

SUMMER TRAINING REPORT

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PART- 1

Is protection of environment important for sustainable development?

- Introduction
- Objectives
- Methodology
- Key findings
- Conclusion
- References

Introduction

- Importance of environment
- Degradation of environment
- Global warming
- Meaning and importance of sustainable development
- Selection of Uttar Pradesh as study area
- Provisions to control degradation
- Analysis of the condition and need of further study

Objectives

The objective(s) of the paper aimed to

- examine the various environmental degradation activities in the state of Uttar Pradesh and pay attention towards the most common degrading factor.
- To suggest some solution that can solve the problem of environment degradation through sustainable development.

Methodology

- Explorative research design and based on secondary literature /information from the state of Uttar Pradesh
- Secondary data were collected from various literatures, journals, articles, and government website
- Articles are searched from different browser such as google scholar, Yahoo, NCBI and PubMed. on the topic of environment degradation and sustainable management to find one common link among them.
- Altogether, more than 40 articles were selected by inculcating the words such as “environment” “degradation” “sustainability” “Uttar Pradesh” etc.
- All the articles were reviewed thematically, and analysis was made to conclude.

Key Findings

Land degradation

- Natural and man-made hazard
- According to the state planning commission about 74.48 lakh hectares of land which is 30.77 percent of the area is considered as degraded land in Uttar Pradesh.
- Land to man ratio was 1.16 hectares in 1971 which fell to 0.86 in 1996-97 and the per capita net sown area was 0.20 hectares in 1971 which fell to 0.10 hectares in 2001.
- Big industries like Paper, Tannery, textile, chemical and leather which produces numerous toxic and non-biodegradable wastes such as acid, slag, resins, salt mud and various solvents which deteriorates the soil, even than all these activities are unseen and neglected.
- Mining activities also causes a degree of degradation during the extraction of mineral ore.

Water Pollution

- The quality of water is deteriorating at a rapid rate be it surface water, ground water, rivers, oceans and other small and large water bodies.
- Around 1-2 billion people are facing the issue of freshwater availability and water scarcity.
- 70 percent of the total poor in rural sector which depends on aquatic environment for the livelihood and well-being.
- Main source of pollution are the fertilizers and used pesticides used by the farmers which are washed by the rain into the river because most crops are cultivated in the banks of river and around 47 percent of the total irrigation is done at Ganga basin.
- Other sources of pollution are the chemical waste products, the dirty coolant water and domestic sewage produced by the big industrial cities like Kanpur and are disposed into river.
- Various components and elements like chloride, Nitrate, phosphate, magnesium, chromium etc and low level of dissolved oxygen and high alkalinity which makes it unfit for drinking.
- Total dissolved solid like Zinc, Iron, Chromium, Phosphate and the high alkalinity and low dissolved oxygen because of the industrial discharge and domestic sewage therefore their water were declared unfit for drinking and irrigation activities as well.
- Groundwater is one of the primary and major sources of the drinking water and is also used in agricultural purposes.
- Ponds are facing depletion of flora and fauna, loss of water storage capacity and poor water quality.

Air Pollution

- On an average a person breaths about 20,000 litres of air per day survive therefore it should always be clean and in required percentage to support life.
- Presence of particulate matters like SPM, RSPM, SO and NO which signifies the toxicity level of the air.
- Most part of the pollutants are generated through vehicles which is about 70 percent.
- Pollutants emerging from both natural and man-made sources like automobiles, industries, dust storm and household fuels like PM_{10} , $PM_{2.5}$, CO_2 , NO_2 and SO_2 not only causes outdoor pollution but also indoor pollution which affects the health of mostly urban people.
- It causes 0.80 premature deaths and about 6.4 million lives are lost per year.
- According to WHO air pollution is the deadliest environment degrader affecting both flora and fauna.
- Different plant species react differently to concentration of pollution level.
- Pollutants like organic acid, oxides of nitrogen, oxides of chlorine, oxides of carbon and ammonia etc accumulate on the surface of wheat which are absorbed are the acid forms which destroys the wheat flowering and thereby deteriorates the crop and reduces the production of the wheat.

Forest Depletion

- Forests has always been the most important and vulnerable ecosystem as they are the home of about half of the world's biodiversity and about one tenth of the land is covered by them and are the most important global health determiner.
- A large proportion of humans is dependent upon forests for food security and livelihood.
- Uttar Pradesh (UP) has a recorded forest area of about 16,583 km² which is about 6.88% of the total geographical area majority of the forest is dry tropical dry deciduous.
- According to Indian Forest Policy the forest cover should be 20% of the geographical area but only Sonbhadra and Chandauli districts match this criterion.
- Drastic increase in the urbanization and agricultural activities in open forest area which leads to the increase in forest degradation.
- Industries like paper mill, furniture etc are solely dependent on the forest and not only uses it for timber and non-timber purposes but also releases toxicants which degrades the forest and causes the depletion of wildlife which disturbs the carbon cycle.
- Carbon cycle involves forest ecosystem as an important component as the forests are great carbon sinks.
- Vector borne diseases are one of the most well-known outcome of the deforestation.

