

---

# A Nature-based Social Emotional Learning Program for School Teachers and Educators

---

INTERNSHIP REPORT

**THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH  
SCIENCES AND TECHNOLOGY (TDU)**

**&**

**ASHOKA TRUST FOR RESEARCH IN ECOLOGY AND THE  
ENVIRONMENT (ATREE)**



SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MSc IN ENVIRONMENTAL STUDIES (CONSERVATION PRACTICE)

Priyanka Prakash

2021MSCES14

February 02, 2023 to July 31, 2023

UNDER THE GUIDANCE OF

*Supervisor (Host Institution)*

Vena Kapoor, Senior Programme Manager, Nature Classrooms (NCF)

*Co-Supervisor*

Dr. Shrinivas Badiger, Fellow, ATREE

*Name and address of the host institution*

Nature Conservation Foundation (NCF), No. 361 'Hari Hara', 5th Main Rd, 1st Cross Rd,  
Kodigehalli, Bengaluru, Karnataka 560097

## Declaration by the student

I certify that

- The work contained in report is original and has been done by myself under the supervision of my supervisor.
- The work has not been submitted to any other Institute for any degree or diploma.
- I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute.
- Whenever I have used materials (data, theoretical analysis, and text) from other sources, I have given due credit to them by citing them in the text of the thesis and giving their details in the references.
- Whenever I have quoted written materials from other sources and due credit is given to the sources by citing them.
- From the plagiarism test, it is found that the similarity index of whole thesis is less than 10% as per the university guidelines.

Name of the student: Priyanka Prakash

Regd. No.: 2021MSCES14

Date: 18-08-2023

Place: Bengaluru, Karnataka

Student Signature

## Certificate

This is to certify that the “**A Nature-based Social Emotional Learning Program for School Teachers and Educators**” submitted by **Priyanka Prakash** (2021MSCES14) is the work done by her submitted during academic year, is in partial fulfillment of the requirements for the award of the degree of MSc Environmental Studies (Conservation Practice).

Supervisor Name: Vena Kapoor

Date: 18-08-2023

Place: Bengaluru, Karnataka

Supervisor Name: Dr. Shrinivas Badiger

Date: 18-08-2023

Place: Bengaluru, Karnataka

This work is dedicated to

*My grandmother, Padmavati, who has always inspired me with her unconditional  
love and compassion towards all...*

*And to my parents and sister, for their unwavering support.*

## I. ACKNOWLEDGEMENTS

I would like to begin by expressing my gratitude to Vena Kapoor for providing me with this incredible opportunity to intern with the Nature Classrooms programme. Her unwavering support, guidance, and trust in me served as a tremendous source of motivation, reigniting my belief in the aspirations I hold within the realm of nature education. Furthermore, she stood by me during moments of personal adversity, cultivating an environment of care and encouragement that enabled me to pursue my work regardless of the circumstances.

My deepest appreciation and awe to the teachers who engaged with me during the interviews and the pilot of the program. It has been truly a transformational experience to interact and learn from them. I salute them for their unconditional contributions and hope to keep striving to support them in their endeavours. My gratitude also extends to Nirmal and Gurpreet from Eikas Foundation, who gave me invaluable insights on the topic and constantly encouraged me to pursue this project.

I express my gratitude to the exceptional Education and Public Engagement (EPE) program at the Nature Conservation Foundation. They created such a supportive and nurturing working environment and consistently cheered me on throughout my internship. A special appreciation goes to Sayee Girdhari and Dr. Geetha Ramaswami from the SeasonWatch team for their support during my initial teacher training workshops. Additionally, my heartfelt thanks extend to Misha, Amrutha, Varsha and Shivani for their unwavering presence during this journey. I would also like to thank Dr. Suhel Quader for so warmly welcoming me into the team.

I would like to convey my gratitude to Dr. Shrinivas Badiger for offering his guidance in relation to the internship report as well as his continuous support throughout the duration of this Master's program. His encouragement to follow our instincts and pursue what resonates with us has consistently been a source of inspiration for me. I deeply appreciate his readiness to take up the role as my supervisor for this internship period.

This Master's program has provided me with a platform to enter the field of environmental conservation, despite my diverse background. The two-year journey has had a profound impact on me. I want to convey my gratitude to ATREE and TDU for granting us this wonderful opportunity. Profound appreciation goes to all the professors and fellows at ATREE and TDU

who have offered unwavering support, patiently guiding our understanding of complex subjects.

My heartfelt gratitude to Dr. Venkat Ramanujam and Dr. Sharachchandra Lele for giving me a deeper understanding of environmental policies and its implementation and implications. They also provided me with the chance to collaborate on their Community Forest Rights project and humbled me with the opportunity to connect closely with the remarkable people of Baiga Chak. To each of the people from Baiga Chak, I express my heartfelt thank you for so lovingly taking care of us and for patiently engaging with us throughout the immersion period. I would also like to thank Dr. Siddappa Setty for his constant support throughout all our field projects. His belief in our projects and abilities and consistent encouragement have been invaluable. My gratitude also extends to Dr. V. V. Binoy for sharing his valuable insights and expertise during the initial phases of the program development.

I want to tip my hat for the complete team of ATREE's Community Conservation Centres (CCCs) for their exceptional support throughout our field projects. Their presence and guidance were indispensable for our success. I am also deeply grateful to the entire staff at ATREE-Indrani who welcomed us daily with a warm smile, the kitchen team for providing us with the most nourishing meals, and every other member who tirelessly helps maintain the conducive working environment at ATREE. Their collective behind the scenes efforts is what has sailed us so smoothly through this journey.

I would like to take a moment to deeply appreciate my incredibly talented batchmates. Each one of them, with their diverse perspectives and relentless passion for their work, have greatly inspired me and made this journey of two years all the more enriching and meaningful.

This acknowledgment would remain incomplete without a special mention to my 'Zoo' family. My heartfelt appreciation goes out to my biggest cheerleaders - Sarumathi, Vidhatri, Praisya and Aneree. They've stood by me through every high and low, reminding me to believe in myself and my endeavours. With utmost care and affection, they provided tireless support during the trying period when I unfortunately fractured my foot. They served as a constant source of strength, helping me persevere through physical and mental discomfort. This report would not have been possible without them. I'd also like to extend this gratitude to Akhil and Harshit, who have been constant pillars of support throughout these two years. They've been my field immersion buddies, helping me navigate tough days in the field, and offering both intellectual

and emotional encouragement. A big thank you to Naveen, who guided me through all our field projects, sharing his remarkable field experiences and providing steadfast support throughout this journey. A special thank you to Anooja, Mridul and Shivangi for their invaluable presence through this course.

My sincerest appreciation to my friend Selvasekhar for guiding me along my professional journey and providing invaluable insights that significantly enriched my work. Special thanks to Ananth Nag for facilitating connections with teachers for the interviews.

I would like to thank my Ervis Foundation family - Sarfaraz, Haaziq and Nilofer, with whom I began my journey in the field of environment education and have never looked back since then. Thank you for helping me find my purpose and passion. Special acknowledgement to Dr. Ash Pachauri for being a constant source of encouragement and for guiding me through my application for this Master's program.

My professional journey has been made achievable solely due to my three strongest pillars of support: my beloved parents, Bhavani Prakash and Prakash Krishnamurthy, and sister, Prakrti Prakash. I extend my heartfelt gratitude and love for your unconditional belief in me, constant encouragement, and for simultaneously challenging me to surpass my limitations, shaping me into a more empathetic and self-reliant individual.

And finally, this report is dedicated to my dearest grandmother, Padmavati. As I began my internship journey, she began her battle with brain tumour. But through all the moments I have had with her in the last few months she reminded me to follow my dreams and never give up. She never forgot to tell me how she was immensely proud of me. Thank you *Paati* for taking care of me through the three years of my bachelors and for showing me what unconditional love truly means. You will forever be a part of my every milestone, through your words of wisdom and contagious positivity. As you battle through these last moments, I promise to always carry your legacy forward through everything I do.

## II. TABLE OF CONTENTS

<b>I.</b>	<b>ACKNOWLEDGEMENTS</b> .....	v
<b>III.</b>	<b>LIST OF ABBREVIATIONS</b> .....	ix
<b>IV.</b>	<b>ABSTRACT</b> .....	x
<b>V.</b>	<b>INTRODUCTION</b> .....	1
5.1.	Unfolding Environment Education .....	1
5.2.	Present Challenges in Environment Education .....	2
5.3.	Shifting Approaches and Bridging Gaps in Environment Education .....	3
5.4.	Internship Overview.....	4
<b>VI.</b>	<b>DESCRIPTION</b> .....	6
6.1.	The Work of Nature Classrooms.....	6
6.2.	Work Profile Overview: Roles and Responsibilities .....	7
6.3.	Areas of Work .....	7
6.3.1.	Research and Program Development: A nature-based SEL program for supporting teacher’s emotional wellbeing and connection with nature .....	7
6.3.2.	Other Projects Undertaken as Part of the Internship .....	17
<b>VII.</b>	<b>REFLECTIONS AND LEARNINGS</b> .....	21
7.1.	Research Project.....	21
7.2.	Personal Reflections / Takeaways .....	26
<b>VIII.</b>	<b>SUMMARY AND CONCLUSION</b> .....	28
8.1.	Outcomes and Way Forward: Nature-based SEL Program.....	28
8.2.	Role at Nature Classrooms Going Forward.....	29
8.3.	Conclusion .....	29
<b>IX.</b>	<b>BIBLIOGRAPHY</b> .....	30
<b>X.</b>	<b>ANNEXURE</b> .....	36
10.1.	Annexure I: Questionnaire for Teachers.....	36
10.2.	Annexure II: Nature-Based SEL Framework.....	38
10.3.	Annexure III: Teacher’s Reflections – Pilot Program .....	43
10.4.	Annexure IV: ‘Our Senses’ Resource .....	60
10.5.	Annexure V: Snippets from the Water Module.....	61
10.6.	Annexure VI: Snapshots from the Workshop in Pachmarhi .....	62



### **III. LIST OF ABBREVIATIONS**

EVS – Environmental Studies

SEL – Social-Emotional Learning

CASEL – Collaborative for Academic, Social and Emotional Learning

MoEF – Ministry of Environment and Forests

EE – Environment Education

NCERT – National Council for Educational Research and Training

CBSE – Central Board of Secondary Education

IGSCE – International General Certificate of Secondary Education

ICSE – Indian Certificate of Secondary Education

IB - International Baccalaureate

NCF\* – National Curriculum Framework

NEP – National Education Policy

NCF – Nature Conservation Foundation

EPE – Education and Public Engagement

NGO – Non-Governmental Organization

DIET – District Institute for Education and Training

## IV. ABSTRACT

Environmental education in India has evolved, drawing from ancient tradition knowledge systems that are deeply rooted with the concept of nature connection. Post-independence, it gained institutional focus with curricular integration. Several challenges continue to persist, such as lack of teacher expertise, curriculum implementation, resource and time availability etc. Recent frameworks emphasize interdisciplinary and socio-emotional learning, but bridging gaps between theory and practice remains vital for nurturing an environmentally connected society.

The motivations behind this internship included gaining awareness about environment education's relevance, understanding EVS curriculum implementation, exploring teachers' roles, understanding the contributions of external organizations and educators, and learning diverse pedagogical approaches employed for effective environment education. The roles undertaken during this period aligned with Nature Classroom programme's work arms-entailing research and program development, resource creation, workshops, and communications.

Research and program development initiative focused on a nature-based Social-Emotional Learning (SEL) program for school teachers and educators. This involved integrating existing SEL frameworks with nature learning, with an aim to create a program that fosters teachers' emotional health, deepening their connection with nature in turn influencing environmental education in classrooms.

The literature review examines the relevance of SEL and its five core competencies, showing how SEL positively impacts both students and teachers. It discusses the role of teachers in complex educational systems, the challenges they face, and how their emotions influence teaching practices. Moreover, it highlights the significance of nature in enhancing mental well-being, emphasizing connections between nature and human emotions.

The work description details the development of the nature-based SEL program's framework, its phases, collaborations and partnerships, and the organizing of a pilot workshop for preliminary assessment of the program. It also describes other areas of work which include - resource development, training workshops, and communications.

