

sustainable development definition biology

sustainable development definition biology refers to the concept of promoting growth and progress in a manner that preserves natural ecosystems and biodiversity for future generations. This definition integrates principles from biology to emphasize the importance of maintaining ecological balance while meeting human needs. In the context of biology, sustainable development involves understanding the interactions between living organisms, their environments, and the impact of human activities on these systems. This article explores the sustainable development definition biology from multiple perspectives, including its core principles, biological foundations, and practical applications in conservation and resource management. Additionally, it highlights the challenges and strategies involved in achieving sustainability within biological systems. The discussion aims to provide a comprehensive understanding of how sustainability in development can be aligned with biological science to foster environmental health and resilience.

- Understanding Sustainable Development in Biology
- Core Principles of Sustainable Development
- Biological Foundations of Sustainability
- Applications of Sustainable Development in Biology
- Challenges and Strategies for Sustainable Biological Development

Understanding Sustainable Development in Biology

The sustainable development definition biology centers on the harmonious coexistence of human progress and ecological integrity. It involves managing natural resources and ecosystems so that they can support current needs without compromising the ability of future generations to meet theirs. In biological terms, this means maintaining biodiversity, ecosystem services, and genetic resources while promoting economic and social development. Sustainable development in biology also addresses the impacts of human activities such as deforestation, pollution, habitat destruction, and climate change on the natural world.

Historical Context and Evolution

The concept of sustainable development emerged in the late 20th century, gaining prominence with the 1987 Brundtland Report, which defined it as development that meets present needs without compromising the future. Biology has since played a pivotal role in shaping sustainable development by providing insights into ecosystem dynamics, species interactions, and environmental resilience. This biological perspective ensures that development strategies consider ecological limits and promote long-term environmental stewardship.

Interdisciplinary Nature

Sustainable development in biology is inherently interdisciplinary, incorporating ecology, genetics, environmental science, and socio-economic factors. This integration facilitates comprehensive approaches to sustainability that recognize the complexity of biological systems and the socio-economic drivers influencing them. By bridging these fields, sustainable development strategies can better address global challenges such as biodiversity loss, climate change, and resource depletion.

Core Principles of Sustainable Development

The sustainable development definition biology is grounded in several core principles that guide the responsible use and conservation of natural resources. These principles ensure that development efforts support environmental health, social equity, and economic viability simultaneously.

Conservation of Biodiversity

Biodiversity conservation is a fundamental principle, as diverse biological systems are more resilient and capable of adapting to environmental changes. Protecting species diversity, genetic variability, and habitat integrity is essential for sustaining ecosystem functions and services.

Ecological Integrity and Balance

Maintaining ecological balance involves preserving the natural processes and interactions within ecosystems. This principle emphasizes the importance of ecosystem stability, nutrient cycling, and energy flows to support life and human well-being.

Intergenerational Equity

This principle stresses the responsibility to manage natural resources so that future generations inherit a healthy and productive environment. It promotes long-term thinking in development policies and practices.

Integrated Resource Management

Integrated management of land, water, and biological resources ensures that development activities are coordinated to minimize environmental impacts and optimize resource use. This approach supports sustainable agriculture, forestry, fisheries, and urban planning.

Socio-Economic Considerations

Sustainable development also incorporates social and economic dimensions, aiming to improve quality of life while reducing poverty and inequality. This balance encourages sustainable livelihoods alongside environmental conservation.

Biological Foundations of Sustainability

Understanding biological principles is crucial to implementing sustainable development effectively. The sustainable development definition biology involves recognizing how living organisms and ecosystems function and respond to environmental changes.

Ecosystem Services

Ecosystem services are the benefits humans derive from nature, including provisioning (food, water), regulating (climate control, pollination), cultural (recreational, spiritual), and supporting services (nutrient cycling, soil formation). Sustainable development depends on maintaining these services through biological conservation and sustainable management.

Population Dynamics and Carrying Capacity

Biological concepts such as population dynamics and carrying capacity inform sustainable development by highlighting limits to growth within ecosystems. Overexploitation of resources can exceed carrying capacity, leading to degradation and collapse of ecosystems.

Genetic Diversity and Adaptation

Genetic diversity within species is vital for adaptation to changing environments and resilience against diseases and environmental stresses. Sustainable development strategies must preserve genetic resources to maintain ecosystem stability and evolutionary potential.

Applications of Sustainable Development in Biology

The principles and biological foundations of sustainable development translate into practical applications across various fields. These applications aim to balance human needs with ecological preservation through science-based management.

