



MISSION AMRIT SAROVAR – JAL DHAROHAR SANRAKSHAN INTERNSHIP

Institute Name: PUSA INSTITUTE OF TECHNOLOGY

Water Body Name: Water Channel at Old Lodi Bridge (Athpula)

INO Name: Tushar Dev

Period of Report: (25.07.2022) – (30.07.2022)



Targets Set for the Week

- TO MEASURE THE WATER HOLDING CAPACITY OF THE WATER CHANNEL.
- TO DETERMINE THE WATER PARAMETERS BY PERFORMING DIFFERENT KINDS OF TEST.
- TO PLOT THE SEASONAL VARIATION AS WELL AS DAY VARIATION GRAPH OF THE WATER CHANNEL .
- TO GIVE THE SUGGESTION OF UPSCALING THE CAPACITY OF TREATMENT PLANT TO NDMC.
- TO TAKE THE PUBLIC OPINION ON THE DIFFERENT ASPECTS OF LODI GARDEN .
- TO DISCUSS ABOUT TE RE-IMAGING OF WATER CHANNEL.

Outcomes and Observations

- WE FOUND THE TOTAL HOLDING CAPACITY OF THE WATER CHANNEL OF LODI GARDEN THAT IS APPROXIMATELY 42 LAKH LITRES .
- THE DIFFERENT KINDS OF TEST THAT WERE PERFORMED IN THE COLLEGE BY OUR GROUP MEMBERS IN THE PRESENCE OF OUR INO OFFICER IN THE LAB ARE AS FOLLOWS ;-[BOD TEST, pH LEVEL TEST, TDS TEST , DO TEST].THESE ALL TESTS WERE PERFORMED WITH THE SAMPLE THAT HAS BEEN TAKEN FROM THE SITE.
- THERE ARE ALSO SOME QUANTITY CONTROL TEST THAT WERE PERFORMED BY NDMC,SOME TESTS ARE FOLLOWS;-[BOD TEST, COD TEST, TSS TEST, TDS TEST, pH VALUE, NITRATE CONTENT, SULPHATE CONTENT]. THESE TESTS WERE ALSO PERFORMED USING THE SAMPLE FROM THE SITE .
- WE FOUND THE WATER LEVEL [DEPTH] VARIATION IN THE WATER CHANNEL IN DIFFERENT SEASONS AS FOLLOWS ;-

SEASONS	OBSERVATIONS [IN FEET]
SUMMER	0.5-1
RAINY	4-5
WINTER	2-3

DAY	OBSERVATIONS [IN FEET]
MONDAY	2.5
TUESDAY	2.4
WEDNESDAY	2.6
THURSDAY	2.8
FRIDAY	2.1
SATURDAY	2.3

SOURCE;-NDMC

■ WE HAVE TAKEN THE PUBLIC OPINION ON VARIOUS ASPECTS FROM THE LOCALS AS WELL AS THE VISITORS WHICH INCLUDE INDIANS AND FOREIGNERS .ALL THE QUESTIONS THAT HAS BEEN ASKED DURING THE INTERACTION WITH THE VISITORS ARE MENTIONED IN THE FOLLOWING PAGE OF THIS REPORT

■ RE-IMAGING OF WATER CHANNEL ARE;

- 1.)DEPTH SHOULD BE INCREASED FOR THE PURPOSE OF BOATING FACILITY
- 2.)IT SHOULD BE CLEANED ON THE REGULAR BASIS SO THAT NO FOUL SMELL COMES FROM THE WATER BODY



THE ABOVE OBSERVATIONS IS FURTHER EXPLAINED IN DETAILED IN THE UPCOMING PAGES

QUANTITY OF WATER CHANNEL

THE CAPACITY OF WATER CHANNEL IS APPROXIMATELY 42 LAKHS LITRES.

AREA = 5701.641 m²

INITIAL DEPTH = 3ft.

FINAL DEPTH = 5ft.

Notes ... DATE / /

Initial depth = 3ft
final depth = 5ft
Area given = 5701.641 m²

∴ We know that 1ft = 0.305m

∴ Initial depth = 3 × 0.305m
= 0.915m

also,
- final depth = 5 × 0.305
= 1.525m

Now,
Since only height is variable
Let's integrate to find the
volume of water channel

$$V = \int_i^f 5701.641 h \, dh$$
$$V = 5701.641 \int_{0.915}^{1.525} h \, dh$$
$$V = 5701.641 \left[\frac{h^2}{2} \right]_{0.915}^{1.525}$$

Notes ... DATE / /

$$V = \frac{5701.641}{2} [(1.525)^2 - (0.915)^2]$$
$$V = \frac{5701.641}{2} [1.488]$$
$$V = \frac{8484.041}{2}$$
$$V = 4242.02 \, m^3$$

∴ We know that 1m³ = 1000L

∴ The vol^m of water in the
channel is about 42 lakhs litres

Source;-NDMC DATA

CALCULATED BY OUR GROUP
MEMBERS.

TEST PERFORMED IN OUR COLLEGE

PAREMETERS	LIMIT	UNIT	OBSERVATIONS
BOD	30	Mg/l	29-31
pH	6.5-9.0	Mg/l	9.1
TDS	500-2000	Mg/l	515
Do	6.5-8	Mg/l	7-7.5



SOURCE
OUR TEAM MEMBER



TEST PERFORMED BY NDMC

SOURCE

DELHI JAL BOARD

QUALITY CONTROLLED LABORATORY

REF NO;-D.E.B/DTQX/W.D/2020/PAID-38-39

S. No.	PARAMETERS	Limit	UNIT	A	B
1	DATE OF SAMPLE Received	--	--	17.07.20	17.07.20
2	B.O.D	30	Mg/l	29.8	8.40
3	C.O.D	250	Mg/l	120	34
4	T.S.S.	600	Mg/l	70.6	10.0
5	T.D.S	500/2000	Mg/l	928	127
6	pH Value	6.5-9.0	--	7.9	7.3
7	Nitrate	45	Mg/l	2.93	1.48
8	Sulphate	200-400	Mg/l	93.2	90.4
9	E.Coli	--	--	-ve	-ve

DELHI JAL BOARD
GOVT. OF N.C.T. OF DELHI
QUALITY CONTROL LABORATORY
W.W.WAZIRABAD, DELHI-110054

Ref No. D.J.B/DTQX/W.D./2020/PAID-38-39 Dated: 21.07.2020

Analysis report of water Sample received from Office of the Assistant Engineer-V(R-II)
NDMC: Golf Link Service Centre: N.Delhi
Sampling Point : Lodi Garden