The key findings highlight outcomes from the interviews conducted and the ongoing pilot program, revealing teachers' challenges, emotional experiences, and perceptions about environment education. Challenges such as modes of assessments, institutionalization, incorporation of language diversity, and time constraints are discussed. The personal reflections touch on the impact of working directly with teachers, addressing the interlinkages between mental health and nature, and design process intricacies.

The summary section emphasizes on the emotional motivation driving environmental conservation and the necessity of incorporating emotions and values into education. The long-term vision for the work is to expand perceptions about environmental education, integrating social-emotional learning, and nurturing a caring relationship with nature. The conclusion underscores holistic integration of environmental education within conservation efforts, by actively involving teachers and students, which can support the fostering of a profound connection between people and nature.

## V. INTRODUCTION

### 5.1. Unfolding Environment Education

India's traditional knowledge systems have been deeply intertwined with nature with some of the earliest understandings from nature being recorded in ancient texts like the Vedas which dates back to over 8,000 years. The foundations of these knowledge systems were developed by closely living with and observing the surrounding nature; depicting a sense of divinity within nature, and a constant expression of wonder and love for the beauty of the environment in various art forms and literature. One of the prominent philosophies that underlies the Vedic period was "oneness of all creations," where interactions with nature were not just physical, but also spiritual and moral (Baindur, 2015)

In the post-colonial period, conservation and protection of the environment was seen being integrated into the Indian constitution as a fundamental duty of every citizen (*Constitution of India*). With the formulation of the Ministry of Environment and Forests (MoEF) in 1985, it also showed an increasing interest from the government to address environmental challenges. And one of the proposed ways was by raising awareness through Environment Education (EE) in schools and colleges (Mohapatra & Raval, 2018).

The 1990s marked a point of transition in India's economic development. The liberalization of the economy triggered intense growth in all sectors. With this rapid development there was sudden intensification of environmental concerns and rapid depletion of natural resources (Almeida & Cutter-Mackenzie, 2011). Environmental education was made compulsory by the Supreme Court in 2003 (Tandon, 2018). In 2005, NCERT published the third edition of the National Curriculum Framework (NCF\*) which made a structured attempt in bridging the gaps in environmental education by giving specific requirements for its integration in the four curricular stages (primary, upper primary, secondary and higher secondary), using a multi-disciplinary lens and encouraging a shift from textbook learning to a more holistic approach (Muralidhar, 2022).

Today the objective of EE is to develop environmental literacy for all, with an aim to instil a behavioural change. The idea has been to build an environmentally literate society where the individual as well as the collective make informed decisions concerning the environment; and

are willing to act on their decisions to improve the well-being of other individuals, societies and the global participants, while addressing the challenges posed by the changing environment (Muralidhar, 2022).

The literature around environment education continues to transform and take new shapes, as we continue to unravel and understand the intricate nature of environmental interactions, and its implications in the long-run.

## **5.2. Present Challenges in Environment Education**

The latest NCF\* draft of 2023, drawing from the foundational framework and action-plan presented in the National Education Policy (NEP) 2020, presents an elaborate pedagogy and curricular structure to assist the implementation of EE in the formal system. The new framework introduces ‘Interdisciplinarity’ as one of the core curricular areas, which opens doors for bringing in subjects such as environmental education, public health, justice, media and journalism, traditional knowledge systems etc., into the classroom spaces in conjunction with the core subjects (science, mathematics, social science etc.), instead of in isolation. Particularly in the case of EE there is emphasis on the idea that developing sensitivity to and care for the environment should be the central theme throughout the school education curriculum. “And while it is important that students acquire a conceptual understanding of environmental issues and challenges, as well as an appreciation of the magnitude of the problem, it is equally important to ensure that they do not get discouraged or despair for their future” (*National Curriculum Framework for School Education 2023*).

But one of the major challenges to environment education, as elaborated in the framework, has been the lack of expertise in teachers to teach environmental education. As there is no formal structure to prepare teachers for EVS, it is often taught in parallel to or by teachers who have expertise in subjects such as Science and Social Science. Another issue highlighted is that “societal practices and observations are often the opposite of what is taught and discussed in schools, which defeats the purpose of the subject” (*National Curriculum Framework for School Education 2023*). With respect to the curriculum structure and implementation, the focus is usually more towards the completion of syllabus rather than inquiry-based and place-based learning. Given the innate nature of the subject, it becomes difficult for teachers to express and

for students to understand the context-specific nuances of our environment when learnt just within the four walls (Rajavelu, 2021).

With India today having become the most populous country in the world, it is at the frontline of facing and managing complex climate-environmental development challenges (Joshi & Singh, 2022). This requires teachers to take up environment education with a multi-disciplinary approach by integrating scientific inquiry, justice, and well-being within the local socio-economic-cultural contexts.

### **5.3. Shifting Approaches and Bridging Gaps in Environment Education**

An increasingly prominent approach in environmental education involves integrating the affective domain of learning, which aims to emotionally engage learners by addressing their attitudes, beliefs, and feelings (Green & Batool, 2017). This shift in approach can prove invaluable when tackling environmental problems, considering that many barriers to improving environmental quality are rooted in prevailing social attitudes, values, and lifestyles (Iozzi, 2010). Moreover, research demonstrates that environmental changes can also affect psychological and mental health outcomes (Fritze et al., 2008).

The NCF 2023 draft also highlights the importance of socio-emotional development in children across the different stages of their lives. It further states that “physical, cognitive and language development is highly influenced by how children feel about themselves and how they are able to express their ideas and emotions” (*National Curriculum Framework for School Education 2023*).

The Social-Emotional Learning (SEL) framework is one such model that allows for the integration of the affective domain in teaching-learning spaces. It aims to advance educational equity and excellence by forming authentic school-family-community partnerships by establishing learning environments and experiences that feature trusting and collaborative relationships and a meaningful curriculum. The broader goals include tackling various forms of inequity and empowering young people and adults to co-create thriving schools that contribute to safe, healthy and just communities (CASEL, n.d.).

In the present education scape, numerous organizations, educators, activists and groups are actively working towards and supporting in bridging the aforementioned gaps. They are providing innovative tools, resources, technology, offering capacity building through workshops and training, and conducting field visits, nature walks, conferences, events. These diverse initiatives are an attempt to continually reframe the narratives and make creative tools available to teachers and students in the formal education spaces, to better explore, learn about and connect with the intricacies of natural ecosystems.

One such initiative is Nature Classrooms, a programme under the Education and Public Engagement Programme (EPE) at the Nature Conservation Foundation (NCF). The main aim of the programme is to integrate contextually relevant elements of Nature Learning and ecology with the existing EVS curriculum of primary schools across India. They primarily engage in capacity building for teachers and educators, develop nature education teaching-learning resources that are age-appropriate, locally-culturally, and contextually relevant, and conduct research projects that contribute towards making Nature Learning meaningful for teachers and learners (Nature Classrooms, n.d.).

#### **5.4. Internship Overview**

The motivation for undertaking an internship within the realm of environment education were:

- To gain awareness about the relevance of and current perceptions towards environment education, and its role in the context of environment conservation.
- To gain first-hand experience and understanding about the implementation of the EVS curriculum within school systems.
- To understand the role of teachers and educators in imparting environmental education and the experiences and challenges encountered in the process.
- To understand the role of NGOs in furthering environment education within schools.
- To learn the different pedagogical approaches adopted by NGOs in aiding the implementation of environment education.

The key projects / tasks undertaken during the course of this internship:

- Exploring the integration of Social-Emotional Learning (SEL) with Nature Learning, to address teacher's emotional well-being through nature connections.
- Supporting in the resource creation processes which are in line with the Nature Classrooms pedagogy and framework.
- Organizing, conducting and supporting capacity building workshops for teachers and educators.
- Communicating Nature Classrooms' work through social media platforms.



## **VI. DESCRIPTION**

### **6.1. The Work of Nature Classrooms**

Nature Conservation Foundation's Nature Classrooms programme is hosted in the larger Education and Public Engagement Programme. Initiated in 2018, the team has been working collaboratively closely with schools and educators to connect school learning to the natural world. The focus has been to develop user-friendly nature learning resources closely linked to the school curriculum and that are age-appropriate, locally and culturally relevant and encourage children to engage with nature through hands-on and inquiry-based learning.

The three main components of their work area include:

- Co-creating age-culturally-locally relevant resources, activities and curriculums for teachers / educators as teaching-learning aids.
- Conducting workshops and training in and about nature learning.
- Exploring research questions and projects to help inform the work.

The primary goals of this programme are:

- Developing a sense of curiosity, love, wonder and a deep connection for the natural world among students, teachers and educators.
- Supporting Primary School Environmental Studies (EVS) teachers to be life-long learners who design and transact child-centred and inquiry-based lessons.
- To shift the focus of the current environmental education discourse from a largely human-centric approach to one that highlights that humans are a part of nature and the larger ecosystem.
- Integrating Nature Learning into the school's ethos and culture by making it contextual and relevant.

## **6.2. Work Profile Overview: Roles and Responsibilities**

The roles and responsibilities for this internship were undertaken in tandem to the three work arms of Nature Classrooms and included - conducting research, program development, supporting resource creation, organizing and conducting training workshops for teachers / educators, and communications. The role was undertaken with guidance and supervision from Vena Kapoor, who conceptualized and heads the Programme.

## **6.3. Areas of Work**

### **6.3.1. Research and Program Development: A nature-based SEL program for supporting teacher's emotional wellbeing and connection with nature**

The main focus for this internship was to explore the integrations between the existing social-emotional learning framework and nature learning. This included recognizing the scope for integrating it with Nature Classrooms' existing pedagogy and framework, the possibilities of translating it into action by developing a program framework, creation of supporting resources, and integrating the content as part of workshops, and organizing a test pilot program.

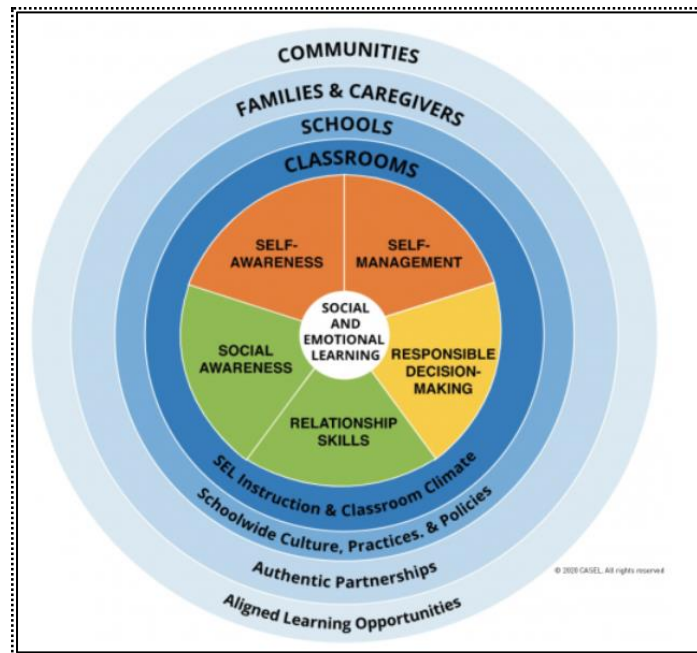
The goal of the nature-based SEL program developed as a part of this internship is to bring together effective nature-based practices, resources, and materials integrated into the larger social-emotional learning framework, with a focus on supporting the overall emotional well-being of teachers. The long-term vision is that this support for teachers' social and emotional well-being will also influence the manner in which they impart environmental studies / education within their classrooms.

## **A. Literature Review**

### **What is Social-Emotional Learning?**

As defined by the **Collaborative for Academic, Social and Emotional Learning (CASEL)**, *'social-emotional learning is the process by which all young people and adults acquire knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships and make responsible and caring decisions.'* (CASEL, n.d.)

Primarily the framework identifies five key competencies or settings. As defined by CASEL, these include:



*Figure 1: SEL Framework developed by CASEL*

- **Self-Awareness:** the ability to understand one’s own emotions, thoughts, and values and how they influence behaviour across contexts.
- **Self-Management:** the ability to manage one’s emotions, thoughts, and behaviours effectively in different situations and to achieve goals and aspirations.
- **Social Awareness:** the ability to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures, and contexts.
- **Relationship Skills:** the ability to establish and maintain healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups.
- **Responsible Decision Making:** the ability to make caring and constructive choices about personal behaviour and social interactions across diverse situations (CASEL, n.d.).

