

## **Fostering Community Engagement through Eco Cinema: An Environment Advocacy Intervention for Wetland Conservation In India**

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### **Abstract**

Conservation of wetlands ecosystems is a key part of environmental conservation as they are ecosystems of high productivity and value. Wetlands sustain forty percent of all the species in the world, as they live and breed in the wetlands. Around one billion humans directly or indirectly depend on wetlands for their livelihood. Wetlands contribute in a significant manner to the sourcing of genetic resources for medicines, apart from being vital sources for food and raw materials. Yet, the global rate of disappearance of wetlands is threefold higher than that of forests. Nearly 35 percent of wetlands have been degraded or lost forever due to various reasons (UNEP, 2022). Wetlands cover nearly 4.6 percent of India's total land area. They cover a total area of about 15.26 million hectares of the country. India also has 49 Ramsar sites (10,93,636 hectares), which is the highest in South Asia. Dhanauri inland wetland is in northern India, close to the capital city of New Delhi. It is a proposed Ramsar site and nurtures about 211 distinct species of waterbirds, which also includes the Sarus Crane, which according to the red list of IUCN is a vulnerable species. The Sarus crane is the largest flying bird in India. Dhanauri Wetland is also one of the biggest habitats for sarus cranes in the region. The wetland is particularly at risk due to excessive waste and pollution by the community, the incessant growth of water hyacinth, and groundwater depletion.

Effective public awareness campaigns for wetlands governance are necessary for the continued sustainability of wetlands. (Zebardast et al. 2020). The studies on eco-tourism, aquatic species, the effects of urbanisation, and community engagement on wetlands have been few (Roy et al., 2022). Environmental education and awareness through eco-cinema can form an effective, pluralist environmental discourse towards understanding of wetland conservations, stimulating a sense of spontaneous awareness (Rust et al., 2015; Rust et al., 2012; Rust et al., 2022), and creating powerful

ambassadors for biodiversity and ecosystem conservation (Shah and Atisa, 2021). This study is part of ongoing mixed-methods participatory action research with the local agrarian community, youth leaders, and women to increase awareness for conservation, wise use, and restoration of wetlands. The study seeks to answer the question: Does eco-cinema inspire viewers to behave and think eco critically? Could environmentally conscious filmmaking necessarily enhance community awareness and eco-consciousness?

Multiple screenings of select eco-cinema content, sensitization workshops, focus group discussions, and Photovoice method exercises were done with the community members to measure their awareness levels towards conservation of wetland. The overarching framework of the Environmental Citizenship Model (Hungerford and Volk, 1990) has also been used to evaluate engagement. The preliminary findings show the bearing of ownership variables among the members of the community. These ownership variables include in-depth knowledge, personal tenacity, and resolve. The entry-level variables, such as broad sensitivity and an understanding of the environment, have also been measured at a satisfactory level. This research presents societally advantageous research outcomes, which can be highly significant for environmental restoration advocacy planning.

**Keywords:** Environmental Citizenry, Eco Cinema, Photovoice, Community Participation, Wetland Conservation, Media Advocacy

## **Introduction**

Wetlands are present in every part of the globe, including every climatic zone. The wetland consists of mangroves, peatlands and marshes, rivers and lakes, deltas, rice fields, and coral reefs, and it is estimated that around 50% of the world's wetlands have been destroyed in the last fifty years. Globally, various scholars have tried to bring together and share the learning and methodologies for holistic, ecosystem-led resilience building; however, eco-conservation studies on wetlands from the global south are significantly less. The United Nations Decade of Action on Ecosystem Restoration 2021–2030 is an appeal for action for the protection and revitalization of ecosystems worldwide, for the benefit of both people and the environment. “It aims to halt ecosystem degradation and restore ecosystems to meet global goals such as SDG 2 (zero hunger), SDG 13 (climate action), and SDG 15 (life on land).” Wetlands are widely acknowledged as the most biologically diverse ecosystems, contributing to climatic resilience as well as environmental, social, and economic sustainability (Andy

and Mike 2003). They operate as a natural sponge against flooding and drought, and they contribute to the fight against climate change. Wetlands are areas where the soil is completely submerged in water throughout the year. Wetlands, which support both terrestrial and aquatic species, are critical to the preservation of numerous natural cycles as well as the sustenance of a varied spectrum of species. Often dubbed waste areas, the wetlands provide benefits that no other ecosystem can. These benefits include improvement of natural water quality, flood protection, coastline erosion prevention, recreational activities, recycling of nutrients, aesthetic opportunities, and free natural goods. Wetlands naturally cycle greenhouse gases such as carbon dioxide and methane. So, wetlands act as carbon sinks and thus help us combat climate change and global warming. Inland wetlands like lakes, ponds, and swamps are where most of the freshwater that humans use originates. The social importance of wetlands is also enormous. In India, many religious and social rituals are performed in and around the wetlands.

