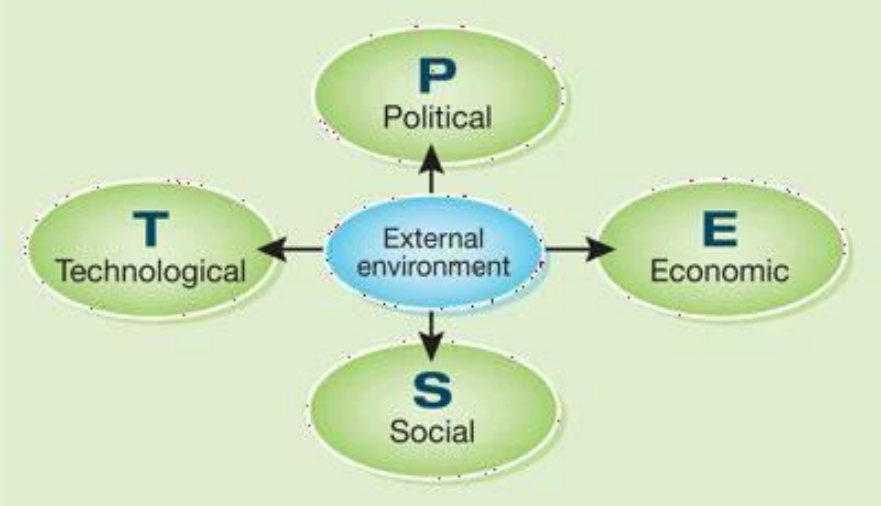
PRACTICAL8

Aim: ImportanceofThe MultidisciplinaryNatureofEnvironmentalStudies

ThewordenvironmentisderivedfromtheFrenchword‘environner’whichmeansto‘encircleor surround’. Thus our environment can be defined as “the Social, Cultural and Physicalconditionsthatsurround,affectandinfluencethesurvival,growthanddevelopmentofpeople,animals and plants”. This broad definition includes the natural world and the technologicalenvironmentas well as theculturaland social contexts that shapehumanlives.

EVS is a multidisciplinary academic field that is involved with the exploration, research, andexpansion of an understanding of the living and physical environment. It also helps in a betterunderstanding of the natural, political, technological, economic, social, and cultural aspects ofenvironments.ItcanalsobesaidthatEnvironmentalStudiesorEVSisthescienceofphysicalphenomenaintheenvironment.



Theword‘disciplinary’meanstohaveadisciplinedstudyinaparticularfield.Onthecontrary,multidisciplinary refers to the combination of more than one discipline or field of study. Itdefines the multi-sectoral, and multi-dimensional study in various fields. For instance, whenyoustudyvarioussubjectssuchasScience,SocialScience,Mathematics,English,etc.,thenitis considered amultidisciplinary courseof study.

What do you understand by the Multidisciplinary Nature of Environmental Studies?EnvironmentalStudyisavastsubjecttobestudiedupon.Ithasalltheaspectsofvarioussubjects suchasanthropology,science,socialscience,statistics,economics,computers,geology, health,andsociology.Itillustrates the multi-sectoralandmulti-dimensionalstudyinvariousfields.ItalsoeducatesusaboutthePhysical,Social,Cultural,andBiologicalaspects.

It brings our natural environment and human impacts altogether. It is a multidisciplinaryapproachthatdealswithevery issuethataffectsanorganism.Itcovers the impactsofenvironmentalscienceand social aspects of theenvironment as well.

Why is EVS known as the Multidisciplinary Nature of Environmental Studies?EnvironmentalStudies consistof differentcomponents. Theyarelisted below**:**

