

# YOUTH AND THE MOUNTAINS

Student Papers on Sustainable Mountain Development



Volume VII  
2019



# Youth and the Mountains

## Student Essays on Sustainable Mountain Development

Student Essays on Sustainable Mountain Development Youth and the Mountains is a journal composed of student articles on sustainable mountain development. 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 active pursuit of quality academic scholarship. Students who have questions about the Journal, or those wishing to make a contribution (IE: filling staff positions or submitting a manuscript for review), should contact the Editor-in-Chief, Deann Torsak by e-mail at: [YouthMT@uvu.edu](mailto:YouthMT@uvu.edu) with the subject line of JOURNAL SUBMISSION. If you would like to see previous issues go to: <http://www.uvu.edu/hps/student/youthjournal.html>

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# Editors Notes

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Dear Reader,

We present for your attention the 2019 issue of the Youth and the Mountains journal, consisting of the research of undergraduate students from Utah Valley University (UVU). We don't yet have submissions from other academic institutions in Utah and elsewhere, but we are confident that the time for that will come, because we care not only about what our authors are researching, but also how those student efforts will contribute to the cause of advocating for mountain communities, who are among the poorest worldwide, most vulnerable to emerging challenges like a climate change and are still not in the focus of the United Nations (UN) 2030 Agenda for Sustainable Development. We must also work together with students from different academic institutions not only in the United States but globally, by contributing research on certain aspects of Sustainable Mountain Development (SMD) at local, regional, and international levels.

The first issue of our journal was published in 2013 as contributions of UVU students in SMD advocacy through student engaged learning model during the Third Global Meeting of the UN Mountain Partnership in Erzerum, Turkey. The model allows students to address real-world problems of mountain communities as a group with faculty serving them as mentors.

We look forward to presenting the 2019 issue in the same way to the participants of the 68th United Nations Civil Society Conference (UNCSC2019) in Salt Lake City during August 26-28, 2019. It is part of the campaign of our students to advocate at UN forums for three mountain targets under the UN 2030 Agenda for Sustainable Development.

It is worthwhile to mention that several papers in this issue are written by student authors as a highlight of their actions at the UN, particularly during the 63rd session of the Commission on the Status of Women (CSW63) in March 2019. This journal's student editorial team is comprised also by students experienced in SMD advocacy, the majority of whom are non-traditional ones, who in addition to their education work in part- or full-time jobs and take care of their families.

The first section of this issue includes a copy of the written statement made by UVU students during CSW63, which advocated for mountain women and girls to be in the focus of the UN 2030 Agenda for Sustainable Development. Another document in this section is a copy of the extension of remarks on the floor of the U.S. House of Representatives of Congressman Ben McAdams, who highlighted students' efforts at the UN in promoting the cause of mountain communities.

The second section is comprised of student research papers that focus on different aspects of SMD topics in the state of Utah and in the United States. These papers study local and national issues such as sustaining economic growth in Utah by balancing the growth of tourism and economic development; the importance for the US to address sexual assault crimes facing indigenous peoples; infrastructural and institutional measures adopted by Utah for sustainable development; and how the technology industry has contributed to economic development in the Orem-Provo area of Utah County.

The third section addresses the implementation of the UN Sustainable Development Goals (SDGs) and mountain targets in such countries as Bulgaria and Kyrgyzstan, as well as in mountain communities in Chechnya in the Russian Federation. Two papers study challenges in the implementation of the SDGs and mountain targets in war-torn Afghanistan and Iraq. The last paper studies the role of the potato for the sustainable life of mountain communities in Peru and globally.

We would like to express our appreciation to the student editorial team for dedication to the mountain cause, and professional work, which allowed us to publish this 2019 issue in time and with high quality. We would also like to thank the advising faculty members for providing us an opportunity to implement the student engaged learning model in publishing this journal.

We look forward to presenting this issue to the general audience and participants of UNCSC2019 and to cooperate with them to make a difference in the lives of mountain communities worldwide.

**Mrs. Deann Torsak Editor-In-Chief**  
**Mr. Carlos Alarco, Managing Editor**

## **Section I**

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# **Official Documents**



## Economic and Social Council

Distr.: General  
19 November 2018

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### Commission on the Status of Women

Sixty-third session

11–22 March 2019

**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.

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\* The present statement is issued without formal editing.



