**Environmental and Social Management Plan**

**PIMS 5686 Development of value chains for products derived from genetic resources in compliance with the Nagoya protocol on access and benefit sharing and the national biodiversity economy strategy**

Draft for comment 12 Dec 2024

# Executive summary

To be added

# Mitigation measures, monitoring and implementation action plans

This section of the Environmental and Social Management Plan (ESMP) outlines the strategies and processes designed to minimize, manage, and monitor potential environmental and social impacts associated with project activities. The mitigation measures provide clear steps to address identified risks, ensuring that negative effects are reduced or avoided, and positive outcomes are enhanced. The monitoring framework establishes indicators, schedules, and responsibilities for tracking the effectiveness of these measures, ensuring compliance with UNDP SES and local regulations. The implementation action plan details the roles, timelines, resources, and accountability mechanisms necessary to integrate these measures into project operations effectively.

## Mitigation measures and monitoring

**Output 1.1 R&D barriers linked to clinical studies and registration of African Ginger (*Siphonochilus aethiopicus*) as a bioresource to treat inflammatory and allergic diseases are systematically overcome in an ABS compliant manner.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts on marginalized groups, including women.** | Consultation meetings on ABS agreement need to be conducted separately with women, youth and other vulnerable people. | Focus groups with women, youth and other vulnerable people to understand role in African Ginger harvesting and processing, their interests and preferences for ABS. | RP | DFFE | Under Output 1.1 – RP budget | High | End of consultation period |
| **Risk 2- Risk of inadequate stakeholder engagement** | Stakeholder mapping and consultation plan for African Ginger ABS agreement consultations in the Limpopo, Mpumalanga and KwaZulu-Natal provinces. | Stakeholder mapping identifies each stakeholder group to be consulted and its role in African Ginger harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 1.1 - RP budget | High | Prior to starting consultations with communities |
| **Risk 3- Concerns or grievances raised by stakeholders not being properly addressed** | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 1.1 activities |
| GRM disseminated to stakeholders. | Stakeholders are trained on GRM during consultation sessions on ABS and printed grievance submission forms available at community level. | RP | DFFE | Under Output 1.1 - RP budget | High | End of consultation period |
| **Risk 4 – Non-compliance with environmental regulations and potential international conflict over unverified African Ginger’ origins**  | Value proposition dossier on African ginger includes a study on compliance with environmental regulations and documents African Ginger origins. | Study on compliance with environmental regulations and documentation of African Ginger origins during the preparation of the value proposition dossier.  | RP | DFFE | Under Output 1.1 - RP budget | Moderate | Completion of activity implementation. |
| **Risk 5 - Mishandling of cultural heritage due to commercial cultivation** | **Protocol in place for recording and using traditional knowledge for revising ABS on African Ginger**  | **Development of protocol in for recording and using traditional knowledge for revising ABS on African Ginger, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 1.1 - RP budget | High | Prior to starting consultations with communities |

**Output 1.2 Bioprospecting R&D in the Northern Cape is supported, boosting the local bioprospecting economy and establishing a strategically located ‘Bioproducts Development Hub’.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts on marginalized groups, including women.** | Consultation meetings on Devil’s Claw Best Management Practices (BMP) and definition of support services to community projects need to be conducted separately with women, youth and other vulnerable people. | Focus groups with women, youth and other vulnerable people to understand role in Devil’s Claw harvesting and processing, their interests and preferences for support to community projects.  | RP | DFFE | Under Output 1.2 – RP budget | High | End of consultation period |
| **Risk 2- Risk of inadequate engagement with communities benefitting from the Hub** | Stakeholder mapping and consultation plan for Devil’s Claw consultations on supporting services to community projects . | Stakeholder mapping identifies each stakeholder group to be consulted and its role in Devil’s Claw harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 1.2 - RP budget | High | Prior to starting consultations with communities |
| **Risk 3- Concerns or grievances raised by participants recipients in the call for proposal not being properly addressed** | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 1.1 activities |
| GRM disseminated to stakeholders and Hub Staff. | Stakeholders are trained on GRM during consultation sessions and staff during Hub training sessions and printed grievance submission forms available at community level.  | RP | DFFE | Under Output 1.2 - RP budget | High | End of consultation period. |
| **Risk 4 – Non-compliance with environmental regulations and potential international conflict over unverified Devil’s claw origins**  | The 3-year research plan includes a study on compliance with environmental regulations and documents Devil’s Claw. | Study on compliance with environmental regulations and documentation of Devil’s Claw origins for the elaboration of the 3-year research plan | RP | DFFE | Under Output 1.2 - RP budget | Moderate | Completion of development of 3-year research plan. |
| **Risk 5 - Mishandling of cultural heritage due to commercial cultivation** | **Protocol in place for recording and using traditional knowledge for research plan** Devil’s Claw. | **Development of protocol in for recording and using traditional knowledge for** Devil’s Claw**, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 1.1 - RP budget | High | Completion of development of 3-year research plan. |
| **Risk 6 –San peoples may be negatively impacted by the implementation of activities, including Free Prior Informed Consent (FPIC) not properly obtained** | Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with San groups in communities in the targeted areas. | n/a | UNDP | n/a | SES budget | High | Prior to 3 year research research plan and BMPs finalization. |
| Implementation of measures defined in the IPP | n/a | RP | DFFE | Under Output 1.2 - RP budget | Moderate | Prior to 3 year research plan and BMPs finalization. |
| **Risk 7 – Potential non respect of labour and working conditions** | ARC demonstrates how it meets national labour and working conditions requirements and provide safety measures according to the cultivation activities in their trimestral reports. | ARC provides documentation to RP (employees’ contracts, safety procedures, proof of safety materials etc.) to demonstrate how they will meet national labour and working conditions requirements and provide safety measures for the Hub operations. Updates are recording into trimestral reports to RP.  | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Should have been completed before establishing the Hub. Revised timeline: next trimestral report to DFFE.  |
| **Risk 8 – Potential pollution of ecosystems and energy consumption for cultivation of Devil’s Claw.** | Communities are trained on recommendations on sustainable use and mitigation measures for use pesticides, fertilisers and energy consumption included in BMPs. | Include these requirements in curriculum and organise training with communities. | RP | DFFE | Under Output 1.2 - RP budget | Moderate | Before support services are provided to community projects.  |
| BMPs for cultivation and harvesting planning and for agro-processing support and quality control for product application include recommendations on sustainable use and mitigation measures for use pesticides, fertilisers and energy consumption. | Hire a consultant to develop these instruments. | RP | DFFE | Under Output 1.2 - RP budget | Moderate | Final BMPs versions.  |
| ARC demonstrates how it uses pesticides, fertilisers and energy consumption in the Hub facility in their trimester reports. | ARC provides documentation to RP to demonstrate how the facility uses pesticides, fertilisers and energy consumption. Updates are recording into trimester reports to RP. | RP | DFFE | Under Output 1.2 - RP budget | Moderate | Should have been completed before establishing the Hub. Revised timeline: next trimestral report to DFFE.  |