Ref No-292/D/AE-V(R-11) Dated: 14.07.2020
Challan no.80 Dated: 15.07.2020

[Signature]
A/CHEMIST

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CHEMIST

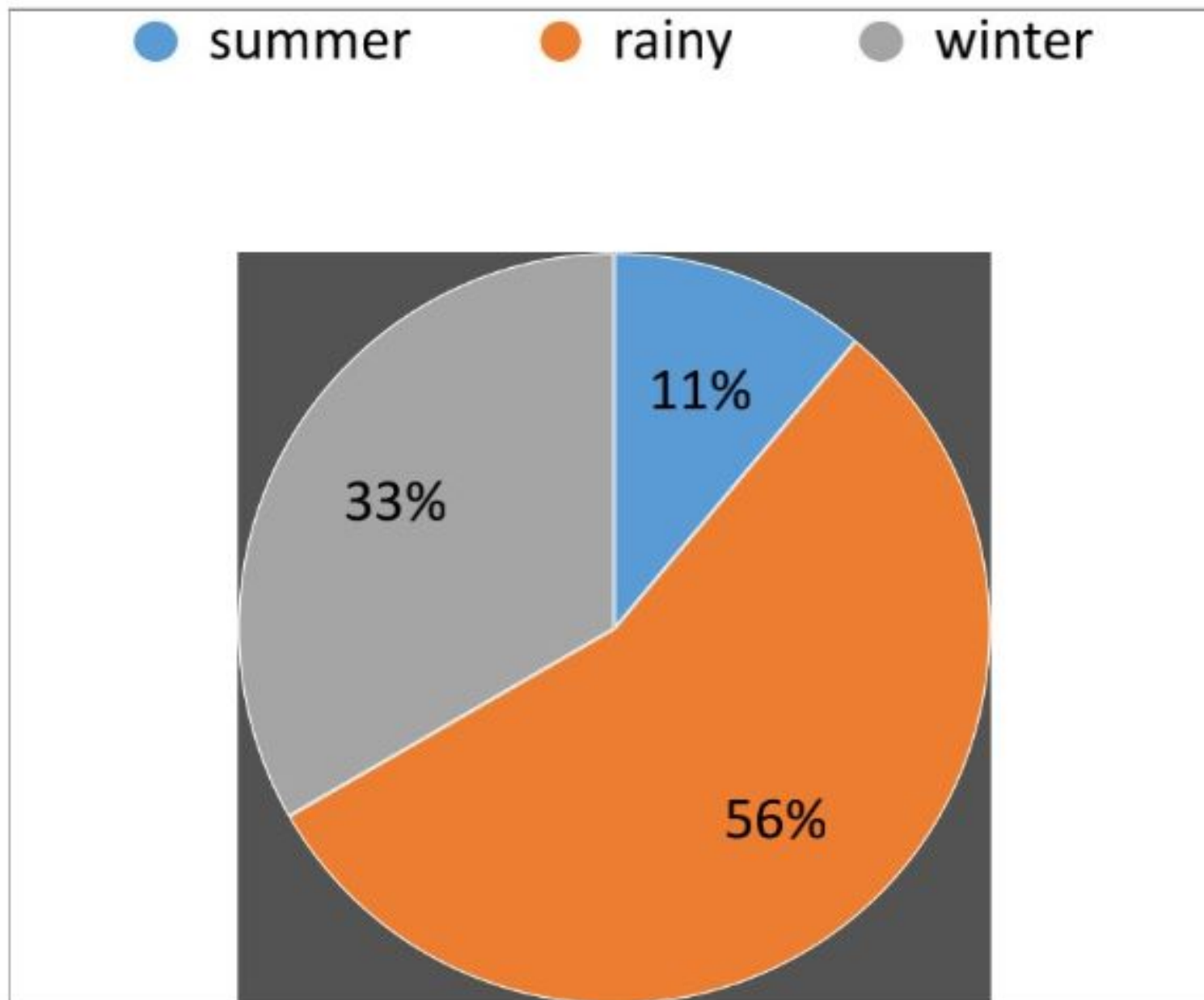
[Signature]
A.C.W.A.
Asst. Chief Water Analyst
D.J.B. Govt. of N.C.T. of Delhi
W.W. Wazirabad

