Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals Reports for the Years 2021 and 2022-

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Abstract:

The Sustainable Development Goals aim to conserve and restore the use of terrestrial ecosystems such as forests, wetlands, drylands, and mountains by 2030, recognizing that halting deforestation is crucial to mitigating the impacts of climate change.

Goal 15 of the Sustainable Development Goals aims to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.

Keywords: Sustainable Development Goals, The forests, sustainable management, the Fifteenth Goal of the United Nations.

Introduction:

In the framework of promoting sustainable development as the guiding principle for global long-term development, all United Nations member states adopted the Sustainable Development Goals (SDGs) in 2015. The SDGs, also known as the Global Goals, serve as a global call to action to end poverty, protect the planet, and ensure peace and prosperity for all people by 2030, balancing social, economic, and environmental sustainability. These goals are outlined in the 2030 Agenda for Sustainable Development. In order to protect and sustainably manage natural resources and the climate for current and future generations, the United Nations has designed initiatives to protect and restore terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss. These initiatives are reflected in Goal 15 of the Sustainable Development Goals, which is accompanied by 10 targets, including integrating the values of ecosystems and biodiversity into national and local planning, development processes, poverty reduction strategies, and accounts. One target aims to mobilize financial resources from all sources and significantly increase them to conserve biodiversity and ecosystems and use them sustainably, Another priority is achieving sustainable forest management to preserve the economic, social, and environmental value of all types of forests and enhance them for the benefit of current and future generations.

1. Importance of the study: Deforestation, desertification resulting from human activities, and climate change pose significant challenges to sustainable development, leading to the accelerated loss of global biodiversity. This pushes us towards unknown and irreversible changes in the Earth's ecological systems. Hence, highlighting the importance of sustainable forest management

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Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

and, consequently, the preservation, restoration, and sustainable use of terrestrial ecosystems, halting land degradation and reversing its course, and halting biodiversity loss.

- 2. Study objectives: This research paper aims to:
 - Shed light on the objectives of Goal 15 of the Sustainable Development Goals 2030.
 - Examine the current situation and challenges of sustainable forest management in light of the Sustainable Development Goals report for the years 2021 and 2022.
- **3. Study problem:** Has Goal 15 of the Sustainable Development Goals, concerning terrestrial life within the United Nations' Development Program, achieved its objectives regarding sustainable forest management based on its accomplishments in 2021 and 2022?

4. Study plan:

- The first topic: The content of Goal 15 of the Sustainable Development Goals 2030.
- The Second topic: The reality and challenges of sustainable forest management based on the Sustainable Development Goals report for the year 2021.
- The Third topic :The reality and challenges of sustainable forest management based on the Sustainable Development Goals report for the year 2022.

THE FIRST TOPIC: THE CONTENT OF GOAL 15 OF THE SUSTAINABLE DEVELOPMENT GOALS 2030.

The strategy to address the issue of forest degradation requires long-term action aimed at reaching the causes and roots of the problem¹.

In pursuit of this, the United Nations has included within its developmental efforts in its extended program for 2030 the goal of protecting and restoring terrestrial ecosystems, promoting their sustainable use, sustainably managing forests, combating desertification, halting and reversing land degradation, and halting biodiversity loss, embodied in Goal 15.

REASONS FOR INTEGRATING SUSTAINABLE FOREST MANAGEMENT WITHIN THE GOALS OF GOAL 15 OF THE SUSTAINABLE DEVELOPMENT GOALS 2030

Just as human life depends on the oceans, it also relies on land for living and livelihood opportunities. Terrestrial life provides 80% of human food, and agriculture is a crucial economic resource and a key means of development. Forests, which cover 30% of the Earth's surface, provide a natural habitat for millions of plant and animal species, in addition to being important sources of clean air and water. They play a crucial role in combating climate change.

¹ Hassouni Jadoue Abdulah: Desertification - Ecosystem Deterioration - Djilah Publishing and Distribution, Amman, Jordan, 2010, p 249.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

Forests also have an environmental role by conserving water resources, contributing to climate stability, preserving biodiversity, and combating desertification and water erosion.

They absorb carbon dioxide and other harmful gases, Moreover, forests have an economic role through the utilization of their lands and products¹.

Therefore, the Sustainable Development Goals aim to conserve and restore the use of terrestrial ecosystems such as forests, wetlands, drylands, and mountains by 2030, recognizing that halting deforestation is vital to mitigate the effects of climate change².