## Statement

### **Mountain women and mountain targets have to be in the focus of 2030 Development Agenda**

The delegation of Utah Valley University to the 63rd Session of the Commission on the Status of Women would like to thank the Russian Academy of Natural Sciences and Utah China Friendship Improvement Sharing Hands Development and Commerce for allowing us to contribute to the priority theme of this year's forum: social protection systems, access to public services, and sustainable infrastructure for gender equality and empowerment of women and girls. These issues are crucial for sustainable development of communities, families, women and girls in mountain areas.

At this forum last year, we emphasized that mountain women and families are among the poorest and most disadvantaged worldwide and at extreme risk of neglect by the international community. A study, "Mapping the vulnerability of mountain peoples to food insecurity," done by the Food and Agricultural Organization of the United Nations jointly with the Mountain Partnership Secretariat, a coordinator of sustainable mountain development agenda globally, found out that 39 per cent of developing countries' mountain populations, including women — 50 per cent in rural areas — is vulnerable to food insecurity, and that during 2000–2012, 30 per cent more mountain people suffered from food insecurity. Climate change, lack of access to education and jobs, and political turmoil to name a few further place mountain communities and women in dire circumstances.

The United Nations designated three mountain targets as an important tool for implementing the 2030 Development Agenda in mountain areas: Target 6.6: by 2020, protect and restore water related ecosystems, including mountains; Target 15.1: by 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular, mountains and drylands; Target 15.4: by 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

By participating at two United Nations forums on implementing different Sustainable Development Goals during 2018, members of the Utah International Mountain Forum, a coalition of student clubs at Utah Valley University, found out a lack of reliable mechanisms that would integrate mountain targets into those forums' final documents. This further marginalized the mountain communities globally and disenfranchised their right for sustainable development

During the 62nd session of the Commission on the Status of Women, they co-hosted, through the engaged learning initiative, a side event, "Advocating for rural and mountain women globally through student engaged learning;" a parallel event, "Education for sustainable development to empower rural and mountain women," and advocated for mountain women through the written statement sponsored by a group of non-governmental organizations in consultative status with the Economic and Social Council. In addition, they were able to integrate multiple times language about mountain women in the Working Draft of recommendations from non-governmental organizations to Zero Draft Document of the Commission. Unfortunately, proposed language has been removed from the final document during the negotiations by state representatives. They did it in a non-transparent way during closed sessions, which demonstrated a marginal role of civil society in decision-making at the United Nations and, as a result, the neglect of the mountain targets as part of the Sustainable Development Goals.

Similarly, during the High-Level Political Forum on Sustainable Development in 2018, Utah Valley University students advocated for the implementation of mountain targets as an important step to bring mountain communities in the focus of the 2030 Development agenda. They did that by making an oral statement during general debates and through the written statement and thus contributed to the efforts of the Mountain Partnership, which co-hosted with the Government of Andorra a side-event titled “Mountains and the 2030 Agenda.” The forum provided an important opportunity for them and other civil society groups and member states to do so because six Sustainable Development Goals under its review contained three mountain targets. At the same time, none out of the 47 nations submitting Voluntary National Reviews at the forum, including the 14 states - members of the Mountain Partnership, mentioned mountain targets in their official statements. As a result, the Ministerial declaration of the 2018 High-Level Political Forum on sustainable development, never mentioned the mountain targets at all.

The student engaged learning model of Utah Valley University has proven its success for students’ professional growth, international recognition and for the advocacy of mountain women and sustainable mountain development agenda of the United Nations since 2011. Academic institutions elsewhere could provide similar benefits for their students by adopting it. However, their contribution to the implementation of the 2030 Development Agenda cannot be successful if they will not be able to bring real changes to the mountain communities, families, women and girls worldwide.

We would like to urge the United Nations to make changes in the process of reviewing implementation of Sustainable Development Goals by member states during relevant forums of the Economic and Social Council. It needs to have an oversight mechanism ensuring that implementation of all targets affiliated with goals under considerations are included in the Voluntary National Reviews and in the final documents. In addition, the process of adoption of final documents of the forums has to be transparent, allowing for civil society and all interested parties to watch debates of the member states’ representatives on that matter.

This needs to be done urgently, in order to improve the procedure of review of Sustainable Development Goals’ implementation by nation states and make them a part of the 2019 forums of the Economic and Social Council. This will ensure then also that this forum will include in its final document a proper language about social protection systems, access to public services, and sustainable infrastructure for gender equality and empowerment — in particular of mountain women, girls, their families and communities.



