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The Construction of Ecological Images of Ant Forest From the Perspective of Ecological Discourse Analysis

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Abstract

Ecolinguists contend that language serves as a bridge between human beings and the natural environment, reflecting human's attitudes toward the environment while also shaping people's environmental behaviors and perspectives. In corporate annual reports, details addressing corporate-nature interaction reveal the company's attitude toward ecological conservation and also demonstrate its social responsibility concerning this issue. Based on the analytical framework of transitivity for international ecological discourse proposed by He and Wei in 2017, the paper combines both qualitative and quantitative methods to analyze the "Ecological Protection and Restoration" section in Ant Group's 2023 Sustainable Development Report. The analysis focuses on two dimensions: transitivity structures, participant roles, and classifications of ecological discourse. The study aims to explore how Ant Forest constructs diverse ecological identities, such as being a supporter of national ecological strategies, a proactive practitioner, a global advocate for ecological conservation, etc., thereby encouraging public and social participation toward achieving the Beautiful China initiative.

Key words: Ecolinguistics; International ecological discourse analysis; Analytical model of transitivity; Ant Forest

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1. INTRODUCTION

Ecolinguistics, a branch of linguistics combining ecology and linguistics, focuses on the mutual interaction, shaping, and adaptation between language and environment (Huang, 2016). Theoretically, the two most influential research paradigms are the "Haugenian approach" and the "Hallidayan approach". From a metaphorical perspective, the former focuses on strategies for protecting linguistic diversity and maintaining ecological balance. In contrast, the latter studies ecological discourse from a non-metaphorical perspective, aiming to prompt linguists to consider the contributions they can make to environmental protection. It can be said that these two approaches are complementary and contribute to the development of the discipline as a whole. In the following decades, this discipline has been developed by numerous scholars. For instance, Mühlhäusler (2003) drew on the concepts, principles, and methods of ecology to study language, emphasizing the close relationship between biodiversity and linguistic diversity. Moreover, his research has already focused on language ecology, encompassing topics such as endangered languages, minority languages, and language planning. Based on previous studies, Steffensen and Alwin Fill (2014) proposed four theoretical frameworks for ecolinguistics: symbolic ecology, natural ecology, sociocultural ecology, and cognitive ecology. They explored how to integrate these into a unified framework, providing a clear direction for future research in this field. Arran Stibbe (2015) explored

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language, ecology, and the stories of our lives, proposing an ecosophy of "survival". From a natural ecological perspective, he also categorized ecological discourse into three distinct types: destructive, beneficial, and ambiguous.

Ecological discourse analysis is a very important part of ecolinguistics. In order to promote the ecological balance and sustainable development of international society, He and Wei (2017) constructed an analytical framework of transitivity for international ecological discourse. The framework is based on transitivity in functional linguistics (Halliday, 1997), integrating Chinese traditional culture and diplomatic concepts. It can be used to better analyze both natural ecological discourse and social ecological discourse. Many previous studies using this framework employed news reports and conference speeches as research objects. For instance, Sun and Guo (2022) selected the news report of the Amazon rainforest fires in China Daily for eco-discourse analysis to explore how media language choices influence public perceptions of environmental issues. Zhao and Chen (2023) analyzed the transitivity structures and the ecological significance inherent in the news reports of international animal protection organizations to see how this type of news elicits public attention and promotes action in animal protection. Using Xi Jinping's speech delivered at the G20 Leaders' Summit as material, Hong (2024) conducted a comprehensive analysis of the transitivity structures and participant roles within the text. This analysis was to ascertain how the speech reflects international ecological relations and policies. However, previous studies mainly used this framework to analyze the official or formal material, such as news reports in official media, speeches by high-ranking government officials, and reports of authoritative organizations, to explore in depth of the ideology at the national level. However, there are relatively few studies using this framework to analyze private enterprises and non-governmental organizations, particularly with regard to a comprehensive analysis of their ecological image construction.

