

## **Nature's Impact Upon Children**

**PRITISHRI PARHI**

Professor

Department of Human Development and Family Studies, College of Community Science,  
Odisha University of Agriculture and Technology, Bhubaneswar (Odisha) India

### **ABSTRACT**

The review article "Nature's Impact Upon Children" is written by following narrative review style which has covered aspects like the present scenario of children's connection with nature, along with how come they are being benefited when they are getting connected with nature, and the very strategies that can be thought for basing upon the reasons of children's disconnectedness with nature which will facilitate, accelerate, stimulate the virgin mind for a better tomorrow, where the human society will get right dividend, at the right time, in a right manner and all that for a right cause or purpose by instilling a right feeling/attitude towards preserving the natural resource, maintaining biodiversity, caring for flora and fauna without jeopardizing the ecological balance in any way leaving no stone unturned in safeguarding the world from hazardous and catastrophic effect of climate change in days to come for a healthy, green, clean, safe environment for all of us to live life, so beautifully, so enchantingly and so dearly in all possible dimensions.

**Key Words :** Nature, Children, Natural resource

### **INTRODUCTION**

If we look back to our past, then we all will be agree that from the begin of our lives to the beginning of our lives, the first encounter in each one's life is nature or any kind of natural objects which imprints in our mind so deeply, so differently and so dearly that we cherish it all through out in our lives. It could be tree, flower, river, sky, forest, hills or hillocks, pets, pond, fruits and many more. But then what about our parents? Our so dear mother, father and other kith and kins. Are they not part of nature? Yes, they do, but human activities are often understood as separate category of natural phenomena. Then what is nature perse ?

As viewed, as understood and as perceived by majority of us, all the plants and animals in the universe and all the things that happen in it that are not made or caused by people constitute nature. The word nature and natural are used for all the things that are not made by human beings. Things like weather, organism, land,

celestial bodies and much more are part of nature. Nature is defined as nature earth and the things in it. The trees, forests, birds and animals are all the example of nature. Thus, the term nature refers to the natural environment or wilderness-wild animals, rock, forest, beaches, and general areas that have not been substantially altered by human beings" (Fjortoft, 2001).

According to Dowdell *et al.* (2011) as we grow gradually from infant stage through childhood stage, adolescence stage and adulthood stage and finally to old stage, our experiences with nature gradually get mixed with artificial environment or objects and hence question our love and attachment with nature. Our deep, careful and age old observation over natural objects and natural phenomena reminds us that we all are encountered with and enriched by the envelope of nature in all possible dimensions.

#### **What is the present scenario?:**

With the advancement of science and technology

and through globalization, urbanization, economic liberalization, electronic connectivity across the world around, dominated by concrete jungle squeeze the wood land, wet land put challenge for all of us while threatening the very biodiversity of flora and fauna.

The major domains of human behaviour *i.e.* cognitive, affective and psycho-motor domain, which shape's an individuals personality in social and psychological plane starts right from the first stage of human growth and development is again subjected to various factor like social, culture, economic, hereditary and of course environmental factors. In the context of environment we all agree that it is jacketed with nature in all fronts (Tillmann *et al.*, 2018).

Thus, it is in this context and background, it is thought necessary to review various research articles pertaining to effect of nature on various domains of child's behaviour, and that effect will form a strong foundation for his further growth and development in later stages where he will be able to contribute immensely to the society and at the same time develop all the desirable qualities of a perfect, complete and noble person in his community or neighborhood as the case me.

Out of various forms of review such as narrative review, systematic review and meta-analysis, narrative review style was choosen for the study entitled "*Nature's Impact and Children*" with an objective to explain the existing knowledge on the topic based on the published research articles available on the topic relating to

- Association, contact, accessibility, exploration, exposure and connectedness of children with nature.
- Different forms/designs/ techniques/methods of Children– Nature Relationship.
- Impact of such intimacy or relationship of nature upon the children upon various behavioural components.
- Consequences of Nature's contact and related derived benefits if any.

#### **Benefits of children's contact with nature:**

Helps children's understanding of their place in the world, their knowledge of nature is greatly facilitated through contact with nature (Maller, 2009).

Contact with nature develops children's cognitive, emotional and spiritual connection to the social and biophysical world around them (Maller, 2009).

The benefits of unstructured activities for children's mental, emotional and social health found to be associated with children's individual, self-directed experiences in

nature as opposed to those activities where they are directed by adults (Maller, 2009)

Children establish a connection with nature as a result of their own discovery. (Maller, 2009).

