

A scenic view of a mountain valley. The foreground is filled with dense evergreen trees and some deciduous trees with vibrant autumn foliage in shades of red, orange, and yellow. The middle ground shows a valley floor with more trees and a small structure. In the background, rugged mountains rise under a clear blue sky, with some rocky outcrops and patches of snow or light-colored rock near the peaks.

YOUTH AND THE MOUNTAINS

STUDENT PAPERS ON SUSTAINABLE MOUNTAIN DEVELOPMENT

Youth and the Mountains

Student Essays on Sustainable Mountain Development

Youth and the Mountains is an academic research journal composed of student articles on sustainable mountain development in the state of Utah and globally. The journal is supported by the Department of History and Political Science, in the College of Humanities and Social Sciences at Utah Valley University (UVU). The Journal is an undergraduate publication with the aim of providing a forum for undergraduate students to share research and encourage the active pursuit of quality academic scholarship. Students who have questions about the Journal, or those wishing to contribute (IE: filling staff positions or submitting a manuscript for review), should contact the Editor-in-Chief, Alitha Thompson by e-mail at: YouthMT@uvu.edu with the subject line of JOURNAL SUBMISSION.

If you would like to see previous issues go to:
<https://www.uvu.edu/hps/youthjournal.html>

Cover photo courtesy of Dallas Karren

Table of Contents

Introductions

Editor Notes:

Mrs. Alitha Thompson, Editor-in-Chief Pg 6

Managing Editor's Notes:

Mr. Carlos Alarco, Managing Editor Pg 9

Section I

Official Documents

Written statement E/CN.6/2021/NGO/125
at the 65th session of the UN Commission
on the Status of Women from 15-26
March 2021.

Pg 11

Section II

Sustainable Mountain Development Topics in Utah

“The Utes Folklore Reflects Culture,”

By Travis Hidenshield

Pg 17

“Accessible And Affordable Solutions:

Utah’s Housing Crisis,” *By Ryan J. Parker*

Pg 27

Section III

Sustainable Mountain Development Issues Worldwide

“Sustainable Mountain Development:
The Impacts of COVID-19 on Tourism
in Austria and Utah,” *By Cody Conklin* Pg 41

“Sustainable Development Goals and
Georgia: An Analysis of Poverty in
Georgia, Particularly in its Mountain
Communities,” *By Liam Dowling* Pg 54

“The Impact of Deforestation on
Sustainable Mountain Development in
Nepal,” *By Jeff Hibbard* Pg 75

“Sustainable Mountain Development
in Saudi Arabia,” *By Abdulrahman
Alghanmi* Pg 87

“Sustainable Mountain Development
in Iran” *By Byan Alghanmi* Pg 96

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Editors Notes

Dear Reader,

I am honored to present the 2021 issue of the Youth and the Mountains Journal, which highlights the papers of undergraduate students at Utah Valley University (UVU). Our journal was first published in 2013 by a dedicated team of UVU students to promote SMD during the Third Global Meeting of the Mountain Partnership in Erzurum, Turkey. This issue continues those traditions and engages students in SMD advocacy through academic research.

These works provide an in-depth analysis of mountain communities and advocate for Sustainable Mountain Development (SMD) in the State of Utah and globally. The submissions of these students are aimed at bringing a voice to these communities that are very often left behind in economic development due to globalization and are highly susceptible to modern challenges such as climate change, food insecurities, and water stress. Therefore, they must be brought into the focus of the United Nations (UN) 2030 Agenda for Sustainable Development. Through a student-engaged learning (SEL) method, students at UVU were able to research various topics as well as address real-world problems facing mountain communities, with a faculty serving as a mentor. The journal's editorial team is also composed of students experienced and dedicated to the advocacy of SMD. As a collective effort, they supported the promotion and advancement of SMD along with the implementation of Target 6.6, Target 15.1, and Target 15.4 of the UNs Sustainable Development Goals (SDGs).

As a tradition, the first section of this issue, titled Official Documents, includes the written statement prepared by UVU students through SEL and submitted for approval to their partners at the Russian Academy of Natural Sciences and Utah China Friendship Improvement Sharing Hands Development and Commerce, two non-governmental organizations in consultative status with the UN Economic and Social Council (ECOSOC). As a result, in line with UN regulations, those NGOs submitted the final version of the statement to the UN Secretariat. This volume contains the published version of this statement as an official document, prepared for delivery at the 65th Session of the Commission on the Status of Women (CSW65) in New York City, March 2021. It highlights the UVU model of student engaged learning to advocate for SMD and requests the UN Women for the inclusion of language about the importance of mountain women and girls in the final document of the CSW65.

The second section consists of student papers that provide unique perspectives towards SMD within the state of Utah. The first paper examines the influence of local Native American lore on Utah's culture, and the second author studies problems of the current housing crisis in the State of Utah and provides sustainable solutions.

The third section focuses on the implementation of UN SDGs in mountain countries around the world. The first paper of this section shows the effects Covid-19 has had on mountain communities in Austria and Utah, both of which are dependent on tourism. Another paper examines the need for SMD to help combat poverty within the mountainous regions of the

Republic of Georgia. The third student author studies the impact of deforestation in Nepal, a fragile region within the Himalayan Mountain Range. Two more papers address different aspects of the SMD in the region of the Middle East and in particular in Saudi Arabia and Iran.

We express our great appreciation to the editorial team and students for their devotion to the advocacy of the cause of SMD and their additions to this issue. We would also like to thank the university faculty for their time and dedication to advising and mentoring the efforts of students to publish this volume. We highly anticipate the release of this issue to the public and look forward to joint collaborations with all interested institutions to ensure that the sustainable development for mountain communities in the State of Utah, North America, and elsewhere will be in the focus of the 2030 Agenda for Sustainable Development.

Mrs. Alitha Thompson, Editor-in-Chief

Dear Reader,

The Youth and the Mountains journal is an opportunity for students to engage in research about sustainable mountain development using the thriving mountainous communities as a basis for case studies. It promotes the sharing of knowledge across boundaries to better educate and inform the reader about what is happening in the mountain regions of the world today. The journal promotes research and engaged learning through participation in campus events like International Mountain Day. Through the student essays, we can begin to understand the complex issues that face people that live in similar regions to our own.

As with previous editions, the journal discusses issues that affect people in mountainous regions of Utah and around the world. In addition to these issues, we will see the impact of Covid-19 on tourism here in Utah and abroad. Covid-19 has brought a new dimension to Sustainable Mountain Development as nations grapple with how to manage the virus, protect their citizens and keep economies going.

Working on the Youth and the Mountains journal has been an opportunity for me to increase my understanding of the importance of engaged learning on a college campus. It is always a pleasure to read the insights that students have into the region they are writing about. I look forward to working on future editions of the journal to further promote the Sustainable Development Goals and engaged student learning.

Carlos Alarco, Managing Editor

Section I

Official Documents



Economic and Social Council

Distr.: General
13 December 2020

Original: English

Commission on the Status of Women

Sixty-fifth session

15–26 March 2021

Follow-up to the Fourth World Conference on Women and to the twenty-third special session of the General Assembly entitled “Women 2000: gender equality, development and peace for the twenty-first century”

Statement submitted by Russian Academy of Natural Sciences, and Utah China Friendship Improvement Sharing Hands Development and Commerce, non-governmental organizations in consultative status with the Economic and Social Council*

The Secretary-General has received the following statement, which is being circulated in accordance with paragraphs 36 and 37 of Economic and Social Council resolution 1996/31.

* The present statement is issued without formal editing.

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Statement

Mountain women and girls must be in the focus of the 2030 Agenda for Sustainable Development.

We urge the sixty-fifth session of the Commission on the Status of Women to ensure sustainable development for families, women and girls who live in mountain areas of the world. The Commission has as a priority theme the implementation of the Beijing Declaration and Platform for Action.

The model that we developed with our collaborative partners at Utah Valley University through the Utah International Mountain Forum for inclusive student-engaged learning advocates for mountain communities. It can be adopted by academic institutions worldwide, especially in mountain regions. This model can provide students with skills similar to those described below, and bring genuine change to mountain communities, families, women and girls worldwide by jointly advocating for the implementation of mountain targets. Also, this model demonstrates the ability of students, including non-traditional learners to contribute broad-range initiatives to the implementation of the three mountain targets on local, national and international levels.

Although three mountain targets have been designated among the Sustainable Development Goals to address the place of mountain communities in the 2030 Agenda for Sustainable Development, these communities still remain among the poorest and most neglected in the world. A study conducted in 2015 by the Food and Agriculture Organization found that 39 percent of developing countries' mountain populations are vulnerable to food insecurity – or roughly 329 million people. Modern challenges, such as climate change and migration, make their situation even worse.

The Beijing Declaration and Platform for Action does not specifically mention mountain women and girls. However, it includes actions critical to empower such vulnerable groups, in particular through education. As a result, those actions also ensure the success of the advocacy of mountain targets' implementation by student members of the Utah International Mountain Forum. For example, sub-chapter 4–60, paragraph (a) urges the inclusion of academic institutions and others in aiding rural and indigenous women; sub-chapter 4-82 speaks of the creation of non-formal, vocational, and gender-specific curricula for girls and women in the educational system, especially non-traditional women; sub-chapter 4-258, paragraph (b) subpart (ii) asks for the development of methodologies on the impact on women of environmental and natural resource degradation, stemming from issues such as global warming and natural disasters; and sub-chapter 4-88, paragraph (c) mentions the creation of flexible education, training and retraining programs for lifelong learning that facilitate the transition between women's activities at all stages of their lives.

As our collaborative partner, the Utah International Mountain Forum, a coalition of student clubs at Utah Valley University, serves as a core of the co-curricular student engaged learning model developed at Utah Valley University since 2011. Utah Valley University is the largest academic institution in the state of Utah currently enrolling almost 42,000 students. Over 30 percent of the student body are non-traditional learners who, in addition to their education, must work full- or part-time in support of a spouse or family, and can range between 25 to 75 years of age. Established as a vocational training school in 1941, Utah Valley University today addresses the needs of local communities along the Wasatch mountain range through a dual mission as a community college, combined with the rigor and seriousness of a four-year teaching institution.

The model collaboratively developed at the school inclusively involves students across campus, including non-traditional learners with local community stakeholders in implementation of mountain targets in the mountainous state of Utah and globally. It consists of four parts:

- (1) Students are given a problem to solve (which is the advocacy of the UN mountain targets);
- (2) students must work together as a group to learn how to solve the problem;
- (3) faculty and stakeholders serve them as mentors; and
- (4) students are responsible for their own learning during the process of solving a problem.

As part of the advocacy campaign, students learn and share experiences about major achievements and challenges in sustainable development in Utah with mountain communities elsewhere. In addition, they encourage peers and local communities to contribute to sustaining the livelihoods of mountain communities globally.

The model allows one generation of students to gain professional skills, opportunities for networking, exchanging best practices, and international recognition through implementing mountain targets at local, national and global levels. Under the model, students collaborate with all stakeholders in the implementation of a broad range of initiatives. For example, they raise funds for advocacy campaigns, manage logistics, develop agendas, reach out to United Nations officials, diplomats, representatives of non-governmental organizations, experts, scholars, write statements, host parallel and side events, and publish the results of their activities.

During 2013–2015, through this model, students advocated for the adoption of mountain targets at sessions of the United Nations Open Working Groups on Sustainable Development Goals: Target 6.6, by 2030, to protect and restore water related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes; target 15.1, by 2030, to ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements, and; target 15.4, by 2030, to ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

The model allowed coalition members for the first time to successfully host on their own the fourth International Women of the Mountains conference on October 7–9, 2015. The conference was held under the umbrella of the United Nations Mountain Partnership at Utah Valley University campus in Orem, Utah. The organizing committee of the conference was comprised of more than 70 students, including non-traditional learners, from Utah Valley University, Brigham Young University and the University of Utah.

The United Nations Secretary General's Report on Sustainable Mountain Development [A/71/256](#) of July 29, 2016 highlighted the students' advocacy of gender agendas by hosting the conference and adopting the outcome document, which contained the following observations:

- (a) Sustainable Development Goal 5 could be achieved through strong support for improving women's rights and welfare, including women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life;

(b) successful implementation of target 6.6 could be achieved by supporting the vital role that women play in the protection of the environment and water sources, particularly as custodians of traditional knowledge that builds resilience and allows for adaptation to climate change; and

(c) with respect to target 15.1, women playing a critical role in joint planning as promoters of innovation, development and cooperation for the common benefit.

Since 2016, as our collaborative partner the Utah International Mountain Forum has advocated for the implementation of mountain targets at several forums of the United Nations Economic and Social Council on sustainable development, including the fifty-second session of the Commission on Social Development; the sixty-second, sixty-third, and sixty-fourth sessions of the Commission on the Status of Women; and, the 2018 High-Level Political Forum on Sustainable Development. During these forums, students, including non-traditional students, prepared written statements and hosted parallel and side events. Students also learned how to work with Member States in order to include language about the mountain targets and communities in the final documents of those forums.

The United Nations Secretary General's Report on Sustainable Mountain Development [A/74/209](#) of July 22, 2019 highlighted the Utah International Mountain Forum efforts to raise global awareness of issues affecting mountain women at the sixty-second session of the Commission on the Status of Women, held at United Nations Headquarters in March 2018.

Students were also able to include language about mountain communities for the first time in the final document of the sixty-eighth United Nations Civil Society Conference, held in Salt Lake City, Utah on August 26–28, 2019. The Preamble of the Conference's Outcome Document stated the importance of the interdependence of rural and urban prosperity, as well as the need to address the specific conditions of mountainous areas and small-island developing states. To secure the adoption of the necessary language in the Outcome document, students worked together with officials from the United Nations Department of Global Communications, United Nations Global Compact, mountain nations such as the Kyrgyz Republic, and academic partners such as the Global University System, Utah Rotary District 5420, Orem Rotary and Project Work Groups. At the conference, students also hosted a workshop and an exhibition about the student engaged learning model to advocate for mountain women and targets at the United Nations.

During the sixty-fifth session of the Commission on the Status of Women, our delegation will include students from Utah Valley University - members of such clubs as Sustainable Mountain Development and Foreign Affairs, as well as Rotaract. Delegation members through student-engaged learning will demonstrate their skills in protocol and logistics and will report their experiences and contributions in implementing in Utah and elsewhere Sustainable Development Goal 5 on gender equality in interaction with Sustainable Development Goal 3 on good health and well-being, Sustainable Development Goal 4 on quality education, Sustainable Development Goal 6 on water, and Sustainable Development Goal 15 on protection, restoration and promotion of the sustainable use of terrestrial ecosystems.

The model implements Sustainable Development Goal 5 on gender equality in interaction with target 4.7 about ensuring that all learners acquire knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development.

As one of the steps, that is, commemorating the twenty-sixth anniversary of the Beijing Declaration and Platform for Action, we urge in particular mountainous Member States to report in national reviews during the sixty-fifth session of the Commission on the Status of Women about their actions to bring mountain communities, families and women into the focus of the 2030 Agenda for Sustainable Development.

Section II

Sustainable Mountain Development Topics in Utah

The Utes Folklore Reflects Culture

By Travis Hidenshield

Travis Hidenshield was born and raised in Payson, Utah. Travis gained a love for history at a young age, due to a sixth grade world history teacher. The love for history continues to grow as he sees the effects that history has on today's culture. Recently graduated with his bachelors in history this past May, Travis is hoping to work as an archivist for a museum with hopes of returning to school to gain a master's degree in history.

The Utes are a Native American tribe that has played a vital role in Utah's History through the interactions with the pioneers who chose to settle in and around the Salt Lake valley. This group of pioneers would share stories about the journey to Utah; some of these stories would become myths and legends in the Mormon culture. The Pioneers were led by a religious leader, Brigham Young, who was famous for saying "this is the place". These stories, shared throughout the LDS church, give members an understanding about their own culture and history.

Many of these stories are about Wahker, a famous Ute Chieftain who led a continuous war with the Mormon pioneers through the mid eighteen-hundreds. Wahker was known by the Euro-American settlers as Walker, giving the war with the Utes name "The Walker War". What shaped Chief Wahker is the culture and environment, an aspect of Wahker's culture are the tales he grew up hearing.

Though the Utes' tales differ from the Mormons', these tales reflect a culture that once controlled portions of Utah and Colorado. While the Utes tales differ from the Mormons, a connection can be made with the interaction between these two cultures by examining the Utes Nation's tales. By exploring these tales, there can be found an understanding why Wahker and other Utes reacted and how they viewed the Mormons settling on their land. Not only do these tales reflect on how the Utes interacted with Euro-American, but these tales

show that there was an understanding of the winter and summer solstices just by observing the sun and the animals' habits the Utes were able to track the seasons.

