

AWARENESS PROGRAM – IS IT EFFECTIVE FOR CONSERVATION :
A CASE STUDY FROM MANAS NATIONAL PARK, ASSAM

A Technical Report



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Background :

Awareness is the state or ability to be conscious of events or objects and also provides the ability to perceive. Awareness holds the key to proper judgments for developing a correct perception and also to act in an appropriate way. In general, "awareness" may also refer to public or common knowledge or understanding about a social, scientific, or political issue. The movement and program developed to try and foster "awareness" of a given subject, is commonly identified as "raising awareness". The movement that is now currently in place very widely practiced during the current decade to raise the level of understanding and develop a proper perception towards the environment, natural resources, wildlife and conservation is very loosely identified as "raising awareness on Environment and Conservation". Considering the importance of Environmental Education for creating environmental awareness and responsibility towards environmental problem, the National Policy of Education, 1986 revised in 1992, states that "There is a paramount need to create a consciousness of the environment. It must permeate all ages and all sections of society, beginning with the child. Environmental consciousness should infuse teaching in schools and colleges. This aspect will be integrated in the entire educational process."

Manas NP a World Heritage Site is in its state of revival since the mid 2000 and the need to spread proper awareness among the population in its fringe that can aid foster a correct perception about the park, the biodiversity and the conservation efforts is realized by all involved in the revival process as well as the Bodoland Territorial Council, the local Government. The park was in shatters due to a long period of social struggle and the concept of conservation was totally missing in that area till the early 2000.

In 2005, the Indian Rhino Vision (2020) program was designed and Manas NP was selected at the first area to revive the rhino population through wild to wild translocations. As an integral part of the plans and as per the IUCN protocols it was very necessary to connect to the community for their support towards the conservation activities in the park. Awareness building has been an integral part of the plans under IRV2020 to revive the park and the rhino population and a systematic community reach-out program is in place implemented in the area by WWF-India and the Manas Park authorities along with its multiple partners in the form of the local NGO's and other NGO's like ATREE & Aaranyak. In course of this, reaching out to the schools have been a part of the strategy as it is easier to connect to the young minds and till date more than 75% schools in the fringe (within a distance of 3 kms from the boundary) of the park has been covered in this movement through the IRV2020 program. During the period Jan 2010 to June 2011, multiple programs that included audio-visuals, skill development and interactive programs were arranged in 17 schools reaching out to more than 2000 children from twenty different villages in the fringe of Manas NP. During the same period programs were also arranged in 30 village locations in the fringe of Manas NP reaching out to more than 3000 villagers.



ATREE also through its WHS program initiated since 2008 has made attempts to reach out to the school kids and have come up with a very innovative scheme of providing scholarship to the selected students from the fringe of Manas NP. Till date more than 200 students have been covered under this innovative scholarship program in the fringe area schools of all the three ranges of the park.

With so many efforts in place the assumption is that the students are now aware about the park and the conservation and the need is to test scientifically if these movements really do have an impact and aid in the conservation process. The present work is an attempt undertaken to document if the efforts have yielded some positive signs.

Study Area :

Manas National Park with an area of 500 sq. km. is located in Baksa and Chirang districts of the State of Assam, it forms the core area of the larger Manas Tiger Reserve (2837 sq. km.) declared in 1973. It is connected by habitats of the Manas TR to the east and west within India, in the north it is contiguous with forests of the Royal Manas NP of Bhutan and to the south it is open to the populated villages. The conservation history of this park dates back to 1905 with the creation of a Proposed Reserve Forest called the North Kamrup Reserve Forest, thereafter Manas Reserve Forest came into being in 1907, which was declared a protected area closed to hunting and killing of wildlife in 1908. In the year 1928 the area was declared as "Manas Wildlife Sanctuary" with an area of 360 sq. km. In 1973, the Sanctuary became the core area of "Manas Tiger Reserve". In 1989, Manas was declared as a Biosphere Reserve in India and in 1985, Manas Wildlife Sanctuary was inscribed in the list of World Heritage Site. Manas Wildlife Sanctuary was upgraded to the status of a National Park with an area of 500 sq. km. in 1990. Administratively the National Park is divided into three ranges viz. – Panbari (western), Basbari (central) and Bhuyapara (eastern) associated with its corresponding fringe villages.

The present study was conducted in the high school's present in the area between the Basbari and Bhuyapara range of the park (Map1). There are five High Schools in this area which were earlier covered in the awareness building programs and were presently selected for this particular study. Of these five schools, two were located in the fringe of Basbari and three were located in the fringe of Bhuyapara.

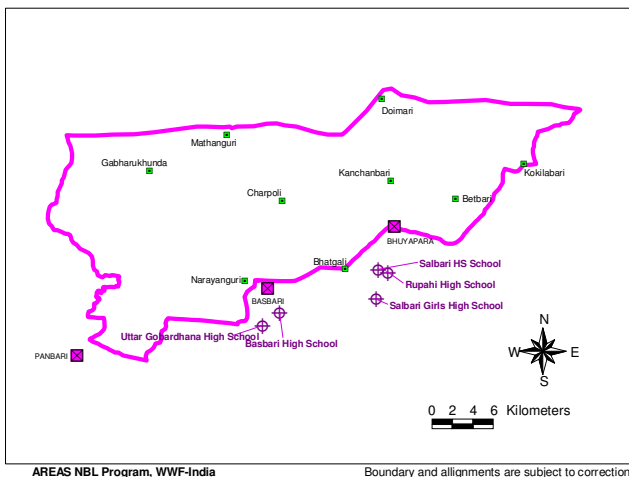
The Basbari High School was established in the year 1961 and is located at Kutrijhar near Basbari range. This school is a co-education one and has both Boro and Assamese medium. The students are primarily from Gyati, Barengabari and Mayangpara villages adjoining the Manas NP.