The approach emphasizes the importance of establishing learning environments and coordinating practices across key settings of classrooms, schools, families and communities to enhance all students’ social, emotional and academic learning. It is seen to be effective when integrated across the broader contexts of schoolwide practices and policies, through ongoing collaboration with families and community organizations. The coordinated efforts should in

turn foster youth voice, agency and engagement; establish supportive classroom and school climates and approaches to discipline; enhance adult SEL competence and establish authentic family and community partnerships (CASEL, n.d.).

Within this framework, students, families, schools and communities are seen as a part of broader systems that shape learning, development, and experiences. Inequities based on race, ethnicity, class, language, gender identity, sexual orientation, caste and other factors are deeply rooted in the vast majority of these systems which is believed to have direct impact on student and adult social, emotional and academic learning. While it has been acknowledged that *“SEL alone cannot solve the longstanding and deep-seated inequities in the education system, it can create the conditions needed for individuals and schools to examine and interrupt inequitable policies and practices, create more inclusive learning environments, and reveal and nurture the interests and assets of all individuals”* (CASEL, n.d.).

Independent studies conducted to understand the benefits of SEL indicate that it can lead to several positive outcomes. It is shown to have increased the overall academic performance of students who learn within an SEL integrated space. It also allows for creating a safe and nurturing space, where participation in SEL programs have been linked to decreased emotional distress, more positive attitudes about self and others, reduced symptoms of depression and anxiety in the short term, sense of safety, support, better relationships with teachers, stronger feelings of belonging and inclusiveness in schools and in some cases reductions in bullying and aggression (CASEL, n.d.).

Research also suggests that SEL has aided in improving teacher’s functioning, with greater efficacy for managing student behaviour and higher levels of personal accomplishment. They were also seen to have lower job-related anxiety and depression which led to higher quality interactions and greater perceived job-control (The Pennsylvania State University, 2016)

### **Relevance of the Nature-Based Social-Emotional Approach in Education**

Our beliefs, values, and feelings make up most of the socialization process, which is deeply linked to our interdependence on nature. And similarly, for the fulfilment of individual and collective potential - we are highly dependent on the material, psychological and spiritual benefits of nature. This is where environmental education gains its importance. Literature

defines the goals of environmental education as including - fostering individual and collective self-determination, as well as enhancing environmental knowledge, attitudes, and behaviours (Myers & Clayton, 2009)

Emerging research today indicates the idea that without developing an emotional connection with nature and forging a bond that makes nature a part of an individual and collective sense of identity, it is difficult to nudge people towards taking action in favour of the environment. A nature-based social-emotional approach provides for a connection-based philosophy that recognizes our place within the world and our connection to ourselves, to one another, and to nature (Carter, 2016). While, on one hand, a social and emotional relationship with nature, helps us better perceive and see ourselves as a part of it; interactions with nature can also allow for effectively managing our social and emotional well-being.

### **Understanding Teachers**

The role of teachers within school spaces goes far beyond just teaching. Teaching can be more deeply understood as an emotional practice as a school entails interpersonal emotional experiences (which take place within each teacher and student) (Jennings & Siegel, 2015). Teachers also play a central role in a very complex knowledge and social system. Firstly, the subjects they teach are as large and complex as life, and so it is important to recognize that their knowledge of them is partial. Secondly, the students they teach are larger than life and even more complex. And finally, the school system is a complex nexus of relationships and responsibilities that requires teachers to navigate through it in ample different ways (Palmer, 1997).

Moreover, teachers face a plethora of situations every day that provoke emotions that are difficult to manage. They also experience burnout which results from a breakdown in teachers' ability to cope over time and is viewed as having three dimensions - emotional exhaustion, depersonalization, and feelings of lack of personal accomplishment (Jennings & Siegel, 2015). Additionally, a teacher's beliefs which also include their assumptions about every aspect that is of importance for the teaching/learning process (the subject, how to teach, the students, etc.) can impact how they act in specific learning situations. It is also important to recognize that a teacher's meta-emotion philosophy (organized set of emotions and beliefs regarding one's own and other people's emotions) can be influenced by personal experiences, but also by larger

cultural and societal factors and emotional norms (Ojala, 2020). All of this profoundly affects their teaching-learning goals and practices.

Research done to understand the role of beliefs in the practice of teaching, indicates a clear interaction between feelings, moods and subjective evaluations, and other forms of cognition typically associated with knowledge systems. For example, while knowledge of a domain can be conceptually distinguished from feelings about the domain, values placed on course content by the teachers often influence how they teach the content. To better understand why teachers, organize and run classrooms the way they do we must pay much more attention to the goals they pursue and to their subjective interpretations of classroom processes. A teacher's objectively reasonable beliefs, once reflexively recognized, could be altered or transformed by being shown to be objectively unreasonable (Nespor, 2006).

Teachers' own perception of emotion can also serve as a significant element, especially with regard to how they respond to children's negative emotions. Their levels of emotional awareness and how they manage it is also seen to have a direct correlation with the way they handle children's passive attitudes. They also play a very crucial role in influencing children's emotions. Teachers' acceptance and support for children are essential factors for protecting those children from high-pressure family environments and other social scenarios, which thereby requires them to better regulate their own emotions (Liu, 2021).

This particularly becomes relevant in the context of environmental education, where teachers carry their own beliefs, experiences and understanding of the concepts, and try to unwind the complexities of the systems to a class that contains diverse individuals that perceive and process the knowledge, in different social and emotional ways. When these aspects are recognized by teachers it directly translates into the way they impart environmental education.

### **Nature and Mental Well Being**

Studies have found that well-being can be linked with how close we live to nature spaces, in both urban and rural settings. Some theories that guide these studies include the **Stress Reduction Theory** - which states that "*when we observe a natural scenery, such as forests or rivers, we experience positive feelings and emotions that have a restorative calming effect*" (Nature: How Connecting with Nature Benefits Our Mental Health, 2021).

Contact with nature has also been associated with increased happiness, subjective well-being, positive affect, positive social interactions and adding a sense of meaning and purpose in life which overall decreases mental distress. This could also be because nature instills a feeling of awe and a sense that the individual is part of a much bigger whole. Research in particular has indicated that “people who feel more connected to nature have greater eudemonic well-being; a type of contentment that goes beyond just feeling good and includes having meaningful purpose in life” (Weir, 2020).

Research around nature and mental health has also brought to light the interconnections between nature and psychology, and the direct implications of environmental problems such as climate change on our mental health. **Shifting Baseline Syndrome**, for instance, is the situation in which over time knowledge is lost about the state of the natural world, because people don't perceive changes that are actually taking place. In this way, people's perceptions of change are out of kilter with actual changes taking place in the environment (Hance et al., 2009). This especially gains relevance in the space of environment education and nature connections, as oftentimes textbooks indicate a state of nature that children of the present generation may not completely associate with, understand or feel far removed from and alien to.

Similarly, the term **Nature Deficit Disorder**, which has gained a lot of prominence in the recent times, describes the human cost of alienation from nature: diminished use of the senses, attention difficulties, higher rates of physical and emotional illnesses, a rising rate of myopia, child and adult obesity, and others (Suttie, 2016). Schools can create that opportunity for children to reconnect to their surrounding nature, given the time that children spend and the scope that nature provides for learning. Problems such as **Ecological Grief and Anxiety** have also become very real responses to the impacts of climate change, with people either grappling with losses of lives and/or livelihoods, or just being driven by the anxiety of the possible consequences of climate change which negatively impacts the overall physical and mental health (Cunsolo & Ellis, 2018).

### **Other Important and Relevant Guiding Theories**

Researchers have developed several theoretical frameworks that highlight the importance of integrating social and emotional values when engaging in teaching-learning practices.

To understand the interlinkages between nature and one's own social and emotional development, it is important to first unwrap the values, attitudes, and beliefs with which we perceive and define nature. It then becomes crucial to address questions such as - why do people care or not care about nature? What gives it its emotional and moral resonance? This predominantly depends on the significance people give to nature. The natural environment can shape the ways in which people define themselves as individuals, members of society, and humans. It can play a great role in affecting our sense of self - while also helping us fulfil our desire for connection or belongingness as it gives us an opportunity to think about our role as a part of a larger whole or an interdependent ecosystem. In this sense, the natural environment and our relationship to it can be an important part of our self-concept, all of which leads to us developing an **environmental identity** (Myers & Clayton, 2009).

Education about environmental-related problems and threats also can increase worry and anxiety. In situations such as these, teachers and students are left to deal with their existing emotions, in addition to the emotions felt from learning about the environment and its threats. Studies show that teachers tend to have diverse ways of responding to students' emotions in especially difficult scenarios, which include, avoiding talking about emotion-laden issues, ignoring emotions, trying to replace worry with hope or validating emotions of worry, and using flexible emotion-coaching strategies. **Critical Consciousness**, as defined by Freire suggests that critical discussions, reflections, and actions can lead to a better understanding of the root causes of an unjust society and empower people to make plans and take action to change it (Ojala, 2021).

Similarly, Boler's **Pedagogy of Discomfort** expands on the idea that *'discomforting emotional aspects are part of educating about sensitive and controversial societal issues, and that educators and students need to engage in critical inquiry of emotional positions towards the issues at hand.'* The theory further suggests that teachers sometimes influence students' emotions as well as how students cope with them. Research also demonstrates that students who perceived their teachers as not taking their negative emotions concerning societal problems seriously were more inclined to de-emphasize the seriousness of climate change than students who felt their teachers respected and validated their emotions (Ojala, 2020).



## **B. Interview with Teachers**

To contextually understand teacher's emotional experiences and their current relationship with nature, a series of semi-structured interviews were conducted with a group of **18 teachers** from diverse school boards (CBSE, ICSE, IGCSE, IB, Government School, State Board, Alternative Schools) and regions (Maharashtra, Karnataka, Andhra Pradesh, Kerala, Madhya Pradesh). This consisted of 15 female teachers and 3 male teachers. Although gender wasn't a deliberate factor, it was observed that a higher number of female teachers took part in the interviews in this particular instance.

The questionnaire aimed at understanding (**Annexure I**):

- Different emotions that teachers experience in the school space
- The regulation and management strategies adopted by them when experiencing different emotions.
- Their present relationship with nature - time, perception, emotions etc.
- Their perception on the interconnections between their emotions and their interactions in classrooms and the way they teach their subjects.
- Strategies adopted by teachers to manage the diverse emotions of their students.
- Perceptions about the present pedagogy and framework for environment education.
- Their views on the linkages between emotions and nature
- Their outlook on the workshops, programs and outreach conducted on environment education by NGOs, educators etc.

Broadly, the interviews brought to light that while teachers are very keen on providing their children with learnings and experiences from beyond the textbook (especially with respect to environment education), they often feel limited by the larger institutional system, work load, and extracurricular duties, that takes away their time and pushes them to focus more on syllabus-completion. They also feel that they are often overlooked by the system, with a lack of attention on their personal and emotional wellbeing. All the teachers interviewed stated that spending even a short time in nature - be it in the form of walks in the park or gardening in their balcony, or sitting under a tree, offers relief from the work pressure, and also helps them better process their thoughts and actions. With respect to external interventions, most of the teachers felt that they are often perceived as mediums to reach children, and in some cases feel that while these workshops and training programs organized by NGOs are very useful, they seldom

translate into the classroom spaces due to various reasons - such as lack of resources, technology, time, etc.

### **C. Framework for Nature-Based SEL Program for Teachers**

Deriving from CASEL's framework for SEL, the goal of this program is to add to SEL's existing work of body, by inculcating the values embedded within nature learning, giving it a more holistic approach by supporting teachers in their endeavours and also informing the broader approaches towards environment education.