The benefits of experiential learning in natural environment is influenced by the spaces, spontaneity and privacy linked with the informal play (Maller, 2009).

Sense of achievement, self-confidence, self-esteem, sensory engagement, engagement with school, care and connectedness to others, freedom and creativity and stress relief like mental, emotional and social health of children are greatly improved through contact with nature. (Maller, 2009).

Children living in relatively "green apartment buildings" (those with views of trees and gree space) exhibited superior attention capacities than children living in non-green apartment (Strife and Downey, 2009).

The positive and frequent experiences in nature during childhood influence environmental career choices and environmental concerns among adults regardless of their cultural background or racial and socio-economic status (Strife and Downey, 2009).

Increased contact with nature is associated with positive attributes of children's health, behaviour and learning. They are:

1. There is a decreased risk of children being overweight when more nature is present in their neighborhood.
2. Playing in natural environments assist with building children's motor skills.
3. Nature contact enhances children's learning and development.
4. Programmes increasing nature contact have identified beneficial effect on children's personality development, cognitive functioning, attitude and school behaviour.
5. Contact with nature especially during middle childhood has been indicated as having an important role to play in childrens's mental health.
6. Children's manage stress better when they have more contact with nature.
7. Children displaying delinquent behaviour benefit from nature based programme such as wilderness camp (Martin, 2011).

When children's are asked to think of their favourite places, they often describe natural environments and associate them with feelings of calmness and being

relaxed (Chawla, 2014).

Living near nature or having green school yards is associated with less stress and higher psychological wellbeing among children (Chawla *et al.*, 2014)

Vast majority of adult's environmentalists had spent their childhood days in close connection with nature and in wild life habitants (Ceylan, 2018).

It has been reported that education programme involving outdoor activity at early childhood period developed cognitive, socio-emotional and physical-motor skills, awareness, identifying cause-effect relations, observation skills, creative thinking skill, concentration and imagination of learners are greatly facilitated (Ceylan, 2018).

The various types of intelligence such as linguistic intelligence, visual intelligence, mathematical intelligence, kinesthetic intelligence, social intelligence, intra-personal intelligence, naturalistic intelligence and musical intelligence level are increased through various activities and experiences made in nature (Ceylan, 2018).

Interacting with nature is positively associated with the mental health of children and teenagers (Tillmann *et al.*, 2018)

As a framework of understanding, curious play gives primacy to the role of curiosity as a motivating factor for children's free play. It opens the door to understand children's free play in nature as an exploration of their bodily possibilities and limitations through interaction with their physical, social, and cultural surroundings. From this perspective, children's quest for existential knowledge about both their environment and themselves is a core driving force in their lives.

There are also immediate benefit from spending time with nature such as higher positive affect, increased energy and less anger (Dopko *et al.*, 2019).

### **Reasons for children's disconnectedness with nature:**

Increasing innovations and modernization has led environments devoid of nature. Not only are nature based areas such as wet lands and bush lands threatened by urban development but concerns about maintenance cost, water conservation, safety and liability fears are stripping away nature from neighborhoods. Grass is being replaced by paving being felled to avoid falling branches, and landscapes are being left bared. In addition to this children are discouraged from embarking from adventures to parks and fields due to septik concerns by parents (Martin,

2011).

In an increasingly modern society; accessing electronic devices and valuing them as inseparable parts of everyday life has gained a rising popularity among children. In parallel with extension of time dedicated to electronic devices, the length of time children could spend outside playing with their peers has almost decrease to zero (Ceylan, 2018).

Global researches highlight that various causes accounting for the decreasing children's mobility level and engaging in outdoor games are heavy traffic, fewer play grounds, and the lesser no. of social contacts with neighbor (Ceylan, 2018).

Majority of the families have witnessed that recently natural habitant shed its former gravity as an independent play and social meeting centres for their kids (Ceylan, 2018).

Less contact with nature and play time triggered adverse effect on children's; physical and mental development and distortion in children's attitudes and conceptions about major ecological relations led to a weaker environmental awareness and commitment for nature (Ceylan, 2018).

It is also argued that disconnection with nature, woods and mountains during childhood stage could result in higher apathy for nature and lower empathy for the negative environmental transformation (Ceylan, 2018).