Conservation Biology and Protected Areas

Conservation biology applies sustainable development by establishing protected areas, restoring habitats, and managing species populations sustainably. These efforts help conserve biodiversity and maintain ecosystem services.

Sustainable Agriculture and Forestry

Sustainable agricultural and forestry practices focus on minimizing environmental impacts while maximizing productivity. Techniques such as crop rotation, agroforestry, reduced pesticide use, and selective logging support sustainability in biological resources.

Fisheries Management

Biologically informed fisheries management ensures fish populations are harvested at sustainable levels, maintaining ecosystem balance and food security. This includes setting quotas, protecting breeding grounds, and monitoring stock health.

Urban Ecology and Green Infrastructure

Incorporating sustainable development into urban planning involves creating green spaces, promoting biodiversity, and reducing pollution. Urban ecology aims to harmonize human settlements with natural biological processes.

Challenges and Strategies for Sustainable Biological Development

Despite its importance, achieving sustainable development in biology faces numerous challenges. Addressing these obstacles requires coordinated strategies integrating science, policy, and community engagement.

Environmental Degradation and Habitat Loss

Rapid industrialization, deforestation, and land conversion threaten ecosystem integrity and biodiversity. Strategies to mitigate these impacts include habitat restoration, sustainable land use planning, and enforcement of environmental regulations.

Climate Change Impacts

Climate change alters temperature, precipitation patterns, and sea levels, affecting species distributions and ecosystem functions. Adaptive management, conservation corridors, and climate-resilient practices are essential strategies.

Resource Overexploitation

Unsustainable harvesting of biological resources leads to depletion and ecological imbalance. Implementing sustainable quotas, promoting alternative livelihoods, and raising awareness help reduce overexploitation.

Policy and Governance

Effective governance frameworks and international cooperation are critical for enforcing sustainable development objectives. Policies must integrate scientific knowledge with economic and social considerations to be effective.

Community Involvement and Education

Engaging local communities and enhancing environmental education fosters stewardship and supports sustainable practices at the grassroots level. Participation ensures that development aligns with both ecological and social needs.

- Promote ecosystem restoration projects
- Implement science-based resource management

- Enhance biodiversity monitoring and research
- Develop climate adaptation strategies
- Strengthen environmental policies and enforcement
- Encourage sustainable consumption patterns
- Foster global collaboration and knowledge exchange

Frequently Asked Questions

What is the definition of sustainable development in biology?

Sustainable development in biology refers to the practice of managing natural resources and ecosystems in a way that meets current biological and environmental needs without compromising the ability of future generations to meet their own needs.

How does sustainable development relate to biodiversity conservation?

Sustainable development promotes biodiversity conservation by encouraging the responsible use of biological resources, protecting habitats, and maintaining ecosystem services to ensure long-term ecological balance.

Why is sustainable development important in biological research?

Sustainable development is important in biological research because it ensures that scientific advancements and resource utilization do not harm ecosystems, allowing for continued biodiversity and ecosystem health.

What role does sustainable development play in ecosystem management?

Sustainable development guides ecosystem management by emphasizing the balance between human needs and ecological integrity, ensuring that ecosystems remain resilient and productive over time.

How can sustainable development be applied in

agriculture from a biological perspective?

From a biological perspective, sustainable development in agriculture involves using practices that maintain soil health, conserve water, reduce chemical inputs, and promote biodiversity to achieve long-term productivity.

What biological principles underpin the concept of sustainable development?

Biological principles such as ecosystem dynamics, species interactions, genetic diversity, and natural resource cycles underpin sustainable development by informing practices that maintain ecological balance.

How does sustainable development address the challenge of climate change in biology?

Sustainable development addresses climate change by promoting biological practices that reduce greenhouse gas emissions, enhance carbon sequestration, and increase ecosystem resilience to changing conditions.

Can sustainable development help in the preservation of endangered species?

Yes, sustainable development helps preserve endangered species by advocating for habitat protection, reducing human-induced threats, and promoting ecological restoration efforts.

What is the relationship between sustainable development and ecosystem services in biology?

Sustainable development seeks to maintain and enhance ecosystem services—such as pollination, water purification, and nutrient cycling—by managing biological resources responsibly to support both human well-being and ecological health.

Additional Resources

1. Sustainable Development: Principles and Practices in Biology

This book explores the foundational principles of sustainable development through the lens of biological sciences. It covers ecological balance, resource management, and the role of biodiversity in maintaining sustainability. Readers will gain insights into how biological systems can inform sustainable policies and practices.

