Interactive Research Journal

*The* ***Interactive Research Journal Template*** *is designed to help you document and verify your research process step-by-step, using tools like ChatGPT for information gathering. This template encourages transparency and critical thinking by guiding you through each stage of your research, from generating prompts to verifying sources and reflecting on the ethical considerations of using AI.*

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| Name | Sven Klapwijk | Date | 2024 / 07 / 11 |
| SDG# | 15: Life on Land | Status | New / In progress / Finalized |

# Research step

Specifies the current step (of total) in the research.

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| Step # | 3/3 | Task | Initial Research | In Depth research | Additional Research |

# Objective

Defines the goal for each research step.

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| Step 1: Gather information about SDG 15: Life on land. And the key topics of this SDG.  Step 2: Go further from step 1 and research all key topics in depth to really understand them and be able to talk about these concepts.  Step 3: Verify all info to make sure I have the correct understanding and not a biased one. |

# Prompts used

Records the exact prompts you entered in ChatGPT.

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| Prompt 1: [explain SDG: 15 (Life on land) to me and all its key topics in a concise manner]  Prompt 2: [explain SDG 15 and the 5 key areas more in depth manner with no biased opinion]  Prompt 3: [SDG 15 has no key area Combating Poaching and Illegal Wildlife Trade but i do see a mountains one give in depth information about this]  Prompt 4: [give it in a concise manner like before]  Prompt 5: [i also dont see ecosystem and habitat restoration in SDG 15 but i do see National strategies and SDG integration give a in depth concise explanation like before] |

# AI Response summaries

Summarizes the AI’s output, giving insight into how well ChatGPT responded to each prompt.

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| Response prompt 1: SDG 15, aims to protect, restore and promote sustainable land, forest and ecosystem use. It addresses the following key areas: Forests, Biodiversity, Desertification/soil degradation, Ecosystem restoration and finally Combat poaching and wildlife trafficking.  Response prompt 2: SDG 15, life on land is part of the UN’s sustainable Development Goals. Focused on conserving and sustainably managing land-based ecosystems. This goal addresses five key areas. Key area 1: Forest conservation focussing on restoring forests and increase the sustainability of forest management. By encouraging reforestation to reverse the loss of trees. This is important for things like climate change, ecosystem balance and providing resources like timber.  Key area 2: Biodiversity conservation this area focusses on keeping the ecosystem healty by creating and managing protected areas such as national parks and wildlife reserves to keep threatened species from going extinct and keep the ecosystem at its best.  Key area 3: Combating desertification and land degradation affects millions of people globally, especially in areas of the world where there is little to no rain. SDG 15 encourages sustainable land management to restore degraded lands. By reducing desertification and restoring fertile soil , the goal is to improve food security, reduce poverty and improve resilience to climate impacts.  Key area 4: Ecosystem and habitat restoration focusses on restoration of ecosystems like wetlands, grasslands and forests. To maintain and improve resilience of these areas against environmental changes. SDG 15 advocates for the rehabilitation of ecosystems that have been changed by humans. The goal is to restore natural processes and enable ecosystems to support biodiversity allowing native species to thrive and enhancing ecosystem services such as clean water, pollination and carbon storage.  Key area 5: Combating poaching and illegal wildlife trade is important as illegal poaching and wildlife trafficking are causing the decline and in animals that support ecosystems. SDG 15 promotes actions to stop poaching and illegal trading of endangered species by pushing through stronger laws, enforcement and public awareness this all to maintain the biodiversity and health of the ecosystems on land.  Response prompt 3 and 4: Mountains addresses the importance of mountain ecosystems, which are vital for biodiversity and water supply. Mountains face threats like climate change, deforestation and overgrazing, which can lead to soil erosion and loss of species.  Response prompt 5: National strategies and SDG integration encourages and helps countries to sustainably manage ecosystems and forests. Showing that it requires countries to integrate SDG 15 targets into policies, Collabarating governments, communities and organizations, resource allocation like funds for implementing the SDG 15 targets, monitoring and collect data about these changes and engaging community’s through programs and training this all wil help the Life on land. |

# Note on AI Responses

The quality and relevance of each response from ChatGPT. Include observations about the information’s accuracy, depth, and any areas needing verification.

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| ChatGPT gives explanations in a concise manner only doesn’t really give you any sources this makes it less reliable for information that is important like with the SDG’s this makes it that you have to look through the web for credible sources.  The SDG 15 doesn’t have a key area of Combating Poaching and Illegal Wildlife Trade so it give misinformation and needs verification |

# Verification steps and sources

Cross-check the AI’s information with credible sources.

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| Verified source 1: United nations, info over de key areas: [SDG website](https://sdgs.un.org/goals/goal15) |

# Final summary

Provide a concise conclusion based on verified information.

