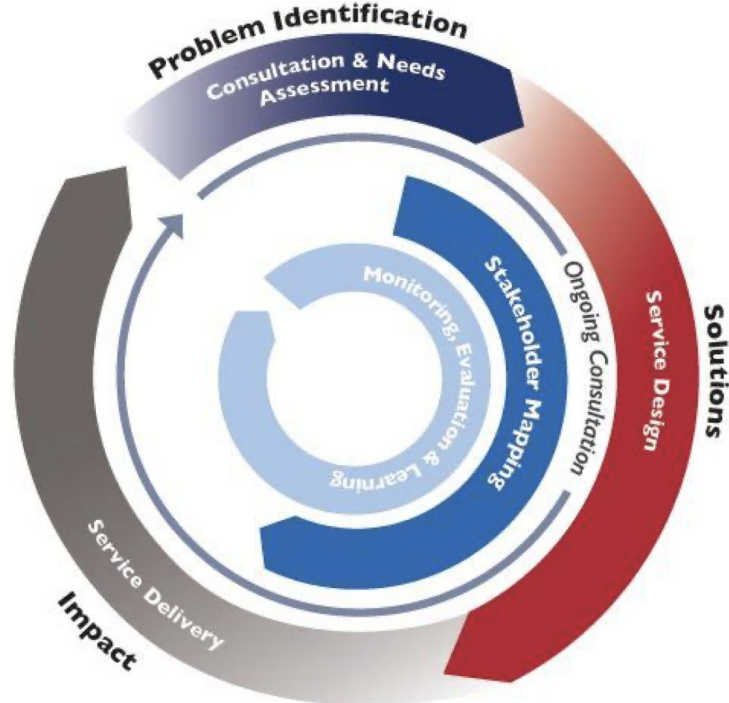
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# SERVIR

[SERVIRglobal.net](http://SERVIRglobal.net)



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