2. Ecology and Sustainable Development: The Biological Perspective

Focusing on the intersection of ecology and sustainable development, this book discusses how ecosystems function and how human activities impact them.

It provides case studies on habitat preservation and restoration, emphasizing the importance of maintaining ecological integrity for future generations.

3. Biological Foundations of Sustainable Development

This text delves into the biological underpinnings of sustainability, examining genetic diversity, species interactions, and ecosystem services. It highlights how biological knowledge can guide sustainable agricultural and environmental strategies, promoting long-term ecological health.

4. Defining Sustainability: A Biological Approach

Offering a clear definition of sustainable development from a biological standpoint, this book addresses key concepts such as carrying capacity, resilience, and adaptation. It bridges theoretical biology with practical sustainability efforts, making complex ideas accessible to a broad audience.

5. Integrating Biology and Sustainable Development Goals

This volume connects biological research with the United Nations Sustainable Development Goals (SDGs). It showcases how advances in biology contribute to achieving targets related to health, clean energy, and environmental conservation, providing a roadmap for interdisciplinary collaboration.

6. Biology, Environment, and Sustainable Futures

Covering the dynamic relationship between biological systems and environmental sustainability, this book highlights challenges like climate change, pollution, and species loss. It offers solutions based on biological innovation and ecosystem management to foster sustainable futures.

7. The Role of Biodiversity in Sustainable Development

This book emphasizes biodiversity as a critical component of sustainable development. It explains how diverse biological systems support ecosystem services essential for human well-being and discusses strategies to protect biodiversity amid growing environmental pressures.

8. Sustainable Agriculture and Biological Systems

Focusing on sustainable agricultural practices, this book examines biological methods such as crop rotation, organic farming, and integrated pest management. It underscores the importance of biological diversity in agriculture to enhance productivity while minimizing environmental impact.

9. Applied Biology for Sustainable Development

This practical guide presents applied biological techniques that promote sustainability in various sectors, including water management, waste reduction, and renewable energy. It serves as a resource for students and professionals aiming to implement biology-based sustainable solutions.

[Sustainable Development Definition Biology](#)

Find other PDF articles:

sustainable development definition biology: Principles of Sustainable Development - Volume II Giancarlo Barbiroli, 2009-10-20 Principles of Sustainable Development is the component of Encyclopedia of Development and Economic Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. Sustainable Development is a term of differing definitions. Standing alone, the term is abstract and ambiguous. The meaning most often cited is that adopted by the World Commission on Environment and Development: meeting today's true needs and opportunities without jeopardizing the integrity of the planetary life-support base - the environment - and diminishing its ability to provide for needs, opportunities, and quality of life in the future. This definition may serve as a general principle, but for a guide to action its components sustainability and development must be given substance: what is to be sustained and what developed? Is development essentially economic or material growth, and is sustainability mostly a means to keep economic growth growing? Consequently, should development represent means toward ecologically sustainable ends? The concept of ecological sustainability has been advanced as a restriction on economic development. It follows therefore that principles of sustainable development depend upon how the term is understood and how it is put into practice. Even so the definition of the World Commission on Environment and Development, given the adequate definition of variable needs, provides the most reliable principle for testing the qualitative and ecological sustainability of development proposals. The Theme on Principles of Sustainable Development, in three volumes, deals with the diversity of points of view on this complex subject. These three volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

sustainable development definition biology: Dimensions of Sustainable Development - Volume I Kamaljit S. Bawa , Reinmar Seidler, 2009-11-26 Dimensions of Sustainable Development is the component of Encyclopedia of Development and Economic Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The Theme on Dimensions of Sustainable Development, in two volumes, deals with the diversity of points of view on this complex subject. The chapters in these volumes are organized into five groups. The first starts with chapters introducing the general concepts underlying sustainable development. The second treats current and emerging understandings of the general biophysical limits of economic growth and development. The third focuses on the human and social capital requirements for sustainability. The fourth deals with a particular aspect of the organization of human economic and technological activity. The final group discusses something of the diversity of possible approaches to the management of sustainability. These two volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

sustainable development definition biology: Dimensions of Sustainable Development - Volume II Kamaljit S. Bawa , Reinmar Seidler, 2009-11-26 Dimensions of Sustainable Development is the component of Encyclopedia of Development and Economic Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The Theme on Dimensions of Sustainable Development, in two volumes, deals with the diversity of points of view on this complex subject. The chapters in these volumes are organized into five groups. The first starts with chapters introducing the general concepts underlying sustainable development. The second treats current and emerging understandings of the general biophysical limits of economic growth and development. The third focuses on the human and social capital requirements for sustainability. The fourth deals with a particular aspect of the organization of human economic