Thus, Nature-based Social-Emotional Learning can be understood as the process by which, *“People acquire knowledge, skills, and attitudes to **develop healthy and sustained personal, social and environmental relationships**, which supports them in **expanding their sense of identity and belongingness**. This in turn influences the way in which they manage their emotions and achieve their **personal, collective, and environmental goals**. It inspires them to **feel empathy and compassion towards all living beings**, establish and maintain supportive **intrapersonal, interpersonal and interbeing relationships**; and make responsible and caring decisions for **overall personal, social and nature's wellbeing**.”*

With this approach a three-phase program plan was developed which was informed by the literature review and the inputs from the teacher interviews (**Annexure II**).

- **Phase 1: Teacher's social-emotional wellbeing:** Using various nature-based practices promoting social and emotional learning within teachers for their well-being and strengthening teachers' connection with nature by supporting their social and emotional well-being.
- **Phase 2: Training for implementation in the classroom:** This would include sharing and training teachers in incorporating nature-based SEL practices for long-term translation of nature-based social-emotional learning into EVS lesson plans and classroom practices.
- **Phase 3: Creating a 'Well Being through Nature' group for teachers in select schools:** To encourage teacher interactions which can help them in managing their stress, become more aware of their emotions, and better manage it during classroom interactions. This can be done using tools of mindful and guided nature-based

engagements such as sharing circles, nature-emotion journaling, nature walks, informal outdoor trips, etc., based on the time available.

Phase I of this program was developed as a part of this internship. For this purpose, a series of practices were curated along with supporting resources. These were reviewed by experts with a background in counselling, psychology and social-emotional learning.

#### **D. Collaborations and Partnerships**

The foundational framework was developed with support from organizations and individuals who carry expertise particularly in the areas of SEL, environment education and mental health.

- Nirmal Govindaraju and Gurpreet Sethy, from Eikas Foundation have been actively working in the space of SEL for children. They played a crucial role in developing the initial theories and practices for the program, in addition to giving insights about the implementation of SEL at ground level.
- Agastya International Foundation's teacher training program supported us in connecting with teachers for conducting the interviews.
- ApniShala's 'SEL Shala' course provided great insights and aided in the initial development of the practices, materials, and resources for the program.
- Ankita Rajasekharan and Roshni Ravi, who have a background in counselling and psychology reviewed the practices and tools that have been developed for implementing the program.

#### **E. Piloting the Program**

The goal of the pilot program was to engage with a small focus group of teachers / educators, for trialling out the initially developed practices and taking into consideration their feedback and responses which will influence the future implementation of the program, especially within the school systems.

For this purpose, an open call was announced on Nature Classrooms' social media platform, inviting teachers to sign up for the program. From a total of 24 registrations, 11 teachers were selected who teach in schools that follow different boards of education - Montessori, CBSE, Early Childhood Education, IGCSE, IB; teaching a range of subjects such as language, math, science, art, and nature education.

The program was officially initiated online on July 8th, 2023 for a period of 4 weeks, structured across eight sessions overall. Presently, the program is ongoing.

The sessions were conducted using various tools (art, music, mind-mapping, movements, observations, journaling, etc) and guided practices that were focused towards achieving the nature-based SEL goals. Different models of reflections have been adopted to assess the participant's experiences and key takeaways. These include (**Annexure III**):

- **Reflective Questions:** which require participants to provide long-form reflective answers to a guided questionnaire. These were conducted at different points during the program:
  - Pre and post program
  - Reflections post each session
- **Documenting responses during sessions:** The responses of participants to different prompts and guided practices introduced to them during the session were also recorded.
- **Post-program reflections:** to understand from participants their key takeaways and plans for inculcating nature-based SEL in their teaching-learning approaches.

### **6.3.2. Other Projects Undertaken as Part of the Internship**

#### **A. Resource Development**

This involved the development and designing of two resources for the program:

- **'Our Senses':** This resource was developed in tandem with the Grade 5 NCERT's EVS chapter - 'Super Senses.' The initial design of the resource included the association of different senses to different animals. The design needed to be further developed to incorporate activities and prompts that teachers / educators can use to guide children in exploring how animals use their senses. For this purpose, the process entailed ideating guiding questions, a mini activity, interesting facts and creating an anchor chart that can be easy for teachers to use in classrooms. Moreover, the focus was also to inculcate prompts that could initiate a safe and inclusive space to discuss about how differently abled people engage with their senses (**Annexure IV**).

- **Inputs and Designing of a module on the theme of Water:** This project was undertaken in collaboration with Ankita Rajasekharan, an educator who worked in developing the framework, content and detailed lesson plans with resources; and Chayant Gonsalves, an illustrator who supported in creating the art illustrations for the module. To bring together the content and illustrations meaningfully, the process of designing the module was undertaken as a part of this internship. The goal was to design and bring the module together in such a way that it aids teachers, educators and parents to implement the different lessons that help explore the complex aquatic ecosystems in a simplified way, in their own capacity, at schools or homes with children (**Annexure V**).

## **B. Training Workshops for Teachers and Educators**

### **Participating and facilitating sessions in workshops organized by Nature Classrooms**

During the course of the internship, three workshops were organized by the Nature Classrooms team which gave an opportunity to understand how their pedagogy and framework can aid teachers in developing lesson plans for the EVS curriculum. It also created a space to interact with school teachers as well as educators from different organizations, and gain their perspective on Nature Classroom's pedagogy and framework and how they see it being implemented in the school spaces.

- **Workshop with Wipro's Sustainability Educators:** This was organized as a part of the 12th edition of the Wipro Earthian Awards Programme. The day-long workshop provided an opportunity to engage with the new batch of Wipro's Sustainability Educators who have been working in the domain of sustainability education / environmental education in schools and communities across India. In the session, the educators were guided through the development process of Nature Classroom's pedagogy, framework and resources. They collaboratively also worked on developing and presenting a nature learning chapter which could be weaved into the EVS curriculum. The workshop brought in diverse perspectives as educators from across India brought the essence and insights from their local-cultural contexts and experiences.

- **Training Program with NCF's High Altitude Program:** The team was invited for an inter-program engagement to brainstorm and conduct a training session for a team of conservationists and nature educators from Nature Conservation Foundation's High-Altitude Program. Through a three-day immersive workshop, the group went through exercises and conversations on strategizing the educational and outreach initiatives in Spiti and Ladakh and exploring, and planning new projects in the landscape. The workshop also gave us the first opportunity to trial out some of the nature-based SEL practices.
- **Stories in Nature Workshop:** A two-day collaborative workshop was organized with Jane Sahi from the Fig Tree Learning Center, with an aim to explore ways to support awareness and connection with nature using stories and poetry. The workshop brought together school teachers, educationists, storytellers, writers and librarians. The interactive sessions explored a range of themes from nature in an urban context, to the role of folklore, art, magic, poetry, emotions, imaginations, the impact of regional languages, gender, authority, social structures and academic research when using storytelling and poems as a teaching-learning tool.

### **Conducting Workshops for teachers in Pachmarhi, Madhya Pradesh**

The internship provided an opportunity to organize and conduct the Nature Classroom's workshop on its pedagogy and framework with teachers from Pachmarhi in Madhya Pradesh at the NCBS-TIFR field station. On day one, the workshop witnessed participation from over **30 teachers** from Kendra Vidyalaya School, teachers in their second year of training at the District Institute for Education Training (DIET), and a few from local government schools and Anganwadi schools.

In the course of the 4-hour workshop, the activities and sessions organized included:

- Developing the ideal environment education curriculum in a situation where all possible resources (time, funds, space, support, resources, etc.) are made available to the teachers.
- Exploring the three key domains of learning - cognitive, skills and affective.
- An introduction to the concept of nature-based SEL through an activity where the teachers explored their 'Environmental Identities.'

- Deep dive into Nature Classrooms' pedagogy and framework. Using examples, discussing the relevance of the different goals that need to be put in place for different age groups, the diverse mediums that can be used for teaching-learning, and the core components and values that need to be inculcated when developing a lesson plan.
- To culminate the workshop, teachers were asked to develop a lesson plan for any chapter from the EVS textbook, using Nature Classroom's pedagogy and framework as a reference.

On the second day, a workshop was organized for **65 teachers** at the DIET institute in Pachmarhi. This was done in collaboration with the SeasonWatch team (NCF). In the two-hour session, the participants were introduced to Nature Classroom's pedagogy and framework, as well as some of the existing resources that have been developed, followed by a session on citizen science by the SeasonWatch team. This was followed by a group activity, where the groups had to come up with a lesson plan to teach children about the seasonal patterns in trees. The session ended with the groups creatively presenting their plan (**Annexure VI**).

### **C. Communications**

Communication was also a key responsibility handled during the course of this internship. This firstly entailed communicating about Nature Classroom's work on social media platforms. Secondly, working on updating and restructuring the overall website, with a goal to make the resources, pedagogy and framework more accessible, as well as to showcase the different projects undertaken by the program.

## VII. REFLECTIONS AND LEARNINGS

During one of the interviews, I asked a primary school teacher from Pachmarhi, Madhya Pradesh, about the kind of support she believes that teachers require. She said with tears in her eyes, *“We just want someone to ask us how we are doing...”*

One of the significant insights I gained from this internship is that our teachers, who are at the heart of the education system face numerous challenges that significantly influence their teaching goals. As an educator, this realization prompted me to contemplate how as external entities we tend to concentrate on delivering programs to teachers without fully acknowledging the multitude of responsibilities, emotions and institutional demands they are managing. Then regardless of how well-designed our initiatives may be, if larger systemic structures are restrictive and conventional, translating these ideas into actionable outcomes only becomes a formidable task.

This internship journey of six months has led to many realizations stemming from different experiences, interactions and observations, which I hope to further develop to inform not only the work being done in the field of environment education, but also to open a space for practitioners, educators, scientists, researchers to build upon and weave in aspects of mental well-being into their work and approaches towards conserving our environment.

### 7.1. Research Project

#### **Journey towards developing the nature-based SEL framework**

This internship was my first introduction to the domain of Social-Emotional Learning. Traversing across the literature around SEL was a journey in itself, as I gradually found myself unravelling the myriad of themes that make-up this framework.

While the SEL framework proposes an ideal, inclusive, and safe teaching-learning environment, it is important to recognize that its fundamentals are based on the educational and social systems present in the United States of America. And this is true for most literature that is present with respect to SEL today. This raises the question - how much does the Indian education system allow for implementing such alternative learning processes? This called for reviewing the existing theories and assessing how it addresses the systemic differences - exposure, population,



diversity (social, school boards, languages, etc), syllabus, resources, policies, environment, infrastructure, teacher training and availability, etc.

It is quite evident that for such a system to be implemented at a large-scale, it would require a monumental shift from the already existing system that is so deeply institutionalized and established upon decades of policy frameworks. This would require a rigorous restructuring of our policies as well as its implementation not just in terms of resource-availability, but with a shift in mindset and practices at a grassroots level.

I was particularly interested in taking Nature Classrooms' attempt at looking at the integration of SEL through a more subject-based lens, particularly with nature learning, forward. The work around SEL in India is only beginning to emerge with organizations such as ApniShala and Eikas Foundation carrying out SEL-focused programs. But upon studying the work of organizations globally and nationally, it emerged that while many other disciplines such as arts, sciences, etc. have been integrated, nature was mostly missing from the picture. This is where we envisioned contributing to the existing work by bringing in the essence of nature learning.

The present environment education curriculum harps on the idea that the children of today need to be environmental guardians. Additionally, it doesn't account for the 'shifting baselines,' where children are growing up in very different realities from what they are being asked to protect. This imposition of responsibility in children as young as 8-10 years old, could induce stress and anxiety which the school system may not be able to cope with. Moreover, we live in a fast-evolving digital era where students are learning from sources beyond their classrooms. How does this affect their understanding and connection with nature and in turn influence their social-emotional wellbeing?

Based on our personal experiences and available research, we identified the linkages between our experiences with and learnings from nature and our emotional well-being. The results build upon CASEL's framework - firstly, nature can help us gain **self-awareness** as we often turn to nature when we want to introspect or find inner peace. Secondly, spending time in nature can regulate our emotions, which can in turn help us in **self-management**. It also brings **awareness to our values, beliefs and other social systems** that contribute to our identity and sense of belonging (from the food we eat to religious, spiritual, cultural practices). Fourthly, our **social relationships** are built within the larger environmental settings which influences the bonds we

create and instils a sense of belonging. And finally, our love and respect for nature can make us take empathetic and compassionate actions and **decisions**, since all happenings in nature are based on the principle of balance.