The tales show a sense of humor within the Utes' culture that is entangled with their stories; a culture that is nearly lost and who played a vital role in Utah's development. The combination of the Utes' creation stories and the history the Spaniards wrote while crossing Ute territory in the 18th century can be compared to show the tribe's culture.

The Utes Creation story recorded by Fred Conetah in "*A History of the Northern Ute People*" is one that gives an explanation of how the Utes were placed in the Rocky Mountains. The tale starts with Sinauf preparing for a great journey northward by creating a bag that turns sticks into people. Sinauf's brother, Coyote, grew curious about this bag full of people. When Sinauf was away, Coyote made a hole in the bag in which he peeked through to see these people that were once sticks. Once Sinauf finished his preparations, he began his journey, taking along the bag full of people. As Sinauf journeyed towards the mountains northward, people were sneaking out of the hole that Coyote created without Sinauf's knowledge. Once arriving at the desired destination, Sinauf opened his bag and saw that there were just a small group of people. Sinauf, upset with Coyote, took this small group of people and placed them in the land that he desired to give them, Sinauf also gave them the name Utikas. Before departing Sinauf told the Utikas "to be brave and strong" (Conetah)

In other versions, Sinauf is known as Senawahv whose brother Coyote opens the bag instead of creating a hole in the bag. Once the bag was open, a portion of the people jumped out and scattered in all directions. Senawahv took the remaining people and placed them in the mountains and said, "This small tribe of people shall be Ute, but they will be very brave and able to defeat the rest." While there are different versions of the creation story, most of the meanings stay the same such as why there are different tribes that surround the Utes along with explaining why the Utes came to dwell in the Rocky mountains. In both versions of the Utes Creation story, it is clear that the land the Utes

once occupied belonged to them. Though nomadic the land was originally owned by the Utes in a way that Euro-Americans at the time did not understand. A common mistake that was made with land ownership was if the land was not tamed, fenced off or was not a garden that the land was not own, This perspective that was passed down from the pioneer's ancestors would be the root cause of the war with the Utes. Sinaufs advice in both of these versions about being strong and brave can be seen in the Utes culture and will be discussed further on in this discussion.

The Tale of Rabbit and The Sun in “*Stories of Our Ancestors*” (Daughters of Utah Pioneers) explains how and why the sun becomes further from the earth throughout the seasons. The tale of the Rabbit fighting the sun reflects how the Utes interacted with nature and with other tribes, as well as how their culture functioned. The beginning of the legend reveals how the Utes were aware that during the winter months the sun was closer to the earth and would rise from the South East which they attributed to the days being shorter.

The Rabbit and the animals of his community all desired for longer days which resulted in Rabbit volunteering to go on an expedition to kill the sun and place it higher in the sky in order to have longer periods of light during the day.

As Rabbit heads towards the sun and reaches the end of his territory, he realizes that there’s more valleys and mountain ranges spanning the edge of the earth as he expected to find. Crossing multitudes of valleys and mountains, Rabbit reaches his destination as the sun rises. Rabbit then attempts numerous times to kill the sun with his arrows. Finally, Rabbit is successful after drenching his final arrow with his tears and firing a fatal shot to the sun. Rabbit places the sun higher in the sky, extending the days.

The Utes tale of Rabbit reflects the cycle of the seasons as spring draws nearer and the animals in Rabbit’s community become restless from the cold season of winter. Just as in Rabbit's story, the sun

starts to get further away from the earth during the spring and is farthest in the summer equinox resulting in longer days.

This next portion of Rabbit's journey home is anchored on how the Utes were aware of land beyond their own and that the land was vast. The inhabitants of the lands that surrounded the Utes territory were constantly at war with the Utes. These two aspects are worked in Rabbit's tale as he returns home.

The legend continues with Rabbit's journey back to his land, becoming longer as well as dangerous than previously. Rabbit soon finds other tribes living in the valleys and mountains that try to kill him. Rabbit is very crafty in tricking those trying to kill him including taking off his skin to give an illusion that he is in one place while being in another. Rabbit finally reaches his village and celebrates with his tribesmen for his success in killing the sun. This interaction with other tribes is also reflected in the legend of the creation story when Senawahv, the creator, tells the Utes that they are surrounded by their enemies. The Utes were aware that they were surrounded by enemies and took this reality placing it in their fables.

Just as the tale of Rabbit and the Sun contains aspects of knowledge that the Utes had of their surroundings, the next tale is of Coyote and his tribesmen in which this tale contains aspects of the Utes importance of a sweat lodge as well as establishing the role and significance of a tribe chieftain.

In the story of Coyote, fire was unknown to Coyote and his tribe in "*Stories of Our Ancestors.*" (Daughters of Utah Pioneers) The tribe of Coyote would gather flat stones that became hot due to the stones being exposed to the sun throughout the day. Once morning comes, Coyote will pour water on the stones to produce steam and increase the heat of the flat stones. Anne Smith records what role sweat lodges played in the Utes culture in "*Ethnography of the Northern Utes*" (Smith). The sweat lodges were typically a dome structure created by willow branches twined together and bent to form an arch, then a hide of some sort is placed on top of the dome structure. The surrounding soil would be used to create a bank of dirt to create a barrier outside of

the sweat lodge creating a type of insolation. The door was always facing east. Outside of the sweat lodge was a fire pit that's filled with stones. Once the stones were at the desired temperature, the stones would be pushed by sticks into the center of the sweat lodge. During an active sweat lodge, there would be a container of water that was used to pour over the hot stones creating the environment to be filled with steam. The Utes viewed the sweat lodges as a social place as well with a place to remove dirt from their skin. During the ritual, the individual that is head of the sweat lodge ceremony pours the water over the rocks producing steam. Coyote being the to pour water on the heated rocks symbolizes that he is the one in charge in this story.

In the story, Coyote's search for fire begins when some ash lands upon him while laying down in his teepee. Coyote calls a great council, causing several tribes to arrive at Coyote's camp. The purpose of the council is to gain support from other tribes to find the source of the ash. Once all of the leaders have arrived, they sit in several rows forming a circle. Afterwards, Coyote and his people set out to locate where the ash came from after traveling a great distance.

Not only is the reference to the leader of the sweat lodge used to establish Coyote's lead role but the calling of leaders from other tribes as well. The gathering of chiefs through Utes territory was a practice addressing matters of great importance that would affect the tribes as a whole. When the Ute chiefs arrived, all of them would gather inside the tipi of the host. Once inside, all would sit down forming a circle. The usage of the council of chiefs indicates that Coyote is not just a leader of a tribal band but is in a position of power and a great influencer to the surrounding tribes

The legend ends with Coyote finding fire. Upon locating the village where the ash originated from, Coyote and his tribe steal the fire causing chaos and conflict to arise. The villagers chase Coyote's tribe with the intent to kill for stealing the fire. After running a great distance, Coyote and his people arrive at their village with the fire.

These two tales about Rabbit and Coyote have a common theme of traveling across different lands, coming into conflicts with other

tribes, and then returning to where they began. Utes were known to be a nomadic tribe, dwelling in tipis just as in the two previous tales. Ana Smith refers to a Spanish document written in 1720 that describes the observance of the Utes lifestyle in "*Ethnography of the Northern Utes*"(Smith) "According to what is said, the Utes [Southern Utes] are to the north of Santa Fe about one hundred leagues distant more or less, and that they are like republicans or itinerant nations who today dwell in one place and tomorrow in another, and carry with them tents of bison hide to camp when it occurs to them" both the Utes tales and the Spanish document quoted above are useful in showing what aspects of the tales were practiced in the Utes natation daily lives.

Another document that was written by Alonso de Posada also enforces what Senawahv the creator says about the Utes being valiant warriors this can be found in William Wroths book "*Ute Indian Arts & Culture: From Prehistory to the New Millennium*"(Wroth). Posada wrote "Indians friendly to the Spaniards, of good physique, valiant and full of spirit. In fact, those of nations valorous on campaign are alone equal in manliness to the Apache with whom they war. They have such constancy in arms that, because of their methods of engagement and the honorable opinion they have of themselves, they never turn their backs to the enemy but conquer or die. ``

This document reaffirms the legend of Rabbit as well the creation story of the Ute. There were several enemies compared to the Utes, who were few in numbers. Utes of old would drink water due to lack of food. Once a plant would start to grow, the Utes would harvest it, with the roots, to eat. The Utes had blankets made from cedar tree bark along with sage brush. Occasionally, they would make deer hide into pants and moccasins. Then, Coyote came and gave them fire which kept them alive. Without the fire, they would not have been able to survive the cold and natural elements.

Another Ute story deals with the correspondence between Coyote and his younger brother, Senawahv on how to provide for the Utes. Coyote comes down from a mountain after pondering on how to provide for the natives. Coyote shares with his younger brother, Senawahv, about his ideas and how the natives should obtain food and

shelter. Senawahv disagrees with his older brother and tells Coyote to listen to his wise younger brother's words.

It is unclear if it was common practice for younger siblings to give their older family members advice or if it held any significance. During the arrival of the pioneers, however, Wahker and his older brother Sowiette relationship reflects this type of correspondence of ,a younger sibling telling the older one what to do with the letter accepting it.

Coyote and Senawahv have several interactions like this until Coyote asks his younger brother if the dead should rise at every sunrise. Senawahv says no This response upsets Coyote. He decides to kill Senawahv's son to prove that death is not pleasant. Their father, Rabbit, protects Coyote as Senawahv seeks revenge.

Seeking out of vengeance was common practice among the Utes. In one example, Wahker and his elder brother, sought justice against four men that helped murder their father for refusing to go to war with the Shoshones. At night, both Wahker and Sowiette snuck into the village where the 4 murderers dwelt. All four were killed; but, only three scalps were taken before the brothers had to flee.

Though the previous tales reflect a wide range of Ute culture, it's unclear if the same rabbit that kills the sun is the father of Coyote and Senawahv. The same is with the tales of Coyote retrieving fire and the elder brother of Senawahv. It's difficult to tell if the individuals in these tales are the same.

The next portion of the Utes stories deal with the ceremonial aspects e along with the humorous side of the Utes culture. The knowledge of the different seasons and the cycle of the sun is also among the many cultural details given within these tales.

The bear dance is unique to the Utes and its tale can be found in "*Stories of Our Ancestors.*"(Daughters of Utah Pioneers). With most customs, there is usually a legend or tale that explains rituals or a cultural habit of some sort in a civilization; this is true with the Bear

dance. The tale begins with a thunderstorm awaking a bear; slumbering through winter. The bear leaves his cave and begins to move towards trees, removing the bark with his claws. This symbolizes that spring has arrived and there will be plenty of food for the bear to eat.

The Utes perform "the Bear dance" in spring to celebrate the end of winter. Along with the dance, the Utes mimic how the bear acts once emerged from hibernation and sing a song associated with spring. By observing the behaviors of the bear emerging from hibernation, the Utes took the bear's awakening as a sign that winter was and that spring was at its beginning. Not only were the Bears awakening from hibernation a result of one season ending and another beginning, but also expresses the cycle of the sun. The Utes noticed when the sun rose from behind the mountains in the south east. They knew this meant that the nights were longer and the days shorter. Once Rabbit killed the sun and placed it higher in the sky, the sun would begin to rise from the east causing the days to be longer. Both of these tales express the Utes' understanding of the seasons through their observation of nature.

Tales were not just a way to explain the tribe's origin or the importance of ceremonial practices. They were also a way to share lessons learned by earlier generations. The " *Bear Ears Country*" in "*Stories of Our Ancestors*" (Daughters of Utah Pioneers) is short and the moral is simple to understand. A group of Native Americans see a bear wandering. Curious, the tribesmen approached the bear and asked where he was going. The bear's response was vague along with expressing that he lived a wanderers' life that consisted of searching for the best place to eat strawberries and bull-grass wherever they could be found.

Two distinctions can be drawn from this tale. 1- if they encounter a bear, there is likely to be berries and bull-grass nearby. Bears could be seen as guides to food and grazing areas. 2- The bear's reply was, "*going here and there*" looking for the best place the strawberries grew, can be seen as a synonym for a common idiom today "*the grass is always greener on the other side.*"

Humor was alive and well in the Ute tribe and is shown in “*The Council of the Bears*.” A few of the Ute hunters became curious when hearing voices, so they began searching for the source. After a while, one Ute peered through some trees and saw a group of bears sitting around a fire, conversing with one another. The Ute waved over his fellow comrades and they began to listen to what the bears were talking about. The topics ranged from scaring or killing humans to telling their cubs to light a fire so they could follow the smoke home. . While conversing, the bears start to pass a pipe. After a while of listening, the Ute Indians began to flee out of fear. The hunters did not fear the fact that the bears were passing and smoking a pipe full of tobacco. Fear did not come from the stories of scaring and killing humans. The true cause of fear was that this group of Utes witnessed a council of bears that could talk.

The Ute tribe was viewed as a war like people and less of a tribe that had a sense of humor. Though the humor Can differ from the one that is present today, irony was the main focus, especially in *The Council of the Bears*. Part of understanding a culture is comprehending their humor: when it's being applied and when there is an absence of humor. Much of this depends on the circumstances.

A great deal of culture is entangled throughout the Utes stories, enabling a window into how the Utes functioned as a military power, a nomadic tribe, and views on land ownership. The effect of the tales that Wahker was exposed to determined and shaped how he viewed his surroundings and his actions throughout his life.

This unclarity is an indicator of other aspects of the Utes culture. One is that these tales were told among other bands of Utes. This could result in the changes to the stories, along with new ones being created. The second aspect is the lack of a written language, preventing major changes to the Utes tales.

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Accessible and Affordable Solutions: Utah's Housing Crisis

By Ryan J. Parker

Ryan J. Parker has a bachelor's degree in Political Science with a Minor in Business Management. He was born and raised in Utah and currently is a father of 3, a recording artist, and speaks both Spanish and Norwegian. He works as a Senior Case Manager for Housing Connect, the Housing Authority of Salt Lake County. He has worked in homeless services for over 7 years. This unique work with Utah's shelters and housing have entailed assisting people experiencing chronic homelessness find and retain housing stability. He actively advocates for affordable housing at local political town halls and at the Utah Legislature and is a former candidate for Utah House District 24, and Salt Lake City Council. He is a former member of the Salt Lake City Housing Trust Fund advisory board, and former chair of the Utah Syringe Exchange Network. He believes the path to end homelessness, is inclusive, accessible affordable housing.

Introduction

Utah has a housing crisis. As the fastest growing population in the United States, the recent census shows the population of Utah has grown from “2.8 million to 3.2 million within the last decade; an increase of 16%”. (US. Census, 2021). This growth is marked by a shortage of housing units failing to meet demand rates. The Utah Housing Coalition estimates that Utah faces a “54,000 unit shortage” (Salt Lake Chamber 2021).

This issue is not new, it has been addressed by both the public and private sectors in Utah with little substantial success. Recently, the Utah legislation has committed “\$50 million to the effort, with \$15 million earmarked to address homelessness and \$35 million to preserve and build housing.” (Roth, 2021), with private entities such as Ivory Home's CEO Clark Ivory stating, “You give us \$50 million, we can do \$750 million worth of investments.” (Roth, 2021). With this public and private partnership why has the market innovation lacked any

significant results? The Ken C. Gardner institute found, “Statewide, the median housing costs decreased slightly for homeowners, falling from \$1,573 to \$1,551, but increased from \$944 to \$1,037 for renters,”(Lee, 2020).

One answer can be found in the renter’s market. According to Towncharts.com, Utah has a renters’ market at “29.8%, which is smallest in terms of other states in the local area.”(Towncharts, 2021). This compounded with a vacancy rate of under “5% in all four Wasatch Front counties,” (Gardner, 2019), low supply of available rental units, time consuming construction permits, and now a dwindling of private homes for sale, the renters’ market in Utah is forced to grow with no place to stretch it’s arms.

The first half of the problem is not solely the development of new units which is currently being undertaken statewide albeit slowly; but also how we determine the market value of what is “affordable”. The Department of Housing and Urban Development defines affordable housing as “spending no more than 30% of one’s income on housing.” In 2019, the average median wage in Utah was “according to the Department of Workforce Services, \$4,452 in Construction, \$3,520 in Education/Health/Social Services, \$3,928 in Government, and \$1,746 in Leisure/Hospitality services.” (Department Workforce Services, 2021).

The high market value of units are burning tenants with many newly constructed units remaining vacant due to high costs. Government is not solely responsible for this nor could it be responsible for developing and managing rental properties statewide. Yet, the private sector continues to receive millions in subsidies while maintaining high rent prices and an even higher rental standards. Beyond basic background and rental history checks; new rental companies are generating even more practices that discourage an open renters’ market. Housing is an inherent need, and some argue an inalienable human right. When rents are high, and affordable private homes scarce, the majority of Utah communities are trapped in rentals in which they are terrified to leave. These rentals have a severe lack of legal protections and produce a lower local economic output. Many of the renters fail to accrue meaningful savings.