**Output 2.1 The implementation of the Pelargonium Biodiversity Management Plan (BMP) is supported in close collaboration between the Pelargonium Working Group, community businesses and CSO stakeholders.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts of the revised Pelargonium Biodiversity Management Plan (BMP), ABS and access to training on marginalized groups, including women** | Consultation meetings on Pelargonium Best Management Plan (BMP) and ABS need to be conducted separately with women, youth and other vulnerable people. | Focus groups with women, youth and other vulnerable people to understand role in Pelargonium harvesting and processing, their interests and preferences for ABS.  | RP | DFFE | Under Output 2.1 – RP budget | High | End of consultation period |
| Women, youth and other vulnerable people trained on sustainable wild harvesting. | Include quotas for participants (e.g. 50% of women) in trainings.  | RP | DFFE | Under Output 2.1 – RP budget | High | Prior to training on sustainable practices |
| **Risk 2- Lack of engagement of communities** | Stakeholder mapping and consultation plan for Pelargonium Best Management Plan consultations. | Stakeholder mapping identifies each stakeholder group to be consulted and its role in Pelargonium harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 2.1 - RP budget | High | Prior to starting consultations with communities |
| **Risk 3- Concerns or grievances raised by communities engaged in pelargonium harvesting** | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 1.2 activities |
| GRM disseminated to stakeholders and  | Stakeholders identified in stakeholder mapping are trained on GRM during consultation sessions and printed grievance submission forms available at community level. | RP | DFFE | Under Output 1.2 - RP budget | High | End of consultation period. |
| **Risk 4 - Mishandling of cultural heritage of pelargonium** | **Protocol in place for recording and using traditional knowledge of Pelargonium in BMP.**  | **Development of protocol in for recording and using traditional knowledge for Pelargonium, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 1.2 - RP budget | High | Before finalisation of BMP and approval by Minister for public comment.  |

