Research Article

Making an Infographic Video on Orangutan Protection as Socialization Media for the Center of Orangutan Protection Sumatra

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Abstract.
Socialization activities concerning the importance of orangutan protection carried out by the Center of Orangutan Protection Sumatra in schools and the broader community still use PowerPoint-based media and do not yet have video-based socialization and educational media. This research makes an infographic video about the protection of the Sumatran orangutan and aims to be a socialization medium to obtain information and issues regarding the ecology and habitat of the Sumatran orangutan. This research method uses qualitative and applied research methods with systematic and creative work processes in building visual communication concepts based on video infographics, interviews, observation, and visual literature as the basis for pre-production, production, and post-production of videos. The digital illustrations in the video were worked on using Pain Tool Sai 2, while the video animation used Adobe After Effects 2022. The results of this study use Abelii as the Sumatran orangutan (Pongo Abelii) character, telling about his life under threat of extinction. Video visualization is moving images with transitions containing typography and semi-realistic digital illustrations with two-dimensional animation elements using music and voice acting. The video would be presented at every outreach program conducted by the Center of Orangutan Protection Sumatra and published on YouTube.

Keywords: video, infographics, socialization, protection, orangutans

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1. INTRODUCTION

The orangutan is an endemic species of Indonesia, protected under national law, specifically the law number 5 of 1990 concerning the Conservation of natural Resources and Ecosystems, as it is classified as critically endangered. Indonesia is home to three species of orangutans: the Sumatran orangutan (Pongo abelii), the Bornean orangutan (Pongo pygmaeus), and the Tapanuli orangutan (Pongo tapanuliensis). Under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), all three species of orangutans in Indonesia are listed under Appendix I, meaning they are prohibited from trade.

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According to the IUCN Red List, all three species are classified as critically endangered (CR). Based on the Population and Habitat Viability Assessment (PHVA) analysis conducted in 2016, is estimated that there are approximately 71,820 individual orangutans on the islands of Sumatra and Borneo. These individuals are distributed among 51 metapopulations across an area of 17,460,000 hectares.

In the ecosystem cycle, orangutans play a crucial role as stabilizers and forest regenerators. Due to their significant importance for the forest, orangutans are often referred to as "umbrella species." Orangutans share approximately 97% of their DNA with humans and exhibit similarities in characteristics. Because of these characteristics and their rarity, there is a high demand for orangutans as pets and circus animals [1].

The Centre for Orangutan Protection (COP) was founded by Indonesian individuals on March 1, 2007, as a rapid response team to protect orangutans and their habitats. In broad terms, COP's work is divided into five main areas: orangutan habitat protection, the management of rescue, rehabilitation, and release efforts, orangutan conservation, support for the enforcement of wildlife crime laws, and public education and awareness. COP Sumatra operates a wildlife rescue center for orangutans and other protected primates located in Bukit Mas Village, Besitang District, Langkat Regency, North Sumatra Province, in collaboration with the North Sumatra Natural Resources Conservation Agency (Balai Besar Konservasi Sumber Daya Alam/BBKSDA).

COP works to ensure that wildlife receives the legal protection they need from hunting and illegal trade, which cause suffering to wildlife, endanger biodiversity, and risk the extinction of protected species. Currently, , COP has assisted in resolving at least 40 cases of illegal wildlife trade in Java and Sumatra. This is why effective and efficient socialization activities are essential.

Socialization is one of the actions that influence people in carrying out their roles [2]. Socialization involves introducing, inviting, persuading, and influencing more than one person to understand and exhibit attitudes in line with social and humane values and the civilized way of human life.

Socialization related to sanctions for wildlife crimes and the conversion of natural resources and ecosystems must be vigorously conducted so that the public can understand what actions violate the laws related to wildlife protection and their penalties. Despite these efforts, crimes against orangutans continue to occur, posing a threat to their population. It has been found that the orangutan population declined by as much as 100,000 in Borneo between 1999 and 2015, based on data collected by COP [3].

COP conducts awareness-raising activities for the importance of orangutan protection through social media, school visits, workshops, exhibitions, and other initiatives. In their

school and community outreach efforts, COP still relies on PowerPoint-based media and does not yet have video-based socialization materials. COP recognizes the need for innovation and development in socialization and educational media to streamline socialization budgets and enhance the effectiveness and efficiency of outreach efforts.

