

# Sustainable Green Future from a Multimodal Positive Discourse Analysis Perspective: Investigating Environmental Metaphors in Some Selected Cartoons

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## Abstract

A substantial body of research pertaining to ecological issues has significantly centered its attention on laying out the deleterious, harmful and destructive consequences stemming from human actions upon the environment. This emphasis often revolves around negative metaphors that evoke fear, threats, and danger, leaving the positive aspects of green and sustainable future relatively unexplored. This paper adopts a Multimodal Positive Discourse Analysis (MPDA) approach to scrutinize visual socio-cognitive metaphors presented in 11 environmental cartoons disseminated by the Indian Council of Energy, Environment and Water (CEEW) on diverse ecological issues. The study aligns with Forceville's (1996 & 2009) theory of multimodal metaphor and Hart's (2008) model of critical metaphor analysis in the light of Martin's (2004) Positive Discourse Analysis (PDA) theoretical framework. Therefore, emphasizing the significance of visual metaphor in the formulation of new and positive eco-friendly scenarios through the process of projection and integration across two distinct input spaces. The results of the study show that positive scenarios such as hope, success, aspiration, ambition, and optimism have been motivated in the generic space, providing an antithesis to the predominant negative scenarios characterized by stereotypes of eco threat, harm, insecurity, and instability.

**Keywords:** Multimodal positive discourse analysis, Environmental multimodal metaphor, Critical metaphor analysis, Green future, CEEW, Cartoons

## 1. Introduction

Social awareness of the hazards and dangers associated with carbon sequestration, greenhouse gas emissions, climate change, water dearth, and other environmental challenges develops human beings' environmental attitudes and perceptions. Thus, terms such as "environmentally friendly", "sustainable", "net zero", "green future", "eco-friendly" and "socially responsible sourcing" have spread rapidly across a wide range of discourse domains (Cox, 2012). According to the Sixth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), human-induced environmental interferences are extensive, leading to aberrant and broad changes on Earth. These alternations, as identified by the IPCC (2021), pose colossal dangers to our ecological system. Consequently, it is a must to escalate and develop green discourse that influences the environment positively and assets solutions to these threats. Furthermore, the semiotic representativeness of the term "environment" and its related terms like "nature", "earth" and "life," motivates a robust inclination in the field of environmental communication to utilize visual metaphors in order to convey complex and implicit meanings. Moreover, while promoting environmental issues, proponents of "green future" often prefer using visual aids, such as posters, cartoons, billboards, banners and campaigns as these modes have the ability to explicate the future of environment and our planet earth.

Metaphor choice is a contentious issue as it regulates how the viewers decipher the represented actions and decode the suitable reactions (Domnguez, 2015; Semino, 2021; Semino, Demj n, Hardie, Payne, & Rayson, 2017). The main challenge in visually communicating environmental issues lies in the intricate task of fostering audience awareness regarding the nature of the problem and its subsequent ramifications once they come to fruition (Doyle, 2007) and this is the main reason of the many negative ecological caricatures that solely depict effects and consequences while simultaneously neglecting solutions. This emphasis on the negative facets of pollution and climate change (Cunningham, Foxcroft, & Sauntson, 2022) evokes the emotions of violence and damage (Doyle, 2007, p. 129). This predominant views must be resisted by those positive aids that show efforts and aspirations for successful "green future".

On the other hand, cartoons or caricatures are a superb mechanism that can unveil the complexities of metaphors and the integration process involved in it as they enable the viewers to fully absorb metaphors in an instinctive manner. Manzo (2012) defines cartoons as

visual representations that communicate a special viewpoint through the use of innovative symbols, metaphors, and shared cultural understanding that present great challenges for the viewers. These visual depictions usually take the form of illustrations and drawings that humorously and satirically exaggerate or misrepresent the physical characteristics of a person or an object so that they can provide a commentary on social, political, and cultural issues. Hempleman & Samson (2008) state that cartoons have distinctive style that is a mixture of analogies, simple lines, magnified attributes that sketch real world but in a different way. Through the use of these elements, cartoons are able to generate picturesque and fascinating scenarios and unreal worlds via the “metaphorical combination of the real and the imaginary” (El Rafeie, 2009, p. 186). One of the main features of caricatures is their ambiguity and complexity, i.e., their ability to be interpreted differently by multiple viewers in various contexts (Manzo, 2012.) For Calder et al. (2000), the significance of cartoons lies in their ability to represent identities, attitudes, values, and ideologies. De Sousa & Medhurst (1981) believe that there are four purposes for cartoons: entertainment, reducing aggression, mapping and framing, and approaching specific social, political and historical events (p.124). Consequently, cartoonists attempt to disseminate their ideologies implicitly or explicitly through some specific semiotic elements that convey implications and affect perceptions (Machin, 2007). Therefore, this research aims to demonstrate the crucial role of visual metaphor conceptualization in the construction of positive environmental discourse in a corpus of 11 Indian cartoons issued by the Indian Council of Energy, Environment and Water (CEEW) in 2023 that show hope for green future. Thus, communicating a different point of view that opposes danger, fear, threats and damage that face our environment.

## 2. Aims of the Research

The paper accentuates how cartoons function as a positive discourse that can oppose and defy negative predominant discourses related to eco threats and damages through the integration of multiple semiotic modes. The paper also elucidates the role of visual metaphor in constructing new positive ecofriendly scenarios through projection and integration between two different input spaces: the first input space is motivated by one mode of communication and the second is triggered by another different mode. Accordingly, finding out the patterns of interaction (mapping) between two different modes, i.e., language and image.

## 3. Research Questions

The research is directed towards finding answers to the following main question: How are the main environmental related issues such as climate change, biofuels, renewable energy, resilient turbines, circular economy and global warming conceptualized positively through multimodal metaphors? Therefore, two related sub-questions occur:

(1) In what manner are the source and target domains of cognitive multimodal metaphors distributed among different modes and input spaces? And (2) What are the emergent entrenched positive scenarios that take place as a result of integration process between input space 1 and input space2?

## 4. Literature Review

Studies generally addressing Multimodal Positive Discourse Analysis and in specific scrutinizing the work of multimodal metaphor within this framework are limited. Besides, the probation of cognitive multimodal metaphor within the framework of eco-positive discourse analysis has yet to be thoroughly and systematically investigated. The predominant focus of linguistic explorations in environmental issues centers on expounding the adverse and negative dimensions of human actions vis-à-vis the environment. As a result, they predominantly concentrate on construing the threats, damages, and perils standing up to the planet due to human activities, often disregarding the investigation of viable solutions to these complicated challenges.

Guan (2022) applied an updated theoretical framework of Multimodal Positive Discourse Analysis in order to dissect the process of constructing China's national image in a Chinese video. Contrary to previous studies that paid attention primarily on language or image, this research focuses on the interconnection between three multimodal resources which are sound, language and image and in order to achieve the aspired goals, the study sets out an updated methodology that follows (Martin, 2000 and Kress & vanLeeuwen, 2006). The results of the research exhibit that the three modalities are synergistically collaborating to form china's positive national identity.

El-Falaky (2023) attempted to strut the role of visual metaphor in depicting the Islamic identity in some hand-written sketches based upon Nartey's (2020) Positive Discourse Analysis (PDA) model and Lakoff & Johnson (1999) theory of conceptual metaphor. The study emphasizes how hand-drawings function as a positive discourse, opposing negative accusations within dominant discourses about Islam. The findings of the study suggest that positive discourse analysis employs visual metaphor to express the positive ideologies about Islam. Moreover, the research exploits visual semiotic clues to elaborate the representation of Muslim's true identity.

