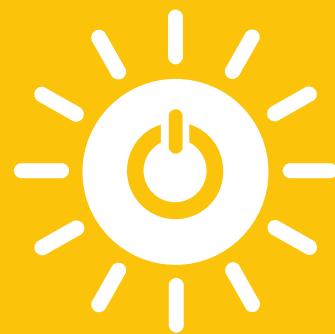


SDG HANDBOOK

7 AFFORDABLE AND CLEAN ENERGY



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TABLE OF CONTENT

• SDG 1 - Overview	1
• Understanding the concept	2
• Facts and Figures	3
• Your Title Goes Here	4
• Your Title Goes Here	5
• Your Title Goes Here	6
Attachment	7



SDG 7: AFFORDABLE AND CLEAN ENERGY

OVERVIEW

Sustainable Development Goal 7, a pivotal component of the United Nations' 2030 Agenda for Sustainable Development, is dedicated to ensuring access to affordable, reliable, sustainable, and modern energy for all. Energy is the lifeblood of human civilization, powering our homes, industries, and economies. SDG 7 recognizes that equitable access to clean and affordable energy is not only essential for improving the quality of life for billions of people but also fundamental to achieving numerous other sustainable development goals.

It aims to reduce the environmental impact of energy production and consumption, combat climate change, and mitigate the negative consequences of energy-related pollution.

It acknowledges the importance of clean cooking solutions, electrification of rural areas, and the empowerment of women and marginalized groups through energy access.

In this sustainable Bhava handbook, "Sustainability Begins at Home: Teaching Our Children SDG 7 Through Small Actions," we embark on a journey to educate children about the significance of sustainable energy and inspire them to take meaningful actions within their homes and communities.

Through engaging activities and discussions, we aim to instill in young minds the values of energy conservation, the benefits of renewable energy, and the responsibility we all share in achieving universal energy access.

Our mission is to empower the next generation to become active participants in the global effort to ensure a brighter, cleaner, and more sustainable future for all. With the knowledge and passion instilled in our children, we can collectively work towards SDG 7's vision of universal energy access, cleaner energy production, and a world where no one is left in the dark. Sustainability indeed begins at home, and our children hold the key to a brighter and more sustainable future.

Remember, sustainability truly begins at home!



UNDERSTANDING THE CONCEPT OF SDG 7:

So let's start by first understanding what SDG 7 is.

“

SDG 7 is a pivotal part of the United Nations' 2030 Agenda for Sustainable Development. It revolves around ensuring affordable and clean energy for all, recognizing that energy is a fundamental driver of human progress and an enabler for achieving other sustainable development goals.

”

SDG 7 can manifest in various forms, including:

1.1 Renewable Energy Deployment: It is the increasing adoption of renewable energy sources, including solar, wind, hydro, geothermal, and biomass. These technologies produce clean energy and reduce greenhouse gas emissions.

1.2 Energy Access Projects: SDG 7 is realized through projects aimed at expanding access to energy in underserved and remote areas. This includes initiatives to electrify rural communities, provide off-grid solutions, and enhance energy infrastructure.

1.3 Energy Efficiency Measures: These measures include improving the efficiency of appliances, buildings, industrial processes to reduce energy consumption and waste.



NOW LET'S INCREASE OUR UNDERSTANDING OF SOME KEY DIMENSIONS OF POVERTY:

1.1 Energy Accessibility: This aspect focuses on making energy sources available to everyone, especially in remote and underserved areas. It involves extending power grids, improving energy infrastructure, and ensuring energy reaches even the most isolated communities.

1.2 Affordability: Affordable energy means that the cost of energy doesn't consume a significant portion of a person's income. It aims to prevent energy poverty, where people have to choose between basic necessities and energy bills.

1.3 Clean Energy Sources: Promoting clean energy sources involves transitioning away from fossil fuels (like coal and oil) and embracing renewable energy sources such as solar and wind power. This helps reduce greenhouse gas emissions, combat climate change, and improve air quality.

1.4 Energy Efficiency: Energy efficiency measures ensure that energy is used wisely. This means using technologies and practices that minimize energy waste, such as better-insulated buildings, fuel-efficient vehicles, and smart appliances.