Videos can offer several benefits, such as presenting moving images that convey various information, explaining processes while demonstrating periodic data changes, outlining thought frameworks, imparting skills, and influencing the attitudes of viewers [4]. Videos are designed to achieve the desired impact on the audience by using the primary elements of visual and audio [5]. On the other hand, infographics are information presented in the form of images with shapes or models that draw from graphic design principles [6]. Infographic videos combine motion, sound, and animation to engage viewers effectively as the target audience [7]. In infographic videos, communication techniques within the copywriting concept are visualized with creative graphic design and aesthetically pleasing audio, in line with the intended message to reach the audience.

Therefore, the creation of infographic videos as a socialization medium should include information about the endangered Sumatran orangutan's ecology and habitat, emphasizing the importance of their protection. The hope is that infographic videos communicating the significance of orangutan conservation will be accessible and understandable to a wide range of audiences, from elementary school children to the general public.

2. METHODOLOGY/ MATERIALS

This research employs both qualitative research methods and applied research methods. The creation of the video is carried out systematically and creatively with a concept based on infographic video. For the clearer understanding of the research methods in the creation of the orangutan COP socialization infographic video, please refer to tabel 1.

Below are the stages/process of creating an infographic video about orangutans, as outlined by the researcher:

2.1. Pre-production Stages

The video creation process begins with crafting a concept in the form of a script (the narrative to be delivered by the narrator), followed by the development of a storyboard and the determination of the digital illustration style. Prior to video production, it is

TABLE 1: Research Design.

Number	Types of Research Desaign	Exposition
1	Data Collection	Interview findings, observation findings, literature stydy, photography data.
2	Concept	As a visual data processing strategy for addressing the encountered issues, develop from ideas and concepts, referring to visual style, 2D/3D, color, layout, script, animation, transition, voice-over, and others, which will be further refine in the final draft design.
3	Hardware Requirements	- Computer/laptop with minimum core i3 processor, 250 GB SSD RAM. - Microphon/voice recorder - Wacom chintiq (for digital illustrasi) - Mouse - Stylus Pen
4	Software Requirements	- Paint Tool Sai 2 - Adobe Photoshop CC 2022 (for illustration) - Adobe After Effect 2022 (for animation) - Cap Cut (for transition)
5	Organizing an expert team	Concept Expert (Designer/Artis) Script and Storyboard Expert (illustrator/artis) Digital Illustration Expert (Digital Illustrator) Animation Expert (Animator) Voice Actor (Voice Over Artist)
6	Video Production Sechedule	As a form a agrees-upon working hourse regulation by the team
7	Pre-production	script & storyboard, character design & illustration design, voice actor casting, copywriting/narrative.
8	Production	Character Design, illustration and animation, video transition & voice over
9	Post production	Composition, editing, rendering & revision.
10	Demontration of the product model	Prototype to the relevant real-world environment

crucial to draft a scenario as a manifestation of the initial video concept, allowing for the subsequent visual design phase in the form of a storyboard. This process is carried out after conducting in-depth interviews with COP (Community of Practice) members.

A concept is essential to ensure that the created video is organized neatly and aligns with the expectations of the instructor [8]. In this research, a concept is developed based on the theme and conflict, and then the method of narrative delivery is structured in the form of a scenario and storyboard. The concept and video design are derived from interviews with COP Sumatera and involve observations and visual literature analysis of existing videos related to orangutan conservation. The goal is to determine the illustration style that will be used as a vital element in the video, as well as to establish a storytelling approach that can resonate with and evoke empathy from the audience without the need for extensive guidance.

Before creating a screenplay, it is necessary to have a story idea. There are various approaches to finding inspiration for an engaging story that conveys new messages by introducing multiple conflicts, developing characters, and adding various conflicts [9]. In the video production process, the scenario serves primarily as the narrative and as a marker to determine the video's duration, which is adjusted to the visual elements that will appear in the video. In this research, the voiceover script will be directly integrated into the storyboard design.

A storyboard consists of images that must align with the narrative [10]. When creating a storyboard, it should be visualized clearly to facilitate the performance and effectiveness of the production team. The goal is to enable the illustrator to easily design characters, illustrate events, scenes, and atmospheres. The storyboard should also convey the message to the animator responsible for creating animated images, video composition, transitions, and durations in accordance with the script.