Ghaderinezhad, Karbalaee, Sadegh & Ameri (2023) studied the role of visual metaphors in denoting and conveying the theme of citizenship in seven Persian environmental cartoons. The corpus is investigated in the framework of conceptual metaphor (Lakoff & Johnson, 1999) and Forceville's (1996 & 2009) multimodal metaphor theory. The findings of the study show a dichotomy among cartoons concerning their source and target domains. From one hand, the source domain encompasses negative and damaging concepts such as smoke and garbage and it forms the conceptual metaphor 'pollution is death.' Conversely, the target domain comprises of positive and pleasing terms such as "respiratory aids" that appear in the conceptual metaphor 'tree is life.'

## 5. The Significance of the Research

Traditional approaches of eco linguistic analysis presume a pessimistic viewpoint, often delineating eco discourses with a focus on negative aspects and presenting environmental issues as perilous and catastrophic. In contrast, positive discourse analysis emerges as a reaction to this gloomy perspective, emphasizing the potential for positive connections between various environmental affordances. That's why, this research expounds positive practices of multimodal discourse in an attempt to evaluate the role of multimodal metaphor in explaining the positivity of multimodal eco-discourse. Within this framework, the paper attempts to scrutinize the cognitive discursive importance and dynamics of visual metaphors in the framework of eco-positive discourse analysis. Thus, explaining and revealing positive environmental viewpoints about the harmony between different ecological affordances through integration process that takes place between two input spaces: one is triggered by language and the second is motivated through image. Consequently, new entrenched positive emergent scenarios are delineated. These scenarios raise concerns, beliefs and hopes for green environmental future.

Moreover, this Positive Discourse Analysis (PDA) research substantiates a cognitive connection among semiotics, visual metaphors and cultural studies as it focuses on one type of multimodal discourse which is cartoon produced by the CEEW in India and at the same time it unveils some Indian environmental ideologies. Besides, within the frameworks utilized in this paper, I argue that PDA can leverage cognitive multimodal metaphors to establish and demonstrate uniformity, inclusiveness, absoluteness and homogeneity. The conclusions drawn from the study afford us the capacity to construe the visual depictions as reflective surfaces mirroring the intricacies of both the tangible and cultural terrains. The understanding of these representations is derived from a nuanced examination of how semiotic signs intertwine, acting as both reflections and entities mirrored by the interplay of awareness and perception.

## 6. Corpus Compilation

The data, consists of 11 Indian Cartoons, is a part of a larger corpus entitled " What On Earth!" that is a cartoon series disseminated by the Indian Council of Energy, Environment and Water (CEEW) on diverse environmental issues such as environmental awareness, climate change, clean air, sustainability and energy transition. This series is periodically updated fortnight and on special occasions. The selected cartoons, drawn from the timeframe spanning April to October 2023, are accessible on the official (CEEW) website (<https://www.ceew.in/what-on-earth>). Only multimodal cartoons containing positive metaphors and positive visual and contextual clues are investigated. The Council on Energy, Environment, and Water (CEEW) is an Indian prominent non-profit organization in Asia, dedicated its efforts to policy research. CEEW employs an integrated analysis and strategic systematic approach to elucidate important environmental issues.

## 7. Theoretical Framework

### 7.1 Positive Discourse Analysis

Positive Discourse Analysis was pioneered by Martin (2004) in his seminal and groundbreaking work *Positive Discourse Analysis: Solidarity and Change* within which Martin affirms that discourse analysis goes beyond a mere critical stance. According to Martin (2000), discourse analysis is not only expounding the interaction between language and societal structures, power underpinnings, and ideological dynamics but it must adopt a positive, harmonious and friendly perspective and this is the basis of positive discourse analysis that delves into conventional and non-conventional aspects and unveils positive and compatible approaches that form harmonious, relaxing, synchronous and concurrent society. Thus, Positive Discourse Analysis, as situated by Martin (2004), serves as a source of inspiration and motivation rather than a force that diverges and dominates. Nartey (2020) & Calle-Diaz (2014) assume that Positive Discourse Analysis (PDA) functions as an analytical framework that articulates the viewpoints and issues of marginalized groups and fosters social unity and alignments

Positive Discourse Analysis (PDA) plays a crucial role in analyzing ecological discourses, offering a systematic framework for dissecting discourses that support empowerment, harmony, societal change, and promoting some issues such as environmental sustainability, green environment and sustainable future. Within the context of ecological discourse, PDA considers the convoluted array of linguistic features, ideologies, and strategies used to dispatch messages pertinent to the environment, thus fostering an awareness of environmental harmony. This positive point of view of PDA contrasts with the old negative aspects of Eco linguistics focusing on the investigation of negative discourses demonstrating how they endorse damaging eco-behaviors. For Stibbe (2017), PDA is an emergent framework that searches for novel stories that insulate environment and its ecosystems and at the same time construct equitable social structures.

In this sense, Positive Discourse Analysis has collected consequential theoretical insights from critical discourse analysis and has adopted the primary tenets of appraisal theory, a cognitive framework pioneered by Martin (2005) and evolved within the theory of systemic-functional linguistics. Appraisal theory, consisting of three systems—attitude, engagement, and graduation—presents a deep understanding of evaluative language with all its aspects. Terms such as evaluation, assessment, affect, emotions, appreciation and judgement are mainly recommended within the domains of appraisal theory.

Actually, the discord over whether critical discourse analysis and positive discourse analysis are alike or unlike reflects the diverse theoretical perspectives and methodological frameworks within discourse analysis studies. From one hand, (PDA) and (CDA) are viewed as two interrelated perspectives that complement each other. In his investigation of the contextual structures, content, and methodological frameworks of positive discourse analysis, Yongsheng (2006) elucidates the interrelated integration between the two approaches, accentuating both their similarities and differences. For Yongsheng (2006), Positive Discourse Analysis appears as a reaction to the

previous deficiencies within critical discourse analysis, thus a repercussion of (CDA). Besides, Hu (2012) maintains that Martin's (2004) vision is to underscore the symbiotic relationship between the two approaches. That's why, he emphasizes the idea that the motive behind positive discourse analysis is to emphasize that the two approaches are complementary.

On the other hand, Barlette (2017) lays out (CDA) and (PDA) as two definite paradigms within discourse studies. As long as CDA accentuates on the investigation of issues such as domination and inequality, PDA directs its attention to the examination of 'spaces of resistance' in which the "dominant and dominated come together" (p. 217). Within this space, harmony and resilience collaborate for good society.

Beyond the emphasis on positivity, there is a discrepancy in the textual aspects that (CDA) and (PDA) pitch to. CDA, for example, focuses on challenging the predominant discourses that form an inequitable society. As a result, the focal point of CDA is not individual texts but recurrent linguistic structures in large corpora. Conversely, PDA identifies positive discourses that exist outside the dominant discourses and that can be important if they prevailed, so it can analyze individual texts and focuses on specific cultures.

Multimodal Positive Discourse Analysis represents an idiosyncratic approach within the theoretical framework of positive discourse analysis, taking into consideration the elaborate interplay among various modes of communication in the examining, comprehending, and constructing discourse positivity. Because of the scarcity of research on multimodal positive discourse, further investigation and scholarly attention have to be developed.