## EXTENSIONS OF REMARKS

RECOGNIZING UTAH VALLEY UNIVERSITY STUDENTS' FOR ADVOCACY ON BEHALF OF WOMEN IN MOUNTAIN COMMUNITIES AT THE 63RD SESSION OF THE COMMISSION ON THE STATUS OF WOMEN

### HON. BEN MCADAMS

OF UTAH  
IN THE HOUSE OF REPRESENTATIVES

Friday, April 12, 2019

Mr. MCADAMS. Madam Speaker, I rise today to commend the members of the Utah International Mountain Forum, a coalition of student clubs at Utah Valley University (UVU) on efforts to advance sustainable mountain development around the world. These accomplished 13 students help highlight how UVU's Student Engaged Learning (SEL) model gives students opportunities for both professional advancement and the chance to work with local, state, national and international leaders to foster sustainable development, particularly for women and girls.

Through SEL, students take the lead in learning how to solve problems by collaborating with faculty mentors. Most of the students are nontraditional students who work full- or part-time, are 25 years or older and support a family while attending school.

Months of preparation preceded the New York event. They partnered with two prominent NGS—the Russian Academy of Natural Sciences and Utah China Friendship Improvement Sharing Hands Development and Cooperation—to submit goals for addressing food insecurity, education access and climate change effects in mountain communities. They participated in global events such as the 61st and 62nd Commission on the Status of Women and organized celebrations on International Mountain Day and International Women's Day that brought high-level diplomats from around the world to see Utah's efforts firsthand.

During CSW63, the students hosted a parallel event to highlight the successful implementation of UVU's engaged learning model to address issues facing women and girls in Utah. It also showcased international women studying in Utah. Individual students presented their own work, including Hannah Bieker who spoke on her peers' service projects in support of impoverished women in Mexico; Megan Davis spoke on Utah's distinction as the first state to allow women to vote; William Gurn-Causey spoke on Utah and UVU's efforts to address aspects of the state's rural/urban economic divide; and Aldon Trimble spoke on joint UVU-Oxford University research about Utah's air quality and how Utah addresses the problems of the children of incarcerated parents.

These combined efforts and events allowed the UVU delegation to demonstrate the role that students—particularly nontraditional students—play in contributing to sustainable development in both Utah and mountain commu-

nities around the world. By empowering themselves, the students help empower other communities and the women and girls residing there.

CONGRATULATING SUSAN KUBORN FOR WINNING A GOLD MEDAL IN THE 1,500 METER RUN AT THE 2019 SPECIAL OLYMPICS WORLD GAMES

### HON. CHERI BUSTOS

OF ILLINOIS  
IN THE HOUSE OF REPRESENTATIVES

Friday, April 12, 2019

Mrs. BUSTOS. Madam Speaker, I rise today to recognize Susan Kuborn of Rockford for winning a gold medal at the 2019 Special Olympics World Games held in Abu Dhabi.

Susan Kuborn knew that this was a "once-in-a-lifetime" opportunity and she trained hard to win gold in the 1,500 meter run. Ms. Kuborn was one of only seven athletes from Illinois to compete at the Special Olympics World Games. As a former athlete, I appreciate the fortitude Ms. Kuborn displayed to achieve her dream of winning gold and commend her for her outstanding efforts. Ms. Kuborn is an example of the importance of dedication and a strong work ethic. I am proud there is such young talent in our community, and to see her represent Rockford not just here at home but throughout the world.

It is because of leaders such as Susan Kuborn that I am especially proud to serve Illinois' 17th Congressional District. Madam Speaker, I would like to again formally congratulate Susan Kuborn on her gold medal win at the Special Olympics World Games.

HONORING TOYAMA KARATE-DO'S 50TH ANNIVERSARY AND 47TH BLACK BELT GRADUATION

### HON. J. LUIS CORREA

OF CALIFORNIA  
IN THE HOUSE OF REPRESENTATIVES

Friday, April 12, 2019

Mr. CORREA. Madam Speaker, I would like to take some time today to honor Toyama Karate-Do Martial Arts Academy and recognize their 50 years of commitment to the community and the celebration of their 47th Black Belt Graduation.

Toyama Karate-Do began on April 26, 1969, and it was named after Hanshi Toyama Kanken, who was the founder of the Shudokan style, in Okinawa, Japan. Fifty years later, Toyama has the same mission; teach discipline, confidence, and self-defense to prepare students physically and mentally to lead a better way of life.

In 1991, Toyama Karate-Do reached Southern California, opening the first school in the United States. Toyama is the most recognized and accomplished Martial Arts Organization in

Orange County and one of the top 100 schools in the United States. Currently, Toyama has more than 75 schools worldwide, including locations in Bolivia, Japan, and Canada.