The need to create housing units is a heavy burden unto itself that faces considerable barriers. It lacks government bipartisanship as well as private sector interest in producing housing with rental rates below current market values. A long term strategy of Utah should be a focus on being able to rent units below a 30% AMI (average median income), as well as distributing State government funding appropriately and reducing wasteful expenditure, to promote policy goals. This could be solved by providing economic incentives and benefits for developers and property management. The National Center for Children in Poverty defines “rent burdened” as “spending more than 30% of household income on rent.”(NCCP, 2021). The Department of Housing and Urban Development adopted these standards. The Federal policy guidelines following the most recent 2020 Census, the Federal poverty guidelines set the poverty standards of a family of three at \$21,960. (ASPE, 2021).

A 2020 report “published by the Utah Housing Coalition, reveals that the annual income needed to afford a 2 bed apartment in Utah County is \$37,040.” (UHC, 2021). When constructing affordable housing units, developers set prices based on the average-median income in the region, anywhere from 30-80% AMI. In Utah County, a 30% AMI is estimated at \$24,120 annually with the average 2 bed apartment at \$1,031/monthly(NLIHC, 2021). This concludes that even while developers build and rent units at fair market value, a, below market or “affordable” units; the majority of Utah’s 288, 634 renters have a monthly rent that equate beyond 30% of a household’s income, leaving 30% of the state population officially rent-burdened. These trends have been occurring for many years and continue to be higher than national averages. According to a 2019 report by rentdata.com, “Fair Market Rent prices in Provo-Orem are high compared to the national average. This FMR area is more expensive than 86% of other FMR areas, an increase in 3.11% the previous year.” (rentdata, 2021).

While monthly rent is the most glaring and obvious burden, it is not the only straw on the proverbial renters back. Rental properties require fees and utility services paid by the renters. While paying gas and electricity is a common standard, a new trend of fees has been added to the financial burden towards housing stability. “There are

additional fees Utah renters must pay as part of their monthly leases for things such as garbage pickup or parking spaces. The fees may tack on an additional \$200 to \$400 a month.” (Romboy, 2021). A quick search on rentler.com, the cheapest 2 bedroom unit is \$1579/month and the tenant is responsible for all utilities. Similar results are found on Craigslist and KSL classified ads, common Utah housing sites.

Today, property managers are subsidizing their own utility costs by forcing tenants to pay extra “Utility Fees”. Mayflower Harbor, an income-restricted property in Lehi, UT that offers washer and dryer in units, but charges a \$40 rental fee for each appliance. These provisions are required in a lease, and cannot be separated from the monthly rent. When priced together, low cost 2-bedroom units are costing an average of \$1300-\$1400.

According to the National Low Income Housing Coalition, Utah ranks 24th in the nation for highest rental wage , where the average wage needed to qualify is over \$17/hour(NLIHC,2021). In the first quarter of 2020, the average weekly wage in Utah County was \$1,026; \$200 less than the national average. (BLS.gov,2021)

The majority of all working households with a family of 3 or more are struggling to make rent on a consistent basis. If a household has dual income, the additional income is nearly entirely negated due to child care costs. In Utah County, this averages to about \$8,362 annually, ranking about 25th in the nation respectively. “In contrast, the median income for a single parent in Utah is \$29,865, meaning that center-based care for school-aged children will cost 37.3 percent of median income.”(Spectrum, 2021).

Thus, a single parent living in Utah County must make an income of over \$60,000 annually to avoid being burdened by housing costs. On a statewide level, regardless of the health and performance of the Utah economy, what is considered “affordable” is grossly out of date. When applying fees, utilities and cost of living, the private renters market is too high.

Supporting these high rental costs is Utah’s notorious housing shortage. With only a .2% vacancy rate, this shortage has created a shrinking market with increasing prices contrasting stagnant wages.

This bottleneck has given property owners and management companies carte blanche when it comes to screening standards for prospective tenants. Since the 1950's, Income Restrictions were introduced by the Department of Housing and Urban Development which was adopted by development companies that utilized financing provided by federal and/or state subsidies. This may be in the form of Tax-Credit properties, where a unit is marketed below 30% AMI. Tenants must provide proof of income showing their salary does not exceed the approved income guidelines. This type of screening was designed to protect low-income citizens from being locked out of the market, including the elderly who are on fixed incomes. Today, property managers are requiring income minimums; even when qualifying for tax-payer subsidies. This new requirement now demands that a prospective tenant must possess an income that is 2-3x the monthly rate of rent, which disqualifies renters with fixed incomes. When facing an affordable housing crisis, exclusivity and additional barriers further exacerbate the problem of housing stability.

This housing shortage also impacts the state financially. In 2021, “3,131 individuals were documented as actively homeless. An increase of 333 people or 11.9% from 2019.” (NAEH, 2021). In Utah, homelessness costs taxpayers “\$16,670 for each chronically homeless person per year. That includes costs for emergency services, legal expenses, or jail time.”(Scoop, 2021). To combat homelessness, Utah has led the forefront on housing initiatives for those in deep poverty, using practices such as Housing First. This is an initiative where homeless service providers assist clients with housing vouchers without the moral qualifications such as sobriety or employment; saving taxpayers millions each year. The State of Utah Strategic Plan on Homelessness 2020 annual report found a constant barrier even with housing vouchers. “With increased pressure on the housing market, landlords prefer to rent to individuals who can pay a higher rate instead of accepting housing vouchers. Landlords are also less likely to rent to individuals and families with poor credit, an unfavorable renting history (i.e., eviction), a criminal history or have limited income.” (SUSPH, 2020).

Even with guaranteed income, applicant screenings that include credit reports disqualify potential tenants. This negatively impacts more than renters with poor rental and employment histories. Property managers are disqualifying a wide-range of tenants based on credit scores, only approving a few in the upper 600 range. With the housing shortage, weak wages and barriers to even the remotest of rental properties, there is not a single city in Utah where housing is not out of reach for Utah residents.

Policy Alternatives

Policy options are limited in this matter, although there are a few options for Utah's housing crisis, one policy option for lowering rent burdens on Utah families is rent control. Rent control laws have occurred in several states primarily starting around World War I when rental conditions were poor and inflation high. A city statute is written by a municipal planning commission, city council and mayor to establish price caps on rental units..

This policy practice is primarily in a select cities such as San Francisco and New York City, but does include a few states such as California and Oregon. All of these policies are designated towards apartments, and accessory-dwelling units (ADUs), also known as "mother-in-law basements". None of these policies cover single family homes or commercial real estate.

In the case of San Francisco, a city government board dictates rent increases instead of setting caps. The board also does not prevent evictions for "just cause" such as failing to pay rent, damages or illegal activity.. For all purposes the controls work, and have allowed low-income people to stay in their rental units longer. However, rent controlled units breed scarcity, leaving non-controlled units in high demand with low supply contributing to dramatically rising rents (Bungalow, 2021).

In line with the increase in the cost of living, California's Bay Area has some of the highest per capita rates in the nation, leading to great economic disparities and wealth inequalities. While rent control can work, it has a limited impact on reducing rental rates in the market overall.

In Utah, rent control has been settled since the 1990's, when the State legislature placed bans on any type of rent control ordinances regardless of local support for the measures. This statute would have to be appealed in order for policy to change. This is unlikely as it faces opposition from landlord advocacy groups and members within the legislature, most of whom are real estate developers and property management attorneys. This option is the least politically feasible, as well as having the least impact. It will not reduce the overall rent trends which are primarily impacted by Utah's notorious limited supply of housing units.

The second policy option is a legal ordinance known as Inclusionary Zoning Laws (ISL). ISL's are a new type of zoning ordinance passed by local city and county planning commissions. Its purpose is designating an x amount of units that must be set aside during construction to be marketed specifically towards tenants in lower and middle income brackets.

Currently in Utah, the Salt Lake City Council is considering ISL policies to implement as a strategy to ameliorate the rising rent costs in Utah's capital city. In December 2020, the city council urged the current mayor, Mendenhall, to approve ISL policies and other zoning changes. This included two other policies: requiring developers to replace older, traditionally affordable, units when demolished and increasing permits for Single-Room occupancy (SRO's). These permits allow apartment complexes to permit subleasing and allow shared housing units to have multiple tenants, similar to that of boarding houses. (Semerad, 2021). These solutions all require zoning amendments that must be passed by local governments without conflicts to state laws. Currently, there are no bans on Inclusive Zoning, however, there are also no mandates as these policies are not always seen as palatable by cities.

ISL policies need to be combined with other zoning policies. Specific studies on ISL's are limited, and the ones that have been completed have shown little to zero results. A study by the National Housing Conference Center For Housing Policy in 2016 concluded that the people these types of policies are aimed at still lack the resources necessary to compete for these small numbers of units on the market.

Property management firms don't have special credence nor income-restricted regulations as do other standard tax-credited units. Elana Eden, editor of *The Planning Report* noted, "The good: In most cases, inclusionary zoning requirements haven't driven housing costs up. Nor have they slowed housing production. Those findings challenge the argument of some developers who oppose affordable-housing mandates, especially in California. The bad: Inclusionary zoning policies have largely failed to create affordable housing for the lowest-income households—and most policies aren't designed to target them," (Eden, 2021).

While this policy alternative has more political feasibility than rent control, it still lacks mechanisms that actually could assist the likelihood of desired outcomes. Housing developers and cities view these types of zoning policies as infringing on their property rights. ISL's are not a catch-all, and would require a bundling of other zoning amendments to have any impact.

Finally, the most simple policy alternative available is to expand and reform government assistance already in action. In 2020, the COVID-19 pandemic impacted every region of the globe; Utah was no exception. During this time of financial insecurity, many government tools were used to ease the burden on citizens. The most popular was stimulus checks, and additionally, federal assistance funding was given to states to assist tenants, who were unemployed due to the pandemic, to help make rent payments. This was a broad assistance program that included homeowners who fell behind on their mortgage payments.

In these provisions, over \$21.6 billion was directed towards rental assistance for low-income renters as well as an additional \$5 billion directed towards the lowest income and socioeconomic brackets by way of Housing Choice Vouchers. (CBPP, 2021). These vouchers were housing assistance for people transitioning out of chronic and recent homelessness back into housing.

In Utah, the state dispersed the federal grant to agencies in both the nonprofit and public sector such as Utah Community Action and UT Rent Relief—a temporary entity operated by the state. At these

agencies, tenants behind on rent applied online or over the phone and submitted documentation such as pay stubs, copies of leases, and landlord W-9's for transaction information, etc. These funds could also be utilized to pay owed balances on utilities. One of the best aspects of this assistance was the inclusion of all those 80% or below AMI qualified, which is roughly the majority of the renter spectrum in Utah(RentRelief, 2021).

This type of assistance has, up to this point, been the most supported mechanism within all government measures used throughout the pandemic. While stimulus payments and unemployment insurance undergo bipartisan debate, rental assistance and eviction moratoriums enacted by the CDC have been widely lauded. Only a few apartment association advocacy groups have taken exception to deferring on the moratorium.

The tools to implement an expansion in renter relief programming are already in place. With continued support from all levels of government, high user rates and cooperation from landlords, rental assistance is the most viable policy with the highest impact. What will be needed is direct policy guidelines instead of distributing rental assistance primarily through third party agencies such as Utah Community Action. The government needs to ensure that targeted people are not denied by private agencies' separate requirements and other cracks that come with privatization.

Conclusion

Rising rent costs, along with cost of living and a tighter housing market have created greater burdens on 30% of all Utahans who spend more than one-third of their income towards rent. Tenants are compelled to enter disadvantageous leases, as scarcity and tighter applicant screenings ensure that no citizen can guarantee having shelter. With less spending power in the market, the housing crisis is slowing community growth and development.

There are many possible policies that could relieve this burden on tenants: cities must pass rent control measures to preserve rental prices in current housing stock, adopt Inclusionary Zoning Laws to promote better land-use practices to ensure strong city growth is

inclusive to all demographics, and the continued safety net of government funded rental assistance programs and housing vouchers for those most at-risk in the community. The need to address Utah's Housing Crisis is long overdue, and the time for blue-ribbon committees, and half measures have passed. The time for action is now, as by the time this paper is published, another person has just been evicted from their home, and another person's application to move in has been denied.

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Section III

Sustainable Mountain Development Issues Worldwide

Sustainable Mountain Development: The Impacts of COVID-19 on Tourism in Austria and Utah

By Cody Conklin

Cody Conklin is a senior at Utah Valley University. In 2018, he started studying Political Science with an emphasis in Global Politics. Since then, he has been managing a full-time career at a local technology company while simultaneously working towards his degree. After his exposure to the Student Engaged Learning Model (SEL), he decided to become more involved, which resulted in his research being highlighted in the 2018 student publication "Youth in the Mountains." His article was titled "Sustainable Development Goals of Romania," which highlighted Sustainable Development Goals and Sustainable Mountain Development. He has been a part of UIMF since 2019 when he participated in UVU hosted events for ambassadors and diplomats from Hungary and Uzbekistan, as well as a delegation representing the US diplomatic mission with Morocco in 2020. He also presented at the 65th Session of the Commission on the Status of Women. He has used these events as opportunities to expand his experience and professionalism in global politics and sustainable development and will continue to do so as he focuses on graduate school.

Since December 2020, Austria has experienced its fourth nationwide lockdown in efforts to stop the rise of coronavirus cases and the overburdening of the country's medical facilities. As part of these lockdowns, non-essential businesses have been closed with their employees unable to work. Coronavirus checkpoints by Austrian police were established along its borders. Travel restrictions to popular tourist resorts were also enforced. These restrictions led to protests on January 31st, 2021. Vienna police banned protests by the Freedom Party, in which they described the government's measures as "corona madness" (Reuters). On April 18th, 2020, hundreds of Utahns gathered in Salt Lake City to protest the lockdowns and the effect it had on businesses and the unemployed, and their rights (Leonard). While these protests disbanded peacefully, in other parts of the world, they have not.

This last year, we have had the opportunity to observe and feel the impacts of the global pandemic. Each society has experienced varied government policies in response. In this research, I will explore the impacts of COVID-19 on tourism in Austria and Utah. Through brief observation, Utah has not experienced as many lockdowns as Austria did during this entire pandemic. It was interesting to compare Utah and Austria under Sustainable Mountain Development (SMD) and through their tourism sectors. Austria implemented strict lockdown measures throughout 2020 and into 2021, whereas Utah carried out limited measures in response to COVID-19. I have found that lockdowns have been detrimental to the economy and these procedures have engineered economic recessions in Austria, Utah, and globally (Earle).

Lockdowns have directly harmed the tourism sector specifically, which has created hurdles for sustainable mountain development as mountain communities economically rely on sustainable tourism. At this point, it is undeterminable whether further lockdowns will occur. Since the situation around COVID-19 is constantly changing, it is undeterminable whether further lockdowns will occur, or will be needed. We need to find ideas and solutions for a more sustainable future.

Sustainable Mountain Development & SDG 15

Sustainable Mountain Development (SMD) is an important part of the United Nations Sustainable Development Goals (SDGs) for 2030. Mountains fit under SDG 15 which calls for nations to “protect, restore and promote sustainable use of terrestrial ecosystems.” In the Rio + 20 Conference in 2012, a political action document was published called the “Future We Want.” Among many SDGs highlighted, SMD was recognized under paragraphs 210-212, which highlights the many benefits of mountain regions. Among these benefits is the water supply that comes from mountain streams. These streams provide water to a great portion of the world’s population (Dept of Economic and Social Affairs. UN). Additionally, it recognizes the importance of recognizing mountain communities, their culture, challenges, and needs (Dept of Economic and Social Affairs. UN). Furthermore, mountain communities need to play an active role in helping to plan and manage their tourism resources so that this important source of their livelihood is maintained despite challenges such as the COVID-19 pandemic. Both Austria and

Utah share similar robust tourism sectors with their mountainous environments, popular tourist destinations, as well as beautiful national and state parks. In Utah and Austria, the mountainous tourism sectors are quite popular and are a large portion of their GDP. These mountainous communities are not only experiencing changes in the climate, which affects their livelihoods, but because of the coronavirus, they have also experienced a shock to one of their main sources of income: tourism.

