



Documentary film - stories of American rangelands: meeting the challenges of a changing climate & culture

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Abstract:

In honour of the International Year of Rangelands and Pastoralists (IYRP2026), members of the North America IYRP Support Group and the Rangelands Partnership initiated an effort to produce a feature-length documentary film about North American rangelands. This documentary, to be premiered in 2026, focuses on their importance for meeting 21st Century environmental, cultural, and economic challenges; and specifically, reducing the effects of climate change (<https://www.iyrp.info/north-america/film-projects/documentary-film>). Storytelling is the vehicle used for highlighting the historic and intrinsic values of these lands within the context of indigenous knowledge and current science. The long-term goal is to change public perceptions, notably held by urban populations, policymakers, and youth, regarding the value of these lands and the need to conserve them. By presenting real-life stories about the people whose livelihoods depend on these lands, viewers will learn about new technologies for land management, collaborative conservation efforts, and the many ecosystem services provided by rangelands. These include food and fibre production, clean water, wildlife habitat, wildfire control, carbon storage, renewable energy, and recreation. With input from the film's Advisory Board, overall themes were identified:

1. Rangelands and pastoralists defined.
2. History of rangelands and their management including Native American perspectives.
3. Climate solutions:
 - a) Soils/carbon sequestration, extensive vs. intensive agriculture, land fragmentation issues.
 - b) New technologies & strategies, i.e. virtual fencing, drones/remote sensing, regenerative grazing.
 - c) Ecosystem services: food and fibre production, clean water, wildlife habitat, recreation, wildfire control, and renewable energy.
4. Connecting people to rangelands; keeping working lands “working”; how we can help protect our rangelands.

Landmark Stories, an award-winning filmmaking team based at the University of Arizona, is producing the film (<https://landmarkstories.arizona.edu/>). This team has experience in documentary storytelling on natural resources themes and also positive working relationships with members of the IYRP coordinating groups and the Rangelands Partnership.

Introduction

Rangelands occupy 54% of all land on Earth (UNEP 2014) and at least 30% of land in the United States (NRCS 2024) and are home to an estimated 200 million people worldwide. Yet, people from urban areas are often disconnected from the importance of rangelands to their health and wellbeing. The mission of the International Year of Rangelands and Pastoralists (IYRP2026) is to promote an understanding and appreciation of rangelands around the world, the people who manage them, and their contributions to all communities. In North America, rangelands are particularly important for livestock production, wildlife habitat, and recreational activities as well as valuable sources of clean water, carbon storage, fresh air, open space, and renewable energy resources. As important as rangelands are, they are increasingly impacted by land fragmentation, residential encroachment, and cultural change that divide these landscapes into less functional ecosystems and impact their ecological and economic opportunities. Furthermore, misconceptions about rangelands are numerous. Some people may see them as wastelands that make little, if any, contribution to public needs, while others consider all livestock grazing as detrimental and leading to irreparable degradation. However, these views are not supported by either current science or day-to-day experience. The IYRP2026 presents a unique opportunity to highlight the incredible value of rangelands to the people and communities that rely on them while at the same time helping focus attention on the challenges and potential consequences if these vital ecosystems and pastoralist communities are lost. To reach out to the public with these messages, the North American (NA) IYRP Support Group and members of the Rangelands Partnership initiated an effort to produce a feature-length film about North America's rangelands focusing on real-life stories about the people whose livelihoods depend on these lands and the nature of their stewardship. Highlights include new technologies for land management, collaborative conservation efforts, and the many ecosystem services provided by rangelands.

Methods

An initial research phase found considerable evidence that the medium of film can reach millions of people quickly and effectively (Filbin 2020; Schimmel 2021; Veritzman 2023) and that documentaries, specifically, are often used as teaching resources from grade school to higher education (Vaughan-Lee 2024). Thus, it was determined to pursue this means for bringing attention both to the promise of American rangelands and to the IYRP2026. From the start, multiple groups and individuals have been directly involved in producing the film. The Landmark Stories Production Team is an award-winning filming crew based in the Cyber and Communications Technologies Lab at the University of Arizona (<https://landmarkstories.arizona.edu/>). This team has experience and expertise in documentary storytelling on natural resources themes and positive working relationships with members of the film's many advisors. The Project Team of advisors includes four groups who represent various aspects of rangeland science, education, and outreach. (1) The Rangelands Partnership is a 25-year collaboration of rangeland extension professionals (providing non-formal science-based education and learning activities), science librarians, and information technology experts from 19 Western and Great Plains Land Grant universities. The Partnership's primary product is the Rangelands Gateway (<https://rangelandsgateway.org>). (2) The IYRP NA Support Group is composed of more than 50 rangeland experts from three countries, all committed to assisting with IYRP outreach initiatives. (3) The Western Association of Agricultural Experiment Station Directors (WAAESD) is one of five regional organizations that plan and manage multistate research activities throughout the U.S. Its membership includes university deans, directors, and administrative officers. (4) Lastly, the film's 30-member Advisory Board is made up of rangeland science experts, filmmakers, and members of IYRP coordinating groups. The Advisory Board has been integrally involved in guiding and reviewing progress in the film's development. The full Project Team represents a cross-section of key stakeholders from diverse backgrounds and perspectives. At the same time, members have direct linkages with the most current science, innovative educational programming, and inspiring storytellers with practical knowledge and experiences to share.