They are often coined as ecologically subsidized wonders. But they are becoming impoverished ecosystems due to human activity and climate change. Wetland-dependent species are disappearing at an alarming rate, with 36% of them facing extinction. (Zribi et al., 2020). Converting wetlands into agricultural cultivation is a common strategy for increasing food production. This diminishes their extent and may limit the benefits provided by wetlands. Furthermore, increased pesticide use may damage water quality.

Dhanauri wetland in Uttar Pradesh (northern province), India, is home to thousands of winter migratory birds along with a sizable population of the resident Saras Crane, which is recognised as the state bird of the Uttar Pradesh province of India. Sarus cranes, which are a "vulnerable species" according to the IUCN Red List of Threatened Species, breed in enormous numbers in Dhanauri wetland. Dhanauri is the largest breeding ground for this magnificent species in northern India. (Birdlife International, 2016). Efforts are being made by the forest department to get Dhanauri listed as a Ramsar site (a wetland of international importance) and a Sarus crane sanctuary. The agrarian community lives in the close vicinity of Dhanauri wetland, The agrarian community residing around Dhanauri wetland primarily inhabits four villages that surround the marsh. These villages are Dhanauri, Thasrana, Bhatta, and Amipur. These villages come under the administration of Gautam Buddha Nagar district of Uttar Pradesh (northern province). Individuals living in these villages are members of many social castes, although the majority are part of the Bhati Rajput community and as their population grows, it has started to exert severe pressure on the wetland. The increasing usage of pesticides has begun to pose a significant risk to the birds, particularly the Sarus crane, which

frequently nests in nearby agriculture fields. Ironically, the members of the farming community have been the custodians of the Saras crane for generations. Saras is respected greatly by them and is considered to bring good fortune. If a saras deposits its eggs in agricultural land, that specific area remains undisturbed and safeguarded until the saras offspring reach a sufficient size to relocate.

Desperate measures are needed to address the region's escalating ecological, water, and climatic 'triple crisis, which is aggravated by degraded wetlands, which are already impacting the region. Furthermore, a comprehensive plan of action is immediately required to prepare for future dangers such as loss of ecosystem services, loss of land, crop failure, water contamination, and heat mortality. (IPCC report, 2022). Despite their critical significance in livelihoods and economies, freshwater habitats are frequently undervalued by locals and policymakers. Wetlands are often regarded as "waste" places that can be drained or pumped to supply free water. They are also regarded as dumping grounds for all kinds of waste that is produced by the communities living in their vicinity. It is therefore critical to create awareness among all users to modify these beliefs and make people aware that water must now be regarded as a finite resource in the region and that sustainable water-use practices must be mandatory. Effective advocacy for wetlands protection involves organising grassroots resistance to wetlands-disturbing activities (Wetlands Watch, 1999). The purpose of this research is to use eco-cinema tools and techniques to raise public awareness and understanding of the significance of aquatic ecosystems aimed at people's social, economic, cultural, and environmental well-being, as well as the repercussions of their irresponsible usage. Regulators and planners must guarantee that any trade-off between wetland services and development options takes into consideration the broadest variety of criteria available.

## REVIEW OF LITERATURE

Decades before eco-cinema studies received the attention that it enjoys now, the application and theorization of similar topics related to ecocriticism and ecology were being used. The term "eco-cinema" was coined by Roger C. Anderson in his book *Eco Cinema: A Plan for Preserving Nature*, in which he believes that the greatest approach to protecting nature is to film every living thing on the planet and show it in theatre in regenerated natural settings (Anderson, 1975). Although most of Anderson's proposal was a sardonic critique of humans' growing disconnection from truth and nature, it raised the prospect of tying environmental studies to films. There has been a lot of interest in films dealing with the environmental crisis, with Hollywood films and documentaries like *Before the Flood* (2016), *Warcraft* (2016), *An Inconvenient Sequel: Truth to Power* (2017), and others portraying remarkable visualisations and presentations of environmental issues that demand an urgent call for action on important issues such as wildlife conservation, global warming, water, and air contamination

in this Anthropocene (Sharma & Chaubey, 2020). Thus, eco-cinema can be described as a technique that aids in bringing issues pertaining to nature and its resources to the limelight. These widely acknowledged depictions of ecological issues in films paved the way for the creation of this new paradigm of eco-cinema studies. Two of the most significant terms that are closely related to eco-cinema are eco-media and eco-film criticism. Eco-media recognises the interdependence and materiality of media with the physical world inhabited by both humans and non-humans, whereas eco-criticism is a method of critical analysis that aims to explain how the film depicts the environment, its resources, and the forces that inhabit and define it, along with how it demonstrates environmental issues (Alex & Deborah, 2022).