COVID-19 response: Utah and Austria

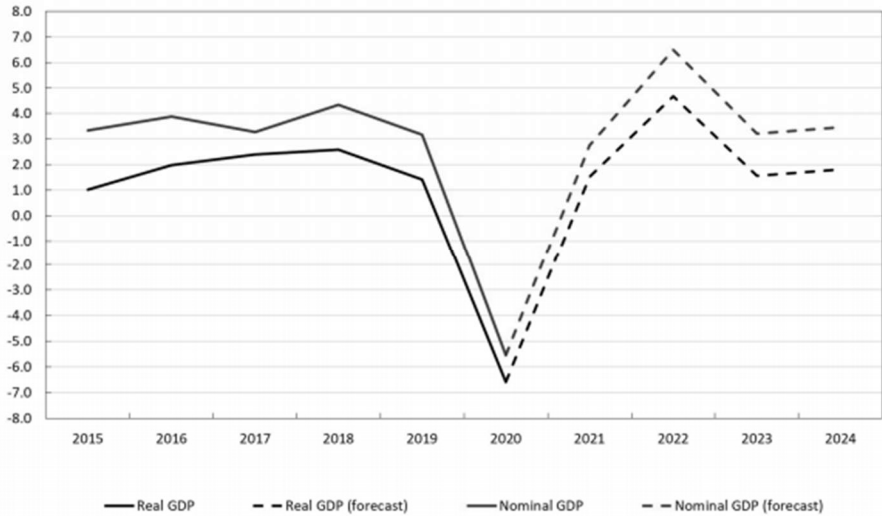
Data shows Austria's population at over 8.8 million people in 2019 (World Bank). The State of Utah has a population estimated at 3.2 million in the same year (US Census Bureau). In Austria, as of April 6th, 2021, there have been 562,907 positive cases of COVID-19 with 9,517 deaths recorded since the pandemic started (John Hopkins University). In Utah, there have been 387,814 reported COVID cases with 2,137 deaths (Case Counts, Utah.gov). Austrians have received 1,773,606 doses of COVID vaccines, which equals around 10% of the population has been fully vaccinated (Bhatia, Gurman, et al.). Over 1,561,000 vaccines have been administered to Utahns, which equals 25% of the population has been fully vaccinated (Utah.gov). While mask mandates have been implemented by both governments, only in Austria are F2PP face masks mandatory for its citizens (France24). Travel restrictions between the border of Austria and other countries have also been established to prevent the spread of COVID-19 (Reuters). Austrian Chancellor Sebastian Kurz has vocalized support for vaccine passports in order to open their borders and restart their struggling tourism sector (Planet SKI). These measures were introduced in Summer 2021, with destination managers welcoming any return to pre-covid tourism activity despite ongoing debate in other countries over the ethics of vaccine passports (Kritz).

COVID-19 Economy: Austria and Utah

Austria's Federal Ministry of Finance updated the Austrian Stability Program as required by European Union regulation for the period 2019-2021. It provided useful data to better understand the effects of COVID-19 on the economy. The report stated that because of the measures the Austrian Government took against the pandemic, they have kept the

number of infections and deaths “relatively low” (Austrian Stability Programme). The report was confident that as the containment measures would be lifted in a progressive manner, the Austrian economy would recover over the second part of 2020. However, in late 2020, cases soared again resulting in multiple lockdowns until May 21.

Figure 2: Real and nominal GDP growth



Left axis: Real and nominal GDP (rate of change over previous year in %)

Figure 1 Courtesy of the Federal Ministry of Finance – Austria (as of April 28th, 2021)

The updated report on April 28, 2021, has delayed this recovery until 2022. The graph (Figure 2: Real and nominal GDP growth) illustrates this delayed recovery from the lockdowns.

Lockdowns measures that were used by governments have created economic recessions around the world. According to a report from the Monetary Policy & the Economy: Quarterly Review of Economic Policy Journal, the Austrian Economy was projected to decline about 13.5 % half-way through 2020; the report also assumed that by 2021, COVID-19 vaccines would be available which would steadily increase this percentage closer to pre-pandemic levels (Gerhard Fenz, et. al.). The Austrian government started lifting lockdown measures on April 13th, 2020 with the possibility that the lockdowns would be reimposed. The journal projected that real GDP growth would decrease by 4% in

2020 but would also have a “strong recovery” in 2021. Unemployment rates in the first Quarter of 2020 were projected to rise to 6.8% then down to 5.8% in 2021, a rate greater than post-pandemic levels. According to the report, the lockdowns have resulted in the total unemployed workers rising from 310,000 to 530,000. This rise of unemployment is not sustainable for Austria. Luckily, these projections will decrease going into 2021 as the virus response changes and vaccines are distributed.

Financial efforts to provide a concentrated income cushion from the pandemic has resulted in a deficit of -8.9% GDP in 2020 (Gerhard

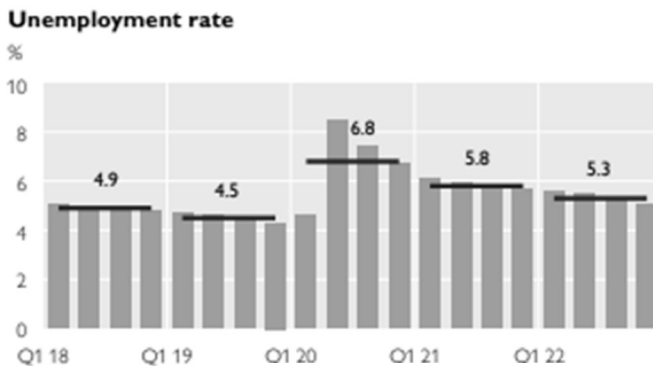


Figure 2.2 Courtesy of Monetary Policy & The Economy Q1–Q2/20 (215)

Fenz, et. al.). However, this increase in deficits has been projected to come back to 4.9% GDP growth in 2021. Despite these projections, ongoing containment measures introduce uncertainty about the figures cited above and are subject to change. As of June 2020, the United States GDP was at -6.4%. Projections have the United States GDP at a 3.6% growth rate going into 2021. This great swing proves that a global recession has taken place since the pandemic started and is not isolated to Austria.

This article further proves that “containment measures adopted worldwide engineered a global recession” (Gerhard Fenz, et. al.). According to Utah’s Governor’s Office of Economic Development on August 25th, 2020, Utah’s economy ranked as one of the top state economies in the United States (Utah’s Economy). The statement claims that during June 2020 Utah’s monthly jobless rate was at 5.1% compared

to the 11.1% unemployment rate at the national level. In March 2021, the state's unemployment rate dropped to 2.9% according to the U.S. Bureau of Labor Statistics (Utah Economy at a Glance). In the 2021 Economic Report to the Governor, it acknowledges that the pandemic has created volatility because Utah has experienced a 0.5% decrease in the state's GDP (Utah OMB). The state's inflation-adjusted or real GDP in 2020 was -.05 % in comparison to -3.6% nationwide and GDP is expected to be at 8.2% in 2021 (Utah OMB).

Tourism and COVID-19

The pandemic undoubtedly disrupted Utah's tourism economy. In 2019, visitors to Utah spent over \$10.06 billion with \$1.34 billion in tax revenue, which provided 141,500 jobs for Utahns. In May 2020, the start of the pandemic, Utah introduced new measures such as mask mandate, social distancing and closures of non-essential businesses. Only 624,553 visitors came to Utah in comparison to over two million visitors in May 2019 (Utah Office of Tourism). This was a significant change. This dynamic stayed consistent until September 2020 where total visitor numbers match up or go over 2019 levels. This appears to represent the change in mindset as visitors feel more willing to travel as they have been in isolation for most of the summer (Rott, Nathan, NPR). Less visitors could also be a reaction to national park closures by the federal government which represent a significant number of parks in the state.

Austria saw a similar upending of their tourism sector because of lockdown measures. According to the United Nations World Tourism Organization (UNWTO) data dashboard, in 2019, Austria had one its highest peaks of international tourist arrivals at around 31.9 million visitors. This was the highest count recorded in 10 years. Despite the steady rise of visitors year over year, this number dropped significantly in 2020 to around 15.1 million visitors (UNWTO).

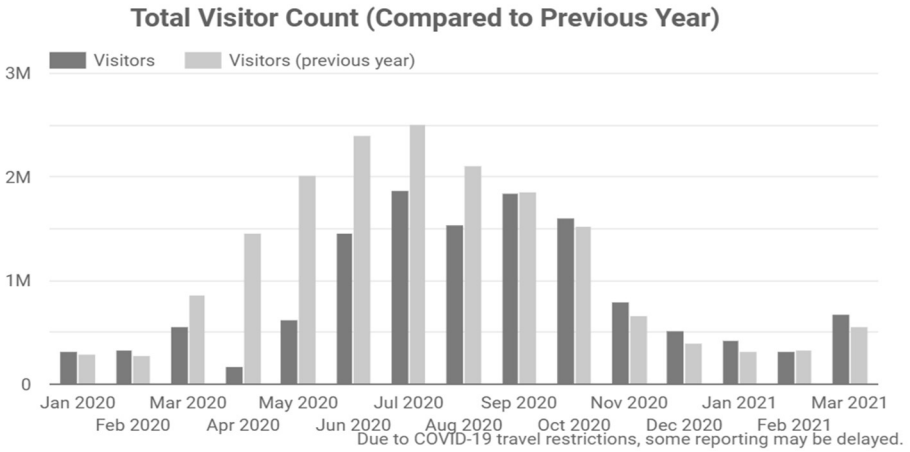


Figure 3 Courtesy of the Utah Office of Tourism Industry Site: Utah Tourism Industry Metrics

This is a shocking development for a sector that typically accounts for 7% to 9% of Austria’s GDP each year. This type of economic trend is, by any measure, unsustainable for communities that rely on this income.

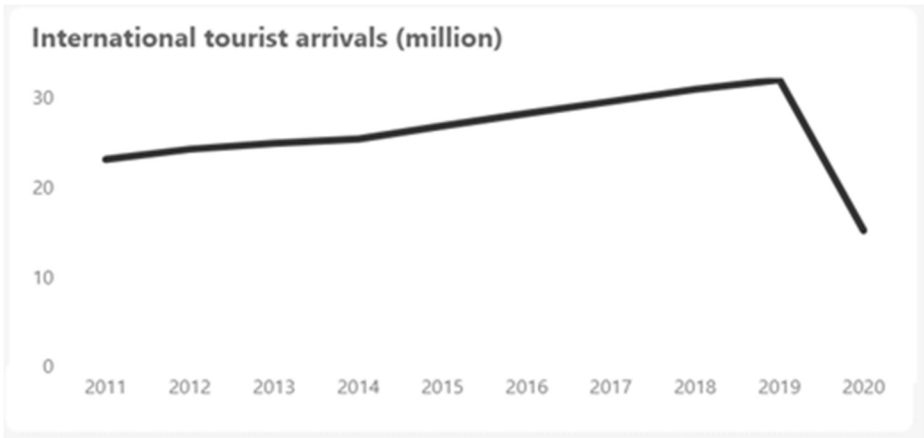


Figure 4 Courtesy of the United Nations World Tourism Organization “Inbound Tourism – Austria”

Sustainable Practices & Recommendations

Many nations are now reviewing what can be done to sustainably manage tourism going forward. Additionally, studies have estimated that over 90% of the global population are living in countries with varying levels of international travel restrictions. With restrictions on internal transportation, almost all countries have implemented some form of lockdowns or restriction (Gössling, Stefan, et. al.). The UNWTO has generated recommendations for a more sustainable tourism industry. In their documents, they are calling for a “responsible recovery of the tourism sector from the COVID-19 crisis” (UNWTO). Among their recommendations for maintaining public health are the following: epidemiological indicators, hygiene, and clear communication. As travel restrictions are eased in the future, monitoring systems need to be in place so the health and wellbeing of travelers can be better managed without strong measures from governments. Hygiene guidelines and rules for tourist operations should follow updated information from scientific professionals and local health officials. Clear communications should address the health concerns of tourists, employees, and local communities through “proactive communications” on public health developments and protocols (UNWTO). A great example of these three recommendations can be found through a study of a national park in Utah that was still operating throughout the pandemic.

A research article published by Utah State University, observed behaviors of visitors of the famous Arches National Park, a popular destination in Utah. The article describes how visiting parks was used as a “common coping method” during COVID-19 (Miller, Zachary D., et al.). The university conducted this study during July, a time the park experienced a peak in visitors. Obviously, high density is a concern for public health officials during a pandemic. The Center of Disease Control (CDC) guidance was implemented to control the spread of coronavirus so visitors could enjoy the benefits of these parks while staying safe. Visitors were advised through official park messages to practice social distancing, use face masks, and practice hand washing when possible.

The Utah State University researchers wanted to know if it was physically possible for these visitors to comply with these CDC guidelines while visiting the park. They placed their gear in visitor centers and various other points where crowds would form naturally. They observed 780 groups of people which averaged around 1.88 people per group. It was observed that “sixty-nine percent of groups had zero encounters” with other groups (Miller, Zachary D., et al.). Around 61% of observed groups were wearing masks, with 34% not wearing masks and 11% a mixture of individuals not wearing masks and those wearing masks (Miller, Zachary D., et al.). The researchers also concluded that these visitors engaged in social distancing when possible.

This relatively successful example in their research, credited clear communications from park managers as a strong force for allowing the park to remain as a “relatively safe alternative” for visitors who are seeking to escape quarantine and get out of their homes. This study shows that when given proper information and guidance, individuals will generally comply with public health guidelines even while on vacation or visiting these famous tourism destinations even when they are not being actively supervised. This should give destination managers and governments more confidence to open their locations to more visitors as we move into the process of vaccinations for coronavirus.

Conclusion

After reviewing the effects COVID-19 has had on the economy and tourism, sustainable plans and procedures should remain in place long after the pandemic is under control. The University of Utah study has shown that governments can place more trust in their citizens to manage and prevent the spread of communicable diseases, this will allow lockdowns to be more targeted and less detrimental on important sectors of the economy like tourism.

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Sustainable Development Goals and Georgia: An Analysis of Poverty in Georgia, Particularly in its Mountain Communities.

By Liam Dowling

Liam Dowling is a senior at Utah Valley University. He is pursuing a Bachelor of Arts degree in political science, concentrating on global politics with a minor in Constitutional Studies. Apart from a brief stint living in Dyersburg, Tennessee, Liam was raised in Utah. Utah is primarily known to outsiders for having incredible mountains that offer endless opportunities for scenic adventures. These famous mountains form the backdrop to his childhood memories and fuel his passion for Sustainable Mountain Development. Through his participation with the Utah International Mountain Forum (UIMF), a coalition of student clubs at UVU, Liam has represented the organization and its agenda during several preparatory activities leading up to the parallel event "Mountain Women Empowerment Through the Inclusive Student-Engaged Learning Model" as part of CSW65. He has also created a digital archive for the storage and public access of photos from UIMF events. As a native Utahn and avid outdoorsman, Liam understands the importance of protecting and preserving the precious mountain ecosystems, their many natural resources, and the communities inhabiting them worldwide.

Overview of Georgia

Introduction

Georgia is located in the northwest portion of Transcaucasia; a region between Eastern Europe and Western Asia. Transcaucasia, also referred to as South Caucasus, comprises three independent nations-- Georgia, Azerbaijan, and Armenia. It covers the roughly 72,000 square miles isthmus separating the Black and Caspian Sea and is bordered by

Russia, Turkey, and Iran. Georgia itself shares borders with four nations: Russia to the north, Azerbaijan to the east and southeast, and Armenia and Turkey to the south. Along Georgia's western border runs the Black Sea. Georgia's geography is very diverse, especially considering its relatively small borders. The terrain is mainly mountainous with one-third covered by forest or brushwood (Howe et al., 2021). While Georgia identifies itself as a European nation, it can be classified as both European and Middle Eastern geopolitically. The country's territory covers 69,700 square kilometers and has a population of 3.7 million; however, nearly 18 percent of this territory is under Russian occupation.

Historical Background

Georgia is located on a tiny sliver of land that joins Europe and Asia. This region has long been a significant link between the two continents. The ancient Mesopotamian culture passed through this region and is referenced in the works of Herodotus and Strabo. Throughout time, invaders, from both Europe and Asia, have left an imprint on the more than 50 different cultures inhabiting the South Caucasus. To protect themselves from the constant clash of civilizations, the region's ethnic groups isolated themselves in the gorges of the Caucasus ranges, thus preserving their ethnic identities (Gvozdetzky et al., 2020).

Evidence of humans inhabiting modern-day Georgia dates back to the Paleolithic period. Archeological sites from the Neolithic period have been excavated across Georgia and show the settled tribes engaging in animal husbandry and grain cultivation. Georgia entered the Bronze Age at the beginning of the 3rd millennium BCE. Modern-day Georgia's ancestry traces as far back as the 1st millennium BCE to the ancient nations of Assyria and Urartu. The Cimmerian invasion of the 7th century BCE drove an influx of tribes from Anatolia to the Kura River valley, leading to the growth of the kingdom of Iberia. In 66 BCE, Pompey led the Roman campaign that established control over Georgia's Black Sea coastline and held hegemonic power over Iberia.