and technological activity. The final group discusses something of the diversity of possible approaches to the management of sustainability. These two volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

sustainable development definition biology: Managing Biological and Ecological Systems Brian D. Fath, Sven Erik Jorgensen, 2020-07-29 Bringing together a wealth of knowledge, *Environmental Management Handbook*, Second Edition, gives a comprehensive overview of environmental problems, their sources, their assessment, and their solutions. Through in-depth entries and a topical table of contents, readers will quickly find answers to questions about environmental problems and their corresponding management issues. This six-volume set is a reimagining of the award-winning *Encyclopedia of Environmental Management*, published in 2013, and features insights from more than 400 contributors, all experts in their field. The experience, evidence, methods, and models used in studying environmental management are presented here in six stand-alone volumes, arranged along the major environmental systems. Features The first handbook that demonstrates the key processes and provisions for enhancing environmental management Addresses new and cutting-edge topics on ecosystem services, resilience, sustainability, food-energy-water nexus, socio-ecological systems, and more Provides an excellent basic knowledge on environmental systems, explains how these systems function, and offers strategies on how to best manage them Includes the most important problems and solutions facing environmental management today In this second volume, *Managing Biological and Ecological Systems*, the reader is introduced to the general concepts and processes of the biosphere and all its systems. This volume explains how these systems function and provides strategies on how to best manage them. It serves as an excellent resource for finding basic knowledge on the biosphere and ecological systems and includes important problems and solutions that environmental managers face today. This book practically demonstrates the key processes, methods, and models used in studying environmental management.

sustainable development definition biology: Practical Conservation Biology David Lindenmayer, Mark Burgman, 2005-10-26 *Practical Conservation Biology* covers the complete array of topics that are central to conservation biology and natural resource management, thus providing the essential framework for under-graduate and post-graduate courses in these subject areas. Written by two of the world's leading environment experts, it is a 'must have' reference for environment professionals in government, non-government and industry sectors. The book reflects the latest thinking on key topics such as extinction risks, losses of genetic variability, threatening processes, fire effects, landscape fragmentation, habitat loss and vegetation clearing, reserve design, sustainable harvesting of natural populations, population viability analysis, risk assessment, conservation biology policy, human population growth and its impacts on biodiversity. *Practical Conservation Biology* deals primarily with the Australian context but also includes many overseas case studies. The book is the most comprehensive assessment of conservation topics in Australia and one of the most comprehensive worldwide. Winner of the 2006 Whitley Award for Best Conservation Text.

sustainable development definition biology: Encyclopedia of Biodiversity, 2013-02-05 The 7-volume *Encyclopedia of Biodiversity*, Second Edition maintains the reputation of the highly regarded original, presenting the most current information available in this globally crucial area of research and study. It brings together the dimensions of biodiversity and examines both the services it provides and the measures to protect it. Major themes of the work include the evolution of biodiversity, systems for classifying and defining biodiversity, ecological patterns and theories of biodiversity, and an assessment of contemporary patterns and trends in biodiversity. The science of biodiversity has become the science of our future. It is an interdisciplinary field spanning areas of both physical and life sciences. Our awareness of the loss of biodiversity has brought a long overdue appreciation of the magnitude of this loss and a determination to develop the tools to protect our future. Second edition includes over 100 new articles and 226 updated articles covering this

multidisciplinary field— from evolution to habits to economics, in 7 volumes The editors of this edition are all well respected, instantly recognizable academics operating at the top of their respective fields in biodiversity research; readers can be assured that they are reading material that has been meticulously checked and reviewed by experts Approximately 1,800 figures and 350 tables complement the text, and more than 3,000 glossary entries explain key terms

sustainable development definition biology: Advances in Synthetic Biology Vijai Singh, 2020-04-13 This book addresses the design of emerging conceptual tools, technologies and systems including novel synthetic parts, devices, circuits, oscillators, biological gates, and small regulatory RNAs (riboregulators and riboswitches), which serve as versatile control elements for regulating gene expression. Synthetic biology, a rapidly growing field that involves the application of engineering principles in biology, is now being used to develop novel systems for a wide range of applications including diagnostics, cell reprogramming, therapeutics, enzymes, vaccines, biomaterials, biofuels, fine chemicals and many more. The book subsequently summarizes recent developments in technologies for assembling synthetic genomes, minimal genomes, synthetic biology toolboxes, CRISPR-Cas systems, cell-free protein synthesis systems and microfluidics. Accordingly, it offers a valuable resource not only for beginners in synthetic biology, but also for researchers, students, scientists, clinicians, stakeholders and policymakers interested in the potential held by synthetic biology.