### **Eco-cinema -Wildlife and Environment Conservation**

The engagement and interest of the local community in preserving and protecting its flora and fauna play a pivotal role in environmental conservation. Cinema offers a particularly interesting setting for the consideration of such potential environmental and wildlife conservation challenges (MacDonald, 2004). According to Monani, n.d., regardless of political views, human beings tend to agree with movies during a troubled situation, and movies do influence their decision-making about how to act, that is, in support of or opposition to it. To join forces in figuring out potential solutions to the numerous environmental issues in the rapidly degrading world, eco-films start conversations, debates, and discussions among environmental leaders, artists, scientists, and people from all walks of life (Chu, 2017). *De Nieuwe Wildernis* (The New Wilderness), a nature documentary from Amsterdam, captures the concept of rewilding with such clarity that it not only piqued public interest in environmental regeneration but was also a commercial success. It became the highest-grossing nature documentary in the history of the Netherlands (O'Neill, 2019). Even though audiences' reactions to films about ecological and environmental issues may differ depending on their unique social and cultural origins and preferences, in the modern world, there is increased interest in these films, particularly considering the worldwide popularity of several eco-disaster films and ecological documentaries such as *The Day After Tomorrow* (2004) and *An Inconvenient Truth* (2006) (Chu, 2016). A survey revealed an enormous increase (from 41 to 50 percent) in the proportion of Americans associating the phenomenon of global warming with human actions, months following the 2006 release of Al Gore's climate change documentary *An Inconvenient Truth* (Chu, 2017). Eco-cinemas could also put pressure on the government to enact policies to address environmental issues, which would have an immediate impact on society; at the same time, they could be a beneficial instrument for increasing people's environmental consciousness as a way of self-governance. (Chu, 2017)

### **Indian eco-cinema**

The new millennium in India has seen filmmakers using films as weapons to sensitise the audience about the issues of environmental conservation. Although a substantial segment of the populace regularly disregards this vital effort, Nila Madhab Panda's *Kaun Kitney Pani Mein* (Who is in How Much Water) (2015) and *Kadvi Hawa (Bitter Air)* (2017), as well as Abhishek Kapoor's *Kedarnath* (2018), are some of the most critically acclaimed Indian eco-cinematic movies that came out in recent years and focus on the atrocities of human callousness, which caused a dramatic alteration in India's climate (Sharma & Chaubey, 2020). *Kadavi Hawa* is an attempt to probe profoundly into human conscience, inviting viewers to reflect on their role in creating the Anthropocene. *Kaun Kitney Paani Mein* is a satirical film on the sensitive issue of water scarcity in modern-day India. The 2013 flash flood hits the sacred town of Kedarnath by human avarice and inept administration, as poignantly shown in filmmaker Abhishek Kapoor's flick *Kedarnath*. *Kedarnath* fits the criteria for inclusion in the eco-film category since it focuses on the disaster and the human actions that contributed to it. With global environmental issues such as climate change constantly vying for our attention, the environmental documentary, also known as the eco-doc, has gained prominence in the world of activist documentary filmmaking. (Slovic, R., and Sarveswaran, 2019). Scholars such as Keitaro Morita have attempted to bring eco-cinema studies to the canvas of environmental communication by arguing that eco-media (including environmental writing, environmental TV, films, and eco-cinema) has the capacity to inspire political and personal actions (Moitra, 2019). Manvi Sharma and Ajay Choubey, through their study on the role of Bollywood in sensitising about climate change, state that as a popular cultural medium, films have a deep impact on commonalities, and an important proportion of the global population derives its knowledge about current issues from them. They further state that commercial and non-commercial films can impact their viewers in many ways. Films impact the ideas, values, beliefs, actions, and, most crucially, the reactions of their viewers. From highlighting their desires to shaping their ideologies, films may certainly be utilised to sensitise the public in such a scenario (Sharma and Choubey, 2020). In his book *Green Cinema*, noted scholar Pritam Panda emphasises the role of environmental cinema in sensitization and initiating social change. Documentary films like *An Inconvenient Truth* (2006) and *Before the Flood* (2016) have effectively highlighted human intervention in nature and its devastating consequences. Pritam Panda emphasizes the growing importance of films as viewers gain personal knowledge of the potential tragedies if environmental reforms are not implemented, serving as a crucial source of knowledge and a tool for social change. *An Inconvenient Truth* is considered the most cited example of eco-cinema and the fifth most commercially successful documentary in cinema history (Panda, 2020).