Ant Forest is a green, low-carbon public welfare project launched by Ant Group, a private company. By encouraging users to accumulate "green energy" on its app through engagement in low-carbon activities, it aims to contribute to the development of an ecological civilization while promoting the adoption of a green lifestyle amongst users. The "Ecological Protection and Restoration" section of the *Ant Group's 2023 Sustainable Development Report* contains a wealth of ecological discourse, making it valuable for research. Therefore, the study aims to elaborate on the construction of its ecological images by using the analytical framework of transitivity for international ecological discourse.

2. THEORETICAL FRAMEWORK

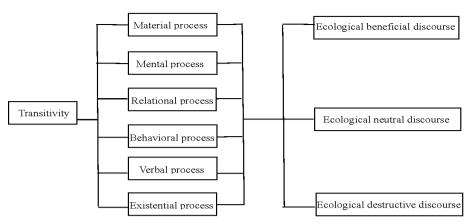
2.1 Ecolinguistics

The notion of ecolinguistics was first proposed by Haugen in an academic lecture entitled "On the Ecology of Languages". He regarded language as a part of the ecosystem, with language and environment interacting mutually (Haugen, 1972). The discipline's theoretical roots lie primarily in ecology. The principles of diversity, interactivity, and holism within ecology have profoundly influenced its linguistic research. The diversity principle draws attention to the world's languages instead of a single language. The interactivity principle focuses on the significance of the interaction between language and its environment. The holism principle prompts a more comprehensive exploration of language as a whole (Wang, 2019).

As has been previously stated, the "Haugenian approach" and "Hallidayan approach" are the two major research paradigms in this discipline. As this study follows the latter, it will provide an overview of the "Hallidayan approach" only. The theoretical foundation of this approach is the social semiotic perspective, ideological perspective, and discourse construction theory of systemic functional linguistics (Miao & Lei, 2019). The three main aspects of it include linguistic ecology, social ecology, and nonecological factors. The first aspect concerns the interaction between language and other social and natural factors; the second part explores how language influences and shapes cultural ecology, economic ecology, urban ecology, literary ecology, and educational ecology; and the third part tunes into the analysis and criticism of non-ecological factors such as anthropocentrism, growthism, and hierarchism (Halliday, 1990). The "Hallidayan approach" has also promoted the development of diverse ecological discourse analysis patterns, such as CDA, positive discourse analysis, and harmonious discourse analysis, etc.

2.2 Analytical Framework

The analytical framework of transitivity for international ecological discourse created by Professor He and Wei belongs to the "Hallidayan approach". Based on the ecosophy of "harmony without uniformity, mutual benefit and love", this framework refines the ecological discourse into three categories: "beneficial", "neutral" and "destructive". It also redefines participant roles into "animate" and "inanimate" categories. The animate participants can be divided into "human organisms" and "non-human organisms". In the case of inanimate participants, those concerned about politics, economy, culture, and other social factors belong to social participants, while those concerned about physical factors, including geographic location, mountains, and rivers, belong to physical participants (He and Wei, 2017). The following part will provide a comprehensive overview of the framework.



Transitivity System for International Ecological Discourse (He and Wei, 2017)

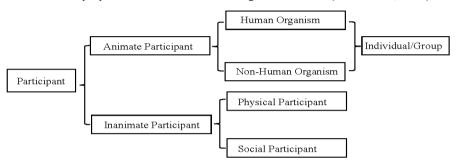


Figure 1 The Framework of Extended Participant (He and Wei, 2017)

3. RESULTS OF THE DATA ANALYSIS

3.1 Transitivity Structures and Classifications of Ecological Discourse

Through a quantitative approach, this paper first analyzes the data from two aspects, namely transitivity analysis and ecological discourse classifications (see Table 1 and Table 2). As illustrated in Table 1, material clauses predominate in 73% of instances, followed by relational clauses at 16%. Mental and verbal clauses account for 6% and 4% respectively, while existential clauses make up only 1%. Moreover, there are no behavioral clauses. Table 2 provides an overview of the various ecological discourse classifications. The beneficial clauses dominate at 75%, while neutral clauses account for 20% and detrimental ones for 4%. Due to the paucity of existential and behavioral clauses, the following analysis will mainly focus on the first four types of clauses.