The initial phase in the development of this film project was an ambitious fundraising effort. Through WAAESD, early contributions were received by land-grant universities and individuals. However, reaching the goal of \$300,000 has proved to be elusive so the project coordinators began submitting proposals wherever appropriate. Grants were received from the U.S. Department of Agriculture's Renewable Resources Extension Act and the National Grazing Lands Coalition, and other grant opportunities are being evaluated at the time of this writing. A description of the production phases follows:

Phase 1: Pre-production (initiated January 2024) – directors and writers a) research and explore themes; b) gain input from Project Team members at multiple stages of story development; c) determine best approach for gaining the broadest exposure, i.e. potential locations and interviewees; and d) create a compelling narrative that informs about big issues through personal stories.

Phase 2: Production (Summer 2024 through Spring 2025) – a) review themes with all partners and producers; discuss ideas and options for the most relevant and compelling stories that align with the overarching theme of "climate change;" b) determine and finalize list of locations, characters and actions for each scene to be filmed; c) create a working shot list for each scene; d) determine and secure production crew and their availability; review production gear requirements and requests based on the story treatment; e) review and adjust shot list with the Director of Photography; incorporate partners and producers' visions into the treatment of scenes and overall visual style; f) determine schedule for travel to the selected locations, confirm interviews and actions to be filmed; secure travel and lodging for film crew; and g) commence filming and continue until completed.

Phase 3: Post-Production (Summer 2025 – Winter 2026) – a) film editing commences until a rough cut is achieved; b) sound mixing, design, effects, and musical soundtrack edited by Sound Designer in cooperation with Editor and Director; c) computer graphics, maps, after-effects, and motion effects created by the Graphic Designer in cooperation with the Editor and Director; d) rough cut is submitted to partners and key stakeholders for review and feedback; the post-production team digests and addresses partners' comments and suggestions and makes any necessary changes; e) trailer is finalized and distributed to partners and key stakeholders for review and feedback; the post-production team digests and addresses partner comments and suggestions and makes any necessary changes; and f) film and trailer are finalized for final review by partners and key stakeholders; changes made, if necessary and possible.

Phase 4: A fourth phase for an "impact campaign" will include marketing activities, a launch event, press release, and a guide for viewers and educators. Members of the Project Team have already agreed to publicize the film through their regular programming activities and social media outlets and will track results as part of an assessment of the film's impact. The projected release date is tentatively scheduled for March 15, 2026.

Based on input from all Project Team members, the following themes and sub-themes were determined as the preliminary approach for the film's stories.

- 1) Rangelands and pastoralists defined drawing on imagery from North America.
- 2) Historical summary of rangelands and their management in the context of Native American perspectives.
- 3) Climate solutions:
 - a. Soils/carbon sequestration, extensive vs. intensive agriculture, fragmentation issues.
 - b. New technologies & strategies, i.e. virtual fencing, drones/remote sensing, regenerative grazing.
 - c. Ecosystem services: food and fibre production, clean water, wildlife habitat, recreation, wildfire control, and renewable energy.
- 4) Connecting people to rangelands; keeping working lands "working"; how we can help protect our rangelands.

Film has been proven to be an effective medium for influencing people's attitudes in a constructive way (Kashani 2016; Kubrak 2020), and specifically for understanding and engaging people round the issue of climate change (McGreavy & Lindenfeld 2014). However, while there are many videos on YouTube on a variety of aspects of climate change and rangelands, most are quite short, tend to be academic, and have had a limited number of views. An extensively marketed and distributed feature-length film provides a unique and possibly game-changing opportunity to grab the attention of people at a national, and even international, level to inform and influence their perceptions and understandings of the importance of rangelands.

The first media product of the film project will be a trailer that will be posted on YouTube and other social media outlets to build interest in the feature film. A preliminary trailer will be provided to the members of the film's Advisory Board, the NA IYRP Support Group, and members of the Rangelands Partnership for review and comment. After receiving this input, the trailer will be finalized and distributed along with a "Guide for Use" and a brief viewer survey to identify any new perceptions identified after the release of the film. Project members will be requested to show the trailer to their constituencies during extension-focused events such as workshops and seminars, as well as with marketing the trailer and the film's date of release. The trailer, along with a "Coming Soon" announcement, will also provide the means for promoting the film to independent theatres and to public television. A similar marketing and distribution process will be undertaken and documented when the feature-length film is nearing completion towards the end of 2025. Additionally, it is expected the film will be entered in various film festival competitions such as Jackson Wild, Sundance, and Telluride Mountain Film Festival.

Results

The long-term goal is to change perceptions of the public, particularly new audiences such as youth and urban populations as well as policymakers, regarding the value of rangelands and the need to conserve them. Post-viewing surveys will be made available after selected viewings, particularly those presented at independent theaters, and on social media outlets. By presenting real-life stories about the people whose livelihoods depend on these lands and the nature of their stewardship, viewers will learn about innovative new technologies for land management that can contribute to climate solutions, collaborative conservation efforts, and the many ecosystem services provided by these lands to people across the continent and throughout the world.

Discussion

The target audience is the general public, including agricultural producers, educators, students, and recreationists, both from urban and rural areas. In addition, a major focal group will be agency personnel and policymakers as many of the film's themes are relevant to current policies. To address the profound impacts of climate change at environmental, economic, and social levels, a greater understanding of the role of natural resources, specifically rangelands and grasslands, is needed if their potential as a climate solution is to be realized. To this end, the film will have the possibility of widely and positively influencing collective action to increase climate resilience. Through real-life stories, our target audiences will have new information that can lead to an improved understanding of rangeland ecosystems, technological processes, and promising management technologies and strategies to reduce the effects of climate change.

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