### **Eco-cinema and environmental Journalism**

Eco cinema can inspire viewers to act. Documentaries like "A Plastic Ocean" (2016) and "Cowspiracy" (2014) have sparked movements against plastic pollution and unsustainable animal agriculture. As Michael Hulse expresses in "Eco cinema: The Film Reader" (2010), eco-cinema can act as a "watchdog" for the environment, holding corporations and governments accountable for their actions. Eco cinema employs various cinematic techniques to weave environmental narratives. Documentaries like "The Act of Killing" (2012) and "Burning" (2018) use first-hand accounts and visual imagery to expose environmental injustices and ecological destruction. Eco cinema's ability to blend storytelling with environmentalism makes it a powerful form of environmental journalism. By raising awareness, inspiring action, and fostering critical thinking, eco-cinema can contribute significantly to addressing the environmental challenges of our time (Abbott, 2015). *Earth Matters*, a popular Hindi language television magazine show aired by Doordarshan (public broadcaster of India), is critical in raising awareness about environmental protection. One of the episode highlights relationships between wetlands and Sarus Cranes. While it emphasises the problem of wetlands in northern India, through indigenous perspectives it also emphasises that Sarus cranes are cherished by the members of many rural northern Indian communities. These folks, who are mainly farmers, guard the bird because it is seen to be a good omen. As a result, these people act as natural wetlands protectors.

### **Photovoice**

Photovoice was developed by Caroline Wang and Mary Ann Burris, they believe it "is a terrific method for individuals to recognise, symbolise, and enrich their community using specific photography approaches. They go on to claim that the approach gives individuals cameras, allowing them to serve as recorders and potential change agents in their own communities. Through this process they can identify, represent, and enhance their community" (Caroline & Mary, 1997). Photovoice is a participatory research method (Bennett & Dearden, 2013) based on Freire's model of educational development, involving participant-generated visuals and drawings. It is a community-based approach that helps researchers understand participants' perspectives and insights on the issue being studied (Carlson, Engebretson, & Chamberlain, 2006). Sutton Brown supports using Photovoice for community engagement and awareness stating it as a research method that has been used extensively in the fields of healthcare, homelessness, and education. (Sutton-Brown, 2014). Photovoice projects empower marginalized communities by documenting their experiences and perspectives on environmental issues. By combining images with personal narratives, these projects build advocacy networks, empower communities, and build trust and credibility by sharing residents' deep environmental knowledge directly, bypassing traditional media gatekeepers. Recently, the researchers have been focusing on the application of Photovoice to address environmental issues like climate

change, water and sanitation, and natural disasters. It reviews exemplar studies to illustrate its diversity in its use outside Indigenous contexts and explores potential uses within Indigenous communities (Greene, Burke, & McKenna, 2018).

## RESEARCH METHODOLOGY

During the six-month long study which started from August 2022, we did multiple visits to the villages around the wetland to build a rapport with the local community and administrative bodies to identify factors contributing to the loss of this significant wetland and the awareness levels and involvement of community in the conservation. The study's goal is to discover –

1. Can eco-cinema influence viewers to behave Eco critically?
2. Does the community showcase eco-awareness and eco-consciousness after viewing eco-cinema?

At the very beginning, we conducted a preliminary survey using in-person interviews and observation among young agricultural practitioners to measure the level of awareness towards sustainable agriculture practices and the importance of conservation. We constituted ‘Friends of Dhanauri’ an eco-cinema club with five volunteer members comprising of the students from the Times School of Media who were enrolled in Mass Communication undergraduate program and conducted sensitization workshop for the members of ‘Friends of Dhanauri’- A group of 40 people comprising of males and females of age group (18-25) who mainly belong to the farming community living in the vicinity of Dhanauri wetland.