The Uttar Gobardhana High School was established in the year 1982 and is located at Sonbari near Basbari range. This is also a co-educational school and offers only Assamese medium. The students studying here are primarily from the Narayanguri, Raghabeel, Gyati and Alengamari villages adjoining the park.

Sl No	Name of the School	Student	Type	Location	Awareness Conducted
1	Basbari High School	Co-ed	Provincialised	Kutrijhar	yes
2	Uttar-Gobardhana High School	Co-ed	Non-Provincialised	Sonbari	yes
3	Rupahi High School	Co-ed	Provincialised	Rupahi	yes
4	Salbari H.S. School	Co-ed	Provincialised	Salbari	yes
5	Salbari Girls High School	Girls	Provincialised	Salbari	yes

Table1 – List of schools selected for the study

The Rupahi High School was established in the year 1973. This is a co educational school located at Rupahi close to Bhuyapara range and offers both Boro and Assamese medium. The students attending are primarily from Kumguri, Bhuyapara, Gosaivtah and Hahsora villages from the fringe of



the park.

The Salbari Higher Secondary School was established in the year 1955 and is one of the oldest in this area. This school is a co-ed. and offers both Boro and Assamese medium. The students studying here are mostly from the nearby villages of Salbari, Kamalabari, Udiaguri, Pakriguri, Ulubari, Thangamari and Hodokhata.

The Salbari Girls High School was established in the year 1978 is attended by only girl students and has both Boro and Assamese medium. The students studying here are primarily from Kumguri, Bhuyapara, Gosaivtah, Salbari, Kamalbari and Udiaguri villages.

Method and Database :

For the present study, a self- constructed questionnaire in three languages (Assamese, Bodo & English) has been adopted to gather the relevant data from the five schools of the area. The questionnaire, which is named as **Environmental Awareness Assessment Questionnaire (EAAQ)**, has been developed by the study team by taking 16 items on various issues related to environmental awareness and conservation in Manas NP which were generally close ended. The study was conducted during September 2011 and the students responded to indicate their choice as per their



understanding and perception by selecting any of the three available options. The questionnaire was distributed among the randomly selected students of classes IX and X as per the criteria of 15% students from each class and medium of every school (Table2). After distribution the students were advised to go through and raise queries in case of any doubt that were clarified immediately. Once the questionnaire and the procedure are understood by the students they were given 20 minutes time for their responses and the formats were collected back. A total of 238 nos. of students responded through this exercise from the 5 schools for this study.

Name of School	Class 9 Ass/ 15 %	Class 9 Bo/ 15 %	Class 10 Ass/ 15 %	Class 10 Bo/ 15 %
Basbari High School	129/20	50/8	166/25	34/6
Uttar-Gobardhana High School	100/15	----	100/15	----
Rupahi High School	57/11	180/27	33/5	139/21
Salbari H.S School	57/9	83/12	53/8	97/15
Salbari Girls High School	59/9	100/14	34/5	85/13

Table2 – Sampling pattern for the study (Total students / Sampled %)

The responses obtained were built on to a suitable database using Ms-Excel for further analysis. For the purpose of scoring, the investigator has used Likert 3-Point Summated Rating Scale. e.g. Agree (score=3), Undecided (score=2) and Disagree (score=1) (Kothari,1991). As the questionnaire consists of 16 structured statements, the following score values would be revealing,

16x 3 = 48 most favorable response

16 x 2 = 32 a neutral response

16x 1 = 16 most un-favorable response

Thus, the score for any individual would fall between 16 and 48, the students who score more than 32 can be treated as having positive attitude; students securing exactly 32 has a neutral attitude and those having scored less than 32 are considered to be having negative attitude.

For the analysis and general understanding, following statistical measures have been employed.

- a. Basic statistical tools like Mean (M) and Standard Deviation (SD) is employed. Mean is considered as a useful measure of central tendency and is defined as the sum of all the values of the items in a series divided by the number of items (Mangal, 2006). In case of variability or dispersion within a set of values, Standard Deviation (SD) is the best measure of the variation, it measures, how much the values of a variable are in deviation from the mean. It is defined as the square root of the arithmetic average of the squared deviations of scores



from the mean of the distribution and is regarded as the most stable and reliable measure of variability (Mangal, 2006).

- b. To make comparison of the EA scores between the boys and girls, between class IX and class X students and between Assamese and Bodo medium students, the 't' test has been adopted for testing the significance. 't' test is used to test the significant mean difference between two groups (Garrett & Woodworth, 1981).
- c. To make comparative analysis on environmental awareness between multiple criteria at a time, F (or ANOVA) test has been used. The 'F' of ANOVA test is used when we have to deal with three or more samples to be considered at a time (Garrett & Woodworth, 1981).