SOURCE;-NDMC

WATER LEVEL VARIATION IN THE WATER CHANNEL

SEASONAL VARIATION

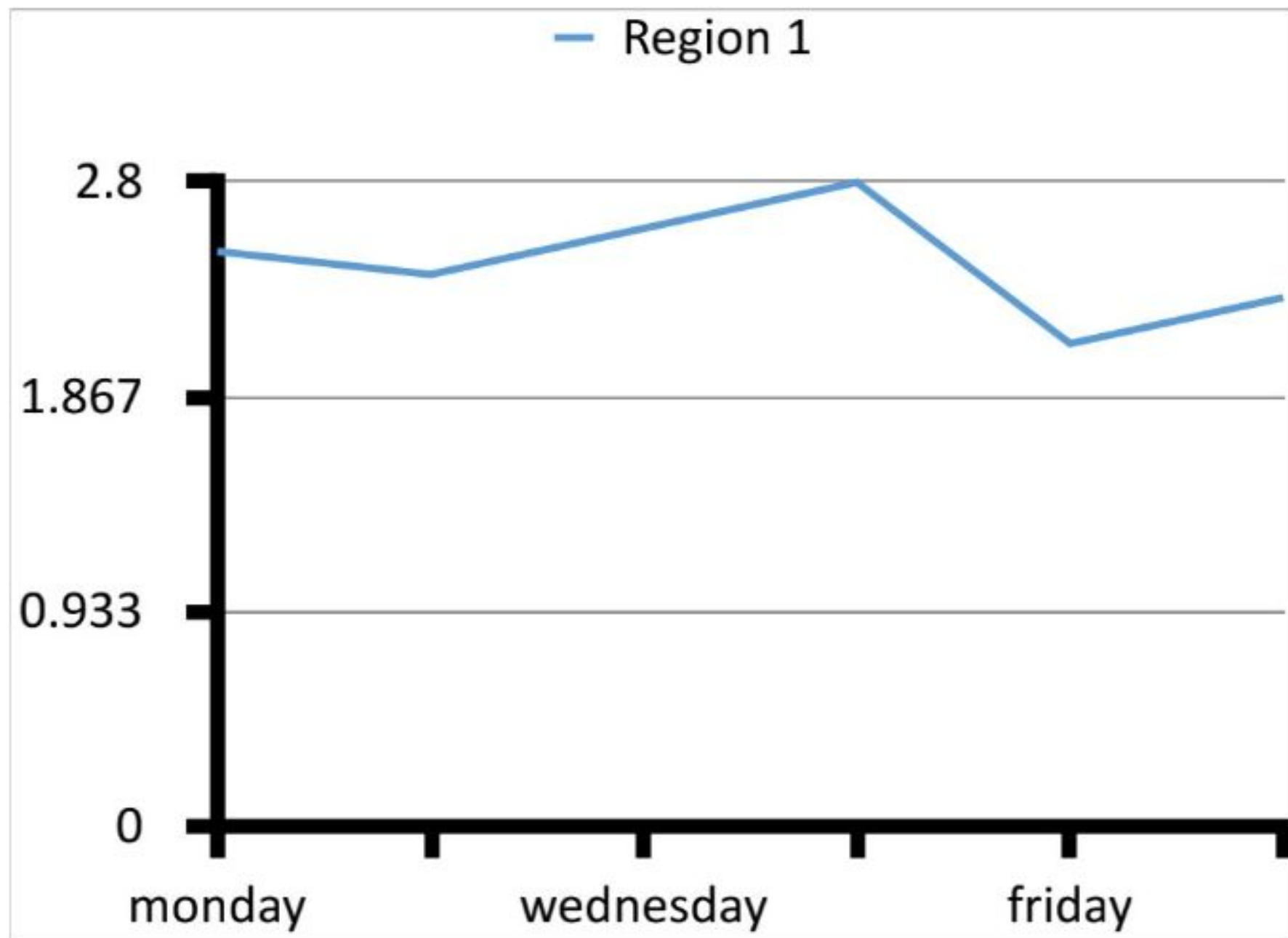
SEASONS	OBSERVATIONS [IN FEET]
SUMMER	0.5-1
RAINY	4-5
WINTER	2-3



SOURCE;-NDMC

DAYWISE VARIATION

DAY	OBSERVATIONS [IN FEET]
MONDAY	2.5
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SOURCE;-
OUR TEAM MEMBERS

AMRIT PUBLIC OPINION

THE QUESTIONS THAT WERE ASKED BY OUR TEAM MEMBERS TO THE PUBLIC ARE FOLLOWS:-

Q1.) WILL YOU VISIT THE PLACE AGAIN ?

Q2.) HOW WILL YOU MANAGE THE AREA AS AN INCHARGE ?

Q3.) WHAT IMPROVEMENTS WILL YOU UNDERTAKE HERE OR WHAT IMPROVEMENTS WOULD YOU LIKE TO SEE IN AND AROUND THE WATER BODY OR IN THE LODI GARDEN?

Q4.) WHAT IS THE PURPOSE OF VISITING THE PLACE?

Q5.) HOW MUCH DO YOU KNOW ABOUT THE WATER BODY AND ABOUT LODI GARDEN AND ITS MONUMENTS?

Q6.) WILL YOU BE INTERESTED IN A LIGHT AND SOUND SHOW IN THE LODI GARDEN WHICH WILL HIGHLIGHT THE IMPORTANCE OF THESE MONUMENTS AND THE WATER BODY IN AN INTERACTIVE MANNER?

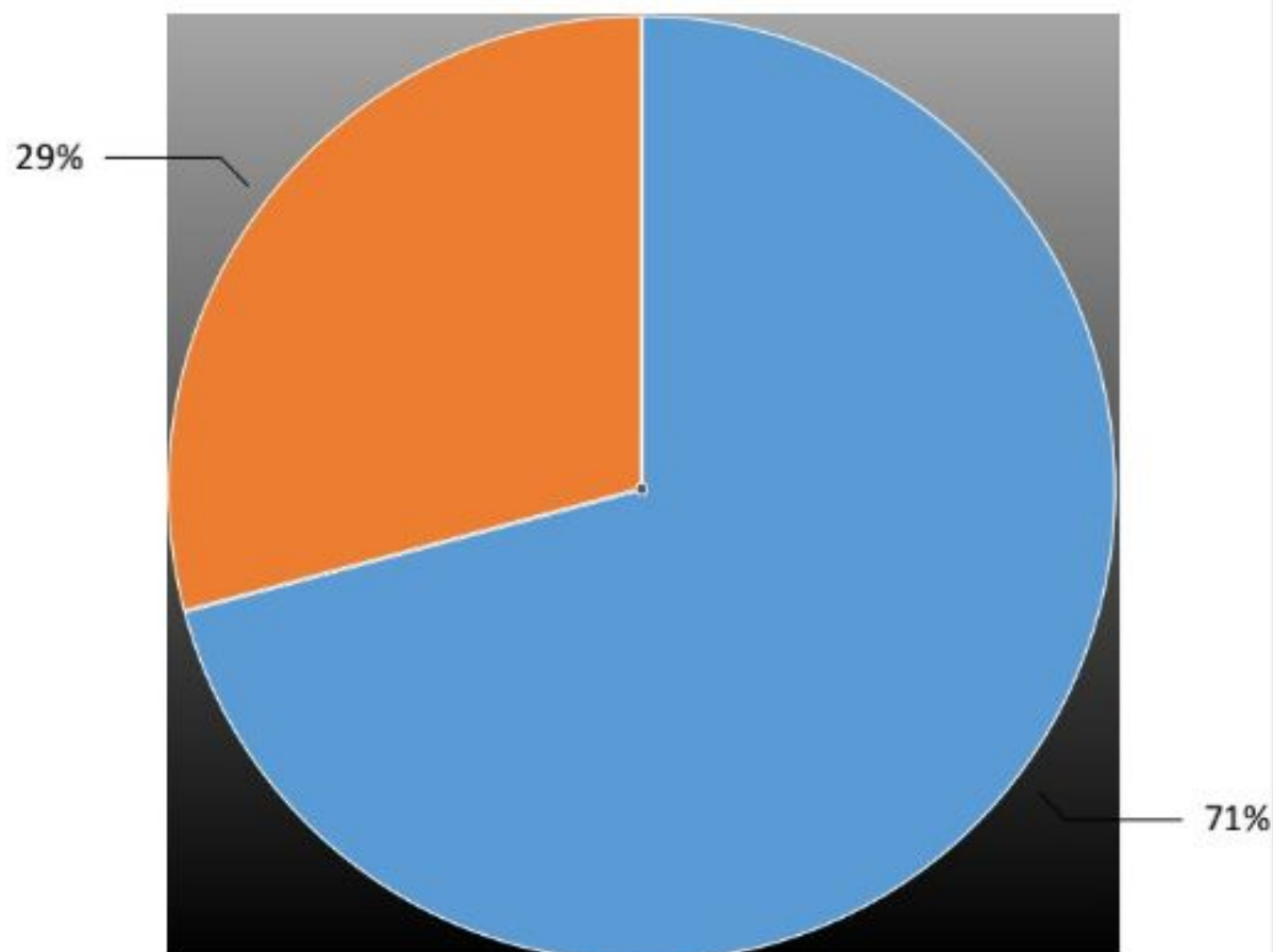
Q7.) DO YOU THINK THERE IS A NEED FOR A CANTEEN / FOOD COURT LIKE SYSTEM ANYWHERE AROUND THE WATER BODY WHERE PEOPLE CAN MEETUP AND HANGOUT AFTER THEIR VISITING THE WATER BODY?

WILL YOU VISIT THE PLACE AGAIN

WE HAVE TAKEN THE PUBLIC OPINION ON THIS TOPIC FROM ALMOST 100 VISITORS AND WE GET TO KNOW THE ANSWERS IN ONE WORD THAT IS, YES/NO.

