BLOCK 4

SUSTAINABLE DEVELOPMENT: A WAY FORWARD

UNIT 11   ROLE OF POLICY INNOVATIONS IN SUSTAINABLE DEVELOPMENT*

Structure

11.0   OBJECTIVES

After reading this Unit, you should be able to:

*   Discuss the basic concept of sustainable development;

*   Examine the goals of sustainable development; and

*   Describe the effectiveness of policies for sustainable development.

11.1   INTRODUCTION

By now we are well familiar with the term sustainable development. Just to reiterate what we have stated in our earlier Units, the concept of sustainable development is based on the concept of development (socio-economic development in line with ecological constraints), the concept of *needs* (redistribution of resources to ensure the quality of life for all) and the concept of *future* generations (the possibility of long-term usage of resources to ensure the necessary quality of life for future generations). The essence of the concept of sustainable development is based on the balance between three pillars of sustainability – *environmental sustainability,* focused on maintaining the quality of the environment, which is necessary for conducting the economic activities and quality of life of people, *social sustainability* which strives to ensure human rights and equality, preservation of cultural identity, respect for cultural diversity, race and religion, and *economic sustainability* necessary to maintain the natural, social and human capital required for income and living standards.

Complete sustainable development is achieved through a balance between all these pillars, however, the required condition is not easy to achieve, because in the process of achieving its goals, each pillar of sustainability must respect the interests of other pillars so that a situation of imbalance is averted. So, while a certain pillar of sustainable development becomes sustainable, others can become

---

* Contributed by Dr. Nivedita Sharma, Assistant Professor, Council for Social Development, New Delhi

unsustainable, especially when it comes to ecological sustainability, on which depends the overall capacity of development.

In other words, sustainable development can be interpreted in economic terms as "development that lasts" – i.e., a path along which the maximisation of human well-being for today's generations does not lead to a decline in the future well-being. The interaction between economic growth and the natural environment that supports it lies at the core of sustainable development. Economic growth contributes to higher levels of human well-being, and provides the resources to address a range of environmental objectives. However, economic growth can also lead to excessive degradation of environmental and natural resources; when incentives to their use are inappropriate and external effects are not internalised.

Historically, economic growth has meant transforming much of the stocks of natural resources of the society into other forms of capital. Today, maintaining functional ecosystems that can support economic and social development is recognised as crucial for development to last, especially when no substitutes are available. The prospect of increased competition for scarce resources, and of greater pressures on the environment that would follow from the extension of these consumption patterns to the world population, underscores the importance of achieving more sustainable patterns of consumption world-wide.

The concept of sustainable development is the result of the growing awareness of the global links between mounting environmental problems, the socio-economic issues related to poverty and inequality; and the concerns about a healthy future for humanity. It strongly links environmental and socio-economic issues. The first important use of the term was in 1980 in the World Conservation Strategy. The World Commission on Environment and Development (WCED), as it was formally called, sought to draw the world's attention to "the accelerating deterioration of the human environment and natural resources, and the consequences of that deterioration for economic and social development". In establishing the Commission, the UN General Assembly explicitly drew attention to two important ideas: *One*, that the well-being of the environment, of economies and of people is inextricably linked and *two* that sustainable development involves cooperation on a global scale.

11.2 GOALS OF SUSTAINABLE DEVELOPMENT

We have already talked about the Sustainable Development Goals or SDGs in Unit 4 of this Course, let us discuss some of them once again only to recapitulate. The *three* primary goals of sustainable development are to:

- Minimise the depletion of natural resources when creating new developments;

- Create development that can be maintained and sustained without causing further harm to the environment; and

- Provide methods for retrofitting existing developments to transform them into environment friendly facilities and projects.

Global organisations such as United Nations, NGOs, aid organisations and even governments at the national levels are increasingly sponsoring efforts to ensure that the Sustainable Development Goals are realised for every individual across the board. Some other most important SDGs set by these bodies include:

Eradication of poverty across the world

These organisations primarily focus on the least developed and low-income countries where poverty is rife. They aim to eradicate poverty across the board by expanding social protection programmes like feeding at schools, cash transfers, targeted food assistance, social insurance and labour market programmes such as skill training, old age pensions, wage subsidies, unemployment insurance, disability pensions and so on.

Promotion of good health and well-being

This sustainable development goal seeks to ensure good health and well-being for all at each stage of life. The goal takes into account all the main health priorities such as maternal and child health; reproductive health; communicable and non-communicable diseases; universal health coverage; and access to good quality, affordable vaccines and medicines.

Provision of quality education for all

This goal seeks to ensure equitable and inclusive quality education and promotion of long life learning opportunities.

Provision of clean water and sanitation

This SDG aims to address aspects relating to sanitation, hygiene, drinking water; and quality and sustainability of water resources across the globe.

Building up strong infrastructure, supporting inclusive and sustainable industrialisation and incubating innovation

This goal takes into account three aspects of sustainable development: industrialisation, infrastructure, and innovation.

Enabling Access to affordable and clean energy

This SDG focuses on developing and expanding renewable energy resources such as sun, wind, hydropower, liquid and solid biofuels, biogas and geothermal. These renewable sources of energy do not emit Greenhouse Gases to the atmosphere and so are ideal for the environment and human health.

Achieving gender equality

In the past few decades, gender equality and women empowerment have been the agendas for most governments for long-term sustainable development. Access to education for girls has since improved, the percentage of child marriage has plummeted, and huge leaps have been taken in the domain of sexual and reproductive health, and rights such as dramatic increase in maternal health.

Check Your Progress 1

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1. Discuss the meaning of sustainable development.

....

....

....

....

....

2.   Explain the major goals of sustainable development.

....

....

....

....

....

11.3 MAJOR FEATURES OF POLICIES FOR SUSTAINABLE DEVELOPMENT

Long-term planning horizons

In the absence of an adequate framework for assessing the impact of policies on different types of resources, measures targeted at short-term objectives may be selected, even if they have negative long-term impact. While trade-offs between different goals may prevail in the short-term, in the long-term human-made, natural and social capital will complement each other in supporting welfare activities.

Pricing

For markets to support sustainable outcomes, prices should reflect the full costs and benefits of the goods and services being produced for societies. This may require the elimination of incentives to those who over-use natural resources or degrade the environment, and introduction of new incentives to those who endeavour to improve the environment.

Delivery of public goods

Many of the benefits from government interventions needed to promote sustainable development have the characteristics of public goods (basic research, information, health and education). Also, many of these public goods are global, as they benefit several countries (e.g., information on the state of global ecosystems). Effective delivery of these public goods requires overcoming obstacles to coordination through burden-sharing rules that recognise the different responsibilities and response capacities of individual countries.

Cost-effectiveness

Policies should aim at minimising their economic costs. This will require ensuring that the costs of each extra resource spent are equal across the range of possible interventions. Cost-effectiveness allows minimisation of aggregate costs and setting of more ambitious targets in the future.

Environmental-effectiveness

Policies should secure: **i) Regeneration** – i.e., renewable resources should be used efficiently and their use should not be permitted to exceed their long-term rates of natural regeneration; **ii) Substitutability** – i.e., non-renewable resources should be used efficiently, and their use needs to be limited to levels that can be offset by renewable resources or other forms of capital; **iii) Assimilation** – i.e., release of hazardous or polluting substances to the environment should not exceed its assimilative capacity, and concentrations should be kept below the established critical levels necessary for the protection of human health and environment.

When assimilative capacity is effectively zero, then zero release of such substances is required to avoid their accumulation in the environment; and **iv) Avoiding Irreversibility** – i.e., irreversible adverse effects of human activities on ecosystems and on bio-geochemical and hydrological cycles should be avoided. The natural processes capable of maintaining or restoring the integrity of ecosystems should be safeguarded from adverse impacts of human activities. The differing levels of resilience and carrying capacity of ecosystems should be considered, in order to conserve the populations of threatened, endangered and critical species.

Policy integration

Unsustainable practices may result from incoherent policies in different domains. Sectoral policies, in particular, are often introduced without due regard for the externalities being targeted by environmental policies, leading to inconsistencies and spill-over effects. Improving policy coherence requires better integration of economic, environmental, and social goals in different policies.

Precaution

Threats of exceeding critical thresholds in the regenerative capacity of the environment are subject to uncertainty. Accordingly, when designing policies for sustainable development, countries should apply precaution as appropriate in situations, where there is lack of scientific certainty.

International cooperation

With deepening international interdependency, spillovers become more pervasive. A narrow focus on national self-interest is not viable when countries are confronted with a range of environmental and social threats that have global implications.

Transparency and accountability

A participatory approach is important to successfully meeting the challenge of sustainable development, as the criteria for sustainability cannot be defined in purely technical terms. This requires that the process through which decisions are reached is an informed one. It means that process takes into view a range of possible consequences, and is accountable to the public.

11.4 TOWARDS POLICY INNOVATIONS FOR SUSTAINABLE DEVELOPMENT

The current problems of growing inequalities and unsustainable production and consumption patterns are deeply connected with power hierarchies, institutions, culture and politics. Political action and reforms are necessary and can be summarised in the following *nine* clusters:

i)   **Strengthening public finance at all levels**

Widening public policy space requires, among other things, the necessary changes in fiscal policies. In other words, governments have to formulate Sustainable Development Budgets in order to implement the Sustainable Development Goals. Both the revenue (tax policy) and the expenditure (budget policy) sides of fiscal policy must be maintained. Governments can pursue proactive tax policies to resource environmental and social policy goals and simultaneously fulfil their human rights obligations. This includes, for example, taxing the extraction and consumption of non-renewable resources, and adopting forms of progressive taxation that could prioritize the rights and welfare of poor and low-income people (e.g., by emphasising taxation of wealth and assets).

