



# Teacher Preparation for Environment Conservation and Gender Equality

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## Abstract

The United Nation's 17 global goals i.e. Sustainable Development Goals (SDG) 2030 aim to achieve various 'zeros' that may change the world, such as a world without poverty, hunger, ailments, discrimination, etc. Education has the potential to have sustainable development and to improve young people's ability to adjust to the challenging effects of environmental, social, and economic issues. Success in the personal life, workplace, and being a good citizen requires numerous skills that can be very well-honed up under the guidance of a professionally qualified teacher. The National Education Policy (NEP) 2020 also seeks to restructure the teaching profession in order to develop a strong merit-based framework of tenure, remuneration, and promotion, which incentivizes and honors exceptional teachers. The National Institute of Open Schooling (NIOS), an autonomous educational institution under the Ministry of Education, has brought the global vision into execution by preparing and recently launching a need-based in-service teacher education programme that would guide the users in developing an equity-based healthy environment in teaching and learning spaces. It is named as a 'Gender Green Teacher' (GGT) project which was accomplished in collaboration with the Commonwealth of Learning (COL), an inter-governmental organisation promoting distance and open learning. This project aims to create a 'Gender Green Teacher' who is trained to integrate the gender and the environment concepts in such a way that it allows the learners to develop a holistic view of these two constructs.

The objective of this paper was to make the teaching fraternity aware of the components and expected outcomes of GGT Course. This paper was structured in two parts. The first part discusses the conceptual framework of Gender-Green, in the global scenario. The second part presents the entire course structure of the Gender Green program launched by NIOS. This course has been designed to increase teachers' capacity building, mainstream gender-environment issues through their instruction, develop positive attitudes among teachers toward gender and environmental issues, and enable them to use and develop efficient teaching-learning strategies to incorporate gender and environmental concerns into the teaching-learning process.

**Keywords:** Environment, gender equality, eco-feminism, NIOS, teacher education programme and in-service teachers.

## Introduction

The Earth is a finite environment with limited land, water, and wildlife, thus preserving the earth's natural resources for the existence of living beings is crucial. The natural habitat and the related environment are disrupted by man-made and natural calamities such as floods, earthquakes, and wildfires, even though many steps have been taken to rehabilitate the planet and restore its splendor for future generations. To ensure that natural resources will be available in the future, environmental sustainability aims to use them responsibly. Humanity is currently dealing with significant environmental, social, and economic problems. Additionally, two of the most important problems in the world ecosystem are observed to be gender equality and environmental sustainability. These problems can vary in severity depending on the level of development of the nation, whether it is developed, developing, or underdeveloped. The only way to guarantee that future generations will have the necessary resources that

they need to exist is through sustainable resource utilization which can be taught during the formative phase of life. Such issues are also taken up seriously globally and in 2015, the United Nations approved the 17 Sustainable Development Goals (SDGs, 2030) to resolve these global concerns. SDGs include specific targets and actions related to both education and environmental conservation.

**SDG on Education:** Goal 4: Quality Education aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. This includes a focus on ensuring that girls and boys have equal access to education at all levels, the importance of early childhood development and pre-primary education to provide a strong foundation for learning, ensuring that all learners acquire the knowledge and skills needed to promote sustainable development, including through technical and vocational education and eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for vulnerable

groups. The main pillar of goal 4 is believed to be the quality of the teachers. It stresses on improving the supply of qualified teachers, supporting their ongoing professional development, and promoting effective learning environments.

*SDG on Environment:* Goals 13-15 cover the aspect of environment conservation. Goal 13: Climate Action, emphasizes urgent action to combat climate change and its impacts. It includes promoting awareness and capacity-building to address climate change, integrating climate change measures into national policies, and mobilizing financial resources for climate-related projects. Goal 14: Life Below, Water focuses on the conservation and sustainable use of oceans, seas, and marine resources. It aims to prevent and significantly reduce marine pollution, protect marine and coastal ecosystems, and regulate overfishing. Goal 15: Life on Land, aims to protect, restore, and promote sustainable use of terrestrial ecosystems. It addresses issues such as deforestation, desertification, and loss of biodiversity. Efforts include the restoration of degraded ecosystems and the implementation of sustainable forest management practices. Furthermore, Goal 17 underscores the importance of global partnerships to achieve all the SDGs, including those related to education and the environment. Collaboration among governments, businesses, civil society, and international organizations is essential for successful implementation. The SDGs are comprehensive and interconnected, recognizing that addressing environmental challenges and ensuring quality education are crucial for achieving sustainable development. Various stakeholders, including governments, international organizations, businesses, and civil society, are called upon to work together to implement these goals and create a more equitable and sustainable future for all.