Wildlife depletion

- Animals has always been the essential part of the ecosystem as they maintain the balance of nutrient cycle and the flow of energy.
- Extinction of any species affects the food chain and brings an imbalance in nature.
- Uttar Pradesh has a rich biodiversity and the wildlife, there are around 56 mammal species, 552 bird species, 19 amphibian species, 47 reptiles and 79 fishes.
- Some species like leopard, Asian elephant, tiger, swamp deer, baobabs marmot, Gangetic dolphin, wild dogs and musk deer are the endangered species which are on the verge of extinction because of activities like poaching, hunting, clearing of forest and scrub jungle, mining, plantation of exotics, conversion of forest areas for timber and non-timber plantations and pollution etc
- The uncommon depletion of vultures because of diclofenac.
- Mining activities directly and indirectly causes loss of biodiversity.
- Illegal wildlife trade is the 2nd biggest reason of the wildlife depletion after the loss of habitat.
- Wildlife trade is 2nd just after the illegal drug trade.

Achieving sustainability through green business strategy

- A company with green business strategy have green principles with innovation and major decision making and have sustainability in core business strategy.
- Green is about authentically reducing the environmental impact of a business, to have low harm product, waste reduction, optimum utilisation of resources, reuse and recycling of products, manufacturing environment positive product and having economic growth without environmental harm.
- Uttar Pradesh adopted the successful model of United States of America for the electricity generation through solar photovoltaic power plant which is a form of renewable energy that can meet the energy need of the states without polluting environment.
- According to professors Renato Orsato there are four competitive environment strategies which enable a firm to be greener and gainer at the same time which are, Eco efficiency, Beyond compliance leadership, Eco branding and Environment cost leadership.
- IKEA, Pocheco, Veja and Crystal international group as the successful example of above strategies.

Including sustainability & environment literacy in management education.

- The required skills and tools to convert the talk to action.
- There is no environmental course in the curriculum because the assumptions about the environment were already deeply buried in the psyche of educators, students, consumers and business culture.
- The most famous (but not first) MBA was started at Harvard in 1908 at the time of the rise of mass production and consumption and it is the same till date.
- Universities can play an important role in preparing the sustainable leaders of tomorrow.
- The inclusion of sustainability in management education has been welcomed and was successful in North America, colleges like George Washington University, University of Michigan and New York university etc
- In context to Uttar Pradesh this model can be adopted as India has always been the country whose education policy had several sustainable development principles and the supreme court has included environment education in every formal education.

Conclusion

- In this paper we looked into the intensity and types of various natural hazards being faced in Uttar Pradesh and concluded one common link among them as “Industry”.
- Reason lies in the beliefs and ignorance of people who considered earth capacity providing resources and absorbing degradation to be infinite during the era of mass production and mass consumption.
- We have to undoubtedly choose the planet as without it there will no people, no business, no poverty, no industry i.e. in short nothing at all therefore sustainable development is the need of the hour.
- Every industry should have to follow the sustainable method of production to have a positive impact on the environment.
- To prepare the present as well as future generation equipped with all such skills and tools from now onwards to prepare them to implement this forever.