Fiscal policy space can be further broadened by the elimination of corporate tax incentives (including tax holidays in export processing zones), and the phasing out of harmful subsidies, particularly in the areas of industrial agriculture and fishing, fossil fuel and nuclear energy. Military spending should be reduced, and the resource savings reallocated, among others, for civil conflict prevention and peace building. If the priorities are properly defined, fiscal policies can become a powerful instrument to reduce socio-economic inequalities, eliminate discrimination and promote the transition to sustainable production and consumption patterns.

The necessary reforms should not be limited to the national level. The strengthening of public finance is necessary at all levels, including the development of municipal fiscal systems and sufficient financial support for local authorities. In addition, a basic prerequisite for the strengthening of national fiscal systems is the strengthening of global tax cooperation to counter the harmful tax race and various other schemes of tax abuse.

ii)   **Public expenditure for the expansion of productive capacities**

On the expenditure side, the challenges are to identify the priorities and optimal sequencing for the allocation of public finances and to find an appropriate balance among different targets. The social pillar of sustainable development, as reflected in several Sustainable Development Goals, calls for considerable increase in public expenditure to improve public services in health care, general education and social protection. From the perspective of accelerating economic development, increased spending on infrastructure and public support services for productive activities is indispensable.

Even within these categories, spending cannot be increased at the same time for all needs and purposes. In current spending, priority must be given to mitigating the symptoms of extreme poverty. Capital expenditure, which is

vital from the perspective of structural transformation, must focus on infrastructure investment in those areas where the constraints on the expansion of productive capacities are most strongly felt.

Moreover, public procurement can play a key role in the expansion and upgrading of domestic industries and services. Giving public procurement priority to locally produced inputs can make a significant contribution to the development of sectors that are of strategic importance for structural transformation. Finally, different forms of subsidies can be instrumental for building productive capacities and accelerating structural transformation by influencing the cost structure of producers or enabling access to essential inputs.

iii) Better use or creation of new legal instruments

The enormous gap between the promises made by governments in the context of climate change agreements and their actions to date has spurred a new approach to accountability. In the last few years, there has been a significant increase in court cases that seek to challenge the climate change policy of governments. Since 2015, climate change cases that challenge the inadequacy of government climate change policies have been filed in countries including Belgium, Switzerland, New Zealand, UK, Norway, India, Colombia and the USA.

Litigation is also increasingly being used as a tool to enforce the responsibility of corporations, particularly in the fossil fuel industry. With the growing visibility of the impacts of climate change, it can be expected that the number of successful cases will escalate in the coming years, making litigation an increasingly effective tool for advancing action on climate change.

The Human Rights Framework provides another set of tools to hold the governments accountable. With regard to the right to food and nutrition, several voluntary guidelines endorsed by the (Food and Agriculture Organisation (FAO), or the Committee on World Food Security (CWFS) are of great importance, particularly the Voluntary Guidelines on the Right to Adequate Food in the context of National Food Security, the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (Tenure Guidelines), and the Voluntary Guidelines on Securing Sustainable Small-scale Fisheries in the context of Food Security and Poverty Eradication. Their implementation and translation into national policies and sustainability strategies should be further enhanced. The relevance and application of international human rights obligations do not cease at territorial borders. International human rights law implies duties on States to respect, protect and support the fulfilment of all human rights, including economic, social and cultural rights, outside of the territory of a country.

With regard to the human rights responsibilities of companies, there is still a need for a legally binding instrument. The Human Rights Council has taken a milestone decision in establishing an intergovernmental working group to elaborate such an instrument (or 'treaty') to regulate, in international human rights law, the activities of transnational corporations and other business enterprises. Governments should take this 'treaty process' seriously and engage actively in it. Similarly, the UN should develop a regulatory

framework for UN-business interactions. This should set minimum standards for the participation of the UN in global partnerships and for the shape and composition of UN initiatives involving the private sector. These standards should prevent undue corporate influence on UN policies and prevent companies that violate internationally agreed environmental, social and human rights standards or otherwise violate UN principles (via corruption, breaking UN sanctions, lobbying against UN global agreements, evading taxes, etc.) from participation in UN events and from eligibility for UN procurement contracts.

iv) Refining measures and indicators of sustainable development

Almost three years after the adoption of the 2030 Agenda, the indicators to assess progress (or regression) in Sustainable Development Goals or implementation are still being debated. The universality of the SDGs, their comprehensive nature and interconnectedness are challenging for most national statistics offices. There are still enormous data gaps in critical areas such as poverty, climate change, environment, gender, inequality and governance. To date, only 50 of the 169 SDG targets are ready for progress assessment. Over half of the 232 indicators endorsed by members of the UN Statistical Commission lack agreed measurement criteria (68) or sufficient data coverage (66) for regular monitoring or reporting or both. Even worse, less than a third of the data needed for monitoring the gender-specific indicators are currently available. As the monitoring and review process continues, governments have to provide the necessary resources and develop capacities to close these data gaps.

However, exploring adequate SDG indicators is not just a question of resources. The set of indicators with agreed methodology and available data misses most aspects of the proclaimed transformative nature of the SDGs. The SDGs were rightly celebrated as a paradigm shift in how the international community understands sustainable development, by expanding the definition of poverty, including a concern about inequalities, and being universally applicable. But this is not the picture that emerges from the current set of Tier 1 Indicators (SDGs are classified Tier-wise). In particular, the indicators on inequalities within and between countries are absolutely inadequate.

Perhaps it is time to start the other way around, consider the transformational vision of the 2030 Agenda and the fundamental intent of the 17 SDGs and find the best available proxy indicators or indices for those promises in a complementary parallel process to the exhaustive and painfully slow interpretation and data gathering for each of the 169 targets. Such a process could also contribute to the implementation of SDG targets to develop measurements of progress on sustainable development that complement Gross Domestic (GDP) Product and take into account the broad discourse about human rights measurement and alternative measures of well-being.

v) Closing global governance gaps and strengthening the institutional framework for sustainable development

The effectiveness of the required policy reforms in the 2030 Agenda implementation process depends on the existence of strong, well-equipped

public institutions at the national and international levels. As noted, it is essential to reflect the overarching character of the 2030 Agenda and the SDGs in the institutional arrangements of governments and parliaments. Creating more effective and coherent global governance will be a futile exercise if it is not reflected in, and owned by, effective national counterparts. At the global level, the claim to make the UN system 'fit for purpose' requires reforms of existing institutions and the creation of new bodies in areas where governance gaps exist.

Closing these governance gaps requires a commitment to overcome the inequitable distribution, not only of resources but also of access to participation and decision-making. Two key recommendations that are of prime importance and give concrete examples of the kind of institutional reforms that are needed, are first the establishment of an intergovernmental tax body under the auspices of the UN, with the aim of ensuring that all UN Member States can participate equally in the reform of global tax rules; and second, the creation of a Debt Workout Institution within the UN system, independent of creditors and debtors, to facilitate debt restructuring processes.

The implementation of the 2030 Agenda at the global level also requires the provision of predictable and reliable funding to the UN system. In particular, governments should reverse the trend towards voluntary, non-core and earmarked contributions and the increasing reliance on philanthropic funding. This is particularly relevant for the World Health Organisation (WHO). To strengthen the principles, goals and policies for sustainable development and overcome incoherence in the global governance architecture, an effective intergovernmental body for norm-setting, policy coordination and oversight is necessary.

Governments decided in the 2030 Agenda that the High-Level Political Forum (HLPF) under the auspices of the General Assembly and the Economic and Social Council should have the central role in overseeing follow-up and review, provide political leadership, and ensure that the Agenda remains relevant and ambitious. However, compared to other policy arenas, such as the Security Council or the Human Rights Council, the HLPF has remained weak and with only one meeting of eight days a year, thus unable to fulfil its mandate effectively. The HLPF 2019 at the level of heads of State and government, the subsequent review of the HLPF, and the 75th anniversary of the UN 2020 provide new opportunities for strengthening and renewal of the institutional framework for sustainable development in the UN.

There is no need to wait for a global consensus of all governments (which is nearly impossible to reach in the current geo-political climate) to start implementing the political and institutional reforms that we have described in many areas. There is sufficient space to shape policies at the national or even sub-national level, or to start initiatives of like-minded countries within the institutional framework of the UN. Apart from that, fundamental policy changes depend on changes of the dominant discourses and mindsets, which cannot be ordered from above. The transformation of our world as proclaimed in the title of the 2030 Agenda has to happen simultaneously at all levels, from local action to global governance reforms, and by all social actors.

This is the major challenge, but also a formidable opportunity provided by the 2030 process.

vi) Creating better infrastructure

Specific infrastructure needs differ considerably across countries, depending on geographical characteristics. Yet, in all least developed countries (LDCs), meeting the SDGs requires considerable investment in social infrastructure that has a direct impact on the well-being of the population, such as health, water, sanitation utilities, public transport and education. Partly overlapping with these are "transformational" investments in the economic infrastructure, which are indispensable for achieving the SDGs because they enable and motivate private investment in productive capacities.