During the weekly meetings of the club, the members of Friends of Dhanauri were exposed to specifically curated eco-cinema content titled ‘Earth Matters’ in local language (Hindi) over a period of six weeks at a regular interval. "Earth Matters," produced by Mike Pandey, is an episodic Hindi language television magazine show that is broadcasted by Door Darshan, the largest broadcaster in India was selected as eco-cinema. This Tv magazine has documentary style narrative. It includes indigenous perspectives and is deemed fit for perception training. Episode 27 of Earth matters titled ‘wetland and saras crane’, Episode 21 titled ‘Biodiversity’ and Episode 26 titled ‘Wular Lake’ were screened to the members of Friends of Dhanauri. These episodes showcase indigenous perspectives of communities and the efforts made by individuals of the community to preserve and safeguard their environment including a wetland in the Etawa region of Uttar Pradesh, a province located in Northern India. The wetland discussed in this episode is situated near Dhanauri wetland and exhibits many geographical, social, and cultural similarities with it. This is the main rationale for selecting this specific eco-cinema for viewing by members of the Dhanauri eco club. Every screening was followed



by focus group discussion. Following table highlights the key attributes of Earth Matters as eco-cinema in accordance with the framework provided by Kiu-Wai Chu.

Mode	Eco Cinema	Features	Strength	Weakness
Perception Training Film	<p><b>Earth Matters, Episode 21 Biodiversity, Episode 26 Wular Lake and Episode 27- Wetlands and Saras Cranes:</b></p> <p>Covers a wide range of environmental issues both at local and global level with a bottom's up approach. Biocentric worldviews with social justice advocacy perspectives focus.</p>	<p>Experimental, Non-anthropocentric, eco-centric perspective</p>	<p>Culturally calibrated to suit local language needs. Open to interpretation and involves the thinking audience. Widely circulated and supported by Indian government broadcasters.</p>	<p>Prerequisite: Prior training that cultivates a sense and taste of the viewers.</p>

Table 1: Categorization and Critical Appraisal of Eco-cinema showcased (Adapted and Self-Constructed (Chu, 2017).

These episodes touch upon themes of importance and conservation of wetlands. Episode 27 on wetland and saras crane shows a case study about local community engagement with wetlands of 'Etawa' in Northern India, a location which is in close vicinity of Dhanauri. Episode 26 shows the efforts by members of local community in helping the conservation of Wular lake which is in Northern Himalayan region in India. Episode 21 on Biodiversity touches upon the themes of impact of dwindling biodiversity and its relation to the future of humans.

To gauge rise in their level of awareness, we used Photovoice. Wang and Burris developed Photovoice in 1990s. The method is used since then in varied research settings with varied populations for community building, assessing the effect of war, improving quality of life, promoting health awareness against HIV and for persons with disabilities. Photovoice presents an opportunity for the respondents to reflect on the themes, situations, and experiences. The photographs clicked by the respondents are analysed for their relationships, causes, emotions, and experiences related to the respondents over a given theme or a subject.

As a process, photovoice has three main objectives:

- To enable community members to capture and reflect on their local issues and recognising their own capabilities towards resolving them.
- To encourage a culture of critical conversation and knowledge exchange regarding pressing topics that are related to the community through group discussions on photographs.
- To advocate to policymakers. (Wang and Burris 1997, P. 370)

## DATA COLLECTION

During the Friends of Dhanauri Eco Club meetings, twenty participants enrolled for the photovoice study, which included eight male farmers, three female community members, and seven school and college-aged young men. They were given digital and mobile photography training for two months following ethical considerations in the research process. Participants were instructed to take due permission before capturing any person in their image to ensure right to their privacy. They were asked to click ten photos each under two themes during a span of 3 months on themes of Environmental Concern and Environmental Justice.

These photographs were used as a basis for follow up individual interviews and discussions with the participants. These discussions were guided by SHOWED (C.C Wang and Burris, 1997) which is an acronym for the standard set of five questions used to stimulate group conversations. We asked the following questions: (1) What is shown in the photograph? (2) What is the photograph's true meaning/message? (3) How does it apply/relate to our lives? (4) Why are things the way they are? (5) How may this image be used to educate or encourage people? (6) What should/can be done to address this?

The group members were ready to begin telling their stories using after participating in SHOWED method talks (Gant. L et al, 2009). They were then asked to give caption to the photographs by describing the photograph. This exercise was followed by a focus group discussion with the participants which was recorded digitally and transcribed in English language. Utmost care was taken while transcribing to ensure cultural accuracy and avoid unintentional changes in the meaning. The major themes which emerged by analysing the transcripts were: (1) Fear of loss of ecological identity (2) Intention for participation for biodiversity conservation. (3) Advocacy for National and International Intervention (Ramsar Tag) Photographs and remarks from participants are included to show how they conveyed their ideas. An eclectic mix of the power of visual imagery and personal

narratives, Photovoice method promotes community engagement and offers a novice way to promote dialogue, uncover complex concerns and foster social transformation.

