

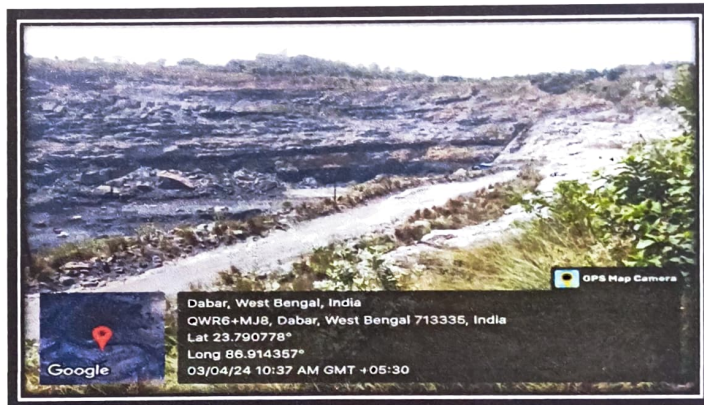
1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Deprtment of Geography

KAZI NAZRUL UNIVERSITY



Project Report on Industrial Accidents In Dabor Colliery, Salanpur, Paschim Bardhaman (W.B.)



NAME :- AAKASH KUMAR

DISCIPLINE :- GEOGRAPHY

SEMESTER :- 6TH

REG. NO. :- 104211220019

COLLAGE :- DESHABANDHU MAHAVIDYALAYA

SESSION :- 2021 - 2022



DESHABANDHU MAHAVIDYALAYA, CHITTARANJAN

NAAC ACCREDITED B+ COLLEGE

Affiliated to Kazi Nazrul University & University of Burdwan
Recognised Under Section 2 (f) & 12(B) of UGC

P.O.: CHITTARANJAN, DIST.: PASCHIM BARDHAMAN (W.B.), PIN-713331

Ref. No. DBM/GEO/SEM-6th/C-602/24 / 08

Date: 28/05/2024

TO WHOM IT MAY CONCERN

This is to certify that

.....Aakash Kumar....., a student of B.Sc
Geography (Hons), 6th Semester of Deshabandhu
Mahavidyalaya, Chittaranjan, Regn. No.
.....104211220019..... Year 21-22....., has done
'Industrial Accidents In Dabor colliery, Salanpur, Paschim
Bardhaman' (W.B.)

*He /She has prepared the report on the basis of survey and it is
his /her original work.*

Mukul Kamle

Dr. Mukul Kamle
Dept. of Geography
Deshabandhu Mahavidyalaya,
Chittaranjan

Coordinator

Department of Geography
Deshabandhu Mahavidyalaya

Dated: 28/05/2024
Place: Chittaranjan



Acknowledgment

We would like to express our deepest gratitude to the esteemed teachers of the Department of Geography for their invaluable guidance and support in conducting the field survey at Dabor Colliery regarding industrial accidents and hazards. Their expertise, dedication, and commitment to this research were instrumental in gathering the necessary data and providing insightful analysis.

Special thanks has been given to Dr. Mukul Kamle, Subject Co-ordinator, Department of Geography for her leadership and direction in designing the survey methodology and ensuring comprehensive data collection. We are grateful to Prof. Palash Kumar Mondal for his meticulous oversight during the field visits and their invaluable advice on interpreting the results. Finally we are thankful to Prof. Swarup Akhuli for his support in coordinating the logistics of the fieldwork and liaising with the colliery workers.

We are also deeply thankful to our Principal, Dr. Tridib Santapa Kundu, for giving us the opportunity to visit the open cast colliery. His support and encouragement were vital in facilitating this important fieldwork.

Additionally, we extend our sincere gratitude to the officials at Dabor Colliery for granting us the necessary permissions to conduct the survey. Their cooperation and assistance were crucial in enabling us to carry out the research smoothly.

Finally, we are grateful to the workers at Dabor Colliery for their cooperation and willingness to participate in the survey, providing honest and detailed responses that have enriched our research.

Thank you once again to everyone who made this important research possible.

Sincerely,

Aakash Kumar

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1 Introduction:

Industrial accidents pose significant risks to workers, communities, and the environment. The Dabor Colliery, situated in Salanpur, Paschim Bardhaman, West Bengal, has been a crucial site for coal mining operations. However, like any industrial facility, it is not immune to accidents. This project report aims to analyze industrial accidents at the Dabor Colliery, identify their causes, assess their impact, and propose measures for prevention and mitigation.

1.1 Location: Dabor Colliery (Dabor opencast and mine) lies to the north western part of Raniganj Coalfield and is under the control of Salanpur area of Eastern Coalfield Limited. The mine is located at a distance of 5 km from Rupnarayanpur Asansol Chittaranjan main line and is 17 km away from Asansol. This colliery was bounded in the north by Dabor, Achra village, in the south by Sangramgarh colliery and Fulberia Village, in the east by Mohanpur colliery and in the west by Eastern Railway Main Line.

1.2 Extension: The extension of the mine are $22^{\circ}46'40''\text{N}$ - $23^{\circ}47'34''\text{N}$ Latitude to $86^{\circ}54'02''\text{E}$ - $86^{\circ}55'02''\text{E}$ Longitude.

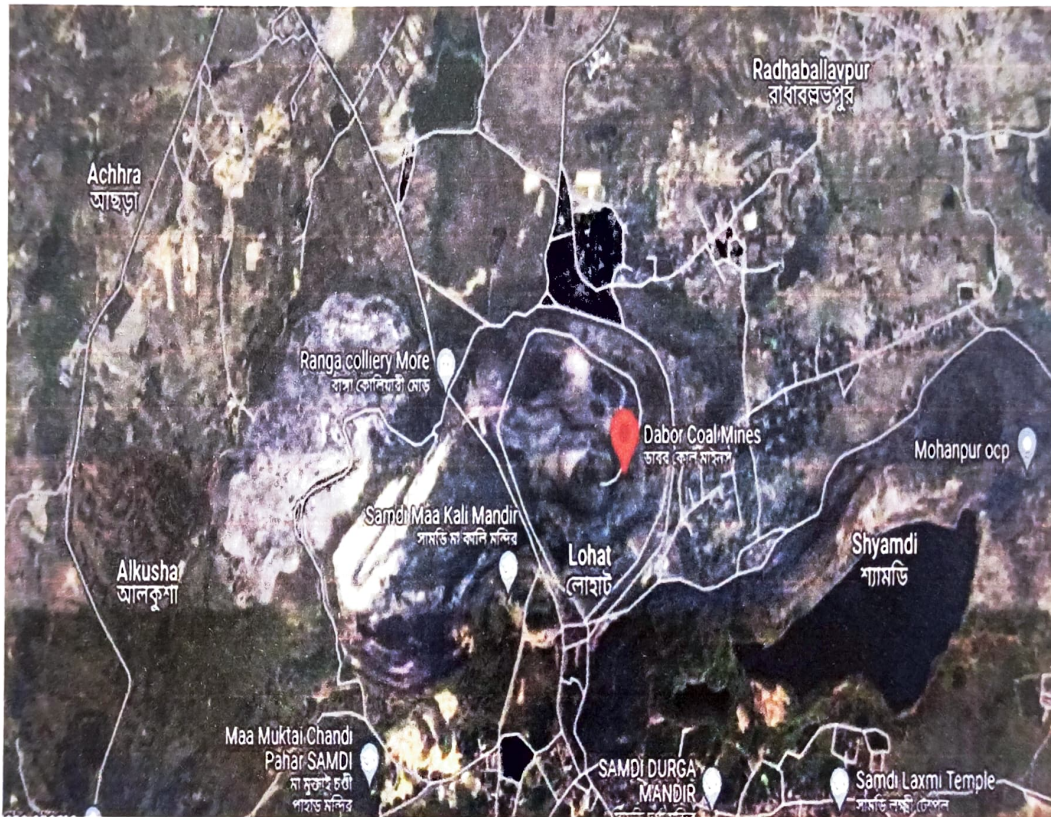
Location Map of the Study area

23°47'34"N

86°54'02"E

23°47'34"N

86°55'02"E



22°46'40"N

86°54'02"E

22°46'40"N

86°55'02"E

1.3 Physical Attributes:

The area represents an undulating topography. The Dharma nullah with its tributaries passing along the western boundary of the entire Dabor block forms the main drainage system. A jore flows through the north south direction of the property controls the main drainage system. It has a leasehold area of 1204 hectares (including Dalmiya UG annexed to Dabor UG). Major surface feature located over the leasehold area of the mine are Colliery Colony and service building, H.T. Line, Muktaichandi Hill, Temple and School, PWD road and district board road, Tanks, Villages and Railway Line.

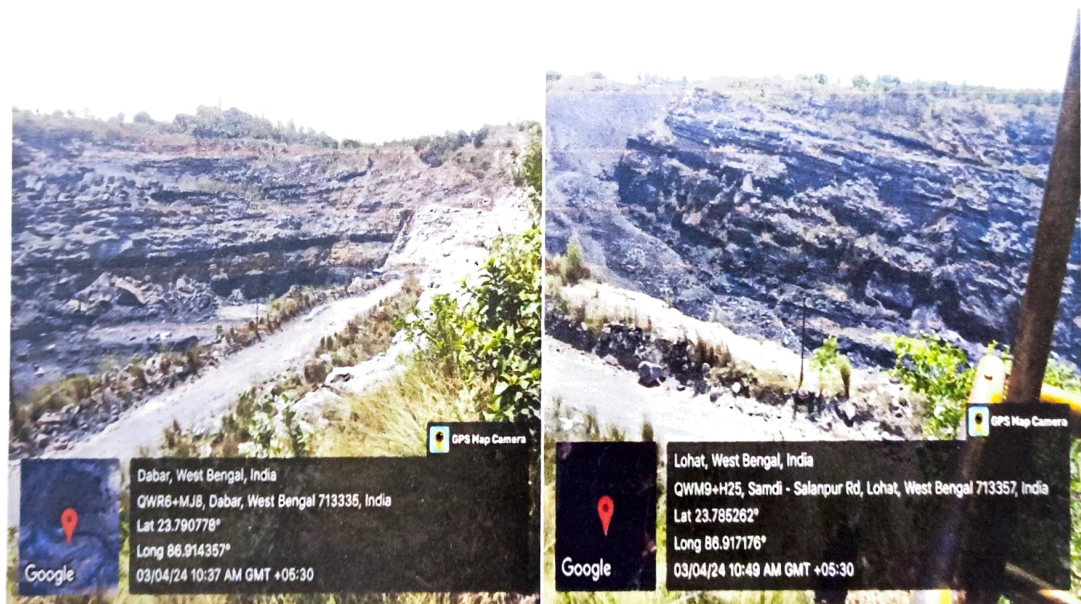


Photo 1. Physical view of Dabor Colliery

2 Objectives of the Study:

- i) To Study the Major Risk Areas of Open Cast Mines, Particularly Accidents in the Study Area:** This objective entails conducting a comprehensive examination of the open-cast mining operations at Dabor Colliery. The focus is on identifying and analyzing the primary risk areas and factors contributing to accidents within the study area. By understanding these risk areas, it becomes possible to formulate targeted preventive measures to mitigate accidents and improve safety protocols.
- ii) To Examine the Risk Viability by Surveying the Workers of Dabor Colliery:** This objective involves conducting surveys and interviews with the workers employed at Dabor Colliery to assess their perception of risk and safety within the workplace. By gathering insights directly from the workforce, the study aims to evaluate the effectiveness of existing safety measures, identify gaps or deficiencies in risk management practices, and ascertain the level of awareness and adherence to safety protocols among workers.
- iii) To Assess the Nature and Extent of Risk Assessment with Regards to Safety and Security among the Workers:** This objective focuses on evaluating the nature and extent of risk assessment activities carried out within Dabor Colliery concerning safety and security measures. It involves examining the procedures and methodologies employed for risk assessment, identifying potential shortcomings or areas for improvement, and assessing the adequacy of safety and security measures in place to protect the workers and the surrounding environment.
- iv) To Suggest Suitable Preparedness Measures for the Overall Problems:** The final objective of the study is to propose suitable preparedness measures to address the identified risk areas and enhance safety and security at Dabor Colliery.

3 Methodology:

The risk assessment study will be conducted through a comprehensive survey of Dabor Colliery and before doing the Survey **literature review** has been done to gain knowledge about the identification of potential hazards and risks associated with coal mining operations. Basically, potential hazards and risks can depend both in physical environment as well as human interferences such as use of equipments, machinery and techniques of works to collect coal from the colliery.

- **Survey:** A survey has been conducted among the workers of Dabor Colliery (52 workers of the Dabor Colliery) to gather insights into their perceptions of workplace hazards, safety practices, and areas of concern. The survey questionnaire will be designed to assess workers' awareness of risks, adherence to safety protocols, and suggestions for improvement. The questionnaire/schedule has been divided into following sections giving emphasis to the (1) **causes of hazard** such as "Inundation," "Hazard Due to Failure of Pit Slope," "Hazard Due to Waste Dump," and "Hazard Due to Surface Fire / Coal Stockyard Fires." Each hazard type is marked with a binary indicator (0 or 1) for the presence of that disaster. (2) **Common accident types** which includes "Road Accident," "Machinery Accident," and "Others." Similar to the causes of disaster these are also indicated with binary markers (0 or 1). (3) **Blasting time** in the coal field area. Apart from the investigation of the causes of disasters and common accident types and blasting time in coal bed area the study also give emphasis on (4) **safety and security measures** of the workers in Dabour colliery and also about the (5) **insurance policy** which likely denote whether specific safety measures or precautions are in place or not. The study also records the presence of diseases such as "Asthma," "Problem of Breathing," "Heart Disease," "Lung Problem," "Skin Problem," "Headache," and "Hearing Problem" among the workers of the colliery. Opinion of the workers regarding environmental effects has also been studied.
- **Analysis:** After data collection, data are extracted from the questionnaire or schedule and tabulation has been done in a excel sheet. The analysis part is divided into three sections to give proper insight to the objectives of the study.
 - Problems relating to accidents and hazard in colliery area.
 - Consciousness relating to Safety and precautions relating to the life of the workers
 - Health and Environmental issues relating to air pollution in colliery area.



PHOTO-1 :- DABOR COLLIERY SURVEY

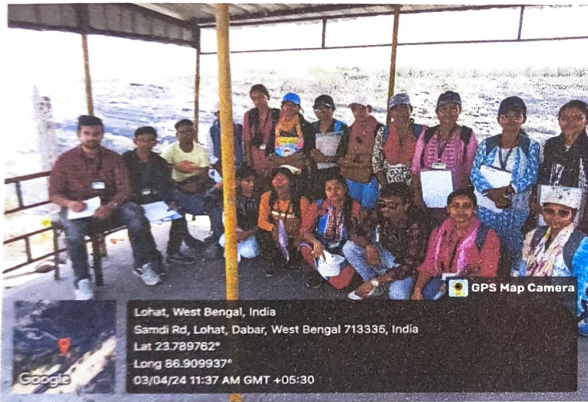


PHOTO- 2:- GROUP PHOTO

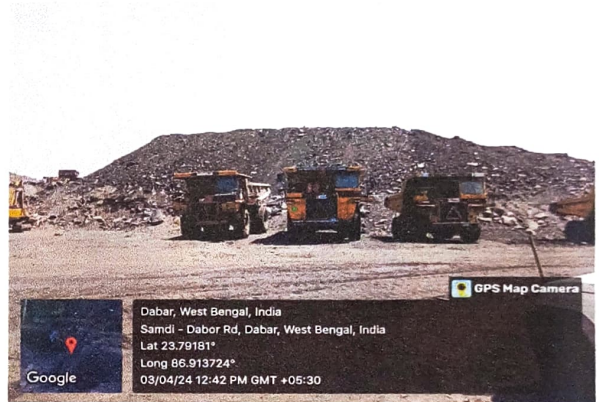


PHOTO-3 :- VEHICLE USE IN DABOR COLLIERY

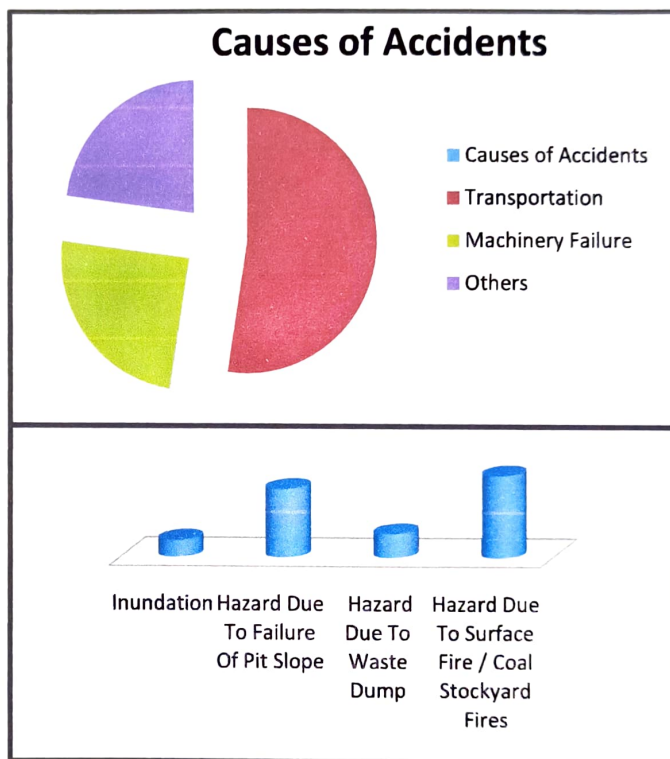
To make analysis and interpretation of the survey results simple cartograms such as line graph, bar graph etc has been used. Finally, workers perceptions relating to environmental pollutions have also been analyzed.

4 Analysis and Interpretation:

Total 52 workers have been surveyed to know the risk of accidents and hazards in their work place. The age of the workers ranges between 30 years to 56 years. The risk assessment of industrial hazards in colliery field has been done by observing the facts stated below.

4.1 Problems relating to accidents and hazard in colliery:

In Dabor Colliery the problems related to accidents are mainly from transportation in time of loading coal and another important one is accidents from machineries. Out of 52 workers, 32 have said transportation is the prime way of accident in colliery area while 15 workers out of 52 surveyed workers are said machinery accident is also dominant. Apart from these two types of accidents, 14 workers mentioned other types of accidents including explosions, Considering hazards Inundation



which refers to the flooding of mine, fires, collapsing etc. Considering hazards the important types are inundation, hazard due to waste dump and hazard due to surface fire/coal stockyard fires. Inundation refers to the flooding of mine workings due to the ingress of water from underground sources. Inundation can result in the loss of life, damage to equipment, and disruption of mining operations. According to the workers main cause of induce hazard is



PHOTO-4 :- OFFICE OF ECL



PHOTO-5 :- WORK PLACE



PHOTO-6 :- DABOR COAL MINE

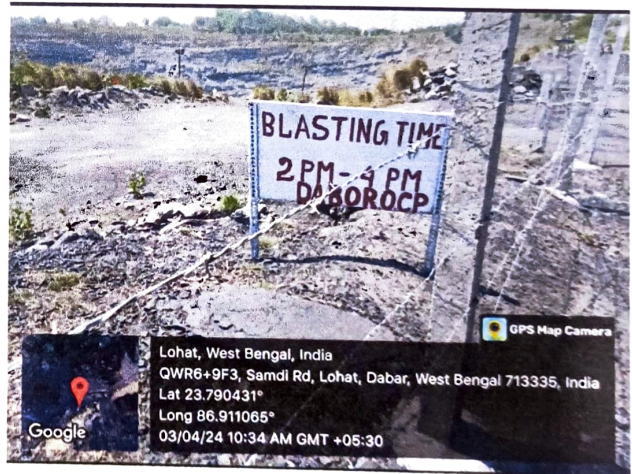


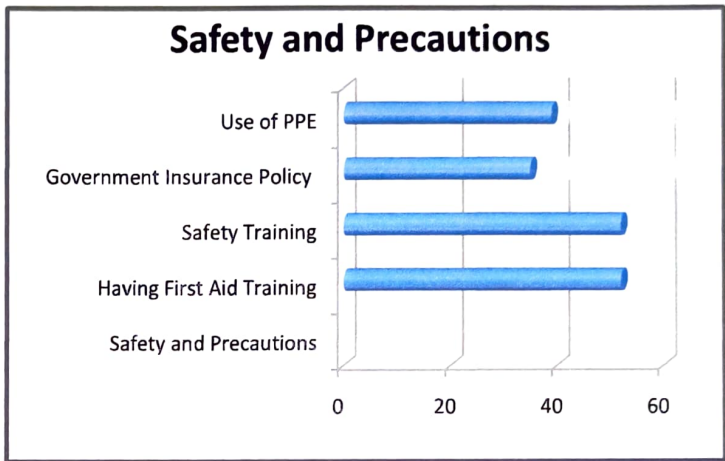
PHOTO-7 :- BLASTING TIME OF COAL MINE

surface fire or coal stock yard fire (24 workers out of 52 opined) while 20 workers suggested that hazards due to failure of pit slope is also occurred. Only 7 and 5 workers said that hazards also occurred within colliery due to waste dump and inundation.