OBJECTIVES OF GOAL 15 OF THE UNITED NATIONS' 2030 SUSTAINABLE DEVELOPMENT PROGRAM

Goal 15 of the Sustainable Development Goals aims to protect, restore, and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss. This includes the following goals³:

- Ensure the conservation, restoration, and sustainable use of terrestrial and freshwater ecosystems and their services, particularly forests, wetlands, mountains, and drylands, in accordance with international commitments by 2020.
- Promote the implementation of sustainable forest management, halt deforestation, restore degraded forests, and substantially increase afforestation and reforestation globally by 2020.
- Combat desertification, restore degraded land and soil, including land affected by desertification, drought, and floods, and strive to achieve a land degradation-neutral world by 2030.
- ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits that are essential for sustainable development by 2030.
- Take urgent and significant action to reduce the degradation of natural habitats, halt biodiversity loss, and, by 2020, protect and prevent the extinction of threatened species.

¹ The official website of the United Nations: United Nations Development Programme (UNDP) in the Arab States [UNDP Arab States], Available at the following link: (https://www.undp.org/ar/arab-states/%D8%A3%D9%87%D8%AF%D8%A7%D9%81-

[%]D8%A7%D9%84%D8%AA%D9%86%D9%85%D9%8A%D8%A9-

<u>%D8%A7%D9%84%D9%85%D8%B3%D8%AA%D8%AF%D8%A7%D9%85%D8%A9/life-onland202020</u>, Date of access: 30-07-2023, Time: 15:30.

² Omar Fekki: Adaptation and Activation of National Forest Legislation According to Economic Transformations and Current Challenges, Journal of Law and Political Science, Volume 04, Issue 02, Algeria, June 2018, p 371.

The official website of the United Nations: Sustainable Development Programme for the year 2030, Sustainable Development Goals. Available at the following link: https://www.un.org/sustainabledevelopment/ar/, Date of access: 27-07-2023, Time: 23:50.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

- Promote fair and equitable sharing of benefits arising from the utilization of genetic resources and promote access to such resources, as internationally agreed.
- Take urgent measures to end poaching and illegal trafficking of protected species of flora and fauna and address both the supply and demand of illegal wildlife products.
- Take measures to prevent the introduction of invasive alien species to land and water ecosystems and significantly reduce their impact by 2020.
- Integrate the values of ecosystems and biodiversity into national and local planning, development processes, poverty reduction strategies, and accounts by 2020.
- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.
- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to promote such management, including conservation and reforestation.
- Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

These objectives highlight the importance of protecting and preserving terrestrial ecosystems, promoting sustainable forest management, and ensuring the conservation of biodiversity for the benefit of current and future generations.

THE SECOND TOPIC: THE REALITY AND CHALLENGES OF ON SUSTAINABLE FOREST MANAGEMENT IN LIGHT OF THE SUSTAINABLE DEVELOPMENT GOALS REPORT FOR THE YEAR 2021

Desertification and deforestation, caused by human activities and climate change, pose significant challenges to sustainable development. These challenges have impacted the lives and livelihoods of millions of people. Forests are of vital importance for maintaining life on Earth and play a key role in mitigating climate change.

THE CURRENT SITUATION OF GOAL 15 OF THE UNITED NATION' 2030 SUSTAINABLE DEVELOPMENT PROGRAM

We are witnessing an unprecedented deterioration of land today, with arable land being lost at a rate 30 to 35 times higher than the historical rate. Drought and desertification are increasing each year, resulting in the loss of 12 million hectares of land, which significantly affects impoverished communities globally¹.

¹ Website of the United Nations Development Programme (UNDP) in the Arab States. Available at the following link: (https://www.arabstates.undp.org/content/rbas/ar/home.html, Date of access: 29-07-2023, Time: 01:35.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

Among the 8,300 known animal species, 8% have already become extinct, and 22% of them are also facing the threat of extinction. About 80% of the Arab region consists of ecological systems in drylands, particularly vulnerable to the overlapping risks of climate change. The region is home to over 1,000 endangered species, with the majority facing the risk of extinction. This includes 24% of fish species, 22% of bird species, and 20% of mammal species.

These challenges highlight the urgent need to address sustainable forest management and combat desertification to protect the biodiversity and ecological systems of drylands. It is crucial to take immediate action to preserve and restore these ecosystems and ensure their sustainable use to mitigate the negative impacts on both human communities and wildlife populations¹.