Though the vision of SDG is to build a more sustainable and better future for all, the most recent data on the SDGs' progress toward gender equality (SDG goal 5), gathered in UN Women's 2022 Gender Snapshot Report "Progress on the Sustainable Development Goals: The Gender Snapshot 2020" and "Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development" indicate that the current efforts are inadequate in realizing the targets related to Gender Equality. The progress on gender equality has not only stalled but has also started to reverse amid the converging crises of COVID-19, the climate catastrophe, and mounting economic and political instability. Furthermore, UN Women revealed that at the current rate of progress, it will take another 286 years to reform legal frameworks to promote, enforce, and monitor gender equality in public life.

**Gender Responsive Environmental Policies and Actions: International Commitments:** Women are disproportionately affected by environmental changes because of their social dynamics, roles, and obligations. Promoting gender-sensitive and inclusive approaches to environmental conservation and sustainability requires an understanding of these effects.

The junction of gender equality and environmental sustainability is highlighted by the gender and environment nexus, which also draws attention to the distinct effects that environmental changes and policies have on different genders. To advance gender-responsive environmental policies and sustainable development, several international commitments emphasize tackling this nexus.

**Nairobi Forward-looking Strategies for the Advancement of Women (1985):** The necessity of incorporating gender views into environmental and development policy was underscored by this worldwide framework. It acknowledged the distinctive responsibilities played by women in

environmental management and urged their active participation in decision-making.

**Agenda 21 (1992):** Agenda 21 was adopted at UNCED in Rio de Janeiro and placed a strong emphasis on the contribution of women to sustainable development. In Agenda 21's chapter 24 titled "Global Action for Women towards Sustainable and Equitable Development," the topic of incorporating gender considerations into sustainable development plans and initiatives is discussed.

**Earth Summit Plus 5 (1997):** The "Rio +5" final paper of this special session of the UN General Assembly reaffirmed the dedication to mainstreaming gender views in environmental decision-making, policies, and programmes. It demanded that gender issues be taken into account while developing national sustainable development strategies.

**Commission on the Status of Women (CSW) Resolutions on Women, the Environment, and Sustainable Development:** The CSW, a subsidiary of the UN Economic and Social Council, has approved several resolutions acknowledging the relationship between gender and the environment. These resolutions emphasize the necessity of gender-sensitive policies, capacity-building for women, and engagement in environmental protection and sustainable development.

**The Bali Global Symposium on Gender and Climate Change (2007):** The conference placed a strong emphasis on the necessity of addressing gender equality in efforts to adapt to and mitigate climate change. It resulted in the Bali Action Plan, which recognised the distinct effects of climate change on men and women and called for gender balance in climate policy and decision-making.

**Sustainable Development Goals (SDGs)-Goal 5: Gender Equality (2015):** The SDG's Goal 5 specifically talks about gender equality and the empowerment of all women and girls. It incorporates gender equality issues across the entirety of the 2030 Agenda, highlighting the necessity of climate action, gender-responsive environmental policy, and sustainable consumption and production.

**Paris Agreement (2015):** The Paris Agreement recognises climate policies that take into account gender and the unique effects that climate change has on men and women. It emphasizes the significance of gender equality in tackling climate change, developing capacity, and transferring technology.

Additionally, the UN Women's Empowerment Principles encourage companies to include gender equality issues in all aspects of corporate sustainability, including environmental sustainability. To promote a more inclusive, just, and sustainable approach to environmental conservation and development, these agreements highlight the significance of integrating gender considerations into environmental policies, programmes, and projects. It urges recognising the contributions played by each gender and encouraging their active involvement in constructing resilient and sustainable societies.

## Understanding the Connection between Gender and Environment

The relationship between environmental conservation and women's empowerment is intricately entwined and essential for attaining sustainable development. Due to social, economic, cultural, and biological differences, men and women are affected by environmental changes in different ways. These effects are frequently influenced by power dynamics, resource access, gender roles, and duties within

societies. Developing efficient and fair ways to reduce and adapt to environmental changes requires an understanding of these gendered consequences. Integrating a gender perspective into environmental policies, programmes, and initiatives is necessary to address these gendered implications.

Building resilience and developing sustainable solutions to environmental problems requires taking important initiatives like empowering women, advancing gender equality, and guaranteeing inclusive involvement in decision-making.