WHAT IS THE RELEVANCE OF SDG 7 IN ENSURING AFFORDABLE AND CLEAN ENERGY, AND WHY ARE WE EVEN DISCUSSING IT?

SDG 7, "Affordable and Clean energy," plays a crucial role in which focuses on ensuring access to affordable and clean energy, is pivotal not only for achieving SDG 7 itself but also for advancing the broader sustainable development agenda.

Here's how:

Health and Well-being: Access to clean cooking solutions and reliable electricity improves public health by reducing indoor air pollution and supporting healthcare facilities. Improved health and well-being are central to SDG 3, which focuses on good health and well-being for all.

Economic Development: Affordable and reliable energy is a catalyst for economic growth. It powers industries, supports job creation, and enhances productivity. Economic growth is a central element of SDG 8, which aims to promote sustained, inclusive, and sustainable economic growth.

Peace and Stability: Access to energy can contribute to peace and stability by addressing underlying socioeconomic grievances and reducing energy-related conflicts. Peaceful societies are essential for achieving many SDGs, including SDG 16, which focuses on peace, justice, and strong institutions.

HERE ARE SOME SALIENT FEATURES OF SDG 1 IN ADDRESSING POVERTY:

Universal Access: SDG 7 aims to ensure universal access to affordable and clean energy. It emphasizes that everyone, regardless of their location or socioeconomic status, should have reliable access to energy for their daily needs.

Renewable Energy: One of the key features is the promotion of renewable energy sources. SDG 7 encourages the adoption of sustainable and clean energy technologies like solar, wind, hydro, and geothermal power to reduce environmental impacts.

Energy Efficiency: Another crucial aspect is energy efficiency. SDG 7 calls for improving energy efficiency across sectors, from industries to households, to reduce energy waste and lower greenhouse gas emissions.

Clean Cooking:** Ensuring clean and safe cooking methods is part of SDG 7. This includes transitioning from traditional biomass and polluting fuels to cleaner alternatives, which can have significant health and environmental benefits.

Global Partnerships: SDG 7 recognizes the need for international cooperation. It encourages collaboration among governments, businesses, civil society, and individuals to advance the sustainable energy agenda.

By understanding the concept of affordable and clean energy, exploring its multi-dimensional aspects, and recognizing the relevance of SDG 7, we can lay a solid foundation for teaching our children about the importance of addressing sdg 7 and inspire them to take action. Let's empower them to be agents of change in creating a more equitable and sustainable world.

GOAL 1 FACTS AND FIGURES

50%

Half of all people living in poverty are under 18

1 in 10

One Person in every 10 person is extremely poor

80%

80% of people living on less than \$1.90

736 M

736 Million people still live in extreme poverty

10%

10% of the world population lives in extreme poverty

1.3 B

Some 1.3 billion people live in multidimensional poverty



DISCUSSING THE INTERCONNECTIONS BETWEEN SDG 7 AND OTHER SDGS:

Affordable and clean energy is interconnected with various other Sustainable Development Goals (SDGs), and progress in SDG 7 has a ripple effect on achieving other goals. Let's explore some of these interconnections:

3 GOOD HEALTH AND WELL-BEING



SDG 3: GOOD HEALTH AND WELL-BEING:

Access to clean energy is essential for powering healthcare facilities, refrigerating vaccines, and ensuring proper sanitation. SDG 7 contributes to improved health outcomes and healthcare delivery.

4 QUALITY EDUCATION



SDG 4: QUALITY EDUCATION:

Reliable energy sources are crucial for providing quality education. They enable well-lit classrooms, access to digital resources, and educational infrastructure, supporting the goals of SDG 4.

5 GENDER EQUALITY



SDG 5: GENDER EQUALITY:

SDG 7 can reduce the burden of time-consuming and physically demanding household tasks, primarily borne by women and girls in many communities. This can empower women, promote SDG 5 , and provide opportunities for women to engage in other activities, including education and income-generating work.

8 DECENT WORK AND ECONOMIC GROWTH



SDG 8: Decent Work and Economic Growth:

Affordable and clean energy is a driver of economic growth. It supports the development of sustainable industries and job creation, aligning with the objectives of SDG 8.