CHALLENGES OF ON SUSTAINABLE FOREST MANAGEMENT IN LIGHT OF THE SUSTAINABLE DEVELOPMENT GOALS REPORT FOR THE YEAR 2021

The State of the World's Forests 2020 report reveals that the Earth has lost approximately 420 million hectares of trees since 1990 due to agriculture and other land uses. Therefore, investing in land restoration is crucial for improving livelihoods, reducing vulnerabilities, and mitigating risks to the economy.

Halting environmental degradation and restoring our planet are essential for sustainable development. However, deforestation continues, biodiversity is declining, and terrestrial ecosystems are deteriorating at alarming rates with significant consequences for human well-being and prosperity. Land degradation currently affects one-fifth of the Earth's land area and poses threats to human health, economic development, and security through the spread of zoonotic diseases (those transmitted from animals to humans), which now account for the majority of emerging infectious diseases.

To address these challenges, the United Nations is making significant efforts to expand sustainable forest management and protect critically important biodiversity sites. Countries are also enacting legislation and accounting principles to make nature "count" and address threats to biodiversity.

According to the Sustainable Development Goals 2020 report², sustainable forest management is gaining momentum, but forest loss continues at a dangerous rate. Forests are repositories of most of the world's biodiversity, covering 4.1 billion hectares of land. They help regulate the water cycle, mitigate climate change, and provide direct sources of food, income, shelter, and energy for around 1.6 billion people.

The goal of sustainable forest management is to conserve and enhance the economic, social, and environmental value of all types of forests for current and future generations. There has been significant progress towards sustainable forest management worldwide from 2000-2010 to 2010-2020, with an increase in certified or sustainably managed forests globally and in most regions. The percentage of forests in protected areas or under long-term management plans has also increased, as well as the above-ground forest biomass per hectare.

¹ Website of the United Nations Development Programme (UNDP) in the Arab States. Available at the following link: (https://www.arabstates.undp.org/content/rbas/ar/home.html, Date of access: 30-07-2023 Time: 16:30

² Sustainable Development Goals Report, issued by the United Nations, year 2021, p 56,57. 1739

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

Despite the slowing rate of deterioration, global forest loss remains a threat. The percentage of forest area decreased from 31.9% of the world's total land area in 2000 to 31.2% in 2020, resulting in a net loss of approximately 100 million hectares.

The rate of forest loss has increased in Southeast Asia, Africa, as well as in low-income and non-coastal developing countries and small island developing states, primarily due to forest conversion for agricultural purposes.

Forest removal and degradation still pose significant challenges, especially in tropical regions. The ongoing disappearance of forests emphasizes the need to accelerate efforts to reduce deforestation, restore degraded land, and implement sustainable forest and land management practices.

Figure 01: Progress monitoring panel towards sustainable forest management.

Progress towards sustainable forest management dashboard Proportion of forest area within legally established protected areas, change from 2010 to 2020 Proportion of forest area under a long-term Annual forest area change rate, from 2000–2010 to Above-ground biomass stock in forest, Certified forest a change from 2010 to 2020 Region 2010-2020 change from 2010 to 2020 change from 2010 to 2020 Central and Southern Asia A Eastern and South-Eastern Asia Northern Africa and Western Asia • \blacksquare A • Sub-Saharan Africa • • A Europe and Northern America Ā \mathbf{A} A Ā A Latin America and the Caribbean • Australia and New Zealand \mathbf{A} \mathbf{A} \mathbf{A} Least developed countries Landlocked developing countries Small island developing States A Positive change No/small change

Source: Sustainable Development Goals Report, issued by the United Nations, year 2021, p 56.

THE THIRD TOPIC: THE REALITY AND CHALLENGES OF ON SUSTAINABLE FOREST MANAGEMENT IN LIGHT OF THE SUSTAINABLE DEVELOPMENT GOALS REPORT FOR THE YEAR 2022.

The global forest area continues to decline, albeit at a slightly slower rate than in previous decades. The percentage of forests decreased from 31.9% of the world's total land area in 2000 to 31.2% in 2020, resulting in a net loss of approximately 100 million hectares. Expansion of agriculture drives nearly 90% of global deforestation, including 49.6% for crop expansion and 38.5% for livestock grazing¹.

Changes in forest area vary significantly from region to region. Asia, Europe, and North America showed a net increase in forest area from 2000 to 2020 due to afforestation, landscape

¹ Report E/2022/55 of the Secretary-General: Progress towards the Sustainable Development Goals, Economic and Social Council, United Nations, 23 July 2021–22 July 2022, p 21.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

restoration, and natural forest expansion. In contrast, significant losses were observed in Latin America and Sub-Saharan Africa, primarily due to forest conversion for agricultural purposes.