### **Developing a Nature-based SEL Program for School Teachers and Educators**

Given Nature Classrooms had already channelled its efforts towards teachers and educators, it was an intuitive starting point. Most of the literature reviewed pointed towards the emotional experiences that teachers endure in schools and its implications on their personal, classroom and social interactions.

To further gain first-hand understanding I approached teachers to learn about their emotional experiences in school and their relationship with nature. The series of 18 interviews were a changing point in my program-development journey, as it altered my understanding and approaches towards environment education. The key outputs were:

- When discussing the connections between emotions and interactions, several teachers revealed that although they experience a diverse range of emotions in schools, once they step into a classroom, they adeptly set them aside and concentrate solely on their daily lesson objectives. While they ensure not to bring their emotions from home to school, many teachers confessed that they often carry the emotions experienced at school back home, resulting in occasional conflicts with their families.
- When questioned about their primary challenges as teachers, they unanimously cited the lack of time as their foremost concern. In addition to their teaching responsibilities, teachers are burdened with various additional duties, including election duty, COVID duty, managing admissions, and handling administrative tasks such as data entry, paper grading, and organizing events for different occasions. As a result, their primary focus during classroom sessions becomes completing the syllabus, leaving them with limited opportunities to experiment or innovate in their teaching approaches.
- Each of the teachers expressed feeling inadequately prepared to address challenging emotional situations in the school environment. Two teachers recounted the heartbreaking experiences of losing students to suicide, but due to the demanding nature of their responsibilities, they had no time or opportunity to process the loss or provide support to other students coping with the tragedy. Additionally, one teacher shared a distressing incident where a student was lost during a nature excursion, resulting in the

suspension of a colleague, and prohibition of future nature trips. These traumatic events had a profound impact on the teacher's presence in the classroom and significantly affected their interactions with their families.

- When discussing their connection with nature, the majority of teachers disclosed that they actively engage with nature through various means, including gardening, nature walks, and visits to nearby forests, among others. All of them associated nature with feelings of "peace," "escape," "quiet time," "reflection," and "calm."
- When questioned about their perception about environment education, they all shared that it had to be done practically and just teaching within their classroom walls limits the children from understanding concepts. A few teachers also shared that they have on their own tried to take up initiatives such as recycling, clean up drives, and nature walks, to encourage children to connect with nature.
- A few teachers shared that the hierarchy and the power struggles within the school administration often hinders them from openly talking about their emotions.
- When talking about their perception about the external capacity building workshops organized by NGOs, they shared that all the workshops that they attend are usually targeted towards children. And they are mostly only seen as a medium to reach children. Many also shared that they have felt forced or burdened to participate in external workshops and programs (specifically in the case of Govt. School teachers).

### **Developing the Program Structure and Practices**

The process of developing and curating practices and resources for conducting the sessions was an emotional journey. I devoted significant effort to study and comprehend what it truly means to establish a safe and inclusive space where teachers can openly share their emotions. To achieve this, I attended a program on SEL by ApniShala, which provided valuable insights into the kind of experience a SEL program should aim to create for its participants.

Taking on the role of a facilitator for the first time was a unique and transformative experience. It involved delving deep into the art of creating safe and inclusive spaces for participants. I had to carefully consider language and conversation techniques, as well as develop guided prompts and exercises that would encourage self-exploration and foster meaningful connections with nature. This process challenged me to be more mindful of how I was crafting an environment

where teachers felt comfortable opening up and placing their trust in me throughout the journey.

To craft each practice, it necessitated a thorough study and review of numerous existing practices. I personally experimented with each one to comprehend the emotions and thoughts they could evoke, while also evaluating how well they aligned with the broader objectives of the nature-based SEL.

Furthermore, I had to prepare myself to handle any difficult conversations that might arise, and be ready to offer emotional support to the teachers when needed. To do this effectively, I had to prioritize my own mental well-being and be emotionally attuned and self-aware to better support the teachers. It was also crucial to try my best to set aside my personal biases and values to maintain neutrality while creating a comfortable space.

### **Launching the Pilot Program**

To trial out the effectiveness of the program in practice we decided to launch a pilot through an open call via social media. With the 11 teachers that were selected, a 4-week online program was initiated. The group is composed of one male teacher and ten female teachers. Although the gender distribution of the participants wasn't a primary consideration, it was noted that the majority of the teachers were women.

The program is presently ongoing. As part of the pilot program, a total of four sessions, including reflections, have been successfully concluded up to this juncture. Several of the reflections stemming from these sessions have been included in **Annexure IV**.

The participating teachers have shared that they feel supported to know that there is space for them to process their emotions and trial out techniques to regulate them. The verbal feedback with respect to the practices and planned interactions have been positive so far, where teachers have shared how it has added a new perspective in the way they approach their emotions and connect with nature. They hope to use these in their classroom spaces to encourage more interactions and connections with nature.

Personally, given that this has been my first time facilitating this program, it has been challenging yet exhilarating as it has pushed me to introspect on my personal relationship with

emotions and nature. It has helped me better connect with the ideas of inclusivity and safe space, as I have gained deeper awareness about the importance of a co-creating and a co-learning space which can result in better ideas and solutions.

## **Challenges**

Some of the caveats and limitations that we have identified in this process include:

- Arriving at structured methods for measuring and assessing teacher's experiences from the program.
- Institutionalizing this program, given the complex school administrative system.
- Given that emotions are processed and expressed differently in different languages, how can we make this suitable for vernacular languages?
- The biggest challenge experienced by teachers is the lack of time. How do we implement this program such that it doesn't take away more of their time?

## **7.2. Personal Reflections / Takeaways**

In my three years of journey in the environment, education space, and engagements with children, I would often wonder if I was truly making any difference, given that I had no control over how they engaged with this subject once I left their school space. How do I truly measure the impact of the literacy programs on each and every child as there is no possible way to track their lifetime journey? And the fact that a three-day workshop could completely influence their behaviour started seeming a little absurd. Could longer workshops be the way? Maybe incorporate more activities, games, field trips? There was no way to know for certain what would work, but it always felt worth the trial and error.

Entering Nature Classrooms, I was introduced to the idea of working directly with teachers and educators, as it is they who spend most time with children and best understand and connect with them. This personally was such a refreshing approach which also addressed several of the challenges I encountered while trying to engage with just children.

This internship expanded my perceptions about the environment education in multi-fold ways:

- Interacting with teachers added to my understanding of the working of the education space. This further helped me understand the complexities, gaps and challenges that hinder us from effectively furthering environment education.

- Teachers genuinely do not have the time, and this became evident as I struggled to connect with teachers for interviews as well as the pilot program. This nudged me all the more towards the direction of supporting teachers in their efforts.
- Learning about the far-reaching impact our mental health has on the work we do. Through rigorous learning and exploration of emotions over the past six months, I couldn't help but question why emotions are not already actively considered in the realm of environmental education. This journey also became personal, as I delved into the state of my own mental health, which I aim to continue integrating into all my future endeavours.
- The process of designing and developing resources compelled me to delve deeply into the various design and content elements required to succinctly explain different concepts while aligning it with the EVS curriculum.
- During the internship, I had the chance to collaborate with a wide range of organizations, educators, and researchers, each with diverse expertise. This invaluable experience significantly enriched my knowledge and understanding of various domains. Additionally, it provided an excellent opportunity to expand and strengthen my professional network.
- I had the most incredible opportunity to work with not just the Nature Classroom's team, but also with the larger EPE team at NCF. Interacting and engaging with different programs and cross-collaborating added to my knowledge about ecology and the environment as a whole. It offered me diverse and interdisciplinary perspectives which deeply played into my work.

## VIII.SUMMARY AND CONCLUSION

At the heart of any environmental protection initiative lies a driving force fuelled by passion, compassion, love, and empathy. It is our profound affection for nature that motivates and compels us to preserve and safeguard it. Even as researchers, scientists, educators, though we heavily rely on scientific methodologies, we are equally guided by our deep-seated care, and reverence for the planet, spurring us to take action.

Current environmental education should incorporate these values, as existing pedagogies focus on imparting factual knowledge but lack addressing the fundamental "why" questions. Today, environmental-induced mental health issues affect both children and adults, including "nature deficiency," "eco-anxiety," and "eco-grief." Thus, classrooms should nurture open discussions about these topics among teachers, educators, and students to foster coping mechanisms and understanding.

During this six-month internship, I explored social, emotional, and nature-based learning, discovering vital connections that drive behavioural changes through deep connections with nature. Collaborating closely with teachers enriched my understanding and improved the implementation of my research findings into practical applications.

### **8.1. Outcomes and Way Forward: Nature-based SEL Program**

The nature-based social-emotional learning (SEL) program's primary objective is to cultivate a deep connection between teachers, educators, and the natural world. By fostering a symbiotic relationship where nature emotionally supports teachers, it inspires their commitment to protect and nurture the environment. This connection then extends to their classroom interactions and teaching methodologies, fostering collective learning and action for the environment.

The nature-based SEL approach holds great potential for contributing to existing work in the nature and conservation education space. By integrating nature-based SEL practices into existing programs, inclusive and safe spaces can be created for children and teachers. This approach nurtures a holistic nature learning experience, intertwining knowledge with personal and social well-being, aligning with the larger goal of promoting nature's well-being. Moreover, involving stakeholders like teachers and educators can expand the field of environmental

conservation, amplifying project reach and impact. Considering the influence of a person's emotional state in environmental education and recognizing the impact of an initiative / program on their mental well-being can enhance overall effectiveness and significance.

The implementation plan for the future involves three key steps. Firstly, organizing online/hybrid-mode sessions specifically for teachers and educators to equip them with the necessary knowledge and skills for the nature-based SEL approach. Secondly, integrating the program within schools to make it an integral part of the educational system and teacher practices. Lastly, developing comprehensive guidebooks and resources to support teachers, educators, and organizations in incorporating the nature-based SEL approach into their existing work.

## **8.2. Role at Nature Classrooms Going Forward**

Moving forward, I will be stepping into the role of Project Manager position at Nature Classrooms where I will be working to advance the work initiated during the internship and provide support to the program in achieving its nature learning objectives.

## **8.3. Conclusion**

Environmental education has the potential to drive environmental conservation efforts. However, in the Indian context, these initiatives often operate independently and prioritize reaching a large scale. Nevertheless, these initiatives would benefit greatly from a more comprehensive and holistic approach, one that involves the integration of various disciplines and domains of learning, including cognitive, skill-based, and affective aspects.

Instead of being viewed as a stand-alone endeavour, environmental education can be weaved into the broader conservation and restoration initiatives. This integration should actively involve local communities, including teachers and children, as this can play pivotal roles in enhancing their understanding of the environment through hands-on actions and experiences. This can foster a deeper connection between people and nature, leading to more informed, compassionate and impactful conservation practices.