**Table 1: Gender-based Roles on Different Environmental Dimensions in Society**

Dimensions	Men	Women
Livelihood and Employment	In sectors like agriculture, fishing, or forestry, men may face direct impacts due to changing weather patterns affecting crop yields or fish catch. They might experience economic losses and disruptions in traditional livelihoods.	Women, especially in rural areas, are often engaged in subsistence farming, and climate change can affect their ability to grow food. Additionally, women may also work in informal or vulnerable sectors, making them more susceptible to economic shocks.
Access to Resources	In some societies, men traditionally have more access to and control over resources like land, credit, and technology. They may have more opportunities to adapt or recover from environmental changes.	Women often have limited access to resources and decision-making power, making it challenging to cope with environmental stress. For instance, during water scarcity, women might have to walk longer distances to collect water.
Health and Well-being	Men can experience health issues due to environmental changes, such as exposure to extreme heat or occupational hazards in sectors like construction or mining.	Women may face health risks related to climate change, such as an increased burden of waterborne diseases due to disrupted water supplies. Additionally, pregnant and lactating women are particularly vulnerable during extreme weather events.
Migration and Displacement	Environmental changes can force men to migrate in search of better economic opportunities or due to loss of livelihoods, impacting family dynamics and responsibilities.	Women may also migrate due to environmental stress, but their reasons might differ, including seeking safety due to climate-related disasters or accompanying family members.
Education and Knowledge	Men often have greater access to formal education and resources, enabling them to access and understand information about climate change and adaptation measures.	Women's access to education may be limited in certain regions, affecting their ability to comprehend and respond to climate-related information and risks.
Roles and Responsibilities	Traditional gender roles may place men as primary earners and decision-makers, influencing their approaches to dealing with environmental challenges.	Women often shoulder multiple roles as caregivers, managing households, and participating in income-generating activities. Environmental changes can exacerbate their workload and responsibilities.
Empowerment and Participation	Men may have more opportunities to participate in community decision-making, policy formulation, and disaster response, influencing resource allocation and adaptation strategies.	Women's involvement in decision-making and policy processes may be limited, affecting their ability to advocate for gender-responsive environmental policies and interventions.

### Environmental Change Impacts on Women

**Disproportionate Vulnerability:** Due to issues including uneven access to resources, restricted mobility, and social norms that limit their ability to cope, women, particularly those living in low-income communities, are more susceptible to the effects of climate change, natural catastrophes, and resource depletion.

**Water and Sanitation Burden:** Water quality and availability are impacted by climate change. When collecting water, women, who are frequently in charge of the household's water and sanitation, must go further, which affects their health, education, and free time for economic pursuits.

**Agricultural Livelihoods:** Climate change has an impact on agricultural productivity, and women play a significant role in agriculture. Crop yields are impacted by extreme weather events and unexpected patterns, which have a disproportionately negative impact on women farmers' income and food security.

**Health Risks:** Extreme heat events and vector-borne diseases are becoming more common as a result of climate change. Women who care for others and work in community health confront greater health risks and care demands.

**Displacement and Migration:** Displacement and migration may result from environmental deterioration and climate-related calamities. Women confront particular difficulties during displacement and in resettlement efforts because they are often the primary carers and heads of households.

### How are Women Expected to Take the Lead in Saving the Environment?

In addition to addressing environmental issues, empowering women to take the lead in environmental conservation promotes a more inclusive and fair approach to sustainability. It acknowledges the significant role that women play and the beneficial effects that strong female leadership can have on both society and the environment.

**Advocacy and Awareness:** Women can promote environmental laws and initiatives that take gender into account. They can influence societal and policy decisions by increasing awareness of the connection between environmental sustainability and gender equality.

**Community Leadership:** To generate a sense of ownership and responsibility, women might assume leadership positions within their communities to support sustainable practices, conservation efforts, and resilience-building programmes.

**Sustainable Lifestyles:** Women may encourage responsible resource use, waste reduction, energy efficiency, and sustainable consumption and production practices in their homes and communities.

**Education and Training:** In order to advance their knowledge and abilities to lead sustainable initiatives, women can participate in training and education programmes that are centered on environmental concerns, conservation, and sustainable agriculture.

**Participation in Decision-Making:** To guarantee that their viewpoints are taken into account in policies and initiatives,



women should work towards increased participation and representation in environmental decision-making bodies at the local, national, and international levels.

**Entrepreneurship and Green Jobs:** Women can participate in green efforts such as trash management, renewable energy projects, eco-friendly enterprises, and other green endeavours, promoting both economic development and environmental sustainability.

**Networking and Collaboration:** Women can collaborate on environmental projects, share expertise, and increase their overall influence through networking with like-minded people, organizations, and initiatives.

**Mentorship and Empowerment:** Women in leadership positions can mentor and inspire other women by offering advice and support while also motivating them to take an active part in environmental projects.

To achieve a sustainable future, it is essential to empower women. Women become key change agents when they are given greater economic, social, and political clout. This improves environmental sustainability and creates a more just, inclusive, and resilient society.

### **Environmental Feminist Movements: Learning from the Past**

Environmental feminism, often referred to as eco-feminism, is a movement that emphasizes the connections between social justice, the environment, and gender. It highlights the connections between the oppression and exploitation of women and the environment.

**Chipko Movement (India):** Indian Chipko Movement In the 1970s, the Himalayan area of India was the birthplace of the Chipko movement. Hugging trees to stop them from being cut down for profit was one way that women contributed significantly to this non-violent environmental campaign. The connections between the environment, women's rights, and sustainable development were stressed.