Below is the script scenario and storyboard design for the orangutan socialization infographic video research:
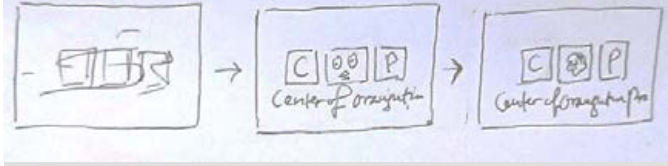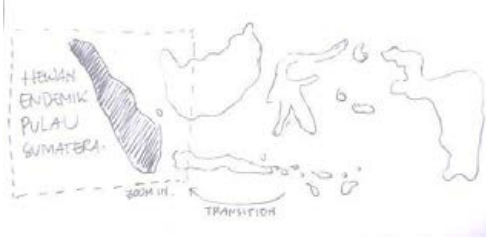
2.2. Production Stages

In the production stage, the first step is to create illustrations for each of the elements that will be featured in the video, following the storyboard. Digital illustrations in the video are crafted using Paint Tool Sai 2. Once the illustrations are completed, the illustrator hands them over to the video editor.

In the initial stage of video editing, the editor prepares the image files created by the illustrator for further animation processes. The editor prepares each joint of the characters to be separated so that they can be smoothly and neatly animated. This process is carried out in Adobe Photoshop 2022, and the files are saved in PNG format. Then, it proceeds to the animation process using Adobe After Effects 2022, taking into consideration the scenes outlined in the storyboard design. Next, the composition is rearranged to ensure that the visual aspects of the video have the right dimensions and are visually appealing. Finally, the scene files are exported in MP4 format.

In a different production stage, voice recording is done by a voice artist. The narration voice in this research video uses a female tone, in line with the character Abelii. The impression of sadness in the narration voice must be effectively conveyed to evoke empathy from the audience.
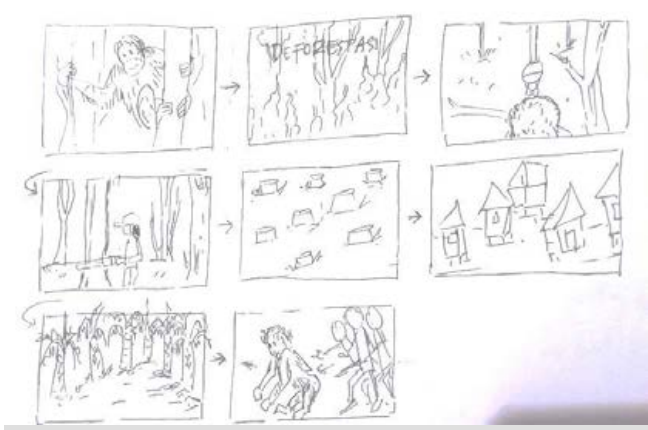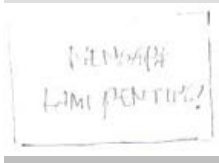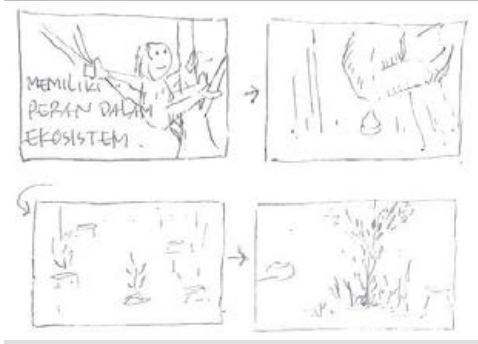
TABLE 2: Pre-production Process.

Number	Script Scenario	Storyboard Design
1	Opening Video	
2	Hello… Allow me to introduce myself. My name is Abelii, A Sumatran orangutan with the scientific name Pongo Abelii.	
3	I am an animal endemic to the island of Sumatra.	
4	I have relatives in Indonesia who inhabit Kalimantan and Tapanuli.	
5	We are close relatives of humans who are critically endangered.	
6		