COMPONENT 2: INSPIRATION

INSPIRING STORIES OF INDIVIDUALS AND COMMUNITIES ADVANCING SDG 7 IN INDIA:



STORY 1

THE SOLAR WOMEN OF DHARNAI VILLAGE

In Dharnai, a remote village in Bihar, India, access to electricity was a distant dream for decades. The lack of reliable energy sources hindered economic development and educational opportunities for the community. However, change arrived in the form of a group of determined women.

Led by **Manju Devi**, these women initiated the "Solar Gram Yojana" project, which aimed to bring affordable and clean energy to Dharnai. With support from NGOs and the local government, they installed a solar microgrid, providing electricity to homes, schools, and businesses. This transformation not only improved the villagers' lives but also fostered women's leadership and empowerment.

STORY 2

The Barefoot College and Solar Grandmothers



In Tilonia, Rajasthan, a unique initiative known as the Barefoot College has been transforming lives for decades. This institution trains grandmothers from rural and marginalized communities, often illiterate, to become solar engineers. These "**Solar Grandmothers**" return to their villages with the knowledge and skills to install, repair, and maintain solar electrification systems.

The impact of this initiative goes beyond providing clean energy; it also addresses gender equality by empowering elderly women in roles traditionally reserved for men. Solar Grandmothers have brought electricity to countless remote villages across India, positively impacting education, healthcare, and economic development.

KEY TAKEAWAYS FROM THESE INSPIRATIONAL STORIES:

Local Empowerment

Local communities have the potential to drive change and improve their own lives. Empowering individuals at the grassroots level can lead to impactful solutions.

Inclusivity

Inclusive development ensures that no one is left behind. Access to clean and affordable energy should be extended to marginalized and remote communities to foster equity and progress.

Gender Equality

Gender equality is not only a social goal but a crucial component of sustainable development. These stories demonstrate how empowering women and challenging traditional gender roles can lead to transformative change.

Collaborative Efforts

These stories underscore the importance of collaboration among government bodies, NGOs, and local communities. Collective efforts can achieve remarkable results and make sustainable development goals attainable.

Skill Development

Building skills and knowledge within communities is essential for the successful adoption of sustainable energy solutions. Education and training empower individuals to become agents of change.

Take Action

Remember, every action, no matter how small, contributes to the collective effort to end poverty and creating a more equitable world. Be inspired, take action, and make a lasting impact on the lives of others.

SUCCESSFUL INITIATIVES WORKING TOWARDS POVERTY REDUCTION IN INDIA:

1. PRADHAN MANTRI UJJWALA YOJANA (PMUY):

Pradhan Mantri Ujjwala Yojana, launched in 2016, is a transformative initiative aimed at ensuring clean cooking energy access for women below the poverty line. It addresses both energy poverty and health concerns by providing free LPG (liquefied petroleum gas) connections to poor households. The scheme not only promotes clean and safe cooking practices but also reduces the adverse health effects caused by traditional solid fuel use. PMUY has positively impacted the lives of millions of women and their families by improving indoor air quality, reducing drudgery, and empowering women with cleaner and more efficient cooking options.

2. RURAL ELECTRIFICATION THROUGH THE DEEN DAYAL UPADHYAYA GRAM JYOTI YOJANA (DDUGJY):

The Deen Dayal Upadhyaya Gram Jyoti Yojana, launched in 2015, is a comprehensive rural electrification program. It focuses on bringing reliable and affordable electricity to rural households and strengthening the distribution infrastructure. By connecting remote villages to the power grid and providing last-mile connectivity, DDUGJY has transformed rural life. It has enabled better access to education, improved healthcare services, and increased economic opportunities. The initiative has not only illuminated homes but also empowered communities to lead more productive and connected lives.

3. SOLAR ROOFTOP SYSTEMS FOR SUSTAINABLE ENERGY GENERATION:

India's Solar Rooftop Program is driving the adoption of renewable energy at the grassroots level. It encourages households, industries, and commercial establishments to install solar panels on rooftops to generate clean and sustainable energy. By generating their electricity, consumers reduce their reliance on conventional power sources and lower their energy bills. This initiative aligns with India's commitment to SDG 7 by promoting the use of renewable energy sources and reducing greenhouse gas emissions.