Instructors, Rodolfo Cazales, a 7th degree Black Belt, and his son Jerry Cazales, a 5th degree Black Belt, are responsible for the United States expansion. They have been teaching side by side to bring the "Traditional System" and the "New Creative System" together to provide Dynamic Martial Arts Youth Programs. Toyama Santa Ana has over 2,000 active students involved through SAUSD, City, and Private Programs and is one of the most successful Toyama Karate-Do programs in the United States.

Toyama's Creed is:  
Why do we practice Karate-Do?: For a better and stronger physical, mental, and spiritual ability.

What are the values of Karate-Do?: Justice, Courtesy, Humbleness, Determination, Self-Respect, and Respect towards our Family, Teachers, Peers, and everyone we encounter.

What is the meaning of Karate-Do?: "The Road of the Empty Hand." In Karate-Do, we do not inflict harm with our attack, but attack with a defense to protect our life.

I recognize Toyama Karate-Do and the Cazales family for all they do for my constituents. They truly are a great asset to the community.

RETIREMENT OF SENIOR COUNSEL HARRY "HANK" SAVAGE

### HON. DON YOUNG

OF ALASKA  
IN THE HOUSE OF REPRESENTATIVES

Friday, April 12, 2019

Mr. YOUNG. Madam Speaker, on May 2, Senior Counsel Harry "Hank" Atack Savage is retiring from the Office of Legislative Counsel after 33 years. I want to commend Hank for his long and excellent service, and his improvements to the many bills on which he has worked over the years. In addition to working for other Committees, Hank handled maritime, Coast Guard, coastal and ocean and other issues for the now defunct Committee on Merchant Marine and Fisheries, and for the Committee on Transportation and Infrastructure, the Committee on Natural Resources, and the Committee on Armed Services. When I chaired the Committee on Natural Resources and, later, the Committee on Transportation and Infrastructure, I was glad to have his support and expertise when drafting complex legislation.

As the maritime transportation counsel, Hank helped shepherd through Coast Guard authorization bills, including eight in the last nine Congresses, and a Maritime Administration authorization measure in every National Defense Authorization Act since 1995. His work has left a lasting impression on title 14, Coast Guard, and title 46, Shipping, of the

• This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.

Matter set in this typeface indicates words inserted or appended, rather than spoken, by a Member of the House on the floor.

## **Section 2**

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# **Different Aspects of Sustainable Mountain Development in Utah and Nationally**

# Sacred Land and Bear's Ears, a Policy Question

By: Aldon Trimble

*Aldon grew up in Vermont where his love for the mountains began. After a year of college, he decided to serve his church and was assigned to Mexico for 2 years, where much of the time was spent helping to educate and serve the mountain people there. Aldon is currently in his last semester in the Utah Valley University (UVU) program for Political Science. His field of study has focused on economic development and sustainable development, which he has always been interested in. The Utah International Mountain Forum (UIMF), a coalition of student clubs at UVU, has been an intermediary for him to educate himself on sustainable development. One of the most important parts of his education is his association with service-learning projects, working with locals and helping to provide them with valuable information. Currently, Aldon is working with the UIMF as well as the UVU Office of New Urban Mechanics to highlight the issues present with children of incarcerated parents in Utah and this project's findings will be presented at Oxford during summer 2019.*

## Introduction:

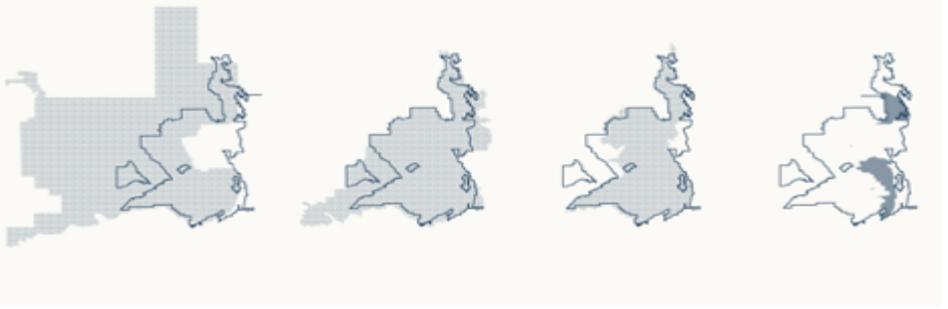
Utah has one of the fastest growing economies and has the fastest growth rate. One of the main reasons for this economic growth is Utah's tourist attractions and capacity to develop policy that favors sustainability as well as economic development. These ideologies of sustainability and development tend to be seen as though they are opposites, but Utah has found a way to marry the two together in its tourism industry. However, when one imbalances the other, difficulties ensue.