Such transformational infrastructure investments include, for example, electric power, telecommunications, transport and logistics facilities. Transformational infrastructure investment is an indispensable complement to private investment to support the process of structural transformation. In the rural areas, infrastructure investment is often even more important for human development and facilitating diversification than it is in urban areas.

vii) Scientific and technological development and innovation

Science, Technology and Innovation (STI) policies are closely related to industrial policy, but they are also relevant for environmentally sound productivity growth in agriculture, development of modern services and meeting the challenge of climate change adaptation and mitigation. STI policies also have an important role in accelerating progress towards social and human development goals. Policies to promote technological learning and innovation need to be appropriately calibrated to the level of technological development in each LDC, its economic structure and capabilities of its government and business sectors.

Thus, technological progress primarily means the adaptation of technologies that are new to the country, though not necessarily to the world, and the technological upgrading of production processes. Technological progress in this sense can come from either domestic research and development and learning efforts, or from a transfer of technology from more advanced economies. Advanced foreign technology is primarily acquired through the import of machinery and equipment by either domestic or foreign investors, but it can also take the form of foreign licencing. Since technology is largely embodied in machinery and equipment, adaptation of technology is also closely related to the level of investment and supported by the policy measures. Therefore, it is essential that direct policy support to STI be designed in close coordination with other areas of development policy.

viii) Upgrading human skills in line with technological capabilities

Skills upgrading, technological progress and investment in productive capital are interdependent in the process of structural transformation. On the one hand, a shortage of technical skills and knowledge among the workforce can lead to the underutilisation of the existing capital stock. This may hamper the motivation to expand it, as is frequently the case in LDCs. On the other hand, skills upgrading through improved education and training will contribute to productivity growth and structural change only if better trained

workers find employment. This requires an upgrading and expansion of capital equipment. Therefore, public policies in these areas must be well-coordinated with the needs of enterprises. It is also essential that specialised creators of knowledge, such as research institutions, respond to the demands of potential productive users of that knowledge.

ix) Employment creation for a rapidly growing labour force

Combining fast employment creation for all with productivity growth is probably the most serious challenge for economic policies in less developed countries, which are characterised by fast-growing labour force and an already high level of unemployment or underemployment. Employment policies must pursue *two* complementary objectives:

- Expanding the number of jobs to absorb the rapidly growing labour force; and

- Raising the incomes generated by these jobs, in line with productivity growth, to reduce poverty and strengthen domestic demand.

In the past, liberalisation in developing countries often led to higher labour productivity in manufacturing, but total employment in the sector fell. In many cases, labour moved from the manufacturing sector to lower productivity sectors, notably the informal sector. This phenomenon of reverse structural transformation suggests that employment creation in the context of structural transformation requires carefully elaborated public policies.

Since growth is a necessary, but not a sufficient condition for employment creation, the challenge for policy makers is to promote investment of a kind that combines productivity growth with employment growth. The entry point into a strong and sustainable investment-growth-employment nexus is investment that sets in motion a virtuous circle by boosting a type of growth that creates employment, which, in turn, entails increased income for workers, giving rise to consumption, which supports the expansion of aggregate demand.

Check Your Progress 2

Note: i) Use the space given below for your answer.

   ii) Check your answer with that given at the end of the Unit.

1. Examine the policy innovations that can be envisaged in pursuit of sustainable development.

   ....

   ....

   ....

   ....

   ....

   ....

   ....

11.5 CONCLUSION

In essence, sustainable development is a means for improving our quality of life today in ways that can be maintained over time. It teaches us to value all that contributes to our well-being, even if their "worth" cannot be easily calculated. Our job as citizens, scientists or policy makers is to think about the best ways of including what is crucial to our everyday existence. We must also make decisions that keep us out of difficult situations. Sustainable development has heavily influenced the debate on how societies and governments conceive our role in the search for better and more balanced ways of living. This Unit discussed the core concepts of sustainable development, its constituents and policy innovations to achieve it.

11.6 GLOSSARY

Human Right Council: The United Nations Human Rights Council attempts to promote and protect human rights around the world. It was established on 15 March, 2006 to replace the UN Commission on Human Rights.

World Conservation Strategy: The main objectives of World Conservation Strategy are to maintain essential ecological processes and life-support system, preserve genetic diversity and ensure sustainable use of species and ecosystems.

11.7 REFERENCES

Ensah, J. (2019). Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review. *Cogent Social Sciences*. 5(1), 1653531.

Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable Development: Mapping Different Approaches. *Sustainable Development*. 13(1), 38-52.

Kumar *et al*. (2016). *Strategies for Achieving the Sustainable Development Goals (SDGs) in South Asia: Lessons from Policy Simulations*. UNESCAP. Retrieved from https://www.unescap.org/sites/default/files/20160825_SDG%20Policy Strategies% 20South%20Asia_SSWA_DP_1601_final_for%20upload.pdf.

OECD (2016). *Better Policies for Sustainable Development 2016. A New Framework for Policy Coherence*. Paris: OECD Publishing.

Redclift, M. (1992). The Meaning of Sustainable Development. *Geoforum*. *23*(3), 395-403.

Starneg, T. & Bayley, A. (2008). Sustainable Development: Linking Economy, Society and Environment. OECD publications.

11.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1. **Your answer should include the following points:**

   - It is based on the concept of needs.

- It is based on the vision of future.

- It needs to strike a balance between three pillars-environmental sustainability, social sustainability and economic sustainability.

- It is development that lasts.

- It involves maximisation of human well-being for today's generation in such a way that it does not decline in future.

2. **Your answer should include the following points:**

- To minimise the depletion of natural resources when creating new developments.

- To create development that can be maintained and sustained without causing further harm to the environment.

- To provide methods for retrofitting existing developments to make them into environmentally friendly facilities and projects.

Check Your Progress 2

1. **Your answer should include the following points:**

- Strengthening public finance at all levels.

- Public expenditure for the expansion of productive capacities.

- Better use or creation of new legal instruments.

- Refining measures and indicators of sustainable development.

- Closing global governance gaps and strengthening the institutional framework for sustainable development.

- Creating better infrastructure.

- Scientific and technological development and innovation.

- Upgrading human skills in line with technological capabilities.

- Employment creation for a rapidly growing labour force.

UNIT 12 RECOGNITION OF ECOLOGICAL LIMITS OF EQUITY AND JUSTICE*

Structure

12.0 Objectives

12.1 Introduction

12.2 Relationship Between Environmental Justice and Rights of Tribals

12.3 Significance of Indigenous People for Environmental Protection

12.4 Conclusion

12.5 Glossary

12.6 References

12.7 Answers to Check Your Progress Exercises

12.0 OBJECTIVES

After reading this Unit, you should be able to:

- Describe the concept of ecological justice;

- Discuss the relationship between environmental justice and rights of tribals; and

- Examine the significance of indigenous people for environmental protection.

12.1 INTRODUCTION

Environment is our life support system. We must realise that environmental resources will not be there forever. Most of them are perishable and there is a limit to their use and abuse. Use of environment without losing right of equity and justice is the backbone of environmental justice. In recent times, there is a growing concern over the complex relationship between environmental quality and human equality. The instance of environmental degradation in any part of the world is linked to the questions of social justice, equity, rights and people's quality of life in its widest sense. At a global level, the human race is facing increasing challenges indicating the need for reconciliation of the relationship of humans with the environment. World leaders, scientists, activists and academics have been constantly warning about the transformation of our relations with climate and earth, which needs to be addressed immediately and collectively. This transition will affect economic systems, land costs and distribution, energy availability, as well as community and governance capacities.

As human communities and ecosystems face degradation and depletion, the pursuit of ecological justice encourages us to consider how people are affected by this and work in support of them; thereby seeking to reconcile the seemingly interrupted relationship between humanity and environment. Such reconciliation involves a multi-stakeholder approach that involves the engagement of governance, business and community. It also involves ethical transformation,

---

* Contributed by Dr. Nivedita Sharma, Assistant Professor, Council for Social Development, New Delhi

where healthy relationships become a central principle of pursuing justice.

Ecological justice is both social and environmental. Ecological justice rests on the principle that 'everything is interrelated' and that ethical action in the environmental sphere is central to equity at a social level. Justice, when viewed in an ecological sense, includes both social and environmental justice. That is, ecological justice represents both a historical understanding and an emerging perspective of the forces, which shape our world. Social justice rests on equity and fairness, recognises the worth of all people, and requires that all people enjoy the opportunity to live fulfilling lives, regardless of race, gender, nationality, religion or other differentiating factors.

12.2 RELATIONSHIP BETWEEN ENVIRONMENTAL JUSTICE AND RIGHTS OF TRIBALS

It is important to understand the concept of environmental justice, which includes:

i)   Fair distribution of environmental goods and benefits;

ii)   Recognition of human and non-human interests in decision-making and distribution;

iii)   Existence of deliberative and democratic participation; and

iv)   Building of capabilities among individuals, groups and non-human parts of nature.

Environmental injustice is produced through various mechanisms, such as government planning and regulation as well as private and corporate interests that exploit specific areas and locales. In the process of this exploitation, the role of tribes and indigenous people has been sidelined, and their concerns have more often been ignored. They have been isolated from mainstream discourse and literature on environmental justice. This invisibility flows in large part from general misinformation, as well as a lack of information about tribes and their uniqueness, rights, and special legal and political status in the country.