KEY TAKEAWAYS FROM THESE SUCCESSFUL INITIATIVES:

- 1. Enhanced Quality of Life:** Rural electrification and solar rooftop systems have improved the overall quality of life for millions by providing access to modern amenities, such as lighting, refrigeration, and communication devices.
- 2. Environmental Sustainability:** Solar rooftop systems contribute to environmental sustainability by reducing carbon emissions and reliance on fossil fuels.
- 3. Economic Development:** The availability of reliable energy sources drives economic development by enabling income-generating activities and promoting local businesses.
- 4. Community Empowerment:** These initiatives empower individuals and communities to take control of their energy needs, leading to a sense of ownership and self-reliance.

Activity: Poverty Simulation

"WALK IN THEIR SHOES"

OBJECTIVE

The "Walk in Their Shoes" poverty simulation activity aims to help children experience simulated scenarios of limited resources, inequality, and challenges faced by individuals living in poverty. By participating in this fun and interactive game, children will develop empathy, critical thinking, and a deeper understanding of poverty-related issues.



MATERIALS REQUIRED:

1. Different colored wristbands or stickers to represent different economic groups (e.g., green for high-income, yellow for middle-income, red for low-income, and blue for extremely low-income).
2. Several stations set up around the activity area, each representing different aspects of life, such as food, education, healthcare, housing, and employment.
3. Props and signs to represent various resources and challenges (e.g., play money, empty plates, schoolbooks, medical kits, and cardboard boxes for shelter).

Instructions —

1. Divide the children into different economic groups by giving them colored wristbands or stickers. Explain that each group will face different challenges based on their assigned economic status.
2. Set up the stations around the activity area, with each station representing a different aspect of life affected by poverty. For example:
 - a. Food Station: Provide limited food options and portion sizes to low-income groups, while high-income groups have access to a variety of nutritious meals.
 - b. Education Station: Low-income groups may have limited access to school supplies or face difficulties attending school, while high-income groups have all the necessary resources.
 - c. Healthcare Station: Low-income groups may have long waiting times or limited access to medical care, while high-income groups have prompt and comprehensive healthcare services.
 - d. Employment Station: Low-income groups may face limited job opportunities or lower-paying jobs, while high-income groups have more career options and higher salaries.
3. Instruct each group to rotate through the stations and experience the challenges and limitations faced by their assigned economic status. Encourage them to interact with the props and signs at each station to simulate real-life situations.
4. After the activity, gather all the children together for a group discussion. Ask them questions such as:
Q: How did you feel during the simulation? What challenges did you face?
Q: Did you notice any inequalities or disparities between the economic groups?
Q: What difficulties do people living in poverty encounter in their daily lives?
Q: How can we, as individuals and a community, work together to address poverty-related issues and create a more equitable society?

"WALK IN THEIR SHOES"



Outcome:

The "Walk in Their Shoes" poverty simulation activity will help children empathize with the difficulties faced by individuals living in poverty. It encourages critical thinking about poverty-related issues and promotes discussions on social justice, inequality, and the importance of supporting those in need. By experiencing these simulated scenarios, children will gain a deeper understanding of the impact of poverty and be inspired to take compassionate actions towards building a more inclusive and empathetic community.

Conclusion:

Congratulations on completing the "Sustainability Begins at Home: Teaching Our Children SDG 1 through Small Actions" handbook! Throughout this guide, we have explored the significance of Sustainable Development Goal 1 (SDG 1) - No Poverty, and discovered ways to inspire our children to take action in addressing poverty. Let's recap the key takeaways from our journey:

Understanding Poverty: We delved into the multidimensional aspects of poverty, recognizing that it extends beyond income and encompasses education, health, social inclusion, and environmental factors. Poverty eradication is essential for promoting human rights, socio-economic development, peace, and stability.

The Power of Small Actions: We learned that even small actions can make a difference. By engaging in activities, promoting empathy and compassion, and supporting local initiatives, we can contribute to poverty reduction efforts.