In addition to the awareness and attitude it is also necessary to understand the overall perception developed by the students on conservation issues related to the Manas NP. The EAAQ carries 6 target questions to evaluate the perception in a simple comparative percentage scale identified as the **Manas Conservation Perception Scale** (>80% - high; 80% to 50% - medium & <50% - low) and the analysis and output has been done itemwise.

Objectives :

The main objectives of this study are -

- 1) To understand the attitude of the students towards environment.
- 2) To understand the awareness of the students towards environment.
- 3) To make comparative analysis on environmental awareness between-
 - a) Male and Female students
 - b) Students of class IX and class X
 - c) Students of assamese medium and bodo medium
 - d) Students of different schools
- 4) To understand whether the students have developed a proper perception of the issues related to conservation in Manas NP.

Results and Discussion :

For the present study, 238 student samples have been randomly selected taking a representation of 15% students from two classes from 5 high schools. The features of the samples selected are -

- 1) Total number of sample students=238



- 2) Out of total 238, there are 135 female students and the rest 103 are male students (Table3).
- 3) Out of 238, 125 students are from class IX, while the rests 113 are class X students (Table4).
- 4) Out of 238, 122 are from the Assamese medium and 116 are from the Bodo medium (Table5).
- 5) All the samples have been randomly selected from 5 purposively selected schools. The distribution of students according to the schools are as follows:
 - i. Basbari High School = 58
 - ii. Rupahi High School = 64
 - iii. Salbari Girls High School = 42
 - iv. Salbari H.S. School = 44
 - v. Uttar Gobardhana High School = 30

Gender	Number of samples	%
Male	103	43.28%
Female	135	56.72%

Table 3: Distribution of samples according to gender

Class	Number of samples	%
IX	125	52.52%
X	113	47.48%

Table 4: Distribution of samples according to class

Medium	Number of samples	%
Assamese	122	51.26%
Bodo	116	48.74%

Table 5: Distribution of samples according to medium of instruction

Name of the school	No. of students	%
Basbari High School	58	24.37%
Rupahi High School	64	26.89%
Salbari Girls High School	42	17.65%
Salbari H.S. School	44	18.49%
Uttar Gobardhana High School	30	12.60%

Table 6: Distribution of samples according to 5 schools

Objective 1 : To understand the attitude of the students towards environment.

Attitude	No. of samples	%
Positive	235	98.74%
Neutral	1	0.42%
Negative	2	0.84%

Table 7: Pattern of attitude of the students towards conservation & environment

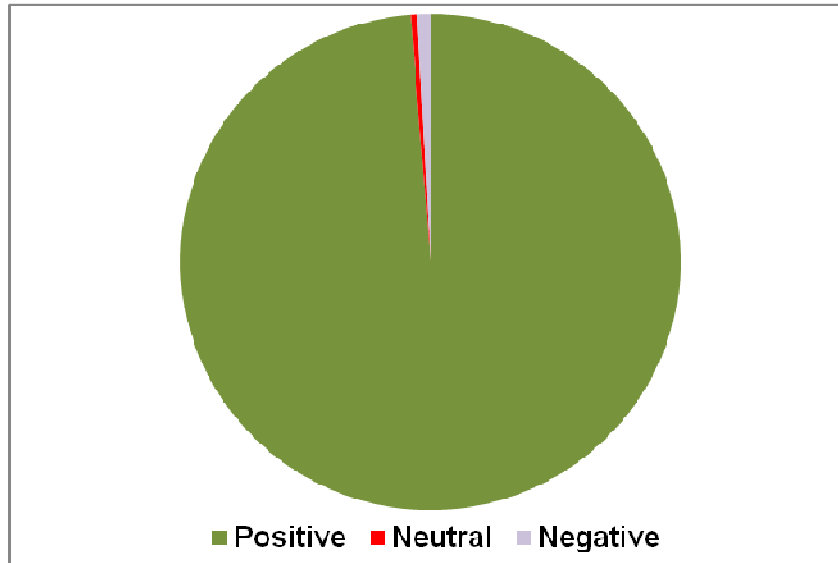


Figure 1: Attitude level of the students

Interpretation: Most of the students were found to have positive attitude (98.74%) towards environment. Only 0.42% of the entire sample has a negative attitude and 0.42% have neutral attitude towards environment

Objective 2 : To understand the awareness of the students towards environment

Mean EA score	41.72
SD score	4.22

Table 8: Mean distribution of overall EA scores among the 238 selected sample students

Interpretation: The students have a high level of awareness (high ranges between 33 to 48).

Objective 3.a : To make comparative analysis on environmental awareness between male and female students

To fulfill this objective, the investigators have formulated the null hypothesis as:

H_{01} : There is no significant difference in mean EA scores between Male and Female students.

For testing this null hypothesis, the investigator has applied 't' test of significance.



Gender	Mean EA scores	SD score	t-value
Male (n=103)	42.03	4.05	0.98 (N.S.) [p>0.05]
Female (n=135)	41.49	4.35	

N.S.→Not Significant

Table 9: Mean distribution of EA Score among the students according to gender and their 't' value

Interpretation: the male students have a higher level of EA compared to the females but that is not significant.

Objective 3.b :To make comparative analysis on environmental awareness between the students of class IX and class X

To fulfill this objective, the investigators have formulated the null hypothesis as:

H₀₂ : There is no significant difference in mean EA scores between the students of class IX and X

Class	Mean EA Score	SD Score	t-value
IX	41.26	4.55	1.81(N.S.) [p>0.05]
X	42.24	3.78	

Table 10: Mean distribution of EA Score among the students according to class and their 't' value

Interpretation: the class X students have a higher level of EA compared to the class IX but that is not significant.