Table 1 Distribution of Transitivity

Process types	Number	Proportion
Material process	72	73%
Mental process	16	16%
Relational process	6	6%
Verbal process	4	4%
Behavioral process	1	1%
Existential	0	0%
Sum	99	100

Table 2 Distribution of Ecological Discourse Classifications

	Ecological beneficial discourse	Ecological neutral discourse	Ecological destructive discourse	Sum
Number	75	20	4	99
Proportion	76%	20%	4%	100%

3.2 Participant Roles

As demonstrated in Figure 2 and Table 3, it is evident that social participants constitute the predominant proportion at 58%. The following category, which accounts for 23% of the total, is that of human group participants. Non-human group participants and physical participants account for 7% and 8%, respectively. The data indicates that both human and non-human individual participants account for a mere 2% each.

Table 3
Distribution of Participants

Animate Participant	Human Organism	Individual: 4 Group: 41	
	Non-human Organism	Individual: 4	
		Group: 12	
Inanimate Participant	Physical Participant: 14		
	Social Participant: 103		

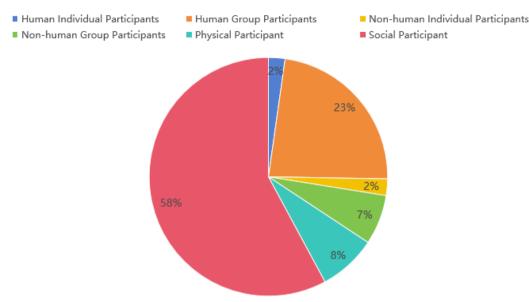


Figure 2 Proportion of Participants

4. TRANSITIVITY ANALYSIS

4.1 Material Process Analysis

The majority of the material clauses in this section are beneficial discourse, reflecting the work undertaken by Ant Forest in ecological protection and restoration. The following are specific examples:

Example 1:

我们以蚂蚁森林为载体,链接公众与生态保护修复,助推荒漠化防治和生物多样性保护,建设自然受益的美丽中国。

Through Ant Forest, we **link** the public to ecological conservation and restoration, **promote** desertification control and biodiversity conservation, and **build** a beautiful China that benefits nature.

The semantic configuration of Example 1 is "actor - human group participant (we) + material process + goal - human group participant (the public), social participants (ecological conservation and restoration, desertification control and biodiversity conservation, and a beautiful China) ". In the first clause, "link" is the action performed, with two participants involved: "the public", the main collaborators of Ant Forest, and "ecological conservation and restoration", its work focus. The second clause elucidates that, within the overarching framework of "ecological conservation and restoration", the more specific work focus is oriented toward the control of desertification and the conservation of biodiversity. The third clause reflects the ultimate goal of this project, that is, to build a beautiful China where human beings live in harmony with nature. Therefore, this whole sentence is in line with the ecosophy of "Diversity and Harmony, Interaction and Co-existence", which is beneficial discourse (He and Zhang, 2017).

Example 2:

在陆地生态修复方面,我们持续支持荒漠化及水土流失防治、生物多样性保护等项目,积极响应国家"三北"工程攻坚战战略部署,落实"昆明-蒙特利尔全球生物多样性框架"相关目标。

In terms of terrestrial ecological restoration, we consistently **support** initiatives such as desertification control, soil erosion prevention, and biodiversity protection, actively **act on** the national strategic deployment of the three-North Shelterbelt Program and **implement** the objectives of the Kunming-Montreal Global Biodiversity Framework.

The semantic configuration of Example 2 is "actor - human group participant (we) + material process + goal - social participants (initiatives, national strategic deployment, objectives)". These material clauses show Ant Forest's support for combating desertification and soil erosion, its involvement in biodiversity conservation projects, and its active response to the national and international ecological strategic deployment.