sustainable development definition biology: Saving Nature's Legacy Timothy J. Farnham, 2007-01-01 Biological diversity is considered one of today's most urgent environmental concerns, yet the term was first coined only twenty-five years ago. Why did the concept of biological diversity so quickly capture public attention and emerge as a banner issue for the environmental movement? In this book, Timothy J. Farnham explores for the first time the historical roots of biological diversity, tracing the evolution of the term as well as the history of the conservation traditions that contributed to its rapid acceptance and popularity. Biological diversity is understood today as consisting of three components--species diversity, genetic diversity, and ecosystem diversity. Farnham finds that these three tiers coincided with three earlier, disparate conservation traditions that converged when the cause of preserving biological diversity was articulated. He tells the stories of these different historical foundations, recounts how the term came into the environmental lexicon, and shows how the evolution of the idea of biological diversity reflects an evolution of American attitudes toward the natural world.

sustainable development definition biology: Encyclopedia of Law and Development Koen De Feyter, Gamze E. Türkelli, Stéphanie de Moerloose, 2021-01-29 This comprehensive Encyclopedia is an indispensable resource in the area of law and development. Bringing together more than 80 entries, the Encyclopedia spans a variety of approaches, contextualised histories, recent developments and forward-looking insights into the role of law in development. It is an invaluable reference point for scholars seeking to engage with issues at the intersection of law and development from both within and outside of the legal field, as well as a thorough but succinct overview for post-graduate students.

sustainable development definition biology: Bioindicators & Biomonitoring B.A. Markert, A.M. Breure, H.G. Zechmeister, 2003-06-30 Table of contents

sustainable development definition biology: Educational Response, Inclusion and Empowerment for SDGs in Emerging Economies Mustafa Öztürk, 2022-08-22 This volume analyzes cases from emerging economies in relation to the global endeavor to promote the vision of sustainable development in all forms of education. It aims to discuss the significance of hearing local voices and understanding local discourse regarding strategies for action for change, and the role of educational systems as a means to communicate, promote and educate for the Sustainable Development Goals (SDGs). In this book, emerging economies are defined as newly industrialized countries that have not yet reached developed status, but have, in a macro-economic sense, outpaced their developing counterparts. In this context, the book highlights how education in emerging economies could extend conventional economic methods to sustainability issues, or depart

from money-based calculations and business-dominated values to promotion of real-life considerations and ethical, environmental and humanistic values. With the help of this volume, readers will have a chance to look at educational response, inclusion and empowerment for SDGs in countries with emerging economies, and to grasp the synthesis of Education for Sustainable Development/Global Citizenship Education (ESD/GCE) within the overall national educational systems. This volume focuses on early childhood through upper secondary education.

sustainable development definition biology: Framing Discourse on the Environment

Richard Alexander, 2010-04-15 In this study, Richard Alexander presents a series of original and empirically based case studies of the language and discourse involved in the discussion of environmental and ecological issues. Relying upon a variety of different text types and genres – including company websites, advertisements, press articles, speeches and lectures – Alexander interrogates how in the media, press, corporate and activist circles language is employed to argue for and propagate selected positions on the growing ecological crisis. For example, he asks: How are ecological and environmental concerns articulated in texts? What do we learn about ecological ‘problems’ through texts from differing sources? What language features accompany ecological discourse in differing contexts and registers? Attention is especially directed at where this discourse comes into contact with business, economic and political concerns.

sustainable development definition biology: Information, Models, and Sustainability

Jing Zhang, Luis Felipe Luna-Reyes, Theresa A. Pardo, Djoko Sigit Sayogo, 2016-03-30 This book reflects on the emerging trends, development, and challenges of policy on sustainability using information technology, and provides valuable insights to both research and practice communities. Sustainability has become an important focus for government, civil society and the corporate community world-wide. Growing interest in addressing environmental deterioration and associated social inequality and economic challenges is shifting focus to this important issue. The lack of fresh water and arable land, extreme weather, rising cost of relying on fossil fuels, and poverty and regional instability, are drawing attention to the need for government intervention and policy instruments that encourage the development of sustainable alternatives. Governments can play a very important role in facilitating sustainable development through better public policies. First of all, public investments can be directed toward establishing incentives for renewable energy, energy efficiency, sustainable agriculture, and land and water conservation, or toward leveling the field for sustainable alternatives by phasing out the subsidies directed to unsustainable production and development. Second, regulatory and pricing mechanisms could help with the development of markets for sustainable products. This book engages policy informatics analytical and modeling approaches, stakeholder engagement in policy development, implementation and evaluation, and big data and policy informatics to generate valuable insights in the policy on sustainable energy, and will be of interest to researchers in public administration and sustainability, open data and information technology ecological economics.

sustainable development definition biology: Environment and Development Stavros G.