**The Green Belt Movement (Kenya):** The Green Belt Movement, which was started by Nobel Peace Prize winner Wangari Maathai, promotes planting trees, protecting the environment, and empowering women. In order to stop deforestation and rehabilitate degraded lands, it encourages women to participate in tree planting and improve their lifestyle.

**Wangki Tangni (Nicaragua):** A grassroots indigenous women's movement in Nicaragua called Wangki Tangni fights for the rights of indigenous peoples and wise resource management. The movement places a strong emphasis on the relationship between indigenous land rights, women's rights, and environmental justice.

**Sarayaku Women's Movement (Ecuador):** A component of the Kichwa indigenous group in the Ecuadorian Amazon is the Sarayaku Women's Movement. The campaign aims to stop oil exploration and exploitation by defending their rights, land, and culture. It emphasizes how environmental damage affects women and their communities.

**Friends of the Earth International (Global):** Feminist ideals are included in the environmental justice work of Friends of the Earth International, a global environmental federation. It places a strong emphasis on women's rights, gender equality, and involvement in environmental decision-making.

**Women's Environment and Development Organization (WEDO) (Global):** Women's Environment and Development Organisation an international advocacy group called WEDO is dedicated to incorporating gender considerations into

environmental laws and sustainable development initiatives. It promotes the inclusion of women's thoughts and opinions in international environmental initiatives and accords.

**Mothers of Plaza de Mayo (Argentina):** The Mothers of Plaza de Mayo in Argentina, while not solely an environmental movement, emphasized the link between social justice, environmental harm, and human rights. They voiced their outrage about the injustice of the environment and the disappearance of their children during the military rule.

These movements serve as examples of the variety of methods in which women have actively participated in environmental activism, promoting green policies, environmental justice, and the rights of both the environment and women. They emphasize the necessity of an inclusive and intersectional strategy for dealing with environmental problems.

### **The D-P-S-I-R Methodology of Global Gender and Environment Outlook (GGEO), UNEP**

The United Nations Environment Programme (UNEP) is a preeminent international organization that establishes the global environmental agenda, encourages the consistent application of the environmental dimension of sustainable development within the framework of the United Nations, and acts as a powerful spokesperson for the environment on a global scale. In the realm of environmental sustainability, it serves as a catalyst, convener, advocate, and knowledge hub. It plays a crucial role in establishing policies, developing international collaboration, and mobilizing action to protect the environment and achieve sustainable development. The Global Gender and Environment Outlook (GGEO) has been introduced. Its objective is to play a significant part in advancing knowledge of the interface between gender and the environment, consequently encouraging sustainable development. Its main goal is to give policymakers, practitioners, civil society, and the general public broad insights into the relationships between gender, environment, and sustainable development. To comprehend the linkages between gender dynamics, environmental factors, and sustainable development objectives, GGEO undertakes in-depth research and analysis. To find patterns, obstacles, and possibilities, entails looking at pertinent data, case studies, and current literature. Disseminating research results and information on the relationship between gender and the environment to a wide range of stakeholders, such as policymakers, academics, civil society, and the general public, is another of their main responsibilities. Reports, books, and educational materials should be accessible and complete. GGEO also supports measures that incorporate gender equality into practices and policies related to the environment. In order to have an impact on policy choices that favor environmentally friendly and gender-responsive practices, work with international organizations, governments, and stakeholders. To increase the ability of people and institutions to comprehend, analyze, and successfully solve gender and environmental concerns, they provide workshops, seminars, and training programmes. Training in environmental protection, sustainable development, and gender mainstreaming is included. As a pioneering organization, GGEO is also actively working to improve group efforts to address the gender-environment nexus by engaging with national and international organizations, UN bodies, research institutes, NGOs, and civil society. Encourage collaboration to ensure sustainable development is approached holistically. The Global Gender and Environment

Outlook is essential in promoting an equitable, inclusive, and sustainable future because it acknowledges and addresses the particular demands, struggles, and contributions of various genders to environmental sustainability.

The D-P-S-I-R approach is used by GGEO. A methodology called DPSIR (Driving Forces-Pressure-State-Impact-Response) is used to analyze complicated environmental challenges, comprehend how human activities interact with the environment, and suggest appropriate answers or interventions. The DPSIR framework offers a structured method for evaluating environmental issues and developing effective policy solutions. The DPSIR methodology is used to investigate the connections between gender dynamics and environmental change in the framework of the Global Gender and Environment Outlook (GGEO). Here's how the DPSIR methodology is typically applied in the context of GGEO:

**Driving Forces (D):** Identify the major socioeconomic, cultural, and political variables that affect gender dynamics and environmental circumstances in the driving forces (D) category. This includes changes in the population, consumption habits, technology, laws, and cultural standards.