Example 3:

蚂蚁集团积极助力打好黄河"几"字弯攻坚战、科尔 沁和浑善达克沙地歼灭战、河西走廊—塔克拉玛干沙 漠边缘阻击战三大标志性战役的三北工程攻坚战。

Ant Group actively **supports** the Three-North Shelterbelt Program's three key battles: the Yellow River "Ji-shaped Bend" Battle, the Horqin and Hunshandake Sandy Lands Annihilation Campaign, and the Hexi Corridor-Taklimakan Desert Edge Blocking Battle.

The semantic configuration of Example 3 is "actorsocial participant (Ant Group) + material process + goalsocial participant (Three-North Shelterbelt Program's three key battles)." The use of metaphors comparing Ant Group to "warriors" and "ecological restoration" to "war" reflects that Ant Forest has shown proactive engagement and seized emerging opportunities to advance ecological conservation.

The above three examples are all beneficial discourse. "A Beautiful China", "National Strategic Deployment", and "Three-North Shelterbelt Program "all reflect that the concept of Ant Forest is highly compatible with the national ecological strategic goals. Thus, it is evident that Ant Forest is a supporter of national ecological strategies.

Example 4:

我们在山东威海种下6,660万株海草,修复海草床面积超过1,000亩;在福建种下272万株秋茄,修复红树林面积超过2,000亩。

We **planted** 66.6 million seagrasses and **restored** over 1,000 mu of seagrass beds in Weihai, Shandong Province; In Fujian, we **planted** 2.72 million mangrove seedlings and **restored** over 2,000 mu of mangrove forests.

The semantic configuration of Example 4 is "actor - human group participant (we) + material process + goal - non-human organisms (seagrass, mangrove seedlings, mangroves)". Planting seagrass and mangrove seedlings helps restore specific ecosystems, including seagrass beds and mangrove forests. Moreover, it also helps maintain biodiversity and ecological balance by creating additional habitats for marine life.

Example 5:

自2019年起,蚂蚁森林持续推动滇金丝猴栖息地保护与修复,为云南省捐资5,000多万元,在天池、云岭、白马雪山3个自然保护区的滇金丝猴栖息地实施生态廊道修复造林超过1.6万亩。

Since 2019, Ant Forest has continually **promoted** the protection and restoration of the habitat of the Yunnan snub-nosed monkey, **donated** more than 50 million yuan to Yunnan Province, and **acted on** restoring over 16,000 mu of ecological corridors in the habitats of Yunnan snub-nosed monkeys in three nature reserves: Tianchi, Yunling, and Baima Snow Mountain.

The semantic configuration of Example 5 is "actor-social participant (Ant Forest) + material process + receiver/goal-social participants (Yunnan Province, over 50 million yuan, habitat protection and restoration, ecological corridor restoration)". This sentence indicates that since 2019, Ant Forest has been paying attention to the conservation and rehabilitation of the Yunnan snub-nosed monkey's habitat. It has always followed the principle of scientific protection and played an important role in providing guidance and funding.

Example 6:

我们在深圳、文昌、海口、万宁、三亚、舟山、青岛等7个沿海城市设立27个净滩点位,组织82场净滩活动,号召更多公众成为海滩守护者。

In seven coastal cities—Shenzhen, Wenchang, Haikou, Wanning, Sanya, Zhoushan, and Qingdao, we **set up** 27 beach clean-up sites in seven coastal cities, **organized** 82 beach clean-up activities, and **gathered** more people to protect the beach.

The semantic configuration of Example 6 is "Actorhuman group participant (we) + material process + goal - social participants (beach-clearing sites, beach-clearing activities), human group participants (more people)". These three material clauses reflect that Ant Forest actively organizes environmental protection activities for the public. Through these activities, the public can not only understand the current state of marine pollution and its consequences, but also have the opportunity to make contributions to environmental protection.

The above examples all illustrate the concrete efforts made by Ant Forest in the past few years, especially in 2022, thus belonging to the category of beneficial discourse. With visualized figures such as "66 million" and "2.72 million", its active engagement in marine ecological conservation, wildlife protection, and environmental education is demonstrated. The inclusion of time spans such as "since 2019" reflects Ant Forest's commitment not only to immediate initiatives but also to long-term, sustained ecological conservation programs. By encouraging public participation, these activities have effectively promoted the harmonious coexistence between humans and nature, while solidifying Ant Forest's image as a proactive practitioner.