**Output 2.2 Development of an *Aloe ferox* harvesting, processing and trading hub in the Eastern Cape for promoting sustainable and equitable benefit sharing across the value chain is supported.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts on marginalised groups, including women within the Tyefu** | Consultation meetings on Aloe feroxharvesting, processing and trading hub need to be conducted separately with women, youth and other vulnerable people. | Focus groups with women, youth and other vulnerable people to understand role in Aloe Ferox harvesting and processing, their interests and preferences for the hub.  | RP | DFFE | Under Output 2.1 – RP budget | High | End of consultation period |
| Women, youth and other vulnerable people trained on Project management Business Management Sustainable Harvesting | Include quotas for participants (e.g. 50% of women) in trainings.  | RP | DFFE | Under Output 2.2 – RP budget | High | Prior to training on sustainable practices |
| Women, youth and other vulnerable people are hired as staff in the harvesting and at the processing and packaging plant.  | Include quotas for women, youth and other vulnerable people as staff for harvesting and at the processing and packaging plant.  | RP | DFFE | Under Output 2.1 – RP budget | High | Prior to starting harvesting and of operating the plant.  |
| **Risk 2- Risk of inadequate Tyefu community engagement** | Stakeholder mapping and consultation plan for engaging communities in the Aloe Ferox value chain operations.  | Stakeholder mapping identifies each stakeholder group to be consulted and its role in Aloe Ferox harvesting, processing and packaging. Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 2.1 - RP budget | High | Prior to starting consultations with communities |
| **Risk 3- Concerns or grievances raised by Tyefu community members in design and implementation of activities** | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 1.2 activities |
| GRM disseminated to stakeholders and  | Stakeholders identified in stakeholder mapping are trained on GRM during consultation sessions and printed grievance submission forms available at community level. | RP | DFFE | Under Output 2.2 - RP budget | High | End of consultation period. |
| **Risk 4 – Potential non respect of labour and working conditions** | Operator for harvesting and for operating the plan demonstrates how it meets national labour and working conditions requirements and provide safety measures according to the cultivation activities in their trimestral reports. | Operator provides documentation to RP (employees’ contracts, safety procedures, proof of safety materials etc.) to demonstrate how they will meet national labour and working conditions requirements and provide safety measures for the Hub operations. Updates are recording into trimestral reports to RP.  | RP | DFFE | Under Output 2.2 - RP budget | Moderate | Before starting harvesting and before starting operations of the plant.  |
| **Subcontractors** demonstrates how it meets national labour and working conditions requirements and provide safety measures. | Include compliance withnational labour and working conditions requirements in procurement process for staff equipment and plant equipment. | RP | DFFE | Under Output 2.2 - RP budget | Moderate | Before launching the procurement process.  |
| **Risk 5 – Potential pollution of ecosystems and energy consumption for Aloe Ferox processing center** | Communities are trained on recommendations on sustainable use and mitigation measures for use pesticides, fertilisers and energy consumption as part of the Project management Business Management Sustainable Harvesting.  | Include these requirements in curriculum and organise training with communities. | RP | DFFE | Under Output 2.2 - RP budget | Moderate | Before support services are provided to community projects.  |
| Processing and packaging plant operator demonstrates how it uses pesticides, fertilisers and energy consumption in the Hub facility in their trimester reports. | Plant operator provides documentation to RP to demonstrate how the facility uses pesticides, fertilisers and energy consumption. Updates are recording into trimestral reports to RP. | RP | DFFE | Under Output 2.2 - RP budget | Moderate | Before starting operating the plant, every trimester report to DFFE afterwards. |

**Output 2.3 Community-based enterprises in Honeybush farming are supported, ensuring conservation and equitable benefit sharing outcomes across the *Cyclopia* spp. landscape in the Cape Region.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts on marginalized groups, including women** | Applications submitted by women and black-owned community enterprises prioritised. | * Use criteria in ranking of proposals to preferentially support projects that benefit women-led and black-owned community organisations
* Include quotas for beneficiaries e.g. 50% of women trained on sustainable wild harvesting.
 | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Prior to launch of second call for proposal |
| **Risk 2- Risk of inadequate community-led enterprises engagement** | Areas of support for the small grants defined in consultation with targeted communities. | Conducted consultations with the communities to define the windows of support through the small-grant fund that meets communities’ needs. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Prior to launch of second call for proposal |
| NGOs and community-led enterprises and wild harvesting groups aware of to the call for proposal, with special attention to women and black-owned enterprises. | Organise awareness meetings and communication materials to publicize the second call for proposals to community-led enterprises, with special targeting of women and black-owned enterprises. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before closing of application deadline of call for proposal. |
| **Risk 3- Concerns or grievances raised by participants recipients in the call for proposal not being properly addressed** | Service provider trained on the implementation of the GRM and their role.  | Training of the service provider on the implementation of the GRM and their role. | UNDP | n/a | SES budget | High | Before launched of second call for proposals. |
| Awareness raising campaign on the project GRM to targeted communities and potential beneficiaries. | Consultations with communities include a module on GRM and how communities can access it and printed grievance submission forms available at community level. | RP | UNDP | Under Output 2.3 - RP budget | High | Before launched of second call for proposals. |
| **Risk 4 – Commercial cultivation of species leading to negative impacts on natural ecosystems** | Communities are trained on sustainable harvesting of honeybush. | Organize training with community-led enterprises that are recipients of the small grant fund. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Beginning of grant contract. |
| A resource assessment, monitoring plan, Sustainable Harvesting Guidelines, Biodiversity Management Plan are developed for Honeybush. | Hire a consultant to develop these instruments. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| A honeybush Technical Advisory Group (TAG) is established to monitor the small grant implementation according to the Sustainable Harvesting Guidelines, Biodiversity Management Plan. | Prepare ToRs, identify members, define work program and establish the TAG.  | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before closing of application deadline of call for proposal. |
| Safeguards screening of grant proposals against identified risks under output 2.3 prior to funding commitment. | RP develops a checklist based on the risks identified for Output 2.3 to ensure that natural ecosystems are identified and none of the proposed activities by the applicant will lead to negative impact. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| **Risk 5 – Commercialisation and wild harvesting leading to reduction of the populations of endangered species and increased illegal trade** | Communities are trained on sustainable harvesting of honeybush. | Organize trainings with community-led enterprises that are recipient of the small grant fund | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Beginning of grant contract. |
| A resource assessment, monitoring plan, Sustainable Harvesting Guidelines, Biodiversity Management Plan are developed for Honeybush. | Hire a consultant to develop these instruments. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| Community organisations demonstrate how the proposed activities follow the sustainable harvesting guidelines.  | RP include a section in requirements or proposal template requiring applicants to demonstrate how the proposed activities follow the sustainable harvesting guidelines. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Prior to launch of second call for proposal |
| Safeguards screening of grant proposals against identified risks under output 2.3 prior to funding commitment. | RP develops a checklist to ensure that none of the proposed activities by the applicant will lead to reduction of plant population.  | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| **Risk 6 - Mishandling of cultural heritage due to commercial cultivation** | **Protocol in place for recording and using traditional knowledge in projects funded by the small grants for honeybush value-chain development.**  | **Development of protocol in for recording and using traditional knowledge for Honeybush, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 2.3 - RP budget | High | Before issuance of the grant contract. |
| **Risk 7 – Khoi people may be negatively impacted by the implementation of activities, including Free Prior Informed Consent (FPIC) not properly obtained** | Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with Khoi groups in communities in the targeted areas. | n/a | UNDP | n/a | SES budget | High | Before launched of second call for proposals. |
| Implementation of measures defined in the IPP | n/a | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| **Risk 8 – Potential pollution of ecosystems and energy consumption for cultivation and processing activities** | Communities are trained on sustainable harvesting of honeybush. | Organize trainings with community-led enterprises that are recipient of the small grant fund | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Beginning of grant contract. |
| A resource assessment, monitoring plan, Sustainable Harvesting Guidelines, Biodiversity Management Plan are developed for Honeybush. | Hire a consultant to develop these instruments. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| Community organisations demonstrate how they will use pesticides, fertilisers and energy use in their application to the call for proposal. | RP include a section in requirements or proposal template requiring applicants to demonstrate how they will use pesticides, fertilisers and energy . | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Prior to launch of second call for proposal |
| Safeguards screening of grant proposals against identified risks under output 2.3 prior to funding commitment. | RP develops a checklist based on the risks identified for Output 2.3 to ensure that none of the proposed activities by the applicant willnot lead to pollution of ecosystems and high energy consumption. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |
| **Risk 9 – Potential non respect of labour and working conditions by grant recipient organisations** | Community organisations demonstrate how they will meet national labour and working conditions requirements and provide safety measures according to the activities | RP include a section in requirements or proposal template requiring applicants to demonstrate how they will meet national labour and working conditions requirements and provide safety measures according to the activities | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Prior to launch of second call for proposal |
| RP develops a checklist based on the risks identified for Output 2.3 to ensure that none of the proposed activities by the applicant will will meet national labour and working conditions requirements and provide safety measures according to the activities. | RP | DFFE | Under Output 2.3 - RP budget | Moderate | Before issuance of the grant contract. |

