



## EDUCATION FOR SUSTAINABLE DEVELOPMENT IN PHYSICAL EDUCATION

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### Abstract:

*Sustainable development is an organizing principle that aims to meet human development goals while also enabling natural systems to provide necessary natural resources and ecosystem services to humans. Sustainable development is defined as “a constraint upon present consumption in order to ensure that future generations will inherit a resource base that is no less than the inheritance of the previous generation.” The Sustainable Development Goals (SDGs) or Global Goals are a collection of seventeen interlinked objectives designed to serve as a “shared blueprint for peace and prosperity for people and the planet, now and into the future. Finally, education for sustainable development can help to shape our future. With the continuous support from government, appropriate laws, responsible action by society will together serve and alleviate the major global crises that we face today.*

**Key Words :** *Sustainable Development, Physical Educaiton, Goals and targets of Sustainable Development.*

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### Introduction:

Education for sustainable development (ESD) is an approach to education that promotes the integration of economic, social, and environmental perspectives in teaching and learning. Sustainable development is an organizing principle that aims to meet human development goals while also enabling natural systems to provide necessary natural resources and ecosystem services to humans. The role of education in shaping responsible and eco-conscious citizens is now more critical than ever, as sustainable development goes beyond the confines of textbooks and traditional classrooms.

Sustainable development is defined as “a constraint upon present consumption in order to ensure that future generations will inherit a resource base that is no less than the inheritance of the previous generation.”

### Importance of physical education in India:

Physical education provides an outlet for students to release stress and tension accumulated throughout the day. This is another need and importance of physical education. Engaging in physical activities, such as sports or exercise, helps to reduce anxiety and promote relaxation.

### Role of physical education in development:

Regular physical exercise will keep their mind at rest and help them focus on studies as well as sports. They'll be mentally and physically fit. One of the important benefits of physical education is that students will have a good quality of sleep.

### Aim of physical education:

The main objectives of physical education are to: develop motor abilities like strength, speed, endurance, coordination, flexibility, agility and balance, as they are

important aspects for good performance in different games and sports.

#### **Components of physical education:**

There are five components of physical fitness: (1) body composition, (2) flexibility, (3) muscular strength, (4) muscular endurance, and (5) cardiorespiratory endurance. A well-balanced exercise program should include activities that address all of the health-related components of fitness.

#### **The objectives of physical education :**

- Physical Development.
- Mental Development.
- Social Development.
- Emotional Development.
- Neuro-muscular coordination.
- Development of health.

#### **Why is physical education important in schools?**

Regular physical activity can improve cardiorespiratory fitness, build strong bones and muscles, control weight, reduce symptoms of anxiety and depression, reduce the risk of developing health conditions, and promote general health and mental health.

#### **Why is physical education important in modern society?**

Physical education makes the immunity of our body stronger and so makes body more beautiful. Man's body develops very naturally from the prenatal stage to the old age. When this natural development is accompanied with some physical exercises it improves the energy level of the body.

#### **Principle of physical education :**

An effective physical education program should include engaging lessons, trained P.E. teachers, adequate instructional periods, and student evaluation. Physical education should include instruction that helps students develop physical skills and confidence.

**Sustainable Development Goals:** The Sustainable Development Goals (SDGs) or Global Goals are a

collection of seventeen interlinked objectives designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future." The short titles of the 17 SDGs are: No poverty (SDG 1), Zero hunger (SDG 2), Good health and well-being (SDG 3), Quality education (SDG 4), Gender equality (SDG 5), Clean water and sanitation (SDG 6), Affordable and clean energy (SDG 7), Decent work and economic growth (SDG 8), Industry, innovation and infrastructure (SDG 9), Reduced inequalities (SDG 10), Sustainable cities and communities (SDG 11), Responsible consumption and production (SDG 12), Climate action (SDG 13), Life below water (SDG 14), Life on land (SDG 15), Peace, justice, and strong institutions (SDG 16), and Partnerships for the goals (SDG 17).

The Sustainable Development Goals (SDGs) emphasize the interconnected environmental, social and economic aspects of sustainable development by putting sustainability at their center.