4.2 Mental Process Analysis

When showing the goals and expectations of Ant Forest, it favors the use of mental clauses, which on the one hand reflect its commitment and on the other hand show its determination. The following are specific examples:

Example 7:

我们致力于与全球伙伴一起,共同推进可持续发展 目标的实现。

We **intend** to work with our global partners to advance the achievement of the Sustainable Development Goals.

The semantic configuration of Example 7 is "sensor - human group participant (we) + mental process + phenomenon", emphasizing its sense of responsibility and proactiveness in promoting global sustainable development.

Example 8:

我们期待通过此倡议,促进制定积极的减塑目标、 建立绿色消费生态、创新激励机制,鼓励全球公众参 与塑料污染治理行动。

Through this initiative, we **expect** to promote the setting of positive plastic reduction targets, the establishment of a green consumption ecosystem, the innovation of incentive mechanisms, and the encouragement of global public participation in plastic pollution control.

The semantic configuration of Example 8 is "sensor - human group participant (we) + mental process + phenomenon", reflecting Ant Forest's desire to inspire concrete environmental actions of the global public through its initiative. It also works to set proactive

plastic reduction targets, establish a green consumption ecosystem, and innovate incentive mechanisms. These efforts are indicative of its forward-thinking and innovative nature.

The two examples above are also beneficial discourse. The phrases "global partners" and "global public" indicate that Ant Forest's vision extends beyond domestic boundaries. It aims to leverage its social influence to engage people worldwide in ecological and environmental protection. By doing so, it demonstrates leadership and initiative in addressing specific issues such as plastic pollution. Through these actions, Ant Forest has established itself as a global advocate for ecological conservation.

4.3 Relational Process Analysis

In this section, relational clauses are mainly used to interpret objective facts and states such as the current ecological and environmental situation and challenges, especially in describing natural environmental problems. Here are specific examples:

Example 9:

荒漠化、水土流失等土地退化问题是全球面临的突 出挑战。

Land degradation issues such as desertification and soil erosion **are** prominent challenges globally.

Example 10:

海洋塑料污染日益严重

Marine plastic pollution is increasingly serious.

The semantic configurations of Example 9 and Example 10 are "carrier-physical participant (land degradation issues) + attribute (prominent global challenges)" and "carrier-physical participant (marine plastic pollution) + attribute (increasingly serious)". These relational clauses take "land degradation issues and marine plastic pollution" as the point of departure, indicating the severity of these problems. So they belong to destructive discourse. Thus, Ant Forest not only shows its understanding of the severity of these environmental issues, but also conveys to the public the urgency to take action. Such warnings enhance public environmental awareness and boost support for and involvement in ecological conservation. Consequently, Ant Forest's image as a cautionary figure in environmental problems is established.

4.4 Verbal Process Analysis

Ant Forest mainly uses verbal clauses to directly or indirectly call on the public to participate in ecological and environmental protection.

Example 11:

我们以蚂蚁森林项目为载体,积极倡导公众参与生态保护与修复、社会各界为地球生态与环境保护工作 贡献一份力量。

Through Ant Forest, we actively **advocate** public participation in ecological conservation and restoration,

and the contribution of all sectors of society to the ecological and environmental protection of the Earth.

The semantic configuration of Example 11 is "Sayer - human group participant (we) + verbal process + verbiage". This verbal clause shows Ant Forest's social responsibility and reflects its leadership and influence in promoting sustainable development.

