



# Arannya Roy

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## Education

IB (Predicted Scores) – 42/42  
Grade 11, 4.3/4.5 GPA  
Grade 10, 4.2/4.5 GPA  
SAT- 1530 (M-800, E-730)  
SAT Math 2- 800  
SAT Chemistry- 800  
Academic High Honors -  
Grade 6 to 9 (TASIS)

### IB DIPLOMA SUBJECTS

HL-Physics; Chemistry; Maths AA  
(Analysis and Approaches)  
SL- Environmental Systems and  
Societies; Spanish; English

*American Embassy School  
New Delhi, India  
(current school since 2018 – 19)*

*TASIS, UK*

## Awards

UKMT Intermediate - Gold  
UKMT Intermediate -Silver  
Cyber Olympiad - State Topper  
IAIS Science – State Topper  
Rock School – Distinction  
Most improved player -Varsity  
Baseball

## Extracurriculars

Student Ambassador - AES  
Secretary - Make A Difference  
Club, AES  
Member- Eco club, AES  
Varsity Baseball team, AES  
Guitar Band - TASIS UK  
Member- Music Honors  
Society, AES  
Jt. Secretary- Abhilasha  
Foundation, Jharkhand  
Member high school guitar  
band - Black Dogs

## Career objective

I'm currently a senior at the American Embassy School in New Delhi with a keen interest in STEM, more specifically in gaining practical and research experience on environmental issues of significance. This will augment my knowledge in the field of Environmental Engineering/Science which is my intended career path. I have been spending time in understanding, reading and gaining practical knowledge through projects on aspects related to air, water or other environmental issues which may have a long-term impact on sustainability. Volunteering in various ecological and sustainability-based events has also led to deeper understanding of these aspects.

## Internship and Projects

### ***Lemongrass cultivation and distillation project, Palamau Tiger Reserve- June'20*** (In association with Nature Conservation Society, <http://ncs.org.in/>)

The project aims at securing a sustainable source of livelihood for a few villages in core area of PTR without diminishing the forest in any manner. Lemongrass cultivation is a viable proposition, since it allows for a source of economic livelihood for the villagers and decreases the conflict between the villagers and the surrounding wildlife since animals do not eat such aromatic crops.

Scope of the project is as under-

- Formation of co-operative of the villagers engaged in cultivating, distillation and sale of the end produce (lemongrass oil and by-products)
- Lemongrass cultivation (in progress)
- Installation of a lemongrass oil distillation unit- I am enabling this through crowd funding
- Research and evaluating different types of distillation units to enable the first batch of oil extraction keeping in mind environmental impact and cost limitations
- Arranging buyers for the oil and by-products

While this is an ongoing project, the opportunity and experience it is providing me to make a sustainable impact at the grass root level is enriching. It is also exposing me to the complexities of setting up an end to end system from start to finish.

### ***Green Intern with Sankalptaru, Gurgaon – April'20***

- Viability of urban forestry as a successful restoration initiative for Indian cities
- Recommendations in an active project at Manesar on restoration ecology
- Study on hydroponic and aeroponic farming systems as alternatives to traditional agricultural methods

This project provided me the experience on importance of assessment and analysis before the start of a large-scale ecological project as well as the need to continually evaluate the progress and areas of improvement in an ongoing project.

### ***Awareness of Biodiversity - Green School Project - TERI, Gurgaon – June'19***

- Developed content on India's challenges on biodiversity, air pollution and solid waste management to sensitize students as part of The Green School program.
- Developed ideas for exposure trips to different geographical regions in India for the students to learn about the environment through experiential learning

The project was extremely eye-opening in terms of exposing me to the nuances of Indian environmental challenges.

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## Interest areas

Environment and sustainability  
Music and Guitar  
Sports - Baseball/Football/Cricket  
Travelling

## Key skills

English & Spanish - Fluent  
Hindi & Bengali -  
Conversational  
Vernier Logger Pro  
MSOffice, Google suite

## Key traits

Problem solving  
Adaptability  
Empathy  
Curiosity  
Strong work ethic

## Nationality

Indian

## Profile links

Arannyaroy.com  
Linkedin.com/in/arannyaroy/

### **Consumer relevant Vanish demos - Reckitt Benckiser, Gurgaon, June'18**

- Created consumer relevant product demos for Vanish, a leading fabric stain remover
- Conducted on-site lab tests to check effectiveness of Vanish vs. key competition products to remove various types of stains (e.g. turmeric, crayon, ballpoint pen) It gave me a chance to add to my lab experience in a professional environment and was great to be part of meetings and see how it is working in a large multinational organization.

### **Scope of Eco-tourism in Palamau Tiger Reserve, Nature Conservation Society, Jharkhand, Dec'18**

- Recommendation on eco-tourism development in the Palamau Tiger Reserve through analysis of primary and secondary data research.

## Academic research and projects

- IB extended essay research project – Interviewing village communities in different areas of the Palamau Tiger Reserve and connecting it to secondary data-based information to analyse the extent to which a community's dependence on natural resources affect their local environmental management
- IB Higher Level Maths (Analysis and Approaches) Internal Assessment – Extending radioactive decay processes to mathematically modelling nuclear Xenon poisoning in the Chernobyl disaster
- IB Environmental Systems and Societies Internal Assessment – Investigating the differing efficacy of carrot peels and corncob to absorb vegetable oil to identify their usage as cheap phytoremediants for global oil spills

## Volunteering

### **Make a Difference (MAD) Club - Secretary, AES '18-'19**

MAD promotes bridging social inequality through education

- As part of MAD leadership team, contribute to decisions that deeply affect the way the club functions; prepared lesson plans and engagement activities with students
- Taught English to students of various proficiency levels over the past 1.5 years and continue to do so

### **Eco Club, Member, AES '19**

The Club works towards increasing awareness on key environmental issues and making school events and festivals more sustainable and eco friendly

- Started a plastic audit of the high school to identify key areas where plastic usage should be decreased
- Assisted the Eco Club leaders in giving presentations to middle school students to segregate waste and conserve water properly
- Volunteered for the school's Air quality Mela and Fall Fiesta

### **Abhilasha Foundation (<http://www.abhilashafoundation.org/>) – on-going long-term engagement**

- Various volunteering projects around tree plantation, water conservation, bio-fertilizer project, seed bomb project and educational support to forest schools
- Awareness sessions on long term sustainability through self-help groups