By 330 CE, Georgia adopted Christianity. Over the next three centuries, Georgia clashed with Rome, the Byzantine Empire, and the Sāsānian dynasty. The Iberian monarchy was abolished in the 6th century under the Persian Sāsānian monarch Khosrow I. Between the late 9th century and early 10th century, Ashot I took advantage of the weakened state of the Byzantine empire and Arab caliphs then established the Bagratid dynasty. King Bagrat III united all of the eastern and western principalities into a single Georgian state. The exception being Tbilisi which remained under Muslim rule until 1122 CE when King David IV captured it. Georgia reached its height of power under Queen Tamar who ruled between 1184 and 1231.

Georgia's golden age came to an end in 1220 CE with the Mongol invasion of Transcaucasia. Apart from a brief resurgence under King Giorgi V, the kingdom's economy and culture had significantly suffered and devolved into princedoms after the death of Alexander I in 1443 CE. Georgia was cut off from western Christendom in 1453 when the Ottoman Empire captured Constantinople. Georgia was partitioned by the Muslim powers of Iran and the Ottoman Empire. The Ottomans were expelled from Georgia in the mid seventeenth hundreds by Nādir Shah, which paved the way for Erekle II to reestablish an united Georgia. Erekle turned to Russia to support the nation, who, in 1783, acknowledged Georgia's sovereignty in the Treaty of Georgievsk, signed by Erekle and Catherine II. Despite the treaty, Georgia faced a Persian invasion without Russian support, leading to the 1795 sacking of Tbilisi. Georgia's royal Bagratid line was deposed, and the nation was placed under Russian military governance. By 1878, Russia had annexed all of Georgia and placed its inhabitants under the tsarist system. Discontent grew amongst Georgians and fighting broke out across Georgia following the 1905 Russian Revolution. In 1921, the Red Army invaded Georgia then installed and established it as a Soviet republic (Howe et al., 2021).

Under Soviet rule, Georgia's nationalist movements were repressed, peasants underwent forced collectivization, its economy was shifted from rural agriculture to urban industry. When Stalin died,

Georgia's economy became less regulated and began producing goods and services unavailable under Stalin's strict rule. Georgia's economy grew more independent in the 1980s as a result of Gorbachev's Perestroika. After the collapse of the Soviet Union, Georgia declared independence on April 9, 1991. Zviad Gamsakhurdia was elected president, but his policies led to civil war breaking out in late 1991. Gamsakhurdia was deposed in 1992 and replaced by Eduard Shevardnadze. Georgia joined the Commonwealth of Independent States (CIS) in late 1993 and created a new constitution with a strong executive power in 1995. This series of civil conflicts and secessionist movements in South Ossetia and Abkhazia, along with widespread government corruption, culminated in the 2003 Rose Revolution (Howe et al., 2021).

The Rose Revolution and the Russo-Georgian War

The Rose Revolution came after a decade of civil, political, and economic strife and saw the peaceful disposition of former Soviet official Eduard Shevardnadze. Following the dissolution of the Soviet Union, Shevardnadze ruled over Georgia from 1992 to 2003. In January 2004, Mikheil Saakashvili gained office and appointed Kakha Bendukidze to lead the nation's reformation process. Despite lingering hostilities with Russia and unresolved separatist movements, the Rose Revolution brought about rapid economic liberalization (Lawson, Grier, & Absher, 2019).

Following the Rose Revolution, the United National Movement, led by Mikhail Saakashvili, tried to reset Georgia-Russia relations. This movement failed due to conflicting foreign policy goals: Saakashvili's pro-Western government tried integrating into the EU and NATO, while Putin fought to maintain a grip on near abroad neighbor. The Tbilisi-Moscow 'honeymoon' ended almost immediately when Saakashvili decided to compete with Moscow. Georgia's ruling class was confident that western interests would prevent Moscow from using military force. When neither the EU nor the US was ready to counter Moscow's interests in the South Caucasus, it became clear Georgia's

foreign policy needed to change. When Saakashvili lost power, The Georgian Dream Party, led by Bidzina Ivanishvili, put forward a policy for Russian deterrence. Tbilisi discouraged anti-Russian sentiment and aggressive military rhetoric, renewing efforts to reset Georgia-Russia relations. The Georgian Dream Party's new attempts at resetting Russian relations failed once again which led to Moscow beginning its 'borderization' process. This process included taking Georgian citizens, and in some cases, torturing and murdering the victims (Sikharulidze, 2020).

Reform under Saakashvili

The success of Georgia's market-liberal reforms can be seen by their impact on Georgia's policy environment. The nation's Economic Freedom rating, Contract Enforcement rating, and its Corruption Perception Index all saw significant improvements. Saakashvili's four main elements of reformation were: anti-corruption, privatization, tax reform, and liberalization.

A study published by the Journal of *Economics of Transition and Institutional Change* concluded that the Rose Revolution "greatly improved economic and health outcomes" with only "short-lasting" adverse effects on employment (Lawson, Grier, & Absher, 2019). However, Saakashvili's success came at the expense of normal democratic procedures, turning the judiciary and law enforcement into tools for the executive and consolidating decision-making power around his allies, changing Georgia into a "super-presidential" state. Some argue Saakashvili's authoritarian tactics were needed to bring Georgia out from the verge of economic collapse and end rampant corruption; however, he continued to use these tactics throughout his 10 years in power. The business dealings of his political opposition were selectively targeted. Those accused of criminal or corrupt activity had their property stripped from them and were sentenced to prisons where torture was common (Barrett, 2021).

Saakashvili's rule can be described as "autocratic modernization." He tackled the corrupt bureaucracy by eliminating regulations, dissolving institutions, and firing public servants en masse. This ensured Georgia ranked in the World Bank's top 10 "Ease of Doing Business Index". However, Saakashvili made little attempt to rebuild the institutions. Social protections were limited, labor rights were scarce, anti-monopoly policy was limited, and infrastructure projects often went to those closest to the party in power. These economic policies favored short term and did not benefit a significant portion of Georgia's population. While Saakashvili's regime successfully created a more attractive business environment for foreign investors, poverty remained more or less the same.

Understanding Poverty in Georgia

Georgia's poverty profile has been in constant flux since gaining independence but remained consistently high. Data from the Central and Eastern Eurobarometer shows that in the early 1990s, education and age was not affecting the probability of being poorer. Women and urban residents were more likely to be on the bottom of the income ladder, while the opposite was true for farmers and professionals (Gugushvili, 2011). In the year 2000, age began to correlate with poverty; young people were at the highest risk. By 2004, the more liberalized economy meant that labor status and education became increasingly important factors in predicting poverty. Those who were unemployed or inactive faced the highest risk. Among employed individuals, the self-employed and those working in agriculture faced higher poverty rates on average. Over one-third of households were considered poor in 2009. In 2010, only 44 percent of households could only afford to buy food, and 18 percent had to limit their bread consumption (Gugushvili, 2011).

Currently, poverty affects nearly two-fifths of the population. This high poverty level is rooted in jobless economic growth and low agricultural productivity. Government actions aimed at lowering poverty have, so far, been ineffective. Furthermore, there is a need for greater public involvement in the formation of human capital and

targeted vocational training for adults. Finally, society should continue to seek ways to overcome poverty and generate equal opportunities while not overly relying on targeted social assistance (Gugushvili, 2011).

Sustainable Development Goals and Georgia: An Analysis of Poverty in Georgia

Georgia's National Voluntary Reviews: 2016 and 2020

Before adopting the 2030 Agenda for sustainable development, the Government of Georgia made significant efforts in implementing the Millennium Development Goals (MDGs). Additionally, with assistance from the European Union, Georgia performed fundamental and institutional reforms signing the Association Agreement and implementing the Visa Liberalization Action-Plan. Driven by the successful implementation of the MDGs and looking to reform its institutions further, the Government of Georgia adopted the 2030 Sustainable Development Goals (SDGs) in September 2015 (VNR Executive Summary, 2016).

As part of the Agenda 2030 for Sustainable Development, Member States were urged to conduct Voluntary National Reviews—a country-led review of national and sub-national progress. In 2016, Georgia was among the first 22 countries to present its national review (U.N. Georgia, n.d.). The 2016 VNR acknowledges the "immense transformative challenges" facing Georgia's government and that overcoming these challenges will require a "whole-of-government" approach. The 2016 VNR concluded that Georgia had made significant strides towards adapting the SDGs to the nation's specific developmental needs and that the Government of Georgia ensured "the SDGs become an integral part of its national policy making process, as well as its guiding set of targets" (FIRST VNR; Georgia, 2016). In 2017, Georgia declared all 17 Sustainable Development Goals (SDGs) a national priority. Not long after, Georgian officials announced they completed the SDGs' nationalization process (U.N. Georgia, n.d.). However, Georgia's fundamental issue persists: poverty continues to

affect a considerable portion of the population despite government efforts to uplift impoverished Georgians.

Georgia's first VNR, released in 2016, acknowledges "while the poverty rate has been dropping, its general rate remains high compared to the neighboring countries." The government prioritizes policies aimed at boosting incomes and productivity in agriculture, expanding health coverage, and improving labor laws. The document stipulates that continued development "requires sustainable economic growth" (AoG Georgia, 2016). Georgia's latest VNR was introduced on July 13, 2020. This document builds on 2016's VNR and sets out three priorities for Georgia to focus on as it moves forward with its sustainable development: economic growth, developing human capital and economic welfare, and democratic governance.

As stated in the 2016 VNR, economic growth is essential to Georgia's ability to reduce poverty rates. In the time since releasing the 2016 VNR, the country's economic growth has been positive. The 2020 VNR claims that their GDP per capita has increased with an average annual rate of 4.1 percent since the adoption of the 2030 Agenda in 2015. The government of Georgia showed some success in reducing poverty with the proportion of Georgians living below the absolute poverty line dropping 7 percent since 2015 (AoG Georgia, 2020). The total number of people living below the national poverty line, however, still sits at 19.5 percent according to 2019 data published by the National Statistics Office of Georgia (Geostat) and has only decreased 0.6 percent between 2018 and 2019 (Agenda.GE, 2020). Despite achieving the sustainable economic growth thought necessary to successfully tackle high poverty rates, very little has actually changed. To understand why Georgia's impressive economic development over the last three decades has failed to reduce a persistently large rate of poverty, it is important to understand the context and characteristics of this poverty.

The Georgian Social Protection System

Georgia's social protection system has come a long way since its independence. Initially, the social protection system experienced a major retrenchment. This resulted from the government's inability to finance welfare while simultaneously facing massive economic contraction and the near-collapse of its public institutions. Georgia has made positive steps toward building a modern welfare state, but major challenges still remain, such as: decelerating growth, a lack of strong pro-welfare actors, and the absence of positive external pull factors.

The Georgian social protection system experienced a retrenchment phase from 1991 to 2003. The former Soviet-era welfare system, which was designed to fit a centrally planned economy, became impossible to maintain after the Soviet economic model collapsed. The country's economic output fell by three-quarters between 1990 and 1994 as the state, and its welfare system verged on total collapse. As a result, the living conditions for the majority of Georgians became dramatically worse (Gugushvili, 2017).

Between 2004 and 2012, the welfare system saw a period of reanimation. The economy returned to a fast growth path, and public administration improved. President Saakashvili and his United National Movement (UNM) party took power after winning the election with nearly 95 percent of votes and began implementing reforms including economic privatization, deregulation, reducing taxes and the private sector, and liberalizing trade. A massive anti-corruption campaign was also launched. These reforms have had great success. The nation's nominal GDP increased by more than seven-fold. The main systemic change introduced by the UNM government was the introduction of means-testing and targeted social assistance. They also abandoned the commitment to providing universal health care and, keeping in line with the privatization agenda, privatized the nation's healthcare infrastructure (Gugushvili, 2017). The welfare system continued expansion between 2013 and 2016 when, in 2012, a coalition of six parties took power. Social policies were not at the forefront of the

coalition government's agenda; however, a vague commitment was made to improving welfare provisions. The coalition government also enacted pro-labor amendments to its labor code as well as increased pensions (Gugushvili, 2017).

Presently, categorical and means-tested cash transfers are the main tools used in providing social assistance. The Old-Age Pension becomes active for men at age 65 and women age 60. Pensioners living in mountainous regions receive additional compensation due to the harsh conditions associated with the terrain. Retired public officials receive "Compensations" based on years served and salary prior to retirement—Compensations are capped at GEL 540 per month. A "Social Package" is offered to disabled persons, orphaned children, and parents of military personnel killed in action. Finally, IDPs from the occupied territories of Abkhazia and South Ossetia are entitled to the IDP Allowance. It is notable that Georgia lacks any form of unemployment benefits (Gugushvili, 2017).

In 2016, UNICEF estimated that 63 percent of the population lives in a household receiving some form of social assistance. In this same year, Georgia's monthly subsistence minimum was GEL 162 for working-age adults. Of the various forms of social assistance offered, only Compensations stood significantly higher than the subsistence minimum (GEL 416). The other programs barely met, or fell beneath, the minimum (Gugushvili, 2017).

A key factor limiting the social protection system's effectiveness and efficiency is the low level of spending on its main components. "As a share of GDP, Georgia spends 46 percent of the average OECD country expenditure for social protection and 37 percent of average OECD country expenditure on health" (Gugushvili, 2017). The system is unable to protect the population from the main social risks, like unemployment, sickness, and old-age. Georgia does not have strong trade unions or powerful left-wing parties that can help develop and defend an extensive welfare system that is found in many Western countries. The Georgian Dream party elected in 2016 continues the

trend of placing economic policies before social programs. Fortunately, Georgian policy-makers are beginning to recognize that economic growth alone cannot tackle the major social problems facing the country (Gugushvili, 2017).

Economic Primitivism in Georgia

Economic Primitivism is a simplified approach to a complex economic issue. The Georgian version of economic primitivism can be described as optimism caused by or associated with simple economic policy—a common trait found in officials lacking sufficient knowledge of economics. As part of Georgia’s agenda for sustainable development, the country has undertaken efforts to reform economic and educational policies (VNR Executive Summary, 2016). Adopting the Social-Economic Development Strategy of Georgia, also referred to as Georgia 2020, was essential for the government to achieve its aspirations of establishing an innovative and knowledge-based economy. Unfortunately, the measures outlined in Georgia 2020 have not been fulfilled, and its feasibility is in question.

Georgia 2020, originally proposed in 2014, suggests that government policy be based on three simple principles: 1. ensure rapid and efficient economic growth driven through development of the real sector of the economy; 2. the implementation of economic policies that facilitate inclusive economic growth; 3. the rational use of natural resources, the provision of environmental safety and sustainability, and natural disaster risk mitigation throughout the process of economic development.

The document implied that innovation development and the establishment of a knowledge-based economy should be the focus of government policies. Ministries and state agencies were instructed to create yearly action plans (Papava, 2017). The adoption of Georgia 2020 was essential for the country to align its economy with the EU’s Deep and Comprehensive Free Trade Area (DCFTA), a key constituent of the EU Association Agreement signed in 2014. Unfortunately, there has yet to be seen any development or expansion regarding the

measured outline in Georgia 2020 (Papava, 2017). Instead of pursuing the optimistic Georgia 2020 plan, a simpler, more primitive plan is being pursued: the Governmental 4-Point Plan.

This plan has been guiding much of the nation's current social-economic development; however, it is not likely to improve the nation's current, distorted economic model. Economic primitivism is imposed throughout many of Georgia's governmental agencies. Unprofessionalism and a denial of universally recognized economic theories lay at the roots of this principle. The current approach towards the economy leads to ill-fated decisions that are harmful to the country's economic security. Engagement in civil society is virtually the only mechanism capable of putting effective pressure on the elimination of primitivism and the replacement of incompetent government officials.

The Governmental 4-Point Plan paints a vivid example of the economic primitiveness present in Georgia's policy-making. The plan calls for 1. Economic Reform, 2. Education Reform, 3. Spatial Planning, and 4. Governance Reform. The main aspect of point 1 calls for corporate income tax exemption for businesses in the case of profit reinvestment. According to point 2, the vocational education system should be oriented towards a dual or work-based learning approach. University education should be focused on the requirements of the economy as identified by a labor market analysis. As for point 3, spatial planning measures around the country should be conducive to mindful urban and rural development. This includes the advancement of an inter-regional transport network, ultimately aiming to transform Georgia into a year-round tourist destination. Finally, point 4 aims to increase governance efficiency (Papava, 2017).