Over 60% of the state of Utah is public lands, with 66.6% of the total land area in Utah belonging to the federal government. The Antiquities Act of 1906 was generally established to preserve relics and national monuments. The act gave the president of the United States authority to set up parks and monuments. This means that the president can unilaterally approve federal lands to become monuments or have park status. For states like Utah, where so little of the state actually belongs to the state government, this means that little is left over for state

With this debate still currently rolling around in courts on the federal and state level, Utah is in the middle of a quandary. As Utah legislators attempted to lobby President Donald Trump to remove the designation of Bears Ears as a national monument, they found that he did not have legal authority to remove it completely. Instead, President Trump's administration attempted to take legal authority to shrink the monument by 85% (Steinmetz 2017). Additionally, because of this, lawsuits did not only come from Navajo tribes and environmental outreach organizations, but from companies like Patagonia. "Also preparing a lawsuit is outdoor retailer Patagonia, according to CEO Rose Marcario, who has said that fighting for the protection of public land is part of the company's corporate DNA (Steinmetz 2017)." There may be a bit of Anti-Trump mania and criticism of his decision to shrink the Obama approved monument, but this issue expands and extrapolates the debate between conservation and development. Sustainable development can help determine a solution for this unique problem.

## **Sustainable Development**

There are several harvesting industries in and around Bears Ears National Monument. One such natural resource harvesting operation is that of uranium. There is a mine that bordered the original, larger Bears Ears Monument. According to the mine's argument and lobbying campaign, they said that the growth of their operations was stopped due to the large monument. Through their lobbying effort they, "urged the Trump administration to limit the monument to the smallest size needed to protect key objects and areas, such as archeological sites, to make it easier to access the radioactive ore" (Eilperin 2017). The uranium extraction endeavors are already slowing down due to low prices, but if prices or need for the substance ever surge, the lobbying group only suggested small changes to allow for future endeavors to be expanded if need be, but the reduction in size was more than anticipated (Anonymous 2019a):



This image shows a history of how the national monument has shrunk over the years. On the far left was the original protected lands in 1936, and on the far right it shows, in the dark shade, how President Trump shrunk the protected lands using an executive order (Anonymous 2019a).

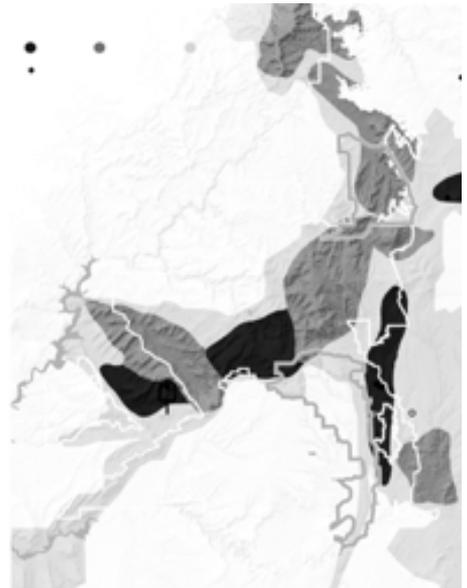
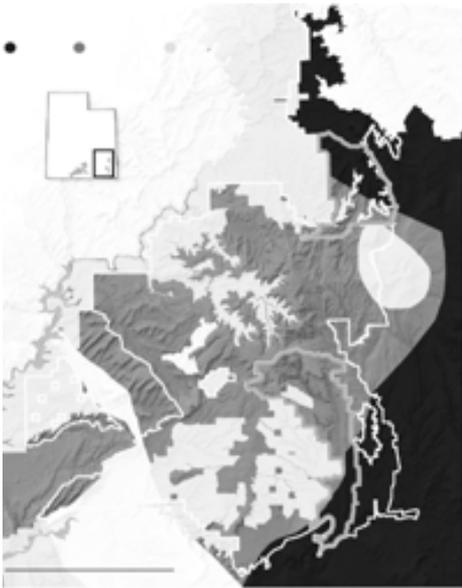
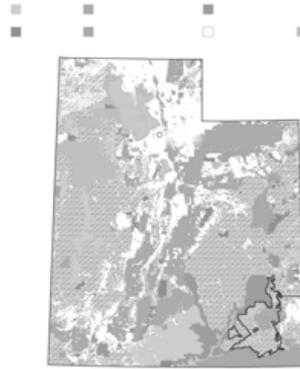
In an article from the Washington Post, they illustrate completely how states and private industries feel toward federal land management:

“In much of the West, the federal government is the largest landowner. Its control of those public lands has led to what critics say is a byzantine and unfair system of issuing permits and leases for mining, energy and lumber industries, and grazing rights to ranchers. And many local and state officials in western states resent what they see as Washington’s interference in their affairs” (Anonymous 2019a). San Juan County good ol’ boys don’t want to see this happen,” says Maryboy. “They adamantly, openly said, ‘This is our land. The damn Navajos need to go back to the reservation.’” (Siegler 2017)

Utah is not the only state engaging with the federal government on issues of land ownership and management. The bureaucratic system that controls these federal lands stymies development and private ownership of that land. In another graphic presented, it illustrates the sheer amount of federal lands in the state of Utah. (Anonymous 2019a) The dotted grey represents the Bureau of Land Management, or federally owned lands. Also not to be discounted is the pink color which represents tribal lands, which border the national monument.

The lands cut out of the original Obama-era sized Bear’s Ears monument are rich in oil, natural gas, and uranium. According to a map presented at the Washington Times, the new borders exclude several

areas that had high natural resource availability.



The darker the shade of grey the more resources potentially available for harvesting. It can be assumed that some level of lobbying went into devising the new border in the orange, where, “[m]ost of the areas thought to have the most oil and gas — and the few existing drilling leases — are outside the new boundaries, according to the Southern Utah Wilderness Alliance.”

Now that the lands are public again, private energy firms can start taking land leases from the federal government to start developing and extracting on the land, but that may not likely be the case. Conser-

vationists' greatest fears are that there will be a wild-west-type land grab, that the federal government will sell its soul under the Trump administration, and that the sacred sites and surrounding communities will be sacked. That is very unlikely, considering that before 2016 many of these lands owned and operated by the Bureau of Land Management will operate in a similar way to how they operated before Barack Obama's 2016 signing of the monument. In an open article:

“Before Obama designated the land a monument in the last days of 2016, energy companies had put in 88 requests to the BLM to lease more than 100,000 acres in or near what later became Bears Ears. As of September last year, there were 27 existing oil and gas leases within Bears Ears, according to BLM figures. But in the past decade production in the area has dropped, and there's cheaper, more accessible oil as close as Northern Utah. Even though existing oil leases were grandfathered into the monument, none were active. In fact, the last active well inside the monument shut down in 1992 (Phippen 2018).”

The article also states that there are few, if any, extraction opportunities within the new monuments, but rather that these areas are increasingly popular attractions for locals and outdoor enthusiasts, particularly in the form of dirt biking and riding ATV's. In fact, one of the county officials in San Juan county had to serve 4 years in jail for running an ATV protest through lands run by the BLM, while others paid fines as well (Anonymous 2019b). The leases and lobbying seen from private industry was done on a minimal level where a uranium firm paid 30,000 dollars to a lobbying firm over the course of 9 months. The perception that can be taken from this is that Utah lands and Utahns wish to preserve the freedom that they enjoy. On the contrary side, tribes and conservationists wish to protect as much of their heritage as possible.

With the court proceedings continuing as this work is being written, the question is not if heritage lands should or should not be protected, but to what extent. Especially when there is outdoor recreation, resource harvesting, and tribal sacred lands all in a similar vicinity, the question also includes how the parties can coexist. As it currently stands, if the president were to change from republican to democrat in the next election, we could see the national monument borders switching from the small Trumpian borders to something more similar to

Barack Obama's original border, and we could see this back in forth every 4 to 8 years. This prospect is likely unsustainable, thus with all the lawsuits present, this could very likely end up in the Supreme Court which has just been seated by two Trump-sympathetic justices.

The question remaining after the likely conundrum results in some sort of unfortunate stalemate for both sides is: What can we do to allow sustainable tourism and recreation of sacred lands, development and extraction near sacred lands, and protection of our most holy sites? This debate has been raging and will continue to rage on. A tribe in the Black Hills has developed their system of tourism that can help shed some light on the issues. The Oglala Lakota Tribe owns the land, and preserves it, but it is a tourist attraction for runners. They wish to take in the beautiful attractions, and because of this, the Oglala have intelligently created a model to monetize this desire, which in turn helps them protect their sacred places (Langlois 2018). Waylan Black Crow said he:

“[H]elps lead a 500-mile Sacred Hoop run around the Black Hills. Runners fast during the day and spend each night eating, praying, and sleeping at a different landmark, including Devils Tower. “Every place we stop is a rock,” Black Crow says. “Those rocks represent grandfathers. So when people climb Devils Tower it’s like they’re climbing one of our grandfathers and it’s disrespectful... It would be like climbing a big old cross. They wouldn’t climb that”” (Langlois 2018).