### *7.2 Conceptual, Critical and Multimodal Metaphors*

Metaphor has been investigated as a cognitive tool for conceptualizing reality by means of relations that are projected between two domains: the source and the target. Within the framework of cognitive linguistics, Cognitive Metaphor Theory and specifically Conceptual Metaphor Theory (CMT), pioneered by Lakoff and Johnson (1980), has borne extensive and broad exploration across various academic domains (Johnson, 1987, 1993; Lakoff, 1987; Fauconnier & Turner, 2002).

The comprehension and understanding of conceptual metaphor experience nuanced discrepancies contingent upon the cultural context in which it is situated. From a cognitive point of view, metaphor is a cognitive or conceptual mapping, wherein there exists a transformation from one conceptual domain, referred to as the source domain, to another, called the target domain. Generally, the source domain is concrete and familiar concepts, projected against the target domain, which is more abstract. This projection encompasses a kind of calibration of similar elements among the source and target domains, facilitating a congruence between the two domains.

A more latest evolution coming out of Conceptual Metaphor Theory (CMT) is what is referred to as "Blending Theory" (BT) that is proposed by Fauconnier and Turner in 2002. This approach deviates from the traditional model of positing a target and a source domain; instead, it introduces the idea of integration between two or more "input spaces". These input spaces encompass some shared and distinct features, and the blending of these features leads to the appearance of "blended space".

Another development in CMT is the emergence of the new metaphor theory referred to as Critical Metaphor Analysis which is introduced to the realm of cognitive linguistics by Charteris-Black in 2004. Critical Metaphor Theory is characterized as a discerning framework that seamlessly integrates critical discourse analysis, pragmatics and corpus linguistics in order to unveil "the covert intentions of language uses"(p.34). Charteris-Black (2004) delineates three steps regulated with Fairclough's (1998) critical discourse analysis framework: identification, interpretation, and explanation of metaphor.

The major critique directed at critical metaphor theory hinges on its disregard of the psychological, societal, cognitive and ideological dimensions inherent in the conceptual representation of metaphor. According to Hart (2010), critical metaphor theory significantly makes use of Conceptual Blending Theory (CBT) in cultivating a socio-cognitive critical approach to metaphor analysis. This CBT views discourse as a cognitive process and treats metaphor as an integral structural component of discourse and it motivates the production or the appearance of new entrenched structures that illuminate the embedded meaning of the social metaphor.

The expeditious advancement of information technology, coupled with the interrelation between texts, images, gestures, and other modes of communication, has given rise to a multimodal discursive phenomenon that constitutes an important aspect of our everyday life (Zhang & Zhan, 2011). Moreover, further research in metaphor studies posit that metaphor plays a foundational role in shaping both cognitive processes and behavioral actions not only through language but also via variant visual modes like pictures, gestures, colors and sounds. Therefore, visual metaphor or what is called multimodal metaphor appears to investigate the interconnection among different modes of communication (Forceville, 1996, 2006, 2008; Forceville & Urios-Aparisi, 2009).

According to Forceville & Urios-Aparisi (2009), Multimodal metaphor refers to the process of employing two or more variant modalities to depict mapping and blending between two aspects: the source and target domains. In the same sense, Forceville (2008) assumes that multimodal metaphors are "metaphors in which target, source, and/or palpable features are represented or suggested by at least two different sign systems (one of which may be language) or modes of perception" (p. 463). Factually, the visualization of metaphors is of great significance as it can accelerate and enhance the identification of the metaphorically embedded meanings, thus producing distinct stories conveyed through the metaphorical and iconic projection which "invites the user to consider its heuristic value" (Carroll, 2001, p. 211). Additionally, viewers are encouraged to unravel the complexities involved in formulating visual metaphors, discerning the process of "metaphoric mapping from the concrete to the abstract domain" (Demey et al., 2008, p. 194) and this raises their interest in the multimodal discourse. As a result of this metaphoric mapping, Forceville (2006) ascertains that in advertisements, the visual mode is

mainly employed to represent the target – and this may occur in different genres as well. However, there might be discernible differences in the selection of mode for representing the target domain in different genres, and these patterns may sustain shifts over time within a specific genre. (p.15). Thus, one of the objectives of this paper is to test how source and target domains are represented pictorially.

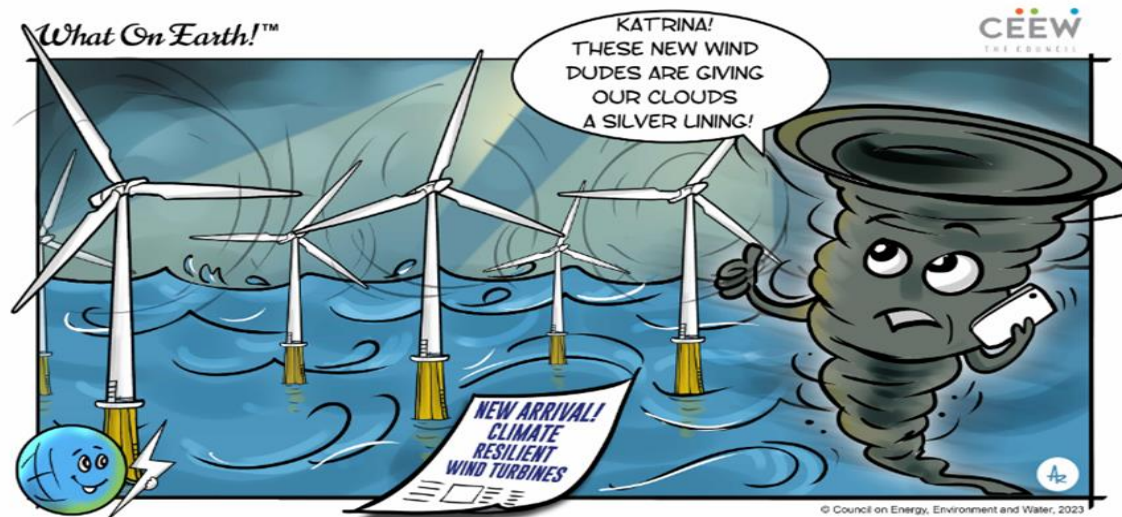
**8. Multimodal Positive Metaphors in CEWW Selected Cartoons**

This section is designated for examining the positivity inherent in eleven environmental cartoons produced by CEWW through applying Forceville's (1996 & 2009) theory of multimodal metaphor and Hart's (2008) model of critical metaphor analysis. The analytical process encompasses four key procedures: (1) identification of the major multimodal metaphor and the related cognitive mapping in the selected corpus, illuminating their target and source domains and the visual contextual clues that trigger them; (2) explicitation of the metaphorical entailments; (3) explanation of integration process occurring within the determined multimodal cognitive metaphors; and (4) delineation of the new emergent positive scenarios. Moreover, the eleven cartoons are categorized based on their target and source domains. In the first category, the visual mode serves to convey the target domain, while the source domain is articulated through language (human being source domain). In the second group, the verbal mode functions as the target domain, and the source domain is presented through images (with the source domain being non-human). The following table illustrates the allocation of source and target domains within the selected corpus.