**Pressures (P):** Analyse the precise behaviors, processes, or activities brought about by the driving forces that put pressure on the environment and have an impact on gender-related impacts. This can involve industrialization, urbanization, resource depletion, and pollution.

**State (S):** Evaluate the current state of the environment and gender-related conditions as a result of the pressures. Understanding ecosystem health, the condition of natural resources, environmental quality, and gender disparities and inequalities is necessary for this.

**Impacts (I):** Analyse the current situation's direct and indirect consequences on the environment and gender. This phase aids in comprehending the repercussions of environmental deterioration and gender inequality, including their effects on social, economic, and health outcomes.

**Responses (R):** To address the impacts that have been found, suggest and assess potential solutions, policies, tactics, or actions. These solutions are meant to lessen gender inequality and adverse environmental effects. Examples include changes in policy, awareness campaigns, the development of capability, and sustainable development programs.

### Education and Global Concerns: An Influential Connection

Since education is crucial to addressing and resolving issues like gender inequality, access to healthcare, human rights, and other global challenges, education and global issues are closely related. Education is essential to sustainable development because it promotes responsible consumption, raises public awareness of environmental issues, and gives people the knowledge and skills to make decisions that are good for the environment and people. Furthermore, it is an effective instrument for ending the cycle of poverty. It equips people with the skills and knowledge needed to take advantage of better job opportunities, earn more money, and improve their overall quality of life. Education is the fundamental element that underpins the successful resolution of numerous global crises. Its ability to enlighten, empower, and foster cooperation makes it an essential tool in the quest to build a more equitable, sustainable, and connected society. Global concerns are thought to be best handled by education and the right mindset on a global scale. India's most recent National Education Policy (NEP), 2020, places a strong emphasis on promoting gender equality through education.

NEP places a strong emphasis on equitable and multicultural education, teaching the next generation about important subjects and concepts like preserving individuality and the environment. In order to achieve gender equality, educational equity, and the right to education, "teachers" are a critical component, according to the 2011 UNESCO General Conference report (UNESCO, 2015). If society as a whole receives the right education, everyone—children, adolescents, adults, and mature individuals—can comprehend and become aware of the myriad environmental concerns. People can gain the knowledge necessary to understand how the natural world functions and to manage their behavior and ecosystems for sustainability through education. The environment must be protected by everyone, but students are uniquely qualified to do so as the planet's future. By using both theoretical and practical approaches, teachers can readily raise awareness of a healthy environment both within the school and in the larger community. In addition to environmental issues, teachers play a critical role in promoting gender equality. Teachers who are gender-neutral can support and facilitate gender equality in classrooms and schools. Thus, educators can promote gender equality both within and outside of the classroom. But when it comes to classroom activities, a number of research studies have shown the various challenges educators face when attempting to initiate sex/gender conversations with their students and when involving them in cooperative play in non-gender stereotyped settings (Koch, Janice, 2003; Sadker & Sadker, 1994) [5, 7]. Teachers often perpetuate gender stereotypes even though they acknowledge their existence and express a desire to challenge them, as per a recent study on teachers' awareness of and responses to learners' gender-stereotypical behavior conducted in 2022 by Gajda A., Bójko A., and Stoecker E. They usually don't realize how gender bias is ingrained in school textbooks and have trouble identifying the possible sources of stereotypical student behavior. Among other topics, the study's findings were examined in relation to the notion of the vicious cycle of stereotypes and self-fulfilling prophecies in education. Researchers and policymakers also felt strongly that there was a need for teachers who could effectively incorporate environmental concerns into their lessons and curricula (Damoah, Ben & Adu, Emmanuel, 2019 Corpuz, Alma *et al.*, 2022) [2, 1]. Although teaching environmental education as an integrated component is a commendable and novel notion, research conducted in 2019 by Damoah, Ben & Adu, and Emmanuel revealed that respondents acknowledged that they are not capable of integrating environmental education into their topics or subjects as suggested by the curriculum framework committees. In a 2022 study, Corpuz, Alma, *et al.* talked about the difficulties teachers had incorporating environmental issues into their lessons. Due to the difficulties in guiding students toward environmental action—such as a lack of time and environmental knowledge—it was determined that environmental education needed to be included into professional education courses as well as the general teacher education curriculum. In their investigation of teachers' environmental literacy and preparedness, Rosario, Maria *et al.* (2019) [6] discovered that teachers' environmental knowledge and ability to implement environmental education in accordance with Philippine Republic Act 9512 were lacking. Therefore, the study found that the teachers chosen for the sample had a lower level of environmental literacy. The literature review made clear how urgently teachers in the twenty-first century need to get ready for gender equality and environmental literacy. Furthermore, when gender and the