2.3. Post Production Stages

The Post-production stage involves editing and revisions. The editing process includes merging scenes using the paid software Cap Cut, as it offers a wider variety of transitions, making the editing process more effective and efficient. This is different from Adobe Premiere, which takes longer and has fewer transition options. Next, the voice-over is incorporated, matching it with the scenes as per the storyboard design. To synchronize the voice-over, the editor adjusts transitions to fit the required duration.
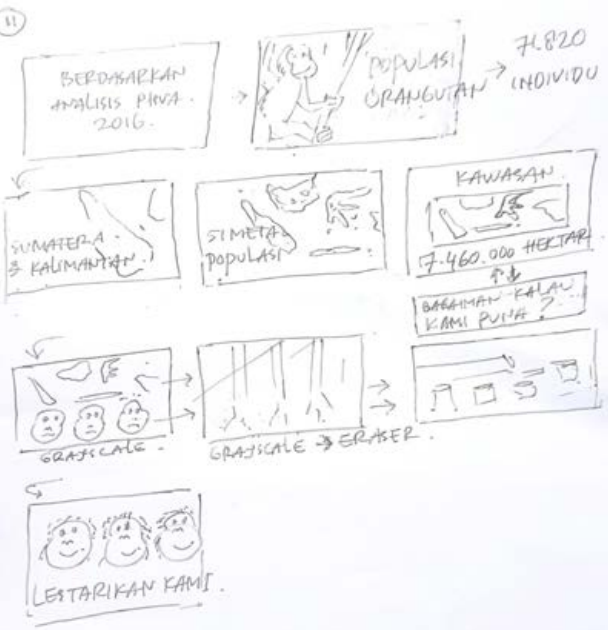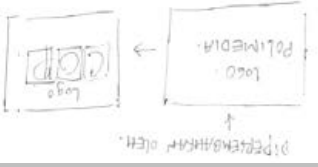
TABLE 2: Pre-production Process.

Number	Script Scenario	Storyboard Design
7	The threat to our population is caused by deforestation and habitat destruction, primarily due to the conversion of forests for palm oil plantations and other agricultural purposes. As a result, there is often hunting and illegal wildlife trade, even conflicts with humans.	
8	Why are we important?	
9	We play a vital role in the health of the tropical rainforest ecosystem. We are called "forest gardeners" because we can replant what we eat. The seeds that come out of our feces will grow back in the forest.	

To make the animation more lively, the editor adds several sound effects such as ambient forest sounds, rustling bushes, orangutan noises, sounds of local residents expressing anger toward the orangutans, and the sound of deforestation. Finally, music that suits the story's theme is added. The music used is a copyright-free track titled "Afrika.

Things that need to be revised in video production include when the final video does not align with the storyboard, and when the voiceover does not match the script or scenario. In such cases, a re-recording by the narrator is necessary, and sound editing must be performed again. At this stage, a thorough review of the text is crucial because typographical errors can often occur. Additionally, there may be missing or forgotten illustrations, which the illustrator needs to redraw and then submit to the editor/animator for correction

TABLE 2: Pre-production Process.

Number	Script Scenario	Storyboard Design
10	Moreover, our mothers only give birth to orangutan babies every 3-5 years.	
12	According to the PHVA analysis in 2016, Our population is estimated to be around 71,820 individuals on the islands of Sumatra and Borneo, distributed across 51 metapopulations in an area of 17,460,000 hectares. If we go extinct... Then, other wildlife species will also disappear. Our ecosystem will cease to exist, and we will never know Indonesia as the lungs of the world. You wouldn't want that to happen, right? So, let's preserve us as a species to be proud of in our homeland.	
13	Closing Video	

3. RESULTS AND DISCUSSIONS

The infographic video on orangutan conservation features a character named Abelii, representing the Sumatran orangutan (Ponggo Abelii), narrating the threats to its species. The video visualization consists of moving images with transitions that include typography (text) and semi-realistic digital illustrations with elements of 2D animation. It is accompanied by music and voiceover and has duration of 3 minutes. The frame size is 1920 x 1080 pixels, and the aspect ratio is 16:9.