● YES

● NO





TAKING PUBLIC OPINION



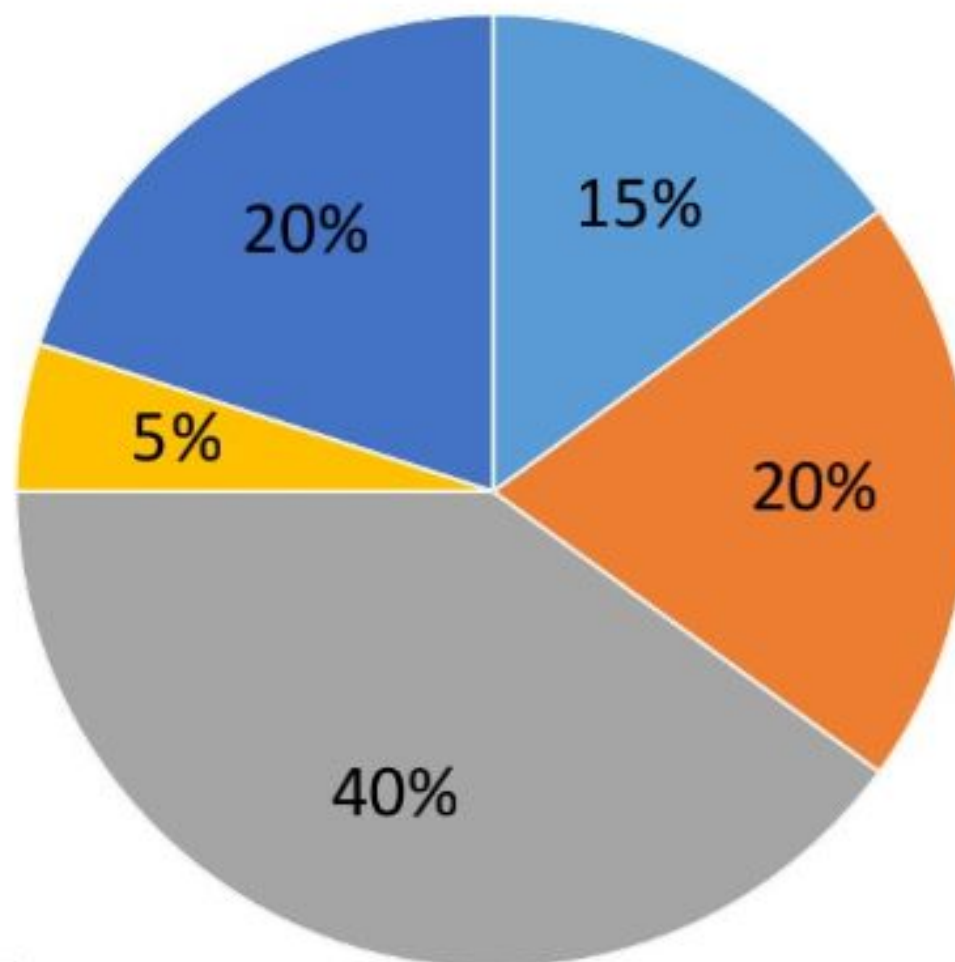
HOW WILL YOU MANAGE THE AREA AS AN INCHARGE ?

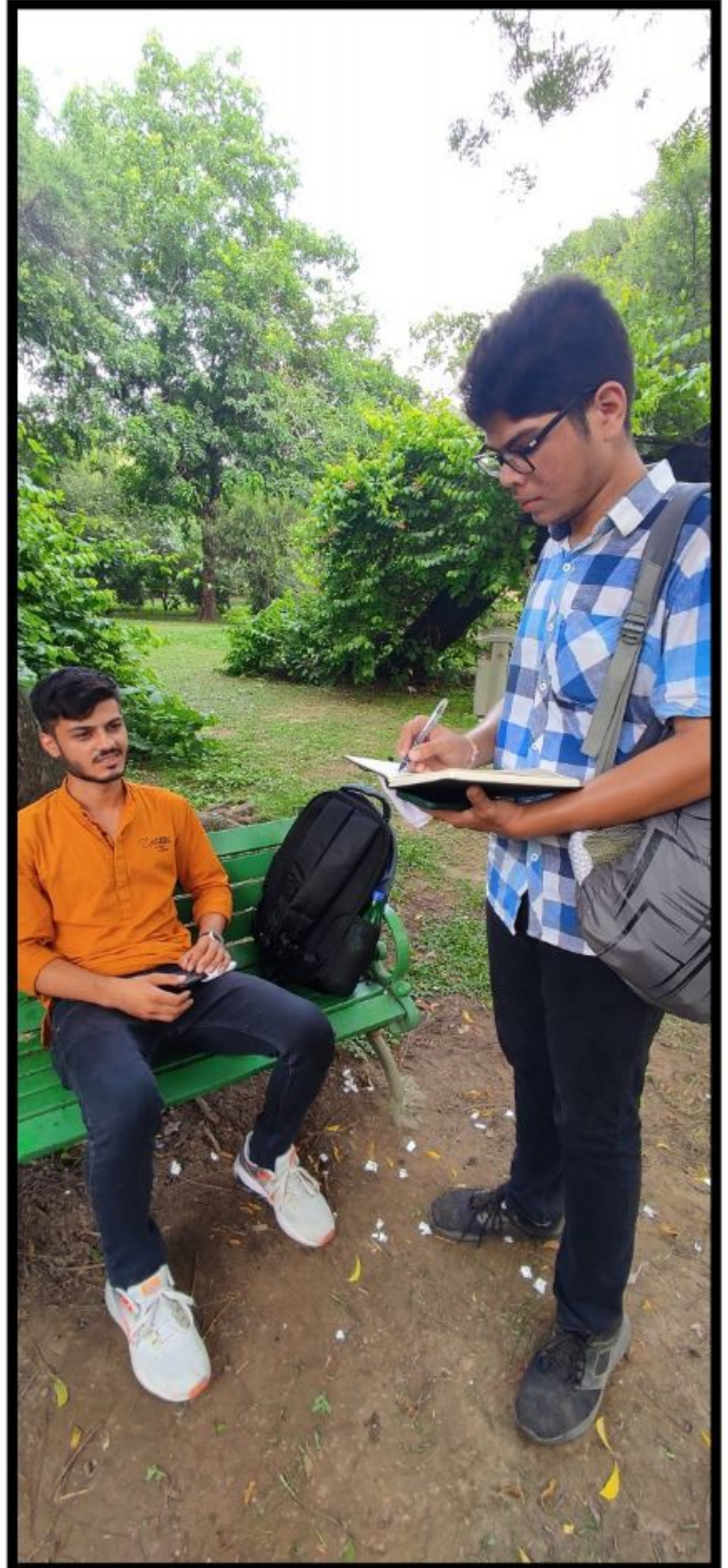
DIFFERENT THOUGHT MADE BY DIFFERENT PEOPLE .