**Output 2.4 The ABS implementation in Rooibos farming is strengthened, ensuring fairness, equity and sustainability in relevant relationships among TK holders and industry.**

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| **Risk** | **Mitigation measure** | **Description of activity** | **Entities responsible**  | **Reporting** | **Budget** | **Priority** | **Date for completion** |
| **Risk 1- Inequitable impacts of the ABS on marginalized groups, including women** | Consultation meetings on ABS agreement need to be conducted separately with San and Khoi peoples, black peoples, women, youth and other vulnerable people. | Focus groups with women, youth and other vulnerable people to understand role in Rooibos harvesting and processing, their interests and preferences for ABS. | RP | DFFE | Under Output 2.4 - RP budget | High | End of consultation period |
| **Risk 2- Risk of inadequate consultations in the ABS negotiations** | Stakeholder mapping and consultation plan for Rooibos ABS agreement consultations. | Stakeholder mapping identifies each stakeholder group to be consulted and its role in Rooibos harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 2.4 - RP budget | High | Prior to starting consultations with communities |
| **Risk 3- Concerns or grievances raised by stakeholders participating in ABS negotiations not being properly addressed** | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 2.4 activities |
| GRM disseminated to stakeholders. | Stakeholders are trained in GRM during consultation sessions on ABS printed grievance submission forms available at community level. | RP | DFFE | Under Output 2.4 - RP budget | High | End of consultation period |
| **Risk 4 - Mishandling of cultural heritage in ABS negotiations** | **Protocol in place for recording and using traditional knowledge for rooibos value-chain development.**  | **Development of protocol in for recording and using traditional knowledge for** Rooibos**, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 2.4 - RP budget | Moderate | Before finalisation of ABS agreement |
| **Risk 5 – Indigenous Peoples (including Khoi and San) may be negatively impacted by the implementation of activities, including Free Prior Informed Consent (FPIC) not properly obtained** | Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with Khoi groups in communities in the targeted areas. | n/a | UNDP | n/a | SES budget | High | Prior to consultations on ABS |
| Implementation of measures defined in the IPP | n/a | RP | DFFE | Under Output 2.4 - RP budget | Moderate | Before finalisation of ABS agreement |

**Output 3.1** The Registration System for TK linked to bioprospecting is supported for ensuring ABS compliance in current and future agreements between indigenous and traditional knowledge holders and industry.