### **How to promote children's contact with nature:**

Nature connectedness activities can also be designed for school children in order to develop their interest and understanding related to natural objects by way of displaying natural objects and setting criterion for inclusion of type of natural objects. Like things clearly in animates, once living plants, once living animals, living plants, fungi/microbes and living animals (Tomkins and Tunnicliffe, 2007)

By observing children's activities in natural environment can give important information relating to the various key factors of children's animacy, children's intrinsic quest for understanding, the source of their ideals, their development of scientific skills and their wonder and aesthetic sense making a choice (Tomkins and Tunnicliffe, 2007)

Children are attracted most towards items with an animate or novel nature or appearance, or for which they have some prior familiarity. Items are also attractive for children if they have aesthetic attributes, which display

some responsiveness to the child or engage with child's previous experience, or elicit affective feeling (Tomkins and Tunnicliffe, 2007)

The unstructured activities for example a full play in a school garden or nature reserve with or without other children where children are not necessarily supervised by adults or if so their play is not directed by adults. In this type of activity children can exercise their will to manipulate and discover the environment as to wish (Maller, 2009).

Working in a vegetable garden, restoring native habitat and building a wet land on the school ground (Maller, 2009).

Simple activities found more appropriate for younger children and complex activities are more suitable for older children (Maller, 2009).

Sometimes structural activities do benefit children's learning over unstructured learning activities (Maller, 2009).

Children benefit from nature activity was an increased in children self-confidence through experiencing success (Maller, 2009).

The type of experience with nature can be promoted through vicarious or symbolic experience which does not involve contact with actual living organism and environment but rather with the image representation of nature (Maller, 2009).

Vicarious experiences have become more predominant in children's life through various means such as books and other print media, radio, television, film and computer (Maller, 2009).

The qualities of significance nature situation towards which children can be exposed are

1. **Entertainment:** Nature-situation that are fun, joyful, amazing or enjoyable.
2. **Thought provocation:** Nature-situation that create new ways of conceiving human nature interaction.
3. **Intimacy:** Nature-situation that are private and intimate and allow a personal experience with nature.
4. **Awesome:** Nature-situation that are assuming, of over-whelming attraction, or mesmerizing that create a who effect.
5. **Mindfulness:** Nature-situation that group children's focus and alertness, that make children be in the flow.
6. **Surprise:** Nature-situations that are

unpredictable or unexpected.

7. **Creative expression:** Nature-situations that involve arts and myths, stories, music, or role play.
8. **Physical activity:** Nature-situation that require body movement or any form of physical activity.
9. **Engagement of senses:** Nature-situations that activate children's senses *i.e.* touch, smell, hearing.
10. **Involvement of mentors:** Nature-situations that involve teachers, experts, relatives towards capable of inspiring, encouraging or leading the nature experiences for the child.
11. **Involvement of animals:** Nature-situations that involve interaction with animals.
12. **Social-cultural endorsement:** Nature-situations that involve positive peer pressure, support from significant esteem, social acceptance or cultural reinforcement.
13. **Structure / instruction:** Nature-situations characterized by a set of rules that defined the frame within which the child can act.
14. **Child driven:** Nature-situations that are chosen the child, child initiated.
15. **Challenge:** Nature-situations in which children overcome psychologically or physically adverse condition such as fear or cold.
16. **Self-restoration:** Nature-situation of psychological, physical or social relief. For exam-relief from stress and fatigue (Giusti *et al.*, 2018).
17. There are three phases of human nature connection such as (i) being in nature, (ii) being with nature and (iii) being for nature. Being in nature linked activities are mostly child revealed characterized by engagement of senses, awe, physical activity which are not very much structured, similarly being for nature related activities are mostly characterized by thought provocation, social/cultural endorsement, and very much structured and less by physical activity or entertainment. Being with nature is characterized by knowing about nature, recalling memories with nature, activity with natural spaces, feeling attached to natural spaces and reading natural spaces (Giusti *et al.*, 2018).

There are roughly 10 abilities of human nature connections which are as follows :

Sr. No.	Abilities of HNC	Brief description
1.	Feeling comfortable in natural spaces.	The child demonstrates ease in natural spaces and feels comfortable with natural elements in the outdoors (forexm. Dirt, mud, rain, or the sun.)
2.	Reading natural spaces	The child is able to see the possibilities for action in natural spaces that are not purposefully designed by man.
3.	Acting in natural spaces	The child is able to perform the activities in nature, for ex- nature playing, camping or outdoor sports in nature.
4.	Feeling attached to natural spaces	The child shows a sense of belonging to specific natural spaces to which they feel part of
5.	Knowing about nature	The child demonstrates knowledge of animals, plants and ecological dynamics.
6.	Being curious about nature	The child shows interest and motivation in exploring nature.
7.	Recalling memories with nature	The child is able to recall past nature experience sand tell stories of live experiences with nature.
8.	Taking care of nature	The child is able to be responsible for nature and feels empowered to act for the wellbeing of nature.
9.	Caring about nature	The child is able to feel cared, concerned, sensitivity, empathy, and respect for nature.
10.	Being one with nature	The child is able to identify with nature and has a sense of profound, personal attachment to nature that can be described as spiritual. Love for nature, humbleness in relation to nature and assuming to be a small part of the immensity of nature are manifestation of these abilities (Giusti <i>et al.</i> , 2018)