According to the 2011 census, the tribal people numbered 104.2 million, which was 8.6 per cent of the country's then 1.2 billion population. It is the largest indigenous population in any country in the world, occupying 22 per cent of India's geographical terrain. The areas they live in, are the most underdeveloped regions of the country. About 93 per cent of them live in rural areas and depend on agriculture for their livelihood (Paltasingh & Paliwal, 2014).

Further, a large number of tribal people live in forests. For their basic needs, they access the resources generated from these forests. In turn, they have an interest in preserving the forests as it is as their life support system. But with globalisation increasing pressure is being put on natural resources, and indigenous people have been losing access to the traditional lands and territories on which their livelihoods depend. This has accelerated the process of deforestation to meet the urban and industrial demands, which has immensely affected the livelihood pattern of tribes. This trend has been responsible for displacing a large number of tribes from their habitats.

175

A number of Indian wildlife and conservation organisations, including Wildlife First, Wildlife Trust of India, and Tiger Research and Conservation Trust have unfortunately, in some cases, put the onus for destroying the biodiversity of forests on tribal people, and have petitioned the courts to clear them from the land where they live. Yet, the 2006 Forest Rights Act or the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act has given the adivasis/tribes the right to live on and protect the land that they had been cultivating within the forest boundaries. The Act is however, practiced more in breach than in letter and spirit.

A significant example of environmental injustice is the kind of injustice meted out to the tribals in the infamous Narmada Dam eviction. On 12 December 1979, in spite of widespread protests, the Indian government decided to raise the height of the Sardar Sarovar Dam on the Narmada river – and construct 30 major, 135 medium, and 3000 small dams. As announced, this was to provide water to about 40 million people, along with irrigation, and electricity to people in the region. To achieve this, 200,000 people were displaced, of whom a majority were adivasis/tribes. In another instance, around 450 families from indigenous *Baiga* and *Gond* communities were evicted to protect tigers in the Kanha Tiger Reserve in Madhya Pradesh in 2014. In April 2017, more than 148 houses were demolished and 156 families were evicted from Thatkola and Sargodu Forest Reserve in Karnataka, as per the Supreme Court orders. Also in Assam, more than 1,000 people from Bodo, Rabha and Mishing or Miri tribal communities were forcefully evicted from the Orange National Park in the same year (Mohanty, 2019).

According to a research conducted by Housing and Land Rights Network in 2018, "In a majority of reported eviction cases, state authorities did not follow due process established by national and international standards." The research also revealed that "All cases of forced eviction resulted in multiple and often gross human rights violations." What has happened in India with the tribal people is also happening all over the world. In this context, the condition of tribals in Cameroon, a central African country, is also not satisfactory despite the fact that the country is a signatory of the 'UN Declaration on the Rights of Indigenous People'. The Chad-Cameroon Pipeline Project has disproportionally affected hundreds of thousands of tribal communities. This Project is a classic example of forced displacement and destruction of cultural sites (*Ibid.*).

This is a total travesty of justice as the original forest-dwelling communities with the smallest ecological footprint (Carbon Footprint) are being ousted from their homelands in the name developmental projects. We are unable to protect the tribal people who actually help us by conserving the forests. Thus, the implementation of Forests Rights Act (2006) needs to be monitored vigilantly. Environmental justice should imply striking a balance between the quest for development and protection of tribal rights.

Check Your Progress 1

Note: i)   Use the space given below for your answers.

  ii)   Check your answers with those given at the end of the Unit.

1.   Discuss the importance of the term environmental justice.

    ....

....

....

....

....

....

....

2. Describe the instances where the rights of tribals have been violated.

....

....

....

....

....

12.3 SIGNIFICANCE OF INDIGENOUS PEOPLE FOR ENVIRONMENTAL PROTECTION

While indigenous people face a range of challenges, their traditional knowledge and practices are crucial for sustainable economic growth and environmental consideration. Many plants are conserved in their natural habitat by tribals due to religious belief that they are the habitat of Gods and Goddesses. The tribal culture prevalent in tribal pockets in Central India has been recorded in Dindori, Balaghat and Mandala districts of Madhya Pradesh and Kawardha and Bilaspur districts of Chhatisgarh states. Tribals worship trees and flowers as they believe that God and Goddesses reside in them. Three of the ways are mentioned below:

- **Conserving Plants and Fauna**

  The indigenous people conserve several plants and indigenous varieties of agricultural crops such as rice, maize, millets, grains, legumes, fruits and vegetables, which originate under diverse agro-ecological climates in north-east, central and peninsular regions of India. For instance, some of the indigenous varieties of rice such as Pattambi, Champara, Valsana are conserved by Kurichya, Pariyar, Khasi, Jatin and Garo tribes in North-Eastern region of India. These varieties are genetically superior than existing cultivated rice varieties in the way of their aroma, grain quality, protein content, digestibility and are also found resistant to insects, pests and diseases. These varieties are now multiplied by rice breeders and incorporated in All India Coordinated Rice Improvement Programme at Central Rice Research Institute, Cuttack and also at International Rice Research Institute, Phillipines, Manila.

- **Conserving Endangered Species**

  The tribes live in harmony with animals of the forest and they are also known to preserve some endangered species. For example, the community-led blackbuck conservation initiative in Ganjam district of Odisha led to increase

177

in blackbucks in the area. From meager population of around 573 in 1990 it rose to 4,044 in 2018 as per the census. It happened because of conservation efforts of the local community. Another classic example is the Biligirirangana Hills Tiger Reserve in southern India where the Soliga tribal communities live. It is reported that there has been an increase in the number of tiger population, far above the national average, due to presence of these communities.

However, the policy makers seldom recognise the worth and value of these indigenous people. Eviction done on the pretext of construction of dams, mining etc. displaces the indigenous people who become refugees overnight. Once self-sufficient communities, they become bereft of basic livelihoods. This pushes them into poverty and poor living conditions. Tribal people when evicted from their forests are also pushed to the margins of the mainstream society. These people, living often in deplorable conditions, face resentment from their new neighbours resulting in conflicts and tensions.

Check Your Progress 2

Note: i) Use the space given below for your answer.

ii) Check your answer with that given at the end of the Unit.

1. Describe the role of indigenous people in protecting the environment.

....

....

....

....

....

....

....

12.4 CONCLUSION

Tribal people play a crucial role in preserving and conserving natural resources. The low-carbon-footprint lifestyle of the tribal people has conserved the global environment for many countries. Their wisdom and sustainable methods should be recognised, adopted and promoted to effectively mitigate climate change. On the contrary, they are generally excluded from social, economic and political processes at the national and sub-national levels. This is due to lack of consultation with tribal people and dearth of mechanisms for their participation in decision-making processes. Such processes include national development strategies and policies that directly affect their ways of life. At the same time, public policies in many countries do not pay directed or targeted attention to the needs of this community. As a consequence, they have not been able to share the benefits of economic growth adequately, and this plays a major part in reducing inequalities. Thus, it is high time the governments and conservation-based organisations began acknowledging the critical role played by the tribal people in conservation, preservation and safeguarding the richness of local biodiversity.

12.5 GLOSSARY

Environmental Justice: Fair treatment and useful involvement of all people in planning and implementation of environmental policies and programmes. This involvement has to be without any discrimination of race, caste, colour, income and place of birth.

Indigenous People: They are also referred to as first inhabitants, aboriginals, natives or tribal people. These are ethnic groups who are native to a particular place. These are people who maintain traditions, language, customs and culture of an earlier era associated with a given region.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights Act, 2006): It is known variously as Forest Rights Act, Tribal Bill, Tribal Rights Act. It is concerned the rights of forest dwelling communities to land and forest resources. Aim is to put an end to environmental injustice meted out to tribals and indigenous people.

12.6 REFERENCES

Mohanty, A. (2019, May 7). Tribal Communities Suffer when Evicted in the Name of Conservation. Retrieved from https://www.downtoearth.org.in /blog/ forests/tribal-communities-suffer-when-evicted-in-the-name-of-conservation-64376.

Pattasingh, T. & Paliwal, G. (2014). Tribal Population in India: Regional Dimensions & Imperatives. *Journal of Regional Development and Planning.* 3(2), 28-36.

Thekaekara, M.M. (2019). A Huge Land Grab is threatening India's Tribal People. https://justchangeindia.com/2019/03/18/a-huge-land-grab-is-Threatening-indias-tribal-people/

12.7 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1. **Your answer should include the following points:**

    *   Fair distribution of environmental goods and benefits;

    *   Recognition of human and non-human interests in decision-making and distribution;

    *   Existence of deliberative and democratic participation; and

    *   Building of capabilities among individuals, groups and non-human parts of nature.

2. **Your answer should include the following points:**

    *   Tribals have an interest in preserving the forests, as they are their life support system.

    *   Tribal people help in conserving the forests.

- Tribals are displaced with every developmental project, eg., Narmada Dam construction.

- This is a total travesty of justice as the original forest-dwelling communities with the smallest ecological footprint are being ousted from their homelands in the name of development and conservation.

Check Your Progress 2

1. **Your answer should include the following points:**

   - Tribals worship nature.

   - They conserve plants.