environment are included into education, sustainable development can be attained through action and behavior change. Educating educators about environmental preservation and gender equity is thought to be extremely important. In the lives of their students, teachers act as mentors and role models. Teachers may encourage students to adopt similar attitudes and behaviors by modeling gender equality and environmentally conscious behavior in the classroom. Teachers with current domain knowledge and training in mainstreaming the subject in the classroom can facilitate the process. Teachers need to get in order for students to learn effectively. Therefore, to live the global and national vision, the National Institute of Open Schooling (NIOS) has launched a 'Gender Green Project' in collaboration with the Commonwealth of Learning (COL). The goal of NIOS is to educate everyone, with a focus on underprivileged groups such as working women and men, girls and women, SCs and STs, differently abled individuals, and other disadvantaged people who were unable to complete their education in the formal educational system for various reasons. The guiding principles of NIOS are quality, flexibility, equity, and accessibility. The goal of this project is to train "Gender Green Teachers" who can integrate gender and environmental concepts in a way that helps students gain a comprehensive understanding of these two constructs.

#### **About Gender Green Teacher (GGT) Programme**

In order to create a solid merit-based framework for tenure, compensation, and advancement that recognizes and rewards exceptional teachers, the NEP 2020 aims to reorganize the teaching profession. The reality of unmotivated and disillusioned Indian teachers, as well as their current predicament, is addressed in NEP 2020. Paragraph 5.15 of NEP (2020), on Continuous Professional Development (CPD), relates to the ongoing development and advancement of Indian teachers. It says the following:

*"Teachers will constantly have the chance to better themselves and learn about the newest developments in their fields. These will be made available in a variety of formats, including online teacher development courses and workshops at the local, regional, state, national, and worldwide levels. Teachers will be able to share ideas and best practices. For their professional development, driven by their interests, teachers will be required to participate in at least 50 hours of CPD activities annually."*

The goal of the CPD program for educators is to support their professional development so they can fulfill their duties with competence and according to industry standards. It improves the teachers' efficacy and efficiency. Because it fosters an idealized view of behavior in the teaching methods, in-service training is necessary for teachers to advance both personally and professionally. Teachers' professional development will be hampered by a lack of in-service training, which will result in "missing gaps" between expected and actual success levels. No matter how well pre-service training is delivered, there will always be some gaps in the field. Therefore, developing in-service training is an essential part of continuing teacher education. In-service training will be used to continue filling these gaps (Omar, Che., 2014). An in-service professional development program focused on gender and the environment for school teachers is called the "Gender Green Teacher Programme." Gender and environment are two topics covered

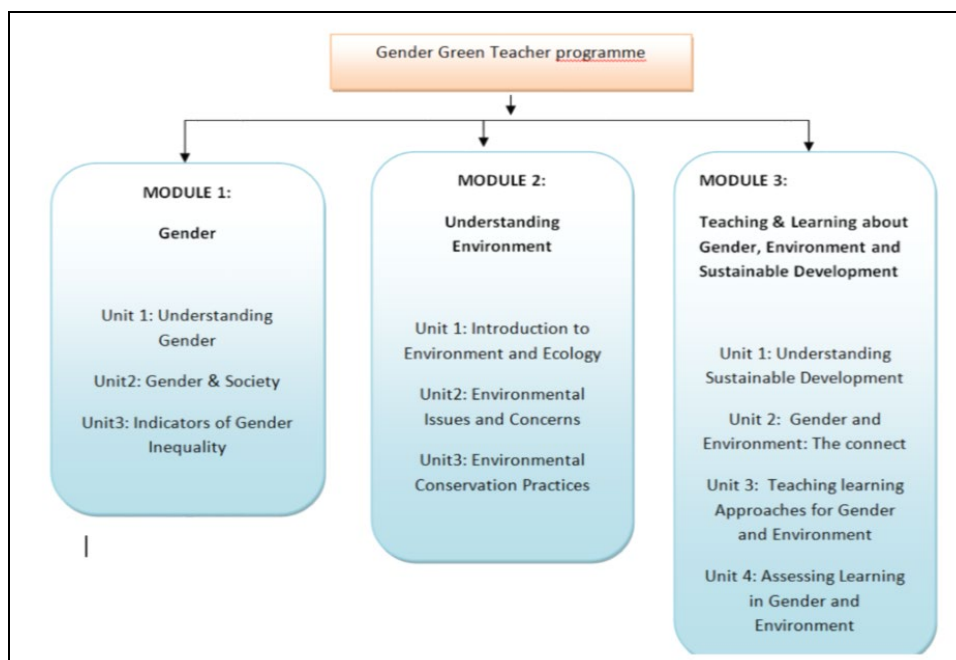
in this six-month, 120-hour certificate program. Both modules emphasize how these topics can be mainstreamed and incorporated into the teaching and learning process. The ultimate goal is for learners and teachers alike to become more knowledgeable, adopt more positive attitudes, and engage in more responsible practices and behaviors related to gender and the environment.