4.2 Consciousness relating to Safety and precautions relating to the life of the workers

Colliery workers, or coal miners, face unique and significant risks due to the nature of their work environment. Ensuring their safety requires a focused and comprehensive approach. Safety consciousness in collieries involves a heightened awareness of the specific hazards associated with coal mining, coupled with a proactive approach to mitigate these risks. This awareness must be ingrained in every aspect

of colliery operations. According to the survey, it has been observed that 35 workers out of 52 i.e. 67.30 per cent have Government insurance while cent percent of workers have received First Aid Training and Safety Training for

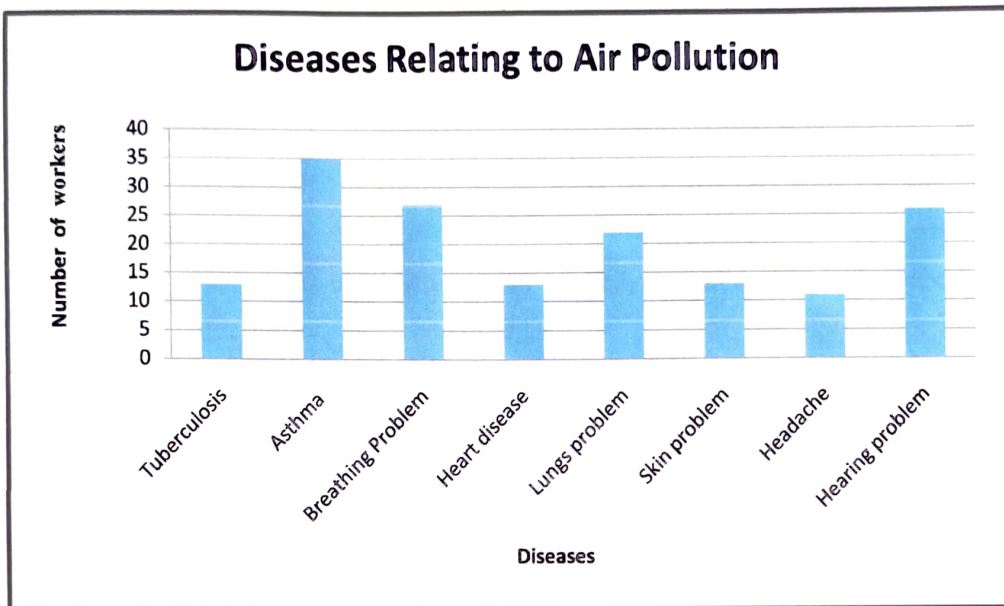


precautions. The workers also have to wear appropriate PPE (Personal Protective Equipment-PPE) such as helmets, respirators, reflective clothing for mining but as it is an open cast mine area all workers do not follow the rule but nearly 75 percent workers followed it.

4.3 Health and Environmental issues relating to air pollution in colliery:

Air pollution in colliery areas, which are regions associated with coal mining, poses significant health and environmental challenges. The extraction, processing, and transportation of coal release a variety of pollutants into the air, contributing to numerous health issues and environmental degradation. According to the respondents who have suffered from different diseases such as tuberculosis, asthma, breathing problem, lung problem, skin problem, headache, hearing problems are significant. Out of total workers 67 per cent have suffered from asthma, 51 per cent have suffered from breathing problem and 42 per cent have suffered from lung problems, Apart from the health issues of air pollution another important disease is hearing

problem among the workers. 50 per cent workers said that they have suffered from hearing problems. Blasting is the major cause of both sound and air pollution. Blasting has been done every day. So, the workers also lived in polluted environment which further causes risks of health issues among the workers of Dabor colliery.



5 Conclusion:

5.1 General Summary:

The study of the risks of industrial accidents in Dabor colliery has been done by doing a schedule survey in interview method and discussion with the officials of Dabor colliery. From the study the following facts have been emerged such as the main accident and hazard risks of this colliery are from Transportation and Machinery. Considering Safety consciousness among the workers it has been observed that although training of safety and first aid are compulsory to all but all the workers did not under insurance policy which require improvement and all the workers must be understood the importance of PPE usage. Regarding health issues respiratory problems are evident.

5.2 Recommendation:

- Implement stricter safety protocols and regular maintenance checks for transportation and machinery to reduce accidents.
- Enhance monitoring systems and emergency preparedness to manage fires and prevent pit slope failures effectively.
- Continue and expand training programs, ensuring all workers are covered by government insurance and understand the importance of PPE usage.
- Enforce PPE usage regulations strictly to ensure all workers are protected, especially in open cast mine areas.
- Regular health check-ups and provision of medical facilities for early detection and treatment of respiratory and hearing problems.
- Invest in advanced dust suppression and air filtration systems to reduce the emission of harmful pollutants. Implement noise control measures to mitigate the impact of blasting.

By addressing these issues through comprehensive safety measures, health monitoring, and environmental management strategies, the well-being of colliery workers and the surrounding environment can be significantly improved.

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Questionnaire

1) What type of hazards is the area frequent in the area?

- a) Inundation
- b) Hazards due to failure of Pit slope
- c) Hazards due to waste dump
- d) Hazards due to Surface fire/ Coal stockyard fires

2) Is there any Govt insurance policy for the health damage

Yes

No

3) Which types of accidents are common in this area

- a) Road accident
- b) Machinery accident
- c) Others

4) Do you use air plug in the time of mining?

Yes

No

5) Did you complete the first-aid training before entering into the job?

Yes

No

6) Did you receive any safety training or risk assessment techniques?

Yes

No

7) Did you receive any warning before blasting

Yes

No

if, yes what type of warning received-

8) After blasting do you feel any vibration on the adjoining area

Yes

No

9) What types of Environment effect are generally occurred after blasting?

10) How many times blasting occur in your locality?

Everyday

Alternate Day

Weekly

Monthly

11) Do you have any special type of disease?

TB

Asthma

Problem of breathing

Heart Disease

Lungs Problem

Skin Problem

Headache

Hearing Problem

12) State your experiences in working at Mining Areas and suggestions

1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Deptment of Commerce

DESHABANDHU MAHAVIDYALAYA COLLEGE CHITTARANJAN



Deshbandhu Mahavidyalaya



NAME:- DEBOSMITA DASGUPTA
STREAM: COMMERCE SEMESTER IV
SUBJECT COMMERCE (Computer Application)
ROLL 008 DEPARTMENT

TALLY

Topic :

Tally - (i) Company creation
(ii) Ledger Creation

PIONEER®

Page :

Date : / /

1.) What is tally?

→ A company's accounting software package that helps it to record and analyze financial transactions and business data.

2.) Write down the steps to create a company on tally?

→ We can create company on tally with the steps written down:-

Step I → One have to open the Software Tally ERP9/
Tally Prime

Step II → Select Create Company from the Company Info. Menu using up and down arrow key and press Enter key.

Step III → In the Company Creation screen, one have to enter all details of the company that have been asked for.

Step IV → Then click enter to create company.

Topic :

Page :

Date: / /

3.) Write all the steps to create a ledger.

-> Steps to create ledger are written down below-

Step 1 - After a company creation is done then we go to Gateway of Tally (GOT)

Step 2 - Go to Master Tab and Accounts Info

Step 3 - Select Ledger

Step 4 - Click on Create option on Single Ledger Tab.

Step 5 - Enter the ledger name and under/group of account. Fill up the further details and Opening balance and then click on yes to create ledger.

Topic :

COMPANY

DETAILS

Page :

Date : / /

NAME : Onprocess

MAILING NAME : Op2024@gmail.com

ADDRESS : Sector V, SALT LAKE, KOLKATA

COUNTRY : INDIA

STATE : WEST BENGAL

PINCODE : 713212

CONTACT DETAILS

PHONE NO. : 77766xxxx

MOBILE NO. : 8670837977

FAX NO. :

EMAIL : OP2024@gmail.com.

WEBSITE : WWW.OP.COM.

Topic :

LIST OF LEDGER

Page :

Date : / /

S.NO	NAME OF LEDGER	UNDER	OP. BALANCE
1	Carriage	DIRECT EXP	10,000 Dr.
2	Exports 0%	Sales A/c	50,000 Cr
3	Cash	Cash in Hand	
4	Income Tax	Duties & Taxes	50,000 Cr
5	Labour	Direct EXP.	30,000 Dr
6	Money Withdrawn from SBI	Bank A/c	3,00,000 Dr
7	Partners Capital Accounts	Capital A/c	1,00,000 Cr
8	Profit & Loss A/c	Primary	
9	Purchase Interstate Taxable 12%	Purchase A/c	
10	Purchase Interstate 12%	Purchase A/c	1,00,000 Dr.
11	Purchase Local 12%	Purchase A/c	2,00,000 Dr
12	Purchase Return	Purchase A/c	20,000 Dr
13	SALES INTERSTATE 12%	Sales A/c	50,000 Cr
14	Sales Inter State 12%	Sales A/c	1,50,000 Cr
15	Purchase Return	-	-
16	Sales Return	Sales A/c	40,000 Cr
17	Sales Tax	Sales A/c	1,00,000 Cr
18	Sales to ABC Ltd	Sales A/c	20,000 Cr
19	Share Capital	Capital A/c	2,50,000 Cr
20	Wages.	Direct Exp	60,000 Dr

MICROSOFT EXCEL

(1) What is payroll?

→ Payroll can be defined as the process of paying a company's employee

(2) What is payroll structure?

→ A payroll structure covers all details of the compensation offered to an employee with a complete break up of the components

(3) What is Basic Pay?

→ Basic pay is a fixed amount of money that an employer agrees to pay an employee in exchange for their service.

(4) What is D.A?

→ D.A is Dearness Allowance is a component of an employee's salary that helps them cope with the rising cost of living.

(5) What is gross?

→ In payroll, gross pay is the total amount of money an employee earns before taxes, benefits and other deductions

PAY ROLL STATEMENT

Topic

DEDUCTIONS

INCOMES

EMPNO.	NAME	BASIC	DA 3%	HRA 12%	M. A	GROSS	LT (Gr. Pass 10%)	P. Tax	P.F (Basic 6.25)	Total	NetG	GRADE
EMP001	RAJ	20,000	6,000	2,400	500	28,900	2,890	300	1,250	4,440	2,460	D
EMP002	SIMRAN	25,000	7,500	3,000	500	36,000	3,600	300	1,562.5	5,462.5	3,053.5	C
EMP003	HARSHIT	30,000	9,000	3,600	500	43,100	4,310	300	1,875	6,485	2,351.5	D
EMP004	AKSHITA	40,000	12,000	4,800	500	57,300	5,730	300	2,500	8,530	3,147.0	C
EMP005	Suraj	45,000	13,500	5,400	500	64,400	6,440	300	4,025	10,765	3,423.5	C
EMP006	RIYA	60,000	18,000	7,200	500	85,700	8,570	300	3,750	12,620	4,780	B
EMP007	MUKESH	65,000	19,500	7,800	500	92,800	9,280	300	4,062.5	13,642.5	5,157.5	B
EMP008	PIYA	90,000	27,000	10,800	500	1,28,300	12,830	300	5,625	18,755	7,124.5	A*
EMP009	SUBA	85,000	25,500	10,200	500	1,21,200	12,120	300	5,312.5	17,732.5	6,727.5	A
EMP010	TRISHA	80,000	24,000	9,600	500	1,14,100	11,410	300	5,000	16,710	6,329.0	A

Topi

MS EXCEL PRESENTATION

Page :

Date : / /

STUDENTS ANNUAL REPORT

ROLL NO	NAME	MATHS	ENGLISH	BIOLOGY	PHYSICS	HISTORY	BENGAJI	TOTAL	AVERAGE	GRADE	MAXIMUM	MINIMUM
1	ANURAG	87	65	77	59	93	89	465	77.5	C	89	76.666...
2	RISHI	97	89	79	85	95 95	89	539	89	B		
3	NISHAM	68	75	72	79	86	88	468	78	C		
4	DEEP	70	98	59	68	89	97	481	80.166...	B		
5	PRATIK	78	79	80	54	94	96	481	80.166...	B		
6	SREYA	89	95	68	79	91	89	511	85.166...	B		
7	POOJA	93	79	76	83	85	90	506	84.333...	B		
8	LEENA	58	89	84	75	77	77	460	76.666...	C		
9	PIYA	74	84	88	96	88	96	526	87.666...	B		

1st SLIDE

CYBER

SECURITY

Actions Against Cyber Crime

2nd SLIDE

WHAT IS CYBER SECURITY?

- > Cyber security standards are security standards which enable organisations to practice safe security techniques to minimize the number of successful cyber security attacks.
- > Cyber security refers to the technologies and processes designed to protect computers, networks and data from unauthorized access, vulnerabilities and attacks delivered via the Internet by cyber criminals.
- > Through cyber security is important for network data and application security.

5th SLIDE

Cyber Crime Includes

- Illegal Access
- Fraud
- System Interference
- Misuse of device
- Illegal Interception

6th SLIDE

Why should we care?

- It is a criminal activity committed on the Internet
- Cyber crime - where computer is either a tool or target or both

7th SLIDE

How Can We Protect?

- Read Privacy Policy carefully when you submit data through Internet
- Encryption - Lots of websites uses SSL (Secure Socket Layer) to encrypt a data.
- Disable remote connectivity

8th SLIDE

Advantages of Cyber Security.

- It will defend from hacks and viruses
- The application of cyber security used in our PC needs update every week
- The security developers will update their database every week once. Hence the new viruses also deleted.

9th SLIDE

Safety tips

- Use Antivirus software
- Uninstall unnecessary software
- Maintain backup
- Use Secure Connection
- Open attachments carefully.
- Check security settings

10th SLIDE

Conclusions.

- The only system which is truly secure is one which is switched off and unplugged.
- So, only way to be safe is pay attention and not to get caught in online trap.

Microsoft Word

Mail Merge

(1) What is Mail?

→ A letter or information sent from one person to another person via post office or electronically is known as Mail.

(2) What is Mail Merge?

→ Mail Merge is a word processing tool that allows users to create personalized documents for multiple recipients using a data source.

Rajesh Kumar

gogle

123, Gloom Avenue, New Delhi

DOE123@gmail.com

"Computers, one of the most remarkable inventions of modern science, have revolutionized our lives. These Electronic devices initially conceptualized by Charles Babbage can process vast amounts of data at incredible speeds. From personal computers and laptops to smartphones and supercomputers, they permeate every aspect of our existence. Computers enable communication; facilitate research; automate tasks and entertain us through games, social media, etc.

Topic :

Page :

Date : / /

Priya Patel

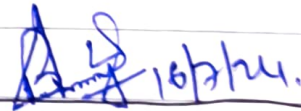
Amazon

456, Lotus Street, Mumbai, Maharashtra

Emily Smith 567@yahoo.com.

"Computers, one of the most remarkable inventions of modern science have revolutionized our lives. These electronic devices, initially conceptualized by Charles Babbage, can process vast amounts of data at incredible speeds. From personal computers and laptops to smartphones and supercomputers, they permeate every aspect of our existence. Computers enable communication, facilitate research, automate tasks, and entertain us through games, videos and social media, etc.

X



Coordinator

Department of Commerce
Deshabandhu Mahavidyalaya

1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Deprtment of Political Science

DESHBANDHU MAHAVIDYALAYA

Kazi Nazrul University

Topic :- Right To Education




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Semester :- 6th
Discipline :- Political Science
Session :- 2021-2022

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I would also like to thank to my parents and friends to give this project a creative blend and help me in various phases of this project.

Ambika Tudu
Student's Signature

Date:

Sanchita Hazra
Teacher's Signature

Date: 12/06/2024

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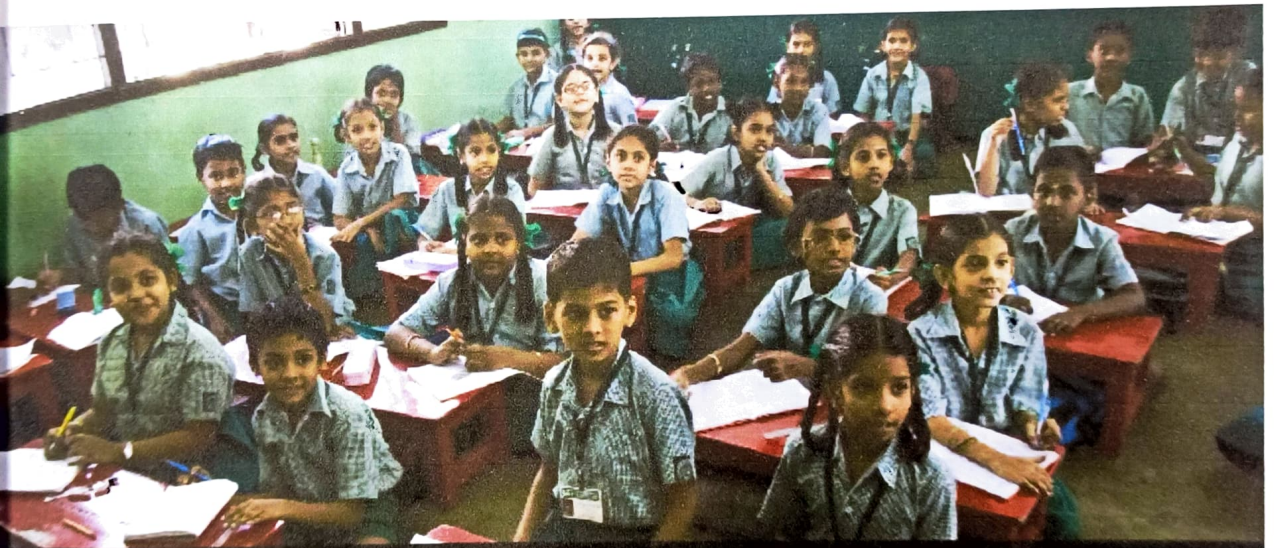




RIGHT TO EDUCATION

Introduction:

Education is universally recognised as a major component of human development. Certain minimum level of education is essential for the development of population as human resources. The right to education recognised as a human right is understood to establish a free primary education for all children. It is an obligation to provide all children with secondary education and access to higher education.