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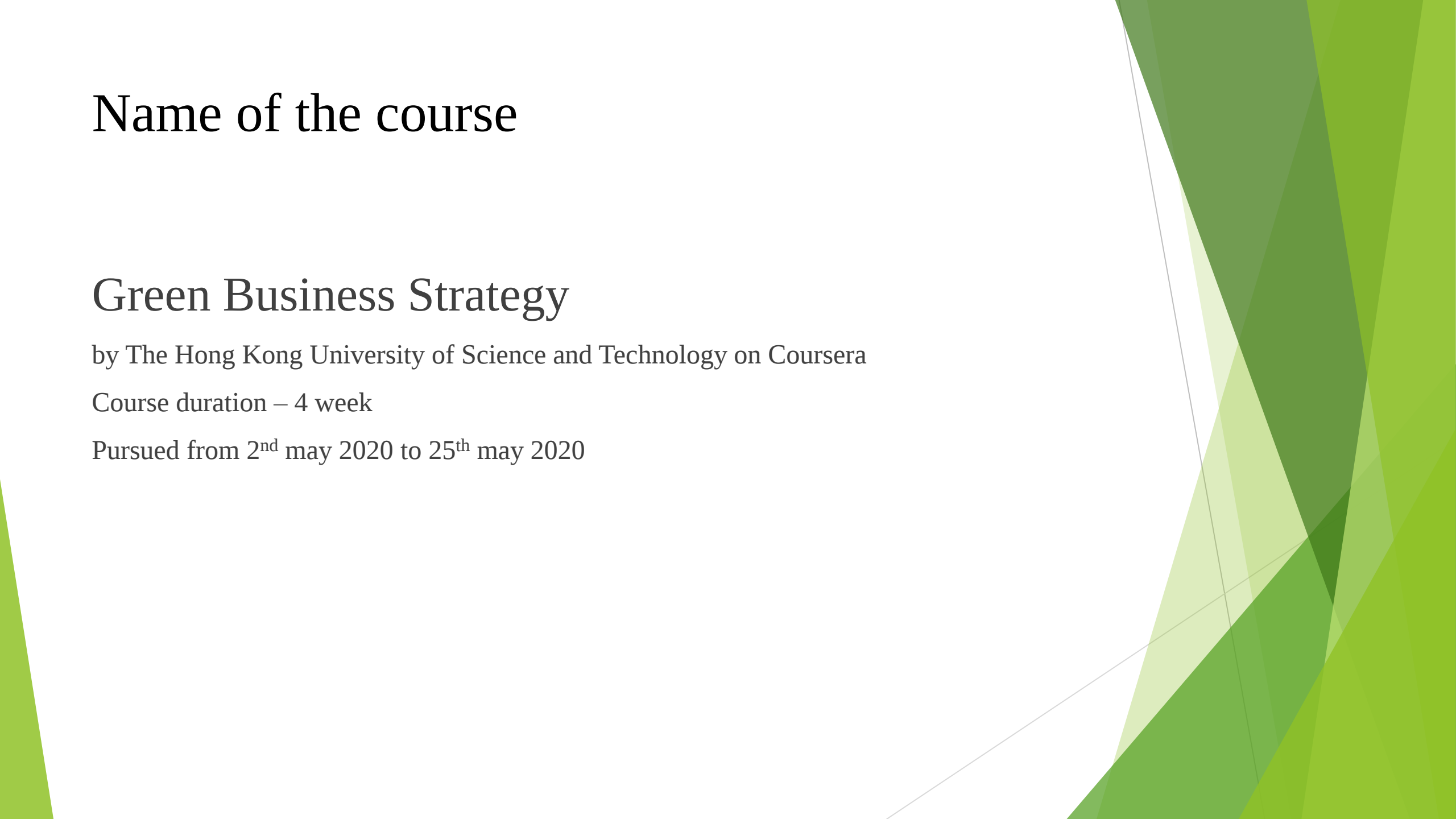
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Part – 2

Green Business Strategy

- Name of the course
- Course Description
- Objective (s) of the course
- Course Content
- Learning Methodology
- Key learnings

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Name of the course

Green Business Strategy

by The Hong Kong University of Science and Technology on Coursera

Course duration – 4 week

Pursued from 2nd may 2020 to 25th may 2020

Course description

- Need of being green
- Strategy to replace old existing methods of business with the sustainable one
- Role of firms in environment degradation.
- To be greener and gainer at the same time
- Describes reason of sticky and resistant to change behaviour

Objectives of the course

- To understand the importance and reason of being green in the today scenario.
- To give an insight into the concept of green business strategy.
- To understand how a firm can work with a community to build value, and also to understand how firms can lose value and to know the environmental strategy framework.

Learning methodology used in the course

- Videos lectures – 33 introductory video with several other video links related to the topic.
- Reading material – Each section contained 4-5 links of case studies and other websites. In total more than 60 links to reading material.
- Quiz – There was weekly quiz and, in each week, it was mandatory to score at least 80% to pursue the course further.

Course content

- ❑ Why be “Green”
 - Perspective of business and environment
 - What does it mean for a firm to be green
 - Why do firms go green
 - Social license to operate

How to be green: Environmental Strategy

- Does it pay to be a green business- Highly sustainable companies achieve higher financial performance because of the way in which they incorporate sustainability.
- Five Strategies
 1. Eco – efficiency
 2. Beyond Compliance Leadership
 3. Eco-branding
 4. Environmental cost leadership
 5. Blue Ocean strategy

Case studies in environmental strategies

- Environmental cost leadership strategy
- Eco efficiency strategy
- Eco branding strategy
- Beyond Compliance Strategy

Looking back and looking ahead in green business

- The infinite wild west
- Mass production and mass everything
- Institutional persistence: Why we are stuck
- Institutional Change: Getting unstuck
- The evolution of green business

Key learning from the course

- It is possible to earn and protect the environment at the same time.
- Social license is important for a firm to operate.
- Perspective is important as how we see things shapes what we choose to do.
- The existing problems are the results of old beliefs which considered the earth's capacity to absorb the waste to be infinite.
- There is a need of change in the current methods of learning and understanding.

*Thank
you*