#### **17 GOALS WITH THEIR TARGETS AND INDICATORS**

##### **Goal 1: No poverty :**

The goal has seven targets and 13 indicators to measure progress. The five *outcome targets* are: eradication of extreme poverty; reduction of all poverty by half; implementation of social protection systems; ensuring equal rights to ownership, basic services, technology and economic resources; and the building of resilience to environmental, economic and social disasters. The two targets related to *means of implementation* SDG 1 are mobilization of resources to end poverty; and the establishment of poverty eradication policy frameworks at all levels.

##### **Goal 2: Zero hunger (No hunger)**

SDG 2 has eight targets and 14 indicators to measure progress. The five *outcome targets* are: ending hunger and improving access to food; ending all forms of malnutrition; agricultural productivity; sustainable

food production systems and resilient agricultural practices; and genetic diversity of seeds, cultivated plants and farmed and domesticated animals; investments, research and technology. The three *means of implementation targets* include: addressing trade restrictions and distortions in world agricultural markets and food commodity markets and their derivatives.

### Goal 3: Good health and well-being

SDG 3 has 13 targets and 28 indicators to measure progress toward targets. The first nine targets are *outcome targets*:

- reducing maternal mortality
- ending all preventable deaths under five years of age
- fighting communicable diseases
- reducing mortality from non-communicable diseases and promoting mental health
- preventing and treating substance abuse
- reducing road injuries and deaths
- granting universal access to sexual and reproductive care, family planning and education
- achieving universal health coverage
- reducing illnesses and deaths from hazardous chemicals and pollution.
- implementing the WHO Framework Convention on Tobacco Control
- supporting research, development, and universal access to affordable vaccines and medicines
- increasing health financing and support the health workforce in developing countries
- improving early warning systems for global health risks.<sup>[40]</sup>

### Goal 4: Quality education

SDG 4 has ten targets which are measured by 11 indicators. The seven *outcome targets* are: free primary and secondary education; equal access to quality pre-

primary education; affordable technical, vocational and higher education; increased number of people with relevant skills for financial success; elimination of all discrimination in education; universal literacy and numeracy; and education for sustainable development and global citizenship. The three *means of implementation targets* are: build and upgrade inclusive and safe schools; expand higher education scholarships for developing countries; and increase the supply of qualified teachers in developing countries.

### Goal 5: Gender equality

The three *means of implementation targets* are:

- fostering equal rights to economic resources, property ownership, and financial services for women
- promoting empowerment of women through technology
- adopting and strengthening policies for gender equality, and supporting legislation to enforce it.

### Goal 6: Clean water and sanitation

The six *outcome targets* include: Provide safe and affordable drinking water, end open defecation and provide access to sanitation, and hygiene, improve water quality, wastewater treatment and safe reuse, increase water-use efficiency and ensure freshwater supplies, implement IWRM, protect and restore water-related ecosystems. The two *means of implementing these targets* are to expand water and sanitation support to developing countries, and to support local engagement in water and sanitation management.

### Goal 7: Affordable and clean energy

The goal has five targets to be achieved by 2030. Progress towards the targets is measured by six indicators. Three out of the five targets are *outcome targets*: Universal access to modern energy; increase global percentage of renewable energy; double the improvement in energy efficiency. The remaining two targets are *means of implementation targets*: to



promote access to research, technology and investments in clean energy; and expand and upgrade energy services for developing countries. In other words, these targets include access to affordable and reliable energy while increasing the share of renewable energy in the global energy mix. They also focus on improving energy efficiency, international cooperation and investment in clean energy infrastructure.

#### **Goal 8: Decent work and economic growth**

SDG 8 has twelve targets in total to be achieved by 2030. Some targets are for 2030; others are for 2020. The first ten are *outcome targets*. These are; "sustainable economic growth; diversify, innovate and upgrade for economic productivity", "promote policies to support job creation and growing enterprises", "improve resource efficiency in consumption and production", 'full employment and decent work with equal pay', 'promote youth employment, education and training', 'end modern slavery, trafficking, and child labour', 'protect labour rights and promote safe working environments', 'promote beneficial and sustainable tourism', universal access to banking, insurance and financial services. In addition, there are also two targets for *means of implementation*, which are: Increase aid for trade support; develop a global youth employment strategy.