According to Vladimer Papava, former Minister of Economy for Georgia and professor of economics at Ivane Javakhishvili Tbilisi State University, the fundamental issue with the 4-Point Plan is that it simultaneously promotes "the maintenance and reinforcement of a non-productive and, at the same time, a consumerist economic model in

Georgia.” Papava points out examples of economic primitivism found in the “privatization of the premises of the Ministry of Economy, an institutional battle waged against the [National Bank of Georgia], [and] the promotion of currency market fluctuations via reckless and uncoordinated statements.”

The cause of Georgia’s economic primitivism is the unprofessionalism and denial of “universally recognized knowledge of economics, contemporary geopolitics and geoeconomics.” This triggers the creation and implementation of “ill-fated decisions” that are harmful to the country’s economic security, like in the case of the expropriation of valuable assets and the lowering of gas transit fees (Papava, 2017).

Future Economic Development: Challenges and Solutions

Challenges

Georgia's recent economic growth has been sluggish; The country faces a high trade deficit. Its economy is consumption-oriented, and its production is underdeveloped. Its national savings rate is also substantially low. Furthermore, Georgia is over-reliant on foreign direct investments (FDI) that are often concentrated on non-productive and non-tradable sectors. Policies aimed at raising national savings, attracting more quality FDIs, and developing export potential will play a critical role in mitigating poverty and creating shared prosperity. A better educational system and an improved quality of education will be the catalyzing force in facilitating these economic reforms (Benidze, 2019).

Georgia's average GDP growth rate was 3.9 percent between 2013 and 2018. The promise made by the 2012 Georgian Dream Coalition government to continue its neoliberal economic reforms, create high economic growth, and tackle unemployment and poverty, has not yet come to fruition. The GDP growth is low, considering the "catch-up effect" poorer economies tend to display. According to a 2018 National Democratic Institute survey, nearly two-thirds of the

population reportedly felt the country was "going in the wrong direction and [felt] that their wellbeing [had] not improved" (Benidze, 2019).

Georgia's economy is consumption oriented. Its productive capabilities are underdeveloped, and its trade deficit is high. The most significant factors driving its economic growth are consumption and government spending. Additionally, the national savings rate—20 percent of GDP from 2012 to 2018—lags behind that of Europe, as well as other former Soviet states (Benidze, 2019). Economic growth for developing economies, such as Georgia's, requires substantial investment in several directions: thus, requiring a high national savings rate (Benidze, 2019).

To make up for its scarce national savings, Georgia has depended on FDIs to finance its development projects. Since 2015, FDI accounts for more than 12 percent of their total investment. Foreign investment has been mostly positive for Georgia, however, its geopolitical situation, and the mounting competition from other developing economies, make it risky for the country to continue to heavily rely upon FDIs. Furthermore, the concentration of FDI has been directed toward non-productive, non-tradable sectors of the economy—financial, transport, energy, and real estate sectors—which are less likely to contribute to production capabilities and growth in the real economy (Benidze, 2019). Over investment in non-productive sectors and underdevelopment of the real economy have resulted in Georgia's high trade deficit and high level of dollarization. These circumstances make it impossible to raise the standard of living.

Strong and sustained economic growth requires raising public and private savings and attracting a continuous flow of quality FDIs. Solving the problem of low public and private savings requires improved access to financial services for rural Georgians, as well as an increase in their financial literacy. Further development of Georgia's social protection system, particularly its pension system, will greatly improve private savings. Reducing the budget deficit, and optimizing social healthcare and education costs, will help increase national

savings. As for FDIs, policies shifting future foreign investment toward productive, tradable sectors of the economy will greatly benefit the country's economic growth. Staying competitive in the international investment market will require a skilled workforce. This can be achieved by strengthening the vocational education system and improving the quality of education overall. Sustaining high economic growth and improving the living standards for citizens will require greater development of the country's production capabilities. Development of the small and medium-sized enterprise sector will allow Georgia to grow an export-oriented economy.

Potentials for Sustainable Land Use in the Mountainous Regions of Georgia

Mountain areas cover a significant portion of Georgia's territory. Mountain ecosystems are highly important ecologically, providing provisioning, regulating, and cultural services but are fragile and vulnerable to changes in land-use, economic conditions, and climate. The Greater Caucasus mountain range is like a wall running along Georgia's northern border, reaching 16,627 feet at its highest point. The major Inguri, Rioni, and Kodori rivers of western Georgia form from this stunning mountain range. The southern border of Georgia runs along the lesser Caucasus range, which rises from the swampy coast to a height of nearly 11,000 feet. Three smaller mountain ranges run through Georgia from north to south connecting the Greater and Lesser Caucasus ranges (Howe et al., 2021). They provide a major source of food production through livestock grazing; thus, the sustainable development of mountain resources is of utmost importance for rural mountain communities (Theissen, et al., 2019).

Mountain ecosystems are highly important as they provide provisioning, regulating, and cultural services. Livestock grazing is a major source of food production in these regions. Changes in land-use, due to agriculture or socio-economic conditions, often cause changes in ecosystem functioning and can cause a loss in productivity. Land use in the Greater Caucasus has changed dramatically since the Soviet era.

Former Soviet production and distribution systems disintegrated and were replaced by subsistence agriculture operations. Collective farming and intensive sheep transhumance shifted to small-scale, stationary cattle husbandry.

While economic reforms have brought growth to the economy, it has come at the expense of rural and mountainous communities. As of 2013, poverty and population decline have been severe problems in rural Georgia (Theissen, et al., 2019). This is especially true in the rural mountain areas. Residents living in highland communities face the highest poverty rates and extreme weather conditions (Turp-Balazs, 2020). These neglected communities comprise some of Georgia's most important; the mountains they live in provide Georgia with clean energy, water, and land for agriculture. Despite their importance, these communities have been neglected by the Georgian government and benefits from the national economy don't reach them. Socioeconomic and political disruptions, caused by the transition from a collectivized, planned economy to a liberal market, has caused a massive drop in the highland population since 1989 (Kohler et al., 2017). This has resulted in Georgian youth leaving these communities because the economic challenges and environmental hazards are too great. While half of all settlements in Georgia are located in mountain areas, less than ten percent of the country's population live there (Turp-Balazs, 2020).

Creating policies guided by region-specific analysis, and taking into account integrated land-use options, could increase the profitability and production capability of the rural and mountainous regions of Georgia. A study, focused on the Kazbegi region of Georgia, produced several land-use scenarios that promoted sustainable and inclusive economic growth and production while preventing land degradation and biodiversity loss (Theissen, et al., 2019). Like this study, using scenario development to determine region-specific and integrated land-use options, can help Georgian land users and policymakers better develop the mountain regions. Investment in recreational economies such as hot springs and mountain tourism, along with establishing protected land

areas, can create economic opportunities for locals and prevent further population loss (Kohler et al., 2017).

Additionally, increased cooperation with international organizations focused on sustainable mountain development can have significant results on the living conditions of mountain inhabitants. International organizations are working to ensure Georgia's mountain inhabitants have a high standard of living, while also protecting the natural wealth found in the Caucasus mountains. The United Nations Development Program (UNDP), with support from the Swiss and Austrian Development Cooperation (SDC and ADC respectively), is funding projects aimed at growing local entrepreneurship, developing renewable energy, and supporting waste management and environmental tourism. Furthermore, these international agencies are providing support for Georgia's four-year Strategy on the Development of High Mountainous Settlements (Turp-Balazs, 2020).

Conclusion

The key issues facing Georgia, as outlined in its 2016 VNR, are the critical issues highlighted in its 2020 VNR. Since Georgia adopted the 2030 Agenda, the major issues targeted, such as high poverty and unemployment, remain virtually unchanged. The working theory that economic growth will be accompanied by a reduction in poverty has proven false (Gugushvili, 2011). Economic growth must benefit all levels of society for it to have a positive impact on poverty rates (Theissen, et al., 2019).

As Georgia continues its efforts to liberalize its government and economy, factors such as education and labor market status increasingly shape the country's poverty profile (Gugushvili, 2011). While the social protection system has come a long way in the past three decades, the system's effectiveness is limited by the government's lack of support and funding (Gugushvili, 2017). Economic primitivism has led policymakers to implement overly ambitious or ill-fated policies. A prime example of this kind of primitivism is Georgia 2020's failed implementation. Georgia 2020 espoused ambitious plans to create rapid,

inclusive, and sustainable economic growth; however, government ministries and agencies failed to take any action toward implementing these plans. Georgia 2020 was replaced by a wholly different policy approach, the Governmental 4-Point Plan, that reinforced the status quo. Unprofessionalism and limited input from the civil society sector are to blame for this policy reversal and other ill-fated policies like it (Papava, 2017).

In order for Georgia to eliminate poverty, they must make many changes. They must shift their consumption-oriented economy to a production-oriented one. Georgia can increase production capabilities and improve the population's living standard by developing the SME sector of the economy. Currently, Georgia's economy is overly reliant on unproductive foreign investments that do not promote economic growth in the lower and middle classes. Georgia can reduce its reliance on FDIs by increasing public and private savings; furthermore, government officials should focus on developing the nation's real economy when approaching future FDI. Additionally, Georgia needs to develop its social protection system further and offer greater provisions for unemployed and underemployed people. Local and national officials must work together to create and implement regionally specific development scenarios for the nation's marginalized rural and mountainous regions to ensure that all Georgians benefit equally from economic growth. Lastly, building a better education system that offers high-quality, widely accessible vocational and professional education opportunities will be the catalyst in facilitating this transformation.

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The Impact of Deforestation on Sustainable Mountain Development in Nepal

By Jeff Hibbard

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Introduction

Nepal is a South Asian country located in the Himalayan mountain range. It is one of the most mountainous countries in the world with mountains covering around 75 percent of the surface (Zuberi). While the mountains and beautiful scenery makes Nepal a popular tourist destination for mountaineers, Nepal has been experiencing problems related to its mountains including deforestation. It is estimated that between 1990 and 2005, Nepal lost around 25 percent of its forest cover (Adhikari). Mass deforestation such as this causes major harm to ecosystems and can harm people and infrastructure by increasing erosion, flooding, landslide, and watershed degradation. This paper seeks to explain the importance of mountains and rural areas and the problem of deforestation in Nepal including its causes, effects on livelihoods (specifically out-migration), effects on women, and possible solutions to the problem. Mountains are of vital importance to the globe and deforestation in Nepal is causing a myriad

of challenges including affecting livelihoods (specifically out-migration) and reshaping the societal roles and burdens of women. Several remedies to this issue have been proposed such as hydropower and raising awareness through the efforts of organizations.

Importance of Mountains

Mountains are of vital importance to communities worldwide. It is estimated that mountains occupy around 24 percent of the global land surface and are home to 12 percent of the global population (Price 1). Another substantial number of people live near mountain regions. For example, many large metropolitan areas, such as Mexico City, are located in and around the mountains (Price 1). These regions are the source for approximately 50 percent of the world's fresh water and act as barriers that play a huge role in regulating climate (Iyngararasan 18).

Recently, mountains have been facing extreme environmental challenges such as warming, melting permafrost, severe air pollution, glacial lake outburst flooding, as well as an increase in natural disasters and deforestation. Many of these challenges are not unique to mountains, however, mountainous areas have been dealing with these problems on a more intense level. For example, warming has been more extreme in mountains. It is estimated that from 1990 to 2100, the temperatures in mountainous areas will increase between 1.4-5.8°C (Iyngararasan 18). This is around twice as high as temperatures in lowland areas (Berwyn). Despite playing such an important role in the global system and facing mounting challenges, mountains and mountain communities are often neglected.

It is only in recent years that mountains have become a focus within the global community. The United Nations Conference on Environment and Development (UNCED) 1992 held in Rio de Janeiro was a catalyst for more research and focus on mountains. It was proposed that mountains be included in a specific chapter of Agenda 21, a plan for action endorsed at UNCED. Within this specific chapter, the UNCED included chapter 13, "Managing fragile ecosystems: sustainable mountain development" (Price 2). The two programme areas it included were first: "generating and strengthening knowledge about the ecology and sustainable development of mountain

ecosystems,” and second, “promoting integrated watershed development and alternative livelihood opportunities” (Price 2). Since this time, mountain communities have received more attention on a global scale. Organizations like the Mountain Partnership, of which Nepal is a member, also work to bring awareness to mountain issues and communities (Mountain Partnership). Deforestation in Nepal is one of these mountain issues that deserves to have more attention.

Climate Change and Deforestation in Nepal

Nepal, like many other mountain communities, is feeling the effects of climate change more dramatically than lowland areas. Aside from deforestation, Nepal has also been experiencing a rapid temperature rise. Some estimates show that temperatures in Nepal are rising by two to three times as fast as the rest of the world (Subedi). This contributes to problems like lower quantities of snowfall. Localities that rely on snow to attract tourists are struggling and farmers who rely on snow to water their crops and kill bugs and disease are also struggling (Subedi). Warmer temperatures are also creating shortages of drinking water in some places like Arghakhanchi (KC). While less water from November to June is common in Nepal, the shortages that some areas are experiencing are more extreme than usual. As a result, many people now spend hours collecting water every day and have trouble raising crops and rearing animals (KC). It is important to place issues like this in the context of deforestation because they do not occur in a vacuum. Factors like warming temperatures can worsen the effects of deforestation and in turn, deforestation can make global warming and climate change even more severe.

Deforestation is not a new phenomenon in Nepal. People have been relying on fuelwood for heat and cooking for centuries, but the rate at which forests are being cut down has started to reach unsustainable levels in the last 100 years. Deforestation in Nepal is being caused by a myriad of factors including: “agricultural production, the need of firewood, forage for livestock as well as local unemployment and lack of management from the government. There are also other reasons which include political instability, politicians’ attitude, fire, shifting cultivation, natural process, forest rewards, attitude of individuals, donors’ role and government policy” (Adhikari).

Population growth in mountainous areas including Nepal has also increased the rate at which deforestation is happening as more people means a greater need for fuelwood, agricultural land, etc.

Deforestation can have far-reaching consequences. While small-scale deforestation might only be detrimental to local communities, large-scale deforestation can have a global impact like contributing to climate change as was mentioned earlier. Forests act as carbon sinks capturing and storing greenhouse gases like carbon dioxide and methane. When deforestation occurs, the trees that once helped capture these gases are gone. These gases then trap heat in the atmosphere and worsen climate change. Additionally, when trees are felled and burnt or left to decay, they release more carbon into the air (“What is the Relationship”). Therefore, protecting forests is one of the best weapons in fighting climate change and promoting sustainable development.

On the local level, deforestation can lead to a decrease in the accessibility of fuelwood as well as fodder and leaf-litter manure. Because trees and other vegetation help to keep topsoil in place, deforestation can also increase the rate of landslides, flooding, and other incidents of unpredicted erosion. Flooding and watershed degradation not only affect mountainous communities but downstream ones as well. These factors can have effects on human life and tourism which Nepal heavily relies on as a source of foreign income (Adhikari). Sustainable cities and communities are difficult to achieve when these dangers become more frequent.

Economic Effects of Climate Change and Deforestation

In Nepal, in addition to climate and economic changes caused by factors such as deforestation, easier access to passports, and population growth, have increased the number of people that leave the country to work abroad (Gill). Many go to the Middle East and Malaysia, among other countries, and send remittances back home (Gill). Mountain communities like Nepal have both received benefits and suffered drawbacks from the increasing rates of mountain out-migration. According to Safdar Parvez, migration to the lowlands has provided a much-needed outlet for excess mountain labour and manpower. It is estimated, for example, that migration rates for adult males in the

mountainous regions of South Asian countries have been in excess of 40 percent. Such high rates of migration have led to a significant change in gender roles in the region, with women forced to take on added roles for both farm and domestic household work, as a result of which their workloads have greatly increased (92).

Out-migration is changing the demographics and way of life for mountain communities. One benefit of the increased out-migration in Nepal, is the resurgence of forests in some areas. As people leave, those left behind rely less on agriculture; either because of a lack of manpower or because they can support themselves through remittances (Gill). A reduction in agriculture means that land, once used for farming, can become reforested. It also slows the rate of forests being cleared to make way for more farms. This resurgence of forests in Nepal reduces the likelihood of natural disasters like landslides. Trees and other vegetation also help to clean water and prevent excessive runoff (Gill).

Role of Women

In the broad context of the fight against climate change, deforestation, and protecting land in Nepal, women's roles cannot be ignored. It has been shown that when women have access to land, they better help communities brace against the worsening effects of climate change. This is due to women knowing how to protect and manage land as well as ensure it stays productive (Chandran). Women are additionally important in protecting mountain economies. One way this is shown is in their skills such as hospitality and cooking as well as taking care of the land. This helps maintain the environment and bring in tourists (Lama 117). Because deforestation contributes to climate change, women in Nepal are important in helping their communities. Nepali women have become especially important as they stay behind while many men migrate out of the country to look for work (Lama 117).