**Right to free and compulsory education
in India**

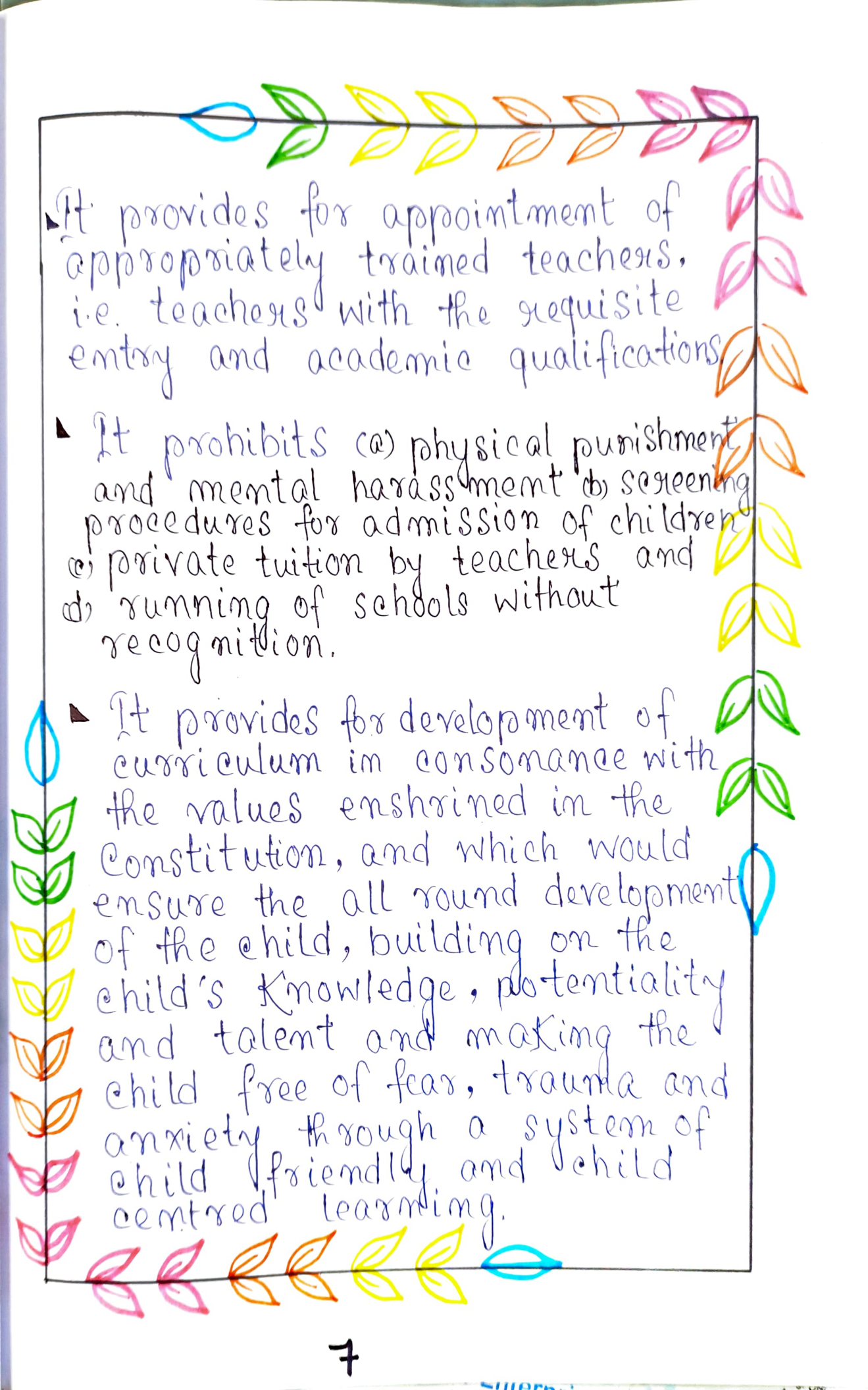
Right to Education Act, 2009

The Right of Children to Free and Compulsory Education Act is an Act of the Parliament of India enacted on 4 Aug, 2009, which describes the modalities of the importance of free and compulsory education for children between the age of 6 to 14 years in India under Article 21 A of the Indian Constitution.

The RTE Act provides for the :

▶ Right of children to free and compulsory education till completion of elementary education in a neighbourhood school.

▶ It makes provisions for a non-admitted child to be admitted to an age appropriate class.



▶ It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.

▶ It prohibits (a) physical punishment and mental harassment (b) screening procedures for admission of children (c) private tuition by teachers and (d) running of schools without recognition.

▶ It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centred learning.

• Challenges •
in its implementation
in rural areas:

• Out of School Children :

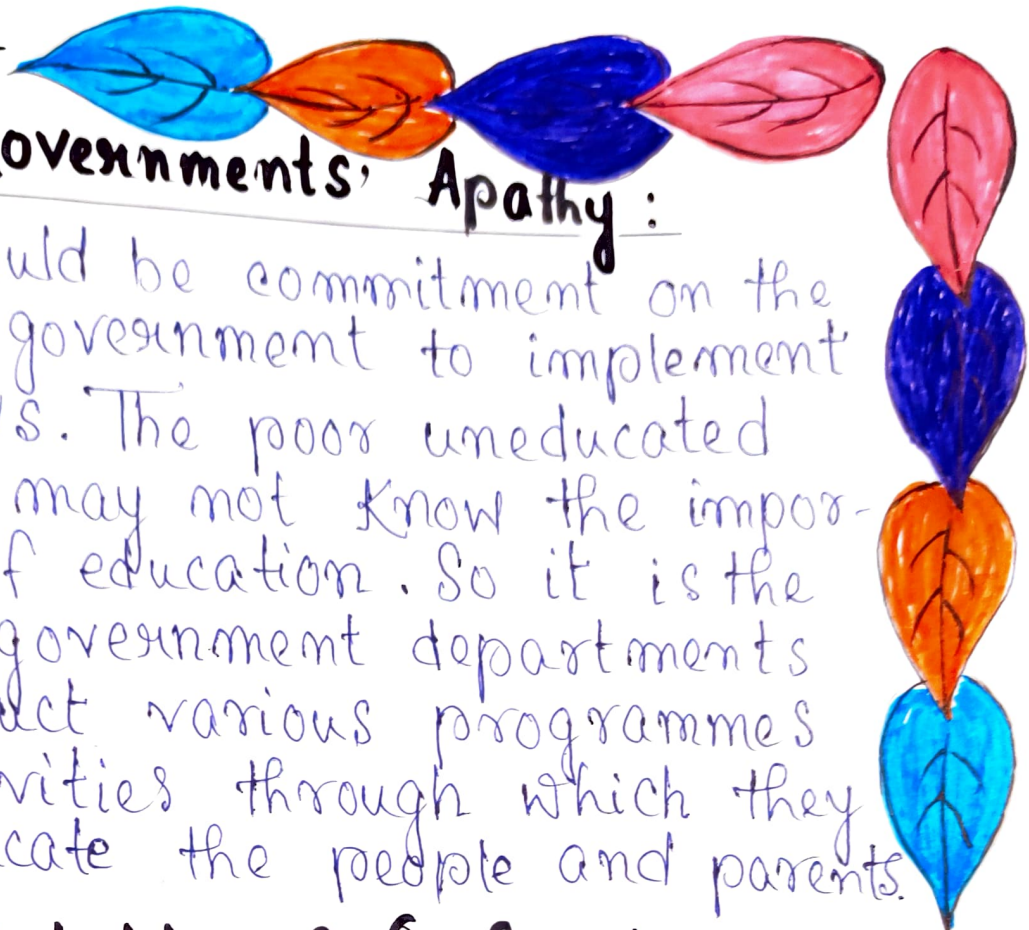
According to latest figures from the Human Resource Development Ministry approximately more than 80 lakh children are out of school. These children can be classified into 2 categories

a) Victims of trafficking —

Trafficking in female children is for the purpose of begging and prostitution and male children used for begging as well as labourers.

b) Not enrolled in the schools —

These children have never been enrolled in school for several reasons like religion, poverty, social and gender discrimination.



• State Governments' Apathy:

There should be commitment on the part of government to implement these laws. The poor uneducated parents may not know the importance of education. So it is the duty of government departments to conduct various programmes and activities through which they can educate the people and parents.

• Unavailability of Infrastructure Facilities:

Establishment of Primary Schools within one kilometer and upper Primary Schools within three kilometer distance is compulsory for the government. Such school should provide with well equipped classrooms, library, laboratory, play ground, drinking water and toilet facilities. But in rural area even though school facilities are provide

other infrastructural facilities are not provided.

• Gender Discrimination :

Discrimination between boys and girls are found even today in India. Many parents think that education is not important for the girls.

• Quality of Education and Teachers :

Section 23 gives power to the central government to prescribe qualifications for the teachers to various levels of education. In pursuance of this power Department of School Education and Literacy, Ministry of Human Resource Development, Government of India issued a notification which prescribes minimum qualification for a person to be eligible for appointment as a teacher in class I to VIII in all the schools.

• Lack of proper punishment:

There is no severe punishment under RTE for some of the violation. For example: physical punishment to the children is prohibited under RTE. But even today in many schools physical punishments are given. The teacher who uses such physical punishment may not be punished.

Just a Disciplinary Action may be initiated according to the service rules and finally if it is proved, then teacher may be transferred to another school.

• 25% reservation in the private school:

According to RTE, it is compulsory for every private school to admit at least 25% of its entry level class from children belonging to weaker and disadvantaged groups.



• Solutions • to the Problems

These are a number of solutions that have been proposed to address the problems in Indian Education. Some of these solutions include:

• Increase investment in education :

The Government needs to increase investment in education to improve the quality of education and make it accessible to all.

• Focus on Rural Education :

Mahatma Gandhi said "The future of India lies in its villages. If the villages perish, India will perish too."

• Empower girls and women :

Girls and women are disproportionately affected by the problems in Indian Education. The Government needs to take steps to empower girls and women and ensure that they have equal access to education.

• Attract and retain qualified teachers :

The Government needs to attract and retain qualified teachers in rural areas by offering incentives such as higher pay and better working conditions.

• Promote awareness about the importance of Education :

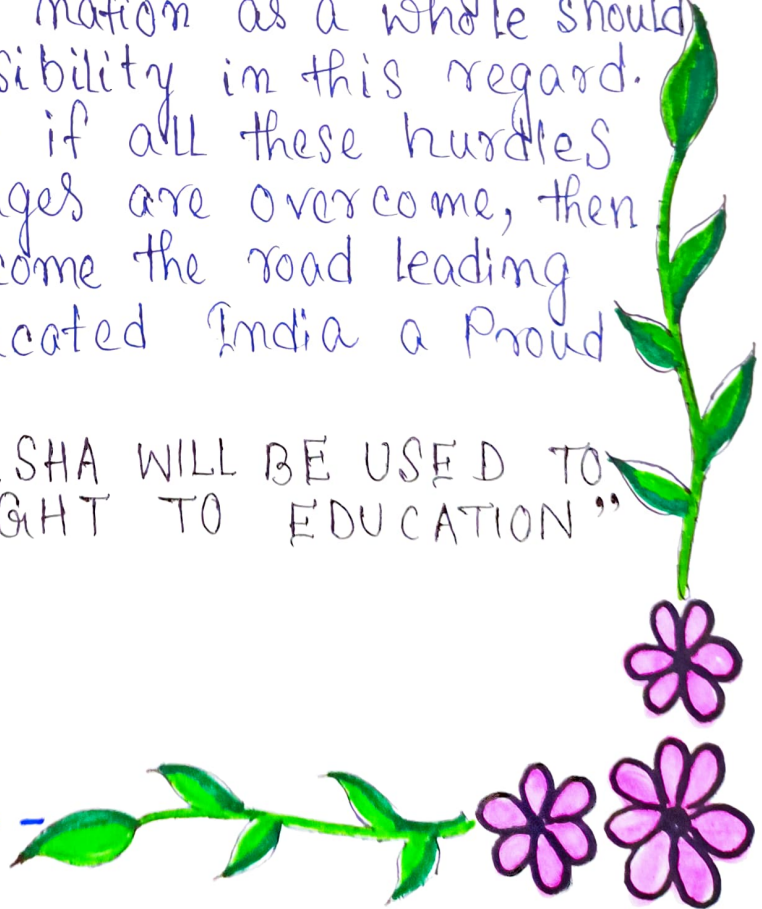
The Government needs to promote awareness about the importance of education among parents and communities. This will help to change attitudes towards education and encourage more children to attend school.



Conclusion

Thus, it can be concluded that, Education is a fundamental human right. Right to Education (RTE) Act would play an important role in achieving universal elementary education in India. In order to meet the challenges and hurdles that stand in the way of implementation Right to Education Act, not only the central and state governments but the nation as a whole should take responsibility in this regard. A hope that if all these hurdles and challenges are overcome, then this will become the road leading towards Educated India a Proud India.

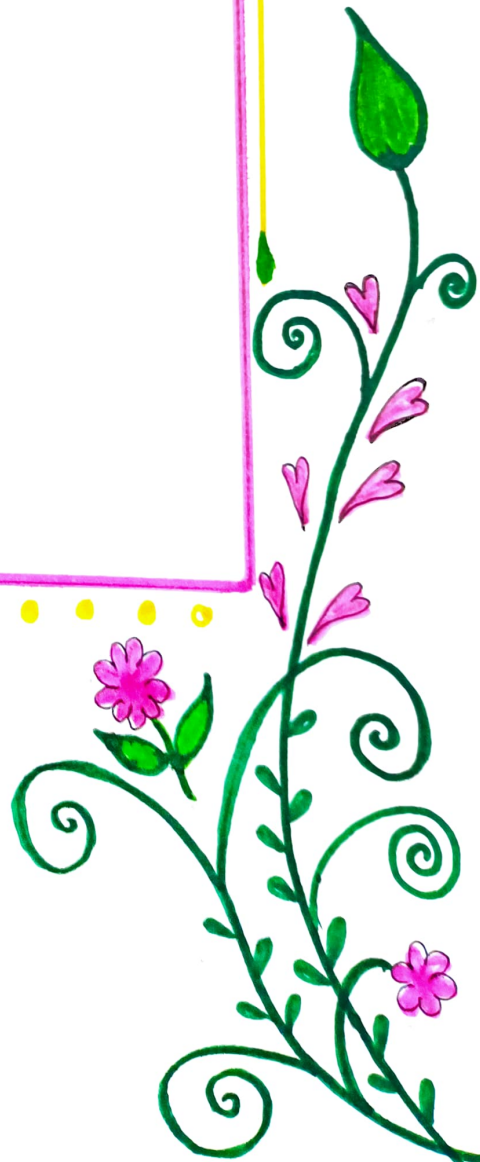
"SARVA SHIKSHA WILL BE USED TO
PUSH RIGHT TO EDUCATION"



Reference

For successfully completing my project file, I have taken help from the following website links :-

- * www.google.com.
- * www.wikipedia.com.
- * Google images.



1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Deptment of BBA

PROJECT - REPORT



HUMAN RESOURCE DEVELOPMENT

[IMPACT OF HRD ON THE PERFORMANCE OF THE EMPLOYEES OF TCS]



SUBMITTED BY

KOUNAK GHOSH

B.B.A. 6TH SEMESTER,

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Kounak Ghosh

KOUNAK GHOSH

APPROVAL OF THE PROJECT

NAME : KOUNAK GHOSH

NAME OF THE COMPANY : TCS

TITLE OF THE PROJECT : “IMPACT OF HRD ON THE PERFORMANCE OF
THE EMPLOYEES OF TCS”

SUBJECT AREA : Human Resource Management

SIGNATURE OF THE STUDENT: *Kounak Ghosh*

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FOR OFFICIAL APPROVAL:

INTERNAL PROJECT GUIDE :

Dr. Darpan Bhattacharyya

[Signature] 28.06.2024

DEPARTMENT OF BBA
DESHABANDHU MAHAVIDYALAYA
CHITTARANJAN

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SYNOPSIS

Various research works has tried to establish a direct relationship between human resource development (HRD) and organisational performance. But these studies are still not in a position to find out the mechanisms through which HRD leads to organisational performance . Here in this paper an attempt has been made to investigate the pathways leading from HRD to organisational performance by using structural equation modelling. Specifically, we used this analytical tool to test a research framework that is constituted by a set of causal relationships between organisational and other contingencies, resourcing and HRD, skills, attitudes and behaviour, and organisational performance. Employing data from TATA CONSULTANCY SERVICES (TCS) operating in the service sector, results indicate that the impact of HRD on organisational performance is positive and serially mediated through skills, attitudes and behaviour, and moderated by resourcing, organisational context and other contingencies. Thus, the paper not only supports that HRD has a positive impact on organisational performance but also explains the mechanisms through which HRD improves organisational performance.

INTRODUCTION OF THE COMPANY

Tata Consultancy Services Limited (TCS) is an Indian multinational information technology (IT) service, consulting and business solutions company Headquartered in Mumbai, Maharashtra. It is a subsidiary of the Tata Group and operates in 46 countries.

TCS is one of the largest Indian companies by market capitalization (\$80 billion). TCS is now placed among the 'Big 4' most valuable IT services brands worldwide. TCS alone generates 70% dividends of its parent company, Tata Sons. In 2015, TCS is ranked 64th overall in the *Forbes* World's Most Innovative Companies ranking, making it both the highest-ranked IT services company and the top Indian company. It is the world's 10th largest IT services provider by revenue. As of December 2015, it is ranked 10th on the Fortune India 500 list.

On 12 January 2017, N.Chandrashekar was elevated as the chairman for Tata Sons . Rajesh Gopinathan was appointed as the new MD and CEO for TCS.

Industry	IT services , IT consulting
Founded	1968
Founder	J. R. D. Tata , F.C. Kohli , Harish Chourasiya , Sunaina Joshi
Headquarters	Mumbai , Maharashtra , India
Area served	Worldwide
Key people	Natarajan Chandrasekaran (Chairman) Rajesh Gopinathan (CEO & MD)
Services	IT, business consulting and outsourcing services
Revenue	▲ US\$17.57 billion (2017)
Operating income	▲US\$4.51 billion (2017)
Profit	▲US\$3.92 billion (2017)
Total assets	▲US\$16.24 billion (2017)
Total equity	▲US\$13.67 billion (2017)
Number of employees	387,223 (March 2017)

<u>Parent</u>	<u>Tata Group</u>
<u>Subsidiaries</u>	<u>TCS China, TRDDC,</u> <u>Computational Research</u> <u>Laboratories</u>
Website	<u>www.tcs.com</u>

History

1968 to 2000

Tata Consultancy Services Limited was founded in 1968 by a division of Tata Sons Limited. Its early contracts included punched card services to sister company TISCO (now Tata Steel), working on an Inter-Branch Reconciliation System for the Central Bank of India, and providing bureau services to Unit Trust of India.

In 1975, TCS delivered an electronic depository and trading system called SECOM for the Swiss company SIS Segma Inter Settle (deutsch); it also developed System X for the Canadian Depository System and automated the Johannesburg Stock Exchange. It associated with a Swiss partner, TKS Tekno soft, which it later acquired.

In 1980, TCS established India's first dedicated software research and development centre, the Tata Research Development and

Design Centre (TRDDC) in Pune. In 1981, it established India's first client-dedicated offshore development centre, set up for clients Tandem. TCS later (1993) partnered with Canada-based software factory Integrity Software Corp, which TCS later acquired.

In anticipation of the Y2K bug and the launch of a unified European currency (Euro), Tata Consultancy Services created the factory model for Y2K conversion and developed software tools which automated the conversion process and enabled third-party developer and client implementation.

Year 2000 to 2017

On 25 August 2004, TCS became a Publicly Listed Company. In 2005, TCS became the first India-based IT services company to enter the bioinformatics market. In 2006, it designed an ERP system for the Indian Railway Catering and Tourism Corporation. By 2008, its e-business activities were generating over US\$500 million in annual revenues.


TCS entered the small and medium enterprises market for the first time in 2011, with cloud-based offerings. On the last trading day of 2011, it overtook RIL to achieve the highest market capitalisation of any India-based company. In the 2011/12 fiscal year, TCS

achieved annual revenues of over US\$10 billion for the first time. In May 2013, TCS was awarded a six-year contract worth over 1100 crores to provide services to the Indian Department of Posts. In 2013, the firm moved from the 13th position to 10th position in the League of top 10 global IT services companies and in July 2014, it became the first Indian company with over Rs 5 lakh crore market capitalization.




In Jan 2015, TCS ends RIL's 23-year run as most profitable firm.

In Jan 2017, the company announced a partnership with Aurus, Inc., a global leader in innovative payments technology, to deliver payment solutions for retailers using TCS OmniStore, a first of its kind unified store commerce platform.