Poulopoulos, Vassilis J. Inglezakis, 2016-05-23 Environment and Development: Basic Principles, Human Activities, and Environmental Implications focuses on the adverse impact that human activities, developments, and economic growth have on both natural and inhabited environments. The book presents the associated problems, along with solutions that can be used to achieve a harmonic, sustainable development that provides for the co-existence of man and natural life. Chapters provide detailed information on a range of environments including: atmospheric, aquatic, soil, natural, urban, energy, and extraterrestrial, as well as the relationship between the environment and development. In addition, this comprehensive book presents the latest research findings and trends in global environmental policy for each issue. - Offers a discussion of the extraterrestrial environment and waste in earth orbit as one of the distinctive topics of the book - Addresses global environmental policy issues and policies - Presents tabulated data to support the analysis and explain the issues presented - Includes case studies covering many topics of current interest - Analyzes environmental issues and proposes solutions grounded in recent research

findings - Discusses the various interpretations of the development concept as well as alternative pathways to sustainable development

sustainable development definition biology: Tourism and the Environment Helen Briassoulis, Jan van der Straaten, 2013-11-11 There is a complex relationship between the environment and the development of tourism, which this book discusses in a thorough and informative manner. Specialists from several disciplines pay attention to the challenges of sustainable tourism, devoting their full attention to cultural, regional and policy issues. This is a revised edition that has been expanded to 22 contributions, with inclusion of the cultural element. All chapters have been updated to include new data and information added to the existing body of literature in the last 7 years. It includes new developments and new insights into the relationship between tourism and the environment. An invaluable sequel to the first edition.

sustainable development definition biology: Biological Diversity and Genetic Resources Biological Diversity & Genetic Resources Project, Promila Kapoor-Vijay, 1992 Conservation of biodiversity and the sustainable use of genetic resources have been priority issues for a number of countries and international organisations over the past decade. We have begun to realise that the rapid rate of development at all costs has generated forces that are threatening to destroy the very substratum of life on Earth. Biological diversity is the building block of the myriad life forms on our planet and our defence against global climate changes. Wider acceptance of this truth has given an impetus to the need for further work at political and scientific levels. However, little information is available on how to study, use and conserve our biological and genetic resources. The Commonwealth Science Council's programme on biological diversity and genetic resources attempts to redress this imbalance. Launched in 1986, this programme recognises that good policies for conservation of our genetic resources require not only public investment by a systematic approach for institutionalising the key process of such conservation. The programme supports the development of appropriate courses, documents and training materials for capacity building at the local level. This book discusses the programme and aims to contribute significantly towards establishing relevant mechanisms and developing practical action plans for conserving and sustainably using our rapidly vanishing biological diversity.

sustainable development definition biology: Advanced Integrated Approaches to Environmental Economics and Policy: Emerging Research and Opportunities Patti, Sebastiano, Trizzino, Giampiero, 2019-10-11 Sustainable development remains a significant issue in a globalized world requiring new economic standards and practices for the betterment of the environment as well as the world economy. However, sustainable economics must manage environmental solutions to issues on multiple levels and within various disciplines. There is a need for studies that seek to understand how environmental economics and governance within small and large sectors affect the capability and wellbeing of the global economy. Advanced Integrated Approaches to Environmental Economics and Policy: Emerging Research and Opportunities is an essential publication that focuses on the strategic role of environmental issues within the global economy. While highlighting topics such as complementary currency, reusable waste, and urban planning, this book is ideally designed for policymakers, environmental lawyers, economists, sociologists, politicians, academicians, researchers, and students seeking current research on increasing an organization's sustainable performance at both public and private levels.