## FRAMEWORK

Environmental citizenship is seen as a critical component in tackling global environmental issues (Stern, 2011). Recognizing the significance of liveable habitats, advocating conservation, and protecting biodiversity are all aspects of being an engaged environmental citizen. The larger conceptual framework adopted for the study is Environmental Citizenship Model (Hungerford and Volk, 1990) to study the impact of eco-cinema.

The Hungerford Volk Model proposes three phases of educational engagement, beginning with first exposure (entry) and ending with true involvement (empowerment), and then claims that each level has certain knowledge and attitude traits.

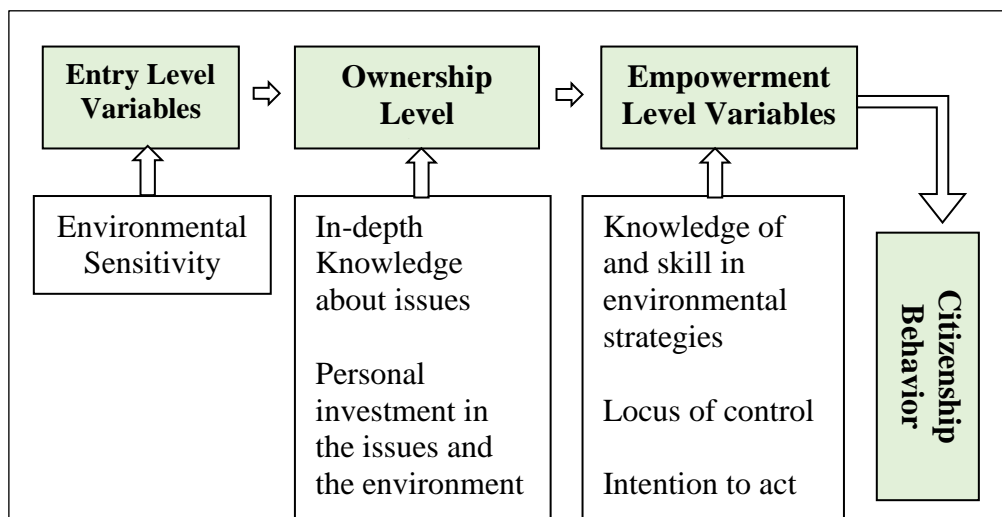


Figure 1: Adapted and Self-Constructed Environmental Citizenship Model (Hungerford and Volk, 1990)

## Results and Discussion

The study emphasised the effectiveness of eco-cinema in raising awareness about environmental concerns. eco-cinema as a tool for sensitization of the community has been significantly effective in pro-conservation efforts. Photovoice is also very efficient in creating a powerful visual narrative and effectively engaging community members in assessment of needs, mapping of assets and getting informed from a grassroots perspective. The preliminary findings point to the presence of beginner's

traits such as broad environmental sensitivity and understanding, as well as ownership variables such as in-depth knowledge, personal dedication, and resolve. (Hungerford and Volk,1990). But The empowerment variables, particularly action skills and centre of control, were lower. However, the degree of intention to act was satisfactory.

The research findings indicate that eco-cinema has huge potential to create increased awareness, however, to bring ecocritical attitude and eco consciousness among the community it is essential to build strong connections through environmental education advocacy initiatives such as on-ground interventions such as sensitization workshops, environment literacy and local rewards and recognition for environmental heroes.

### **Theme-1- Fear of loss of ecological identity**

One of the most recurring themes in the discussion was fear of loss of wetland habitat which is part of their daily life. Almost all the participants had good childhood memories of spending time in the close vicinity of birds. Some of them also had their childhood photographs with the birds in the backdrop. Jabar Singh Bhati a farmer and member of village local body expressed this fear by mentioning:

*“When we used to go to our relatives who lived in different towns and cities, we would show them our photographs with the Saras crane. They would be so jealous of us. We would enjoy this envy as **we would consider ourselves lucky to have these birds**. All our relatives would want to visit our place to see the birds. When some of the relatives did arrive, they were mesmerised to see birds in thousands flying and forming a flying carpet over the sky. Now, I think we **will lose this wetland and with it we will also lose the unique identity it gives to us.**”*