Deforestation continues despite significant gains in many areas. Between 2010 and 2021, the area of forest land certified increased by 35%. The percentage of forests under long-term management plans increased from 54% in 2010 to 58% in 2020. Over 700 million hectares of forests (18%) were in legally protected areas in 2020¹.

While almost all forests in Central Asia, Europe, and Western Asia are under management plans, the proportion of managed forests remains low in Latin America, the Caribbean, Oceania, and Sub-Saharan Africa.

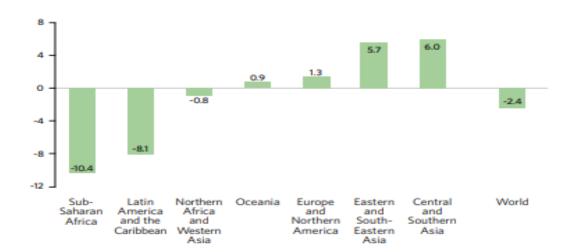


Figure 02: Change of forest area coverage 2000-2020.

Source: United Nations, Department of Economic and Social Affairs, Statistics Division, available at the following link: https://unstats.un.org/sdgs/report/2022/goal-15/

Global efforts to enhance access to genetic resources and benefit sharing are gaining momentum. The Nagoya Protocol, as an annex to the Convention on Biological Diversity, provides a transparent legal framework for the fair and equitable sharing of benefits arising from the use of genetic resources. As of February 2022, 132 countries and the European Union have ratified the protocol, and at least 68 countries have put in place legislative, administrative, or policy measures to ensure its implementation.

By that same date, the number of contracting parties to the International Treaty on Plant Genetic Resources for Food and Agriculture had increased to 148 from 135 in 2015. Seventy-nine countries have submitted national reports on the implementation of the treaty, a significant increase from 12 countries in 2016. Furthermore, the number of standard material transfer

¹ Ibid, p 21.

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

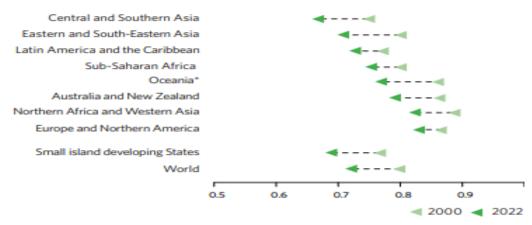
Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

agreements has increased from 55,352 in 2015 to 81,556 in 2022, indicating that more users are benefiting from the multilateral system for research, breeding, and training¹.

The risk of species extinction continues to rise, with the highest levels in Asia and small island developing states. The threat of species extinction is increasing at an unprecedented rate in human history. The Red List Index, which measures the overall extinction risk of species in selected taxonomic groups, reveals a 9.2% deterioration between 2000 and 2022. There are wide variations between regions in both the overall spread of extinction risk and the rate of deterioration. Central and South Asia, East and Southeast Asia, and small island developing states face higher risks and faster deterioration than the global average. The main drivers of these declines are unsustainable agriculture and overharvesting of wild species. Human activities such as deforestation and habitat conversion endanger around 20% of reptile species, for example. To preserve and sustainably use biodiversity, concerted efforts are needed to address these challenges and protect vulnerable species and ecosystems².

Figure 03: Red list index of species survival 2000-2022



^{*}Excluding Australia and New Zealand.

Source: United Nations, Department of Economic and Social Affairs, Statistics Division, available at the following link: https://unstats.un.org/sdgs/report/2022/goal-15/

Nearly half of the areas identified as globally significant for biodiversity are under protection, despite slow progress in four regions due to wide variations in biodiversity distribution and threats across the planet. It is important to strategically designate protected areas considering the critical role they play in conserving biodiversity. Protecting Key Biodiversity Areas (KBAs) through the establishment of protected areas or other area-based conservation measures helps prevent rapid biodiversity loss. Globally, the average percentage coverage of protected areas has increased from over a quarter in 2000 to nearly half in 2021. Despite this

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¹ Ibid, p 22.

² Ibid, p 22.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

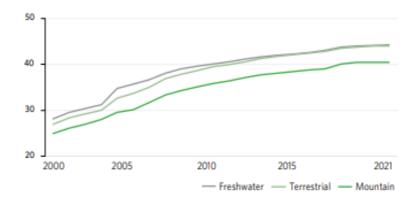
Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

encouraging trend, the growth in coverage has slowed in recent years. Additionally, coverage is unevenly distributed. Four regions - North Africa and West Asia, Central and South Asia, East and Southeast Asia, and Oceania - still have average coverage of less than 35% across marine, terrestrial, freshwater, and mountain biodiversity areas.