   - They conserve endangered species.

UNIT 13   ALTERNATIVE WAYS OF RESOURCE GENERATION AND CAPACITY ENHANCEMENT*

Structure

13.0   OBJECTIVES

After reading this Unit, you should be able to:

- Describe the relevance of sustainable environmental choices; and

- Examine the benefits of saving scarce resources.

13.1   INTRODUCTION

The fast-growing population, changing lifestyles with every nation trying to develop their economies without considering the environmental consequences has led to new challenges for living life forms. More and more factories are being steadily established and harmful chemicals and materials are being used in the production process (Jalil, *et al*., 2013). Over time, urban population has increased manifold. Consumption of primary energy has soared and use of chemicals, fertilisers etc., has increased in agriculture. All these changes are shifting the Earth into a 'new state' that is less hospitable to human life (Milman, 2015).

The impact on the environment due to all this consumption is enormous. The mass production of goods, many of them unnecessary for a comfortable life, is using large amounts of energy, creating excess pollution, and generating huge amounts of waste. On a global scale, not all humans are equally responsible for environmental harm. Consumption patterns and resource use are very high in some parts of the world, while in other countries, with higher population level, consumption levels are low, as the basic needs of whole population are not being met. The ecological footprint in developed countries, in general, is much greater than the developing world (Dovers & Butler, 2015).

The way this ecological footprint is impacting the globe can be simply understood by looking at our daily lives. We drive to work, use air conditioners, watch

---

* Contributed by Dr. Nivedita Sharma, Assistant Professor, Council for Social Development, New Delhi

television and make use of refrigerators, among other such activities in our daily routine. While doing these activities, we are using our natural resources, and are unmindful of the impact it has on ecology. Adding up all these resources, ecological footprint is calculated.

Generally, we can reduce our negative impact on planet earth by reducing our consumption of resources and bringing down pollution. Also using resources that can be quickly regenerated is a way to achieve sustainability. The resources may be environmental, economical, or social. To achieve sustainability, we need both sustainable technology and exercise of sustainable choices. Sustainable development is now of primary importance, as the key to future use and management of finite world resources.

13.2 RELEVANCE OF SUSTAINABLE CHOICES

One simple instance in our daily lives is use of plastic. It is so well embedded in our daily lives that almost all our things are made of plastic. Most commonly used plastic form is plastic bags. A rare novelty in the 1970s, plastic shopping bags are now an omnipresent global product, produced at a rate of one trillion a year. They are showing up from the darkest depths of the oceans to the summit of Mount Everest and the polar ice caps. This is creating some major environmental challenges. Plastic bags cause environmental damage as they increase the level of air pollution. Plastic bags not only have adverse effects on our natural habitats, they even cause death of many animals who accidentally consume them.

Plastic bags are not renewable and we need Ultra Violet or UV rays to destroy them, which are harmful for environment. Paper bags on the other hand are environment friendly and can be recycled. Since the 1950s, growth in the production of plastic has largely outpaced that of any other material, with a global shift from the production of durable plastics to single-use plastics. The production of plastic is largely reliant on fossil hydrocarbons, which are non-renewable resources. If the growth in plastic production continues at the current rate, by 2050 the plastic industry may account for 20 per cent of the world's total oil consumption.

It is said that people began to use plastic bags to carry groceries and goods in the 1970s, and these bags got popularised rapidly in the last quarter of the 20th century. No accurate statistics have been seriously made on the total number of plastic bags produced so far, but today about a trillion plastic bags are being nonchalantly used worldwide every year (Miller, 2012). These bags are very popular with both retailers and consumers, because they are very cheap, strong, lightweight, functional, and hygienic means of carrying food and other goods. Although the plastic bags are modern conveniences for carrying goods, they are responsible for the environmental and agricultural land degradation that has incidentally used up precious resources of planet earth, in particular petroleum (Sugii, 2008).

These disposable plastic bags have now found their way into everywhere, including the remote areas, like the Pacific Ocean, thereby not only posing a threat to aquatic life, but also the landfills and agricultural lands, which now pose a great threat to our environmental and agricultural development as well.

The consequent result would be massive environmental degradation by the so called civilized global community. There have been cases where large turtles of the endangered species have been found to have suffocated due to swallowing of plastic sheets mixed with seaweeds mistakenly (Jalil, *et al*., 2013).

There are many environment friendly alternatives to plastic bags, such as, jute bags, paper bags, bio-degradable bags, and reusable bags. Commonly, jute bags are recommended as an environment friendly alternative to plastic bags because the bags are made from biodegradable material, which comes from a plant fiber called jute, mostly consisting of cellulose. This is eco-friendly and has no harmful effects on the environment and agriculture.

Another very convenient for daily use are the paper bags, which are also recommended as an environment friendly alternative to plastic bags. Paper bags are usually made from wood. So these bags can be converted into brand new paper like newspapers, magazines or books. Waste papers are also biodegradable, so they can be easily degenerate and do not pile up on dump sites. Paper bags are usually used extensively in malls and exhibitions for delivering over the counter products, as research shows that paper bags contain at least 35 per cent recycled material. Corporates are nowadays using paper bags for promotions, seminars, product packaging, and branding, as they are competitively priced. Unlike the old perception that paper means deforestation, today the paper bags are largely not made from tree, they rather use eco-friendly solutions like:

Sugarcane Waste (Bagasse): Paper is manufactured from the pulp waste that is left after sugar gets made out of sugarcane.

Straw: Yes, paper can be made from straw fibers too and if it is implemented effectively in rural India, it can encourage farmers not to burn crops rather sell the straw for a price.

Jute Twine: It is used to make high-quality writing and specialty paper.

Coconut Husks: These are being used to create a paper with a thick texture.

Elephant excreta: Yes, you heard it right, paper is now manufactured from elephant poop.

The nature-friendly bags are generally made out of the materials that are quite easy to get decomposed by bacteria and other micro-organisms present in the atmosphere. Hence, they take very less time to disintegrate into simpler forms.

Check Your Progress 1

Note: i) Use the space given below for your answer.

ii) Check your answer with that given at the end of the Unit.

1. Discuss the importance of making sustainable choices.

....

....

....

....

....

13.3 ENVIRONMENTAL BENEFITS OF ALTERNATIVE RESOURCE USE

Let us now discuss the environmental advantages of alternative technology and use of alternative resources like paper bags:

Bio-degradable

First, paper/jute bag waste is not going to linger on the surface of the earth for the next 1000 years, unlike plastic bags. Humans for next 1000 to 10,000 years possible may not end up losing all marine animals on the sea, rivers, lakes, and ponds with plastic pollution or they may not end up losing most land's fertility due to plastic mixture in top soil – if world shifts from plastic to biodegradable packaging. In fact, most paper bag waste takes less than 6 months' time to degrade and, in most cases, they end up turning into fertile waste for vegetation.

Recyclable

These bags are commonly 100 per cent recyclable. Unlike plastic that emits extremely toxic and poisonous gases in the atmosphere during the recycling process, process of recycling of paper/jute involves no such hazard. These bags can be reused and they generate no pollution.

Energy Saver

Besides several benefits of using paper and jute bags, one of the reasons why it is so environmentally-friendly is that it helps in saving huge amounts of energy. It is usually made from locally available materials, which support transportation costs and eventually help in saving energy.

Conserver of Natural Resources

By switching over to such bags we will be conserving our natural resources as these are recyclable, reusable and bio-degradable. In conclusion, it can be said that there is now no doubt that one needs to adopt more eco-friendly alternatives to save the planet. Thus, it is essential to switch over towards the use of eco-friendly bags.

Another instance is of coal and petroleum, which have shown tremendous increase as the demand for energy to meet human needs has gone up. This energy comes mainly from coal and petroleum. Much of the world's energy comes from material formed hundreds of millions of years ago, and there are environmental consequences to it.

Decomposing plants and other organisms, buried beneath layers of sediment and rock, have taken millennia to become the carbon-rich deposits we now call fossil fuels. These non-renewable fuels, which include coal, oil, and natural gas, supply about 80 per cent of the world's energy. They provide electricity, heat and transportation, while also feeding the processes that make a huge range of products, from steel to plastics. When fossil fuels are burned, they emit carbon dioxide and other Greenhouse Gases, which in turn trap heat in our atmosphere, making them the primary contributors to global warming and climate change.

Governments around the world are now engaged in efforts to ramp down Greenhouse Gas emissions from fossil fuels to prevent the worst effects of climate change. However, some simple lifestyle changes can make a significant difference in our daily energy consumptions. For example: i) Taking a public transport or walking or cycling instead of using personal vehicle, ii) Using LED bulbs at your homes/offices; and ii) Taking the stairs instead of lifts.

Check Your Progress 2

Note: i)   Use the space given below for your answer.

ii)   Check your answer with that given at the end of the Unit.

1.   Describe the different ways of alternative resource use.

....

....

....

....

....

13.4   CONCLUSION

In essence, scarce resources and burgeoning human needs are putting the environment at risk. The changes in lifestyle are pushing us to convenience laden existence. The consequences of these changes are global warming and environmental degradation. The need of the hour is to bring changes in our daily routine by switching over to healthy environmental choices. In this way we can save our planet and the living forms on it. This Unit focussed on sustainable and alternative use of resources as an effective tool of environmental pollution.