## IX. BIBLIOGRAPHY

- Adult Well-Being*. (n.d.). Greater Good In Education. Retrieved August 2, 2023, from <https://ggie.berkeley.edu/my-well-being/>
- Almeida, S., & Cutter-Mackenzie, A. (2011). The Historical, Present and Future ness of Environmental Education in India. *Australian Journal of Environmental Education*, 27(1), 122-132.
- Baindur, M. (2015). *Nature in Indian Philosophy and Cultural Traditions*. Springer India.
- Carter, D. (2016). A Nature-Based Social-Emotional Approach to Supporting Young Children’s Holistic Development in Classrooms With and Without Walls: The Social-Emotional and Environmental Education Development (SEED) Framework. *The International Journal of Early Childhood Environmental Education*.
- Carter, D. (2016, August 13). A Nature-Based Social-Emotional Approach to Supporting Young Children’s Holistic Development in Classrooms With and Without Walls: The Social-Emotional and Environmental Education Development (SEED) Framework. *The International Journal of Early Childhood Environmental Education*, 10.
- CASEL. (n.d.). *Fundamentals of SEL - What Is the CASEL Framework?* CASEL. Retrieved August 2, 2023, from <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>
- CASEL. (n.d.). *What Does the Research Say?* CASEL. Retrieved August 2, 2023, from <https://casel.org/fundamentals-of-sel/what-does-the-research-say/>
- Clayton, S., & Myers, G. (2015). *Conservation Psychology: Understanding and Promoting Human Care for Nature*. Wiley.
- Constitution of India*. (n.d.). Legislative Department. Retrieved August 2, 2023, from <https://legislative.gov.in/constitution-of-india/>

- Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change*, 275-281. <https://doi.org/10.1038/s41558-018-0092-2>
- Fang, W.-T., Hassan, A., & LePage, B. A. (2022). *The Living Environmental Education: Sound Science Toward a Cleaner, Safer, and Healthier Future*. Springer Nature Singapore.
- Felver, J. C. (2015). Patricia A. Jennings: Mindfulness for Teachers: Simple Skills for Peace and Productivity in the Classroom. W. W. Norton, New York, NY. *Department of Psychology, College of Arts and Sciences, Syracuse University*.
- Free Extract from Alice Morgan's 'What is Narrative Therapy?'* (n.d.). The Dulwich Centre. Retrieved August 2, 2023, from <https://dulwichcentre.com.au/what-is-narrative-therapy/>
- Fritze, J. G., Blashki, G. A., Burke, S., & Wiseman, J. (2008, September 17). *Hope, despair and transformation: Climate change and the promotion of mental health and wellbeing - International Journal of Mental Health Systems*. International Journal of Mental Health Systems. Retrieved August 2, 2023, from <https://doi.org/10.1186/1752-4458-2-13>
- Green, Z., & Batool, S. (2017). Emotionalized learning experiences: Tapping into the affective domain. *Science Direct*, 62, 35-48. <https://doi.org/10.1016/j.evalprogplan.2017.02.004>
- Hance, J., Butler, R., & Caldecott, J. (2009, June 24). *Proving the 'shifting baselines' theory: how humans consistently misperceive nature*. Mongabay. Retrieved August 2, 2023, from <https://news.mongabay.com/2009/06/proving-the-shifting-baselines-theory-how-humans-consistently-misperceive-nature/>

- Howell, A. J., Dopko, R. L., Passmore, H.-A., & Buro, K. (2011). Nature connectedness: Associations with well-being and mindfulness. *Personality and Individual Differences*, 166-171.
- Iozzi, L. A. (2010, July 15). What Research Says to the Educator Part Two: Environmental Education and the Affective Domain. *The Journal of Environmental Education*, 20(4), 6-13. <https://doi.org/10.1080/00958964.1989.9943033>
- Jennings, P. A., & Siegel, D. J. (2015). *Mindfulness for Teachers: Simple Skills For Peace And Productivity In The Classroom*. WW Norton.
- Joshi, S., & Singh, S. (2022). EVALUATION OF THE TEACHERS' EDUCATION LANDSCAPE FOR CLIMATE CHANGE EDUCATION IN INDIA. *Center for Environment Education*.
- Lieberman, M. D., Eisenberger, N. I., Crockett, M. J., Tom, S. M., Pfeifer, J. H., & Way, B. M. (2014). Putting Feelings Into Words Affect Labelling Disrupts Amygdala Activity in Response to Affective Stimuli. *Psychological Science*.
- Liu, L. (2021). Teacher with Different Meta-Emotion Level: Their Understanding of and Responses to Children's Negative Emotions. *Advances in Social Science, Education and Humanities Research*, 615.
- Macdonald, H. (2017, May 16). *What Animals Taught Me About Being Human*. The New York Times. Retrieved August 2, 2023, from <https://www.nytimes.com/2017/05/16/magazine/what-animals-taught-me-about-being-human.html>
- Mohapatra, P., & Raval, M. (2018). Environmental Education: The Indian Context. *Proceedings of the International Conference IIESD*.
- Muralidhar, C. (2022, August 29). *How Environmental Education can support efforts to address the Sustainable Development Goals (SDG... Azim Premji University*.

- Retrieved August 2, 2023, from  
<https://azimpremjiuniversity.edu.in/news/2022/environmental-education-can-support-efforts-to-address-sdgs-adopted-by-un>
- Myers, G., & Clayton, S. (2009). *Conservation Psychology: Understanding and Promoting Human Care for Nature*. Wiley.
- National Curriculum Framework for School Education 2023*. (n.d.). Department of School Education & Literacy. Retrieved August 2, 2023, from  
<https://dsel.education.gov.in/sites/default/files/NCF2023.pdf>
- Nature Classrooms. (n.d.). Nature Classrooms: Nature Learning. Retrieved August 2, 2023, from <https://www.natureclassrooms.org/>
- Nature: How connecting with nature benefits our mental health*. (2021). Mental Health Foundation. Retrieved August 2, 2023, from <https://www.mentalhealth.org.uk/our-work/research/nature-how-connecting-nature-benefits-our-mental-health>
- Nespor, J. (2006). The Role of Beliefs in the Practice of Teaching. *Journal of Curriculum Studies*. <https://doi.org/10.1080/0022027870190403>
- Ojala, M. (2020). Safe spaces or a pedagogy of discomfort? Senior high-school teachers' meta-emotion philosophies and climate change education. *The Journal of Environmental Education*. <https://doi.org/10.1080/00958964.2020.1845589>
- Ojala, M. (2021). Climate-change education and critical emotional awareness (CEA): Implications for teacher education. *Taylor&Francis Online*.  
<https://doi.org/10.1080/00131857.2022.2081150>
- Palmer, P. J. (1997). The Heart of a Teacher. In *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life*. Jossey-Bass Publishers.
- Pekrun, R., & Linnenbrink-Garcia, L. (Eds.). (2014). *International Handbook of Emotions in Education*. Routledge.

- The Pennsylvania State University. (2016). *Teacher Stress and Health*. Robert Wood Johnson Foundation. Retrieved August 2, 2023, from [https://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2016/rwjf430428](https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2016/rwjf430428)
- Rajavelu, G. (2021, July 20). *Designing a Teacher Capacity-Building Program for EVS*. University Practice Connect. Retrieved August 2, 2023, from <https://practiceconnect.azimpremjiuniversity.edu.in/designing-a-teacher-capacity-building-program-for-evs/>
- Russell, J. A. (1980). A Circumplex Model of Affect. *Journal of Personality and Social Psychology*.
- Schonert-Reichl, K. (2017). Social and Emotional Learning and Teachers. *The Future of Children*, 137-155. <https://www.jstor.org/stable/44219025>
- Srinivasan, M. (n.d.). *Transformative Social and Emotional Learning (SEL) as a Catalyst for Climate Action*. Kosmos Journal. Retrieved August 2, 2023, from [https://www.kosmosjournal.org/kj\\_article/sel-catalyst-climate-action/](https://www.kosmosjournal.org/kj_article/sel-catalyst-climate-action/)
- Suttie, J. (2016, September 15). *How to Protect Kids from Nature-Deficit Disorder*. Greater Good Science Center. Retrieved August 2, 2023, from [https://greatergood.berkeley.edu/article/item/how\\_to\\_protect\\_kids\\_from\\_nature\\_deficit\\_disorder](https://greatergood.berkeley.edu/article/item/how_to_protect_kids_from_nature_deficit_disorder)
- Tandon, A. (2018, September 14). *Can environment education save our planet?* Mongabay-India. Retrieved August 2, 2023, from <https://india.mongabay.com/2018/09/can-environment-education-save-our-planet/>
- Weir, K. (2020, April 1). *Nurtured by nature*. American Psychological Association. Retrieved August 2, 2023, from <https://www.apa.org/monitor/2020/04/nurtured-nature>

Zembylas, M., Charalambous, C., & Charalambous, P. (2014). The schooling of emotion and memory: Analyzing emotional styles in the context of a teacher's pedagogical practices. *Teaching and Teacher Education*, 69-80.

## X. ANNEXURE

### 10.1. Annexure I: Questionnaire for Teachers

The following questionnaire was used to interview teachers for developing the nature-based SEL program:

- Which grade(s) are you currently teaching?
- How many hours in a day / week do you spend engaging with students?
- How often do you take time during the day to become aware of how you are feeling?
- What kind of different feelings/emotions have you experienced during your time at school?
- Do you experience feelings of stress, overwork, or burnout during school/teaching hours? If yes, how often do you experience these feelings?
- Do the feelings / emotions you experience at school influence your feelings and interactions at home and vice versa?
- Do you believe there is a connection between the way you feel and the way you interact with the students in the classroom? Can you share some instances?
- Each individual child experiences their very own diverse set of emotions. As a teacher how do you engage with those emotions? How does that leave you feeling?
- How do you manage the different emotions that students express in a classroom; and also, on days you may feel stressed?
- How would you define your present relationship with nature? Do you believe there is a connection between our emotions and how we relate to nature? If so, how?
- Do you or your peers find time to share your emotions with each other?
- What do you think about the topics being covered under the environmental education curriculum?
- Do you check in with your students as to how they feel about the different concepts and the way it is being taught?
- Do you think emotions and feelings have a role to play in the way in which children connect with nature?
- Do you think it will be useful for you to gain awareness of your emotions and explore ways to manage the same?

- Do you think that this module could help you in imparting environmental education in your classroom?
- Have you come across any similar interventions before?
- Any other comments?
- Would you be interested in becoming a part of the pilot workshop?



## 10.2. Annexure II: Nature-Based SEL Framework

The following table details out the key goals and objectives for the nature-based SEL framework.

Chapters	SEL Component	Goals / Objectives of The Journey	Outcomes
<b>Finding oneness with Nature</b>	<b>Self-Awareness</b>	<p>The first part of the module will focus on developing a sense of personal awareness. Teachers and educators will be encouraged to explore their perception of the self, and how that is intertwined with their feelings and emotions. This will then be linked with how they believe nature is contributing to their sense of self-awareness.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Recognizing one’s own emotions and feelings through different nature-based practices.</li> <li>• Creating an image of oneself - based on different values and beliefs about ourselves.</li> <li>• Identifying different external factors that may influence our sense of self - social, cultural, historical, and environmental identity.</li> </ul>	<ul style="list-style-type: none"> <li>• Developing an awareness of one’s own emotion</li> <li>• Developing a sense of personal, social, and environmental identity</li> <li>• Integrating personal, social, and environmental identities.</li> <li>• Identifying one’s emotions toward the community</li> <li>• Identifying one’s emotions towards nature.</li> <li>• Recognizing the influence of social, cultural, and environmental interactions on one’s own emotions</li> <li>• Seeing oneself as a part of nature, and understanding the role of nature on the individual’s sense of identity</li> </ul>

		<ul style="list-style-type: none"> <li>• Exploring how we see ourselves as a part of nature, and how nature defines our identity.</li> </ul>	<ul style="list-style-type: none"> <li>• Developing of personal and emotional connection with nature</li> </ul>
<b>Finding Support in Nature</b>	<b>Self-Management</b>	<p>Once the teachers/educators start becoming more regularly aware of their emotions, in the second stage, the teachers will explore ways of managing different emotions. In this phase, the focus will be on nature-based social-emotional learning, where teachers/educators will explore the connection between their emotions and the nature around them.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Becoming aware of how one manages their emotions in different situations</li> <li>• Recognizing how emotions affect our interactions in different social and environmental settings</li> <li>• Adopting better practices for the management of emotions</li> <li>• Deepening the connection with nature by exploring nature-related practices for managing emotions.</li> </ul>	<ul style="list-style-type: none"> <li>• Managing our emotions in diverse social and environmental settings</li> <li>• Recognition of one’s existing management strategies for emotions</li> <li>• Identifying how the present strategies need to be developed</li> <li>• Setting personal, collective, and environmental goals</li> <li>• Understanding how one’s emotions affect social and environmental interactions</li> <li>• Understanding how nature can support in managing our emotions, thoughts, and feelings.</li> </ul>