Figure 04: Mean proportion of freshwater, terrestrial and mountain KBAs covered by protected areas, 2000–2021 (percentage)



Source: United Nations, Department of Economic and Social Affairs, Statistics Division, available at the following link: https://unstats.un.org/sdgs/report/2022/goal-15/

The severe poverty is disproportionately linked to rural areas. Globally, around 78% of individuals experiencing extreme poverty are defined by income in rural regions, with 63% of them working in agriculture. In Sub-Saharan Africa, 86% of people in multidimensional poverty live in rural areas.

Poverty rates are often higher in mountainous regions compared to lowlands due to limited suitability for agriculture. Only 2% of mountainous lands are classified as good to very good for farming, as opposed to 22% in non-mountainous areas. Access to education, healthcare, sanitation, markets, and job opportunities is weak¹.

Out of 915 million people living in global mountainous regions, approximately 36% suffer from food insecurity. Since 2000, this percentage has risen by 30% in rural mountainous areas, reaching a 50% rate of food insecurity. This hinders sustainable forest management and development.

¹ Georg Gratzer, William S. Keeton: Mountain Forests and Sustainable Development: The Potential for Achieving the United Nations' 2030 Agenda, Mountain Research and Development, 37(3), 1 August 2017, p 252.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

There is also a risk of unintended consequences and conflicting goals between forest-based goods and services. Forest-based product usage can lower greenhouse gas emissions by replacing non-renewable fossil resources. Agricultural expansion, fuelwood, and timber extraction are major factors driving deforestation. Increased demand for food and bioenergy adds pressure on forests and escalates deforestation risks¹.

Conclusion:

Studying the efforts towards achieving Sustainable Development Goal 15, which focuses on protecting and restoring terrestrial ecosystems, promoting sustainable forest management, combating desertification, halting land degradation, and reversing biodiversity loss, has yielded several results and recommendations.

Results:

- The seventeen Sustainable Development Goals are integrated, recognizing that actions in one area will impact outcomes in other areas, and that development must balance social, economic, and environmental sustainability.
- The United Nations, through its 2030 Agenda for Sustainable Development, prioritizes the protection of the planet, as reflected in Goal 15 regarding the protection, restoration, and sustainable use of terrestrial ecosystems, sustainable forest management, combating desertification, halting land degradation, and biodiversity loss.
- Addressing deforestation, land degradation, desertification, and biodiversity conservation cannot be isolated from other aspects, as healthy ecosystems form the basis for poverty reduction, resilient and productive agriculture, and water systems that support development and growth.
- Experts in agriculture, health, and water sectors recognize that suboptimal forest clearance and land use can seriously undermine efforts to ensure healthy lives (Goal 3), eradicate hunger (Goal 2), and provide clean water (Goal 6) If narrow sectoral approaches prevail, and negative side effects are left unchecked, the scope for long-term development will be increasingly limited. Conversely, a cross-sectoral approach can help achieve multiple goals in a more holistic and effective manner.
- Climate finance funds have consistently played a crucial role in efforts to find solutions targeting multiple sectors. Financing from the Green Climate Fund, the Forest Carbon Partnership Program, and the Partnership Facility has been utilized to reduce forest carbon emissions

Recommendations:

It is crucial to encourage investment-based approaches that consider the status and sustainability
of forest assets in their planning. Initiatives such as Wealth Accounting and the Valuation of
Ecosystem Services, ecological system assessments, and other programs can help integrate the
values of ecosystems and biodiversity into national and local planning processes and
development operations.

¹ . Rupert J. Baumgartner: Sustainable Development Goals and the Forest Sector—A Complex Relationship, Forests ,10(2), 11 February 2019, p 152.

Year: 2023 Vol: 06 No: 02 Page: 1735 - 1745

Reality and Challenges of Implementing the Fifteenth Goal of the United Nations 2030 Development

Program in the Field of Sustainable Forest Management - A Study in Light of the Sustainable Development Goals

-Reports for the Years 2021 and 2022

- Investors in forests, rural landscapes, and oceans must meet a diverse set of needs, including
 economic growth, nutrition and food security, and climate-related goals. They should contribute
 to job opportunities, competitiveness, clean air, and water, thereby building resilience and
 reducing emissions.
- Urgent actions are needed to curb the loss of natural habitats and biodiversity, which are part of the common heritage of all humanity.

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