In a difficult situation where people can potentially just go and climb and run without him, people are instead going and seeking him for the experience. Developing value and experience for people who wish to see these sacred sites is a natural impulse to a need that has arisen. Other tribes have attempted to charge \$140 per person for a guided tour in Beaver Falls near the Grand Canyon, but there has been significant pushback by travelers who feel this price for a 10-mile hike seems extraordinary. The service provided must be in keeping with the price asked. Although many of these sacred sites are on reservations or protected by the BLM, simply putting a border up will not stop locals and tourists from wanting to experience these historic beauties.

The question of tours and guides on the lands in Bear's Ears is

potentially a good solution to help indigenous people monetize and protect their sacred lands and sites, even though this does not fully answer the question of recreation near sacred lands. Perhaps local Navajos can run a four-wheeling race. They can determine the path and the trails and lobby in conjunction with locals in the area to what extent certain trails should be allowed and maintained. Although we should be protecting sacred sites, we should also be sympathetic to the fact that there are people living here today, and they want to enjoy the beauty of Utah in a way familiar to them. A coalition of locals and native Navajos could be a very powerful motivation for policy makers from Utah to shape decisions. Sadly, due to local government issues, racism, and simple divisions of priorities, locals and Navajo people tend to be at odds with one another. Where the Navajo wish to take away public lands for sacred purposes, the locals of San Juan County see said change as a threat to local businesses and job opportunities. If these two groups would work together both recreation and conservation could be honored in a fair and just way.

That being said, the most difficult issue is how to prevent over-extraction. These lands are rugged and remote, difficult for even extraction companies in the coal, oil, and uranium industries to effectively work on. Where in certain places in Utah there are more natural gas wells than people per square mile, this may not be the most pressing issue. Although many in media painted the picture that the Bear's Ears border adjustment by Trump was him responding from pressures by so-called big oil and big coal, which is possible, those industries simply bought leases on the lands that reopened after Trump's decisions. Oil, coal, and uranium have failed to be effectively extracted in the region. The underlying issue for state legislators has been assumed by this work as one of control. The fact that Utah legislators live in a state with more federal government BLM land than state, local, and private lands combined illustrates that a power struggle may develop.

Unregulated extraction almost always destroys a portion of the land near indigenous peoples, as per the documented scholarly articles and consensus. But with proper arrangements, and third-party mediators, the process can potentially be arranged, minimizing risk and damage to sacred and tribal lands. Through the years 2000 to 2002, the Mining, Minerals and Sustainable Development (MMSD) research project developed a methodology for companies to focus some of their

extraction efforts on sustainable development. In the summary of the report the full process is best summarized:

“Broad steps that can be taken to integrate many of the individual suggestions in *Breaking New Ground* can be grouped into four major categories of actions to support sustainable development in the minerals sector:

- Increase understanding of sustainable development.
- Create organizational-level policies and management systems for implementing the principles of sustainable development.
- Collaborate with others with common interests to take joint steps towards sustainable development.
- Increase our ability to work towards sustainable development at the local, national, and global levels.

The proposals are directed principally to those with a high level of interest and involvement in the sector. Many of the proposals are more applicable to some actors than to others.” (Anonymous 2003)

If these processes were to be integrated and used by Utah and federal policymakers, the approach would be much more amenable for both sides. This would require a loss in total profit revenue for the mining industry, which is why an approach like this may not be accepted by the mining industry in regular agreements. Some concessions are made in the report to mining and extraction companies such that if they were to focus a sustainable development approach, they could be given a better social score of sorts, effectively giving them better interest rates on loans and easier access to public lands (Anonymous 2003).

Extraction in the United States is on the rise, so much so that by 2020 the U.S. could become a net exporter of natural gas (Hoffmann 2017). The perception in media and globally around this crisis has been comparable to the Dakota Access Pipeline debacle where the Texas-based Energy Transfer Partners built the pipeline designed to transfer oil, but did so without regard to sustainability or respect for sacred tribal lands. In an article that made a comparison of these in the *Denver Law Review*, Hillary M. Hoffmann makes a recommendation on what legal actions can be done to help prevent situations like the Dakota Access Pipeline:

“Simple amendments to a statute like ARPA could go a long way to

protect these resources and would align with the greater purpose and intent behind the statute. These might include a deadline for the public land-management agencies to complete the required inventory of archaeological resources on lands under their jurisdiction and the elimination of the mineral development exclusion. If the latter were too controversial to adopt, a more balanced approach could be amendments that require mineral development to proceed in a manner that avoids the destruction or permanent loss of archaeological resources (Hoffmann 2017).”