- 1) MAINTANCE WORK SHOULD BE PROPERLY DONE
- 2) SATISFIED WITH THE FACILITY
- 3) TICKET COUNTER SHOULD BE MADE
- 4) GRIFFTY SCRATCHES ON THE MONUMENTS SHOULD BE REMOVED
- 5) NO TICKET COUNTER.

THERE IS A TOTAL 100 NUMBER OF SURVEY WOULD BE DONE
OUT OF THIS OUR TEAM MADE A GRAPH FOR THAT

- MAINTANCE WORK
- REMOVE GRIFFTY
- SATISFIED
- NO TICKET
- YES TICKET



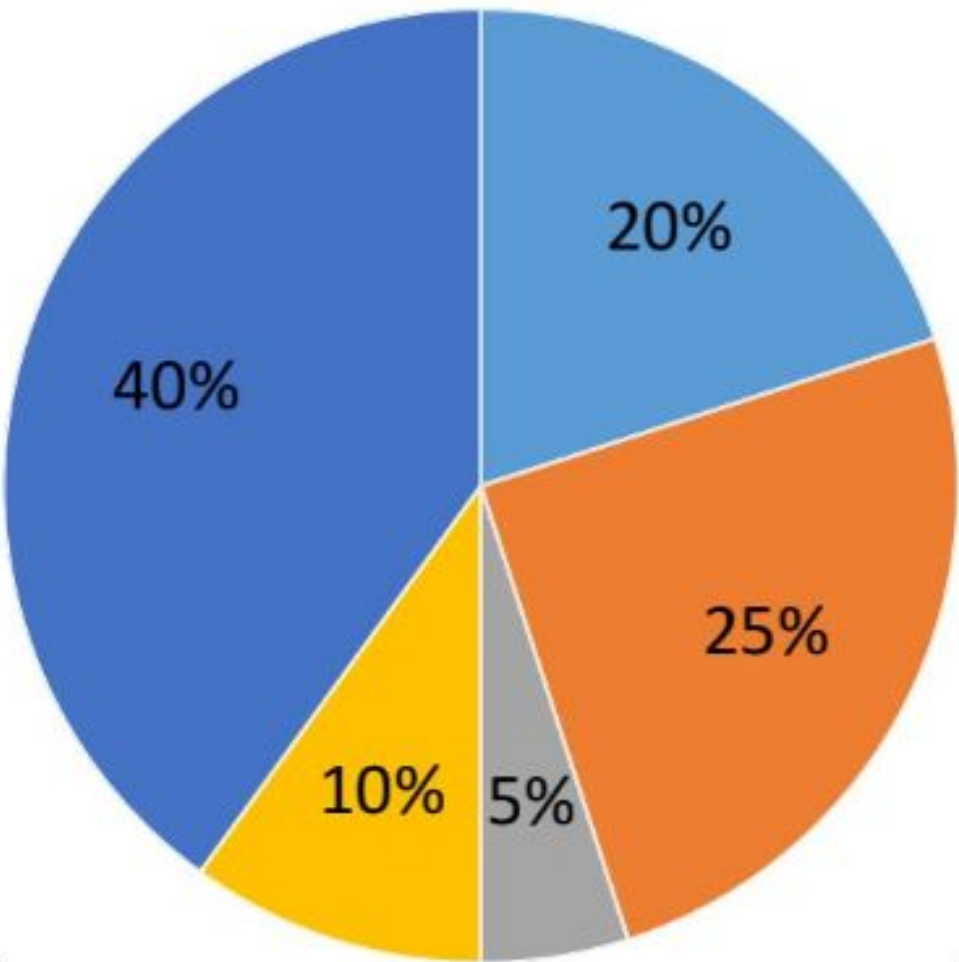


**WHAT IMPROVEMENTS WILL YOU UNDERTAKE HERE OR
WHAT IMPROVEMENTS WOULD YOU LIKE TO SEE IN AND
AROUND THE WATER BODY OR IN THE LODI GARDEN?**

ACCORDING TO PUBLIC THERE IS A LOT OF IMPROVEMENT SHOULD BE DONE IN LODI GARDEN .

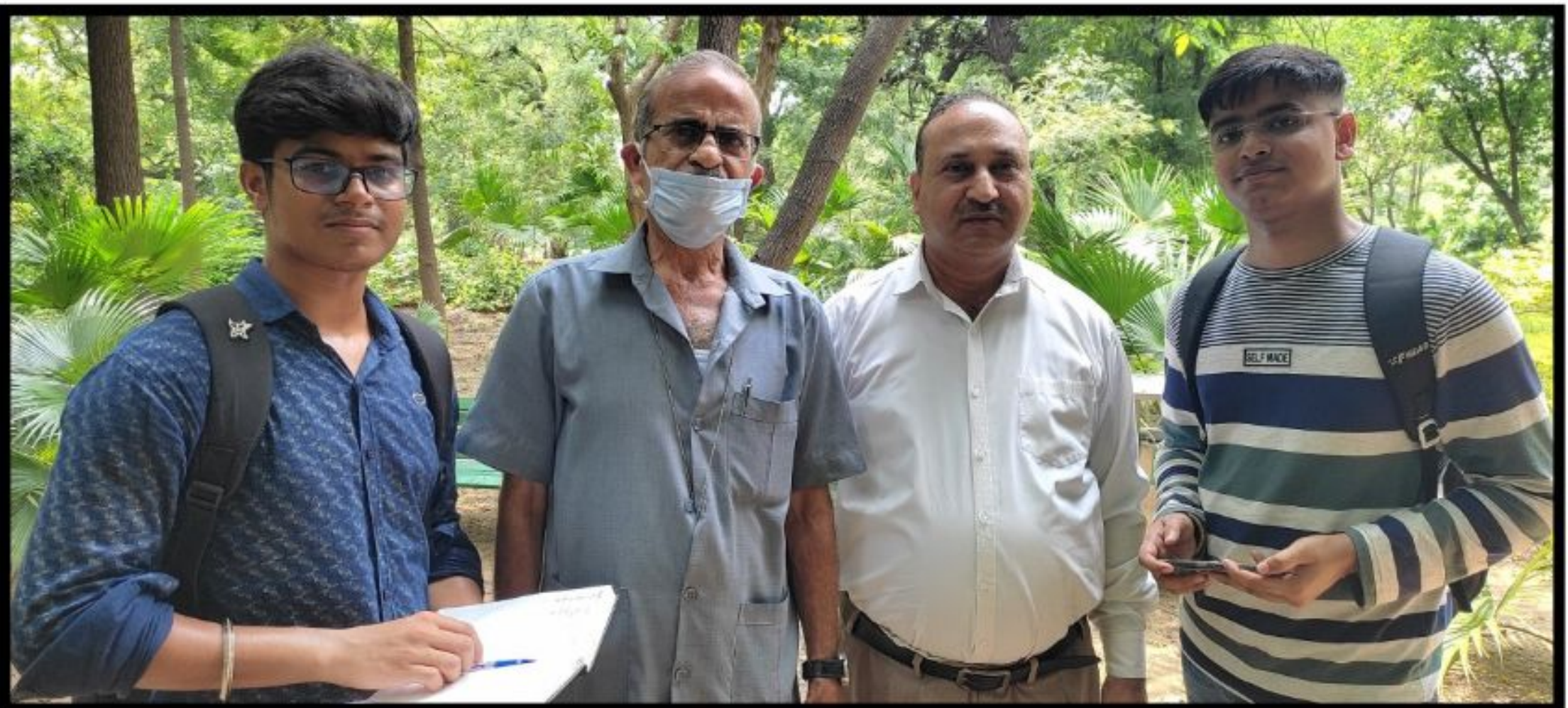
- 1) RENEWAL OF MONUMENTS
- 2) IMPROVE PARKING FACILITY AT ALL GATES
- 3) ENHANCED THE SECURITY OF GARDEN
- 4) PROVIDE THE VIP AREA
- 5) WATER SHOULD BE CLEANED PROPERLY