#### **Goal 9: Industry, Innovation and Infrastructure**

SDG 9 has eight targets, and progress is measured by twelve indicators. The first five targets are *outcome targets*: develop sustainable, resilient and inclusive infrastructures; promote inclusive and sustainable industrialization; increase access to financial services and markets; upgrade all industries and infrastructures for sustainability; enhance research and upgrade industrial technologies. The remaining three targets are *means of implementation targets*: Facilitate sustainable infrastructure development for developing countries; support domestic technology development and

industrial diversification; universal access to information and communications technology.

#### **Goal 10: Reduced inequality**

The Goal has ten targets to be achieved by 2030. Progress towards targets will be measured by indicators. The first seven targets are *outcome targets*: Reduce income inequalities; promote universal social, economic and political inclusion; ensure equal opportunities and end discrimination; adopt fiscal and social policies that promotes equality; improved regulation of global financial markets and institutions; enhanced representation for developing countries in financial institutions; responsible and well-managed migration policies. The other three targets are *means of implementation targets*: Special and differential treatment for developing countries; encourage development assistance and investment in least developed countries; reduce transaction costs for migrant remittances.

#### **Goal 11: Sustainable cities and communities**

SDG 11 has 10 targets to be achieved, and this is being measured with 15 indicators. The seven *outcome targets* include safe and affordable housing, affordable and sustainable transport systems, inclusive and sustainable urbanization, protection of the world's cultural and natural heritage, reduction of the adverse effects of natural disasters, reduction of the environmental impacts of cities and to provide access to safe and inclusive green and public spaces. The three *means of implementation targets* include strong national and regional development planning, implementing policies for inclusion, resource efficiency, and disaster risk reduction in supporting the least developed countries in sustainable and resilient building.

#### **Goal 12: Responsible consumption and production**

Sustainable Development Goal 12 has 11 targets. The first 8 are *outcome targets*, which are: implement the 10-Year Framework of Programs on Sustainable

Consumption and Production Patterns; achieve the sustainable management and efficient use of natural resources; reducing by half the per capita global food waste at the retail and consumer levels and the reduction of food losses along production and supply chains, including post-harvest losses; achieving the environmentally sound management of chemicals and all wastes throughout their life cycle; reducing waste generation through prevention, reduction, recycling and reuse; encourage companies to adopt sustainable practices; promote public procurement practices that are sustainable; and ensure that people everywhere have the relevant information and awareness for sustainable development. The three *means of implementation targets* are: support developing countries to strengthen their scientific and technological capacity; develop and implement tools to monitor sustainable development impacts; and remove market distortions, like fossil fuel subsidies, that encourage wasteful consumption.

### Goal 13: Climate action

SDG 13 has five targets which are to be achieved by 2030. They cover a wide range of issues surrounding climate action. The first three targets are *outcome targets*: Strengthen resilience and adaptive capacity to climate-related disasters; integrate climate change measures into policies and planning; build knowledge and capacity to meet climate change. The remaining two targets are *means of implementation targets*: To implement the UN Framework Convention on Climate Change (UNFCCC), and to promote mechanisms to raise capacity for planning and management. Along with each target, there are indicators that provide a method to review the overall progress of each target. The UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change.

### Goal 14: Life below water

The first seven targets are *outcome targets*: Reduce marine pollution; protect and restore ecosystems; reduce ocean acidification; sustainable fishing; conserve coastal and marine areas; end subsidies contributing to overfishing; increase the economic benefits from sustainable use of marine resources. The last three targets are *means of implementation targets*: To increase scientific knowledge, research and technology for ocean health; support small scale fishers; implement and enforce international sea law. One indicator (14.1.1b) under Goal 14 specifically relates to reducing impacts from marine plastic pollution.