Table 1. The allocation of source and target domains in the selected cartoons

Number of cartoon	Target domain	Source domain
1	Image	Language
2	Image	Language
3	Image	Language
4	Image	Language
5	Image	Language
6	Language	Image
7	Language	Image
8	Language	Image
9	Language	Image
10	Language	Image
11	Language	Image

8.1 Category 1: Human Source Domain



Cartoon 1. Resilient wind turbines are productive human beings

Wednesday, June 14, 2023, <https://www.ceew.in/what-on-earth?>

Within the first category under examination, encompassing five cartoons, a notable commonality resides in the attribution of human-like qualities to the non-human entities portrayed in these visual representations. The first cartoon presents two main objects: wind resilient turbines and tornados. The sharp contrast between the dark grey hue of the tornado, the white color of turbines and the light blue color of water illustrates resilient wind turbines as unbreakable opponent to the astonished tornadoes. Traditional wind turbines, designed to endure

the incoming wind, necessitates blades with abundant stiffness to prevent them from being thrust into the tower. This requires a hefty amount of material to assemble these almost substantial blades (Simpkins, 2022, p.1). Consequently, there is a demand for blades that exhibit both resilience and flexibility that enable them to bend in the face of heavy headwinds. Climate resilient wind turbines represent a groundbreaking advancement in wind technology that saves both money and energy, with India rapidly and efficiently employing these inventive turbines to control wind energy and allocate with government's green objectives.

Because of their significance and effectiveness, the environment friendly turbines are depicted as productive human beings (producers) and the first multimodal metaphor RESILIENT WIND TURBINES ARE PRODUCERS is formulated. This integration triggers the topoi of "production" and "development". What reiterates this sense of production and advancement is the use of action verb "are giving" in present continuous tense which proves the continuity of production and development. Furthermore, the utilization of the colloquial expression "dude" that means "friend" gives the new wind turbines new human being features that are motivated by the sense of productivity in both target (turbines) and source domains of (human being). As a result, new configurations have been steered in the blended space and there the act of harnessing the wind is integrated with the process of production HARNESSING WIND IS HUMAN PRODUCTION. This implies a connection between two different entities: the action of harnessing the wind and the process of production. Consequently, actions and processes intertwine to give rise to new emergent scenarios, elaborately wreathed through their correlation. Personifying the silver lining clouds as new products not only implies the prospect of a cleaner, hopeful existence but also stresses the scenario of production and advancement. Here, in generic space, an integration between two objects takes place. Both entities share the same abstract/concrete attributes connected with hope, purity and productivity. The affirmation of these scenarios stems from the visual modes exemplifying in colors and facial expressions; for example, the use of light blue with silver white conceptualizes hope, production and progress. Besides, the facial expressions of the black tornado, metaphorically personified as a human being speaking to "Katrina", the famous hurricane in America, play a pivotal role in expressing astonishment of the innovatively designed turbines that "give" "clouds" a "silver lining". Cartoon 2, also, points up the source domain of human beings, accentuating their attributes and features within the jail and custody depicted scenarios.



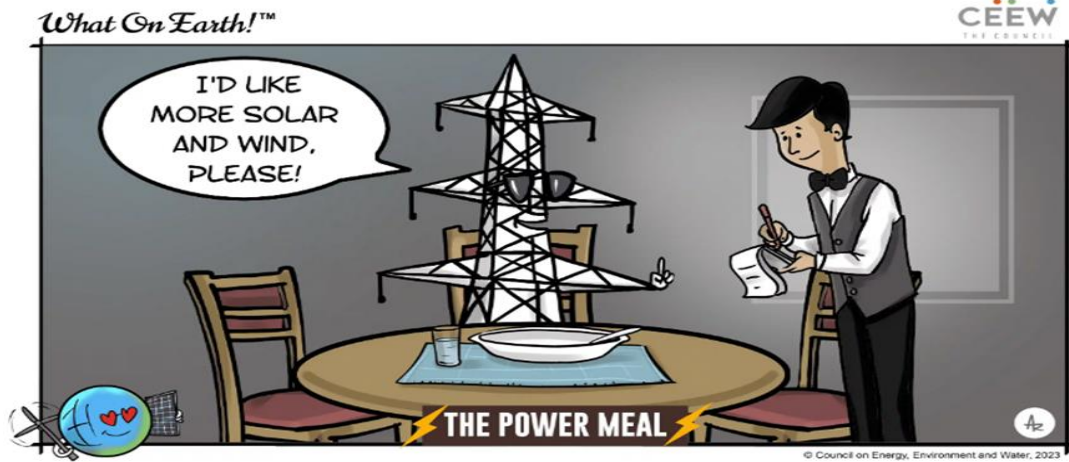
Cartoon 2. Co2 is a criminal

Wednesday, June 7, 2023, <https://www.ceew.in/what-on-earth?>

By 2020, the majority of "nations are blending to reach net zero emissions of greenhouse gases" (Dacy, 2012, p.1). A pivotal technique in obtaining net-zero emissions involves the capture and the safe, long-term storage of carbon dioxide. This process is commonly referred to as decarbonization. At the same time, the utilization of basalt dust contributes to enhancing soil productivity, offering benefits such as enhanced "drainage" and augmented reduction of "acidity levels" (2021, p.1). According to Gordon (2023), basalt serves as the essential raw material for the implementation of the "nature-based carbon removal technology called enhanced rock weathering (ERW)", a geological process used to "lock away CO2 from the atmosphere" (p.1). This natural systematic process of taking CO2 away is significant in alleviating the unpropitious effects of climate change.

The multimodal metaphors "CO2 IS A CRIMINAL / DECARB CREW ARE POLICE OFFICERS" are instigated by the interplay between counter elements in the two cognitive mental spaces: input space 1 exemplified through imagery and input space 2 represented through language. In this context, disparate agents from diverse domains are intricately connected within the generic space, symbolizing the consequential efforts undertaken by the Indian government to help the environment. The cogent statement by the decarb crew, "NO, MORE MISSING WITH THE PLANET!" amplifies the significance of the issue. Besides, employing a vector, embodied by the man's arm, to refer to the underground basalt activates associations of "hope", "concern" and "ambition" towards achieving net-zero emissions. Additionally, the two frames of decarbonization and custody consolidate to form a new network in the generic space, encapsulating the

metaphorical representation "UNDERGROUND BASALT IS JAIL". This symbolic representation emerges from connecting the process of decarbonization with the notion of custody, an amalgamation that conveys themes of "rescue ", "relief" and "help". The source domain of animate human beings holds a considerable significance, illuminating their distinctive characteristics and features within the visual-verbal narrative in cartoon 3. Actually, this caricature possesses metaphorical potential wherein the source domain of a human being is utilized to metaphorize pylons and transmission towers.



Cartoon 3. Transmission tower is a client  
 Wednesday, May 17, 2023, <https://www.ceew.in/what-on-earth?>

This conceptualization process is activated through some visual and verbal cues, including elements of polite requests such as the expressions "I'd like" and "please", the scene of sitting in the restaurant, and the waiter taking the client's orders. The initial cognitive integration between the two subjects, the pylon and the human being, initiates a nuanced metaphorical blending that is complicatedly connected to the original visual metaphor.

Within this multimodal cognitive framework, several entities emerge, encompassing sun, wind, wires, and the functional processes of using solar and wind power. At the same time, the second cognitive verbal domain conjures elements associated with the client/customer frame, including the ingredients of potent meal, bodily vessels, and the pursuit of a happy, healthy life. The positive conceptualization of sun and wind as vital ingredients of the prominently emphasized "POWERFUL MEAL" stresses the prominent role of renewable sources, such as wind and solar power, in the generation of electricity. This emphasis stretches to the portrayal of electric wires which are metaphorically represented as human vessels affiliated to blood circulation throughout the human body.