- Anthropology–Itisthestudyofhumancharacteristics,theirbiologicalandpsychological wellbeing, their societies and cultures, their development and evolution.EVSisrelatedtoanthropologyasitdealswiththestudyofhumansandtheirenvironmentas well across spaceand time.
- Biology– Itisabranchofsciencethatisconcernedwiththestudyoflivingorganisms.Itincludestheirphysicalstructure,chemicalprocesses,molecularinteractions,development,andevolution.EVSisrelatedtobiologyasitdealswiththenaturalhabitatoftheliving organisms.
- Chemistry– Itisabranchofsciencethatstudieschemicalsandthesubstancesofwhichmatteriscomposedof.InEVS,fortheunderstandingofnaturalphenomena,werequireknowledgeofchemistry.
- Computers–Withtheadvancingworld,computershavebecomeeveryone'srequirement. The Environmental Protection Agency uses computers to maintain arecord and to investigate chemicals that areused in soiland water.
- Economics – It is a branch of knowledge that is concerned with the production,consumption, and distribution of goods and services. To protect the environment frompollution, global warming, and climate change, various economic policies have beendevelopedinanalysing and finding solutionsor remediesforenvironmental issues.
- Geology – It is the study of physical structures and the substances that are present onearth, their history, and the processes they go through. EVS also deals with the studyoftheearth and the environment.
- Physics – It is a branch of science that studies the energy and matter in space and timeandtheirrelationshipwitheachother.Physicsworksonenergyconservation,atmospheric models, andvarious issues related tothe**environment.**
- Sociology – It is the study of social life, social change, social causes, and the socialconsequences of human behavior. It also deals with the relationship between modernsocietiesand the environment.
- Statistics– Itisthestudyofcollecting,analysing,interpreting,andpresentingquantitativedata.Itisalsousedtoanalyzedatatodiscoverpatternsandsuggestthebestgrowthofthe environment.

ImportanceofMultidisciplinarynatureof EnvironmentalStudies

Environmental Studies is essential as it helps us to understand our surrounding environmentand natural phenomena. Numerous points provide us the importance of the Multidisciplinarynatureof EnvironmentalStudies. They are:

- It helps in gaining knowledge about the current environmental issues. It provides uswith the necessary skills to obtain solutions for various environmental issues such aspollution,global warming, and climatechange.
- It helps in maintaining the ecological balance through fundamental knowledge ofenvironmentalsystems and processes.
- It provides us information about the changes in the environment due to anthropogenicfactors.Italsoprovidesustheskillsforanalysingdifferentenvironmentalsystemsandchangesin theenvironment becauseof humanactivities.

- Itaimstopreserveandprotectbiodiversity.Itmakesusfamiliarwiththevariousspeciesofflora andfauna.It providesuswith differentways topreserveand protectthem.
- Itprovidesustheconsciousnessaboutourdutiestowardstheenvironment.Itadditionally educates us about the various environmental issues which need to beresolved at a faster pace. Environmental issues such as conservation of energy, toxicemissions,waterconservation,properdisposalofwastes,risingglobaltemperature,and manymorearealso explained to us by environmental studies.
- Variousmoreissuessuchasthedepletionofnaturalresources,growinghumanpopulation, rising numbers of natural calamities, for instance, earthquakes, tsunamis,floods,drought,areallseriousconcernsthatneedtobetakenseriously.EVSmakesu sunderstand the harmful and drastic effects of these issues on the environment, andhumansas well.
- By studying Environmental Studies, people can explore and connect with their naturalandsurroundingenvironment.Ithelpspeopleindevelopingtheirinsightsforundersta ndinghumanprocesses,naturalphenomena,andvariouschangesintheenvironment.

WhatistheScopeof MultidisciplinaryNatureof EnvironmentalStudies?

The scope of Multidisciplinary Nature of Environmental Studies consists of various aspectssuch as biological, cultural, social, and physical. It is also related to other subjects such asscience,geography,economics,statistics,health, technology,population,andecology.

- Biologicalaspects –Thisisoneofthemostessentialaspectsofenvironmentalstudies.It is the solution of an organism, or a population, or a community to changes in itsenvironment. Human beings, plants, animals, microorganisms, birds, insets are allincludedin thebiological aspects.
- Cultural aspects – The environment gives knowledge about different customs, laws,dresses, values, and religious beliefs. They all are included under cultural aspects.Environmentalstudies help us inunderstanding thesediverseaspects.
- Physicalaspects–Theenvironmentwhichisshapedbyhumanactivitiesareconsideredas physical aspects, for example, bridges, roads, buildings, industries, etc. Apart fromthem, natural resources such as land, air, water, minerals, vegetation, landforms likehills,oceans, mountains, forests, etc.
- Social aspects – It illustrates the standard of living, tastes, preferences, educationalstatus, and etiquettes of individuals living in society. Environmental Studies giveacquaintanceaboutpeoplewhohavelinguistic,cultural,andeducationaldifferencesins ocieties.