TOTAL 100 NO. OF SURVEYED DONE BY OUR TEAM MEMBER





**A LOT OF ANSWER IS GIVEN BY
RESPECTED VISITOR**



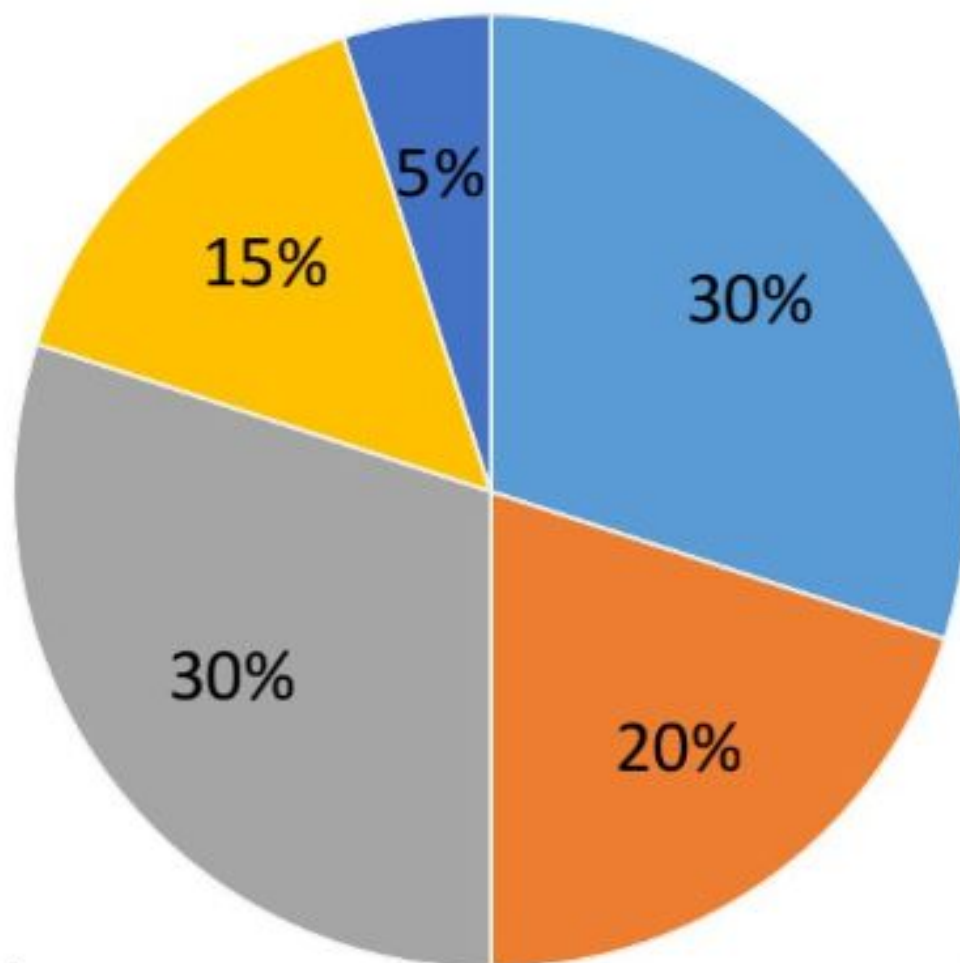
WHAT IS THE PURPOSE OF VISITING THE PLACE?

THERE ARE VARIOUS OF PURPOSE THAT WAS GIVEN BY AMRIT PUBLIC TO THEIR VISIT

- 1) TO SEE GREENARY AREA
- 2) TO MEET WITH THEIR FRIENDS
- 3) SOME PRIVATE TALK
- 4) TO WALK ON THE 90 ACRES PARK

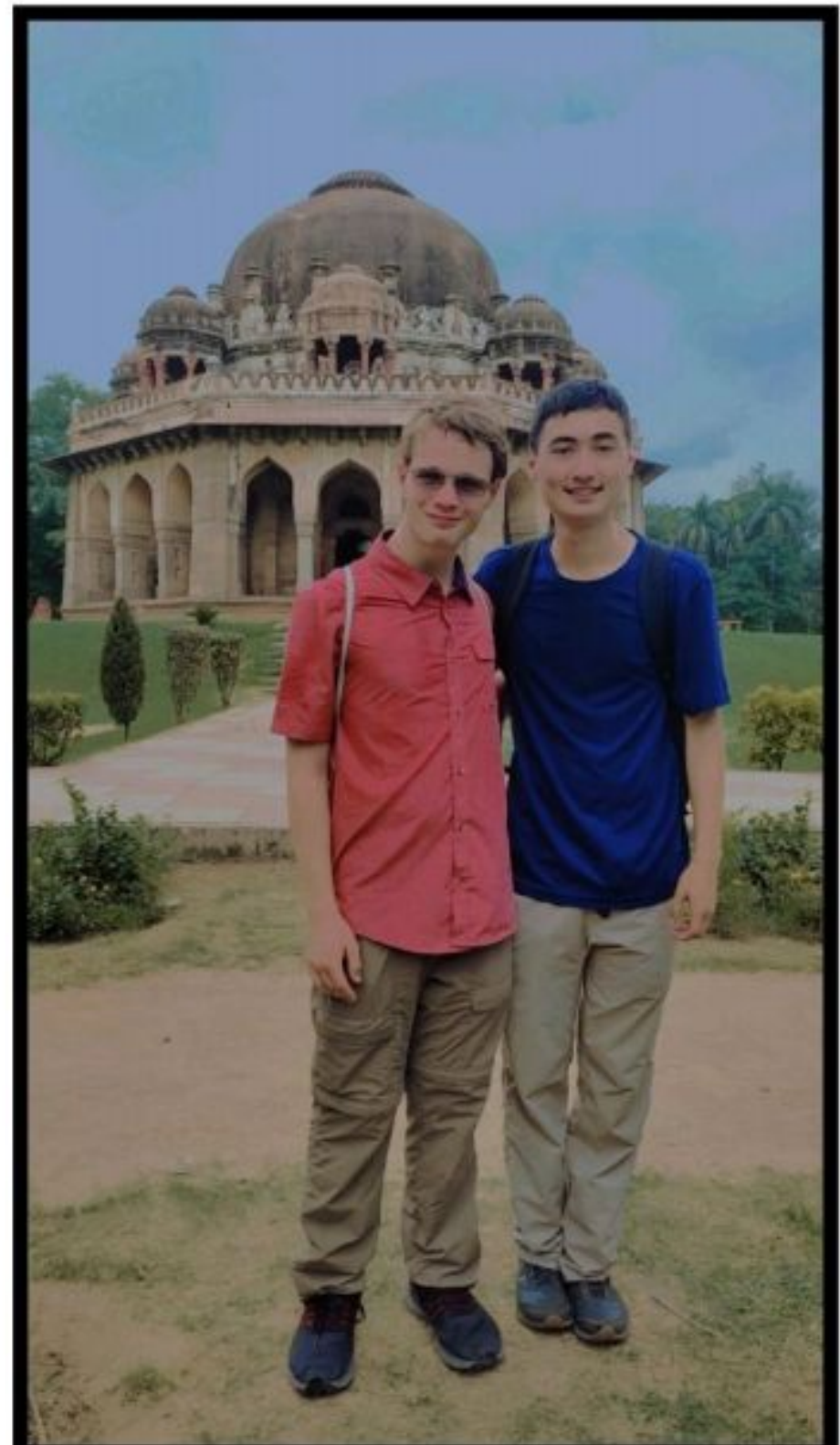
TOTAL 100 NO. OF SURVEYED DONE BY OUR TEAM MEMBER