Motivated by the conceptual frames of electricity and human being, variant types of actions are delineated. The first pertains to the employment of solar and wind energy to produce clean electricity, while the second revolves around the inclination to get a joyous and healthy life. This projection unfolding within the generic cognitive space gives rise to some positive scenarios, including hope, happiness, and sustainability. The portrayal of these scenarios is enhanced via the visual mode, particularly through the meticulous use of personification, exemplified in the pylon's cheerful and optimistic smile. Cartoon 4 is another illustration underscoring the significance of the source domain of living human beings. Besides, this caricature strategically utilizes both visual and verbal modes to innovatively build a cohesive cognitive integration of visual and verbal elements. Moreover, the cautious use of personification accentuates the interplay between visual and verbal representations.



Cartoon 4. GHG and COVID 19 are fugitive losers  
Wednesday, May 10, 2023, <https://www.ceew.in/what-on-earth?>

The primary metaphorical synthesis represented in this cartoon is that GHG AND COVID-19 ARE FUGITIVE LOSERS. This consolidation is visually inferred through fear-inducing gestures in the images of GHG and COVID viruses, depicting them as if perilously escaping to keep their existence. The use of action verbs such as "done for" and the transitive action verb "come", connoting arrest, obtainment, reception, or derivation, accentuates the impending danger that faces these destructive entities. Within the generic space, two distinct agents are projected, giving rise to new cognitive metaphorical representations that intersects two frames: the environment frame and the war frame. The first conceptual metaphor portrays global action as a triumphant invader forewarning the world of an imminent victory. The use of the trumpet implies that significant actions are about to crop up. The incorporation of red hues, evocative of blood and war, underscores the urgency for people to consider climate change and GHG emissions seriously. The capitalized explicit term "GLOBAL ACTION" intensifies the sense of urgency. Additionally, the second cognitive metaphor decodes the result of this metaphorical war: CLEAN ENVIRONMENT IS VICTORY. In this critical metaphor, two objects are seamlessly interplayed: the clean environment in one domain and victory is the second domain. These implications are reinforced visually through the employment of the colors green and blue, symbolizing composure and patience and fostering hope for a clean green environment.



Cartoon 5. Solar panel is an aged man  
Wednesday, April 13, 2023, <https://www.ceew.in/what-on-earth?>

The fifth cartoon elaborately emphasizes the profound significance associated with the source domain of human beings by ingeniously metaphorizing the solar panel as an aged human being, exposing the intricate conceptual relationship between renewable and sustainable energy sources and human beings. Furthermore, this cartoon also implicitly presents the existing economic system which operates on the premise of extracting raw materials from nature, transforming them into products, and finally discarding them as waste. Otherwise, the circular economy advocates a strategic approach, revolving around the inventive design of technological products to facilitate the reuse of

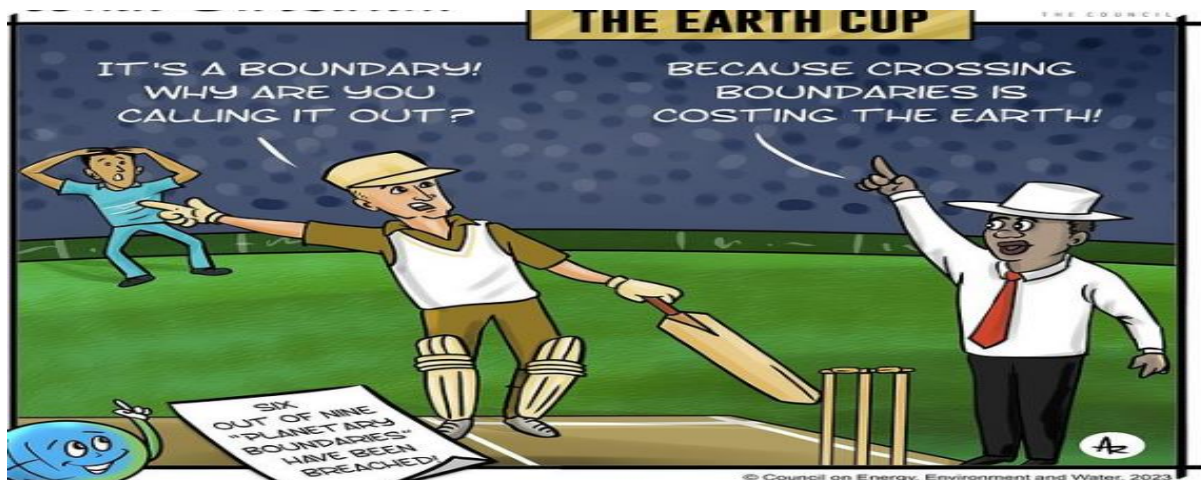


natural materials. This mindset aims to promote the sustainable use of natural resources, thereby tackling environmental challenges such as pollution and climate change. Here, the cartoonist skillfully intertwines two different mental frames: the frame of foreseeing or predicting the future and the frame of recycling and utilizing the circular economy. This amalgamation gives rise to many metaphorical representations that illustrate the harmonious conjunction of environmental consciousness and future insights. The main multimodal metaphor in this cartoon is SOLAR PANEL IS AN AGED MAN. This metaphor involves some related conceptual presentations such as CIRCULAR ECONOMY IS FUTURE CRYSTAL BALL and RECYCLING/USING CIRCULAR ECONOMY IS HAVING A NEW LIFE.

Within the framework of crystal gazing, a weary and exhausted elderly man seeks desperate insights into his future. The pretty female fortune-teller, who is equipped with a crystal ball bearing the noun phrase "CIRCULAR ECONOMY", unveils the man's prophecy: a multitude of future lives awaits the old man. These source domains are integrated with some target domains that have been constructed in the second input space frame which is recycling/ circular economy frame. Moreover, these conceptual mental spaces trigger the image of solar panel which is visually coded with the discrete blue color and a rectangular shape, epitomizing the principles of circular economy and the associated actions of clinching circular economic practices. Consequently, in the blended space, two agents, two objects, an event, and a process are intricately intertwined, giving rise to new scenarios that sketch a future infused with hope, prospect and ambition—recognized through the fastidious adoption of circular economy practices by human beings.

8.2 Category 2: Non-Human Source Domain

In the second category, six cartoons featuring non-human source domains have been investigated. Cartoons 6, 7, 8, and 11 distinctly expose the source domain of sports, while cartoons 9 and 10 prominently depict trip and container conceptual metaphors, introducing a layer of complexity and diversification to the visual and metaphorical scenarios within these cartoons. The verbal mode in the sixth cartoon connotes the efforts of a group of 29 scientists from diverse nations engaging in a study on the Earth's planetary boundaries. According to Chauhan (2023), human beings and their destructive activities have breached six out of the nine determined planetary boundaries, including "climate change, biosphere integrity, freshwater change, land system change, biochemical flows, and novel entities" (p.1). In contrast, "atmospheric aerosol, ozone depletion, and ocean acidification" are on the verge of being breached (p.1). Hence, extensive efforts are imperative to secure the remaining three planetary boundaries.



Cartoon 6. Earth cup is world cup  
 Wednesday, October 4, 2023, <https://www.ceew.in/what-on-earth?>

Through the genuine interconnection between the verbal mode as a target domain and the visual mode as a source domain, the main multimodal metaphor EARTH CUP IS WORLD CUP have been formulated.

