

Green Skills: 5.1

(Class XII, Employability Skills)

1. What is the future of Green Jobs?

Ans. Green Jobs Future: Industry experts remain hopeful and excited about green jobs market, since industries are adopting large scale, energy efficiency measures. There are jobs in solar and wind installations, clean car engineering. Households are switching to solar energy, families are purchasing alternative energy cars, and new jobs are being added to the market place to meet the increasing demand.



There is promising statistics in the green jobs industry. Clean energy has experienced incredible growth and success in the past decade and is poised to continue to grow in the coming decade; this will collaborate with business to advance policies that will do well to environment and economy. These technologies are not so costly also, thereby they are adapted widely.

2. How Green Jobs helps our environment?

Ans. Green Jobs helpful for Environment: They help to cut the consumption of energy, raw materials and water through high-efficiency strategies, de-carbonize the economy and reduce greenhouse-gas emissions, minimize or avoid altogether all forms of waste and pollution, protect and restore ecosystems and biodiversity.



Green jobs play a crucial role in reducing the environmental footprint of economic activity. This reduction is gradual and the different jobs contribute to different degrees. Workers manufacturing fuel-efficient or hybrid cars, for example, contribute less to reducing

emissions from transport than those working in public transport systems.

3. What are the key drivers of green employment?

Ans. Green innovation helps businesses stay at the cutting edge, retaining existing jobs and creating new ones. Modern economies mobilize enormous quantities of fuel, metals, minerals, lumber, and agricultural raw materials.

In view of the gathering environmental crisis, and especially the spectre of climate change, there is an urgent need to make economies far more sustainable and thus to re-examine the prevailing production and consumption model.

Concepts such as dematerialization, remanufacturing, zero waste, closed loop systems,

Green Jobs

Green Jobs are jobs which are friendly for the nature and for the earth. They could be created in every sector of the economy. They are mostly associated with the renewable energetics, waste disposal and public transport.

durability, and replacing product purchases with efficient services have been discussed for some time and tested in some instances, but by and large have yet to be translated into reality.

Economic systems that are able to churn out huge volumes of products but require less and less labour to do so pose the dual challenge of environmental impact and

unemployment. In the future, not only do jobs need to be greener, their very essence may need to be redefined.

4. Hold a group discussion on possible ways to promote Sustainable Development. Do not forget to highlight the role of hanging careers in propelling the idea of Sustainability.

Ans. Self-practice in group

5. Discuss about probable green jobs that exist today and imagine that will emerge in next 10 years.

Ans. GREEN JOBS: Following green jobs will be emerged in next 10 years.

- i. **Urban Growers:** They manage terrace top gardens to grow fruits and vegetables in urban areas. They use environment friendly ways to grow fruits and vegetables. Today there is a shift in the demand of consumers. The rising instances of food adulteration and use of pesticides in fruits and vegetables has paved a way for need of Organic food. **Many people have their own organic gardens** on roof tops to grow seasonal vegetables and fruits, while many do it as a hobby and love for gardening, there are many who do it for a living.
- ii. **Clean Car Engineers:** Recent initiations by Government on restricting the vehicular movement around Diwali time through 'Odd-Even' Scheme says a lot about the need of Clean Car Engineers. These people explore ways and means in which the cars don't emit poisonous gases and keep the air clean to breathe. **The Clean Car Engineers job is to design future transport that will be sustainable.** This would not only mean to help keep

air clean but also how to keep natural resources available for future generation without compromising the quality – as in average engine life, durability etc.

- iii. **Alternative Sources of Energy; Biofuel Jobs:** Biofuel is the nonconventional fuel that is sought for to run vehicles without creating pollution. Since petrol and diesel create lot of pollution, there is a need to have clean fuel. It is felt that fuel from bio mass or natural matter can help resolve this problem.



- iv. **Building Roads with Plastic wastes:** Engineers have found ways and means to solve two problems at one go. The waste plastic generated in tons over the globe can be utilized to make roads. This will not only provide better roads for vehicles to move but also solves the problem of waste generation.