Objective 3.c : To make comparative analysis on environmental awareness between the students of Assamese and Bodo medium

To fulfill this objective, the investigators have formulated the null hypothesis as:

H₀₃ : There is no significant difference in mean EA scores between the students of Assamese and Bodo medium



Medium of Instruction	Mean EA Score	SD Score	t-value
Assamese	41.04	4.67	2.61* [p<0.05]
Bodo	42.44	3.57	

*→ Significant

Table 11: Mean distribution of EA Score among the students according to medium of instruction and their 't' value

Interpretation: the Bodo medium students have a significantly higher level of EA compared to the Assamese medium students.

Objective 3.d : To make comparative analysis on environmental awareness between the students of different schools

To fulfill this objective, the investigators have formulated the null hypothesis as:

H_{04} : There is no significant difference in mean EA scores between the students of different schools.

To test the null hypothesis, F test has been applied to test whether there exists a significant mean difference in EA scores among the 5 schools.

Name of the school	Mean EA Score	SD Score
Basbari High School	40.41	3.94
Rupahi High School	42.19	4.18
Salbari Girls High School	40.48	4.09
Salbari H.S. school	44.73	3.07
Uttar Gobardhana High School	40.6	4.29

Table 12: Mean distribution of EA Scores among the students according to their school



Sources of variation	Degrees of freedom (d.f.)	Sums of Square(S.S.)	Means Square (M.S.)	F-value (M.S.B/M.S.W.)
Between schools	5-1=4	613.48	613.48/4=153.37	153.37/30.6=5.01* (p<0.05)
Within schools	237-4=233	7130.22	7130.22/233=30.6	
Total	238-1=237	7743.70		

*→ Significant

Table 13: ANOVA Table of EA scores among the samples with respect to their schools

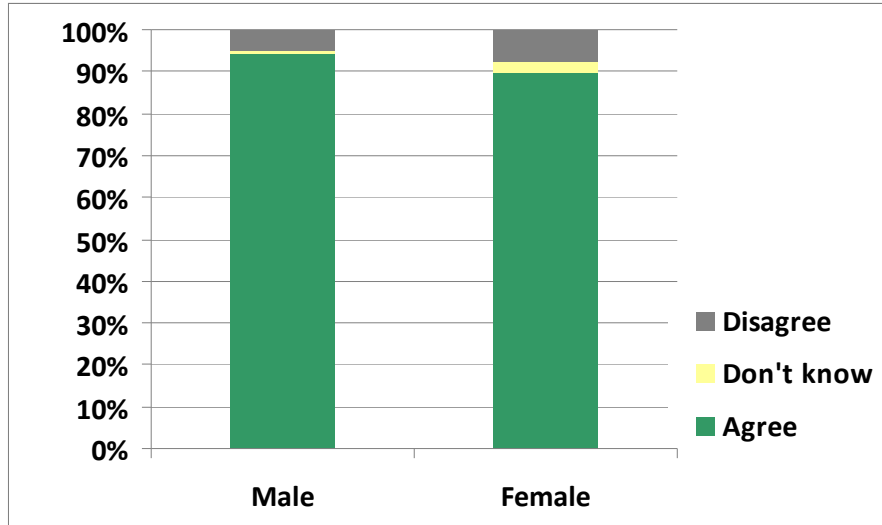
Interpretation: Salbari HS School (44.73) has the highest EA score and Basbari High School (40.41) has the minimum The ANOVA test indicates that there exists a significant difference in mean EA Scores among the students of the 5 different schools.

Objective 4 : To understand whether the students have developed a proper perception of the issues related to conservation in Manas NP.

Item 1 : Manas National Park is my nearest forest area

Knowledge Status	Male	Female	Total
Agree	97 (94.17%)	121 (89.62%)	218 (91.60%)
Don't know	1 (0.97%)	4 (2.96%)	5 (2.10%)
Disagree	5 (4.85%)	10 (7.40)	15 (6.30%)

Table 14 : Response in aggregate & PC for item1

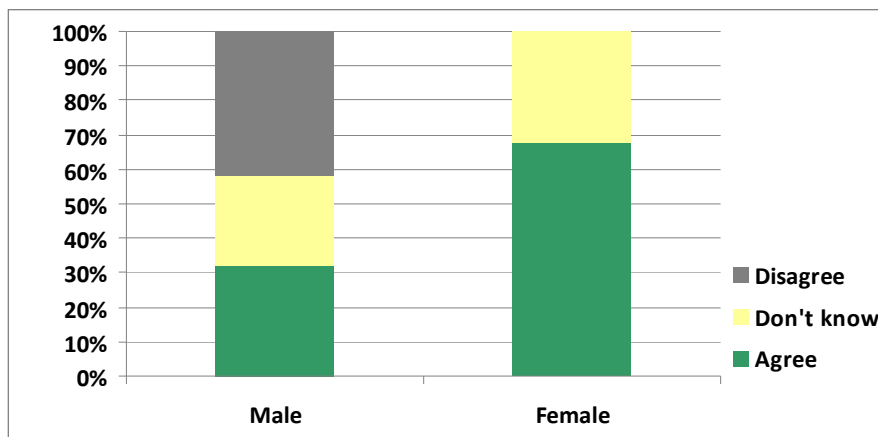


Interpretation : The overall perception level is very healthy and 91.60% are aware that their nearest forest area is the Manas NP. The boys and girls both have a good perception of this item however the perception level among the boys is better.