This metaphorical representation elucidates the complex cognitive blending occurring between two distinct domains: the sport domain and the environment domain. Within this conceptual projection, some attributes of the target domain, represented by the "earth," are conceptualized in the context of the source domain, namely the "cricket playground". The verdant playground works as a dual symbol, symbolizing both the "cricket playground" and the "green environment". This decodes the seamless reciprocation between two disparate agents within the blended space.

Consequently, several subordinate metaphorical representations are constructed: THE NINE BOUNDARIES OF THE EARTH ARE THE BOUNDARIES OF THE PLAYGROUND, DAMAGING EARTH IS CROSSING THE PLAYGROUND BOUNDARIES and DEFENDERS OF THE ENVIRONMENT ARE REFEREES. This mapping is executed both visually and verbally, with the term "boundaries" repeated twice: firstly, by the batsman referring to the playground boundary and secondly by the referee alluding to the Earth's boundaries.

Furthermore, the employment of action verbs such as "calling out", "crossing", and "costing" serves to enunciate dynamic actions and movements towards enacting new regulations aimed at securing the three boundaries at risk of being violated by human beings. In this context, the processes of destroying the Earth and surpassing boundaries must be determinedly prohibited and impeded. This projection, taking place in the blending space, fosters the scenario of actively preserving the environment and this accentuates the ample endeavors undertaken by the Indian government in its commitment to conserve the environment. These efforts have been underscored and emphasized in cartoon 7 which is another instance of sport source domain.

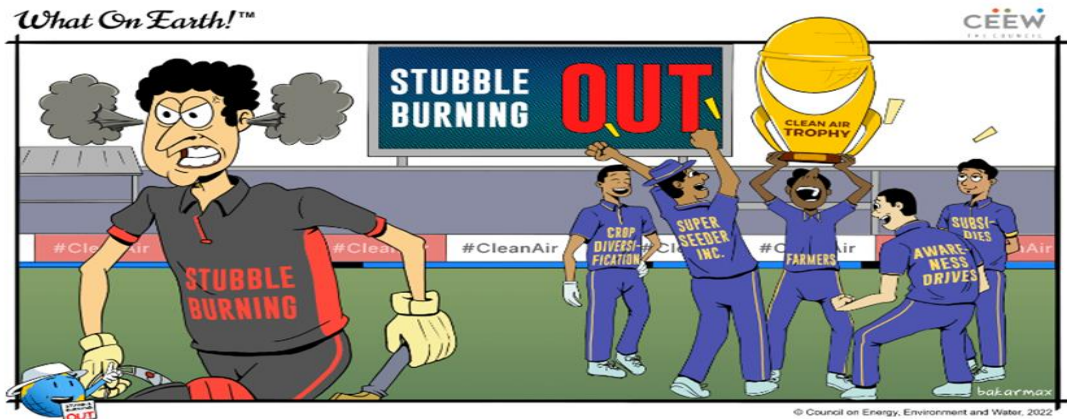


Cartoon 7. Saving the environment is winning the race

Wednesday, September 20, 2023, <https://www.ceew.in/what-on-earth?>

Conceptualizing the environment as a race serves as a clarifying framework, explicating the indispensable endeavors for environmental preservation. The projection of the source domain of sport or race onto the target domain of the environment accentuates India's exerted efforts towards clean and sustainable environment. The visual metaphor **SAVING THE ENVIRONMENT IS WINNING THE RACE** is explicated through the integration of two distinct actions: the act of environmental preservation and the act of achieving victory in a race. These two distinct actions are met in the blended space to formulate the above-mentioned multimodal cognitive metaphor.

As a consequence of this integration, the decisions of the G (20) is allegorically depicted as efforts in this competitive race **THE DECISIONS OF G20 ARE EFFORTS TO WIN THE RACE**, **THE GREEN DEVELOPMENT PACT IS A STARTING WHISLE** and **COP 20, WORLD BANK AND SDG ARE PARTICIPANTS OF THE RACE**. These critical metaphorical representations signify the outcomes of G (20) summit, 2023, in New Delhi, during which leaders generally recognize the preminent significance of the Green Development Pact and Sustainable Development Goals (SDG). Besides, the utilization of the present continuous verb "counting on us" precisely implies the forceful and severe competition that India is involved in to save its environment. Furthermore, the portrayal of G (20), the Green Development Pact, and (SDG) as competitors highlights the concerted efforts of the Indian government. Additionally, the representation of SDG, the Word Bank, and Cop 28 as active participants/agents underscores the great efforts of India and all G (20) nations towards a greener future. This visualization process invokes, in the generic space, a cognitive thematic scenario that revolves around the ambition for a hopeful and clean future, exposing the theme of triumph that notably oppose the prevailing environmental dangers and threats.



Cartoon 8. Farms are cricket playgrounds

Wednesday, October 5, 2022, <https://www.ceew.in/what-on-earth?>

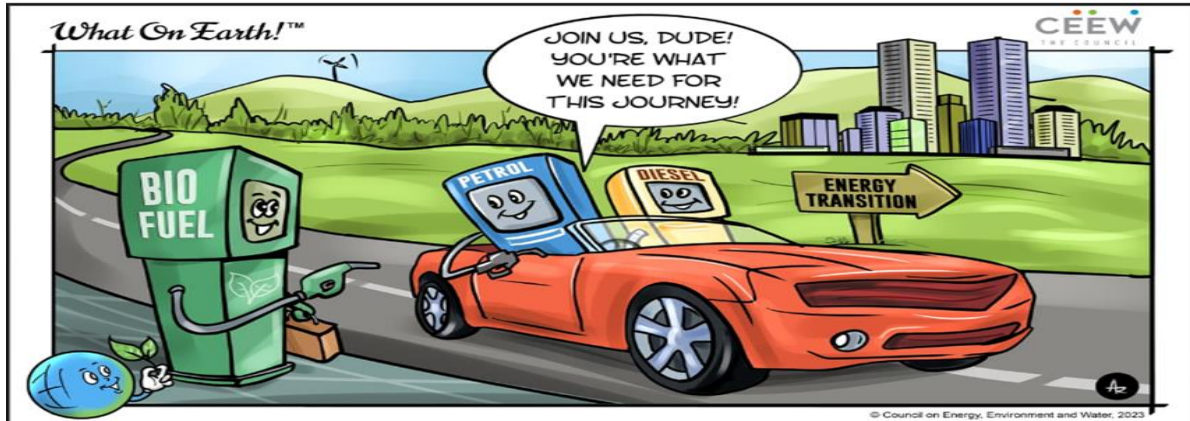
The repetition of the sports source domain is also noticed in the eighth caricature, emphasizing the robust interrelationship between the exerted endeavors in both thematic frames: environment frame and sports frame. This recurrence accentuates a distinctive parallelism between the two domains, emphasizing the crisscross nature of the efforts adopted in these two different but interwoven contexts.

Within this multimodal framework, the source domain of sports is pictorially visualized through the incorporation of imagery depicting a cricket playground, victorious and triumphant cricket players, as well as the despondent unsuccessful opponent. In the primary visual metaphor, these visual components, coupled with verbal mode, appeared in terms such as "STUBBLE BURNING", "CROP DIVERSIFICATION", "SUPER SEEDER", "FARMERS", and "SUBSIDIES", act as catalysts to evoke the target domain of agriculture and its related frames.