Acquisitions

Name	Acquisition date	Activities	Country of HQ	Price	Employees (at acquisition)	Notes
CMC Limited	2001 October	IT Services	 IND	\$33.9 m	3,100	Gets Embedded Expertise & good Domestic customer

						reach. CMC Amalgamated with TCS on April 28, 2015.
Airline Financial Support Services India (AFSI)	2004 January	BPO	 IND	\$5.1 m	400	BPO expertise in Airline and Hospitality sector
Aviation Software Development Consultancy India (ASDC)	2004 March	IT Services	 IND	\$3.1 m	180	
Phoenix Global Solutions	2004 May	Business Process Outsourcing	 IND	\$130 m	400	Acquire expertise in insurance-domain consulting
Swedish Indian IT Resources AB (SITAR)	2005 May	IT Services	 SWE	\$4.8 m	n/a	Acquire blue-chip European customers like Ericsson, IKEA, Vattenfall and Hutchison; SITAR was TCS' exclusive partner in Sweden and a non-exclusive

						partner in Norway.
Pearl Group	2005 October	Insurance	 UK	\$94.7 m	950	Acquired life and pension outsourcing business from Pearl Group; Domain knowledge of life and pension underwriting business.
Financial Network Services (FNS)	2005 October	Core Banking Product	 AU	\$26 m	190	TCS acquired core banking solution product (BANCS) and access to 116 customers in 35 countries; FNS was an existing partner for TCS.
Comicro	2005 November	Banking BPO	 CHL	\$23 m	1,257	Entry into Latin America; Access to payment processing

						platform.
Tata Infotech	2006 February	IT Services	 IND	\$259.2 m	3,600	The merger of Tata Infotech added 15 new Fortune 500 clients and enhanced TCS' systems integration and infrastructure service capabilities.
TCS Management	2006 November	IT Services	 AU	\$13 m	35	Access to Australian clients
TKS-Teknosoft	2006 November	Banking Product	 CH	\$80.4 m	115	Expand product portfolio by acquiring rights to Quartz and ownership of Alpha and e-portfolio, enhanced presence in Switzerland and France

Citigroup Global Services Limited	2008 December	Captive BPO of Citigroup Inc.	 IND	\$512 m	12,472	TCS acquired key Banking and Financial Services (BFS) domain knowledge.
Supervalu Services India	2010 September	Captive IT/BPO unit of Supervalu Inc. in India	 IND	\$100 m	600	TCS had a deal with Supervalu to have their Software Outsourcing to TCS and acquired Supervalu India.
Computational Research Laboratories	2012 August	High Performance Computing	 IND	\$34 m	80	Acquire expertise in High Performance Computing (HPC) applications and Cloud services
Alti SA	2013 April	IT Services	 FRA	\$97.5 Mn	1200	Access to blue-chip French and European clients in

						banking, luxury, manufacturing and utilities sectors
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Products and services

TCS and its 67 subsidiaries provide a wide range of information technology-related products and services including application development, business process outsourcing, capacity planning, consulting, enterprise software, hardware sizing, payment processing, software management and technology education services. Rgw firm's established software products are TCS BaNCS and TCS Master Craft.

Service lines

TCS' services are currently organised into the following service lines (percentage of total TCS revenues in the 2012-13 fiscal year generated by each respective service line is shown in parentheses):

- Application development and maintenance (43.80%) value;
- Asset leverage solutions (2.70%);
- Assurance services (7.70%);
- Business process outsourcing (12.50%);
- Consulting (2.00%);

- Engineering and Industrial services (4.60%);
- Enterprise solutions (15.20%); and
- IT infrastructure services (11.50%).

Operations

TCS has 289 offices across 46 countries and 147 delivery centers in 21 countries. At the same date TCS had a total of 58 subsidiary companies.

Locations

TCS has operations in the following locations: **India:** Ahmedabad, Bangalore, Baroda, Bhubaneswar, Chennai, Coimbatore, Delhi, Gandhinagar, Goa, Gurgaon, Guwahati, Hyderabad, Bhopal , Indore, Jamshedpur, Kochi, Kolkata, Lucknow , Kalyanpur, Mumbai, Nagpur, Noida, Pune , Trivandrum and Patna

Africa: South Africa, Morocco(closed down)

Asia (excluding India): Bahrain, China, Israel, UAE, Hong kong, Indonesia, Japan, Malaysia, Philippines, Saudi Arabia, Singapore, South Korea, Taiwan, Thailand, Qatar

Australia: Australia

Europe: Belgium, Denmark, Finland, France, Germany, Hungary, Iceland, Republic of Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

North America: Canada, Mexico and United States.

South America: Argentina, Brazil, Chile, Colombia, Ecuador, Peru and Uruguay.

INTRODUCTION OF THE CONCEPT

Development of human resources is essential for any organisation that would like to be dynamic and growth-oriented. Unlike other resources, human resources have rather unlimited potential capabilities. The potential can be used only by creating a climate that can continuously identify, bring to surface, nurture and use the capabilities of people. Human Resource Development (HRD) system aims at creating such a climate. A number of HRD techniques have been developed in recent years to perform the above task based on certain principles. This unit provides an understanding of the concept of HRD system, related mechanisms and the changing boundaries of HRD. HRD concept was first introduced by **Leonard Nadler** in 1969 in a conference in US. "He defined HRD as those learning experience which are organized, for

a specific time, and designed to bring about the possibility of behavioral-change”.

Human Resource Development (HRD) is the framework for helping employees develop their personal and organizational skills, knowledge, and abilities. Human Resource Development includes such opportunities as employee training, employee career development, performance management and development, coaching, mentoring, succession planning, key employee identification, tuition assistance, and organization development.

The focus of all aspects of Human Resource Development is on developing the most superior workforce so that the organization and individual employees can accomplish their work goals in service to customers. Human Resource Development can be formal such as in classroom training, a college course, or an organizational planned change effort. Or, Human Resource Development can be informal as in employee coaching by a manager.

DEFINITIONS OF HRD

HRD (Human Resources Development) has been defined by various scholars in various ways. Some of the important definitions of HRD (Human Resources Development) are as follows:

- According to **Leonard Nadler**, "Human resource development is a series of organised activities, conducted within a specialised time and designed to produce behavioural changes."
- In the words of **Prof. T.V. Rao**, "HRD is a process by which the employees of an organisation are helped in a continuous and planned way to (i) acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles; (ii) develop their journal capabilities as individual and discover and exploit their own inner potential for their own and /or organisational development purposes; (iii) develop an organisational culture in which superior-subordinate relationship, team work and collaboration among sub-units are strong and contribute to the professional well being, motivation and pride of employees." .

- According to **M.M. Khan**, "Human resource development is the across of increasing knowledge, capabilities and positive work attitudes of all people working at all levels in a business undertaking."

IMPORTANCE OF HRD

HRD is needed by any organisation that wants to be dynamic and growth-oriented or to succeed in a fast-changing environment. Organisations can become dynamic and grow only through the efforts and competencies of their human resources. Personnel policies can keep the morale and motivation of employees high, but these efforts are not enough to make the organisation dynamic and take it in new directions. Employee capabilities must continuously be acquired, sharpened, and used. For this purpose, an "enabling" organisational culture is essential. When employees use their initiative, take risks, experiment, innovate, and make things happen, the organisation may be said to have an "enabling" culture.

Even an organisation that has reached its limit of growth, needs to adapt to the changing environment. No organisation is immune to the need for processes that help to acquire and increase its capabilities for stability and renewal.

Objectives of the HRD systems are to develop:

1. The capabilities of each employee as an individual.
2. The capabilities of each individual in relation to his or her present role.
3. The capabilities of each employee in relation to his or her expected future role(s).
4. The dyadic relationship between each employee and his or her supervisor.
5. The team spirit and functioning in every organisational unit (department, group, etc.).
6. Collaboration among different units of the organisation.
7. The organisation's overall health and self-renewing capabilities which, in turn, increase the enabling capabilities of individuals, dyads, teams, and the entire organisation.

BENEFITS OF HUMAN RESOURCE

DEVELOPMENT(HRD)

Human resource development now a days is considered as the key to higher productivity, better relations and greater profitability for any organisation. Appropriate HRD provides unlimited benefits to

the concerned organisation. Some of the important benefits are being given here:

- HRD (Human Resource Development) makes people more competent. HRD develops new skill, knowledge and attitude of the people in the concern organisations.
- With appropriate HRD programme, people become more committed to their jobs. People are assessed on the basis of their performance by having a acceptable performance appraisal system.
- An environment of trust and respect can be created with the help of human resource development.
- Acceptability toward change can be created with the help of HRD. Employees found themselves better equipped with problem-solving capabilities.
- It improves the all round growth of the employees. HRD also improves team spirit in the organisation. They become more open in their behaviour. Thus, new values can be generated.
- It also helps to create the efficiency culture In the organisation. It leads to greater organisational effectiveness.

Resources are properly utilised and goals are achieved in a better way.

- It improves the participation of worker in the organisation. This improve the role of worker and workers feel a sense of pride and achievement while performing their jobs.
- It also helps to collect useful and objective data on employees programmes and policies which further facilitate better human resource planning.
- Hence, it can be concluded that HRD provides a lot of benefits in every organisation. So, the importance of concept of HRD should be recognised and given a place of eminence, to face the present and future challenges in the organisation.

HRD PRACTICES IN TCS

Employment/Job Security:

TCS is a good base to work at, specially for fresher's because they find it easy to work as they are given good opportunities under comfortable and cosy environment. Working in TCS, it feels like working in a government organization. Employees get high job security and fear less for losing the job as this company has low rate of job removal even during recession. The company provides

further opportunity to employees who perform low in order to improve by offering learning and enhancing programs.

Compared to other IT companies, TCS accounts for lowest employee turnover rate. This is because most of the employees stay employed with the company for a long period of time as they find their job not only comfortable but also secured. The environment is very friendly and the company has a plan to improve performance of employees who face problems regarding understanding of processes. TCS aims in both personality and career development which is very advantageous for the improvement of employees skills and knowledge. The HR practices followed by this company is determined in understanding people's ability for managing them right from sourcing to deployment which means in regards to scalability.

The employees working in this organization feel very secure because they are given long periods to work where they have fixed contracts and have flexibility to work in shifts. Ambitious employees are given chance to study overseas where they are provided with visas and long-term leaves. All employees sign a contract while starting to work with a company which will last for a period of two years and after that they are considered as permanent workers.

Selective Hiring:

Human resource plan is required by the firm which is prepared according to the firm's processes. Hiring of candidates is the most important task to be done in a procedural manner for selecting the best candidates among many applicants as Pfeffer described clearly that recruitment of right people is to be done firstly for obtaining profits. In today's management, this is known as identification of talent and acquisition. Companies have moved from traditional recruitment and practices of selection towards online practices like interviews over telephone. In face-to-face recruitment, the selection department conducts personal interviews where salary packages are discussed along with many other important things.

TCS recruitment process is based on hiring policy which includes the mix of fresh and experienced candidates.

Fresh Candidates - They are recruited and selected from academic institutions where TCS has links with these institutions which is considered as a critical relationship. Through communication with placement officers and fairs conducted, a large number of candidates get attracted to apply.

Experienced Candidates - They are recruited by unit heads through various consultancies and agencies sourcing candidates and

through direct interviews. This recruitment is carried out based on the requirements needed for a company which is centrally coordinated to hire experienced professionals. (indoreservice.com)

Candidates are attracted to apply for positions through sources like advertisements through websites and job portals, placement fairs, agencies, TCS data bank that is done through combining the sourcing of resumes. Recruitment is also done locally from geographical areas that the company operates.

Background analysis is done to every applicant who is checked on following basis:

Academics - All candidates applying to TCS are required to submit copies of their academics right from their schooling to graduation or higher along with mark sheets obtained in each level of their study. The official screening these applications would then decide on forwarding the applications to further processing evaluating the requirements of the position.

Former Employment - The experienced candidates are checked on the contact information of their previous employers and based on the certificates stating their experience and performance. They are also checked on submission of release letters and pay slips obtained from previous employers.

Medical Examination - Every employee is subjected to a set of fitness checks which are essential prior to the joining in the company. Check-ups like overseas services are also conducted to candidates required to travel overseas on business purposes.

Self- Managed Teams or Team Working:

TCS assigns employees to work as a team or group in order to carry out processes in a particular project. Each such team is given information regarding the requirements needed to fulfill their work so that they can put efforts and use tools to manage their work in a sequential manner. Each team is set a team leader who takes care of the entire team and manages them to get the outcome. Some teams are interlinked with each other where the team leads of each team interact with one another and shares information for helping each other. Finally all the team leads pass on their work to the project leader. This improves work continuity and flow is carried out efficiently throughout the work flow.

During the training period, the freshers are assigned into groups of two members who work together and share information in order to accomplish work assigned to them. This environment is created because the employees should be pre-moulded to work and share in a group when they actually come to the work place.

High Pay Contingent on Company Performance:

Most of the companies do not focus much on acquiring resources but their main concern is to utilize these resources in a profitable manner by achieving this through employee's potential. Today, TCS is the best employer who has a structure for compensation having only 5% of its pay with respect to performance. TCS is a company that makes its employees work in a team to evaluate to decide on their pay as a team but not individually. This does a lot of benefit as it does not possess any rivalry among the team members. Each such team is formed on the basis of trust, coordination, co-operation, dependence among employees, spirit in the team etc. These qualities cannot be maintained if an individual is greedy to discuss and share in a team. Rather he/she should be concerned for the ultimate success of the team. This is the main reason for TCS to follow such structures over compensation. So, the reason for the success of employees satisfaction lies for the high compensation structure. It follows the principle of good harnessing the potential of employees in the company.

Extensive Training:

Training in TCS starts immediately on the first day of join in the organization which continues for a period of three months. Training is given throughout the entire period of work in the

company, that is, from the training period till the end date of work in TCS. Training is also imparted to the employees whenever new techniques or platforms are introduced at any point of time while working in a project or at the start of the project.

Following are the different learning programs imparted to the employees throughout the training session and while working.(coolavenues.com)

Initial Learning Program(ILP) - This program is designed to provide a friendly environment by smoothening the shift from "campus to corporate". This allows the transition of engineers of graduate level to consultants of information technology with a world-wide mindset.

Continuous Learning Program (CLP) - This is designed for the growth of associates where learning and sharing is the main value. These programs come from needs of the project, strategical business, technology and direction of individual aspirations and access through domains, processes and soft skills.

Leadership Development Program (LDP) - This program aims in turning its employees into future leaders by carefully understanding their potential through branded programs.

Foreign Language Initiative (FLI) - This helps its employees to communicate properly with its clients where employees are encouraged to develop on foreign languages and also emphasises in improvement of English for effectiveness of communication while making business deals.

Workplace Learning - This encourages TCSers by providing all necessary initiatives required to learn while working. To promote this, TCS has an extensive library where E-learning courses and online books are available.(indoreservice.com)

Reduction of Status Differentials:

TCS visions to equip all its employees with proper resources so that they all work as a family irrespective of position, salary, region, sex and status. Every individual is given an equal opportunity to develop themselves and share views and ideas. They are allowed to make innovative designs and work on research right from the first day of work. Everyone is supposed to follow a discipline throughout the work floor whether it be a starter or a manager. It is required for every employee to be formal and swipe a unique identity card everyday to indicate their presence.

Sharing of Information:

This is promoted to motivate people for enhancing performance of the entire organization in some dimensions and know the use of interpreting information as explained by Pfeffer. TCS emphasises on working in a group instead of individually performing as this attempt would take a lot of time and the case would be worse in case of mistake either in a part of work or completely.

TCS supports a portal where people can communicate each other to share information. This is done through a chat application called "same time" where people across the company chat and share information with each other instantly. Information sharing could be done only through emails to communicate with each other which is TCS domain enabled. Moreover, access is limited only within ODC(Offshore Development Centre) where people work for the same project in distinctive teams. The associates are not given access to this outside the work floor.

HRD MECHANISMS APPLIED IN TCS

Many HRD mechanisms are available to develop the competencies of employees and improve the overall organizational climate. The major ones are discussed below:

Performance appraisal:

Performance appraisals have become increasingly important tools for organizations to use in managing and improving the performance of employees in making timely and accurate staffing decisions and in improving the overall quality of the firm's products and services. The appraisal process is a formal way of evaluating an employee's performance. Its purpose is to provide an accurate picture of past and /or future employees' performance. To meet this performance targets are set. The targets are based on job related criteria that best determines successful job performance where possible actual performance is measured directly and objectively. Using a wide variety of techniques specialists select an appropriate method to measure employee's actual performance against the previously asset targets. The process is used to strengthen the effort performance linkage. Appraisals help an organization communicate its expectations regarding performance and the connection between the performance and rewards to employees. They increase employees' confidence when employees receive feedback that their efforts are being adequately rewarded.

Potential appraisals:

The term potential refers to the abilities possessed by an employee but not put to use currently or the abilities to assume challenging

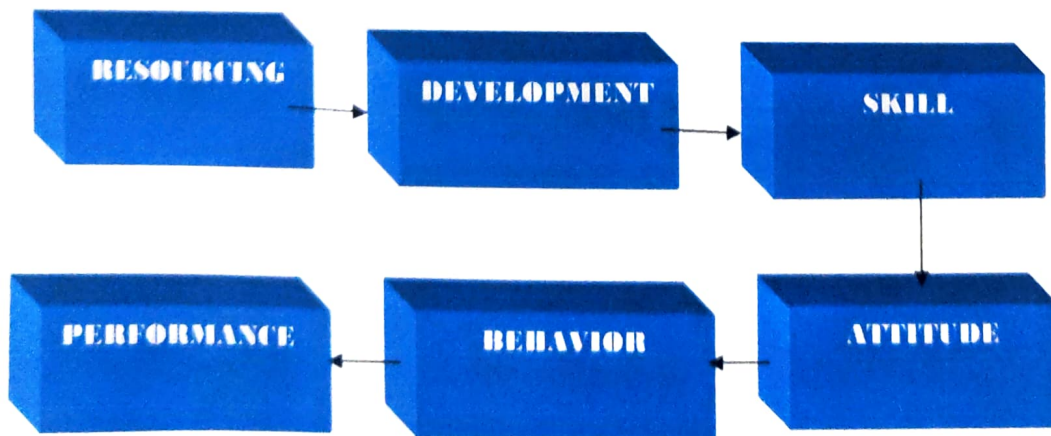
responsibilities in future assignments. The term performance refers to one's skills abilities in meeting the requirements of the job which one is holding currently. Potential appraisal is different from performance appraisal which shows an employee's current performance in his existing role. If the employee is required to play a completely different set of roles at higher levels, potential appraisals needs to be carried out at regular intervals. The objective of potential appraisal is to identify the potential of a given employee to occupy higher positions in the organizational hierarchy and undertake higher responsibilities. The appraisal is carried out on the basis of (1) supervisor's observations (2) performance adaptation relating to various previous roles played by an employee (3) performance on roles in simulated settings relating to a new position. A good potential appraisal system helps the management to pick up a suitable candidate for a given job and offer additional training if necessary.

Career planning:

A career is a sequence of positions held by a person in the course of a lifetime. Career planning is a process of integrating the employees' needs and aspirations with organizational needs. Career programs and HR programs are linked to the degree that they help each individual and the organizational requirements.

In the HRD system, the long growth plans of a company are not kept secret. They are made known to the employees. Major changes are discussed at all levels to promote understanding and commitment among employees. The immediate concern of employees would be to find out where they stand in such a road map. Do they have any chance to grow while building the organization brick by brick? Since managers have information about the growth plans of the company they need to transmit their information to their subordinates. The subordinates should be assisted in planning their career within the company. It is however not necessary that each one of them would scale new heights every year but at least they are aware of the opportunities and get ready for greater challenges ahead. Career planning does not guarantee success. But without it employees are rarely prepared to encash the opportunities that come their way.