**According to Ceylan, M. (2018)**

1. Meeting children with nature should be valued that one of the most significant life events for a child.
2. The time children spend outside is by no means a waste of time rather it is an invaluable investment for their well-being.
3. Nature, is in a sense the antidote of stress, nature activities should not only be addressed to children and but also to children and their parents as well.
4. Plants and animals should decidedly integrated

to children’s life.

However direct experiences *i.e.* actual physical contact with plants and animals and physically being in natural settings sometimes need to be restricted to avoid encounters with wild animals, poisonous snakes and other such dangerous species.

**Conclusion:**

After reviewing the various findings of the study conducted by the research community, can be suggest that let us love, nature, care nature, get the benefit by planting tree, creating dense forest which will save our lives from the hazards effects of air pollution, sound pollution, water pollution, soil erosion, and thus creating a healthy and beautiful life to live upon mother earth. To achieve all these a right kind of attitude can be inculcated in the virgin minds of children in favour of nature through designing nature based activities both in the school by the teachers and in the home by the parents and other family member so that these children will be able to live a meaningful, beautiful, eventful, blissful, enchanting and colorful life in days to come in their professional, personal social and domestic front.

**REFERENCES**

Ceylan, M. (2018), Effect of nature activities education programme on the multiple intelligence level of children in the age group of 8-12 years. *Academic J. , Educational Res. & Rev.*, **13** (10) : 365-374, 23<sup>rd</sup> May, 2018.

Chawla, L. (2014). Children’s engagement with the natural world as a ground for healing. In K.G. Tidball, & M. E. Krasny (Eds.) *Greening in the red zone: Disaster, resilience, and community greening* (pp. 111-124), Dordrecht, Netherlands: Springer.

Chawla, L., Keena, K. Pevec, I. and Stanley, E. (2014). Green schoolyards as havens from stress and resources for resilience in childhood and adolescence. *Health & Place*, **28** : 1-13.

Dowdell, K. Gray, T. and Malone, (K. 2011) Nature and its Influence on Children’s Outdoor Play. *Australian J. Outdoor Education*, **15**(2) : 24-35

Fjortoft, I. (2001). The Natural Environment as a Playground for Children: The Impact of Outdoor Play Activities in Pre-Primary School Children. *Early Childhood Education J.*, **29**(2): 111-117.

Giusti, M., Svane, U., Raymond, C.M. and Beery, T. H. (2018). A Framework to assess where and how children connect to

- nature. *Frontiers in Psychology*, **8** : 1-18.
- Gurholt, K.P. and Sanderud, J.R. (2018) Curious Play: Children's exploration of nature unpublished research papers, Deptt. of Physical Education and Pedagogy, Norwegian School of Sport Sciences Norway.
- Martin, K. (2011). "Putting nature back in to nature". The benefits of nature for children. A literature Review prepared for the Department of sports and Recreation, Government of Australia.
- Maller, C. J. (2009). Promoting children's mental, emotional and social health through contact with nature: A model, *Health Education*, **109**(6) : 522-543.
- Strife, S. and Downey, L. (2009). Childhood Development and access to nature, *Organ Environ.*, **22** (1) : 99-122.
- Tillmann, S., Clark, A.F. and Gilliland, J. A. 2018, Children and Nature: Linking of Accessibility of Natural Environments and Children's Health-Related Quality of Life, *Internat. J. Environmental Research & Public Health*, **15**, 1072, doi: 10.3390/ijerph15061072
- Tillmann, S., Tobin, D., Avison, W. and Gilliland, J. - Mental health benefits of interactions with nature in children and teenagers; A systematic Review- *Epidemiol Community Health* page 1-7, doi:10.1136/jech-2018-210436
- Tomkins, S. and Tunnicliffe, S.D. 2007- Nature Tables: Stimulating Children's Interest in Natural Objects; *JBE* vol.**41** (4), Autumn 2007 pp. 150-155.

\*\*\*\*\*