The community showcases environmental sensitivity and personal investment in the issues and environment as they have a childhood bond with the Sarus Crane. Photovoice enabled community members to capture the memories and bring critical reflections on the social and cultural bond and identity building and loss with the wetland (Wang and Burris, 1997)

### **Theme-2- Intention for participation for biodiversity conservation**

Many School and college going participants including Pooja, and Raj expressed the feeling about formation of self-help group, eco clubs where community members are willing to engage conservation efforts such as cleaning of water weed (water hyacinth) and constructing bio-fence around Dhanauri wetland area. They expressed this desire by averting:

*“We are mostly free on Sundays. We can utilize our time to bring back wetland into its previous glory. We learnt from the films shown to us that water weeds such as water hyacinth are bad for the health of wetland. We can remove them manually. All we need is a dedicated team which takes matters into its own hands. Here in the village every household has tools for removing weeds from the agricultural fields. Same tools can be used to remove the water hyacinth from the wetland area.”*

*“I know there are a lot of people who care for Dhanauri wetland and are willing to do efforts to conserve it. A group of these people can be formed formally. This wetland has been our identity. People from other places know us because we live close to the wetland. If the wetland is lost, we will lose our identity. We can start with planting native shrubs to create a bio fence which will be the first step towards conservation of Dhanauri wetland.”*

The eco-education and awareness through eco-cinema created an effective discourse toward understanding wetland conservations and the degrading role of water weeds. The club decided to find agricultural tools from the household and plan a cleaning drive using indigenous knowledge from the elders on leisure weekends. Thereby building ecosystem ambassadors (Rust et al., 2022; Shah and Atisa, 2021).

### **Theme-3- Advocacy for National and International Intervention (Ramsar Tag)**

Another participant, Ramvati, who owns farmland in the vicinity of the Dhanauri wetland pressed that she is willing to join the campaign to stop the forceful acquisition of the land by the government for commercial use.

*“All villagers want to protect the wetland. We want it to stay but it is the government which is not interested. we are ready to give our farmlands to the government. All we want is the compensation. If the government is not ready to give the compensation to us, how can they expect us to give our lands to the birds. If we give our agriculture land to the government for it to be used as a Saras Crane century for free what will our children eat, then? Global bodies were supposed to protect us with a tag, why aren't they realising the urgent need?”*

Sundar, a college going youth who aspires to be a teacher and wants to work in the village level government expressed that there is a lot of misinformation being spread about the status of wetland of Dhanauri wetland. The local villagers and farmers are uncomfortable now. they are very skeptical about the actions of the government. He expressed his feelings by saying- *“Now no one trusts forest department or the government here. The officials of the forest department came the other day and put up a notice board warning the locals not to trespass the wetland area. But no one is clear about how*

*much exactly the wetland area is? There are nearby agricultural fields are they also in the wetland area? There is a lot of false information circulating on WhatsApp groups regarding this recent development. I think government should talk to the local people they should start a dialogue then only the trust can be built.”*

The members of the eco-club showed eco-consciousness about inter-government issues and need for an international tag like Ramsar for protection and equitable justice of their farmland compensation. With the growing penetration of social media and fake information, the members advocate for a robust communication channel from the government. They want to collaborate on conservation efforts and work alongside the government. The club plans to use these photographs to build advocacy initiatives with local government to authorize cleaning drives. Eco-cinema activity inspired the members to think and act eco-critically for the conservation of the wetland (Chu, 2017).

The visual and narrative descriptions of the pictures submitted by the participants are elicited through SHOWED method (Table 2). The variables depict as general sensitivity to and knowledge of factors affecting environmental degradation.

**Table 2: Photovoice Analysis Using Visual and Narrative Data Based on SHOWED**

<b>Sample Photograph</b>	<b>Visual Interpretation</b>	<b>Narrative Interpretation</b>	<b>Variables</b>
<b>1</b>	Children playing cricket in the dried patches of wetland	Encroachment and shrinking of wetland: Groundwater mining for agriculture in the nearby farms is one of the reasons for the drying up of Dhanauri wetland area. The residents and children are encroaching the area for leisure activities	Environmental Sensitivity.  In-Depth Knowledge of the Issues