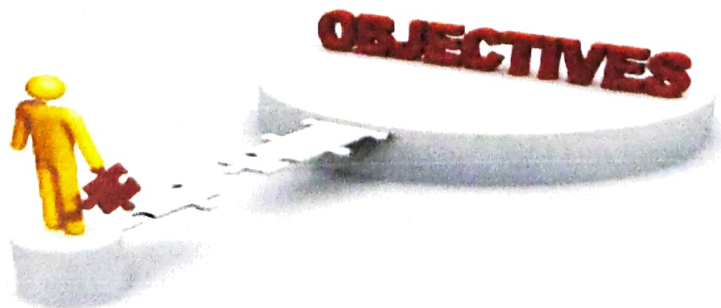
The discussion above suggests the following basic causal pathway:



OBJECTIVES OF THE PROJECT

Every work has some objectives. Likewise, this project also has some objectives or we can say this project has some purpose for which we are carrying out the total work. These objectives are :

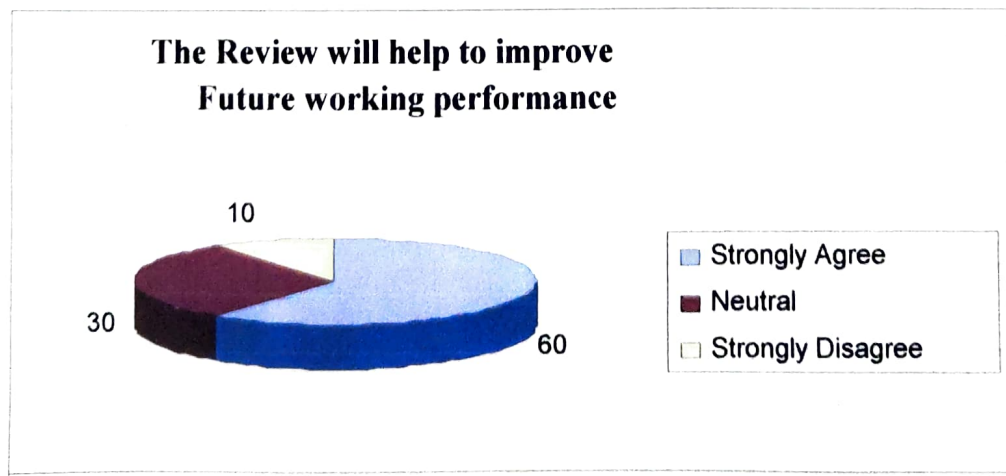
- ❖ To know how workers' performance depends on HRD sub-systems.
- ❖ To know the various ways of human resource practices done by TCS.
- ❖ To know the types of facilities given by TCS to enhance performance level of their employees.
- ❖ To find out the problems associated with implementation of HRD mechanism.
- ❖ To find out the remedies.



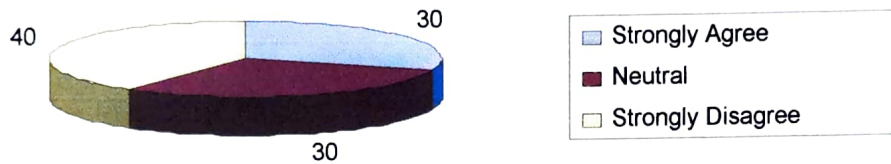
RESEARCH METHODOLOGY

I have conducted a qualitative research based on the primary and secondary data. With the help of that I will try to find out the impacts and problems of Human Resource Development (HRD) on employees of TCS, Kolkata and the secondary data has been collected from various sources like- Journals, Magazines, monthly bulletin and websites of TCS.

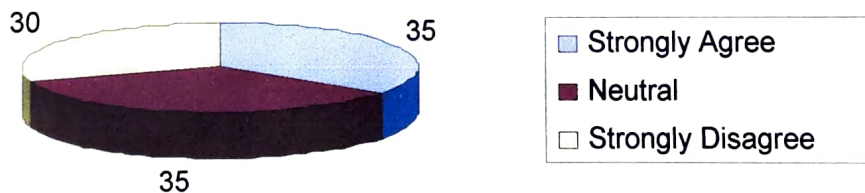
DATA ANALYSIS



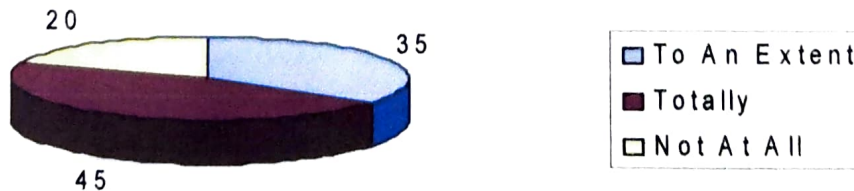
**HRD IS HELPFUL FOR THE BETTERMENT OF
EMPLOYEES**



**DO YOU FEEL CONFIDENT THAT HRD PROCESS
INFLUENCES PERFORMANCES OF EMPLOYEES?**



**Do you think you need a training
program in relation to Clarity of
Procedures**



LIMITATIONS:

- There are certain constraints to get the professional outlook due to not having any industrial experience.
- The cost of data collection for preparing this project is very high. We need many questioners to cover a large no. of consumer which needs huge money. Beside this, to collect the data we needed to travel from one place to another place, which also needs money. But as a student it is difficult to arrange money to fulfill this purpose.
- As the time duration of the project is not sufficient so I was not in a position to collect all the data from the various sources of the company.
- There were some misleading and incomplete information provided by employers and employees also . Many of them think that if they provide original data they will not be in favor of the company.
- Due to time constraints the Post Feedback of Employees regarding the Review Process could not be taken.

FINDINGS

As the whole Process was designed by the HR department, I was also involved in it from the designing stage to the implementation part of the Review system. In this process I could recognize the benefits derived out of this system as well as observed some drawbacks.

My Findings from the questionnaire are:

1. The perception of employees regarding HRD mechanisms was proper training, better quality of work life, employee welfare etc. which are not fully maintained in reality.
2. After knowing the requirements of employees a training session was conducted to help the employees understand the need and process of HRD.
3. They were aware of the fact that the General Work Behavior would play a major role in their review.
4. The process of HRD did not take place in the exact time frame as planned and scheduled.
5. A good improvement was seen in the inter-personal relationship between the team leader and subordinates.
6. Maximum employees are satisfied with the working conditions of TCS.

7. Employees of TCS are enjoying better job security but work load is too high.
8. They got to understand the organizational needs and it helped in developing a sense of belongingness towards the company.
9. It helped the management in identifying the Caliber of employees and encourage the same.
10. The employer and employees got a platform to understand each other in a better manner.
11. The management was too much dependent on team leaders for implementing HRD technique.



RECOMMENDATIONS

The recommendations are as follows:

1. Identify the KRA's (Key Resource Areas) and communicate the same to the employees so that he can be judged appropriately based upon it.
2. The employees must be motivated to fill in the self review form appropriately.
3. They must be appreciated for their individual achievements during the period and training/guidance must be given if they lack in some areas.
4. The review must be conducted informally once in every month so that the desired result can be achieved at the time of actual review.
5. The behavior of employees must be taken into consideration for proper implementation of HRD mechanisms in the organization.
6. The feedback from employees must also be taken regarding the working style of management so that the management functions can also be improved. They must be given the freedom to import any technique required for HRD.

CONCLUSION

Considering TCS with respect to human resource management, the company is doing good in practicing Pfeffer's seven practices and the company is making huge efforts in delivering various methods and processes in increasing growth of the organization.

TCS is working great on providing satisfaction of job to its employees but it should be keen in understanding the fact that senior officers are not very happy for continuing to work. It should be taken care that only selective candidates capable of the position to be filled should be offered the job. TCS must make the rules strict for the use of language as regional language use is still being practiced. Pay must be higher to encourage employees to work without worries and training importance must be delivered effectively. Treatment of every TCSer should be the same and employees should be told the importance of information sharing.

Conclusion



QUESTIONNAIRE

Dear Sir/Madam,

We are carrying out a study on the “HRD Mechanisms at TCS”

We would appreciate if you please convey your views on the different questions referred to in this schedule on behalf of the sponsors of this research study. I thank you for sparing your valuable time and co-operation.

(1) **NAME:** -----

(2) **ADDRESS:** -----

(3) **OCCUPATION:** -----

(a) Business (b) Service (c) Professional

(d) Self-employed (e) Student

(4) **PHONE NO.**

Effectiveness of Human Resource Development can be evaluated using the following questionnaire:

Please tick Correct Answers:

1. Resources are counted by:
a) No. of Persons b) No.of Skills

2. Human Resource is
a) Value-Addition b) just bring Profits

3. Real Asset of an Organisation is
a) Employees b) Buildings and Machineries

4. Resources are not tapped fully. Do you agree?
a) Yes b) No

5. Human Resource is
a) Predictable b) Not Predictable

6. Human Resources are
a) Limited b) un-limited

7. Man-power Planning is compiled by

a) HR Manager b) Line Managers

8. Man-power Planning is done on

a) ad-hoc basis b) Preferably every financial year or before any project is started

9. Who gives Man-power sanction?

a) HR Manager b) Line Manager c) Unit Head

10. HR Audit is a useful tool for

a) Man-power Planning and correct utilisation b) Man-power Reduction

11. Man-power Planning is on the basis of

a) expansion b) Automation c) existing available skills

Ans:

12. HR Policy is framed by:

a) HR Manager b) Management

13. Culture Statement is important in HR Policy, Do you agree?

- a) Yes b) Not Necessary

14. Employee Development is included in HR Policy

- a) Yes, Definitely b) Not Necessary

15. Who approves the HR Policy?

- a) HR Manager b) Collectively by all Managers c) Unit Head

16. HR Policy must be understood by

- a) Management Staff only b) All from MD to Down level

17. Throw some light in HR Policy on Welfare

- a) Not necessary b) Yes it is required

18. HR Policy is transformed to Customer Satisfaction

- a) Yes Definitely b) Not Necessary because it pertains to employees

19. Policy Statement can be modified occasionally. Do you agree?

a) Yes it can be. B) No. Policies are like constitution.

20. Candidates' Data Bank will help in

a) Recruitment b) Project Work

21. Recruitment Process is done by

a) HR Manager b) Line Managers

22. Consensus Decision is preferred in Recruitment.

a) No HR Manager's decision is final b) Yes

23. Selection Committee is formed for every recruitment

a) Yes b) Not Necessary. c) HR Manager can interview and finalise.

24. Questions in Interview are based on

a) Hi-fi Knowledge and concepts b) Basics and fundamentals

25. Which is better?

- a) A set of standard Questions b) Informal Questions

26. Who evaluates the Attitude of the Candidates?

- a) HR Manager b) Line Manager

27. Family Background will help in evaluation.

- a) Yes b) No I concentrate only on Job-knowledge

28. Induction Programme is conducted by

- a) HR Manager b) HR Manager followed by line
Managers

29. Employee Hand-book will help in Induction Programme

- a) Yes b) No need to disclose all personnel Policies
to new employees

30. Do you explain the Organisation Structure in the said
programme?

- a) Yes Definitely b) No need, He will come to know
automatically.

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- Fortune 500, India Today, Various Journals etc.

1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Deptment of Bengali

KAZI NAZRUL UNIVERSITY



NAME- MAMONI LAYEK

REG NO- 104211110114

ROLL NO- 1042101111003053

COLLEGE-DESHBANDHU MAHAVIDYALAYA

SESSION-2021-22

SEMESTER- 6

DEPARTMENT - BA BENGALI PROGRAM

SUBJECT-PROKOLPOPOTTRO ROCHONA O

UPOSTHAPONA

SUPERVISOR AND INSTRUCTOR: SWARNALI MUKHERJEE

= : প্রকল্পের আয়োজন : =

আয়োজন প্রকল্পের আয়োজন - য় লেখক-প্রকৃতি
আয়োজন করে তার "সেই"
আয়োজনের বৈশিষ্ট্য আয়োজন

DESHABANDHU MAHAVIDYALAYA, CHITTARANJAN

To Whom It May Concern

This is to certify that **Mamoni Layek**, a student of B.A. (Program) in Bengali of semester VI, bearing **Registration No. KNU104211110114**, session 2021-22 of Deshabandhu Mahavidyalaya, Chittaranjan has done her project work in the session 2023-24.

I wish her success in life.

Project title: Definition and characteristics of short story along with the analysis of the story 'Tope' as a short story

S. Mukherjee
Supervisor 20/6/24

বৃত্তান্ত প্রকাশ

(Acknowledgement)

আমি, মামনি লায়েক

দেখবনু মহাবিদ্যালয়ের কলেজের
সহ সৌম্যলতারে বিএ প্রোগ্রামের বাংলা বিভাগের
শ্রী. আম্মাদের ডা.ই. সি বিষয়ে "প্রকল্প ও
রচনা ও উৎসাহনা বিষয়।

এই প্রকল্প রূপায়নে কাজ করতে
সিমে যাও কাজ থেকে অনুপ্রেরনা ও উৎসাহ
দেখেছি এবং যিনি প্রকল্পটি রূপায়নে ক্ষেত্রে অবদান
অন্যোক্তিগর হাও বাড়িয়ে দিয়েছেন যাও অন্যোক্তিগ
হাওয়া এই প্রকল্পটি লেখা অঙ্কুর হও না, তাও কাজে
আমি চিব্বৃত্তান্ত, আম্মাদের কলেজের বাংলা
বিভাগের অধিকাওক ও অধিকাওকিক ৬ঃ অংগর বন্দোবস্ত
৬ঃ দেবলীনা চৌবুরী, ৬ঃ সৌমেন আল, শ্রীলী.
সুখাজী মহাক্ষয় অসমান চিক্শে ভাবে অধুনীমু,
আদের নির্দেশনা বা অধিভাবক্রে প্রকল্পটি
রূপায়ন করা অঙ্কুর হমেতে তাও জানাই আম্মায়
আন্তরিক বৃত্তান্ত,

S. Mukherjee
20/6/24

সিমে/সিমে/সিমে/সিমে

Mamoni Layek

২০/৬/২৪

তারিখ- ২০.৬.২৪

দেখবনু মহাবিদ্যালয়

= : সূচিপত্র : =
(Index)

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* প্রকল্প :- কোন বিশেষ উদ্দেশ্যে সুশীলকল্পিত
সুশীলতার মাধ্যমে যে কাজে অঙ্গান
করা হয়, তাকে প্রকল্প বলে।

* প্রকল্প নির্বাচনের উদ্দেশ্য :-

i) অঙ্গানকেন্দ্রিক :- প্রকল্প হল অঙ্গানকেন্দ্রিক,
অর্থাৎ, কোন না কোন অঙ্গানকেন্দ্র
কেন্দ্র করে প্রকল্প নির্ধারিত হয়ে
থাকে।

ii) উদ্দেশ্য ভিত্তিক :- কোন বিশেষ উদ্দেশ্যকে কেন্দ্র
করে প্রকল্পের কাজে অঙ্গানিত
হয়ে থাকে।

iii) আউনবক্স :- প্রকল্পসূত্রে কাজে অঙ্গানন
করতে গিয়ে কিস্তীদের কাজের
মর্ম্য দিয়ে আউনবক্স দেখা যায়।

iv) অঙ্গানকেন্দ্রিকতা :- প্রকল্পসূত্রে কাজের মর্ম্য দিয়ে
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v) অপুসংস্কৃতভূমক কাজ :- প্রকল্প রূপায়ন করতে
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কাজের স্বার্থ দিয়ে কিস্যার্থীদের স্বার্থ
অহমোগিত্য, অহমামিত্য, অহমবেদনা,
ওকে অপরের উপর নির্ভরশীলতা
হৃত্যাদি আত্মাতিক গুণাবলি গুলি
বিকশিত হওয়ার সুযোগ গড়ে উঠে।

* প্রকল্পভূমক কাজের উৎসাহিতা :-

প্রকল্প রূপায়নের স্বার্থ দিয়ে কিস্যার্থীর
অস্বাস্থ্য সঙ্গতা বৃদ্ধি পাবে। কিস্যার্থীদের
স্বার্থে হলেবদ্ধভাবে কাজ করার আনন্ডিতা
শৈরী হবে।

প্রকল্প রূপায়ন করতে গিয়ে
কিস্যার্থীরা এড়ায় বহু- বাইরের
বিভিন্ন বিষয় অস্বার্থে জ্ঞানলাভ
করতে পারবে।

* প্রকল্পে নির্বাচিত বিষয় :- লেখক নামায়ন সাংগোষ্ঠী
প্রস্তুতি আয়োজন করেন ৫ কার্যনিওমালা গায়েব তৈরিতে

নারায়ণ সঙ্ঘসংস্কারের জীবনকাহিনী

নারায়ণ সঙ্ঘসংস্কার (১৯২৫ - ১৯৭০) 'নারায়ণ' নামে প্রখ্যাত হলেও তাঁর প্রকৃত নাম ভারতবর্ষীয় ও নামে পূর্বসূরী এক বিকির্ষিত কথা আনিতিক ছিলেন বলে ('স্বর্নলতা' গ্রন্থের স্মৃতিভা), যেসকল নামটির পরিবর্তে এই নামেই তিনি লিখতে শুরু করেন যেও বস্তুই মোকেশ্বর পরিণত হয়ে 'সুন্দর' এই উচ্চনামেও তিনি 'দেব' আভিষ্কার নিমিত্ত একটি বঙ্গীয় লিখিতেন বহুদিন বৈষ্ণব উচ্চ দিনাভ্যুতের বালিন্দ্যভিষ্ণ আদি বঙ্গ বসিন্দ্যেষ্ণ পুলিন্দ আভিষ্কার বাবা উচ্চনামের বহিন্দ্য চাকরিই সূত্র বহু উচ্চনাম সূত্র হলেও নারায়ণকে তাঁর অন্যবস্ণেষ্ণ দ্যেষ্ণ ২৩য় সূত্র উচ্চনামের বহিন্দ্য চাকরিই সূত্র বহু উচ্চনাম সূত্র হলেও নারায়ণকে তাঁর অন্যবস্ণেষ্ণ দ্যেষ্ণ ২৩য় সূত্র উচ্চনাম ছিলেন অত্যন্ত আনিতিকৈষ্ণী ঙ্গেষ্ণ, এই আনিতিকৈষ্ণী পরিষ্ণেষ্ণেই নারায়ণও আনিতিকৈষ্ণী হলে উচ্চনাম বালিন্দ্য ল মোকেশ্বর তাঁর পরিণতি, আনিতিকৈষ্ণী আনিতিকৈষ্ণী ২৩য় সূত্র

নারায়ণ সঙ্ঘসংস্কারের লেখক,

কৈশোর ও প্রথম যৌবন বয়সে উত্তর ও পূর্ব
 বিভিন্ন স্থানেও এই সূত্র তিনি ব্যাঙ্গ্যে নিম্ন
 ও উত্তর বনের নদী, অল্পদিনে বন, চা-বাগান
 ও অন্যান্য প্রকৃতির, স্থানিকভাবে পরিচিত হওয়া
 তাঁর সম্বন্ধে উল্লেখ্যে এর প্রতিফলন আলেখ্যে
 সৃষ্টিকর্মের আহিত্যে তেও তিনি প্রতিভা সন্ধান
 স্বাক্ষর রেখেছেন, তেজানি অম্বালোচক ও গাণ্ডিক
 হিম্মে ও তাঁর খ্যাতি হলেও 'দেব' আত্মসাহিব
 পরিচয় তিনি হেঁচনায়ে 'সুন্দর উপন্যাস' লিখ-
 তেনেও

বিখ্যাত উপন্যাস হলে এইগুলি - 'উপনিবেশ';
 'বনময়ূর'; 'বিদূষক'; 'অম্বাবসার গাণ'; 'বগের
 দরজা' আর সম্বন্ধে অকালেরে স্বর্ষে 'বীৎস';
 'বগলাবদর'; 'গনর্ষরাজ'; অত্র প্রকৃত্তি হেঁচ
 এই 'গোণ' গণ্ডাতি 'বগলাবদর' অকালেরে
 অগুগতিয়া তাঁর লেখার সূত্র উপজীব গুলি
 হলে প্রতিভা তেওনা, অম্বাভাষণ, কৃষ্টি
 আত্মসেব স্বলোবিল্লমন্যে অরম্ব অত্র স্বীভূ
 গন্যকোণী তাঁর রচনাকে বিকির্ষণে দিহে
 বলে অম্বালোচকরা মনে করেছেনও