रिलायंस ने प्लास्टिक कचरे से बनाई 40 किलोमीटर सड़क

पहल

नई दिल्ली | एजेंसी

मुकेश अंबानी की कंपनी रिलायंस इंडस्ट्रीज सड़क निर्माण में प्लास्टिक कचरे का इस्तेमाल करने के लिए नया प्रोजेक्ट लॉन्च करने जा रही है। रिलायंस ने भारतीय राष्ट्रीय राजमार्ग प्राधिकरण को अपनी प्लास्टिक कचरे से सड़क निर्माण की प्रौद्योगिकी देने की पेशकश की है। इस प्रौद्योगिकी से सड़क निर्माण में प्लास्टिक का इस्तेमाल किया जा सकेगा। इस नई तकनीक से सड़क का निर्माण करने पर उसकी उम्र बढ़

जाएगी। साथ ही प्लास्टिक से बढ़ते प्रदूषण से भी मुक्ति मिलेगी।

पायलट परियोजनाओं पर काम शुरू : कंपनी ने रायगढ़ जिले स्थित अपने नागोथाने विनिर्माण संयंत्र में इस प्रौद्योगिकी का परीक्षण किया है। इसके अलावा यह कई और पायलट परियोजनाओं पर काम कर रही है। कंपनी ने अपने संयंत्र में 50 टन प्लास्टिक अपशिष्ट से करीब 40 किलोमीटर लंबी सड़क बनाई है। एनएचआई के अलावा रिलायंस और स्थानीय निकायों को भी यह प्रौद्योगिकी सौंपने के लिए बातचीत कर रही है।

40 लाख की बचत की रिलायंस ने बिटुमैन के विकल्प के तौर पर वेस्ट प्लास्टिक से

प्रति किलोमीटर एक लाख की बचत

कंपनी के पेट्रोरसायन कारोबार के मुख्य परिवालन अधिकारी विपुल शाह ने कहा, पैकेज्ड सामानों के खाली पैकेट, पॉलीथीन बैग जैसे प्लास्टिक अपशिष्ट का इस्तेमाल सड़क निर्माण में करने की प्रणाली विकसित करने में हमें करीब 14 से 18 महीने का वक़्त लगा। हमारा तर्जुबा कहता है कि एक किमी सड़क में एक टन प्लास्टिक कचरे का इस्तेमाल होता है और इससे लगभग एक लाख रुपये की बचत हो सकती है, क्योंकि इसे बिटुमैन के विकल्प के तौर पर इस्तेमाल किया जा सकता है। इस प्रकार हमने लगभग 40 लाख की बचत की। इसके अलावा इस प्लास्टिक से सड़कों की गुणवत्ता में भी सुधार होता है।

14 से 18 महीने का वक़्त लगा सड़क निर्माण में करने की प्रणाली विकसित करने में

पानी का असर नहीं

शाह ने कहा कि सड़क निर्माण में कोलतार के आठ से दस प्रतिशत तक उपयोग के विकल्प के तौर पर हम इस प्लास्टिक अपशिष्ट का उपयोग कर सकते हैं। इतना ही नहीं यह सड़क की गुणवत्ता को भी बढ़ाता है। इस प्रौद्योगिकी से सड़क निर्माण में दो महीने का समय लगा। साथ ही इस प्रणाली से बनी सड़क पिछले साल की मानसूनी बारिश में भी खराब नहीं हुई।

प्रदूषण घटाने में मदद

एक रिपोर्ट के मुताबिक, साल 2018 में दुनिया के 20 प्रदूषित शहरों में से 15 भारत के थे। नई दिल्ली दुनिया की सबसे प्रदूषित राजधानी है। जहां स्मॉग के चलते स्कूल बंद, फ्लाइट कैसिल जैसी तमाम समस्याएं आती हैं।

कोंयोरेंस और इंडस्ट्रीज देस में प्रदूषण बढ़ाने के लिए जिम्मेदार है। ऐसे में प्लास्टिक कचरे का इस्तेमाल सड़क निर्माण में होने से इसका उपयोग सुनिश्चित होगा और प्रदूषण कम करने में मदद मिलेगी।

50 टन प्लास्टिक अपशिष्ट को कोलतार के साथ मिलाकर रायगढ़ में लंबी सड़क बनाई रिलायंस ने

- v. **Solar Cell Technician:** Use of solar energy is in high demand these days. This calls for the services and knowledge of Solar Cell Technicians. Using the right substance in the panels that is durable and affordable is a challenge. These people test the same on different substances for better results.
- vi. **Solar Panel Engineers & Installer:** Solar Power Plant engineers and installers play very important role in successfully designing and installing solar plants to produce electricity.

vii. **Wind Energy Workers:** After the solar energy, wind energy is also sought for to produce electricity. Hence, the *wind energy workers would be needed to lay down the plan for same.*

viii. **Wave Energy Producers:** Another way to generate electricity without exhausting resources could be *using the energy of waves from oceans.* Since, 70% of our planet consists of water bodies, this could be useful in creating sustainable society.

ix. **Water Quality Technicians:** Water Pollution is in its alarming state. It increases the demand of water purifiers in modern society. This has given rise to *the need of Water Quality Technicians* to help monitor the water quality and treat it.