If we see closely, Gender and environment are closely related because women in Indian society play important social, familial, and economic roles that add to our understanding of how to preserve, use, and sustain natural resources. Because they have a greater role in connecting natural resources and traditional activities, women are more hesitant to adopt new techniques or processes that jeopardize the sustainability of these resources, according to Indian traditional mythological literature. Therefore, it is appropriate to say that there is a symbiotic relationship between women and the environment that is built on mutual care and dependence. A gender-green educator must be aware of both general environmental issues and gender issues. Furthermore, educators must comprehend how to incorporate gender and environment into their lessons in a way that will ultimately benefit the students. Because this program's curriculum combines theory, practice, and component parts, it will address teachers' issues holistically. In addition to teaching theoretical knowledge on gender and sustainable development, the program enhances instructors' capacity for workshop-based activities and action-focused Practice Teaching. The entire course will be offered online. More teachers will be able to advance their gender and environmental competencies with the help of this course. Upon program completion, each participant will receive a digital certificate.

#### **The Curriculum Structure of the GGT Programme**

The Gender module, the Understanding Environment module, and the Gender, Environment & Sustainable Development module are the three thematic modules that make up the course (Fig. 1). Separate units based on the overarching theme are included in every module. Units on understanding gender, gender & society, and indicators of gender inequality are all included in the gender module. Understanding of gender roles, identity, differentiation, social agents, institutions, status, difficulties, and ideas connected to gender inequality will be developed through these units. Units on an introduction to ecology and the environment, environmental issues and concerns, and environmental conservation techniques will all be covered in the Understanding Environment module.

Natural resources, ecology, biodiversity, urbanization, climate change, environmental concerns, historical events around the world, and environmental conservation initiatives will all be covered in-depth in this module. Units on understanding sustainable development, gender, and environment will be covered in the third module on gender, environment, and sustainable development. These units will include The Connect, teaching-learning approaches for gender and environment, and assessing learning in gender and environment. Teachers will gain knowledge about life quality, sustainable development aspects, the relationship between gender and environment, and assessments related to gender and environment learning from this module.

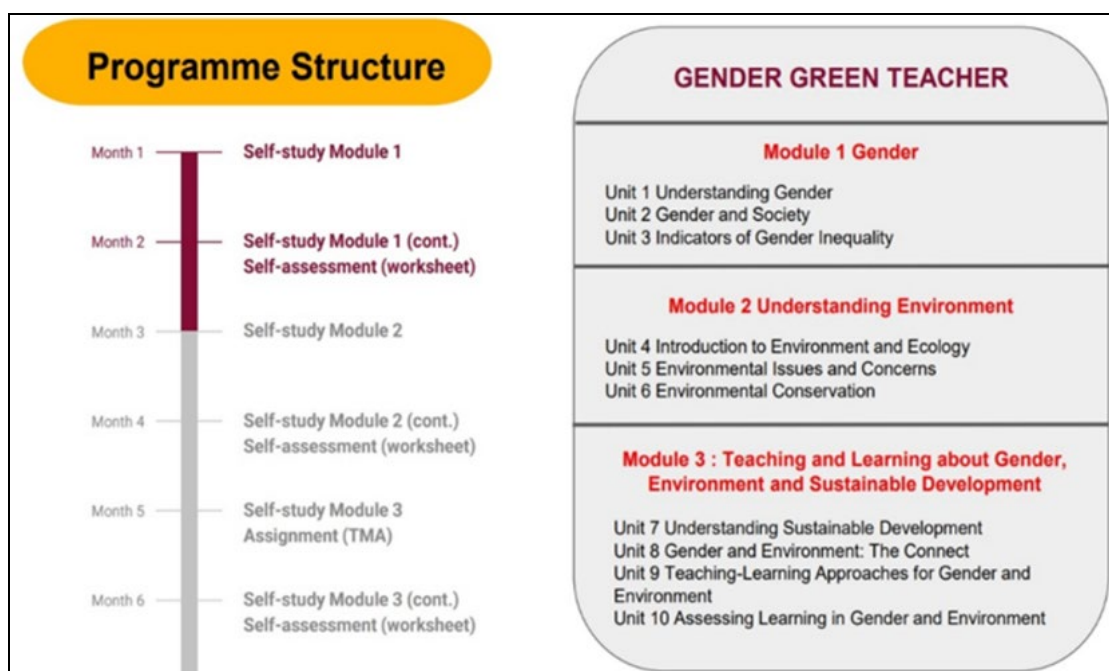


**Fig 1:** Gender Green Teacher Programme launched by NIOS in collaboration with COL

A few basic and supplementary teaching methods are included in the curriculum. While the supplemental instructional strategies may involve teachers in audio-video recordings of online lessons and communities of practice on gender and environment, the core strategies involve self-

instructional learning of online material, assignments, projects, case studies, and the sharing of ideas from practice lessons. When evaluating the program at the end, the three primary evaluation criteria that would be applied are comprehension, contextualization, and analytical thinking.