Interconnections with Other SDGs: We explored the interconnections between SDG 1 and other Sustainable Development Goals. Poverty is intertwined with hunger, health, education, gender equality, and more. Progress in SDG 1 positively influences the achievement of other goals.

Inspiring Examples: We were inspired by stories of individuals and communities who have combated poverty and successful initiatives in poverty reduction. Their experiences demonstrate the power of resilience, innovation, and collective action.

INSPIRATION FOR TAKING ACTION:

By applying the knowledge gained from this handbook, we can make a inspire action in addressing SDG 7. Let us encourage our children to be empathetic, compassionate, and socially responsible individuals. Together, we can:

- 1. Raise Awareness:** Encourage your children to learn and talk about the importance of affordable and clean energy, both at home and in their communities. Knowledge is the first step toward change.
- 2. Volunteer:** Look for volunteering opportunities related to clean energy and sustainable development. Engaging in hands-on activities can be both educational and impactful.
- 3. Green Education:** Support educational programs that teach children about renewable energy, climate change, and the importance of sustainability. Attend workshops and seminars as a family.
- 4. Sustainable Philanthropy:** Support initiatives that focus on sustainable development and long-term impact rather than quick fixes.
- 5. Advocate for Sustainability:** Inspire your children to be advocates for sustainability. Encourage them to participate in school or community initiatives that promote clean energy and environmental responsibility.

Remember, every action, no matter how small, contributes to the collective effort to ensure affordable and clean energy and creating a more equitable world. Be inspired, take action, and make a lasting impact on the lives of others.

Additional Resources

RECOMMENDED BOOKS, FILMS, AND WEBSITES FOR FURTHER EXPLORATION OF SDG 7:

BOOKS

"Energy and Civilization: A History"
by Vaclav Smil

"The Grid: The Fraying Wires Between Americans and Our Energy Future"
by Gretchen Bakke

"Energy for Future Presidents: The Science Behind the Headlines"
by Richard A. Muller

"Powering the Dream: The History and Promise of Green Technology"
by Alexis Madrigal

"The Quest: Energy, Security, and the Remaking of the Modern World"
by Daniel Yergin

FILMS

"Before the Flood" (2016) - A documentary featuring Leonardo DiCaprio as he explores the effects of climate change and advocates for sustainable energy solutions.

"An Inconvenient Truth" (2006) - Former U.S. Vice President Al Gore presents the science and consequences of climate change.

"Waste Land" (2010) - Follows artist Vik Muniz as he works with Brazilian landfill pickers to create art from recycled materials while highlighting issues of waste and poverty.

"The True Cost" (2015) - Explores the social and environmental impacts of the fashion industry, including its energy consumption and exploitation of workers.

"Chasing Ice" (2012) - Documents the work of photographer James Balog as he captures the dramatic effects of climate change on glaciers and ice formations.

LEARN MORE HERE

International Energy Agency (IEA) - Provides data, analysis, and reports on global energy trends, policies, and technologies.

Renewable Energy World - A valuable resource for news, articles, and information on renewable energy sources and technologies.

SE4All (Sustainable Energy for All) - Focuses on efforts to ensure universal access to sustainable energy and promotes energy efficiency and renewable energy.

Clean Energy Ministerial - An international platform for collaboration among governments and stakeholders to advance clean energy.

Global Alliance for Clean Cookstoves - Works to improve access to clean cooking solutions, reducing the health and environmental impacts of traditional cooking methods.

Now, it is time for us to take action.

Remember, sustainability begins at home, and our actions, no matter how small, have the power to create lasting change.

As we conclude this handbook, we invite you to explore other Sustainable Development Goals and continue your journey towards sustainability. Each goal is interconnected and contributes to creating a better world for present and future generations.

Thank you for joining us on this inspiring journey of teaching our children about SDG 7. Let's continue our efforts to foster a sustainable Bhava (consciousness) and contribute towards building a world where no one lives in poverty.

**Take the knowledge gained here and make a difference.
Sustainable Bhava starts with us!**

To learn more about sustainable living and other Sustainable Development Goals, visit sustainablebhava.org and continue your journey towards a more sustainable future. Let's create a world of equality, justice, and opportunity for all together



About Us

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