Item 2 : The Indian Rhino Vision (IRV) 2020 is a program on Rhino Conservation

Knowledge Status	Male	Female	Total
Agree	33 (32.03%)	91 (67.40%)	124 (52.10%)
Don't know	27 (26.21%)	44 (32.59%)	71 (29.83%)
Disagree	43 (41.74%)	0	43 (18.07%)

Table 15 : Response in aggregate & PC for item 2



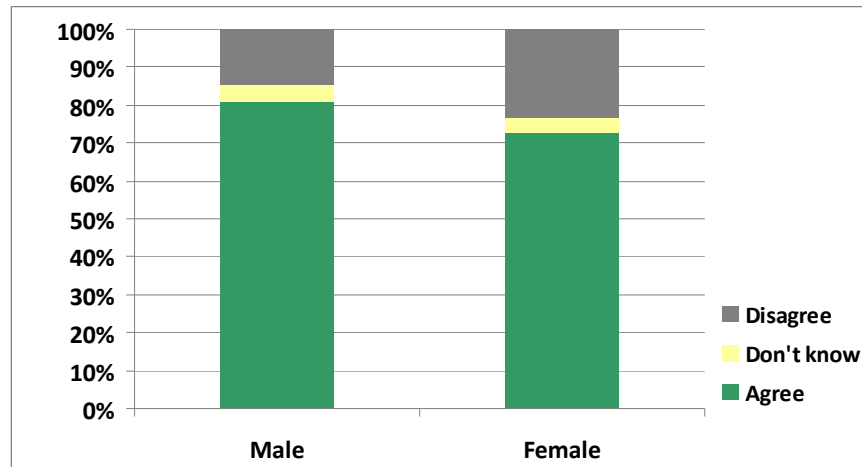


Interpretation : The overall perception level is very moderate as only 52.10% are aware that the IRV2020 is a Rhino Conservation program. It is seen that the girls have a better level of perception than the boys in this subject.

Item 3 : The One horned rhinoceros is found in Manas National Park

Knowledge Status	Male	Female	Total
Agree	83 (80.58%)	98 (72.59%)	181 (76.05%)
Don't know	5 (4.85%)	5 (3.70%)	10 (4.20%)
Disagree	15 (14.56%)	32 (23.70%)	47 (19.75%)

Table 16 : Response in aggregate & PC for item 3



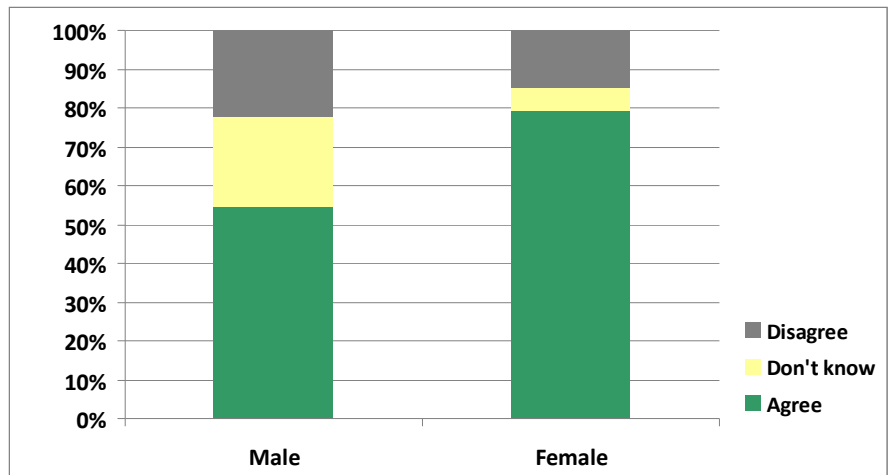
Interpretation : The overall perception level is moderate on the higher side of the scale as 76.05% are aware that the one horned rhinoceros is found in Manas. The boys have a better perception than the girls in this subject.



Item 4 : WWF is a conservation organization.

Knowledge Status	Male	Female	Total
Agree	56 (54.36%)	107 (79.25%)	163 (68.49%)
Don't know	24 (23.30%)	8 (5.92%)	32 (13.44%)
Disagree	23 (22.33%)	20 (14.81%)	43 (18.07%)