ভূমিকা

প্রকল্প হল এক অতীতের ও উদ্ভাবনী
বিশ্বায়ণ অনেকগুলি গবেষণার মাধ্যমে
যাৰ আশ্রয় কিস্তি নিজেৰ ভাষনা
ও কল্পনা কে বাস্তবে রূপায়িত করতে
হাত কৰা এক প্রয়োজনে ভাৰ প্রাপ্ত
কিস্তি / কিস্তিৰ নিৰ্দেশ ও অংশী
কিস্তিৰ আশ্রয় কৰে, আশ্রয় গ্ৰহণেৰ
প্রকল্প লেখক গ্ৰহণেৰ গ্ৰহণেৰ
যদি "ভাৰ" গ্ৰহণেৰ গ্ৰহণেৰ
প্রকৃতি-

ছোটগল্প

অঙ্কুর :- সুবিন্দু নামে চাকুর তাঁর সোনারতরী
বাক্যের কর্মমাঝে কবিতায় ছোটগল্প
অঙ্কুরে বলেছেন -

ছোট প্রাণ, ছোট কথা, ছোট
ছোট হৃৎকথা নিত্যই অহত
অরণ,

অহত বিস্ময়বাক্যে প্রত্যহ যেত
ভাষি তারি দু-চারটি অল্প ভলে,
নাহি বাক্যের অর্থে হঠাৎ ফলফল,
নাহি তপ্ত নাহি উৎসাহ,

অথবা ~~হ্র~~ অতীতি হবে আশা
করি মনে হবে কেম হলে
হইল না কেম-

ছোটগল্প

বৈশিষ্ট্য :-

- 1) ছোটগল্প অসীমত হ'ল একটিমাত্র ভাবকে কেন্দ্র করে।
- 2) ছোটগল্প পূর্ণাঙ্গ জীবনকে বঁধে না বঁধে জীবনের স্বপ্নাত্মকে, অর্থাৎ ছোটগল্পে কোনো কাহিনী বা উৎসাহিনী পূর্ণ না হয় না।
- 3) ছোটগল্প কিছু চৈন্য - তীব্র সত্যকে অঙ্কন। যেন জ্যাম্বুস্ত তীরে কুরু থেকে কেশ অবধি দুটে চলে।
- 4) ছোটগল্পের অসীমত নাটকীয় হতে পারে, বর্ণনামাত্র বলতে, সঙ্গীত করা মনে হবে, কেশ হয়ে ও হঠাৎ না কেশ।
- 5) ছোটগল্পের ভাষা হস্তিনত হ'ল, প্রতিক অধিকতর স্বাধীনত সত্য বা অসত্যের প্রকাশ হতে, কবিত্ব ও অলংকার ভাষায় ছোটগল্প বিকশিত হ'ল।

বিষয়বস্তু

শ্রীমতী গান্ধী মহাশয় তাঁর আত্মজীবনীতে বলেছেন - "নিজের অংশকে চরিত্রায়ণ করার জন্যে আমি কত নিম্ন হতে পারে তাই উদ্ভাষণ হল "শ্রীমতী" গান্ধী, প্রকৃত বস্তু শ্রীমতী গান্ধীর উচ্চ ও স্বাধীনতা আনন্দের দ্বারা মূল্যবোধের অক্ষয় নিশ্চিন্তাবে বঁচা আছে। শ্রীমতীর বিষয় জীবনের সোমস্বপ্নের চৈতন্যবোধের আত্মদের জীবন আকর্ষণ করে। "শ্রীমতী" গান্ধীর প্রকৃত কাহিনী আছে, গান্ধীর মূল বিষয় শ্রীমতীর বিলাসী রাজস্বায়তন ও তাঁর আত্মসমর্পণের প্রত্যেক অঙ্গের গভীর উদ্ভাষণ পরিবেশ।

লেখক প্রথমেই স্মরণ করেছেন "শ্রীমতী" গান্ধী হল এক আনন্দিক ইতিহাস, তার প্রথম অংশে বিলাসী রাজস্বায়তনের কাহিনী বর্ণিত। লেখকের কাছে একদিন অকালে একটি আর্মেল আর্মেল আর্মেলটি হল উদ্ভাষণের বাস্তব চাক্ষুণ্য দুঃখে এবং প্রেরণ হলেন স্বামী গান্ধী ও তাঁর রাজস্বায়তন ওন. তার. চৌধুরী, কথক রাজস্বায়তনের অংশে একবার শ্রীমতীর অংশী হয়, তাই অঙ্গুলে চাক্ষুণ্য মুটে

ভেঁক থাকে তেমনি বেশনে হিংসা জন্মবে
খাঁচায় ঝাৰ্শ্যে পুরাত হলে ভাবে বেশনে
লোভের বস্তুর দিকে আকৃষ্ট করতে হয়,
তবে সেই চেষ্টা অফল হবে, রাজাবাথার
ক্ষিণায় বঁকায় উল্ল্যে যে ভেঁকটি ওপর
নিবদ্ধ হুষ্টি আছে, ওই ভাবটিকে লেখক
সে অক্ষয় সন্দেহ উপস্থাপিত করেছেন
ভাতে তাঁয় ভেঁক, সন্দেহটি অক্ষয়িক,

উৎসাহ

অসম্ভব আশেচনার পরিবেশে এই বর্ণনার নাম
পরিচিতির বিষয়েও কিছু বলে বাস্তবায়ন করা
জীবন মানব জিন্দগিরি জীবন মেনে যায় কিবায় করা
হলে - সুখী এই বর্ণনাই ও গানের গমন নামক
যে, তা নয়গ সূত্রের কিছু গুণে ওগেও নিহি
আছে এই নাম দেওয়ার স্বার্থেই সুখী যে হিং
অন্যমনস্ককে মানব জিন্দগিরি জীবন মেনে কিবায়
করার ব্যাপারেই ওই বাস্তবায়নটি পরম আয়তন

একভাবে জিন্দগিরি, জিন্দগিরি শুধু
লোকের আগুণ 'কিবায়' করে তৃপ্তি লাভ করা
মানুষ হোগাশেয়ানিয়া নামে মনোবিজ্ঞানবিদ
একটি ব্যাবারি কথা বলেন, মার লক্ষ্য হলে নিজের
অসম্ভবতাকে অতলে বেশি গুরুত্ব দিয়ে, মনোবে
চরিত্র করার জন্য যে কোনো কাজ করতে
দ্বিধা না করায় যে কাজ গতি, অনুষ্ঠিত,
নীতিবিরুদ্ধ, অমানবিক, অন্য, হান্যকার, লক্ষ্যবয়-
মাই কিছু হোক না কেনও ব্যক্তিগত স্বার্থেই
ওই জিন্দগিরিও উচ্চতর একভাবে হোগাশেয়ানিয়া
টার হোগা বা অংশেইকে হুণ্ড করার জন্য
তিনি যে কোনো 'জীবন' মেনে যে কোনো
কিবায় করতে (বা বিরতে) দ্বিধাহীনভাবে 'জীবন'
নামের সূত্র ওগে ওগেও

গ্রন্থপঞ্জী (Biography)

- ① উসেদীক উল্লেখ্য (অক্ষাঃ) → নারায়ণ সঙ্কলনকার্যের
ক্ৰম সঞ্চ
- ② ৬. বীরেন্দ্র দত্ত → বাংলা ছোটগল্পঃ প্রভা
ও প্রবন্ধ
- ③ ৬. সুবোধী সেনগুপ্ত (প্রবীণ অক্ষাৎকা) → অসহ
বাঙালী চরিত্রাভিযান
- ④ ৬. জিৎস্না দে → নারায়ণ সঙ্কলনকার্যের
ছোটগল্প

1.3.2 & 1.3.3 SAMPLE PROJECT REPORT (2023-2024)

Environment Studies

**DESHBANDHU MAHAVIDYALAYA
CHITTARANJAN**

TOPIC: ECOSYSTEM OF A POND

NAME: GOURAV DUTTA

DEPARTMENT: COMMERCE(2ND SEMESTER)

SUBJECT: VAC

REGISTRATION NO.: 104231230004

ROLL NO.:10401113-230003



CERTIFICATE

***DESHBANDHU MAHAVIDYALAYA
CHITTARANJAN***

TO WHOM IT MAY CONCERN

This is to certify that Gourav Dutta is a student of BCOM(H) 2nd Semester of Desbandhu Mahavidyalayam, Chittaranjan bearing Roll No 10401113-230003 Reg. No- 104231230004 Session-2024-2025 has Successfully completed the Project on "Ecosystem of Pond" under the guidance of "Mr. Swarup Akhuli"

Date:- 05/08/2024

Swarup Akhuli

*Supervision
Swarup Akhuli*

ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my teacher "Mr. Swarup Akhuli" as well as our principal "Dr. Tidib Santapa Kundu" gave me the golden opportunity to do this wonderful project on the topic "Ecosystem of Pond" which also helped me in doing a lot of research and I came to know about so many new things I am really thankful to them.

Seemly, I would like to thank to GOD and my teachers and friends who helped me a lot in this project.

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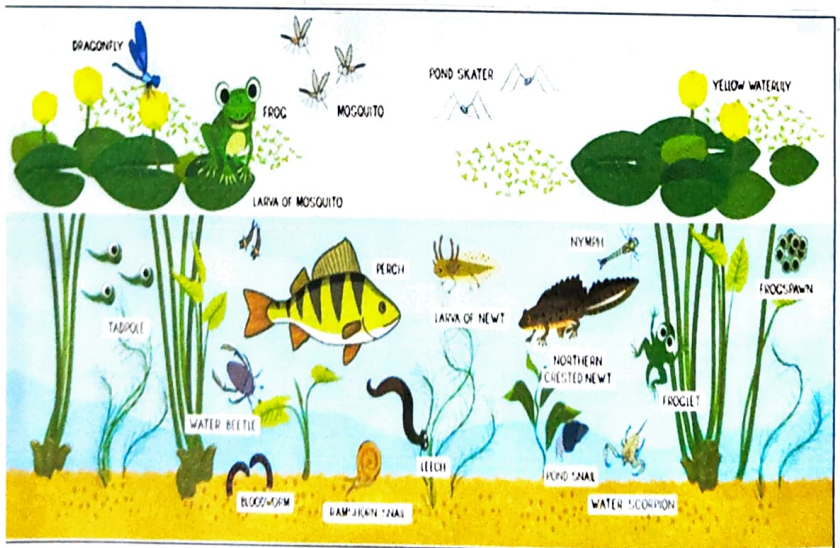
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INTRODUCTION

A pond is a body of stable water. It is either natural or artificial and usually it is smaller than a lake. They contain shallow water with aquatic plants and animals. A few animals also make their home in ponds. A pond ecosystem refers to fresh water ecosystem where there are communities of organisms depends on each other with the prevailing water ecosystem for their nutrients and survival. Usually ponds are shallow water bodies with a depth of 12 to 15 feet in which the sunrise can penetrate to the bottom permitting the growth of the plant there. In the pond ecosystem can reveal the health of a local area. They have specific life that show its overall health. Toxins or pollutions can affect the pond ecosystem adversely. The importance of understanding the pond ecosystem involves the life forms and plant cultures that are part of the health environment.

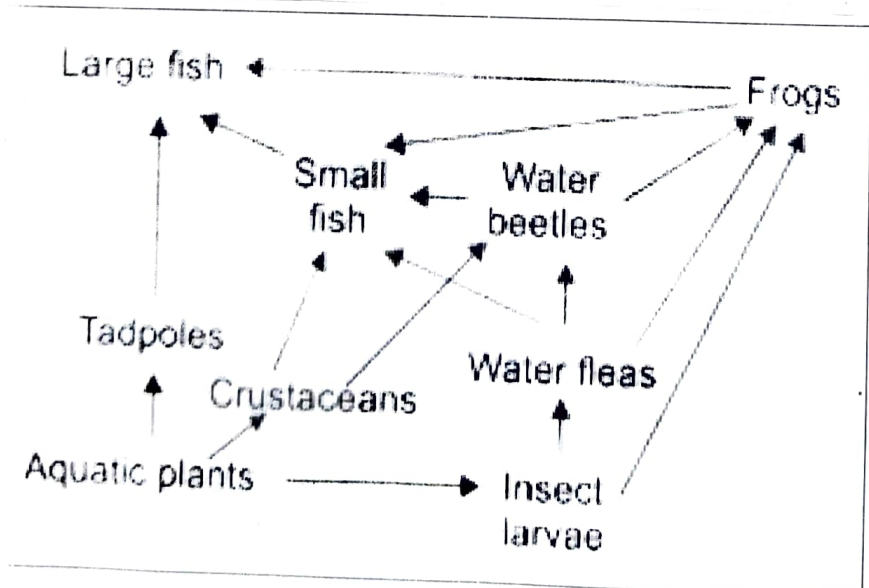
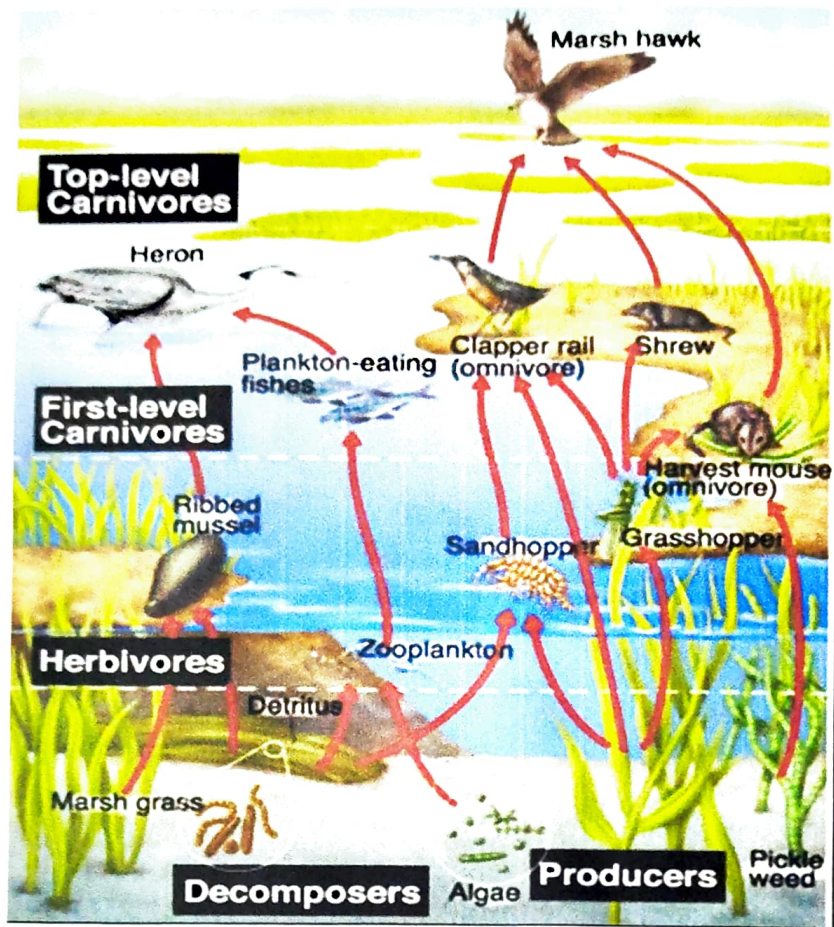
The pond ecosystem begins with what lives in the water. From the smallest microbes, single cell creature to the guppies, leeches, and midges only clean water can sustain life. The plants that convert O_2 for these creatures are very important. The healthy pond ecosystem will have a balance of both plant



and animals. Toxins can affect the quality of pond ecosystem. If toxins can affect the water plants can die. Without plants to add O_2 to the water the creatures might perish. Without the smallest life forms in the food chains, the ripple effect can lead to other species dying out or leaving the pond ecosystem.

Leeches have long been an indicator of the pond ecosystem's health status. Leeches are found where the water quality is good. If the pond ecosystem is not balanced, or there are impurities in the water that the life forms cannot deal with then one of the first to suffer or leave the environment is the leech. Birds, spiders, lizards, rodents, rabbits & larger mammals are all reliant on a healthy pond ecosystem. Without clean water, filtered by ample plant life or good drainable soil, the larger animals will need to find other sources of water.

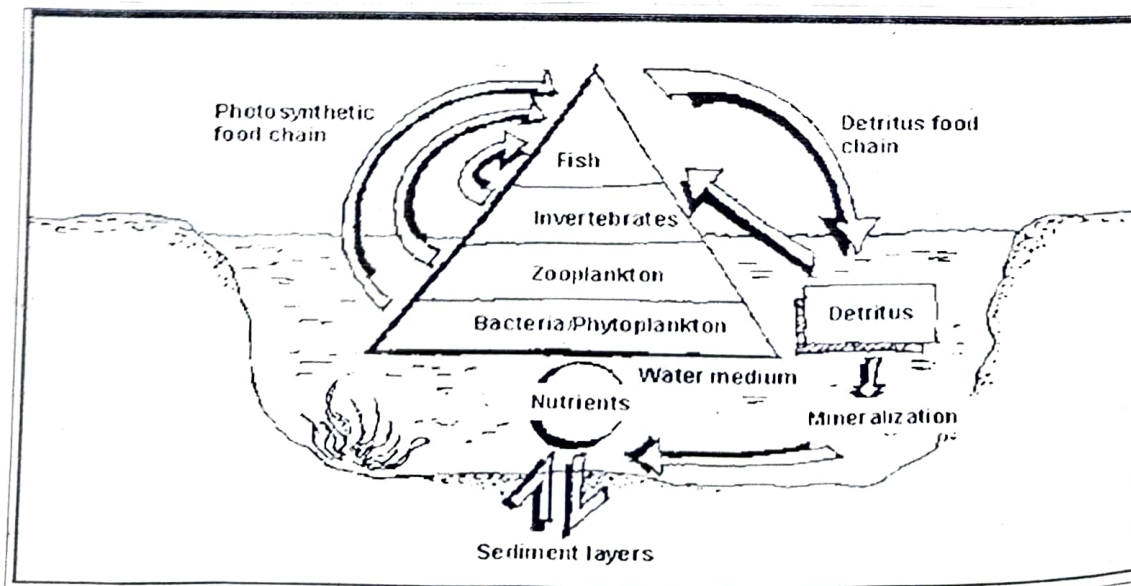
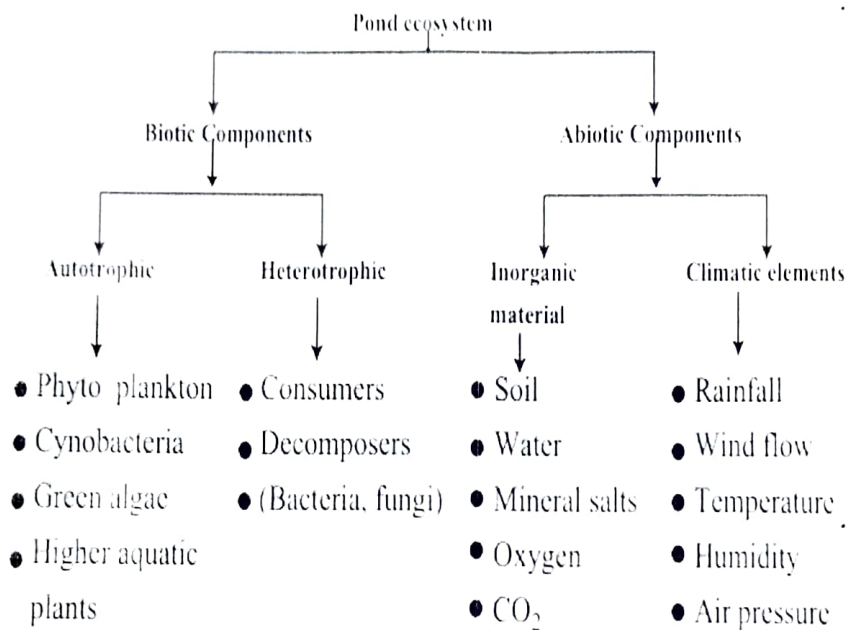
Agriculture and the impact of human activity on the pond ecosystem can affect the quality and purity of soil and water. Fertilizers, oil introduced species, pollution, fishing can all upset the delicate balance that exists in a healthy pond ecosystem. Maintaining the balance, keeping every species alive and in good numbers will ensure a healthy, vital pond ecosystem. Fresh water, climate, drought, humidity, rising salinity are all important factors that can affect the pond ecosystem.