The majority of people that leave in out-migration are male, and, as a result, women are often left with increased responsibilities back home. One study focuses on women with a migrant worker in their household to see if they have greater burdens compared with those

without a migrant worker. The results are mixed. Amina Maharjan, one of the researchers, concludes: Women from migrant households shoulder lower physical burdens but more managerial and decision-making responsibilities. This situation could be interpreted as women being more empowered. However, whether they are indeed more empowered would depend on their capacity to perform the new roles. In the case of Baitadi [a district in Nepal], women in migrant households bear a higher physical workload as well as decision-making role, and thus a higher overall workload than women in nonmigrant households. Although an increased role in decision-making indicates empowerment, it might actually lead to more burden and disempowerment in the context of women who lack the capability to undertake these new responsibilities, which are thrust upon them along with a greater physical workload (121).

Based on this study, some women in Nepal are benefitting from out-migration while others are suffering. Empowerment and workload both increase as a result of out-migration and some women handle these responsibilities better than others. Other factors may need to be considered like social situations and opportunities provided to women in Nepal. Women with access to family and community have more potential to benefit from out-migration because they have people to support them (Maharjan 122).

One consequence of deforestation in Nepal is that it has increased the time it takes to collect firewood. Some estimates say that the time required to collect firewood has increased by 60% over the last 25 years (Bardhan 23). According to Pranab Bardhan, “[it is estimated that] households in Nepal in 1982-1983 spent 8 hours per day on average collecting fuelwood, leaf fodder, grass, and water” (24). This is still an issue today in some areas of Nepal that are experiencing deforestation. The increased time required to collect firewood has especially affected the livelihoods of women, children and those living in poverty. It takes away from other important activities like agriculture and education. This especially affects those living in poverty as many have no choice as they rely on the firewood for heating. This is because many have no other choice as they rely on it for heating. Improving the economic situation of women and those living in poverty in Nepal

while providing access to other forms of power and heating could improve the state of forests.

Finally, it is important to consider the role of women migrant workers in Nepal. Like others in Nepal, women have left the country to work as a result of the changing environmental and economic situations. It is estimated that around 13 percent of the migrant population is women (Gioli). Female labor migration in Nepal often has a negative association and is traditionally stigmatized because many people link it to sex work. Women have been migrating for a variety of reasons including: “Rising demands for cheap labour (particularly domestic work) in destination countries (for example, the Persian Gulf), continued inadequacy of rural employment opportunities and changing aspirations” (Gioli). Women migrants face unique challenges both at home and abroad.

Women in the mountains are among the most neglected demographic worldwide, and it is important to consider their contributions and challenges. In Nepal, women are essential in taking care of the land and preventing deforestation. They also play important roles at home as men leave for work due to factors such as deforestation and other environmental changes. Women also participate in out-migration, often for similar reasons as men, and face challenges specific to them, such as inadequacy of employment opportunities in their home countries.

Paths to Reducing Deforestation

Because one of the major reasons for deforestation in Nepal is people cutting and burning wood to heat their homes and cook their food, access to alternate forms of power could help alleviate this problem. Hydropower, which is the process of generating electricity using running water, often takes place on or near running water (“Hydropower explained”). Affordable and clean energy is one of the United Nations’ 17 sustainable development goals and part of the UN’s 2030 sustainable development goals.

Nepal is a perfect candidate for hydropower as it is considered to be the world’s second-richest country in terms of inland water resources (“Harnessing Nepal’s Hydropower”). It has many rivers that,

if harnessed correctly, could provide electricity to the entire country. Some estimates place Nepal's hydropower potential at 50,000 MW which is enough power to give Nepal a reliable source of electricity ("Harnessing Nepal's Hydropower"). It would also allow Nepal to generate income by providing its neighbors with electricity, for example, in the energy-starved Southeast Asia. In addition to helping forest resurgence by replacing fuelwood with electricity, hydropower would also give women more time to dedicate to other activities like agriculture and education (Kohler 49).

In addition to large-scale hydropower projects, micro-hydropower could also be an alternative power source. Micro-hydropower works by intaking water from one source and distributing it, often through pipes, to a powerhouse downstream. There, electricity can be generated on a smaller scale, and the water is then released back into the water source. Unlike traditional large-scale hydropower, this kind of hydropower allows communities to operate and own the sources of power.

Annapurna is a massif (a compact group of mountains) in north-central Nepal (Carter 127). The ample rainfall and steep slopes found there, and in other locations throughout Nepal, make it a perfect candidate for micro-hydropower (Kohler 48). While this area is ideal geographically, there are still some problems with micro-hydropower. Problems such as bans of wattage electric cookers, high demand, and electricity going towards tourism have negated many of the benefits that micro-hydropower could offer in this region (Kohler 49).

While Nepal may be the world's second most water-rich country, many water sources in the mid-hills of Nepal are no longer reliable as they have dried up over the years due to climate change. Additionally, it is predicted that many other water sources will become unreliable in the future (Gurung 826). This means that hydropower might not be a viable option in some areas. It also means that women, who often are responsible for household duties, must dedicate more time to collect water as water sources become less readily available.

Another method of preventing deforestation is through forest planting organizations and NGOs. This solution often requires time and

resources. It also often involves volunteers and donations, as replanting forests does not have large monetary motivations. One recent example of a tree-planting campaign is the family of Sir Tom Moore--a British veteran who passed away in February 2021. This family recognizes the irreplaceable role that trees play in the environment. They have urged people and well-wishers to back tree-planting efforts and are hoping to restore forests in Britain as well as in other countries like Nepal (Green). Trees are natural cooling systems and taking care of forests helps to take care of everyone (Green). It is through initiatives like this and spreading awareness about mountain areas and mountain forests that more progress can be made towards protecting and restoring forests in Nepal, as well as worldwide.

Finally, one final path to slowing the rate of deforestation and encouraging the resurgence of forests is to give back control of the land to local people. They often know best how to take care of the land. This has already happened in some areas of Nepal with success (Gill).

Conclusion

Deforestation in Nepal poses a serious challenge to its sustainable development as the severity of natural disasters like landslides and floods escalates. It also contributes to climate change, which has serious effects on communities across the world.

Population growth, the use of fuelwood as an energy source, and political and nonpolitical misuse all lead to deforestation. This deforestation and climate change in tandem, with the increasing ease of leaving the country to work, has caused large-scale out-migration in parts of Nepal. Because men disproportionately leave Nepal to find work, Nepali women are often tasked with heavier burdens. While women are often most negatively affected by out-migration and climate, they are also vital players in the fight against climate change. Hydropower and environment protection initiatives can help fight against deforestation but only if ample resources are available.

The role of mountains in the world, including those in Nepal, cannot be understated, Nepal is an important place in sustainable mountain development and its problem of deforestation is especially

important to focus on as it affects Nepal, neighboring countries, and the globe in its contributions to climate change.

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Sustainable Mountain Development in Saudi Arabia

By Abdulrahman Alghanmi

Abdulrahman Alghanmi is a 29-year-old student from Saudi Arabia. He came to Utah to attend college in 2014. Abdulrahman is currently pursuing a bachelor's degree in political science at UVU. He attended the annual UN International Mountain Day and participated in the 63rd and 65th sessions of the United Nations Commission on the Status of Women. He is an active contributor to the Utah International Mountain Forum and is passionate about sustainable mountain development.

Saudi Arabia at the United Nations

When the United Nations formed in 1945, Saudi Arabia joined as one of the founding members and has been active ever since. In 2015, the United Nations introduced the 17 Sustainable Development Goals (SDGs) which aim to promote human progress and in particular to promote gender equality, eliminate poverty, provide access to clean water and work toward solving climate change to name a few. In September 2015, the SDGs were accepted by all members of the UN including Saudi Arabia. However, among the 17 SDGs, there are only two goals, which focus on mountains and mountain communities.

The first goal, related to the mountain issues, SDG #6 titled, “Clean water and sanitation” has target 6.6 which states, “By 2030, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.”

Saudi Arabia reported about SDG#6 implementations in its Voluntary National Review (VNR) to the UN in 2018. But the VNR then did not mention mountain issues or current situations or challenges experienced mountain communities in this area. For example, on page 70 under goal #6 “Clean Water and Sanitation,” the figures show two provinces Najran and Aljouf. While VNR focuses on the efforts in these two provinces heavily or completely rely on groundwater use, instead

of a moderate mix with desalinated water, the document never mentioned that the major part of these two provinces are covered by mountains.

The UN SDG #15 titled, “Life on Land,” has target 15.1 which states, “By 2030, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements,” and target 15.4, “ by 2030 ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits which are essential for sustainable development” While VNR 2018 of Saudi Arabia discusses the kingdom’s progress on SDG#15, it again does not mention any issues related to mountain livelihoods. Instead, it heavily focuses on islands and marine life. This reminds about the experience of Utah Valley University students, including the author of this paper when they advocated for mountain communities and families at the UN 63rd session of the Commission on the Status of Women (CSW63) in March 2019. The UVU delegation advocated for mountain women and girls to be included in the CSW final document. Unfortunately, the language was rejected by the UN Women Secretariat as based on geographic preference on the argument that this could create a negative precedent for other communities globally not mentioned among SDGs, like ones living in deserts, tropics, etc. However, language about women from small island nations was included in the CSW63 final outcome document despite being formulated based on the geographic feature. Despite the fact that mountain communities are included in the SDGs through three targets which require their implementations, this case shows how they are disregarded by one of the institutions of the UN. As a result, it is not surprising that at the national level, and Saudi Arabia is such a case, they will also not be in the focus of governmental policies.

The Saudi kingdom is expected to submit its second VNR to the UN in July 2021 but there is not much hope that the government would pay any attention to the situation with implementation of mountain targets among relevant communities and especially mountain women and families. It now has many urgent priorities in its economic and

political reforms, started in 2016, when the new Saudi crown Prince Mohammed bin Salman announced the country's vision for 2030. It envisioned many changes aimed at diversification of the economic development nationwide and less reliance on oil revenue. It also mentioned certain mountain regions but only as a part of that national interest. Those regions are envisioned to provide more revenue from for example attracting tourists.

Background About Saudi Arabia

Today, Saudi Arabia is an absolute monarchy located in the Middle East. It is one of the largest oil producers worldwide. The majority of the territory of the country is covered by desert terrain and the western reaches are covered by the Sarwat Mountains. Saudi Arabia is not a member of the Mountain-Partnership under the Food and Agriculture Organization of the United Nations, however, the Saudi Geographical Society (SGC), a non-governmental organization, is. In 1984, the SGC was established at King Saud University to develop and promote geography as a discipline through the initiation and coordination of research, educational instruction and events.

Saudi Arabia has special significance for the Muslim faith by having two holiest places for them - Mecca and Medina. Mecca is the city where Prophet Mohammed received the revelations of the holy Quran 1,400 years ago at the Nour mountain in Mecca. As it is known from history, after a long period of proselytizing to the people of Mecca in favor of monotheism, the extreme polytheists among the Meccan people decided to kill the Prophet. When Mohammed fled the city, he moved to Medina, another mountain town in the western part of Saudi Arabia. Today, millions of Muslims annually visit Saudi Arabia to carry out a holy pilgrimage in Mecca and follow in the footsteps of their last Prophet. They also travel through the mountains to reach Medina where the Prophet Mohammed passed away and was laid to rest.

The area between these two holy cities is about 430 km (267 miles). Throughout the years, many empires and kingdoms have controlled the region. It has always been a high priority for these countries to make sure that Mecca and Medina are sustained, well developed and safe.

At the beginning of the twentieth century, the Ottoman empire completed a railway that started in Istanbul, Turkey and ended in Medina, Saudi Arabia. The main reason for this railway was not only to transport troops to the Hejaz region but also to transport religious tourists from Istanbul and Damascus to Medina. It is obvious that this particular region has an extraordinary importance both economically and politically for any government in charge of the state (Ekinci, 2016).

In the 1930's, King Abdulaziz Ibn Saud, the founder of Saudi Arabia, with the help of the British empire, gained control of modern Saudi Arabia. Abdulaziz knew that the Hejaz region was very profitable economically and important to his legitimacy since the Muslims tourists would pay taxes to the state as well as recognize him as king (Glubb, 2000).

Thus, 90 years later the Saudi Kingdom is still looking at Mecca and Medina as sources of both political power and legitimacy among Muslims globally as Custodian of two holy places and also of income through pilgrimages of millions faithful. Though they have spent millions of dollars to expand the capacity of cities, the government usually pays no attention to the livelihoods of mountain communities which live in between these two holy cities. This issue is peculiar not only for Saudi Arabia, but almost every mountain community all around the world.

Place of Mountains in Islam

The mountains occupy special value in the Islam. In the Quran alone, the sanctity of mountains is mentioned more than 30 times. Five of them are mentioned by names in the holy Quran: Safa, Marwa, and Arafat, which are all located in Mecca, Judi mountain which is located in northern Turkey, and Tabor mountain which is located in Lower Galilee, Israel.

Safa and Marwa are two mountains located near the Kaaba. According to the Quran, when prophet Abraham's wife Hager was left in the desert without any food or water, she was running between these two mountains looking for people to help her. Then the water suddenly came from the ground and she was saved. Water is still running from that place which is called Zamzam and part of the pilgrimage.

According to the holy Quran, Arafat was mentioned as the last step for Muslim Pilgrimage. It is also called the mountain of mercy. Some Muslim scholars explain also that Araft is the place where Adam and Eve met for the first time after being expelled from paradise. In addition, at Arafat mountain as part of the Pilgrimage, Muslim have to spend a whole night in prayers. It reminds them about the last sermon of prophet Mohammed, when he told Muslim that all revelations of the Quran have been completed and the religion was established. After that pilgrimage prophet Mohammed passed away.

Judi mountain was mentioned in the Quran as the last place where Noah's ship finally settled down after the great flood.

In the Quran Tabor mountain was mentioned as the place from which prophet Moses spoke to God in person at his request.

Many non-Muslims believe that a meaning of the Muslim's Pilgrimage is to walk around the Kaaba, a building with a black cover at the center of Islam's most important mosque, the Masjid al-Haram in Mecca. In reality, it is a journey that the pilgrims take, traveling among the different mountain areas around Mecca for a typical duration of four to five days. The rites of pilgrimage start on the 8th day of the last month of the Islamic calendar. When pilgrims arrive in Mecca, the first thing they have to do is walk around the Kaaba seven times in a circular counterclockwise motion. Then, they walk seven times, back and forth, between two mountains Safa and Marwa. Next, they go to Mina, a valley surrounded by mountains located 6 km (3.7 miles) on the eastern side of the holy mosque. They spend the night in Mina and the next day they go to the Arafat mountain. It is located 25 km (15.5 miles) southeast of the holy mosque. Pilgrims have to spend the entire ninth day on this mountain.

Even though the kingdom is a member of the G-20, which is a group of 20 leading states in the world, infrastructure and transportation in the rural areas to these holy sites have been underdeveloped. Most recently, the Saudi government spent money and efforts in order to get connected through a modern railway between Mecca and Medina, but with a primary focus on pilgrims travel but with a limited use for local mountain communities.

Other Special Mountains in Saudi Arabia

Hira Mountain

Hira mountain, also known as Alnour mountain, is a very important place for Muslims even if it is not mentioned in the Quran. Every year, millions of people visit this mountain to reach Hira's cave which is on the top of the mountain about 640 meters (2,100 feet) above sea level. It is located in the north east of the holy mosque of Mecca. Hira's cave is unique due to the prophet Mohammed's regular tradition to leave Mecca without being noticed and go to the cave to pray on his own. In 610 CE, while prophet Mohammed was praying in the cave as usual, he received the revelation from God through the archangel Gabriel, which became one of the verses of the Quran. Therefore, Muslims visit this cave to pray to God following the footsteps of their prophet.

Thawr Mountain (Bull Mountain)

Thawr Mountain is located 4 kilometers (2.4 miles) south of the holy mosque in Mecca. Thawr is 750 meters (2,460 feet) above sea level. After the prophet Mohammed received the revelation, he asked people to completely abandon the worship of idols and turn to the worship of God alone. Many people of Mecca including some of his close relatives, did not welcome this and accused him of humiliating their Gods. As a result, they sought to kill him and end this new religion. Thus, he decided to leave Mecca and as one of the options to move to Medina. Even with the precautions that he took, his enemies from Mecca tracked his footsteps and chased him. To escape, he hid in a cave within Thawr mountain before being able to go to Medina. Today, when Muslims come to Mecca, many of them visit Thawr mountain as a touring destination.