<p><b>Finding the ‘Us’ within Nature</b></p>	<p><b>Social and Environmental Awareness</b></p>	<p>In this stage, the teachers and educators begin to place their personal sense of identity and self-awareness within the larger social and environmental context. The focus is to understand how one’s own emotions are influenced by social and environmental interactions and vice versa.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Understanding the characteristics of the community and the environment that gives us a sense of belongingness.</li> <li>• Understanding how one’s own emotions are influenced by social and environmental interactions.</li> <li>• Identifying how social and environmental interactions can influence our emotions.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizing our social and environmental identity</li> <li>• Taking into consideration the perspectives of all beings</li> <li>• Recognizing strengths in all beings</li> <li>• Showing concern, empathy, and compassion for the feelings of other beings</li> <li>• Identifying diverse social and environmental norms, including unjust ones.</li> <li>• Understanding the influences of social, cultural, and environmental systems on personal and collective emotions and behaviour.</li> <li>• Understanding the interaction between different systems (social, personal, cultural, and environmental)</li> </ul>
--	--	--	--

<p><b>Finding the connections with Nature</b></p>	<p><b>Relationship Skills</b></p>	<p>In the fourth stage, the focus shifts from social and environmental awareness, to understanding how one can maintain social and environmental relationships. In this phase, the focus is on exploring how one can establish, maintain and nurture relationships that are integral to their personal, social and environmental identities.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Recognizing the integral network of relationships - at a personal, social and environmental level.</li> <li>• Exploring the influence of these relationships on our identities and emotions.</li> <li>• Acknowledging the importance of these relationships in our lives and understanding how different relationships can be nurtured differently.</li> <li>• Exploring how our social relationships influence our connection and relationship with nature and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>• Developing positive, emotional and sustained social and environmental relationships</li> <li>• Navigating settings with differing social, cultural and environmental demands and scenarios.</li> <li>• Practicing teamwork and collaborative problem-solving for addressing nature-related concerns</li> <li>• Standing up for the rights of all beings</li> <li>• Understanding diversity and practicing inclusivity of all social, emotional and environmental forms</li> </ul>
---	-----------------------------------	--	--

<p><b>How can I Support Nature?</b></p>	<p><b>Responsible Decision Making</b></p>	<p>The final part of the module explores the role of emotions on the decisions we make and vice versa. The idea is to arrive at how one nurtures the ability to make caring and empathetic decisions that have a positive influence on the self, the society and the environment.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Gaining awareness about the impact of our choices on self, the society and the environment.</li> <li>• Understanding the role of empathy and compassion in the decisions we make.</li> <li>• Re-evaluating the ways in which we make decisions in our day-to-day lives.</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying solutions for personal, social and environmental problems</li> <li>• Anticipating and evaluating the consequences of one’s actions on personal, social and environmental wellbeing.</li> <li>• Recognizing how critical thinking skills are useful in an environmental context.</li> <li>• Reflecting on one’s role to promote personal, community and nature’s well-being</li> <li>• Evaluating personal, community, institutional and interbeing impacts</li> <li>• Evaluating the benefits and consequences of various actions for personal, social, and environmental well-being.</li> </ul>
---	---	---	---

### 10.3. Annexure III: Teacher's Reflections – Pilot Program

#### A. Pre-Program Reflections

QUESTIONS	TEACHER 1	TEACHER 2	TEACHER 3	TEACHER 4	TEACHER 5
<p><b>What relationship would you say you share with your emotions presently?</b></p>	<p>Not very pleasant, I guess. I think I'm too judgemental about myself.</p>	<p>I validate and stay with my emotions and observe them. I try to process them instead of distracting myself.</p>	<p>I have a close relationship with my emotions. I am very sensitive to my own emotions as well as those of others, it has always been that way. I'm only now learning how to wield this as a strength, especially in the classroom, with my students, with myself, and my loved ones. For most of my life it has felt like a weakness, however, now I realize it adds a depth and richness to my experience,</p>	<p>Quite aware of emotions of self. Most often my emotions link to specific instances or surroundings. Sometimes it is easy to regulate my feelings and get back into the moment while at other moments it takes longer to pass through those.</p>	<p>Well, I have a deep relationship with my emotions. Whatever emotions I go through, I feel them with high intensity. Sometimes I don't understand why they are there. I am now learning to manage my emotions and seeing them without judging them.</p>

			and my ability to connect with others where they are.		
<b>How often do you check-in with yourselves in a week, as to how you are feeling?</b>	Learning to do it regularly. Off and on	I reflect quite often and do check with myself on most days. I try to let go of the things which are not under my control. On some days I fail though.	Very often. My internal experience of life is just as vivid, if not more, than my outer experience. The emotions I have, the connections my mind makes, the patterns I recognise are all very interesting parts of my internal experience of life. I check in once a day generally, and I have micro check ins with myself whenever I need them	Every morning of the week.	At least once a day. I realized when I check how I am feeling consciously then I see it from a third person's perspective and do not react to it.
<b>Can you recognize the different emotions you</b>	Yes, I think I can	Yes.	I can, generally speaking. Sometimes, it might be harder, so I use other techniques to help me.	Yes, usually I am able to identify how I am feeling and why.	Not always but yes most of the time. What I don't know mostly is why do I

<p><b>have experienced?</b></p>					<p>feel the way I do? Emotions tell us a lot about ourselves.</p>
<p><b>What are some ways in which you manage your diverse emotions?</b></p>	<p>Thinking, overthinking, talking about it to my husband</p>	<p>I usually have the habit of writing down quotes and dialogues which are relatable and resonate with me from books or any series that I have watched. I go back and read them. Cleaning and organizing my surroundings help me manage my emotions and a warm shower. I also talk to my close friends if I'm having a bad day in particular and I'm unable to</p>	<p>Continuing from the previous question - I have a strong relationship with spirituality, and energy-based practices. I have completed my 3rd degree in Reiki. So, if I need a little help with my feelings, I usually do a bit of self-reiki, sometimes some form of meditation (maybe a walking meditation - sitting still is hard for me with my ADHD), or EFT helps a lot too.</p>	<p>Talk to people I trust and self-introspect. Try to look at the positive side of things. If still unable to overcome those then I take time and let my emotions flow.</p>	<p>I talked to a loved one, went for a walk, watched something, listened to music, thought about something else, taking my anger out. But sometimes none of them work.</p>



		manage my emotions on my own			
<b>How would you define your present relationship with nature?</b>	Missing walks/trails in a forest	Still discovering and exploring my relationship with nature. Being in nature and spending time outdoors, going on walks brings a sense of calm and peace which helps me regulate my emotions	I feel deeply connected to nature, its presence is enough to soothe me and remind me of what's 'real' in life - trees, grass, our loved ones, spending time with them, breathing deeply and fully. As opposed to zoom meetings, screens, notifications, and other junk that tends to clutter my mind.	Very close, healing, giving, rejuvenating, nurturing.	I love nature a lot. Nature heals me and keeps me grounded. I have this urge to be in nature now.
<b>What do the terms 'nature learning' and 'emotional learning' mean to you?</b>	Nature learning to me is about exploring all the wonderful things and finding a connection with them. Like I said yesterday,	The ability to be in a space, assimilate what it has to offer, enjoy the beauty of the present, being really present, mindful and aware of	Learning how to identify, manage, and regulate our emotions, connect with others, and maintain social relationships using nature as a medium and guide.	Nature Learning - learning from the very natural way of things, people, environment. Emotional learning - Learning about self-	Nature learning is the one which happens in nature or with nature. Emotional learning where we learn how

	<p>going to a forest feels like coming home. It is very soothing and a meditative experience for me. I remember reading about something called Shinrin Yoku, the Japanese word for forest bathing and I think I have experienced it every single time how calming it is for me. Emotional learning for me is about figuring out about my own self, who I am and how that knowledge about myself can help me in building better</p>	<p>your space, trusting the process of nature and letting go of things which are not under one's control.</p>		<p>emotions, managing them, interpersonal emotions.</p>	<p>to work with our emotions.</p>
--	--	---	--	---	-----------------------------------

	<p>connections with those around me. On a personal level also I have come to realize its importance a lot in the last three four years but as a teacher also I realize how important it is for a teacher to learn how to be there for the young people you meet. There are so many people who need someone to listen to. Adolescence can be a lonely and challenging period. I remember how difficult it was for me and how that period of my life, the</p>				
--	---	--	--	--	--

	emotions and Loneliness I felt then, and low self-esteem continue to affect me even today.				
<b>As a teacher / educator, what role does emotions play in the work you do?</b>	It directly has an impact on the quality of classes/ interactions	Personally, I believe that emotions are what makes us human. It connects us to each other and builds an understanding of everything around us. Without emotions we would be like machines. As an educator, emotions play a huge role in the work that I do. It helps me connect with my children. I facilitate and	I work with students from grades 1 to 8, and I find that I connect best with students when I am able to meet them halfway. This means if I'm conducting an interactive class, and one of my students tells me not feeling so good, I can empathize with that and offer them an alternate way of participating with the class which might be less social. It also means I'm aware of how my emotions	Very important. I need to connect with the emotions of my learners, their interest, curiosity, boredom, pace of absorption to connect with them for exchange of knowledge. Their emotional readiness allows them to be open to learning and they cannot be pushed into it. Giving their emotions time and	The work that I do has everything to do with connections. And emotions are an integral part of us hence they affect the connection or relationships because they affect you.

		<p>cater to the needs of very young children (20 months to 6 /7 years). My role is to positively and sensitively help my children in their transitions from Home to School environment, to build the trust so that they feel safe and belonged. To provide a space where they can be who they are without any prejudices, to hold space for them in the time of chaos, to provide a scaffolding when they have difficulties in understanding and</p>	<p>might affect them, on days I don't feel too good, I make sure to be a little extra kind with them as well as myself, and give them the benefit of the doubt if needed, or defer any decisions (about marks, assignments, indiscipline) to the next day where I am feeling more like myself so I can try to act according to my values as much as possible.</p>	<p>space to learn naturally by observing and exploring</p>	
--	--	--	---	--	--

		<p>learning, to give them the words to express themselves, to be patient and observe them in order to understand their developmental needs which includes physical, mental, social and emotional needs. As an individual, I strongly believe that whether it is children or adults, both will thrive and flourish in an environment where an individual is respected, accepted for who they are without any judgment and where they have the</p>			
--	--	--	--	--	--

		opportunity to learn together, grow together and contribute together.			
<b>Do you incorporate nature learning and emotional learning in your teaching-learning approaches? If yes, in what ways do you do the same?</b>	<p>In higher classes we do occasionally have conversations about emotions, sometimes with the help of a story or sometimes Just discussion.</p> <p>Though these conversations are not as often as I would like them to be. I do feel I should be better equipped to have these conversations with young adults</p>		<p>Yes, I take my students into the open lawns we have on campus for classes, when the weather is good. I try to incorporate physical movement, it helps with students of all ages to release some energy, and it's fun to be outside under the sun rather than in a class all day, even for me.</p>	<p>Letting learning take place naturally without following a set process.</p>	<p>Nature learning: I want to but I have not been able to. I am not sure what emotional learning is but i pay a lot of attention on student's emotions as I talk to them about it and listen to them. I also feel that the spaces should be given to them to learn to understand their emotions and help them to discover ways to deal with their emotions.</p>

<p><b>What are your key expectations from this program?</b></p>	<p>Still curious what it is going to be like. Looking forward to learning anything that is about nature or about emotional well-being</p>	<p>I'm Looking forward to spending my time with each one of you and learning and taking it forward in my journey.</p>	<ul style="list-style-type: none"> <li>• Understanding ways of managing my stress and emotions as a teacher</li> <li>• Meeting like-minded educators who love nature, understand the importance of one's emotions, and care for the students the way I do</li> <li>• Building and nurturing this little community of educators</li> </ul>	<p>Understand the program and the details of it. I have a conviction that such a program will really help the teachers and their students</p>	<p>To understand more about socio-emotional aspects of learning. To understand more about my challenges and how to deal with them. To find tools for my social emotional learning for myself and students. To learn from others in the group.</p>
---	---	---	---	---	---



## B. Goal-Setting Exercise

In the second session participants were encouraged to explore how they see the three core areas we are looking at in this program - our emotions, process of knowledge creation and sharing, and our relationship with nature - supporting your overall personal, social and environmental wellbeing. While reflecting, they also explored and shared what these different terms mean: Personal Well-Being, Social Well-Being and Environmental Well-Being.