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| The sustainable development goal (SDG) 15: life on land. Focusses primarily on preserving biodiversity and ecosystems like wetlands, grasslands and forests ensuring sustainable use in these area’s. **Combating poaching and illegal wildlife trade are vital global issues they aren’t explicitly defined** as a focus in the SDG 15 focusses on aspects like **integrating biodiversity healt into national and local planning** and encouraging countries to implement the SDG key aspects So we can make a difference together. |

# Ethical reflection

Highlight any ethical issues encountered, such as bias or outdated information.

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| I have not found any ethical issues in my project |

# APPENDIX

## ChatGPT Prompt conversation

Copy and paste the whole CHatGPT conversation.

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| explain SDG: 15 (Life on land) to me and all its key topics in a concice manner ChatGPT said: ChatGPT  SDG 15, Life on Land, aims to protect, restore, and promote sustainable land use, forests, and ecosystems. It addresses the following key areas:   1. **Forests**: Halting deforestation and promoting reforestation to safeguard biodiversity and provide sustainable resources. 2. **Biodiversity**: Protecting species at risk of extinction, conserving natural habitats, and maintaining genetic diversity. 3. **Desertification and Soil Degradation**: Combating desertification, restoring degraded land, and promoting sustainable agriculture. 4. **Ecosystem Restoration**: Rehabilitating land and forests to enhance ecosystem services and resilience. 5. **Combat Poaching and Wildlife Trafficking**: Strengthening laws and enforcement to protect endangered species and reduce illegal activities.   The goal emphasizes the importance of preserving natural resources to ensure biodiversity, combat climate change, and sustain human livelihoods. You said: explain SDG 15 and the 5 key areas more in depth manner with no biased opinion ChatGPT said: ChatGPT  SDG 15, Life on Land, is part of the United Nations' Sustainable Development Goals focused on conserving and sustainably managing land-based ecosystems. This goal addresses five key areas in depth to protect biodiversity, manage forests, halt land degradation, and address challenges like desertification and wildlife poaching. 1. Forest Conservation and Sustainable Use Forests cover approximately 30% of Earth’s land area, and they are critical for carbon storage, water regulation, and sustaining biodiversity. SDG 15 targets efforts to end deforestation, restore degraded forests, and increase sustainable forest management practices. It encourages reforestation initiatives to reverse the loss of tree cover, which is essential for mitigating climate change impacts, maintaining ecosystem balance, and providing resources like timber and non-timber forest products for communities. 2. Biodiversity Conservation The loss of biodiversity, driven by habitat destruction, pollution, and overexploitation, poses a significant threat to ecosystem stability and human well-being. SDG 15 promotes measures to protect biodiversity at both species and ecosystem levels, aiming to prevent extinction and preserve genetic diversity in agriculture, livestock, and natural habitats. This includes establishing and managing protected areas, such as national parks and wildlife reserves, to conserve habitats for threatened species and support overall ecosystem health. 3. Combating Desertification and Land Degradation Desertification and land degradation affect millions of people globally, especially in arid and semi-arid regions. SDG 15 encourages sustainable land management practices to restore degraded lands, particularly through sustainable agricultural techniques, water management, and soil conservation. By reducing desertification and restoring fertile soil, the goal aims to enhance food security, reduce poverty, and improve resilience to climate impacts. Sustainable land practices also help control erosion, maintain soil fertility, and support local agriculture economies. 4. Ecosystem and Habitat Restoration Restoration of ecosystems, including wetlands, grasslands, and forests, is essential for maintaining natural resources and resilience against environmental changes. SDG 15 advocates for the rehabilitation of ecosystems that have been altered or degraded due to human activities, aiming to restore natural processes and enable ecosystems to support biodiversity. Restoration efforts focus on reviving natural habitats, allowing native species to thrive, and enhancing ecosystem services such as clean water, pollination, and carbon storage. 5. Combating Poaching and Illegal Wildlife Trade Illegal poaching and wildlife trafficking contribute to species decline and destabilize ecosystems. SDG 15 promotes actions to eliminate poaching and illegal trade in endangered species through stronger laws, enforcement, and public awareness. This area includes cooperation across countries to curb international wildlife trafficking and ensure sustainable wildlife management practices. Addressing these illegal activities is critical for species survival, as well as for maintaining the biodiversity and health of ecosystems.  SDG 15 emphasizes that managing life on land sustainably is crucial for maintaining ecological balance, supporting human life, and addressing challenges like climate change and food security.  