The video incorporates COP's branding colors, which are orange, black, white and green, correlated with natural colors. Illustrations of nature are presented in a black and
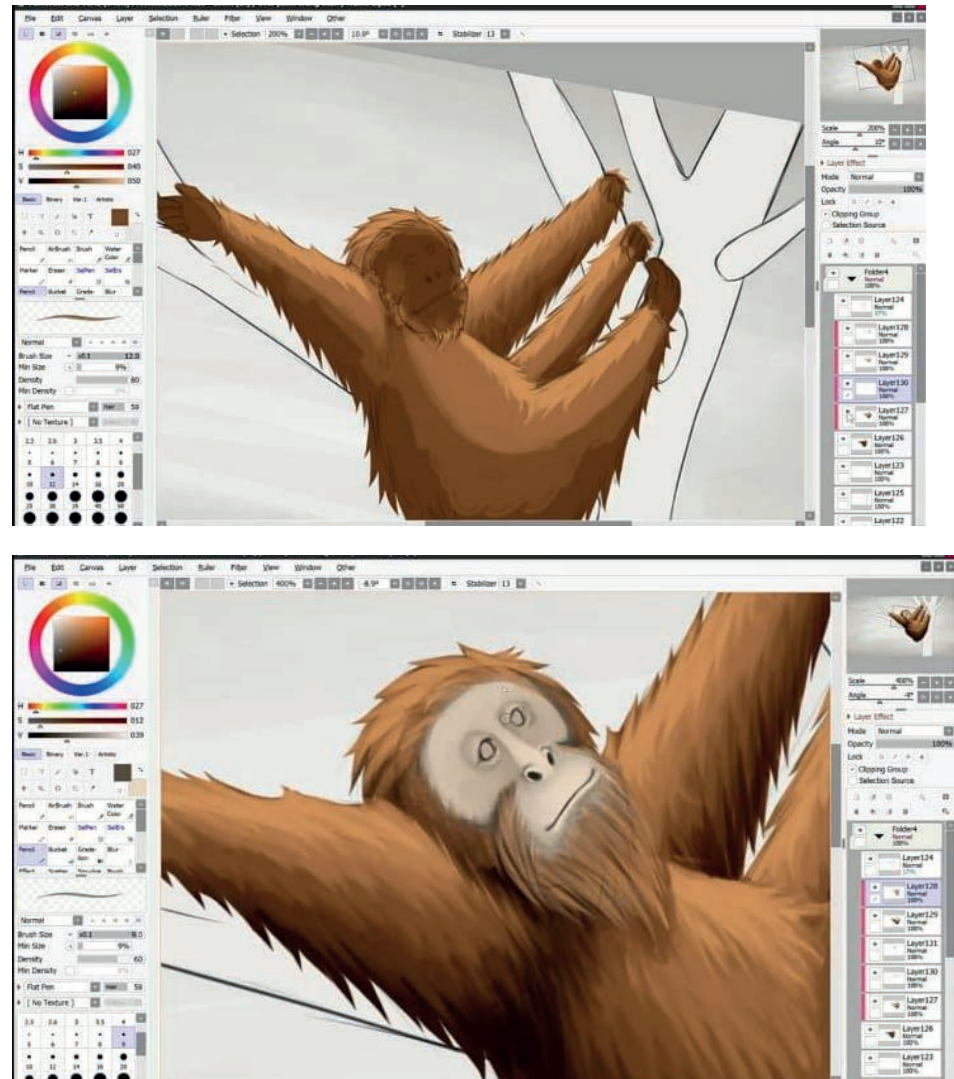
Figure 1: The process of creating illustrations using Paint Tool Sai 2.

white drawing concept, with the intention of focusing on the character figure of Abelli while adding a distinct aesthetic

The research findings on the creation of infographic videos as a means of socialization for the COP were well-received by the COP members. In fact, this video was premiered during the opening ceremony of the exhibition held by COP under the theme "Abelii Fest #2" on August 17, 2023, at Pos Block Medan.