13.5   GLOSSARY

Bio-degradable: Any matter that can be broken down or decomposed by microorganisms such as bacteria or fungi. Such matter can be assimilated into the natural environment easily.

Carbon Footprint: It is the total amount of Greenhouse Gases eg., carbon dioxide and methane caused by an individual, event, organisation, service, or product, expressed as carbon dioxide equivalent.

Ultraviolet Rays: It is a form of electromagnetic radiation with wavelength from 10, with a corresponding frequency around 30 PHz (Petahertz) to 750 THz (Terahertz), shorter than that of visible light, but longer than X-rays. It constitutes about 10 per cent of the total electromagnetic radiation output from the sun.

13.6   REFERENCES

Dovers & Butler (2015). Population and Environment: A Global Challenge. Retrieved from https://www.science.org.au/curious/earth-environment/population-environment.

Jalil, M. A., Mian, N. & Rahman, M. K. (2013). Using Plastic Bags and its Damaging Impact on Environment and Agriculture: An Alternate Proposal. *International Journal of Learning & Development.* 3(4), 1-14.

Miller, R.M. (2012). Plastic Shopping Bags: An Analysis of Policy Instruments for Plastic Bag Reduction. Retrieved from http://dspace.library.uu.nl/handle/1874/253904.

Milman, O. (2015). Rate of Environmental Degradation puts Life on Earth at Risk, say scientist. The Guardian. Retrieved from https://www.theguardian.com/environment/2015/jan/15/rate-of-environmental-degradation-puts-life-on-earth-at-risk-say-scientists.

Sugii, T. (2008). *Plastic Bag Reduction: Policies to Reduce Environmental Impact.* U.S. Proquest.

13.7 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1. **Your answer should include the following points:**

   - Plastic use is non-environment friendly and non bio-degradable.

   - There are many environment friendly alternatives to plastic bags, such as, jute bags, paper bags, bio-degradable bags, and reusable bags.

   - Jute bags are recommended commonly as an environment friendly alternative to plastic bags.

   - Paper bags are convenient daily options, which are also recommended as an environment friendly alternative to plastic bags.

   - Sugarcane waste is manufactured from pulp waste that is left after sugar is made from sugarcane and is environment friendly.

   - Straw, Jute, Coconut and Elephant excreta are quite easy to decompose by bacteria and other microorganisms present in the atmosphere. Hence, they are environment friendly.

Check Your Progress 2

1. **Your answer should include the following points:**

   - Use of biodegradable material.

   - Focus on recyclable material.

   - Use of energy savers.

   - Conservation of natural resources

UNIT 14 ROLE OF NON-STATE STAKEHOLDERS IN SUSTAINABLE DEVELOPMENT*

Structure

14.0 Objectives

14.1 Introduction to Sustainable Development

14.2 Need for Sustainable Development

14.3 Role of NGOs in Sustainable Development

14.4 Role of Trade Unions in Sustainable Development

14.5 Role of Corporates in Sustainable Development

14.6 Role of Universities in Sustainable Development

14.7 Conclusion

14.8 References

14.9 Answers to Check Your Progress Exercises

14.0 OBJECTIVES

After reading this Unit, you should be able to:

- Discuss the meaning and nature of sustainable development;

- Examine the relevance of sustainable development; and

- Bring out the pertinence of different stakeholders in sustainable development.

14.1 INTRODUCTION

The term sustainable development was coined around the mid-1980s, although the concept has been constantly evolving since its inception. More dynamic and ever-changing governance structures in the domestic and international arenas have encouraged increased participation of non-state actors in policy design and implementation. Demands on citizens' involvement in domestic and international environmental policy making have grown. The number of non-governmental organisations (NGOs) focussing on environment and sustainability issues has increased as well. Recent research suggests that civil society organisations, both on their own and as a part of transnational citizens' networks, are able to raise international awareness, shape global policy agendas, educate governments, citizens and industries and above all, strengthen environmental governance at the domestic and international levels.

Sustainable development is achieved through optimising gains from several variables, rather than maximising those from a single one. This requires government departments, which are by convention sectorally organised, to work together, or in some cases as a single multi-disciplinary authority. For this joint planning, transparency and coordination in implementation are required. The

---

187

richness of skills available in society must be harnessed through partnerships involving institutions in civil society, such as NGOs, corporate (including private) bodies, academic and research institutions, trade unions, etc., which must be made an integral part of planning and implementation for Sustainable Development Goals (SDGs).

14.2 NEED FOR SUSTAINABLE DEVELOPMENT

There is a growing realisation that *economic growth alone is not enough*: the economic, social and environmental aspects of any action are interconnected. Considering only one of these at a time leads to errors in judgment and 'unsustainable' outcomes. Focusing only on profit margins, for example, has historically led to social and environmental damages that cost the society in the long-run. By the same token, taking care of the environment and providing the services that people need depends at least in part on economic resources (Strange & Bayley, 2008).

The fact of the matter is that we depend on ecosystems and the services they provide in order to do what we do: run businesses, build communities, feed our populations and much more. Whether we consider the more obvious, immediately vital examples, the need for soil that can grow food or clean water to drink, or the less obvious, but equally significant things like oxygen production during photosynthesis or waste processing by bacterial decomposers, we cannot avoid the conclusion that we depend on the environment for our existence. If we damage or destroy the capacity of the environment to provide these services, we may face *consequences* for which we would be completely unprepared.

In the same way, the long-term stability and success of societies rely on a healthy and productive population. A society (or communities within a larger society) that faces unrest, poverty and disease will not develop in the long-term: social well-being and economic well-being feed off each other, and the whole game depends on a healthy biosphere in which we exist.

Hence, sustainable development is a complex issue to understand as it consists of a wide range of things. Due to the technicality and complexity of this topic, it is best to check out its importance holistically to be able to grasp it properly. Population is the main factor driving up sustainable development campaigns. So, the importance of sustainable development can be viewed from the following perspectives:

Provision of Essential Human Needs

The explosion of population means people will have to jostle for the limited essentials of life and livelihood like food, shelter, and water. Adequate provision of these basic needs almost entirely hinges on infrastructure capable of sustaining them for a long time. For example, if governments insist on utilising fossil fuel-based sources of energy instead of renewable and sustainable options, the cost and environmental effects of supplying these basic needs would become a tall order.

Agricultural Requirements

Growing population means agriculture must catch up. Finding ways to feed more than 3 billion people can be staggering. If the same type of unsustainable

cultivation, plantation, irrigation, spraying, and harvesting techniques are put to use in the future, they might prove to be financially overbearing, considering fossil fuel resources have been projected as scarce. Sustainable development focuses on sustainable agricultural methods such as effective seeding techniques and crop rotation to promote high yields, while maintaining the integrity of the soil, which produces food for a large population.

Managing Climate Change

Climate change can be mitigated by sustainable development practices. Sustainable development practices seek to reduce the use of fossil-based sources of fuel like oil, natural gas, and coal. Fossil fuel sources of energy are unsustainable since they will deplete in the future and are responsible for the emission of Greenhouse Gases.

Financial Stability

Sustainable development practices have the ability to create more financially sustainable economies across the globe. Developing countries that cannot access fossil fuels could leverage renewable forms of energy to power up their economies. From the development of renewable energy technologies, these countries can create sustainable jobs, as opposed to finite jobs based on fossil fuel technologies.

Sustenance of biodiversity

Unsustainable development and overconsumption practices greatly impact biodiversity. Life ecosystem is designed in such a way that species depend on one another for survival. For instance, plants produce oxygen that humans need for respiration. Humans exhale carbon dioxide that plants need for growth and production. Unsustainable development practices like emission of Greenhouse Gases in the atmosphere kill many plant species resulting in reduction of atmospheric oxygen. This is not good for humans. Sustainable development practices encourage the use of renewable energy resources, and organic farming practices that do not emit any Greenhouse Gas into the atmosphere.

The recent literature on international relations has begun to accept the idea that decision-making in the global arena is no longer just a responsibility and a prerogative of states. Traditional state-centric theories have been challenged increasingly, and researchers have gained an interest in the role of non-state actors in a new global governance system.

14.3 ROLE OF NGOs IN SUSTAINABLE DEVELOPMENT

NGOs and other civil society groups are not only stakeholders in governance, but also a *driving force* behind greater international cooperation through the active mobilisation of public support for international agreements. The participation of civil society in global governance is increasing in significance. The NGO movement has responded to different models of development in various ways: some NGOs have implemented economic projects; some monitor the social impact of resource development initiatives; others monitor the environmental impact. Some pursue delivery of relief and social welfare services; some do it by helping to organise sectors or communities. Also, there are some NGOs that

189

oppose the use of pesticides, and other harmful chemicals, which pose a serious threat to environment. Some also undertake the development of alternative strategies. Finally, there are some NGOs that are multi-sectoral pursuing multiple issues, but all are in relation to some dimension of sustainable development process.

It is recognised that NGO participation in preparatory international, regional, and global meetings gives them a favourable ground, where they are able to interact (both formally and informally) with government officials influencing governmental agendas, highlighting key issues and providing inputs outside the confines of national boundaries' official text. It means that when provided with the right opportunity, time and location, NGOs can actually have a closer interaction with states outside the confines of national boundaries, allowing them to *exert influence* that they would otherwise not be able to.