CAUSES

Pond as water body in an environment has great importance. Its water meets various demands of the rural areas. The village people are dependent on pond for bathing, washing clothes, and utensils. The pond water is even used as drinking water. But unfortunately due to lack of awareness the ecosystem of a pond is disturbed by the activities of human being. Pond is polluted due to cattle bathing, domestic waste, washing of clothing, utensils and also by human excretions etc. As the water body is the habitat of various organisms, pollution disturbs its ecosystem. The balance in ecosystem is disturbed by the abolition of ecosystem or pollution of pond. For this reason to study of pond ecosystem is very important, it is also important to maintain the pond ecosystem. The biodiversity of lake and pond ecosystem is currently threatened by a number of anthropogenic disturbances including well known problems such as eutrophication, acidification and contamination.

These are specific type of freshwater ecosystems that are largely based on the autotroph. algae which provide the basic trophic level for all life in the area. The largest predator in the pond ecosystem is fish. It may have a scale of organisms from bacteria to



big creatures like water bugs, frogs, tadpoles and turtles. This is important for the environment.

TYPES OF POND ECOSYSTEM

Ponds come in many different forms, and they have their own differentiating characteristics. The key types of pond ecosystem.

1. Salt ponds:

Salt ponds contain brackish water and can occur close to the sea on side where water logged ground creates natural pools. Salt pond can also occur in rocky area on the beach, though here they are called rock pools.

2. Garden ponds:

These are artificially created pond can contains ornamental plants and animals species that come from all over the world

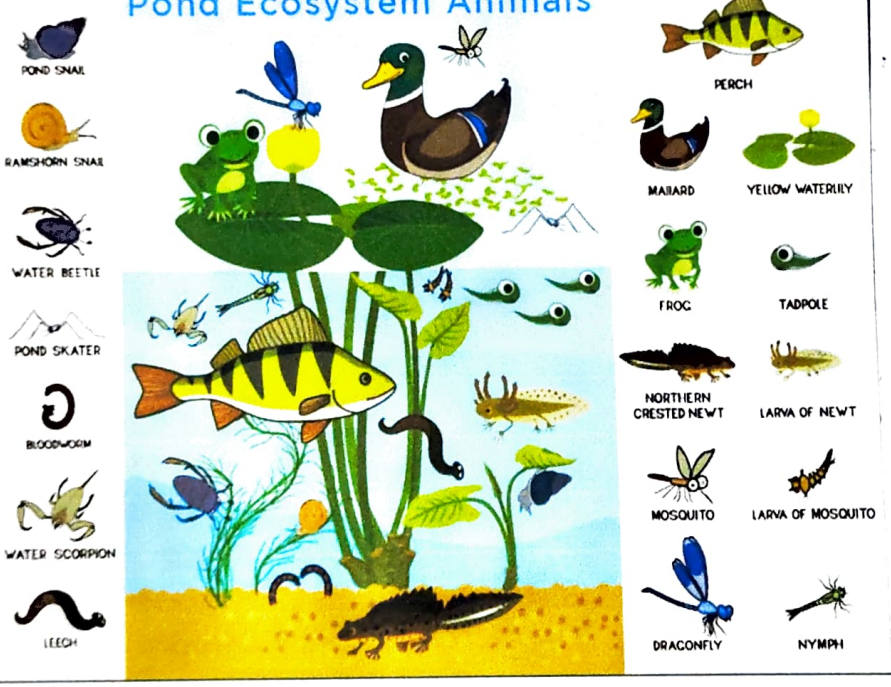
3. Fresh water ponds:

Fresh water ponds can form anywhere inland either from rainfall or from the presence of water saturating the soil. They can be home to fish, birds, amphibians, and many other kinds of wild life.

4. Vernal ponds:

Vernal ponds are seasonal ponds. They form in depressions in the ground, but only during certain types of the year when rainfall is heaviest.

Pond Ecosystem Animals



-  POND SNAIL
-  RAMSHORN SNAIL
-  WATER BEETLE
-  POND SKATER
-  BLOODWORM
-  WATER SCORPION
-  LEECH

-  PERCH
-  MALLARD
-  YELLOW WATERLILY
-  FROG
-  TADPOLE
-  NORTHERN CRESTED NEWT
-  LARVA OF NEWT
-  MOSQUITO
-  LARVA OF MOSQUITO
-  DRAGONFLY
-  NYMPH

5. Underground Ponds:

Ponds can also form underground, in the rocky environment of caves. Here a surprising amount of life can be found, including fish, different bacteria, lichens & soon.

CHARACTERISTICS

A defining feature of pond is the presence of standing water, which provides habitat for wetland plants and animals. Familiar examples might include water lily, frogs, turtles, herons. These wetlands support the aquatic food web, provides shelter for wildlife, and stabilize the shore of pond. In many other cases, however, the pond plants fall into the water & decay. Many invertebrates then feed on the decaying plants and these invertebrates provide food for the wetland species including fish, dragonflies and herons. Hence, ponds often have many different animals species using the wide array of food sources. They therefore provide an important sources of biological diversity in landscape.

Vernal pond are ponds which dry up for the part of the year as they are typically at their peak depth in the spring. The absence of fish very important characteristics, since it provides amphibians with breeding location free from predation by fish. There exist a type of pond where no trace of fish is to be seen. These type of pond inhabitant have and endangered species.

Pond Ecosystem Food Chain

Algae



Pond Snail



Frog



Hawk



Producer

Primary

Secondary

Tertiary

Tertiary consumer

Large Fishes

Secondary consumer

Small Fishes

Primary consumer

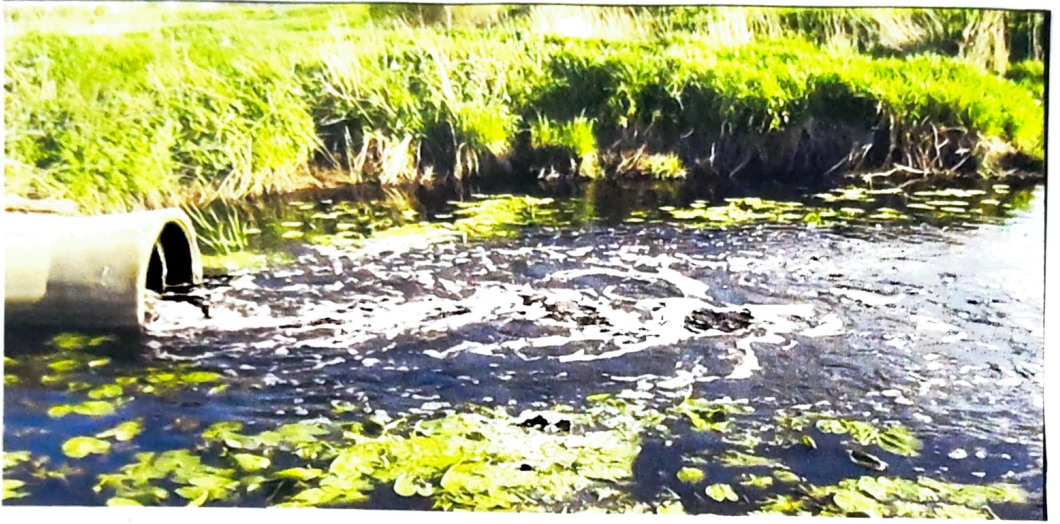
Zooplankton

Primary producer

Phytoplankton

Pond Ecosystem

(Inverted)

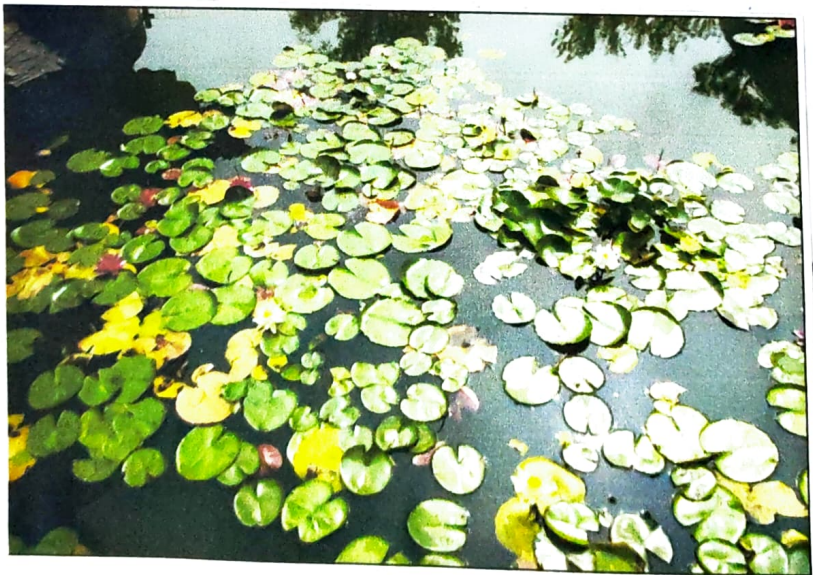


CONSERVATION & MANAGEMENT

Ponds are being small, are easily disrupted by human activities such as hikers. Drainage of ponds is a frequently problem in agricultural areas such as in the prairie potholes of North America.

Although ponds are a useful source of water for cattle, overgrazing and wading can turn a pond into muddy hole. Nutrient sources such as fertilized pastures, human sewage, and even lawn fertilizer, can cause explosive growth of algae and the loss of rooted plants and many other aquatic species. Roads near ponds can kill large no. of amphibians and turtles that may migrate to and from the ponds as part of their annual breeding cycle. Many well intentioned people introduce fish to ponds, being unaware that some species may eat aquatic plants, and eat the young of amphibians and many other invertebrate species. The construction of retaining walls, or lawns can severely degrade the life in a pond.

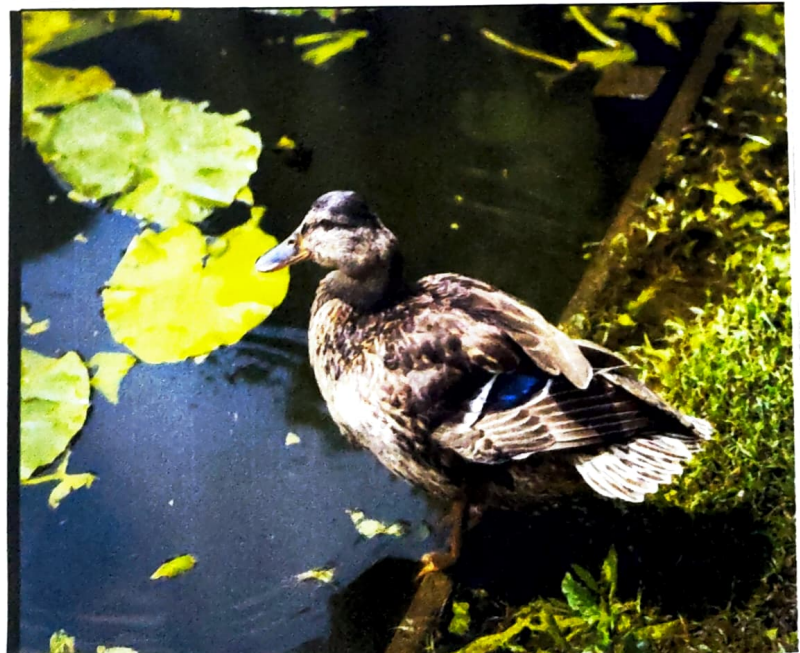
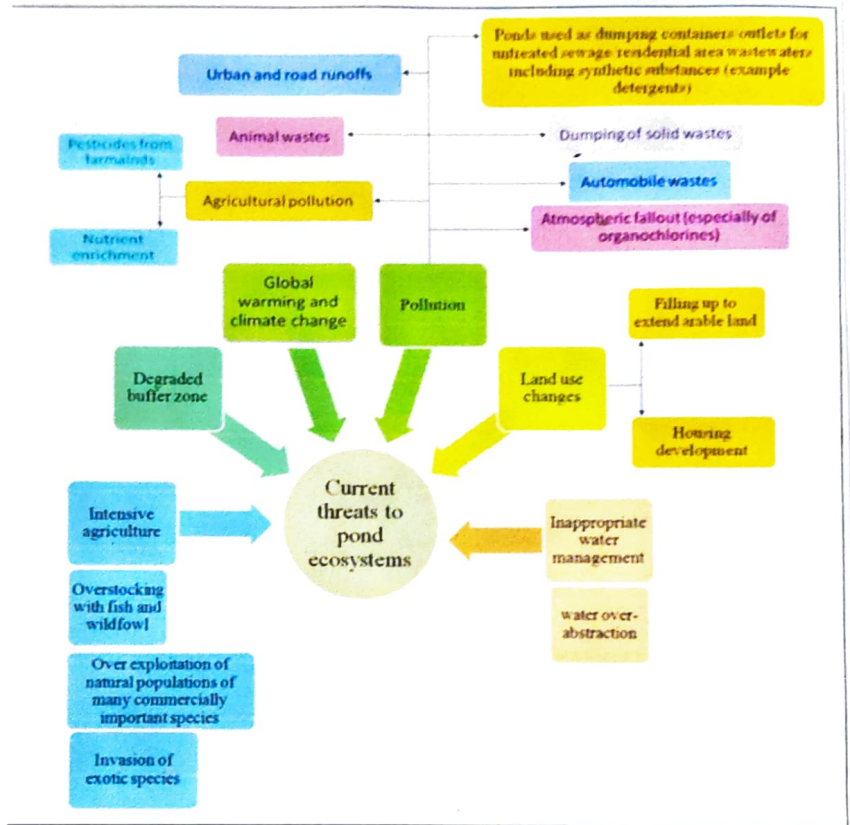
In landscape where ponds are artificially constructed. They are done so to provide wildlife viewing opportunities, to treat wastewater or for aesthetic purpose, such as part of a golf course. In general gently sloping shorelines with broad expanses of wetland plants not only provide the best conditions for wildlife, but they help protect water quality from sources in the surrounding landscapes. Roads and houses



should be kept as far away as possible. Another important way to add pond back into landscapes is to restore rivers so that they can flood and meander to create large numbers of natural ponds including vernal pools and wetlands in river valley.

Biodiversity importance of ponds should be recognised in India. The number of ponds in India is unknown. Their biodiversity values should be thoroughly and extensively studied. Ponds play an important roles in enhancement of regional biodiversity and ecological stability. Ponds promote abundance and high richness of aquatic plants and enhance regional biodiversity of amphibians and aquatic biol. Ponds and other small water bodies are also known for their high productivity. Ponds can be significantly more active biologically than large water bodies. Small aquatic system are important sites for food production. Also the biodiversity value of ponds comes from their roles as : critical habitats for many rare and uncommon species, stepping series habitats and biodiversity hotspots.

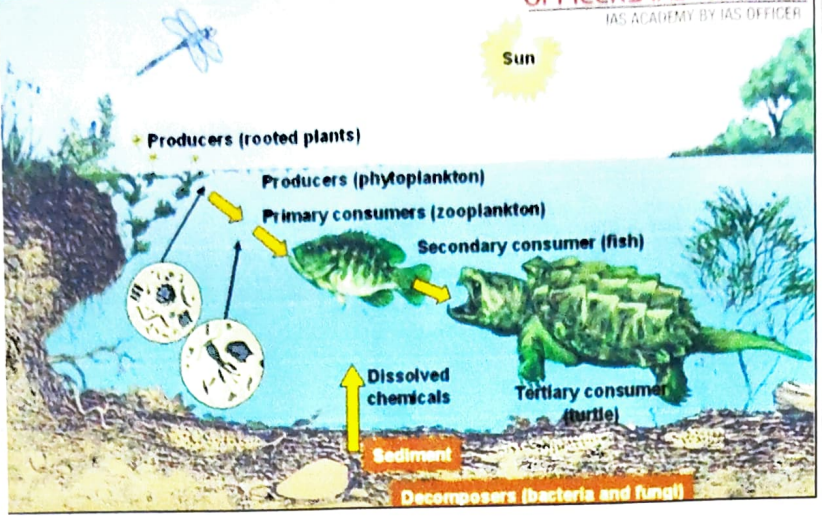
The conservation of ponds of ponds should be constructed to the Swachh Bharat initiative. In cities and towns, greater municipal citizen collaboration will help. However seeing the capacity gap the municipal bodies face in dealing with the municipal works. How under-equipped the municipal



bodies are can be realised. from the latest government data which shows that of 1.42 lakh tonnes of solid waste generated per day in urban areas in the month of July 2024 only 30.42% was processed. Thus citizen themselves should take initiative in cleanliness drive and pond conservation works. The urban populace can learn from the rural habitants who have displayed that sheer perseverance can bring significant results with respect to the sustainable development. Ecological assessment and monitoring of pond is a major topic in their conservation and management. Ecological restoration of degraded ecosystem is one of the management options. Ponds provide sustainable solution against climate change, even though they themselves look vulnerable to climate change. Ponds are highly active carbon sequestration body can help mitigate climate change. By increasing the number of ponds followed by their protection and proper management, climate change induced water scarcity problem can be brought down. With proper conservation measures even climate change induced eutrophication of ponds can be minimised. There is need to develop a pond water framework policy especially in terms of climate change. The Indian pond conservation network is much needed for the sustainable development.

Pond Ecosystem

OFFICERS IAS ACADEMY
IAS ACADEMY BY IAS OFFICER



IMPORTANCE OF POND ECOSYSTEM

Ponds ecosystem are very important, and for this reasons its vital that we take step to protect and nurt we. them below you will find some significant reasons why this is the case:

1. Bio diversity :

Pond ecosystem are very important habitats for so many different types of fish, birds, plant & creatures as well as insects such as butterflies, dragonflies, and pond skaters

2. Ubiquity :

Pond ecosystem can be found on every continent on the planet. That makes them very important for the life of organisms all over the world

3. Abundance :

Pond ecosystem are very abundant. Not only can they be found almost everywhere, they can be found plentifully. That again makes them a key habitat for many different species.

4. Sources of hydration :

Even if they do not actually live in pond ecosystem many species of animals will come to pond ecosystem

ANIMALS	RESPIRATORY ORGANS	LOCOMOTIVE ORGANS	FOOD	PRIMARY STAGE OF LIFE CYCLE
1. SMALL FISHES	GILLS>IN TAKES WATER DISSOLVED OXYGEN	FISH AND TAIL	WATER INSECTS AND ALGAE	EGGS
2. PRAWN	GILLS>IN TAKES WATER DISSOLVED OXYGEN	BELLY LEGS	WATER INSECTS AND ALGAE	EGGS
3. TOAD	LUNGS AND SKIN	TWO PAIRS OF WEBBED LEGS	WATER INSECTS	EGGS AND TADPOLES
4. DUCKS	LUNGS	ONE PAIR OF WEBBED LEGS	WATER INSECTS, MOLLUSKS AND SMALL FISHES	EGGS
5. CORMORANT	LUNGS	ONE PAIR OF WEBBED LEGS AND WING	MOLLUSCS AND SMALL FISHES	EGGS
6. MOSQUITOS	LARVAE AND PUPA STAGE RESPIRE THROUGH SIPHON TUBE	LARVAE SWIM ON WATER, ADULTS FLIES WITH WINGS	FEMALE SUCKS MAMMALIAN BLOOD AND MALE SUCKS PLANT SAP	EGGS, LARVAE AND PUPA
7. SNAIL	CTENEDIUM AND PULMONARY SAC	BODY COVERED BY A SHELL LOCOMOTARY ORGAN IS MUSCULAR FOOT ATTACHED WITH OPERCULAM	SMALL AQUATIC ORGANISMS	EGGS AND LARVAE

5. Beauty:

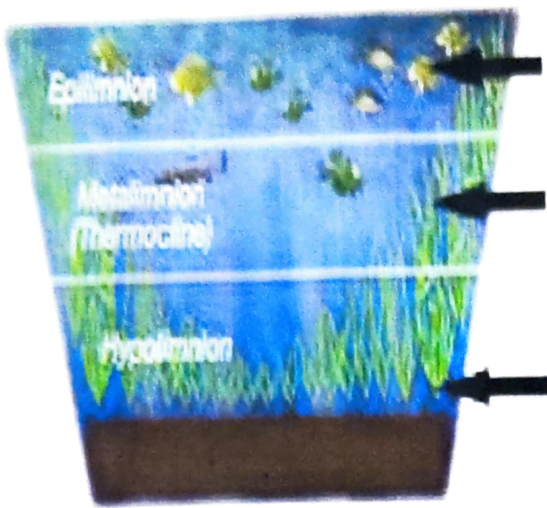
Pond ecosystem are very beautiful, as well, as we watch the sunlight reflecting off the surface of a pond we can feel inspired, calm, and in touch with nature.