2	Enormous growth of a weed in the wetland	The weed deteriorates the quality of water and negatively affects the health of the wetland. The weed especially stops sunlight from reaching the surface of the water and thus impacts the survival of aquatic life. The unchecked growth is polluting the water.	Locus of control
3	Dumping of plastic waste inside the wetland area	Birds can mistake plastic for food, which can lead to entanglement, suffocation, and death. Plastic can also release toxic chemicals that harm birds and their habitats. The wetland is under severe pressure from the rising population and unsustainable farming practices. I will start a cleaning drive.	Environmental Sensitivity  Ownership and resolve to protect the wetland.
4	Notice board by forest department informing and appealing public to stay away from any kind of activity inside the wetland area	Government notices and messaging is essential for the conservation. Bio fencing is also required along the edges of the wetland to protect it from intrusion.	In-depth knowledge,  Knowledge of and skill in environment strategy

Pictures submitted by the participants depict as general sensitivity to and knowledge of factors affecting environmental degradation. *Picture-1* (clicked by Jabar Singh Bhati) shows the state of Dhanauri wetland soon after the winter months. the wetland in the periphery has dried so much so that the children are using it to play cricket. Groundwater mining for agriculture in the nearby farms is one of the reasons for the drying up of Dhanauri wetland area. The farmers mainly grow paddy in the fields situated near Dhanauri. Since paddy cultivation requires a lot of water, the farmer's mine the groundwater using diesel pumps. Due to this the wetland is deprived of water and it eventually dries

out causing a great danger to the aquatic and areal life which is dependent on water. Picture -1 depicts entry level variables of environmental citizenry such as general sensitivity towards the environment and basic knowledge about function and importance of sustenance of environment.

Picture 2 which is clicked by Pooja shows enormous growth of water hyacinth. It is a weed which is bad for the health of any wetland or a water body. Water hyacinth prevents sunlight to reach the surface of water and thus stops essential natural processes that support aquatic and aerial life. Picture to depicts in depth knowledge about environment and core ecological processes.

Picture-3 shows dumping of plastic waste inside the wetland area. This causes pollution of water as the contains of plastic waste may dissolve into water and pollute it. The birds find it difficult to deal with the waste material and sometimes seen trying to swallow it. This may cause health hazard. Suraj who clicked this photograph showed Ownership variables such as commitment and resolve towards the protection of environment.

*Picture 1 (used with permission), Infestation of wetland with water hyacinth, a water weed which deteriorates the quality of water and negatively affects the health of any wetland. The weed especially stops sunlight to reach to the surface of water and thus impacts survival of aquatic life.*





*Picture 2 (used with permission), Encroachment and shrinking of wetland: Children playing cricket inside the wetland area. Due to mining of ground water for agriculture, Shortage of water and drying of peripheral area of the wetland starts as early as the end of winters*

*Picture 3 (used with permission), Dumping of plastic waste inside the wetland area is causing a great damage to the ecosystem. The wetland is under severe pressure from the rising population and unsustainable farming practices. Suraj who clicked this photograph says that he wants to form a self-help group whose members are going to clean the garbage which is dumped into the wetland.*



*Picture 4 (used with permission) shows the notice board by forest department informing and appealing public to stay away from any kind of activity inside the wetland area. Pooja, the participant who clicked this picture, shared that this kind of messaging is essential for the conservation. She also said that bio fencing is also required along the edges of the wetland to protect it from intrusion. This picture depicts her in-depth knowledge, ownership and resolve to protect the wetland.*



## Conclusion

Environmental citizenship involves standing up for and implementing efforts towards safeguarding the environment. It also calls out for encouraging others to collaborate towards environmental goals. (Boiral and Paillé, 2012; Gatersleben et al., 2019) have identified three components of environmental citizenship behaviour: (1) ecological advocacy: It includes beginner level-individual advocacy and activism for the betterment of environment; (2) ecological assistance: It includes generating willingness to encourage others to promote and practise environmental awareness; and (3) ecological citizen participation: It includes action level intervention such as creating an action model and activities for community participation to support the sustainable management of the environment. These action models have motivated individuals to act in response to climate change. Taking an eco-centric view and creating a sustainable identity and lifestyle practice is essential for long term conservation commitments. One of the desirable conditions for sustainable environmental practices is that persons must see themselves as environmental citizens and reconsider the link between humanity and environmental identities, focusing on persons as a part of the natural world. (Levy et al., 2018).

This type of environmental literacy highlights that individual must regard their natural surroundings as part of the wider ecology, establish shared beliefs and comprehensions, and go beyond personal interests and experiences, but consumers are often urged to adopt environmentally conscious behaviours and even to take measures that preserve an optimal ecological balance. eco-cinema has become a meaningful platform by creating an eco-space eco-consciousness and eco-awareness. Owing to its accessibility and wide-reaching capacity, eco-cinema has a great potential to shape viewers' perception and promote sustainable living practices.

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