While the United Nations or UN organises numerous conferences and meetings of the parties to specific international environmental agreements, the 1992 UNCED and 2002 World Summit on Sustainable Development (WSSD) are considered the two cornerstone conferences that further the sustainable development discourse. NGO participation in Rio de Janeiro was high, but it broke all records at WSSD. The emphasis on government-civil society partnerships was particularly noticeable in the language of WSSD resolutions, something that should be seen as an achievement.

NGOs have responded to the government's socio-economic development agenda over the years. Thus, when the government changed emphasis from capital-oriented growth to anti-poverty programmes, NGOs made a distinct shift from welfare and service delivery interventions to a direct attack on poverty. Subsequently, in the 1990s, when the State moved on to macro-economic and structural reforms, NGOs began to focus on scaling up their activities. This led to their working with the State to develop innovative methods and ensure commensurate changes in policy. They also stepped up advocacy and lobbying, increased networking, expanded their range of operations, and targeted marginalised groups. Goals of the State and NGOs have converged, particularly in the areas of empowering communities, encouraging participation, strengthening democratic institutions, and improving access to basic services like health and education. Two types of NGOs are very important to the development process. Let us discuss them now:

- **NGOs involved in Environmental Protection**

    NGOs engaged in environment related activities or Environmental NGOs came up in response to serious threat posed to air, water and soil from industrial and agricultural chemicals. Environmental NGOs typically take up causes related to the environment such as climate change, air pollution, deforestation, ozone layer depletion, waste management, biodiversity and land use, energy conservation, environmental degradation, and land degradation. Some of the prominent examples of Environmental NGOs working in India are Greenpeace India, Awaaz Foundation, Goa Foundation, CARE India, Foundation for Ecological Security, WWF India and Winrock International India.

Many such NGOs have started collaboration with government and industry to create a sustainable structure for future growth. These organisations provide consultancy to industrial houses and corporates, and are actively engaged at various levels with the government on developing environment friendly and sustainable development policies. Some of the companies are collaborating with NGOs to implement their Corporate Social Responsibilities.

These NGOs rely on secondary and primary sources to gather information about the issue at hand. This could be in the form of government reports prepared by Ministry of Environment and Forests, Centre and State Pollution Boards, or conferences and seminars organised at national and international levels. The media, particularly electronic and print, bring forth burning environmental issues, which can be taken by the certain Environmental NGOs to pursue. These NGOs also collect primary data through filling up questionnaires, actively interacting with environmental stakeholders such as local population, industry, government agencies, public and other sectors.

NGOs involved in environmental protection are also increasingly using the Right to Information or RTI to extract data related to Government Rules and Regulations on Environment Laws, information related to implementation of the projects, government outlays and other relevant information. The data gathering stage is followed by analysing the information and drawing inferences from the same. Based on the inferences and analysis, these NGOs take certain action, which could range from certain awareness in the general public about environmental issues to taking legal action against the offenders or taking recourse to Public Interest Litigation (PIL) to mitigate the environmental risks (Sandhu and Arora, 2012).

- **NGOs involved in Development Work**

Indian NGOs have been involved in development work of one sort or another for over 100 years and have been important in the government programmes, as well as being partners for international NGO donors since the nation's independence in 1947. For such NGOs, the broader community aspirations they promote include: alleviating poverty; addressing marginalisation; achieving social justice; and promoting respect for human rights. Siddhartha Sen (1999) has identified two key features of Indian NGOs involved in development work. The first, is that NGOs play an intermediation role; that is, they work for the poor, rather than being grassroots formations of the poor themselves and; secondly, these NGOs are non-representative organisations.

This is in line with the general discussion of NGOs outlined above: while the number of formal members of an NGO is very small (usually from the professional elite), they serve a relatively large number of people in any particular area. They are mainly public benefit organisations rather than representative or mutual benefit organisations, and they are driven by altruistic motives for a broader public benefit. In India, development NGOs can be defined as organisations that are generally formed by professionals or quasi-professionals from the middle or lower middle classes, either to serve or work with the poor, or to channel financial support to community-based or grassroots organisations of the poor (*Ibid.*).

191

Check Your Progress 1

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1. Explain the need for sustainable development.

....

....

....

....

....

2. Discuss the role of NGOs in achieving sustainable development.

....

....

....

....

....

14.4 ROLE OF TRADE UNIONS IN SUSTAINABLE DEVELOPMENT

Trade unions are a major component of the system of modern industrial relations in any nation, each having their own set of objectives or goals to achieve according to their constitution and each having its own strategy to reach those goals. Union of workers plays an important role in industrial system.

Trade union discussions about sustainable development invariably turn to current social and economic developments, and their implications for workers. Throughout history, workers and their communities have been amongst the first victims of unsustainable patterns of development, whether in the form of job dislocation, community upheaval, industrial disease, or death. In fact, the origins of the union movement itself can be traced to the collective action taken by workers against the atrocious working conditions, we now associate with the First Industrial Revolution (Gereluk and Royer, 2001).
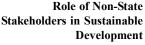
Trade union interest in sustainable development arises from the desire to improve both the living standards and quality of life of the present and future generations. It is not a recent concern but one that has grown naturally out of long campaigns to improve health and safety for workers and their communities. Trade unions are heavily involved in the 2030 agenda of sustainable development process at global, regional and national levels. They uphold freedom of association, protect social dialogue and collective bargaining, and promote decent work, social protection and the rights of working people. Through this work, trade unions are instrumental in achieving the sustainable development goals or SDGs. It is in this framework that trade unions from around the world are conducting national monitoring and analysis of how their governments are doing with regards to their commitments to achieving the implementation of the SDGs.

Objectives of Trade Unions

- **Wages and salaries**-Wages and salaries and the most important objectives of trade unions. In the organised industry, wages and benefits are determined through processes such as collective bargaining, wage boards, conciliation and adjudication. Working of all these processes deserves systematic inquiry. Union power and objective facts tend to influence the wage scene through these forums.

- **Working conditions**-Another major objective of the trade unions is to ensure the safety of workers. While working, every worker must be provided with basic facilities like drinking water, minimum working hours, paid holidays, social security, safety equipment, lights and others.

- **Personnel policies**-Any personnel policy of the employer with respect to promotion, transfer and training could be challenged by trade unions, if arbitrary.

- **Discipline**-Trade unions also protect the workers from arbitrary disciplinary action taken by management against any worker. No worker should be victimised by management in the form of arbitrary transfer or suspension.

- **Welfare**-The main objective of the trade union is to work for the welfare of the workers. This includes welfare of the family members or children of the workers.

- **Employee and employer relations-** There needs to be harmony between employers and employees in order to ensure industrial peace. But due to superior power of the management, sometimes conflict arises in this situation. Trade unions represent the whole group of workers and continue negotiations with management.

- **Safeguarding organisational health and the interest of the industry**-Trade unions help in achieving employees' satisfaction. They also help in better industrial relations by creating procedures to resolve industrial disputes.

Functions of Trade Unions in India

- The Supreme Court of India has defined collective bargaining as the technique by which disputes like conditions of employment are resolved amicably by agreement, rather than coercion and in this process negotiations and discussions take place between employer and the employee with respect to working conditions. Collective bargaining helps to resolve the issues of workers. Collective bargaining is the foundation of the movement and it is in the interest of labour that statutory recognition has been accorded to trade unions and their capacity to represent workers.

- Trade unions protect the workers from wage variations, and provide job security through peaceful measures.

- Trade unions also help in providing financial and non-financial aid to the workers during lock out or strike or medical exigencies.

- It also has to be borne in mind while making an agreement that the interests of the workers who are not the members of Trade Union are also protected, and the workers are not discriminated.

14.5 ROLE OF CORPORATES IN SUSTAINABLE DEVELOPMENT

Corporate sustainability or Corporate Social Responsibility (CSR) has become an important concept in the last few decades. Although it originated in the developed countries of the West, the concept has been embraced and adapted by corporations and policy-making agencies in many developing countries. Not surprisingly, given the importance of growth and development as policy objectives in these countries, CSR has had a significant impact on sustainable development. It is about the responsibility that businesses have towards society, going beyond their legal requirements (paying taxes, making sure their products and services 'work', ensuring that they obey employment laws etc.)

The concept of sustainable development at a corporate level takes the form of CSR, which is based on three pillars-economic, ecological and social. While attention for the social and environmental impacts of international business is certainly not new, the past years have seen renewed interest due to pressing global problems such as climate change, poverty, human rights violations and HIV/AIDS. Firms are increasingly called upon to play a positive role, and thus, contribute more to sustainable development (Kolk and Tulder, 2010).

CSR means a commitment to developing policies that integrate responsible practices into daily business operations, and reporting on progress made toward implementing these practices. Common CSR policies include:

• Adoption of internal controls reform;

• Commitment to diversity in hiring employees and barring discrimination;

• Management teams that view employees as assets rather than costs;

• High performance workplaces that integrate the views of line employees into decision-making processes;

• Adoption of operating policies that exceed compliance with social and environmental laws; advanced resource productivity, focused on the use of natural resources in a more productive, efficient and profitable fashion, such as recycled content and product recycling; and

• Taking responsibility for conditions under which goods are produced directly or by contract employees domestically or abroad.