sustainable development definition biology: Knowledge for Sustainable Development Unesco, 2002 This three volume set presents a multidisciplinary examination of the global life support systems on which we depend by providing a selection of articles on sustainable development issues written by international experts. Volume 1 focuses on the earth and atmospheric sciences, mathematical, biological and medical sciences, social sciences and humanities, physical sciences, engineering and technology resources. Volume 2 covers chemical sciences, energy science and water engineering, as well as the main issues related to environmental sciences and ecological resources. Volume 3 offers a comprehensive view of food and agricultural engineering resources, the management of human and natural resources, economic and institutional resources, information

technology and systems management, as well as a regional overview of sustainable development issues. Each article includes a bibliography, a glossary and a guide to further information available as part of the on-line Encyclopedia version (<http://www.eolss.net>).

sustainable development definition biology: Plant Biology for Cultural Heritage Getty Conservation Institute, 2008 Brings together wide-ranging scientific contributions from those who have studied the biological degradation of cultural heritages. It tackles both general topics (mechanisms of biodeterioration; correlation between biodeterioration and environment; and destructive organisms) and specific ones (the problems presented by different materials, environments, climatic conditions, and geographic settings). The contributors also discuss ways to diagnose, prevent, and control deterioration.

sustainable development definition biology: Shaping the Future of Biological Education Research Konstantinos Korfiatis, Marcus Grace, Marcus Hammann, 2023-12-01 This open access volume is a collection of full papers based on the peer-reviewed presentations accepted for the European Researchers in Didactics of Biology, ERIDOB 2022 conference. ERIDOB aims to bring together researchers in didactics of Biology from Europe and around the world to share and discuss their research work and results. It is the only major international conference whose focus lies exclusively on biology education research, and all the papers are written by international researchers from across Europe (and beyond) which report on a range of contemporary biology education research projects. They are all entirely new papers describing new research in the field. Each paper has been peer-reviewed by experienced biology education researchers and the members of the ERIDOB Academic Committee. The selected papers are collated within the following categories of biology education: · Teaching Strategies and Learning Environments · Students' Knowledge, Conceptions, Values, Attitudes and Motivation · Outdoor and Environmental Education · Biology Teachers' Professional Development By providing a collection of new research findings from many countries, this book is a great resource for researchers and practitioners such as school, college and university biology teachers' around the world. It is useful for training biology teachers and therefore valuable to teacher training institutions.

Related to sustainable development definition biology

SUSTAINABLE Definition & Meaning - Merriam-Webster The meaning of SUSTAINABLE is capable of being sustained. How to use sustainable in a sentence

Sustainability - Wikipedia UNESCO distinguishes the two like this: " Sustainability is often thought of as a long-term goal (i.e. a more sustainable world), while sustainable development refers to the many processes

Sustainability: What It Is, How It Works, Benefits, and Example In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In business and policy contexts, sustainability seeks to

Explainer: What Is Sustainability and Why Is It Important? The term 'sustainable' is used all around us, from food packaging to clothing companies. But what is sustainability and why is it important?

THE 17 GOALS | Sustainable Development At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership

SUSTAINABLE | English meaning - Cambridge Dictionary SUSTAINABLE definition: 1. able to continue over a period of time: 2. causing, or made in a way that causes, little or no. Learn more

Sustainable development | Definition, Goals, Origins, Three Pillars 5 days ago Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human

Sustainability: Definition and Meaning of Sustainability Explore the definition and deeper meaning of sustainability, a crucial principle for meeting present needs without compromising future generations. Understand its impact on environmental

What is Sustainability? | UCLA Sustainability The most often quoted definition comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present

What Is & Importance of Sustainability for a Green Future Discover the importance of sustainability, its history and three pillars. Explore green careers and environmental science's role in a sustainable future

SUSTAINABLE Definition & Meaning - Merriam-Webster The meaning of SUSTAINABLE is capable of being sustained. How to use sustainable in a sentence

Sustainability - Wikipedia UNESCO distinguishes the two like this: " Sustainability is often thought of as a long-term goal (i.e. a more sustainable world), while sustainable development refers to the many processes

Sustainability: What It Is, How It Works, Benefits, and Example In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In business and policy contexts, sustainability seeks to prevent

Explainer: What Is Sustainability and Why Is It Important? The term 'sustainable' is used all around us, from food packaging to clothing companies. But what is sustainability and why is it important?