Table 17 : Response in aggregate & PC for item 4



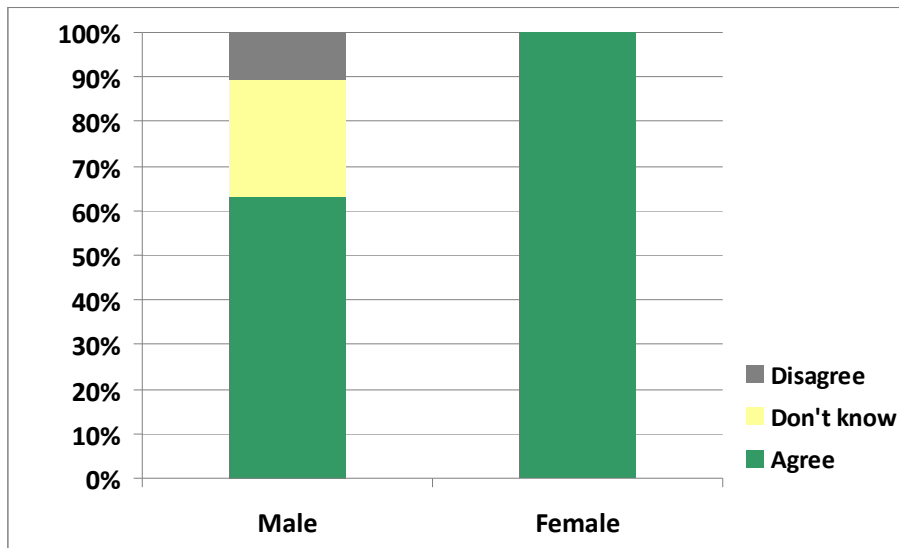
Interpretation : The overall perception level is moderate as only 68.49% are aware that WWF is a conservation organization. The girls have a slightly better perception than the boys in this subject.



Item 5 : Tourists from different parts of the world come to visit Manas National Park

Knowledge Status	Male	Female	Total
Agree	65 (63.10%)	135 (100%)	200 (84.03%)
Don't know	27 (26.21%)	0	27 (11.34%)
Disagree	11 (10.67%)	0	11 (4.62%)

Table 18 : Response in aggregate & PC for item 5



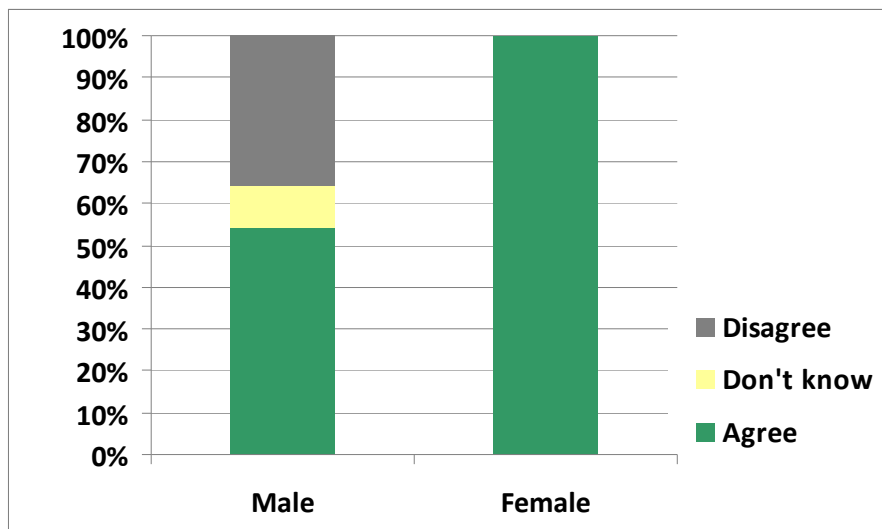
Interpretation : The overall perception level is high as 84.03% are aware that tourist from all over come to visit Manas NP. The girls have a much better level of perception than the boys in this subject.



Item 6 : Manas National Park is a World Heritage

Knowledge Status	Male	Female	Total
Agree	56 (54.36%)	135 (100%)	191 (80.25%)
Don't know	10 (9.70%)	0	10 (4.20%)
Disagree	37 (35.92%)	0	37 (15.55%)

Table 19 : Response in aggregate & PC for item 6



Interpretation : The overall perception level is high as 80.25% are aware that Manas NP is a World Heritage Site. The girls have a much better level of perception than the boys in this subject as well.

Major findings from the study -

1. Most of the students (98.74%) have positive attitude towards environment.
2. Overall, the 'total sample students' have a high level of environmental awareness.
3. In relation to gender, male students were found to have higher environmental awareness score as compared to their female counterparts. But, the difference was statistically insignificant.
4. The Class X students was found to have higher environmental awareness score than Class IX students. No significant difference was found between the two groups.



5. The Bodo medium students were found to have a higher environmental awareness score as compared to the Assamese medium students and this difference was found to be statistically significant.
6. Regarding the awareness among the five selected schools, the Salbari H.S. School was found to have the highest EA score and the Basbari High School was found to have the lowest EA score. Some of the reasons that may explain this inter-school variation in EA scores may be attributed to the fact that Salbari is a sub-divisional headquarter, with more development and better socio-economic conditions than the schools of the other locations specially Basbari. Such factors could have a bearing on the relative status of academic levels in the two schools in the respective locations.
7. The ANOVA has depicted that there exists a significant difference in EA score among the five schools.
8. Regarding the perception of the issues related to the conservation of MNP, the following results were found out.
 - a) In item 1, the overall perception was high.
 - b) In item 2, the overall perception was moderate.
 - c) In item 3, the overall perception was moderate.
 - d) In item 4, the overall perception was moderate.
 - e) In item 5, the overall perception was high.
 - f) In item 6, the overall perception was high.

Conclusion :

The results obtained are quite encouraging as the student's sampled show a high level of awareness and positive attitude towards the environment and conservation. With the young ones showing encouraging signs it indicates that the future of conservation in Manas may be bright and the parents also are likely to be positively influenced.

The level of perception among the students in issues related to Manas NP is also quite high and the female students and better on the basis of their better perception. It is quite encouraging to note that most of the students from the areas covered have a proper understanding in most of the issues related to conservation in Manas.