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| **Risk 1- Risk of inadequate consultations on IKS registration system** | Stakeholder mapping and consultation plan for Bio-cultural Community Protocol Workshops, including youth, women and other vulnerable groups.  | Stakeholder mapping identifies each stakeholder group to be consulted, including youth, women and other vulnerable groups, in the Bio-cultural Community Protocol Workshops and its role Consultation plan includes dates of meetings, place, list of invitees and agendas.  | RP | DFFE | Under Output 3.1 - RP budget | High | Prior to starting consultations with communities |
| **Risk 2- Concerns or grievances raised by stakeholders**  | Project GRM operational  | GRM is finalised and operational, including printed grievance submission forms available in each community. | DFFE | UNDP | SES budget | High | Prior to conducting Output 3.1 activities |
| GRM disseminated to stakeholders. | Stakeholders are trained in GRM during consultation sessions. | RP | DFFE | Under Output 3.1 - RP budget | High | End of consultation period |
| **Risk 3 – Indigenous Peoples (including Khoi and San) may be negatively impacted by the implementation of activities, including Free Prior Informed Consent (FPIC) not properly obtained** | Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with Khoi and San groups in communities in the targeted areas for Bio-cultural Community Protocol Workshops and IKS registration system.  | n/a | UNDP | n/a | SES budget | High | Prior to Bio-cultural Community Protocol Workshops |
| Implementation of measures defined in the IPP | n/a | RP | DFFE | Under Output 3.1 - RP budget | Moderate | Before finalisation of IKS registration system |
| **Risk 4 - Mishandling of cultural heritage due to commercial cultivation** | **Protocol in place for recording and using traditional knowledge for the IKS registration system.** | **Development of protocol in for recording and using traditional knowledge following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.** | DFFE | UNDP | Under Output 3.1 - RP budget | High | Before development of IKS registration system. |

## Implementation action plan

The following table provides an overview of actions and timing for implementation of the proposed mitigation measures.