SDG 15 has no key area Combating Poaching and Illegal Wildlife Trade but i do see a mountains one give in depth information about this ChatGPT said: ChatGPT  You're correct that SDG 15 does not specifically list Combating Poaching and Illegal Wildlife Trade as one of its formal key areas, although it is addressed within the broader context of biodiversity protection. One of the key areas of SDG 15 is indeed related to mountains, which is often overlooked. Let's go into more detail on this aspect: 5. **Mountain Ecosystems and Conservation** Mountains are critical ecosystems that provide a range of essential services, but they are also among the most vulnerable to environmental degradation and climate change. The specific focus of SDG 15 related to mountains includes several aspects: **Importance of Mountain Ecosystems**  * **Biodiversity Hotspots**: Mountains are home to a significant proportion of the world’s biodiversity, including unique plant and animal species that are often endemic to high-altitude regions. These ecosystems are vital for maintaining genetic diversity and supporting species that are adapted to extreme conditions. * **Water Source**: Mountain ecosystems play a crucial role in supplying fresh water to millions of people. Snow and glaciers in mountainous areas act as natural reservoirs, providing water for agriculture, drinking, and hydropower generation. * **Livelihoods**: For many communities, particularly those in high-altitude regions, mountains provide essential resources for agriculture, tourism, and cultural practices. They support the livelihoods of millions, especially in developing countries.  **Threats to Mountain Ecosystems**  * **Climate Change**: Mountains are particularly vulnerable to the impacts of climate change, including rising temperatures, altered precipitation patterns, and glacial retreat. These changes threaten not only the species that live in these environments but also the people who depend on mountains for their water and resources. * **Deforestation and Land Use**: Unsustainable agriculture, logging, and infrastructure development can lead to deforestation and habitat destruction in mountainous areas. This results in soil erosion, loss of biodiversity, and disruption of water cycles. * **Overgrazing and Agriculture**: In many mountainous regions, overgrazing by livestock and the expansion of agriculture into vulnerable areas exacerbate land degradation, contributing to soil erosion and reduced productivity of the land.  **Conservation and Sustainable Management** SDG 15 promotes the need for **conservation efforts** that address these threats by encouraging sustainable land management practices. The goal is to:   * **Preserve ecosystems**: This includes efforts to protect and restore mountain habitats from deforestation, pollution, and overexploitation. * **Promote sustainable agriculture**: Encouraging farming techniques that do not degrade mountain ecosystems, such as agroforestry, terracing, and crop rotation, can help maintain soil fertility and prevent erosion. * **Support indigenous knowledge**: Many indigenous communities have developed sustainable ways of interacting with mountain environments. SDG 15 emphasizes the importance of integrating traditional knowledge with modern conservation practices. * **Climate adaptation**: Strategies to help communities and ecosystems adapt to climate change are crucial, such as restoring glaciers, improving water management, and safeguarding species that rely on mountain habitats.  **International Cooperation** Because mountains span national borders, international cooperation is key to protecting these vital ecosystems. Collaborative efforts between countries, local communities, and global organizations are essential for tackling the challenges faced by mountain regions, including transboundary conservation efforts, joint research on climate impacts, and shared resource management. Conclusion The focus on mountains within SDG 15 highlights the critical importance of these ecosystems for biodiversity, water resources, and human livelihoods. Addressing the threats they face from climate change, land degradation, and unsustainable practices is crucial for ensuring their long-term sustainability and the well-being of the people who depend on them. You said: give it in a concise manner like before ChatGPT said: ChatGPT  SDG 15 addresses the importance of **mountain ecosystems**, which are vital for biodiversity, water supply, and livelihoods. Mountains face threats like **climate change**, **deforestation**, and **overgrazing**, which can lead to soil erosion and loss of species. Conservation efforts focus on **sustainable land management**, **protecting habitats**, **integrating indigenous knowledge**, and **climate adaptation**. International cooperation is essential for effective **transboundary conservation** and shared resource management. Protecting mountain ecosystems ensures the sustainability of water resources and biodiversity, benefiting both local communities and the global environment.  i also dont see ecosystem and habitat restoration in SDG 15 but i do see National strategies and SDG integration give a in depth concise explanation like before ChatGPT said: ChatGPT  You’re correct—**National Strategies and SDG Integration** is a central component of SDG 15. Here’s a concise, in-depth explanation:  SDG 15 encourages **National Strategies** and **SDG Integration** to help countries sustainably manage ecosystems, forests, and biodiversity. This approach requires:   1. **Policy Alignment**: Countries are encouraged to integrate SDG 15 targets into national policies, ensuring local laws support sustainable land, forest, and biodiversity management. 2. **Collaborative Governance**: Governments, communities, and organizations are encouraged to collaborate, creating frameworks for coordinated efforts in conservation and sustainable land use. 3. **Resource Allocation**: Dedicated resources and funding are critical for implementing sustainable practices and enforcement measures, such as protecting endangered species and promoting reforestation. 4. **Monitoring and Data Collection**: Developing systems to monitor ecosystems, track biodiversity health, and measure progress toward SDG 15. Reliable data supports better decision-making and adjustments to strategies. 5. **Public Awareness and Capacity Building**: Engaging communities through awareness programs and training in sustainable practices ensures broader support and effective local action.   Through national strategies and SDG integration, countries create sustainable development pathways that align environmental, economic, and social objectives, driving long-term preservation and sustainable land use. |