ANALYSIS OF THE STUDY

It is evident that a food chain between the organisms in the pond has been formed. An ecosystem has been formed in the pond. The producers of this ecosystem has been formed in the ecosystem. The producers of this ecosystem are algae and green plants. The primary consumers are the small insects like water spider, cyclopes, mosquito larvae, etc. The secondary consumers are the small insect like water spider, cyclopes, frog, frog, duck and small fish. The tertiary consumer are large fish, kingfisher, etc.

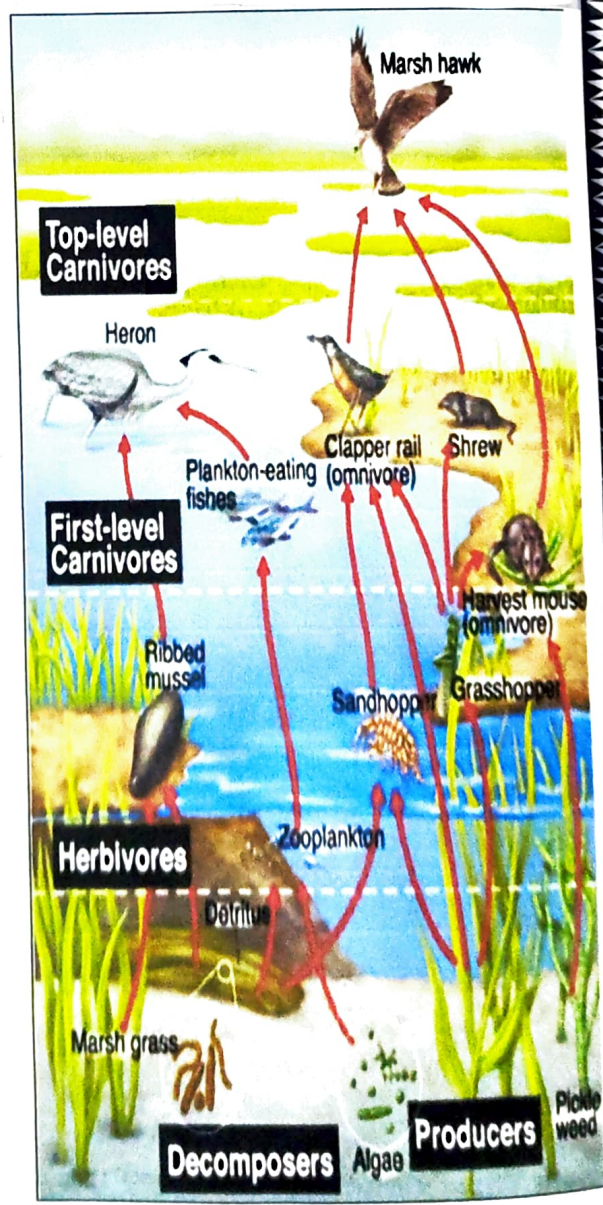
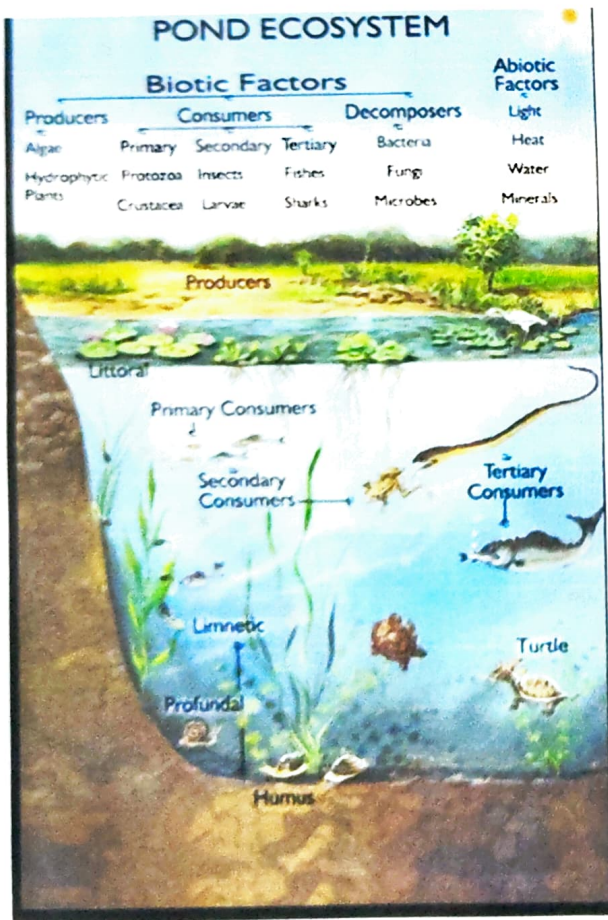
The pond water may be divided into three layers.

1. Littoral layers: This is the marginal layer of the pond and good habitat for plants. The producer of this layer are the rooted plants and phytoplanktons.
2. Limnetic layer: This is the lower layer of littoral region. It is habitat for fish.



- Warm, typically oxygen-rich
- Accumulate surface scum
- Floating weed masses
- Zone of decreasing water temperature
- Zone of decreasing dissolved oxygen
- Zone completely void of oxygen
- Cold water temperatures
- Accumulating organic muck
- Weeds prevalent
- Unusable by fish and all aerobic organisms

Stratified without Aeration



3. Profundal Layer: It is the deepest layer of the pond. It is the habitat of microbes, i.e. decomposers.

The temperature of the pond water also varies from layer to layer. The temperature of the different layers of the pond in summer are shown.

The temperature of the upper surface of the pond is almost 20°C . Generally, the temperature of pond water decreases with increase depth. According to the temperature of water, we can classify pond water in three different layers:

1. Epilimnion: The uppermost layer of pond where the temperature is almost 20°C
2. Metalimnion: The second layer is just below epilimnion. The temperature is almost 18°C
3. Hypolimnion: The lowermost layer where temperature is 15°C



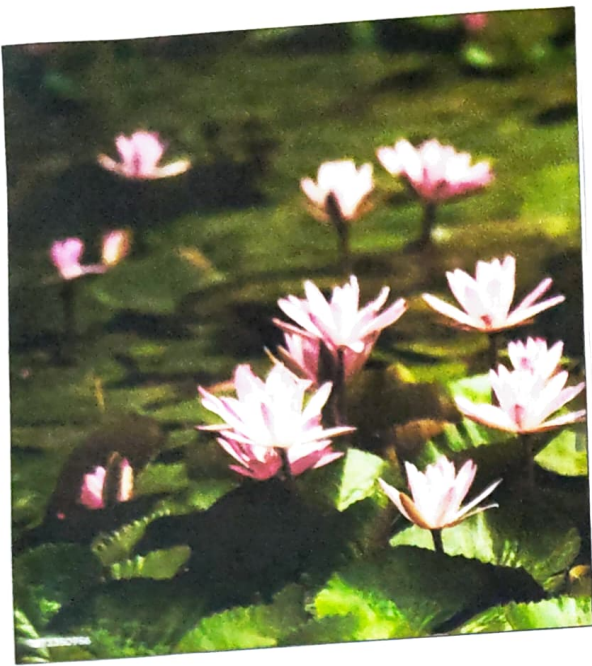


Fig: Lotus



Fig: Algae



Fig: Dragon fly



Fig: Snail

OBJECTIVE OF THE PROJECT

The main objective of this project is to study how a water body, such as a pond, can form an ecosystem. Another objective of this project is to know the food chain existing in the water body, to know their producers, consumers and decomposers. In other words, simply to study the organisms going and living in the pond habitat is the main objective. Apart from these to aware the general people about the importance of the water body and pond in the environment.

Food chain in a pond ecosystem is divided into three layers trophic levels namely the first, second and third trophic levels.

The first trophic level is represented by the producers or the autotroph. The second trophic is characterized by herbivores such as insects, invertebrates inhabiting the pond and which consume the plant. The third and the most trophic level comprises of the carnivores, especially the fish, which can feed on both plants and the herbivores.

In addition to the three trophic level they are saprotrophic organisms, commonly known as decomposers, which are located at the bottom of the food chain. Decomposers mostly the bacteria and fungi are very important in the nutrient cycle as all the organic matters from the dead and decay organisms is converted into carbon dioxide, nitrogen, magnesium



Fig: Mosquito



Fig: Fish



Fig: Toad

FINDINGS

Due to pressure of increased population, every day somewhere at least one natural water bodies or pond is silted for the construction for housing complex. Its influence is long standing and this is burning problem now. People should be aware of silted of natural body or pond. Pond can support a village economy through fishery, pearl, culture etc. Pond can resist flood by holding excess water in rainy season. It can also act as a natural refinery of dirty water. The dry part of the water body can be used for grazing. Therefore, the importance of water body is multipurpose so the study of ecosystem and its preservation is important.

Aquatic ecosystem performs many important environmental functions. They recycle nutrients, purify water, attenuate floods, recharge ground water and provide habitats for wildlife. Aquatic ecosystem are also used for human recreation, and are very important to the tourism industry, especially in coastal region.

The health of an aquatic ecosystem is degraded when the ecosystem ability to absorb a stress has been reduced. A stress on a aquatic ecosystem can be a result of physical, chemical or biological alteration of the environment, physical alteration includes changes in temperature, water flow & light availability.



Fig: Rohu fish



Fig: Kingfisher

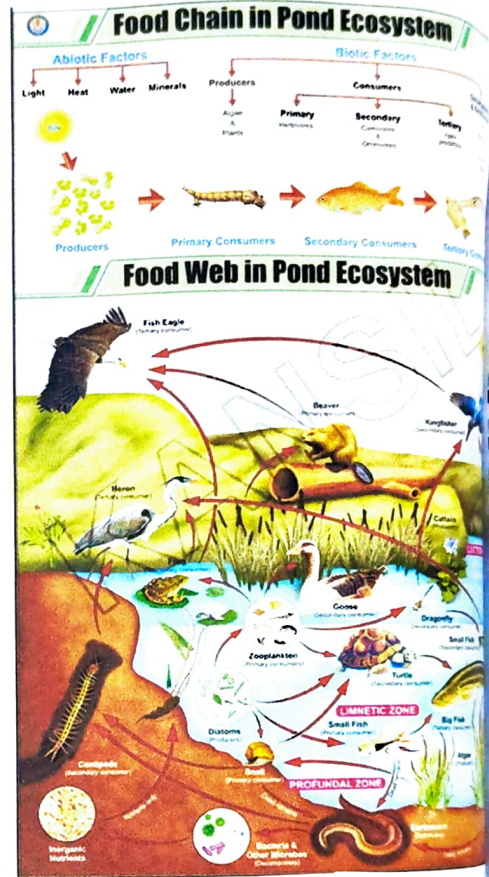
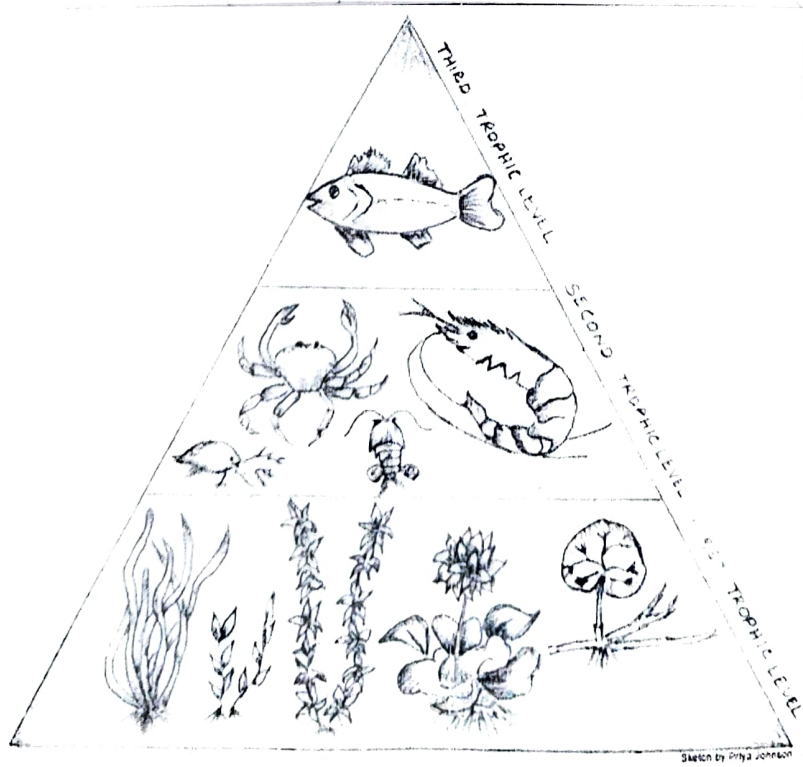
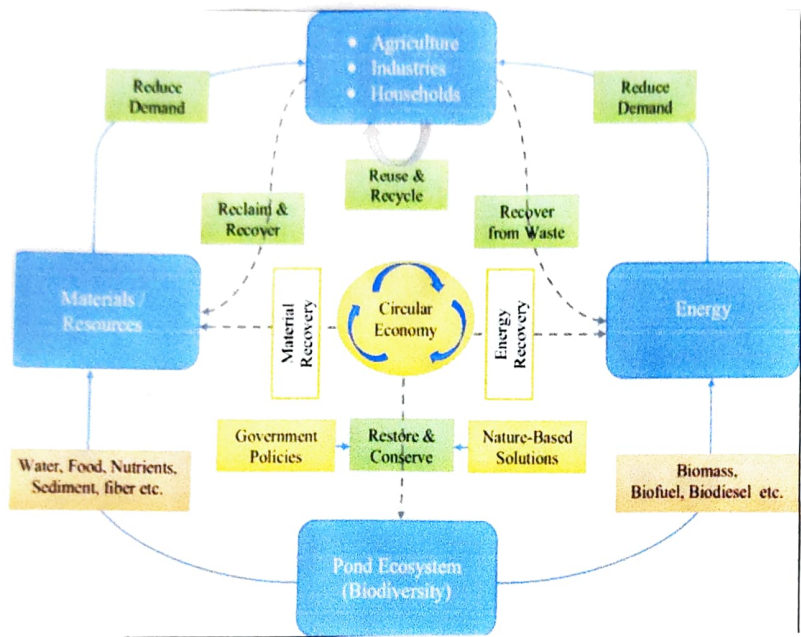


Fig: Duck

CONCLUSION

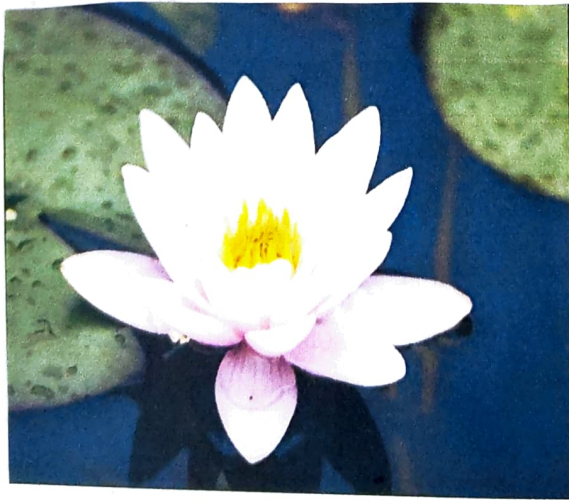
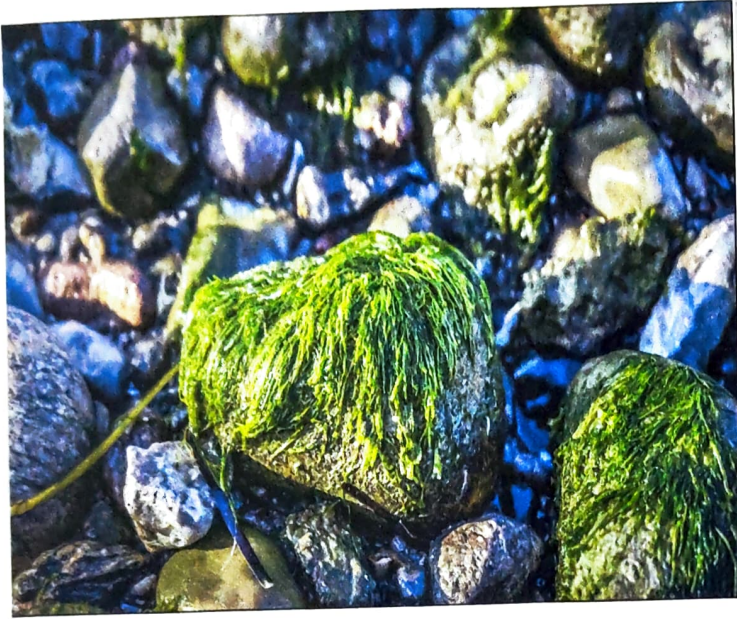
The main objective of this communication is to disseminate information on importance of ponds for their conservation and management planning, especially in Indian perspectives. The available studies show that the ponds in India are under due to increase in pollution rates and encroachment. There is a need to formulate policy development plan and then endeavour to deliver the plan on the ground. Instead of treating ponds as individual sites, they should rather be treated as part of the pond network or pondscape. The urgently required is a pond water framework policy and the Indian Pond Conservation Network for the sustainable development and management of ponds. In Indian scenario the exact number of ponds and the volumes of water they store are unknown. The basic scientific insights needed for planning and management of ponds is inadequate. There is a need to promote frontier research and development in these areas. It is essential to do systematic analysis of pond as alternative storage options in relation to their roles in poverty reduction and adaptation to climate change in India. Ponds are functional ecosystem and provide sustainable solutions to many of our problems. These water bodies are however undergoing degeneration due to various factors including encroachments leading to their extinction.



Extinction. rate of ponds due to urbanisation is more prominent. The demand of land in urban areas, which is increasing at a rapid rate, is fulfilled not only by expanding the peri-urban areas but also by encroaching breathing spaces in urban localities such as green land and water bodies.

Research indicates different ecological characteristics of ponds from other inland surface water systems. The number of macro invertebrate species is found more in ponds than rivers as a whole. In comparison to lakes, ponds, supports similar number of wetland plants. In terms of regional diversity however, farmland ponds displays greater contribution than other water habitats including rivers. Ponds networks are a crucial part of the habitat of amphibians, fish, on river flood plains, many wetland plant species, and for wetland mammals, and avian fauna that cover a range over large areas. Ponds can be used as sedimentation ponds and structures to control water quality.

Ponds can remove diffuse pollutants including nitrogen, phosphorus, and sediment in surface waters and reduce the nutrient load of the receiving water bodies. The cultural and historical significance of ponds are preferred because their sediment records can provide information about the lifestyle of our ancestors. They are crucial to maintain and encourage link b/w people & wildlife.



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