Consequently, a series of interrelated sub-conceptual metaphors are formulated, portraying CROP DIVERSIFICATION /AWARENESS /SUBSIDIES as WINERS and STUBBLE BURNING as LOSER. Through this process of blending, a cohesive integration of two distinct domains is achieved, integrating two objects, two agents, and two events within this blended space. This projection constructs specific scenarios, encompassing the topo of victory, clean air, hope, and healthy life, thereby presenting a distinctive image that merges the domains of agriculture and sports.

What accentuates the positivity of the cartoon is that the formulated topoi are depicted visually and verbally. The employment of the capitalized red phrase "STUBBLE BURNING" alludes a sense of urgency and danger. By visually portraying stubble burning as an angry, excluded player, the cartoonist creates a positive impression that India is handling this urgent issue (getting rid of subtle burning), leading to a healthier and happier life, encoded by the triumphant players. This victory is allocated with solutions like crop diversification, super seeder, awareness, and subsidies.

Furthermore, the close shot portrayal of the excluded player communicates the allusion of a significant threat or danger. In contrary, the capitalization of the word "OUT" on the board stresses that by eliminating stubble burning, the environment will be clean and healthy. Overall, the cartoon utilizes a visual-verbal approach to brings a positive scenario of overcoming the existing environmental issues and challenges.

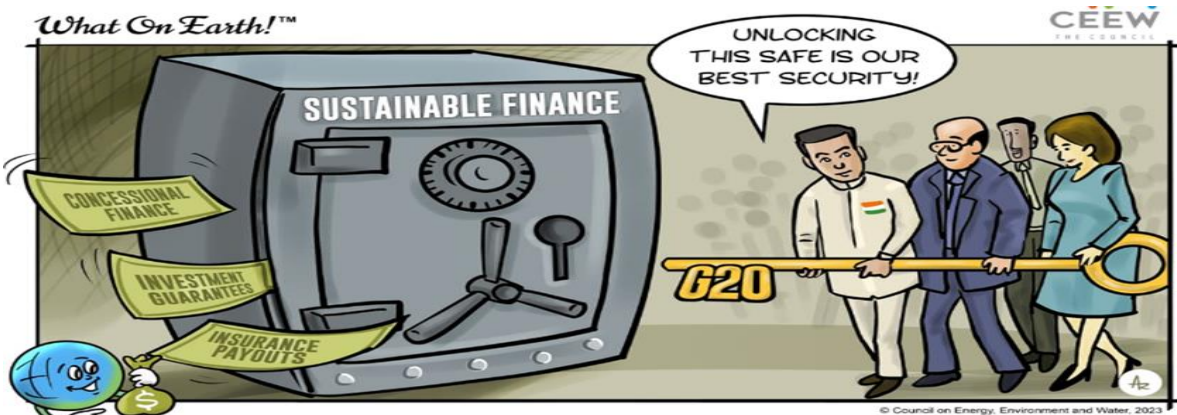


Cartoon 9. Clean energy is a trip  
Wednesday, August 9, 2023, <https://www.ceew.in/what-on-earth?>

Transitioning from sport domain to trip source domain is intriguing, symbolizing not only the shift in focus but also conveying the patience, effort and endurance required for long journeys. In the current landscape, the explosion of diesel and petrol fuels contributes significantly to the emission of harmful pollutants, posing a stern threat to the environment. The detrimental effect of these conventional fuels on our environment is well-documented. According to the Merriam-Webster dictionary, biofuel is defined as a kind of fuel derived from "biological raw material", encompassing animal waste, wood, or plants. Biofuel is viewed as a sustainable, secure and eco-friendly energy alternative that can mitigate the deleterious effects associated with fossil fuels, the major felon behind global warming. Thus, this cartoon presents a genuine multimodal metaphor, suggesting that the concept of clean energy resembles a lengthy journey CLEAN ENERGY IS A LONG TRIP and consequently some related conceptual metaphors arise PATROL AND DIESEL ARE CAR DRIVERS AND BIOFUEL IS THE NEW PASSENGER/TOUR GUIDE.

Conceptualizing transition to clean energy as a trip or journey that has a starting point and a destination introduces scenarios of endurance, effort, hope and optimism. This sentiment is materialized through a meticulously crafted green background, symbolizing the aspiration for a clean and eco-friendly environment. To intensify this sense of hope, petrol and diesel are portrayed as uncertain drivers who do not know how to reach their destination safely and this underscores the potential dangers linked to their utilization and accentuates their inherent hazards.

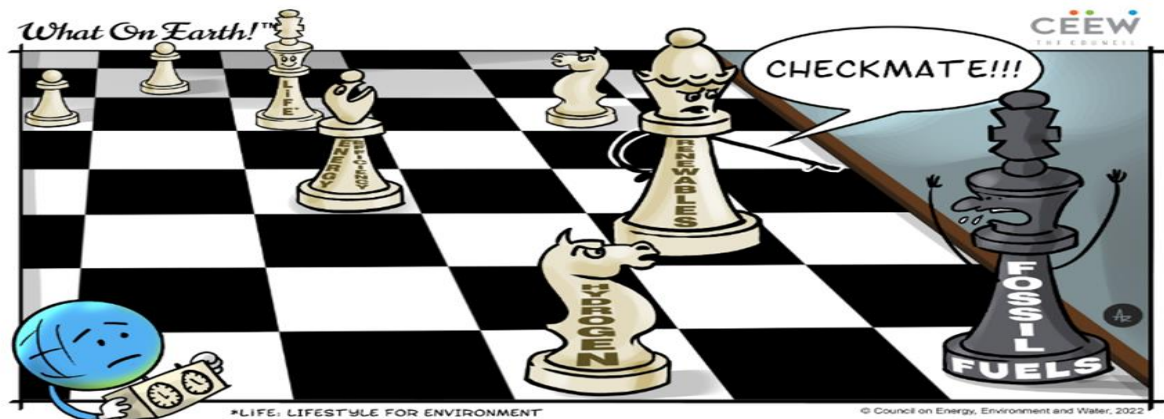
Employing referential strategies, the cartoonist introduces a new layer of meaning and forms a new metaphorical projection by juxtaposing biofuel as a target domain with a road guide as a source domain. This integration serves to contradict the notion of threat and danger and it also highlights the scenario of hope and security. The verbal mode "you are what we need for this journey" emphasizes this sense of security and hope. Besides, the green hue of the biofuel refers to its ecological rapport, while its happy relaxed facial expressions allude a sense of triumph. This complicated interconnection of visual and verbal modes serves to communicate the current challenges and it promises the shift towards clean energy.



Cartoon 10. Sustainable finance is a big safe  
Wednesday, August 23, 2023, <https://www.ceew.in/what-on-earth?>

In addition to biofuels, sustainable finance holds a noticeable significance. Caricature 10 utilizes a prominent multimodal metaphor SUSTAINABLE FINANCE IS A BIG SAFE (CONTAINER) that present sustainable finance as a safe container which encompasses a plethora of stocks, exemplified by concessional finance, investment guarantees, and insurance payouts and this formulate the metaphor CONSESSIONAL FINANCE IS STOCK .The interplay of the written caption "sustainable finance" with the image of the large consequential safe creates a metaphorical representation, underscoring the significance of sustainable finance in handling environmental challenges. Within this metaphorical integration, the Sustainable Finance Working Group (SFGW), operating under the supervision of the G20 residency in India, is portrayed as the curator of the safe. Consequently, the members of this group, three men and a woman, are responsible of making decisions pertaining to sustainable finance, emphasizing their significant role.