### Goal 15: Life on land

The nine *outcome targets* include: Conserve and restore terrestrial and freshwater ecosystems; end deforestation and restore degraded forests; end desertification and restore degraded land; ensure conservation of mountain ecosystems, protect biodiversity and natural habitats; protect access to genetic resources and fair sharing of the benefits; eliminate poaching and trafficking of protected species; prevent invasive alien species on land and in water ecosystems; and integrate ecosystem and biodiversity in governmental planning. The three *means of implementation targets* include: Increase financial resources to conserve and sustainably use ecosystem and biodiversity; finance and incentivize sustainable forest management; combat global poaching and trafficking.

### Goal 16: Peace, justice and strong institutions

SDG 16 has ten *outcome targets*: Reduce violence; protect children from abuse, exploitation, trafficking and violence; promote the rule of law and ensure equal access to justice; combat organized crime and illicit financial and arms flows, substantially reduce corruption and bribery; develop effective, accountable and transparent institutions; ensure responsive,

inclusive and representative decision-making; strengthen the participation in global governance; provide universal legal identity; ensure public access to information and protect fundamental freedoms. There are also two *means of implementation targets*: Strengthen national institutions to prevent violence and combat crime and terrorism; promote and enforce non-discriminatory laws and policies.

### **Goal 17: Partnership for the goals**

SDG 17 is a vision for improved and more equitable trade, as well as coordinated investment initiatives to promote sustainable development across borders. It is about strengthening and streamlining cooperation between nation-states, both developed and developing, using the SDGs as a shared framework and a shared vision for defining that collaborative way forward. It seeks to promote international trade and an equitable trading system. The Goal has 17 targets to be achieved by 2030, broken down into five categories: finance, technology, capacity building, trade and systemic issues. Progress towards targets will be measured by 25 indicators. All these targets are regarded as *means of implementation targets*.

### **Challenges :**

#### **Difficulties with tracking qualitative indicators**

Regarding the targets of the SDGs, there is generally weak evidence linking the means of implementation to outcomes.<sup>[25]</sup> The targets about means of implementation (those denoted with a letter, for example, Target 6.a) are imperfectly conceptualized and inconsistently formulated, and tracking their largely qualitative indicators will be difficult.

#### **Trade-offs not explicitly addressed**

The trade-offs among the 17 SDGs might prevent their realization. The SDGs do not specifically address the tensions between economic growth and environmental sustainability. Instead, they emphasize "longstanding but dubious claims about decoupling and resource

efficiency as technological solutions to the environmental crisis."

### **Covid-19 pandemic:**

The COVID-19 pandemic slowed progress towards achieving the SDGs. At the UN High-level Political Forum on Sustainable Development in July 2023, speakers remarked that the pandemic, and multiple worldwide crises such as climate change, threatened decades of progress on the SDGs.

### **Conclusion:**

In conclusion, sustainable development is a serious issue facing India today. Achieving sustainable development requires a comprehensive and integrated approach that includes education planning as a critical component. Education planning for sustainable development can help promote awareness, empower individuals, and promote sustainable practices.

The program should provide physical activity, exercises and games and respective teaching materials focusing on the thematic topic of climate change, aiming at changing students' individual sustainability behavior. Finally, education for sustainable development can help to shape our future. With the continuous support from government, appropriate laws, responsible action by society will together serve and alleviate the major global crises that we face today.

### **References :**

- "The 17 Goals". *Sustainable Development Goals*. UN. Retrieved 10 August 2022.
- Schleicher, Judith; Schaafsma, Marije; Vira, Bhaskar (2018). "Will the Sustainable Development Goals address the links between poverty and the natural environment?". *Current Opinion in Environmental Sustainability*. **34**: 43–47. *Bibcode*:2018COES...34...43S. *doi*:10.1016/j.cosust.2018.09.004.
- "SDG Tracker". *Our World in Data*. Retrieved 6 August 2020.



"Breakdown of U.N. Sustainable Development Goals".  
*The New York Times. 25 September 2015.*

*Archived from the original on 9 July 2017.*  
Retrieved 26 September 2015.

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