Uhud Mountain

Uhud mountain is located at a distance of 5 km (3.1 miles) north of the holy mosque in Medina. The highest peak of Uhud is about 1,100 meters (3,608 feet) above sea level. Even though Uhud mountain wasn't mentioned in the Quran, it is still a special place to Muslims because prophet Mohammed once said Uhud loves us and we love it. Also, it is one of the highest mountain ranges in the region.

These holy mountains attract more than 1.6 billion Muslims from around the globe. Yet, it will be important for the Saudi government to establish policies with focus on the needs of local communities who live in those mountain areas affiliated to holy places of Islam.

At the same time those policies could address current situations and challenges with development in other mountain areas in Saudi Arabia. For example, Soudah mountain is located on the southwest of the kingdom. At 3,000 meters (9,842 feet) above sea level, it is one of the highest peaks in the Arabian peninsula and the highest in the kingdom. Soudah mountain is one of the most visited ones in the kingdom after the mountain regions which host Mecca and Media. For centuries, local people have been able to find a refuge and rest in those mountains from harsh weather and climate in the deserts of Saudi Arabia. Every summer, people in the Arabian peninsula escape the heat of the deserts and go to Soudah mountain.

Finally, the kingdom is noticing the importance of these mountain areas and is establishing a long term plan which aims to attract more than two million tourists every year. This initiative also includes plans for sustaining the ecological system. For the first time, the kingdom has introduced new laws and regulations which prohibits mass deforestation and overhunting.

Sadly, in some areas, most of those changes do not involve the local or indigenous people. In fact, the government is forcing them to leave their homes. In 2017, the Crown Prince announced building a new smart city in the north west of the kingdom with a total area of 10,200 sq mi. This area is mostly covered by mountains. However, the local people refused to leave their homes, so the government sent troops to

evacuate the site. Such an act will cause long term instability for the ecological system in this region. The Saudi government must acknowledge the importance of the local people and their involvement in sustaining local livelihoods.

There are many examples where people in these mountainous regions have been forcibly displaced from their homes by the government. This has unhealthy consequences since those mountain people were used to living and surviving in these high altitudes. Also, the ecological systems are thriving under the care of these people.

For this reason, the Saudi government must invest in the people of the mountain more than the region itself, since they have the knowledge, ability, and the understanding of the region. The kingdom must also establish new plans for the holy mountains, especially in infrastructure and tourism services, which would involve local mountain communities. Last but not least, there are many other mountain areas in the country which are still undeveloped. The government of Saudi Arabia should ensure that targets 6.6 and 15.1 and 15.4, responsible for mountain development. are included in their plans for the implementation of the UN 2030 Agenda for sustainable development.

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Sustainable Mountain Development in Iran

By **Byan Alghanmi**

Byan Alghanmi is 27 years old. She is a passionate criminal justice student at Utah Valley University (UVU) from Saudi Arabia. Byan will earn her bachelor's degree in the Fall 2021. Byan has been involved in many activities for the Utah International Mountain Forum (UIMF) a coalition of Students clubs at UVU which is promoting sustainable mountain development agenda in the State of Utah and globally. She is interested in being involved in community service due to her previous background of volunteering for "Food and Care Coalition," which provides food and assistance to the needy people in the State of Utah. Byan participated as a UIMF member at the 65th session of the United Nations Commission on the Status of Women in March 2021. She advocated for the rights and equality for mountain women and families both globally and in the Islamic Republic of Iran.

The plan for a better future for ordinary people around the world has resulted in the setting of sustainable development goals by the United Nations; the international community adopted 17 sustainable development goals in 2015. Those goals are focusing on fighting poverty, hunger, providing access to clean water, improving literacy rate, gender equality, to name a few. Interests of mountain communities among them are taken into account through targets 6. 6 which states that "By 2030 protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes," target 15.1, which states that "By 2030, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements," and target 15.4, which states that "by 2030 ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits which are essential for sustainable development."

The mountain ecosystems play an important role in global development. Mountains occupy 22% of the earth's surface with 915 million people living in them (Paul A. Egan, 2017). They are a source of the world's major rivers. The mountain regions have been recognized as centres of biodiversity, most of which are used directly by people. These regions hold a variety of species and ecosystem levels.

The mountains provide services such as food, water, medicinal plants, timber, fodder and other generic resources (Paul A. Egan, 2017). Apart from provisioning, they also help in regulating factors such as air quality, water flow, climate, erosion and natural hazards. They even help preserve people's cultural heritage by providing grounds for traditional practices, recreational services such as hiking, and aesthetic values (Paul A. Egan, 2017). Provided almost two-thirds of all the biosphere reserve and one-third of all world heritage sites are located in mountain areas (Food and Agriculture Organization, 2011). From this analysis, it is evident that mountains are an important part of the earth's ecosystem.

Mountains also influence global and regional climates and weather conditions. Their interceptive characteristic of the global air circulation has an effect on wind, precipitation and temperature patterns.

The mountain's ecosystem is very fragile making unsustainable development a threat to the whole world. Despite the influence mountains have on global and regional climates, climate change has become the newest threat which affects both the mountain's ecosystem and the entire world as well.. The most sensitive indicator of climate change witnessed in the mountainous region are the melting of the glaciers. This will have considered to be severe in the coming years if nothing is done.

Climate change will especially affect mountain inhabitants. While they have established special techniques to carry out activities such as farming and livestock breeding, these people are considered the poorest and most disadvantaged due to the poor weather conditions and remoteness that hinders development (Food and Agriculture Organization, 2011).

In 1992, during the ‘Rio Earth Summit’, there was a signed action plan known as Agenda 21 (Mountain Partnership, 2006). Chapter 13 in agenda 21 is entitled "Managing Fragile Ecosystem; Sustainable Mountain Development". It was this action plan that contributed to the development of the Mountain Partnership ten years later. The main reason behind the establishment of this alliance was to improve the well-being, livelihoods and opportunities of the people in the mountain regions. In addition, it is dedicated to protecting the mountain environments around the world (Mountain Partnership, 2006).

The Mountain Partnership has played an important role in pushing for sustainable mountain development worldwide. Through various projects, they have managed to gather information from case studies on mountain regions across the world and establish the potential for various mountain products. This has helped in increasing household income and improving the livelihood of people living in the mountain. There has also been a need to clearly understand the mountain ecosystem so development can be carried out without harming the environment. The Mountain Partnership has also collaborated with other organizations in studying biodiversity and providing information on the flora and fauna present within the different regions of the membership countries (Mountain Partnership, 2006). It is from these studies that the mountain communities are educated and engaged in sustainable projects.

Iran is one of the mountainous countries. Territory of Iran covers a total area of about 1.65 million square kilometres (637,068.5 square miles). About 52% of the country is covered by mountain ranges or deserts. 16% of the country has an elevation of 2000 meters above sea level. As of 2019, Iran’s population stood at 82.91 million (A. T. Jalil Noroozi, 2020). Taking into account the topography of Iran, it is clear that the majority of its population lives in mountain areas.

The Zagros is the largest mountain range in Iran as it runs from North-Western Iran southwards to the Persian Gulf shores. The Zagros has high mountain peaks in the central and southern part of it which reach the subnivean zone (A. T. Jalil Noroozi, 2020). The Zagros is inside the Irano-Turanian biogeographical region, a hot biodiversity region with more than 70% unique plant species. The vegetation types in the Zagros

include oak woodlands, *Amygdalus-Pistacia* shrublands, wetlands, chasmophytic habitats, subalpine, and subnivean zones (A. T. Jalil Noroozi 2020).

The Alborz mountain range is another great mountain range in Iran. It is considered one of the richest mountain ranges in South West Asia due to its heterogeneous topography and wide elevation range. The Alborz mountain range lies along the northern Iran border at the Caspian Sea's southern shore and extends about 650 kilometres from the west to the east (S. W. Jalil Noroozi, 2013). Along the eastern frontier of Iran, there are several scattered mountain chains in existence. There are also interior plateaus located in between the mountain chains and cover about 50% of the country. The plateaus are covered in part by loose sand or stones and part by a salt swamp. The climate in Iran is strongly continental, especially in the high mountain areas. Areas in the low altitude areas are experiencing minimal total precipitation. Areas on the slopes of Alborz, however, experience total precipitation of 1000 mm (S. W. Jalil Noroozi, 2013). The northern side of Alborz experiences a humid condition which has contributed to the deciduous closed forest. This area is warm with rainy summers and mild winters. A large amount of snow also falls on the higher mountains during the winter seasons. Nonetheless, people have been able to survive through these many climatic conditions.

Iran has been exploring sustainable mountain development to provide a stable environment for the future. Considering the extensive coverage of mountainous ranges in Iran, sustainable mountain development is a proper strategy for not only environmental conservation but also economic development.

Iran has made a large effort in sustainable mountain development. One of the major steps taken by the Iranian government is celebrating the Annual International Mountain Day. In partnership with the Food and Agriculture Organization of the United Nations, the mountains in Iran have been highlighted as key for sustainable development. As already seen, the mountains in Iran host vital biodiversity, and exceptional mountain flora. The Islamic Republic of Iran has also played an important role in sustainability by setting up policy and regulatory

framework to help secure the vital biodiversity and exceptional flora found in these mountains. The policy and regulatory frameworks have also been established to protect and promote effective management of the mountains and promote effective management of the mountains since they have been classified as invaluable to natural heritage.

The Iranian government has put major consideration into sustainable development. It joined the Mountain Partnership in 2012 and since then has actively contributes to the efforts of the Food and Agriculture Organization of the United Nations. The National Volunteer Report is a report that each member of the UN is assigned to submit to the UN to report about their progress in achieving the 17 SDGs. Today there are more than 250 reports from most of the UN members. Some of the countries such as Afghanistan, Argentina, Armenia, Bangladesh, and many others have submitted two VNR. Azerbaijan, Benin, Colombia, Egypt, Guatemala, Indonesia, Mexico, Niger, Philippines, Qatar, Sierra Leone, Togo, and Uruguay have submitted three reports. Unfortunately, Iran did not submit an official VNR. Instead, in 2017 Iran submitted a key message report which was almost three pages long about its progress in delivering the SDGs on its territory. In its short report, Iran did not mention mountains or mountain communities directly. Rather, the report touched on climate change and the impact on biodiversity which the report linked those issues to goal number 6 and 15 along with other goals.

Iran has completed two national initiatives: with the national plan for the protection of the environment and the national strategy for sustainable development. The mountain ranges in Iran play an important role for the country. With a large population inhabiting the mountain ranges, investments in sustainable development within this region is very important. To make this possible, the Iranian Government has made the sustainable project long term to strengthen regions and its communities. With the natural resources present, development in the mountains is most efficient if the potential regions and people are considered as the main stakeholders (Food and Agriculture Organization, 2011). One of the challenges, however, is accessibility to these areas due to the harsh terrain. Nonetheless, sustainable development can be applied on different geographical scales. Iran has taken the initiative to carry out these developments with precautions because of the fragile characteristics of

their mountain ecosystem. The call for sustainable mountain development has seen the Islamic Republic of Iran approach different means in conserving the mountainous ecosystem. Another major step the government of Iran has done is to encourage traditional practices and land-use systems. The government has tried to solve the challenge of water shortage in traditional farming through the construction of subterranean canals and effective use of wastes and animal manure (Alireza Koocheki, 2005). This method is effective in preventing the use of chemicals that may not only affect the plants, but also contribute to different forms of pollution such as soil and water pollution.

The government has also put the effort into studying the soils to help promote the agricultural sector in farming and other practices. However, due to the increase in population, the demand on water has caused a major challenge to the Iranian government. As a result of the massive and unorganized well digging, one of the largest lakes in Iran, Lake Urmia, has dried up, rivers also have been affected (Ladi, Mahmoudpour, Sharifi, 2021) In 2021, shortage in water have caused a massive protest in the country. One sign of climate change in Iran is that since 1960 the average temperature has increased by 2 Celsius degrees. Also, in the last 20 years the chance of rainfall decreased by almost 20% (Lo, 2021). On the contrary, certain climatic conditions have affected water availability in the country. Water availability in the country has raised concerns not only in the past but also in the present. Based on statistics, it has been reported that there is low quantity of water in surface water sources such as Lake Urmia, Bakhtegan Lake, and Gavkhoni Lake (Shahrzad Khatibi, 2019). The decrease in the water levels is largely due to the depletion of groundwater. Since the 1979 revolution, there has been an increase in demand for fresh water considering its arid and semi-arid features (Michel, 2017). Looking at the water crisis in Iran, there are various factors attributing to the situation. Some of these factors include increase in population, inefficient agriculture, drought and water mismanagement (Shahrzad Khatibi, 2019). Looking in the past, one of the triggering factors resulting in water shortage in the country are summer heat waves and sandstorms blowing from Iraq and Saudi Arabia (Al Jazeera, 2021). In addition to that, there has been tension over Trans-boundary waters with Iran sharing about 10 rivers with its neighbouring countries (Michel, 2017). This has seen Iran come up with strategies to

curb arising conflicts over these sources. Even as the country is more focused on sustainable mountain development, it still faces the challenge of water shortage. In the recent months, there have been protests in the country over water shortage (Al Jazeera, 2021). The water shortage is influenced by drought that has hit southwest Iran. This has been prevalent for years due the factors mentioned within the article. Despite the crisis, Iran is coming up with policies that will see its citizens have access to water.

Forests are very important to the mountain ecosystem. The government of Iran has put effort into protecting the deciduous forests in the slopes of the mountain ranges, including one in the Alborz Mountain range. In many cases, forests are facing threats as trees are being cut down. The cutting down of trees has been contributing to climate change. In sustainable mountain development, the government of Iran has set priority on conserving the forests. The communities have been educated on the importance of conserving trees and have been encouraged to seek alternative sources of fuel rather than timber. Public participation in forest conservation is considered important as they participate in the government's effort to conserve the environment.

The Mountain Partnership has contributed to conserving the mountain ranges in Iran. The Islamic State of Iran has been a member of the Mountain Partnership since its establishment. The Mountain Environment Protection Society (MEPS), a nongovernmental organization, was also established in protecting Iran's mountain ecosystem. The MEPS is also a member of the Mountain Partnership. The main function of MEPS is to steer the community towards the conversation of mountain ecosystems. It has also played a role in steering the community towards the annual observation of the International Mountain Day held in Iran. . Since the inception of the Mountain Partnership, both Iran and MEPS have been founding members.

Iran's membership in the Mountain Partnership has helped in increasing sustainable development in the mountainous region. The effort on the national plan for the protection of the environment has included nation biodiversity, promotion of public awareness and participation, formation of biodiversity systems, integrated management

of biodiversity and the sustainable use of the biodiversity resources. The mountain ranges in Iran are an important part of Iran's cultural heritage. Despite the threats being posed, the government continues to apply more pressure for the overall conservation of the environment. Public awareness and participation in sustainable development generally have helped society adopt environmentally friendly practices.

Although sustainable mountain development has been prioritised in Iran, another challenge arising is the discrimination against women. While women are considered essential contributors to sustainable mountain development, "mountain women", as socially identified, have not been fully recognized (Gilles Rudaz, 2011). Women are still being side-lined. It has been pointed out that in Iran, "women do not receive equal treatment under the law and face widespread discrimination in practice" (Hakakian, 2021). There have been calls for the full participation of women in sustainable mountain development. This is because women have been considered as actors in the successful implementation of sustainable mountain development despite their specific contribution not being acknowledged (Gilles Rudaz, 2011). In Iran, however, this call has been impossible to answer with the discrimination that women are facing. There have been many laws set to govern women in Iran that contradicts their full participation in sustainable development. The violation of women's rights in Iran has become a sign of oppression with European leaders downplaying these violations (Hakakian, 2011). This further refutes the U.N. call for gender equality as part of their 2030 agenda on sustainable development goals as Iranian women still face injustices with misogyny dominating the country. Despite these violations activists have managed to draw attention to women's rights in activists

Natural resource management is also important in sustainable mountain development. One of the challenges facing mountain regions is environmental degradation through erosion. Due to erosion, the soils in the mountain region are experiencing a loss of infertility through leaching. One of the contributors to soil degradation is mining. While reversing environmental degradation is almost impossible, the government of Iran has put the effort into ensuring that factors such as erosion and mining are curbed. The government has imposed regulations

to help in controlling the mining of coal and iron ore in areas such as the Sangan iron ore deposits around the Kuh-e-Taleb mountain range.

Sustainable mountain development is important in conserving the mountain ecosystem. It also applies in curbing climate change, a phenomenon that has raised concern across the world. Looking at Iran as a country, its land is largely dominated by mountains. The country's arid and semi- arid feature has also become a challenge with respect to climatic conditions, agricultural activities and water availability. Iran has put the effort into conserving its mountain ranges while also improving its environmental conditions. Its membership in the Mountain Partnership has played part in improving the country's economic and environmental status. The adoption of sustainable mountain development has played an important role in achieving this.

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