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| **Project Component** | **Project Outputs** | **Activities** | * What SES mitigation measures?
 | **Completion by** | **Activity during SES disclosure period** | **Activity when SES package finalized** | **Who?** |
| **Component 1:** Research and development (R&D) of products in line with the definition of utilisation of genetic resources of the Nagoya Protocol  | **Output 1.1** R&D barriers linked to clinical studies and registration of African Ginger (*Siphonochilus aethiopicus*) as a bioresource to treat inflammatory and allergic diseases are systematically overcome in an ABS compliant manner.   | * Align ABS agreement developed from consultation with communities identified in Limpopo, Mpumalanga and KwaZulu-Natal provinces.
 | * Consultation meetings on ABS agreement need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping and consultation plan for African Ginger ABS agreement consultations in the Limpopo, Mpumalanga and KwaZulu-Natal provinces.
 | End of consultation period | Ö |   | RP |
| * Develop a value proposition dossier on African ginger for licensing with an enterprise.
 | * Value proposition dossier on African ginger includes a study on compliance with environmental regulations and documents African Ginger origins.
 | Completion of activity implementation | Ö |   | RP |
| * Licensee notifies SAHPRA about intention to commercialise African Ginger without medicinal claims
 | * Protocol in place for recording and using traditional knowledge for revising ABS on African Ginger
 | Prior to licensing |   | Ö | RP |
| Output 1.2 Bioprospecting R&D in the Northern Cape is supported, boosting the local bioprospecting economy and establishing a strategically located ‘Bioproducts Development Hub’. | * Obtain the requisite permits and authorizations for the establishment, of the Hub
 | * ARC demonstrates how it uses pesticides, fertilizers and energy consumption in the Hub facility in their trimestral reports.
* ARC demonstrates how it meets national labour and working conditions requirements and provide safety measures according to the cultivation activities in their trimestral reports.
 | Should have been completed before establishing the Hub. Revised timeline: next trimestral report to DFFE.  | Ö |   | RP |
| * Develop a 3-year research plan for a priority set of species including Devil’s Claw and at least one complimentary species that could be cultivated in conjunction with Devil’s Claw on community projects
 | * The 3-year research plan includes a study on compliance with environmental regulations and documents Devil’s Claw.
* Protocol in place for recording and using traditional knowledge for research plan Devil’s Claw.
* Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with San groups in communities in the targeted areas.
 | Completion of development of 3-year research plan | Ö |   | RP |
| * Implement the 3-year research plan
 | * Implementation of measures defined in the IPP
 | Completion of implementation of 3-year research plan |   | Ö | RP |
| * Develop best management practices (BMPs) for cultivation and harvesting planning (testing approaches, techniques and methodologies) for each species
 | * Consultation meetings on Devil’s Claw Best Management Practices (BMP) and definition of support services to community projects need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping and consultation plan for Devil’s Claw consultations on supporting services to community projects.
 |   | Ö |   | RP |
| * Develop best management practices (BMPs) for agro-processing support and quality control for product application each species
 | * Consultation meetings on Devil’s Claw Best Management Practices (BMP) and definition of support services to community projects need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping and consultation plan for Devil’s Claw consultations on supporting services to community projects.
 |   | Ö |   | RP |
| * Establish a simple marketing plan, limited to the establishment of a suitable website presence with a view to establishing market linkages.
 | * n/a
 |   | Ö |   | RP |
| * Develop a production potential plan for the Northern Cape, with production indicators
 | * n/a
 |   | Ö |   |   |
| * Design a support service to community projects through which the various BMP’s will be transferred on a regular basis.
 | * Consultation meetings on Devil’s Claw Best Management Practices (BMP) and definition of support services to community projects need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping and consultation plan for Devil’s Claw consultations on supporting services to community projects.
 |   | Ö |   | RP |
| * Communities are trained on recommendations on sustainable use and mitigation measures for use pesticides, fertilisers and energy consumption included in BMPs.
 | Before support services are provided to community projects. | Ö |   | RP |
| * Monitor production
 | * n/a
 |   | Ö |   | RP |
| * Produce seedlings for sale/supply to community projects
 | * ARC demonstrates how it uses pesticides, fertilisers and energy consumption in the Hub facility in their trimestral reports.
* ARC demonstrates how it meets national labour and working conditions requirements and provide safety measures according to the cultivation activities in their trimester reports.
 | Should have been completed before establishing the Hub. Revised timeline: next trimestral report to DFFE.  |   | Ö | RP |
| **Component 2:** Cooperation models support the conservation of and commercial trade in indigenous bioproducts  | **Output 2.1** The implementation of the Pelargonium Biodiversity Management Plan (BMP) is supported in close collaboration between the Pelargonium Working Group, community businesses and CSO stakeholders.  | * Appoint Output Manager
 | * n/a
 |   | Ö |   | RP |
| * Conduct global conservation assessment/NDF
 | * n/a
 |   | Ö |   | RP |
| * Conduct ethnobotanical study
 | * n/a
 |   | Ö |   | RP |
| * Conduct value chain analysis & socio-economic analyses
 | * n/a
 |   | Ö |   | RP |
| * Review and update BMP (expires 2018)
 | * Development of protocol in for recording and using traditional knowledge for Pelargonium, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA(Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.
 | Before finalisation of BMP and approval by Minister for public comment. | Ö |   | DFFE |
| * Training of selected staff from DEA, Eastern Cape DEDEAT and Free State DESTEA in implementing the BMP
 | * Women, youth and other vulnerable people trained on sustainable wild harvesting.
 | Prior to training on BMP |   |   | RP |
| * Support TK holders to review and renegotiate ABS agreements and supply agreements
 | * Consultation meetings on Pelargonium Best Management Plan (BMP) and ABS need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping identifies each stakeholder group to be consulted and its role in Pelargonium harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.
 | End of consultation period | Ö |   | RP |
| * Development of sustainable harvesting guidelines
 | * Consultation meetings on Pelargonium Best Management Plan (BMP) and ABS need to be conducted separately with women, youth and other vulnerable people.
* Stakeholder mapping identifies each stakeholder group to be consulted and its role in Pelargonium harvesting and processing. Consultation plan includes dates of meetings, place, list of invitees and agendas.
 | End of consultation period | Ö |   | RP |
| * Training of local collectors to improve the sustainability of harvesting approaches
 | * Women, youth and other vulnerable people trained on sustainable wild harvesting.
 | Prior to training on sustainable practices | Ö |   | RP |
| * Facilitate improvement of the management of community-based Trusts, and distribution of trust funds
 | * n/a
 |   | Ö |   | RP |
| * Provide financial support to M.Sc. Students
 | * n/a
 |   | Ö |   | RP |
| * Support administration of Pelargonium Working Group
 | * n/a
 |   | Ö |   | RP |
| **Output 2.2** Development of an *Aloe ferox* harvesting, processing and trading hub in the Eastern Cape for promoting sustainable and equitable benefit sharing across the value chain is supported.  | * Appoint Output Manager
 | * Women, youth and other vulnerable people trained on Project management Business Management Sustainable Harvesting
* Stakeholder mapping and consultation plan for engaging communities in the Aloe Ferox value chain operations.
 | End of consultation period | Ö |   | RP |
| * Independent community facilitator
 | * n/a
 |   | Ö |   | RP |
| * Aloe Business Advisor
 | * n/a
 |   | Ö |   | RP |
| * Community training- Project management Business Management Sustainable Harvesting
 | * Consultation meetings on Aloe ferox harvesting, processing and trading hub need to be conducted separately with women, youth and other vulnerable people.
* Women, youth and other vulnerable people trained on Project management Business Management Sustainable Harvesting
 |   | Ö |   | RP |
| * Communities are trained on recommendations on sustainable use and mitigation measures for use pesticides, fertilisers and energy consumption as part of the Project management Business Management Sustainable Harvesting.
 | Before support services are provided to community projects. | Ö |   | RP |