Example 12:

世界自然保护联盟驻华代表张琰说:"针对蚂蚁森林保护地开展的成效评估,毫无疑问会对如何评价其他有效区域保护措施管理成效、以及在制定指南和标准这样一个经验积累和知识开发的过程中贡献力量。我们也非常希望继续与蚂蚁森林合作,和参与蚂蚁森林保护地的自然保护机构合作,一起推动此项工作的开展,共同促进3030目标的实现,为全世界建设并且实现一个自然受益的社会而努力。"

Zhang Yan, a representative of the IUCN China office, says: "Assessing the effectiveness of Ant Forest's conservation areas undoubtedly contributes to evaluating the management effectiveness of OECMs and to developing guidelines and standards. We sincerely hope to continue cooperating with Ant Forest and the nature conservation organizations involved in its conservation areas to advance this work and jointly promote the achievement of the 3030 targets, striving to build a nature-positive society globally."

The semantic configuration of Example 12 is "sayer human individual participant (Zhang Yan) + verbal process + verbiage". From Zhang Yan's evaluation of Ant Forest's work in conservation, it can be seen that Ant Forest's work not only has a positive impact on its own projects, but also provides important guidance for managing and assessing other global area-based conservation measures. This reflects its important contributions and exemplary role in global ecological conservation.

These two verbal clauses, both belonging to beneficial discourse, either directly elaborate on the responsibility and pursuit of Ant Forest, or indirectly affirm its contribution to the regulation of environmental protection. Together, they show that Ant Forest is a platform for positive action, leading public participation, and promoting cooperation. It builds an image of being a pioneer and exemplar in ecological conservation.

5. PARTICIPANT ROLES ANALYSIS

5.1 Analysis of Animate Participants

In the case of the animate participants, human group participants account for the majority and most of them use the expression "we". Since other expressions about animate participants account for just a small number, this part mainly analyzes "we", the human group participant. Example 13:

2023年,我们发起"减塑+捡塑"活动,鼓励用户积攒"绿色能量",并身体力行参与海洋垃圾清理。

In 2023, **we** launched the "Reduce Plastic + Collect Plastic" campaign, encouraging users to accumulate "green energy" and actively participate in marine pollution cleaning.

Example14:

我们开展了海草床、红树林生态修复,并聚焦海洋减塑活动,提高公众对海洋塑料污染问题的关注。

We've restored seagrass beds and mangroves and focused on marine plastic-reduction activities in order to make the public pay more attention to the problem of marine plastic pollution.

As with the preceding two examples, "we" in the section of this report mainly refers to "Ant Forest", or more precisely, the "team of Ant Forest". Through the use of "we", it establishes an identity as a subject of action that is distinct from other organizations and institutions. In addition, when exemplifying its efforts, it frequently uses "we". In this way, Ant Forest also implies and inspires others to join hands with its team to improve the ecological environment. Therefore, the use of "we" helps Ant Forest construct a positive and responsible public image. This image boosts public trust in Ant Forest's ecological work.

5.2 Analysis of Inanimate Participants

The majority of inanimate participants are social participants. In addition to the self-directed expressions such as "Ant Forest", "Ant Group", and "Ant Forest Foundation", the social participants can be further categorized into two distinct groups: "work projects" and "organizations and agreements". These two types of social participants also help Ant Forest to construct its ecological image from different perspectives.

5.2.1 Work Projects

The work projects of social participants fall into the following two categories: First, terms of projects: desertification and soil erosion prevention and control project, biodiversity conservation project, ecological restoration project, Yunnan golden monkey social welfare reserve project, "small but beautiful" marine conservation project, reforestation, conservation and nurturing, and other ecological projects. Second, terms about protection and restoration: ecological conservation and restoration, desertification control and biodiversity conservation, marine ecological conservation and restoration, Yunnan snub-nosed monkey habitat conservation and restoration, marine animal conservation, conservation of treasured animals, protection of migratory species, terrestrial ecological restoration, seagrass beds, and mangrove ecological restoration.

A summary of the social participants in the material about "work projects" reveals that Ant Forest's ecological conservation mainly includes terrestrial ecological conservation and marine ecological conservation from a broad perspective, as well as desertification and soil erosion control, afforestation, animal habitat restoration,

and biodiversity protection from a narrow perspective. These "work projects" show that it has made efforts in various aspects, thus constructing its image as a comprehensive participant in ecological conservation.