● GREENARY AREA ● MEETING ● PRIVATE TALK ● WALKING
● FLIM SHOOTING





THESE TWO FRIENDS ARE FROM TEXAS (USA) WHO HELPED US A LOT



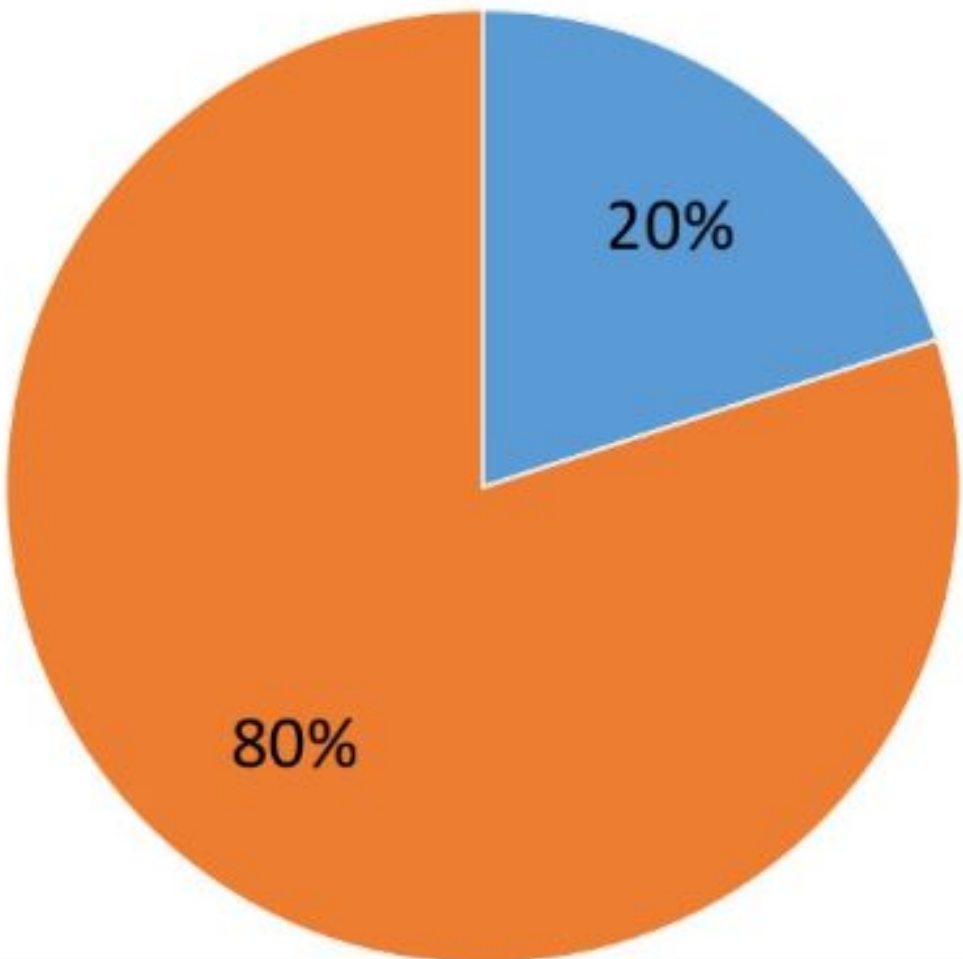
HOW MUST DO YOU KNOW ABOUT THE WATER BODY AND ABOUT LODI GARDEN AND ITS MONUMENTS?