| * Horticultural planning for wild harvesting
 | * n/a
 |   | Ö |   | RP |
| * EIA consulting firm for the establishment of 1 hectare Aloe and free-standing processing plant
 | * n/a
 |   |   |   | RP |
| * Pre-fabricated modular office and workshop for the plantation (including bulk services and office equipment/ furniture)
 | * Plant operator provides documentation to RP to demonstrate how the facility uses pesticides, fertilisers and energy consumption. Updates are recording into trimester reports to RP.
 | Before starting operating the plant, every trimestral report to DFFE afterwards. |   | Ö | RP |
| * Wild harvesting management staff
 | * Include quotas for women, youth and other vulnerable people as staff for harvesting and at the processing and packaging plant.
 | Prior to harvesting  |   | Ö | RP |
| * Include compliance withnational labour and working conditions requirements in procurement process for staff equipment and plant equipment.
 | Prior to harvesting |   | Ö | RP |
| * Procurement scope to be applied for wild harvesting, in relation to harvesting staff, equipment’s and implements
 | * Include quotas for women, youth and other vulnerable people as staff for harvesting and at the processing and packaging plant.
 | Prior to harvesting and operating the plant. |   | Ö | RP |
| * Include compliance withnational labour and working conditions requirements in procurement process for staff equipment and plant equipment.
 | Prior to harvesting and operating the plant. |   | Ö | RP |
| * Procurement scope to be applied for wild harvesting, in relation to consumables for harvesting staff and management
 | * na
 |   |   | Ö | RP |
| * Pre-fabricated modular testing, processing and packaging facility (including bulk services and facility equipment/ furniture)
 | * n/a
 |   |   | Ö | RP |
| * Testing, processing and packaging staff
 | * Operator provides documentation to RP (employees’ contracts, safety procedures, proof of safety materials etc.) to demonstrate how they will meet national labour and working conditions requirements and provide safety measures for the Hub operations. Updates are recording into trimester reports to RP.
 | Before starting operations of the plant |   | Ö | RP |
| * Procurement (or rental, as required) of processing plant staff equipment
 | * n/a
 |   |   | Ö | RP |
| * Procurement of consumables for processing staff and management
 | * n/a
 |   |   | Ö | RP |
| * Marketing company
 | * n/a
 |   |   | Ö | RP |
| **Output 2.3** Community-based enterprises in Honeybush farming are supported, ensuring conservation and equitable benefit sharing outcomes across the *Cyclopia* spp. landscape in the Cape Region. | * Establishment of a Fund Technical Advisory Group
 | * n/a
 |   |   |   |   |
| * Conduct a baseline study for the Honeybush Sector
 | * A resource assessment, monitoring plan, Sustainable Harvesting Guidelines, Biodiversity Management Plan are developed for Honeybush.
 |   | Ö |   |   |
| * Develop second call for proposal
 | * Areas of support for the small grants defined in consultation with targeted communities.
 | Prior to launch of second call for proposal | Ö |   | RP |
| * NGOs and community-led enterprises and wild harvesting groups aware of to the call for proposal, with special attention to women and black-owned enterprises.
 | Prior to launch of second call for proposal | Ö |   | RP |
| * Community organisations demonstrate how the proposed activities follow the sustainable harvesting guidelines.
 | Prior to launch of second call for proposal | Ö |   | RP |
| * Community organisations demonstrate how they will meet national labour and working conditions requirements and provide safety measures according to the activities
 | Prior to launch of second call for proposal | Ö |   | RP |
| * Protocol in place for recording and using traditional knowledge in projects funded by the small grants for honeybush value-chain development.
 | Prior to launch of second call for proposal | Ö |   | RP |
| * Review proposals
 | * Applications submitted by women and black-owned community enterprises prioritised.
 | Before issuance of the grant contract. |   |   | RP |
| * Safeguards screening of grant proposals against identified risks under output 2.3 prior to funding commitment.
 | Before issuance of the grant contract. | Ö |   | RP with support from PMU |
| * Grant agreements
 | * Communities are trained on sustainable harvesting of honeybush.
 | Prior to implementation of grant activities |   | Ö | RP |
| * Monitoring grants
 | * Implementation of measures defined in the IPP
 | Implementation of grant activities |   | Ö | RP |
| * Measure Impact of the Fund
 | * N/a
 |   |   |   |   |
| **Output 2.4** The ABS implementation in Rooibos farming is strengthened, ensuring fairness, equity and sustainability in relevant relationships among TK holders and industry. | * Investigate and develop a suitable TK benefit sharing mechanism that effectively captures the resource rent resulting from the TK rights – such a benefit sharing mechanism needs to be effective, transparent, minimise commercial risks and maximise TK benefits, and would require financial and economic modelling and forecasting;
 | * Consultation meetings on ABS agreement need to be conducted separately with San and Khoi’s peoples, black peoples, women, youth and other vulnerable people.
* Stakeholder mapping and consultation plan for Rooibos ABS agreement consultations.
*
 | Prior to starting consultations with communities | Ö |   | RP |
|   | * Investigate and develop non-monetary TK benefit sharing mechanisms which may support rights-holding communities through contributions-in-kind and related mechanisms by the private sector
 | *
 |   | Ö |   | RP |
|   | * Develop and propose a suitable and simple governance and institutionalisation framework for implementing and monitoring the TK benefit sharing mechanism
 | * Development of protocol in for recording and using traditional knowledge for Rooibos, following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.
* Implementation of measures defined in the IPP
 | Before finalisation of ABS agreement |   | Ö | RP |
|   | * Record the current negotiation processes of SARC as a case study with a view to the creation of a “blueprint” for other products and TK agreements
 | * n/a
 |   | Ö |   | RP |
|   | * Disseminating the case study outcomes as example to ABS stakeholders in SA and beyond
 | * n/a
 |   | Ö  |   | RP |
| **Component 3:** Bioprospecting and value addition knowledge transfer is enhanced for equitable benefit sharing  | **Output 3.1** The Registration System for TK linked to bioprospecting is supported for ensuring ABS compliance in current and future agreements between indigenous and traditional knowledge holders and industry. | * Bio-cultural Community Protocol Workshops and documentation concluded (10 in total, 2 workshops/annum)- Workshops in Mpumalanga Province
 | * Stakeholder mapping and consultation plan for Bio-cultural Community Protocol Workshops, including youth, women and other vulnerable groups.
*
 | Prior to starting consultations with communities | Ö  |   | RP |
| * SANBI training of IK recorders to collect plant specimens – Focus on plants in Mpumalanga Province
* Cost of Recording Equipment (notebook, Camera, camera accessories, laptop bag) per IK recorder Training sessions on Documentation Methodology p/a
 | * Indigenous Peoples Plan (IPP) updated to include the FPIC Protocol for consultations with Khoi and San groups in communities in the targeted areas for Bio-cultural Community Protocol Workshops and IKS registration system.
* Implementation of measures defined in the IPP
 | Prior to recording |    | Ö  | RP |
| * Development of protocol in for recording and using traditional knowledge following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.
 | Before development of IKS registration system. | Ö  |   | RP |
| * Cost for IK Recorder (5 IK Recorders in total)
*
 | * n/a
 |   |   |   |   |
| * Online IKS registration system developed for inclusion into NIKMAS to support ABS Compliance
 | * Development of protocol in for recording and using traditional knowledge following the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 and NEMBA (Chapter 6 and associated Regulations) and to ensure full protection of traditional knowledge holders. In addition, the IPP will include an FPIC Protocol that follows UNESCO’s Ethical Principles for Safeguarding Intangible Cultural Heritage.
 | Before development of IKS registration system. | Ö  |   | RP |
| **Output 3.2** A biotrade certification system for South Africa is developed with a view to safeguarding biodiversity conservation within bioprospecting value chains. | * Letters of commitment
* Final Test Case Implementation plan
* Test case risk assessments and action plans
* Test case action plan implementation progress report
* Test Case Report
* Final National Biotrade Charter
* Final Biotrade Charter Operational Manual
 | * n/a
 |   |   |   |   |
| **Component 4:** Knowledge Management and M&E.  | **Output 4.0** National and international stakeholders supported to participate in the M&E and to systematise lessons learned from its implementation.  | * National and international stakeholders supported to participate in the M&E and to systematise lessons learned from its implementation.
 | * n/a
 |   |   |   |  |