How the Multidisciplinary Nature of Environmental Studies helps in solving environmentalproblems?

EnvironmentalStudiesdealswithvariousareas– conservationofnaturalresources,controllingpollution,theimpactofthegrowinghumanpopulation ontheenvironment.Amultidisciplinarynature is required to address these complex environmental problems. These problems areconnectedwithdifferentsectorslikeagriculture,landdegradation,economicloss,contamination ofnaturalresources,forestry,habitatfragmentation,ozonelayerdepletion,solidwastemanagement, etc.

Theemergingclimaticandenvironmentalconcernsneedmultidisciplinarysolutions.Environmental issues are an alarming indication of upcoming disasters. Therefore, to gainknowledgeabouttheseissues,theMultidisciplinaryNatureofEnvironmentalStudiesisamust.

There are various ways in which our environment can be conserved. Some of them are listedbelow:

- Replacingdisposalitemswithreusableones.
- Properdisposalofwastes
- Recyclingofpaper, plastics,etc.
- Neutralizingthepoisonousemissionsbythefactories
- Conserveresourceslike waterandelectricity
- Supporteco-friendlyproductsmore
- Afforestationandreforestation
- Enhancementoftheuseofpublictransport
- Limittheuseofpaper
- Byspreadingawareness aboutthe importanceof theenvironment

A pure, harmless, and pollution-free environment is every individual's right. These issues canbe solved when people acquaintance with the need of conserving the environment. For this,knowledgeof Environmental Studies is needed.

Conclusion

EVS is a multidisciplinary academic field that is involved with the exploration, research, andexpansion of an understanding of the living and physical environment. It has all the aspects ofvarioussubjectssuchasanthropology,science,socialscience,statistics,economics,computers, geology, health, and sociology. It brings our natural environment and humanimpactsaltogether.EnvironmentalStudiesisessentialasithelpsustounderstandoursurrounding environmentand natural phenomena.

It provides us with the necessary skills to obtain solutions for various environmental issuessuchaspollution,globalwarming,andclimatechange.Itaimstopreserveandprotectbiodiversity.EnvironmentalStudiesdealswithvariousareas– conservationofnaturalresources,controllingpollution,theimpactofthegrowinghumanpopulation ontheenvironment. Environmental issues such as conservation of energy, toxic emissions, waterconservation, proper disposal of wastes, rising global temperature, and many more are alsoexplainedto us by environmental studies.

Theemergingclimaticandenvironmentalconcernsneedmultidisciplinarysolutions.Environmental issues are an alarming indication of upcoming disasters. Therefore, to gainknowledgeabouttheseissues,theMultidisciplinaryNatureofEnvironmentalStudiesisamust.The scope of Multidisciplinary Nature of Environmental Studies consists of various aspectssuch as biological, cultural, social, and physical. It is also related to other subjects such asscience,geography,economics, statistics,health,technology,population, andecology.

PRACTICAL9

Aim:ImportanceofGoingPaperless

"Going Paperless" is a term that was coined not so long ago to describe the processes of"reducingtheamountofpaperusedinabusinesscontext,exchangingprintedpagesfordigitaldocuments especially in internal processes."

Common paperless areas of choice by companies include receipts, invoices, tax returns andpay checks, among others. Areas that manual work adds no real value to the company and thestepsrequired to haveits work donearetoo time-consuming.

It should not be a surprise that, once this wave started, it was only a matter of time for it tobecome bigger. This happened mainly because of the rise of modern technology that is takingovercompaniesworldwide,digitalisingseveralprocessesthatwerepreviouslymadewithtons ofpaper.

Sevenreasonswhygoingpaperlessmaybebeneficialforyoursmallbusiness:

1. Documentorganization

The abilitytoquicklylocate anddisseminate informationmayenhance your company'sefficiency and professional image. Spending time hunting through piles of paper slows downresponse time in an age when most answers are only a few keystrokes away. By scanningelectronic copies of receipts and invoices, documents can be sorted, filed, and organized forquickretrieval when it matters most.

2. Clientcommunicationisfasterandlessexpensive

By maintaining a customer email list, you can instantaneously communicate sales and specialofferswithoutincurringpostageandprintingexpenses.Withtheadvancedtechnologyofsmartdevices,mostpeoplehaveimmediateaccesstoemails.Whileitincreasesefficiency,electroniccommunicationalsodecreasesstoragecostsastheamountofpapercopieslitteringyourofficewill begintodwindle.