ACCORDING TO SURVEYED THAT WE WERE DONE ON LODI GARDEN MANY PEOPLE DIDNOT KNEW ABOUT THIS HISTORICAL SPATIO

THERE IS A TOTAL 100 NUMBER OF SURVEY WOULD BE DONE OUT OF THIS OUR TEAM MADE A GRAPH FOR THAT

● YES

● NO





OUR TEAM SUGGEST:-

GOVERNMENT SHOULD MAKE A SHORT FILM ON THE HISTORICAL SPATIO OF THE LODI GARDEN TO AWARE ABOUT THIS GARDEN



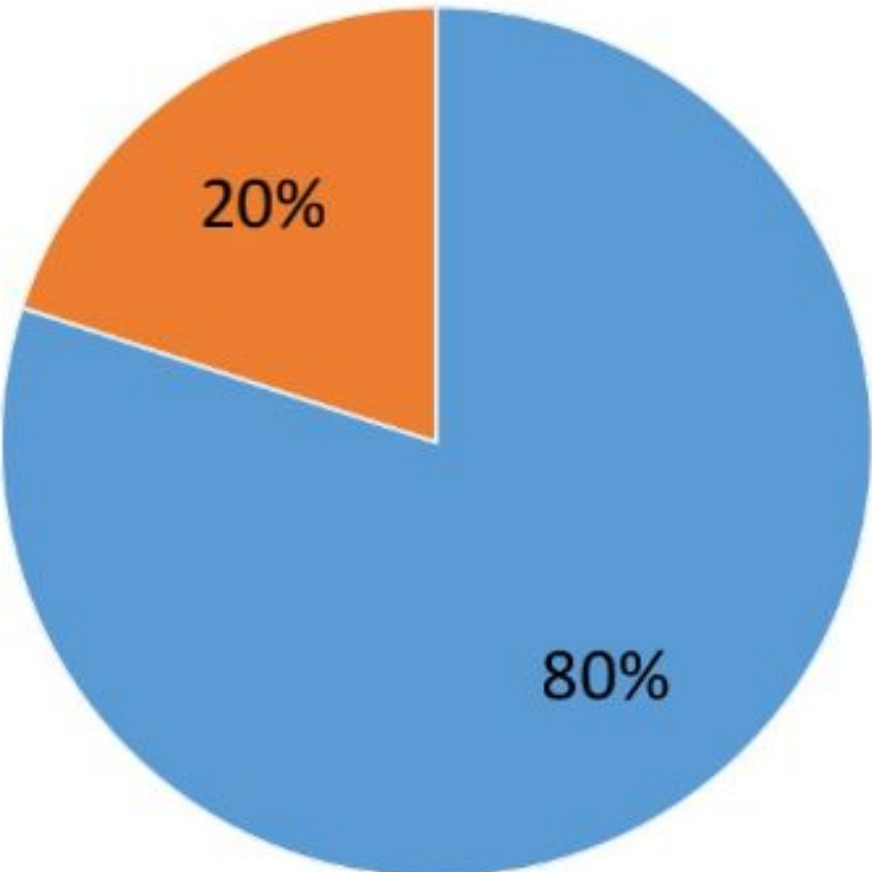
WILL YOU BE INTERESTED IN A LIGHT AND SOUND SHOW IN THE LODI GARDEN WHICH WILL HIGHLIGHT THE IMPORTANCE OF THESE MONUMENTS AND THE WATER BODY IN AN INTERACTIVE MANNER?

FOR INSTALLING THE LIGHT SHOW AND SOUND SYSTEM IN AND AROUND LODI GARDEN, AFTER THE SURVEYED THAT OUR TEAM, IS COMING IN THE CONCLUSION THAT VISITOR WHO SAYS

- 1) YES = 80 %
- 2) NO = 20%

THERE IS A TOTAL 100 NUMBER OF SURVEY WOULD BE DONE OUT OF THIS OUR TEAM MADE A GRAPH FOR THAT

● YES ● NO



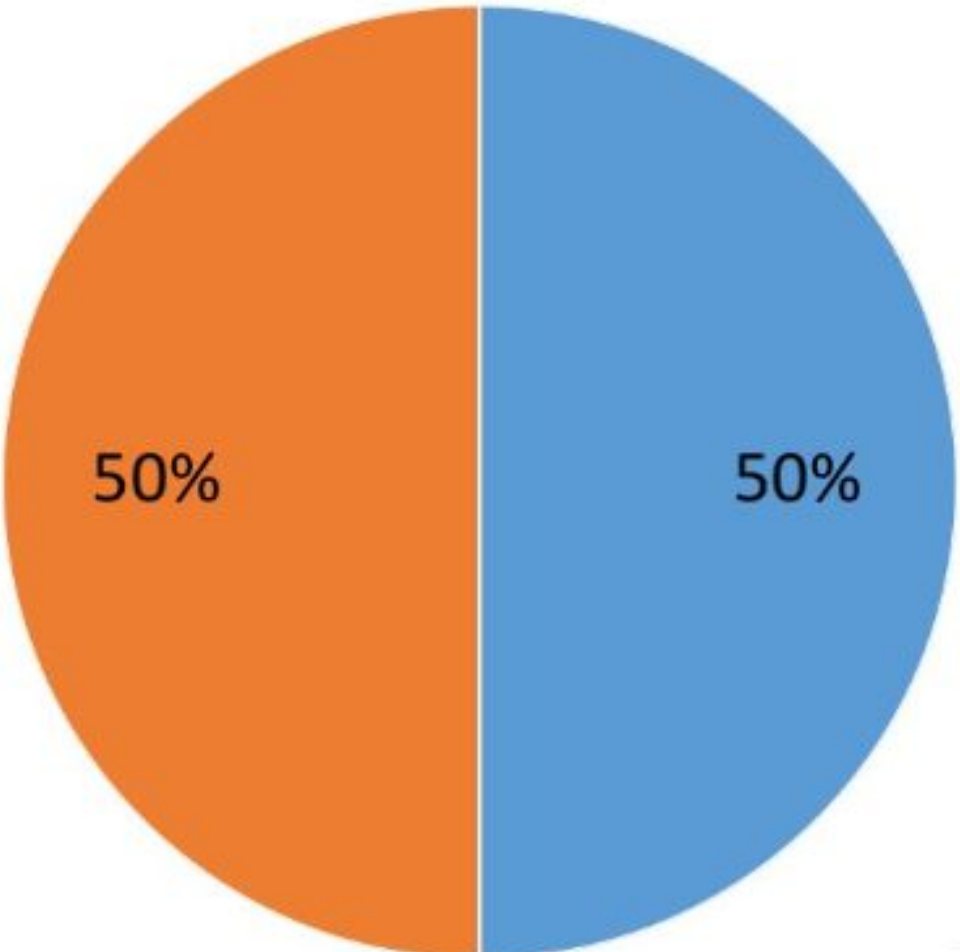


DO YOU THINK THERE IS A NEED FOR A CANTEEN / FOOD COURT LIKE SYSTEM ANYWHERE AROUND THE WATER BODY WHERE PEOPLE CAN MEETUP AND HANGOUT AFTER THEIR VISITING THE WATER BODY?

WE HAVE TAKEN THE INTERVIEW OF ALMOST 100 TOURISTS IN THIS REGARDS BUT WE GET VERY MIXED OPINIONS FROM THEM , WE CAN SAY THAT THERE ARE 50-50 RESPONSE ABOUT OPENING THE FOOD COURT .

THERE IS A TOTAL 100 NUMBER OF SURVEY WOULD BE DONE OUT OF THIS OUR TEAM MADE A GRAPH FOR THAT

● NO ● YES





Activities Scheduled for the Coming Week

- THIS IS OUR FINAL WEEK REPORT.
 - WE WILL MAKE POSTER IN UPCOMING WEEKS
 - WE WILL ALSO MAKE SHORT FILM ON THE TOPIC OF LODI GARDEN TO AWARE THE PUBLIC ABOUT ITS HISTORY AS WELL AS ITS PRESENT SITUATION.
-
- **THANKU VERY MUCH AMRIT SAROVAR SCHEME TO ENCOURAGE US FOR INCREASING THE VISUALISING POWER AND GIVEN A GOLDEN OPPORTUNITY TO WORK ON THE GREAT REJUVENATION PROGRAMME OF ATHPULA LAKE.**

Group Photo of the Team at Water Body





THE BEST CREATER NEXT TO GOD ARE.....

CIVIL ENGINEER.....

THANKU VERY MUCH!!