The large size of the safe serves as another metaphor, signifying the immense importance attached to the issue of sustainable finance. This integration motivates scenarios associated with care and security. Moreover, the detailed-free grey background and the use of semi-blue color palette applied to the participants highlight the importance of the sustainable finance issue. The formulated critical metaphors accentuate the protective nature of sustainable finance in the quest of environmental well-being.



Cartoon 11. Environment is a chess board

Wednesday, August 17, 2022, <https://www.ceew.in/what-on-earth?>

The sports source domain is once again utilized in cartoon 11 in which ENVIRONMENT is depicted as a CHESS BOARD. This scenario unfolds as a strategic game, encompassing winners and losers within a metaphorical framework where the environment is symbolically portrayed as a chessboard. This metaphorical conceptualization introduces dynamic participants, represented by different chess pieces such as the bishop, queen, king, and knight. Each of these pieces is assigned the name of a sustainable environmental resource, such as Hydrogen, renewables, and energy efficiency. Within the blended space, a cohesive integration between disparate objects and agents takes place. Furthermore, the strategic movements and actions of the chess pieces lead to the defeat of the fossil fuel which is conceptualized as a defeated and vanquished black king. The announcement "CHECK MATE" by renewables indicates the decisive conclusion of fossil fuel utilization and fosters renewable energy adoption and environmental cleanliness. The juxtaposition of the white and black chessboard underscores the dichotomy between pollution and a clean environment.

Moreover, the somber facial expressions of the queen and the knight asserts the gravity of the issue, reflecting India's insistence and commitment to replace nonrenewable resources with sustainable alternatives. Besides, the deliberate use of capitalized and bold letters affirms the adoption of sustainable lifestyles to achieve a net-zero impact. Through this comprehensive integration, this cartoon succeeds in underscoring the pivotal role of renewables in steering the course towards a cleaner, sustainable future.

## 9. Conclusion

Contrary to Critical Discourse Analysis (CDA), Positive Discourse Analysis (PDA) directs its focus toward augmenting positive messages intrinsic in specific discourses, prioritizing the advocacy of positive practices over the brace of negative associations that may maintain specific stereotypes. Essentially, PDA appears as a counter-discourse or what is referred to as a discourse of resisting, opposing the long-established hegemonic discourses propagated by CDA regarding environmental threats and their destructive consequences. Besides, this study dredges into how visual metaphors within cartoons works as a powerful tool for conveying optimistic messages surrounding eco-friendly practices and envisioning a green future. The employment of multimodal metaphors, including variant semiotic codes such as symbols, colors, language, etc. forms a pivotal aspect of this methodological approach to Multimodal Positive Discourse (MPD). This approach substantially contributes to the development of experiences for individuals lacking knowledge about contemporary ecological practices that have been stereotyped within the domain of Eco-linguistics. Therefore, the selected cartoons are not merely visual representations but also vehicles for shared experiences, formulating a multimodal discourse that is inherently positive and deviate from frequent negative eco-perspectives usually linked with the notions of dangers, hazards and threats.

The paper additionally elucidates the impact of visual metaphor in forming new and positive eco-friendly scenarios through projection and integration across two distinct input spaces. The first input space is stimulated by one mode of communication, while the second is motivated by a completely different mode. Besides, the research involves ascertaining the elaborate patterns of interaction, known as mapping, between these two distinctive modes, namely language and image. This perceptual mapping process is a complex and complicated one, bearing a range of critical, social, and psychological associations that contribute to the comprehension of how visual metaphors function in assembling positive scenarios within the ecological context. These associations arise within a blended space and are enunciated in a generic space. Previous studies, such as Hart's research in socio-cognitive critical metaphor analysis (2008 & 2010), generally assume that entrenched scenarios tend to have negative associations, as they are frequently linked to discourses of migration and their ideological implications. Contrary to this existing viewpoint, this study seeks to investigate positive entrenched scenarios and their corresponding associations, thereby constructing a robust linkage between positive discourse analysis, socio-cognitive critical metaphor analysis, and multimodal metaphor. Consequently, the paper utilizes positive discourse analysis framework in dissecting multimodal metaphors in 11 Indian selected cartoons from a socio-cognitive perspective. In this context, each cartoon, constructs a metaphorical meaning that aligns with the thematic concept of eco green sustainable future.

Comprehending the complexities of multimodal metaphors can significantly enhance the understanding of complicated target and source domains depicted within the chosen cartoons. In order to find an answer to the aforementioned research questions, the cartoons are systematically classified based on their target and source domains. The first category, encompassing 5 cartoons, stresses the utilization of the visual mode to convey the target domain, while the source domain is articulated through language, specifically the human being as a source domain. In the second category, consisting of 6 cartoons, the verbal mode adopts the role of the target domain, with the source domain depicted through images, featuring non-human entities. Despite of this systematical division, the human element remains essential in all cartoons, appearing in disparate interrelated metaphors associated with the principal visual metaphor formulated in the second category as a result of the intricate integration between source and target domains. The meticulous focus on human beings, irrespective of gender, underscores their pivotal roles in fostering sustainability and eco-development.

In addressing Research Question 1, the study delineates the deployment of visual metaphors related to the environment and different environmental practices. These metaphors utilize multiple conceptualizations aimed at reinforcing positive attributes connected to the environment. Conventional ecological resources are assigned features arising from diverse source domains such as anger, astonishment, defeat, crime, etc. Conversely, renewable and sustainable resources are depicted through source domains evoking concepts of victory, happiness, safety, etc. Terms like biofuels, circular economy, global actions, power meal, and climate-resilient wind turbines are tactically employed to bespeak positive attributes associated with modern renewable resources essential for environmental safety.

Research Question 2 postulates inquiries concerning the positive entrenched scenarios that have been conceptualized through the integration of image and language. The answer of this question can be derived from an examination of visual metaphors represented in the cartoons, which help in the perception of these entrenched scenarios formed in the cognitive generic space. Elemental themes of hope, success, aspiration, ambition, and optimism are brought to the forefront, serving as an opposition to the prevailing scenarios dominated by stereotypes of threat, damage, insecurity, and instability. The following table shortly encapsulates the emergent positive scenarios and emphasizes how they stand in a contrast to stereotypical negative perspectives. Table 2. Entrenched positive vis-a-vis. negative emergent scenarios in the selected cartoons

THE FUTURE OF ENVIRONMENT	IS	IS NOT
	hope	Despair
	optimism	Pessimism
	ambition	Indifference
	security	Threat
	stability	Instability

In short, Indian cartoonists strategically engage in a discourse of resistance through the proficient employment of visual codes, intending to establish shared conceptual significances. The semiotic evaluation within the current positive discourse framework rests on the cartoonists' aptitude in genuinely conveying the reality of eco-friendly practices. Moreover, the cartoonists employ verbal-visual structures that serve as reflections of external perceptions regarding the future state of the environment. The interplay between internal and external structures is exemplified in the semiotic representations of biofuels, climate-resilient wind turbines, solar panels, circular economy, interconnected with the emotions of guidance, hope, and empowerment.

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**Author contribution**

This research expounds positive practices of multimodal discourse in an attempt to evaluate the role of multimodal metaphor in explaining the positivity of multimodal eco-discourse. Within this framework, the paper attempts to scrutinize the cognitive discursive

importance and dynamics of visual metaphors in the framework of eco-positive discourse analysis. Thus, Explaining and revealing positive environmental viewpoints about the harmony between different ecological affordances through integration process.

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