Here are the results of the orangutan socialization infographic video for the Center of Orangutan Protection Sumatera:
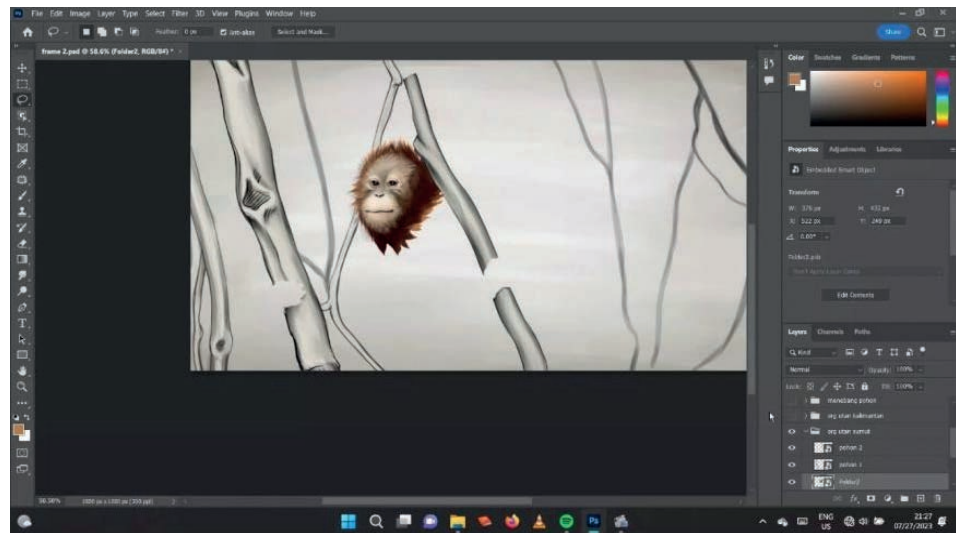
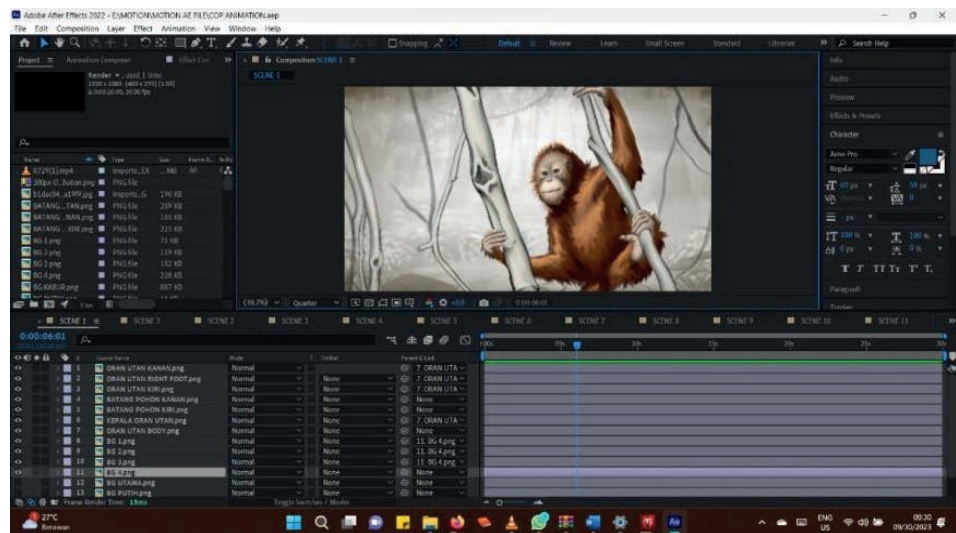**Figure** 2: The process of creating animation using Adobe Photoshop.

Figure 3: The process of creating animation using Adobe After Effect 2002.

4. CONCLUSION AND RECOMMENDATION

The creation of infographic videos for orangutan socialization among COP members involves several stages, starting with pre-production, production, and post-production, and it requires good teamwork. When creating videos that utilize character design, the determination of the art style in character development is crucial to ensure that the characters are unique and add diversity to the various orangutan-related videos. Similarly, the editorial process carried out by animators requires improvisation in content design and finding solutions to technical challenges during pre-production and production.
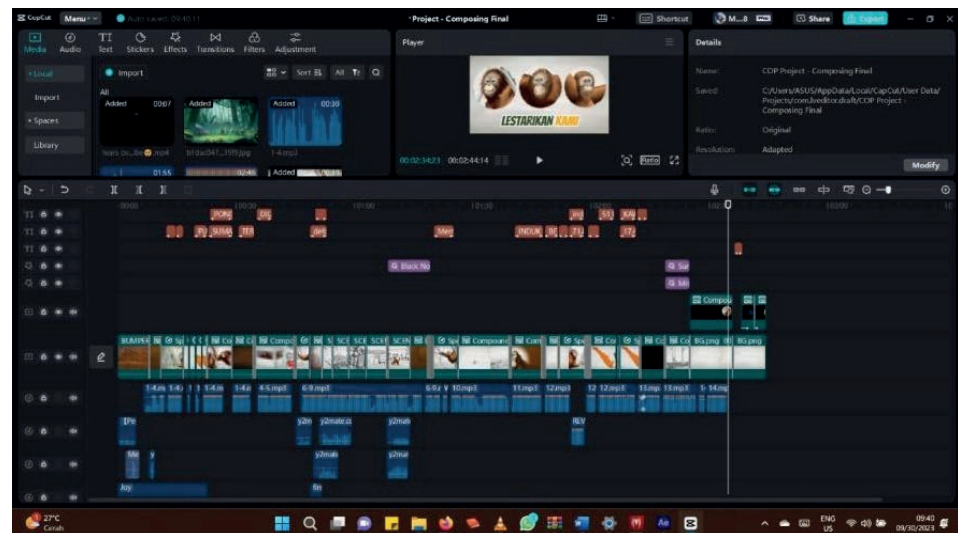
Figure 4: The process of creating animation using Adobe After Effect 2002.