THE 17 GOALS | Sustainable Development At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership

SUSTAINABLE | English meaning - Cambridge Dictionary SUSTAINABLE definition: 1. able to continue over a period of time: 2. causing, or made in a way that causes, little or no. Learn more

Sustainable development | Definition, Goals, Origins, Three Pillars 5 days ago Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human

Sustainability: Definition and Meaning of Sustainability Explore the definition and deeper meaning of sustainability, a crucial principle for meeting present needs without compromising future generations. Understand its impact on environmental

What is Sustainability? | UCLA Sustainability The most often quoted definition comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present

What Is & Importance of Sustainability for a Green Future Discover the importance of sustainability, its history and three pillars. Explore green careers and environmental science's role in a sustainable future

SUSTAINABLE Definition & Meaning - Merriam-Webster The meaning of SUSTAINABLE is capable of being sustained. How to use sustainable in a sentence

Sustainability - Wikipedia UNESCO distinguishes the two like this: " Sustainability is often thought of as a long-term goal (i.e. a more sustainable world), while sustainable development refers to the many processes

Sustainability: What It Is, How It Works, Benefits, and Example In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In business and policy contexts, sustainability seeks to

Explainer: What Is Sustainability and Why Is It Important? The term 'sustainable' is used all around us, from food packaging to clothing companies. But what is sustainability and why is it important?

THE 17 GOALS | Sustainable Development At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership

SUSTAINABLE | English meaning - Cambridge Dictionary SUSTAINABLE definition: 1. able to continue over a period of time: 2. causing, or made in a way that causes, little or no. Learn more

Sustainable development | Definition, Goals, Origins, Three Pillars 5 days ago Sustainable

development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human

Sustainability: Definition and Meaning of Sustainability Explore the definition and deeper meaning of sustainability, a crucial principle for meeting present needs without compromising future generations. Understand its impact on environmental

What is Sustainability? | UCLA Sustainability The most often quoted definition comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present

What Is & Importance of Sustainability for a Green Future Discover the importance of sustainability, its history and three pillars. Explore green careers and environmental science's role in a sustainable future

SUSTAINABLE Definition & Meaning - Merriam-Webster The meaning of SUSTAINABLE is capable of being sustained. How to use sustainable in a sentence

Sustainability - Wikipedia UNESCO distinguishes the two like this: " Sustainability is often thought of as a long-term goal (i.e. a more sustainable world), while sustainable development refers to the many processes

Sustainability: What It Is, How It Works, Benefits, and Example In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In business and policy contexts, sustainability seeks to

Explainer: What Is Sustainability and Why Is It Important? The term 'sustainable' is used all around us, from food packaging to clothing companies. But what is sustainability and why is it important?

THE 17 GOALS | Sustainable Development At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership

SUSTAINABLE | English meaning - Cambridge Dictionary SUSTAINABLE definition: 1. able to continue over a period of time: 2. causing, or made in a way that causes, little or no. Learn more

Sustainable development | Definition, Goals, Origins, Three Pillars 5 days ago Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human

Sustainability: Definition and Meaning of Sustainability Explore the definition and deeper meaning of sustainability, a crucial principle for meeting present needs without compromising future generations. Understand its impact on environmental

What is Sustainability? | UCLA Sustainability The most often quoted definition comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present

What Is & Importance of Sustainability for a Green Future Discover the importance of sustainability, its history and three pillars. Explore green careers and environmental science's role in a sustainable future

SUSTAINABLE Definition & Meaning - Merriam-Webster The meaning of SUSTAINABLE is capable of being sustained. How to use sustainable in a sentence

Sustainability - Wikipedia UNESCO distinguishes the two like this: " Sustainability is often thought of as a long-term goal (i.e. a more sustainable world), while sustainable development refers to the many processes

Sustainability: What It Is, How It Works, Benefits, and Example In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In business and policy contexts, sustainability seeks to

Explainer: What Is Sustainability and Why Is It Important? The term 'sustainable' is used all around us, from food packaging to clothing companies. But what is sustainability and why is it important?

THE 17 GOALS | Sustainable Development At its heart are the 17 Sustainable Development

Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership

SUSTAINABLE | English meaning - Cambridge Dictionary SUSTAINABLE definition: 1. able to continue over a period of time: 2. causing, or made in a way that causes, little or no. Learn more

Sustainable development | Definition, Goals, Origins, Three Pillars 5 days ago Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human

Sustainability: Definition and Meaning of Sustainability Explore the definition and deeper meaning of sustainability, a crucial principle for meeting present needs without compromising future generations. Understand its impact on environmental

What is Sustainability? | UCLA Sustainability The most often quoted definition comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present

What Is & Importance of Sustainability for a Green Future Discover the importance of sustainability, its history and three pillars. Explore green careers and environmental science's role in a sustainable future

Back to Home: <https://www-01.massdevelopment.com>