5.2.2 Organizations and Agreements

The organizations and agreements of social participants can be seen in the following expressions: social organizations, international alliances and initiatives in the field of ecology, the World Conservation Union (IUCN), research institutes and professional organizations, the World Economic Forum (WEF), InterContinental Hotels Group (IHG), Mengniu, RT-Mart, Starbucks, Unilever, government departments and public welfare organizations in various places, Guangdong Province, Yunnan Province.

The recurrent appearance of such social participants indicates that Ant Forest doesn't work in isolation. Instead, it actively cooperates with various ecological conservation organizations, research institutions, governments, public welfare organizations, and firms, forming a broad partner network. This network helps unite disparate entities engaging in ecological conservation, thereby consolidating its reputation as a proactive collaborator within this domain.

5.3 Analysis of Differences among Participants

5.3.1 Differences between Human Individual and Group Participants

Among the human participants, the number of group participants is much larger than individual participants. There are only a few examples of individual participants. For instance, "Mr. Wells, Chairman and CEO of Ant Group, is the first 'nature guardian' from the science and technology industry of IUCN. "Therefore, it can be seen that Ant Forest attaches great importance to collective awareness. Terms such as "we", "the public" and "users" highlight the importance of both the team of Ant Forest and the public in environmental actions. This makes users feel needed and valued, encouraging their greater involvement. By frequently referring to group participants to strengthen collective responsibility, it has built an image of an organizer with team spirit.

5.3.2 Analysis of the dominance of social participants

The classification of social participants has been elaborated above. Ant Forest participates in a sea of ecological conservation and restoration projects, such as the desertification control project, the biodiversity conservation project, etc. It also cooperates with a variety of social subjects, including local government departments, public welfare organizations, research institutions, and professional organizations. Diverse projects and subjects as social participants are naturally numerous, as they cover a wide range of ecological topics and participants. It actively implements ecological projects while strengthening cooperation with all sectors of society to enhance the efficiency and effectiveness of

ecological conservation. Thus, the dominance of social participants shows that Ant Forest has comprehensive work considerations and a clear understanding of how to carry out and efficiently complete those tasks. It is a wise actionist.

6. CONCLUSION

Combining quantitative and qualitative methods, the study finds that the material clauses account for the majority of all clauses in the "Ecological Conservation and Restoration" section, up to 73%, mainly reflecting Ant Forest's efforts in ecological conservation and restoration. These efforts demonstrate that it's a supporter of national ecological strategies and a proactive practitioner. Mental and relational clauses are the next most common, each accounting for 16% and 6%. They construct the ecological images of the Ant Forest as a cautionary figure in environmental problems and an advocate of global ecological conservation, respectively. In addition to a small number of verbal and existential processes, there are no behavioral processes. The verbal clauses demonstrate that Ant Forest is a pioneer and exemplar in ecological conservation. Due to the nature of corporate annual reports, which often show positive aspects, this section contains 76% positive discourse, 20% neutral discourse, and very little destructive discourse. Most of the beneficial discourse highlights Ant Forest's contributions.

Among the participants involved, there are more inanimate participants than animate ones. Moreover, among the animate participants, the human group participant "we" takes the highest proportion, which shows it as a positive and responsible public subject. The social participants make up the largest proportion among all participants, up to 58%, which can be divided into two main categories: the work projects and the organizations and agreements. The work projects cover land and marine protection, plant and animal protection, desertification and soil erosion control and so on, building up the ecological image of Ant Forest as a comprehensive ecological conservation participant. In addition, the diversified organizations and agreements of various parties show Ant Forest's broad partner network and build up its image as an active collaborator. The proportion of different participants further highlights the project's professionalism and innovativeness. It's an organizer with team spirit and a wise actionist. To sum up, Ant Forest, as a green and low-carbon public welfare project launched by Ant Group, actively undertakes the social responsibility of ecological environmental protection. It constructs various positive ecological images to encourage the public to choose a green lifestyle and to participate in ecological environmental protection, thereby contributing to the realization of China's Beautiful China Initiative jointly.

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