It can be stated that the efforts made to raise awareness among the students in the fringe of the Manas is showing positive signs and this needs to be continued further and in a better structured way.



Acknowledgement :

We duly acknowledge the Assam Forest Department for undertaking the Indian Rhino Vision (2020) Program along with all its partners and donors viz., - WWF, IRF, USFWS and BTC. Our special thanks for the staff and officials of Manas NP as well as the local NGO's and fringe communities for their continued support and help in all our conservation activities.

We thank the management, staff and students of all the schools in the fringe of Manas for their co-operation and help in our mission to spread awareness about the environment and conservation. For helping us conduct this very vital assessment covered in this report we offer our heartfelt thanks to the staff, students and guardians of the schools covered. Thanks to Jamir Ali, Yusuf Khan, Bipul Nath, Sande Doimary, Deba Medhi, Himangshu Sarma, Sikram Barman, Sanjit Das, Kartik Sarkar, Ajoy Kherkotary, Haren Kherkotary and Sobin Basumatary all of whom have helped a lot in organizing the awareness programs and also to conduct this study. Special thanks to Mr. Dharinadhar Wari, Mr. Kiron Basumatary and Mr Binoy Basumatary who has helped a lot with their inputs regarding the use of the Bodo language. Thanks to Mr Anil Cherukapalli and Ms. Sonali Nandrajog for providing necessary inputs for completing this report. We are thankful to the BTC for extending all help and support and special thanks to Mr Khampa Borgoyari (Deputy Chief of BTC), Mr Ravi Singh (SG & CEO, WWF-India) and Mrs Susie Elis (Executive Director, IRF) for their constant support, advice and encouragement.

We thank all the partners of the IRV2020 program for encouraging and supporting our activities and special thanks to the management, seniors and colleagues in WWF- India and ATREE-UNESCO's World Heritage Biodiversity Project for helping us to carry out the present activities in Manas NP.

Reference :

1. Anderson Natasha (2004) : Community Outreach in Rhino Conservation via Awareness Programme in Rural Secondary Schools; SADC Regional Programme for Rhino Conservation; May 2004
2. Garrett H.E. & Woodworth R.S. (1981) : Statistics in Psychology and Education, Vakila, Feffer and Simons Ltd.
3. Kothari C.R. (1991) : Research Methodology Methods and Techniques, Willey Eastern Limited.
4. Mangal S.K. (2006) : Statistics in Psychology and Education, Prentice Hall of India Pvt. Ltd.



5. Sarmah B. and Mohanty R.K. (2012) : Perception of secondary school students towards industrialization and environmental hazards – a case study; International Multidisciplinary e – Journal ; Vol. I, Issue-III, March, 2012; www.shreeprakashan.com
6. Sarmah B. and Mohanty R.K. (2012) : Students' Perception Towards Environment and Sustainable Development _a Case Study from Secondary Level of Greater Guwahati; Golden Research Thoughts; May 2012

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ANNEXURE – I

Snapshot of Awareness Programs conducted in the schools in the fringe of Manas NP :





आवहानायारि सांग्राथि लावोनो हानायनि वार्गे सौलुफोर।
Environmental Awareness Ability Questionnaire (EAAQ)

परिवेशन सजागतक प्रार्थक प्रश्नोत्तरी

..... पौरुष..... स्त्री.....
.....
Name:..... Age:..... Sex:.....

.....

.....

Name of the School and Location:.....

.....

.....

Name of your Village:.....

विधान. ब्रह्मचरि संवर्धन आरक्षकशासि संघानो मेच 18 कोलायथि लेनाय जावय. कौणोको मरो लेनाय पयत आने फोस्तयथिने नोनि साङ्गनाय मेवकनाय मो-वोखा मोवेक सोडवराय (✓) सिन तो, मोवेकनायय मोवाळा मोवेक सोडवराय (✓) सिन हो आरी मेच नोकोने केरो नियत मेवाळा निथिना सोडवराय (✓) सिन नहाय।

Instructions: There are 18 statements regarding environment as given below. Please read them carefully and if you think that you are agreeing with the statement then put a tick mark (✓) on 'agree' and if you do not then please put a tick mark (✓) on 'disagree' and if you don't have any idea, then put a tick mark (✓) on 'don't know'.