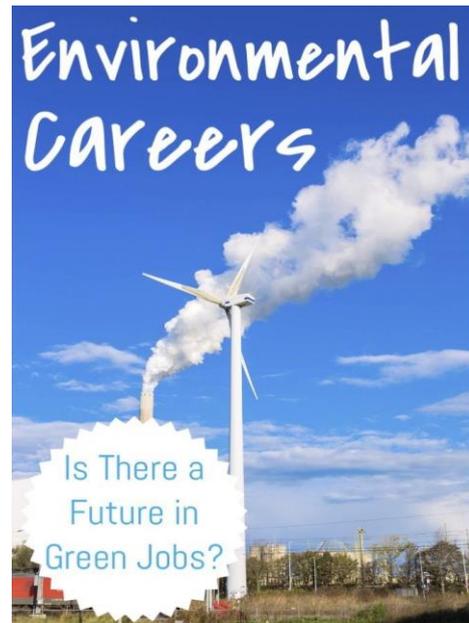
x. **Rain Water Harvesting Engineers:** With the rising problem of scarcity of water, need to build Rain Water pits are on demand. These are specialised to lay the plan and construct rain water harvesting systems (RWHS) for collecting the rain water and reusing same in buildings. The RWHS may also be used to replenish ground water level.

xi. **Waste Water Treatment Workers:** People involved in planning and constructing a system in green building to retreat the waste water from the same building and reutilizing it for secondary purposes.

xii. **Recyclers:** Waste generation across the globe has given rise to need of segregating waste. *The recycler's job is to segregate and collect the recyclable products.* These days many recyclers/scrap dealers are upcycling the waste products. Over time, the need of recyclers is going to increase.

xiii. **E-Waste Recyclers:** With advancing technology, organizations and industries across the globe are facing the threat to dispose the e-waste generated by them. Many organizations have now started contacting special recyclers who collect all the electronic waste and recycle it. It is expected that *in coming years, we will need more e-waste recyclers.* Gold is being extracted from e waste and is being used in various places.

xiv. **Sewage Treatment Plants:** The process to treat the waste in its impure form at a sewage treatment plant involves human engineering. People involved in the process will also have Green collar jobs.



xv. **Eco-Tourism:** Eco-Tourism is relatively new area focussing on socially responsible travel, personal growth and environmental sustainability. Most of the people agree that they do



not know how to make travel more sustainable. Eco-tourism includes visiting fragile, pristine and undisturbed areas of nature. Using ACs in car emits warm gases that further pollute the environment. Rolling down the windows is better option for saving environment. Keep your trash bag in your car while you are on tour. To avoid eating in disposal always keep your own cutlery set when you are on

tour. Travelling by bus or train is an eco-friendly option for sustainable travellers. Carry your own hand towel in bags and you may wash it after using. Though paper tissues are eco-friendly, they still generate waste so you may avoid to use it.

xvi. **Green Builders:** Green Builders ensure that environmental friendly things are used to build houses and buildings.

xvii. **Energy Auditors:** *Energy Auditors inspect the buildings and measure heat, cooling, electrical and gas usage and find energy leakages in a structure and advise for corrective measures.*

xviii. **Energy Consultants:** They help organizations analyze their energy consumptions with aim to reduce the same.

xix. **Environmental Engineers:** *Environmental engineers provide solutions to environmental problems by using engineering, biology and chemistry. Providing solution to improve the quality of soil for better productivity, devising strategies to generate public electricity using renewable resources like solar street lights etc. is a part of environmental engineering.*

xx. **Nature Scientists:** As we take step towards using sustainable means to create a sustainable society, it is very important to record and analyse the impact of our steps on environment. Nature Scientists help in achieving this aim.

xxi. **Working with a Non- Governmental Organisation (NGO):** Working with an NGO for the cause of Environment provides opportunity to closely work for creating a sustainable and better society.

xxii. **Environmental Education Teacher:** A teacher who takes up the role of sensitising young minds and creates acceptance amongst them to contribute in protecting environment.

6. (Practical Activity):

Choose any 4-5 Green Careers and prepare a brochure elaborating all the aspects like Educational Qualifications, Skills, Universities and colleges where these courses are available.

Ans. Self- practice.

Pankaj Kawatra, 9818115622