3. Paperlessfilesareeasilysaved andretrievedonthego

Withtheadventofphoto-scanningapps,businesstravellerscaneasilybackupexpensereportswithoutneedingtosaveapileofpaperstobringbacktotheoffice. Electronicfilescanalsobeshared with co-workers over a network or via email. Shifting to paperless documentation alsomakesthetransportationofdatamoreefficient,withouttheneedforcumbersomefaxmachinesor document couriers.

4. Automaticbackups

When you accidentally throw out an important paper, it's usually gone forever. However,maintaining electronic files allows for multiple backup points. Data can be saved on flashdrives, in the cloud, or to an external hard drive. For vitally important financial data, cloud-basedaccountingsystems provideautomaticbackupsonapre-scheduledbasis,whicheliminatestheneedfor small businessowners to setasidetime formanual backups.

5. Datasecurity

Customerswillalwaysbeconcernedaboutprivacyanddataprotection,whichrequirescompanies to respond by implementing proper data security procedures beyond locked filingcabinets and paper shredders. Many of today's cloud-based accounting systems offer bank-leveldatasecuritytoprotectfinancialandcustomerinformation,whichismorethanmostsmallcompanieswith limited technology staffcan affordto build in-house.

6. Environmentalfriendliness

According to the Environmental Paper Network's most recent State of the Paper Industryreport, paper usage in North America is decreasing while the amount of paper recovered forrecycling is increasing. Companies are striving to recycle, yet office copy paper alone stillaccounts for over 20 percent of the total paper usage in the United States. But being green ismorethanjustreducingpaperproduction.Apaperlessenvironmentmayalsomeanlessenergyconsumption.Smallbusinessesuselessenergywhenprinters,faxes,andcopiersareinactive.

7. Financialbenefits

The savings of going paperless extends beyond just the cost of the paper, which can besubstantial. The cost of other office supplies like ink cartridges also decreases. Additionalupgradesorreplacementstoexpensiveofficeequipmentsuchascopiersandfaxmachinesmayalsodecreasein a paperless office.

The shift toward a paperless environment increases each year as new technology becomesavailabletoimprovedatastorageandelectroniccommunication.Takingactiontoreducepaperusage may help your business be more efficient and enhance the level of security that guardsyourmost valuableinformation.

PRACTICAL10

Aim: Define the terms renewable resource and non-renewable and give examples of eachresourcetype that arerelated to forage production

A **natural resource** is something supplied by nature that helps support life. When you thinkof natural resources,you may think of minerals and fossil fuels. However, ecosystems and theservicestheyprovideare alsonaturalresources.**Biodiversity** isanaturalresourceaswell.

RenewableResources

Renewableresourcescanbereplenishedbynaturalprocessesasquicklyashumansusethem.Examples include sunlight and wind. Metals and other minerals are renewable too. They arenotdestroyed when theyareusedand can berecycled.