# Capacity development and training

## Institutional arrangements

This section focuses on the capacity development and training required to ensure the effective implementation of the ESMP. The Department of Forestry, Fisheries, and the Environment (DFFE), as the primary implementing entity, along with the designated Responsible Parties (RPs) have the primary responsibility for implementing the mitigation measure, ensuring monitoring of compliance with these measures and reporting their implementation.

* **Implementation and monitoring of the mitigation measures**

The PMU and the RPs will receive tailored training on executing and tracking the mitigation measures as laid out in the monitoring and implementation action plan in Section 2. This will ensure that mitigation measures are not only properly implemented but also continuously monitored to assess their effectiveness and make adjustments as needed.

* **Reporting mechanism**

Clear protocols are established in the monitoring plan in Section 2 to facilitate seamless communication and accountability. The Responsible Parties will submit progress reports to DFFE on a trimester basis, outlining the status of mitigation measures and any emerging issues. In turn, the DFFE will compile these reports and provide consolidated updates to the UNDP Country Office (CO) on a trimester basis. This structured reporting ensures timely identification of challenges and transparent communication between all stakeholders.

* **Training responsibilities**

The UNDP will play a pivotal role in building the initial capacity of the DFFE and the RPs, ensuring they have the knowledge and skills necessary for effective implementation of the ESMP. Following this, the DFFE will assume responsibility for providing ongoing and ad hoc training to the RPs throughout the project lifecycle. The UNDP will continue to offer support when needed, ensuring that capacity gaps are promptly addressed and that training remains responsive to evolving project needs. This iterative approach to capacity development ensures continuous learning, adaptation, and the successful delivery of environmental and social safeguards throughout the project.

## Capacity development

The Department of Forestry, Fisheries, and the Environment (DFFE), as the primary implementing entity, along with the designated Responsible Parties (RPs) for each project output, will undergo comprehensive training to enhance their understanding and ability to manage environmental and social risks. The training will cover critical components, including Environmental and Social Impact Assessments (ESIA), the ESMP and its associated plans, the Grievance Redress Mechanism (GRM), and stakeholder engagement processes.

# Grievance Redress Mechanism

See separate document on GRM

# Stakeholder engagement

Consultations with stakeholders on the ESMP will be conducted in alignment with the Stakeholder Engagement Plan to ensure meaningful participation and inclusivity. These consultations will serve as a platform for stakeholders to review the ESMP, validate the identified risks, and provide feedback on the proposed mitigation measures for each project output. The process will also facilitate greater transparency, ownership, and trust among stakeholders. Feedback and recommendations gathered during the consultations will be carefully documented and considered as part of the public disclosure period of the ESMP. This input will be integrated into the final version of the ESMP, ensuring that it is responsive to stakeholder concerns and reflective of on-the-ground realities. By incorporating stakeholder insights, the ESMP will be strengthened, enhancing the effectiveness of risk management and mitigation strategies throughout the project lifecycle.