The SDG framework can be considered as a combined effort of governments, businesses, knowledge institutes, and civil society in developing an institutional initiative for realising sustainable development. As a goal-based institution, the SDGs can influence corporate policies for sustainable development. Goals are critical for orienting and socially mobilising activities of multiple stakeholders in a consistent manner towards a specific, concise, measurable, and a new trajectory of sustainable development, while simultaneously putting peer pressure on agents regarding their progress made towards the goals.

The bottom-up approach of SDGs that encourages the participation of a wide variety of stakeholders also helps in mobilising businesses. Also, SDGs are a voluntary institutional agreement and agents have the liberty to decide which

goals they want to work towards. Moreover, some SDG targets are so complex that they can only be realised through collective action in which governments, companies, and civil society organisations work in partnership (Tulder and Keen, 2018).

Corporate sustainability is seen as the ability of the company, by its management practices and market presence, to positively affect the ecosystem (improvement of natural resources, reducing pollution levels, etc.), the community (support of the local population, creating jobs, etc.), and the economic development (distribution of income through dividend payment of fair wages, etc.). There can be sustainability of the company also when it creates value for its shareholders by maximising the positive and minimising the negative effects on environmental, social or economic issues.

The big transnational corporations have started taking the sustainable development issues seriously. What has changed is that the management boards and the executives have begun bearing in mind the sustainability issues in all their activities. The return rates of the companies' share and the dividends are no longer the only thing that matters for the managers. For different reasons they incorporate the sustainable development strategies. Most of the companies nowadays have developed a CSR policy and make quite a lot of efforts to communicate it to the public.

The most popular aspect of sustainable development is the environmental pillar. This is the field where the society is most sensible and that is where the efforts of the companies are directed. They tend to prove that they are environmentally responsible, thus preserving their reputation on one hand and striving to get new clients on the other. That is why the boards of directors are more and more interested in the environmental performance of their companies and the executives are forced to manage the companies in more environment friendly way and disclose information on these issues.

Furthermore, the sustainable development policy has led to the emergence of the "socially responsible investors". They are investors that closely follow the work of the companies they invest in and are very much interested in their sustainable development performance. It is obvious that the mindset of the business leaders, of the "people with money" has begun to change and getting profits and more money is no longer the only leading principle in the corporate governance world. The sustainable development ideas have entered there as well and have the potential to improve this world for the better.

14.6 ROLE OF UNIVERSITIES IN SUSTAINABLE DEVELOPMENT

Education and research have been explicitly recognised in a number of SDGs and universities have a direct role in addressing these. SDGs cover a wide range of areas such as agriculture, health, water and sanitation, gender equality, energy, industry and innovation, infrastructure etc., and under almost all of them higher education institutions can contribute through teaching, research, community engagement or advisory services. Addressing the challenges of the SDGs will require new knowledge, new ways of doing things, hard choices between competing options, and in some cases profound transformations.

Universities drive technological and societal progress through research, discovery, knowledge creation, and adoption. They attract and nurture talent and creativity and are central players in regional and national innovation systems. These services are critical for helping the global community understand the challenges, opportunities, and interactions between the SDGs; conceive and implement solutions; develop and assess policy options and transformation pathways; and monitor progress. The significant role of universities in attaining SDGs is that:

- Universities can provide knowledge, innovations and solutions through their curricula to underpin the implementation of the SDGs through addressing the challenges of SDGs that require new knowledge and new ways of doing things.

- Universities can develop and assess policy options and implementation pathways and also monitor the progress.

- Universities can provide professional and personal skills and capabilities to create future leaders, decision makers, innovators, entrepreneurs and citizens with the knowledge and motivation who can contribute to achieve the SDGs.

- Universities hold a position of neutral and trusted stakeholders in the society. They also have a key role in educating the public and other sectors on the SDGs and in advocating the importance of SDGs.

There is a growing international recognition of Education for Sustainable Development (ESD) as an integral element of quality education and as a key enabler for sustainable development. Education for Sustainable Development (ESD) empowers people to change the way they think and work towards a sustainable future. It is necessary to transform society by reorienting education and help people develop knowledge, skills, values and behaviour needed for sustainable development.

Universities are complex and diverse institutions. Through their staff, students, campuses, neighbourhoods and supply chains, they have significant social, economic and environmental footprints. By implementing the principles of the SDGs within their own governance, operations and culture, universities will directly contribute to the achievement of the SDGs within these extensive spheres.

Universities hold a position of neutral and trusted stakeholders within society. As such, they have the capacity and responsibility to guide and lead the local, national, and international response to the SDGs through cross-sectoral dialogues and partnerships. They also have a key role in educating the public and other sectors on the SDGs and advocating for the importance of the SDGs.

Check Your Progress 2

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1. Discuss the role of corporates in achieving sustainable development.

....

....

....

2. Describe the role of universities in achieving sustainable development.

    ....

    ....

    ....

    ....

    ....

14.7 CONCLUSION

The concept of sustainable development is closely intertwined with the notions of citizens' participation and democracy and it thus becomes imperative to make the voices of concerned stakeholders heard at the appropriate forums. The contributions from various non-state stakeholders in achieving sustainable development need to be enhanced through a strengthened and more formalised structure of engagement. An improved governance structure should acknowledge the role of these stakeholders and devise formal channels for participation. This Unit discussed the role of specific stakeholders such as universities, corporates, NGOs and trade unions in sustainable development.

14.8 REFERENCES

Bhagwat, P. (2011, March). Corporate Social Responsibility and Sustainable Development. In *Conference on Inclusive and Sustainable Growth*. Retrieved from https://www.researchgate.net/profile/Anca-Turtureanu/publication/ 227409922_Corporate_Social_Responsibility_and_Sustainable_Development/ links/555eeaee08ae86c06b5f5868/Corporate-Social-Responsibility-and-Sustainable-Development.pdf

Gereluk, W. and Royer, L. (2001). *Sustainable Development of the Global Economy: A Trade Union Perspective*. Geneva: ILO.

Kilgy, P. (2011). *NGOs in India: The Challenge of Women's Empowerment and Accountability*. UK: Routledge.

Kolk, A. (2016). The Social Responsibility of International Business: From Ethics and the Environment to CSR and Sustainable Development. *Journal of World Business*. 51(1), 23-34.

Kolk, A., & Van Tulder, R. (2010). International Business, Corporate Social Responsibility and Sustainable Development. *International Business Review*. 19(2), 119-125.

Nanda, N. (2000). The Emerging Role of NGOs in Rural Development in India. *Social Change.* 30(3&4), 36-43.

Pacheo-Vega, R. (2010). NGOs and Sustainable Development. Retrieved from file:///C:/Users/Admin/Downloads/Pacheco-Vega2010NGO Sandsustainable developmentNInternationalEncyclopaedia.27-32.pdf.

Sandhu, D., and Arora, P. (2012). Role and Impact of Environmental NGO's on

Environmental Sustainability in India. *Gian Jyotie Journal*. 1(3).

Sen, S. (1999). Some Aspects of State–NGO Relationships in India in the Post - independence Era. *Development and Change*. 30(2), 327-355.

Van Tulder, R., & Keen, N. 2018. Capturing Collaborative Challenges: Designing Complexity-Sensitive Theories of Change for Cross-Sector Partnerships. *Journal of Business Ethics*. 94(1), 85-101.

Van Zanten, J. A., & Van Tulder, R. (2018). Multinational Enterprises and the Sustainable Development Goals: An Institutional Approach to Corporate Engagement. *Journal of International Business Policy*. 1(3-4), 208-233.

Wagner, L. M. (1999). Negotiations in the UN Commission on Sustainable Development: Coalitions, Processes and Outcomes. *International Negotiation*. 4(2), 107-131.

14.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1. **Your answer should include the following points:**

    *   Sustainable development provides for essential human needs.

    *   It is needed for agriculture requirements.

    *   It is needed to manage climate change.

    *   It is needed for financial stability.

    *   It is needed to sustain bio-diversity.

2. **Your answer should include the following points:**

    *   NGOs can exert influence on the state for implementing SDGs.

    *   These monitor the social impact of resource development initiatives.

    *   Some of these monitor the environmental impact.

    *   They develop innovative methods and ensure commensurate changes in policy.

    *   They help in achieving sustainable development by stepping up advocacy and lobbying, increasing network and targeting marginalised groups.

Check Your Progress 2

1. **Your answer should include the following points:**

    *   CSR is based on three pillars-economic, ecological and social issues.

    *   Adoption of internal controls reform.

    *   Commitment to diversity in hiring employees and barring discrimination.

    *   Management teams that view employees as assets rather than costs.

    *   High performance workplaces that integrate the views of line employees into decision-making processes.

- Adoption of operating policies that exceed compliance with social and environmental laws; advanced resource productivity, focused on the use of natural resources in a more productive, efficient and profitable fashion, such as recycled content and product recycling.

- Taking responsibility for conditions under which goods are produced directly or by contract employees domestically or abroad.

2. **Your answer should include the following points:**

- Universities can provide knowledge, innovations and solutions to underpin the implementation of the SDGs.

- University can develop and assess policy options and implementation pathways and also monitor the progress.

- Universities can provide professional and personal skills and capabilities to create future leaders, decision makers, innovators, entrepreneurs and citizens with the knowledge and motivation who can contribute to achieve the SDGs.

- Universities hold a position of neutral and trusted stakeholders in the society. They also have a key role in educating the public and other sectors on the SDGs and advocating the importance of SDGs.