### Program Structure



**Fig 2:** 6-months Programme Structure of GGT, NIOS

### Scheme of Evaluation

**Table 2:** Scheme of Evaluation of GGT Programme

Module	Comprehension	Contextualizing	Analytical Thinking	Weight-age (TEE)	TMA (Assignments)	Total Weight age
1.	6	6	8	20	10	30
2.	6	6	8	20	10	30
3.	6	6	8	20	20	40
Total	18	18	24	60	40	100



The scheme of evaluation of the course is as follows:

- **Concurrent Learner Evaluation:** Module-end Test with Multiple Choice Questions (MCQs)
- Scheduled Tutor Marked Assignments (TMA) for Online Submission
- Term End Examination (TEE) after 6 Months of Course Completion
- **Assessing Learner's Understanding:** Evaluation in the TEE
- **Recognition of Achievement:** Digital Certificate for Successful Completion

### Benefits of Gender Green Teacher Education Programme

In order to incorporate gender perspectives with environmental education, the National Institute of Open Schooling (NIOS) launched the Gender Green Teacher Education Programme, which has a number of advantages.

The following are the main benefits of the course:

- **Comprehensive Understanding:** The curriculum encourages a thorough comprehension of the ways in which gender and environmental issues intersect. Teachers are prepared to identify the ways in which gender roles impact sustainable development, resource management, and environmental preservation.
- **Empowering Teachers:** The course gives teachers the knowledge and abilities to integrate environmental awareness and gender sensitivity into their instruction, enabling them to create more inclusive and equitable learning environments.
- **Curriculum Enrichment:** Through the introduction of gender-equality-related sustainability concepts, the program adds value to the current school curriculum. Students are encouraged to comprehend the significance of inclusive participation in environmental preservation as a result of this.
- **Encouraging Leadership:** By advancing gender equality in environmental activism and decision-making processes at the school and community levels, the course assists educators in encouraging leadership among students, especially girls.
- **Goals for Sustainable Development (SDGs):** In particular, SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 13 (Climate Action) are all in line with the program. It gives educators the opportunity to address gender inequality and encourage environmental responsibility in order to help achieve these goals.
- **Building Resilience:** Teachers who complete this course can better prepare their students to handle future environmental crises by helping them understand the role that gender plays in helping communities, especially those that are more vulnerable, adapt to environmental challenges like climate change.

In general, this Program shall strengthen teachers' ability to cultivate environmentally conscious and gender-sensitive citizens of tomorrow.

### Conclusion

Thus, education may help young people be better able to cope with severe consequences of environmental, social and economic issues. The 21st-century learner will be able to apply the knowledge in the real world through the acquirement of skills such as; problem solving, critical thinking skills, teamwork, the ability to handle fluctuations in the situation, sensitivity, and negotiation skills. One can

safely assume that these transferable skills are required for employment, and I would like to consider oneself as a decent citizen as well for possessing these skills, and they may be expertly taught along with the help of a teacher who possesses the required credentials. All people have to progress and engage in sustainable development. Organization or nation stands to lose valuable human asset, skills, and experience from a section of population which is most knowledgeable about the local resources within a given region when women and girls are left out of development processes. Indeed there is some truth in the saying that education is a potent weapon for teaching values. From the case of the teachers who teach topics that cover gender equality and environmental conservation, the pupils are helped to understand the importance of fairness when treating people as well as the importance of conserving the environment. Teaching-learning facilitation is improved through raising awareness of teachers on matters of the world such as gender, conservation. It goes beyond traditional subject areas; it teaches pupils issues in the real world and teaches them about and encourages them to be active citizens, problem-solvers, and to think about the feelings of others. This would enable teachers to become more effective in the delivery of environmental conservation and gender equality themes in their teaching practices through the provider subscriber's professional development and teacher training programs. In the long run, this may bring in a totally different society that is much more sensitive to the environment and everyone is equal. Considering this, NIOS launched a need-based in-service teacher education course to help users establish a healthy atmosphere including fairness in teaching learning environment with practicing the vision on the global level. The purpose of the GGT course is to increase teachers' capacity building, mainstream gender-environment issues through their instruction, foster positive attitudes among teachers towards gender and environmental issues and empower them to use and develop effective teaching-learning strategies to incorporate gender and environmental concerns into the teaching-learning process. It is anticipated that society will observe an increase in gender-neutral and environment-friendly teachers who shall act as agents of change in society and contribute towards creating awareness of a gender-just society and a sustainable green world.

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