### TEACHER 2 - RESPONSE:

	<b>Personal Well Being</b>	<b>Social Wellbeing</b>	<b>Environmental Wellbeing</b>
<b>Emotions</b>	To be able to validate, process and stay with my emotions and let them pass.	To be aware of not letting my emotions affect the people around me.	To be mindful of the choices that I make while being in nature.
<b>Knowledge creation and sharing</b>	Observe, understand, and learn how different each living being is and how differently each one will express their emotions	To create awareness on what role nature plays in our wellbeing (Includes social, emotional and physical)	To help children and adults reconnect with nature. To understand the implications of our actions on nature and to be mindful.
<b>Relationship with Nature</b>	To spend more time outdoors, go on walks, to learn more about the flora and fauna of my region and understand Simple sustainable living	To engage and connect with people and gain insights from their experiences with nature.	Two quotes I came across recently made me think,” We have borrowed our land from our children, let's hand it over to them in better shape”. “What is your and your child’s relationship with the real world?”

## TEACHER 3 - RESPONSE:



**A. Reflections from Session conducted on Self-Awareness (Finding Oneness with Nature)**

<b>QUESTIONS</b>	<b>TEACHER 1</b>	<b>TEACHER 2</b>
<p><b>What were your expectations from this session, prior to joining?</b></p>	<p>I had no expectations, honestly. However, the previous sessions were very interesting so I knew this one would be too.</p>	<p>I wasn't very sure about joining this session as I was traveling so my only expectation was that I be allowed to join on listening mode so I am very happy that I could attend it. I have been on this journey of self exploration and knowing myself since the last 5 to 6 years. There is a lot that I have unlearned to be a better person. I think a lot of growth has happened in the last 5 years but I think it is just the beginning and I am yet to learn so much more. But for starters one thing I want to learn is how to not beat myself up and also not let others affect me so much. So, I was hoping to hear something connected with that.</p>
<p><b>How was the experience for you, personally, in this session? And as a teacher?</b></p>	<p>Well, the session started off with us drawing and adding colours as per the prompts that were given. It was extremely helpful in recognizing how we see certain aspects of ourselves and our emotions.</p>	<p>I attended it while traveling but I still enjoyed every bit of it. While attending these two sessions I was thinking how wonderful it would be if we had such spaces to share even at our workplace. I am sure that all the work places will have some challenges and difficult people but I wish there was some support system everywhere. As teachers deal with young people, I think it is very important that we know who we are</p>

		<p>to be able to be there for our students. I think there are not enough safe spaces for teachers to be vulnerable. We are required to ‘know it all’ but that puts a lot of pressure. The session helped me see how we all are flawed humans with our own concerns on which we all are working and it is important to remember that we are a work in progress.</p>
<p><b>What were your key learnings from this session? How did these learnings make you feel?</b></p>	<p>I counted all of my blessings in this particular exercise.</p>	<p>I have been reading about the importance of mindfulness and self-awareness and like I said in the session, I tend to be very harsh with myself. While attending the session and hearing others talk, I realized how it is difficult for everyone and we all are looking for answers, ways to deal with things that are difficult for us. I think the practice of pausing and reflecting is very important to have a better perspective about things.</p>
<p><b>Do you think nature can contribute to our sense of self-awareness? If so, how?</b></p>	<p>Absolutely. There's so much you can learn from nature. If you observe it and spend some time outdoors, it has such wisdom that every tiny detail can teach you so much about life.</p>	<p>I think in the last five - years nature has played a key role in my life in bringing awareness about what I want from life and what my strengths are.</p>

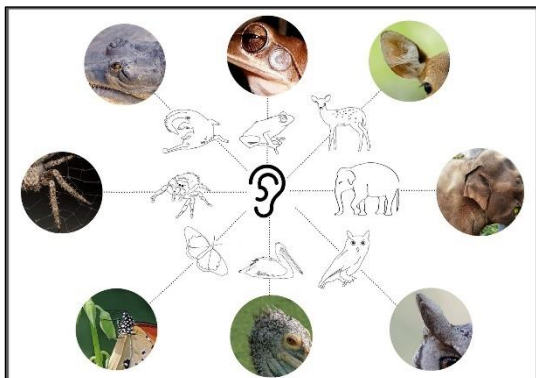
<p><b>From the practices, what linkages do you draw between your personal sense of self-awareness and environmental identity?</b></p>		<p>Everything that we do, every choice that we make has consequences on the world around us. If I am more conscious about my choices maybe wherever I am there can be at least a little difference. Some people say individual actions don't account for much but I have learnt that they do.</p>
<p><b>Any other feedback / suggestions / comments - regarding session content, facilitator, overall interactions etc.</b></p>		<p>The conversations in the sessions are enriching. I am just happy I happened to see the post about these sessions and found courage to fill the form.</p>

**B. Reflections from Session conducted on Self-Management (Finding Support in Nature)**

<p><b>QUESTIONS</b></p>	<p><b>TEACHER 1</b></p>
<p><b>What were your expectations from this session, prior to joining?</b></p>	<p>I was hoping to explore some strategies that would help me in not giving too much attention to what others say and find strength in being true to myself. And the session did meet my expectations. It was very helpful.</p>
<p><b>How was the experience for you, personally, in this session? And as a teacher?</b></p>	<p>I really enjoyed the session. It was meditative.</p>
<p><b>What were your key learnings from this session? How did these learnings make you feel?</b></p>	<p>It made me feel light and wonderful about myself. I learnt so many different ways in which I can cope with stress. Plus, I also realized that some of the practices that I already do are useful as well. I used to think I don't put effort on my own to resolve things but I realized that there are certain things that I do but don't acknowledge my effort.</p>

<p><b>What meaning and value do you associate with self-management, post the session? And how do you see yourself practicing it in your everyday life?</b></p>	<p>I have been wanting to start journaling but haven't really started it. The guided activity helped me a lot in doing it meaningfully. The tools were useful and maybe I will use them for myself. NVC is also something which has been very helpful in understanding myself and people around me. I came across it only two years back and I think it will take a while to internalize it.</p>
<p><b>Do you think nature can support us in managing our emotions? If yes or no, how?</b></p>	<p>Yes, it can. This question reminds me of 'Shinrin Yoku' - forest bathing. Just being surrounded by trees makes me feel nice. Hugging a tree makes one feel even better. In all, noticing birds, insects, squirrels it just helps me remember how wonderful the world is. It acts as an anchor sometimes when I feel lost.</p>
<p><b>Any other feedback / suggestions / comments - regarding session content, facilitator, overall interactions etc.</b></p>	<p>The third and the fourth sessions were lovely. Just want to express gratitude to the facilitator for creating this space and being kind and patient with us. Her and the participants enthusiasm is contagious. Very happy to be a part of this group.</p>

## 10.4. Annexure IV: 'Our Senses' Resource



### HEARING

We can hear sounds with our ears. What do other creatures use to listen to sounds around them? What do these hearing organs look like?

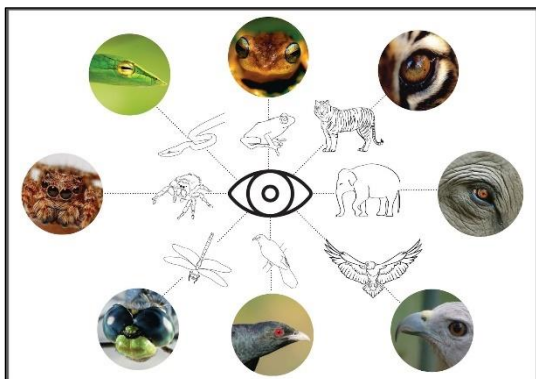
- Can you name the different animals you see on the chart?
- Do all animals have the same kind of ears? If not, how are they different?
- How do you think each of these animals use their sense of hearing?
- Is there a link between the size of their ears and their hearing?
- Is it different from how you can hear sounds? If so, how?

Did you know that snakes do not have an external ear? They have an inner ear that is connected to the jaw which helps them sense vibrations when they slither on the ground.

#### TRY THIS OUT!

- Can you think of the different animal sounds you may have heard around you? Imitate these sounds for your friends. See if they can guess which animal it is?
- Close your eyes and listen to the sounds around you. Share with your friends the different sounds you heard. Who or what was making these sounds? How did it make you feel?
- Now close your ears and eyes. What could you sense around you? How did it make you feel?

*Note for teachers: Try to initiate discussions around being differently abled. Ask students - how would they interact with and support people who may find it difficult to hear? How would they share their observations from the above activities with them? Discuss ways to practice inclusivity in every day life (e.g. storytelling, art, theatre etc.)*



### SIGHT

We use our eyes to look at every thing around us. How do other creatures use their eyes to look around? Do they all have the same number of eyes as us?

- Can you name the different animals you see on the chart?
- How do you think these animals use their eyes?
- Which of the animals have their eyes in front or on the sides of their head? How do you think this helps them?
- Do all the animals use their eyes in the same way?
- How is it different from the way you see the world?
- Do you know of any other animals that have a unique sense of sight? (e.g., bats - heightened sense of hearing)

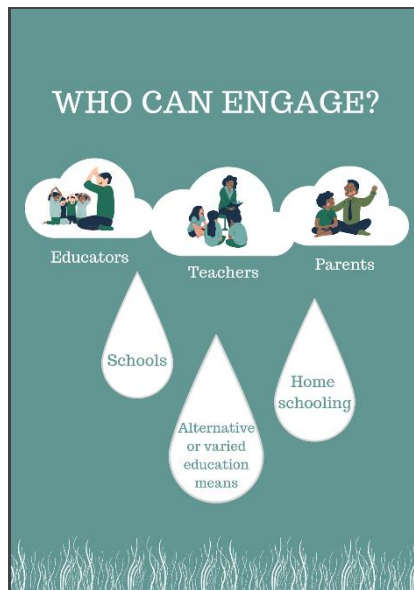
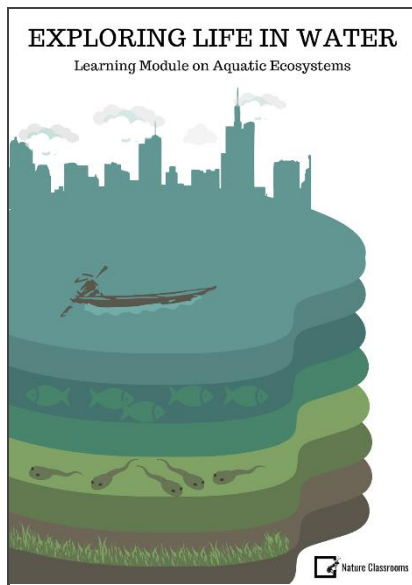
#### TRY THIS OUT!

Most birds have their eyes on the sides of their head. Their eyes can focus on two different things at the same time. Since their eyes are fixed, they have to move their neck to look around!

- Look around! Can you spot any birds around you?
- Notice where their eyes are placed.
- Spend some time observing how they look around. Share your observations.
- Standing at a spot, try to observe as many things around you as possible without moving your neck. Now move your neck and look around. How was it different?

*Note for teachers: Try to initiate discussions around being differently abled. Ask students - how would they interact with and support people who may find it difficult to see? How would they share their observations from the above activities with them? Discuss ways to practice inclusivity in every day life (e.g. storytelling, art, theatre etc.)*

## 10.5. Annexure V: Snippets from the Water Module



### Level 1

Water on earth is many things. It is an ecosystem, it is a home to many flora and fauna, it is a source of livelihood for human-communities, it is an energy resource and more. In this level, students will learn that water-bodies are a habitat for several creatures and how different species live in water.

**Nature Learning Goals**

- Wonder
- Curiosity
- Observations
- Fun

### 1. Where Can We Find Water?

I-II      2

#### 1.1.1

**Objective**  
Children will recall and describe their observations of water-bodies around them.

**Lesson Plan**

- Gather children into a circle and begin a conversation on whether they spotted any water-bodies on their way to school. These could be lakes, rivers, drains, puddles, etc. Ask them what is the largest body of water they have ever seen (sea, ocean, lake, river) and what is the smallest body of water they have seen (puddle, pond).
- Read out the story- 'Tip-Tip on the Tree-top'.
- What might live in trees? What might live in little water-bodies within trees?
  - How long will the water-body last in the tree?
  - What will happen to the water-body in the tree over time?
  - What will happen to life in the water-body when it disappears?



**10.6. Annexure VI: Snapshots from the Workshop in Pachmarhi**