The researchers suggest that COP Sumatera should create additional infographic videos as easily understandable communication tools for the audience. This is important to consider in terms of video duration to ensure that the audience remains engaged and interested, allowing effective communication of various messages

Acknowledgement

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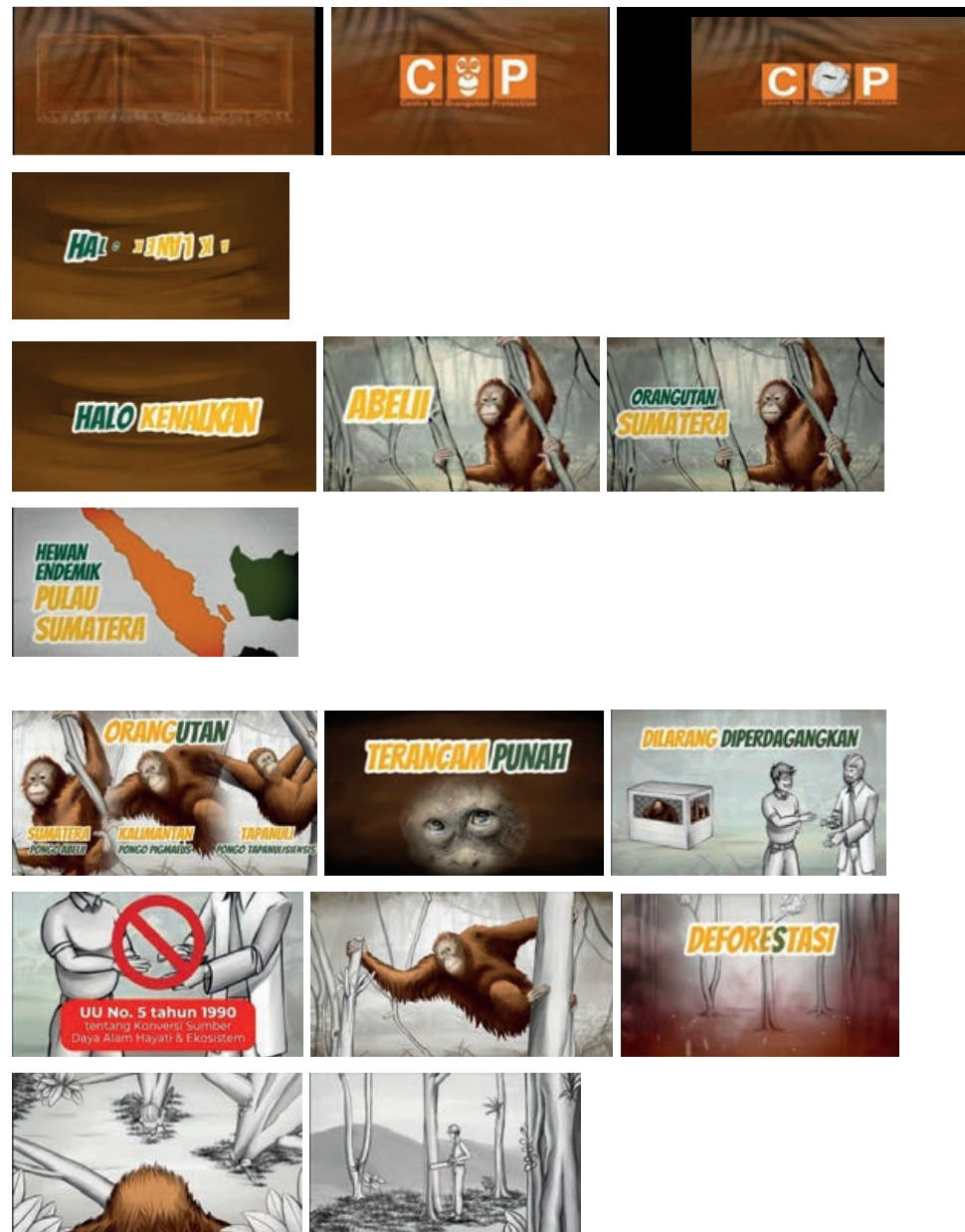
Figure 5: The result of the video.

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