1. पुरुषानो जावो जोरि मे आरक्षकशासि मुळ लेनायनि मुने पयतेयारि. (सोवेक / मोवेक / निथिना।)
मोवेक आरक्षकशासि मुळ लेनायनि मुने पयतेयारि. (सोवेक / मोवेक / निथिना।)
Man is responsible for environmental pollution. Agree/Disagree/ Don't know.
2. अने आरक्षकशासि व यनाय आरक्षकशासि मुळ जावो मनाय हावना. (सोवेक / मोवेक / निथिना।)
यनाय आरक्षकशासि व यनाय आरक्षकशासि मुळ जावो मनाय हावना. (सोवेक / मोवेक / निथिना।)
Name of my nearest forest area is Manas National Park. Agree/Disagree/ Don't know.
3. एकेकोनि आरक्षकशासि संवर्धन लेनाय जावो आरक्षकशासि संवर्धन लेनाय जावो. (सोवेक / मोवेक / निथिना।)
एकेकोनि आरक्षकशासि संवर्धन लेनाय जावो आरक्षकशासि संवर्धन लेनाय जावो. (सोवेक / मोवेक / निथिना।)
Mass movement is necessary for conservation of environment. Agree/Disagree/ Don't know.
4. मुळ लेनायनि निथिनायारि कुण-कोतो आरक्षकशासि व मोको तोन कोतो. (सोवेक / मोवेक / निथिना।)
मुळ लेनायनि निथिनायारि कुण-कोतो आरक्षकशासि व मोको तोन कोतो. (सोवेक / मोवेक / निथिना।)
Importance should be given to non-conventional energy. Agree/Disagree/ Don't know.
5. आरक्षकशासि मोवेक व हावनाय. मोवेक व हावनाय. मोवेक व हावनाय. (सोवेक / मोवेक / निथिना।)
आरक्षकशासि मोवेक व हावनाय. मोवेक व हावनाय. मोवेक व हावनाय. (सोवेक / मोवेक / निथिना।)
Use of solar energy is pollution free. Agree/Disagree/ Don't know.
6. सजागतिक सजागतिक आरी सजागतिकशासि विचारना मुळको सजागतिकशासि विचारना. (सोवेक / मोवेक / निथिना।)
सजागतिक सजागतिक आरी सजागतिकशासि विचारना मुळको सजागतिकशासि विचारना. (सोवेक / मोवेक / निथिना।)
Use of chemical fertilizers and pesticides should be banned. Agree/Disagree/ Don't know.



7. 'शुद्धाचारि राधन' 'विज्ञान-2020' का उद्देश्य मानव संरक्षण के लिए प्रदूषण को शक्तिहीन बनाने का है। : सही / गलत / निश्चित।

शुद्धाचारि राधन (Radha) का उद्देश्य मानव संरक्षण के लिए प्रदूषण को शक्तिहीन बनाने का है। : सही / गलत / निश्चित।
 Radha (Radha) is a program or initiative for conservation. Agree/Disagree/ Don't know.

8. WWF का मंत्र है 'प्रकृति का संरक्षण'। : सही / गलत / निश्चित।

WWF (World Wide Fund for Nature) का मंत्र है 'प्रकृति का संरक्षण'। : सही / गलत / निश्चित।
 WWF is a conservation organization. Agree/Disagree/ Don't know.

9. वन-आच्छादन के बिना वातावरण में तापमान में वृद्धि होगी। : सही / गलत / निश्चित।

वन-आच्छादन के बिना वातावरण में तापमान में वृद्धि होगी। : सही / गलत / निश्चित।
 Forest cover is necessary for the maintenance of atmospheric temperature. Agree/Disagree/ Don't know.

10. वायुमंडल में ओजोन की परत हमारे अस्तित्व के लिए आवश्यक है। : सही / गलत / निश्चित।

वायुमंडल में ओजोन की परत हमारे अस्तित्व के लिए आवश्यक है। : सही / गलत / निश्चित।
 Ozone layer of atmosphere is necessary for our existence. Agree/Disagree/ Don't know.

11. अश्विनी नदी का स्रोत हिमालय में मानस राष्ट्रीय उद्यान में है। : सही / गलत / निश्चित।

अश्विनी नदी का स्रोत हिमालय में मानस राष्ट्रीय उद्यान में है। : सही / गलत / निश्चित।
 The One-horned rhinoceros is found in Manas NP. Agree/Disagree/ Don't know.

12. दुनिया के विभिन्न हिस्सों से आने वाले लोग मानस राष्ट्रीय उद्यान में मिलते हैं। : सही / गलत / निश्चित।

दुनिया के विभिन्न हिस्सों से आने वाले लोग मानस राष्ट्रीय उद्यान में मिलते हैं। : सही / गलत / निश्चित।
 Tourists from different parts of the world come to visit Manas NP. Agree/Disagree/ Don't know.

13. मानस राष्ट्रीय उद्यान को संयुक्त राष्ट्र संघ द्वारा मानस राष्ट्रीय उद्यान के रूप में घोषित किया गया है। : सही / गलत / निश्चित।

मानस राष्ट्रीय उद्यान को संयुक्त राष्ट्र संघ द्वारा मानस राष्ट्रीय उद्यान के रूप में घोषित किया गया है। : सही / गलत / निश्चित।
 Manas National Park is a World Heritage Site. Agree/Disagree/ Don't know.

14. पानी की दूषण ही कई रोगों का कारण है। : सही / गलत / निश्चित।

पानी की दूषण ही कई रोगों का कारण है। : सही / गलत / निश्चित।
 Water pollution is the cause of many diseases. Agree/Disagree/ Don't know.

15. वन-आच्छादन को नष्ट करने का एक कारण है वन-आच्छादन के बिना होने वाले जलवायु परिवर्तन। : सही / गलत / निश्चित।

वन-आच्छादन को नष्ट करने का एक कारण है वन-आच्छादन के बिना होने वाले जलवायु परिवर्तन। : सही / गलत / निश्चित।
 Forest loss is a main cause of soil erosion. Agree/Disagree/ Don't know.

16. पर्यावरण अध्ययन को स्कूलों में एक अनिवार्य विषय बनाना चाहिए। : सही / गलत / निश्चित।

पर्यावरण अध्ययन को स्कूलों में एक अनिवार्य विषय बनाना चाहिए। : सही / गलत / निश्चित।
 Environment studies should be made a compulsory subject in school. Agree/Disagree/ Don't know.