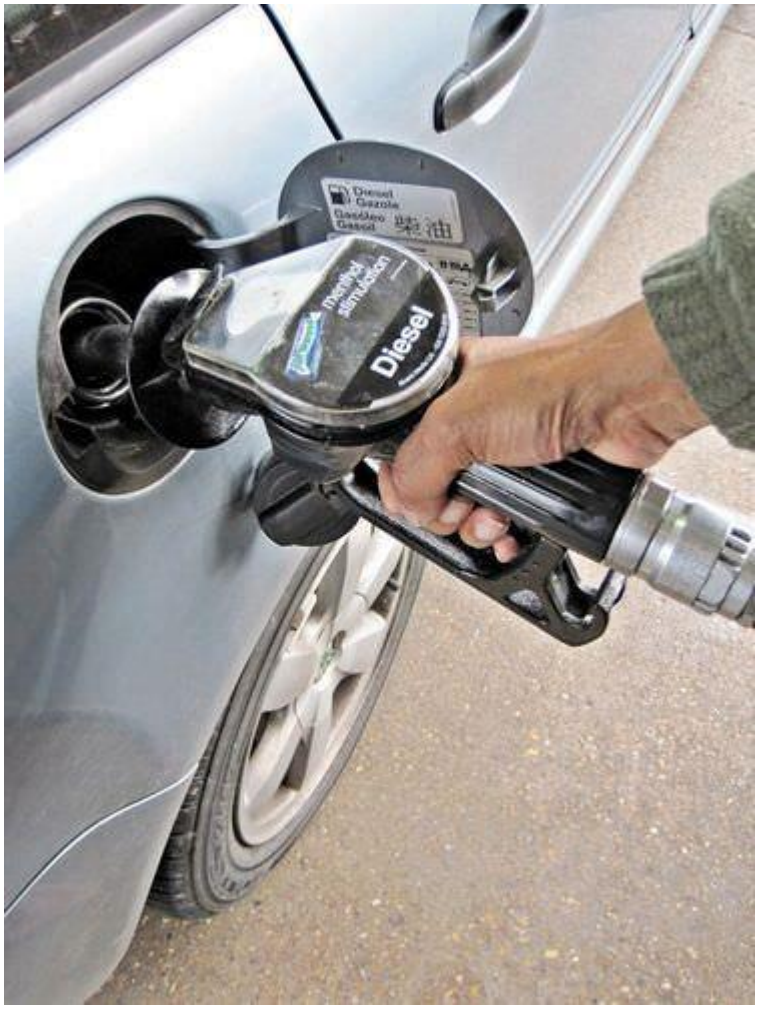
Wind is a renewable resource. Wind turbines like this one harness just a tiny fraction of windenergy.

Living things are considered to be renewable. This is because they can reproduce to replacethemselves. However, they can be over-used or misused to the point of extinction. To be trulyrenewable,theymustbeusedsustainably.**Sustainableuse** istheuseofresourcesinawaythatmeetstheneedsof thepresentand also preservesthe resources forfuturegenerations.

Non-renewableResources

Non-renewable resources are natural resources that exist in fixed amounts and can be usedup.Examplesincludefossilfuelssuchaspetroleum,coal,andnaturalgas.Thesefuelsformedfrom theremainsofplantsoverhundredsofmillionsofyears.Weareusingthemupfarfasterthan they could ever be replaced. At current rates of use, petroleum will be used up in just afewdecadesandcoalinlessthan300years.Nuclearpowerisalsoconsideredtobeanon-

renewableresourcebecauseitusesupuranium,whichwillsoonerorlaterrunout.Italsoproducesharmful wastesthat aredifficult to dispose ofsafely.



Gasolineismadefromcrudeoil.Thecrudeoilpumpedoutofthegroundisablackliquidcalledpetroleum , which is a non-renewableresource.

Coalisanothernon-renewableresource.

One environmental issue that has been of prominent concern in the 20th century has been thegrowthinhumanpopulation.Thechartbelow,fromthepopulationreferencebureau,illustratesthe dramaticgrowthinhumanpopulationbeginningaroundtheyear1750.Ashumanpopulation has grown the demand for resources of all kinds has also grown. Supporting morepeople means producing more food, which in turn requires greater amounts of energy, soilnutrients,water, and otherresources associated withagricultural production

There are many types of resources that go into producing food and producing forages. Ingeneral these resources have been grouped into two types: renewable resources and non-renewableresources.Renewableresourcesmaybedefinedasresourcesthathavethepotentialtobere placedovertimebynaturalprocesses.Therenewalprocessmayberelativelyquick, aswith sunshine which comes on a daily basis. Or, the renewal process may be very slow, as inthe formation of soil which may take hundreds of years. Non-renewable resources may bedefined as resources whose stock or reserves is limited or fixed. The available supply of non-renewable resources may be replenished through recycling (e.g. recycling aluminium cans),but the overall supply remains relatively constant. The table below gives several examples ofeachtype of resource.

RenewableResources	Non-renewableresources
SolarEnergy	Oil
Soil	Steel
Trees	Aluminium
Grass	Coal
Groundwater	Phosphates

Examiningtheresourceslistedinthetableabovesuggeststhatmodernagriculturalproduction,includ ing forage production, is dependent on a number of resources that are considered non-renewable. Farm equipment contains steel and aluminium parts and uses oil based fuels. Theenergy to manufacture fertilizer and other agrichemicals is derived from oil, coal, and naturalgas.Phosphatefertilizersarewidelyusedoncrops.Therealizationofthisdependenceonnon-renewable resources has led to increased interest in developing and implementing so calledsustainableagricultural production systems.