In an echo with this works proposed solution, Dr. Hoffmann believes that the less controversial options could be to adopt required sustainable development practices as a policy standpoint.

But this issue has been defined by Trump critics as an extraction issue and that if left unchecked the conservative right, along with big business, will destroy the sacred sites. Things have not changed much since before Obama’s declaration. One of the major changes involved was the fact that the Outdoor Retailer event left Utah to be held in Colorado. This decision, made in part by outdoor recreational firms like Patagonia, was political in nature and meant to send a message to Utah politicians to avoid policy that shrinks public lands. Although the actions taken did little to nothing to change the status quo of what happens in Bear’s Ears on the sacred sites, the perception of what is happening was perceived as just another ravaging of native lands. There is room to make many more people happier, with policy concentrated on safe recreation and safe sacred sites, but the policy makers have a long way to go. This issue like many others right now, is divisive, local Navajos of San Juan county and non-tribal residents are pitted one against another on these issues, but if they were to compromise on some things, Bear’s Ears could become one of the best protect sacred sites, as well as a wonderful off-roading attraction.

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# The Seeds of the Future: How the Technology Industry Shaped the Orem-Provo Area

By: Emma Wood

*A native Utahn, Emma has lived in Orem for most of her life. She is a Presidential Scholarship recipient at Utah Valley University (UVU), working on earning a BS in History and Social Studies Education. As a freshman, Emma was selected to sit on a panel titled “Women Inside Out” during UVU’s 2017 Conference on Writing for Social Change and was able to speak about the intersection between women’s physical and mental health. She is a member of UVU’s History Club and has had the opportunity to judge the National History Day competition on the regional level for the past two years. Emma is also a member of the Green Team, a division of the UVU Student Association, and helps to oversee both university and community activities. Additionally, she had the pleasure of assisting the campaigns of several student body officers during the 2019 student government elections. Emma loves conducting historical research and has enjoyed this opportunity to delve into the history of her hometown.*

When Provo was officially granted a city charter on February 6, 1851, the area was home to “a large number of laborers, together with several blacksmiths, carpenters, masons, joiners, shoemakers, millers, tailors, coopers, teachers, one merchant, one gunsmith, and one clerk,” and “agriculture [served as] the basis of the Utah Valley economy (Holzapfel 1999).” Meanwhile, “the area to the north and west of Provo, known then as the ‘Provo bench’ and now as Orem, was covered by prosperous farms and orchards with an occasional farmhouse rising above the fields (Cannon 1987).” Sixty eight years later, in 1919, Orem “was incorporated ... because residents recognized the need to develop a water system for the area (Cannon 2019).”

Over the sixty years following Orem’s incorporation, change came to the Provo-Orem area gradually. The railroad brought new workers for the burgeoning steel industry, and agriculture, especially in the form of orchards in Orem, remained vital to the economy as “Orem developed a statewide reputation for its luscious fruit (Winters 2019).”

In fact, save for a few additions, such as the Utah Technical College at Provo, now known as Utah Valley University, the expansion of Brigham Young University, and a mild increase in stores, homes, and recreation areas, the Orem-Provo area of 1919 looked a lot like the Orem-Provo area of 1979. Importantly, the Orem-Provo economy of the 1970's and early 1980's relied on the same industries it had for over half a century: agriculture, steel, and education.

That fact, however, was about to change. Plagued by “increasing concerns over environmental damage caused by the plant (Cannon 2019),” and hindered by a recession, Geneva Steel faltered; “lay[ing] off hundreds of employees (Cannon 1987)” in the mid-1980s. Simultaneously, in 1982, two new companies were coming into existence in the Orem-Provo area: Novell and WordPerfect. These two new computer software companies acted as the harbingers of a new technology industry in the area. This new industry would change the face of Provo and Orem by revolutionizing the area's economy, stimulating a population boom, and changing the priorities of higher education for Utah Valley.

Novell Inc., originally named Novell Data Systems Inc. (NDSI), was founded in 1978. However, after “four years Novell Data Systems hadn't made any money, so in 1982 [Safeguard Scientifics, NDSI's parent company] took Novell Data Systems into Chapter 11 [bankruptcy], laid off most of the [employees], ... and Ray Noorda came in and Safeguard sold him 49% of Novell Data (Harris 2019).” Upon purchasing almost half of NDSI, Noorda “reincorporated the company under the name Novell Inc (Harris 2019),” in 1983, changing Novell “from being a ... hardware company ... to being a software company (Johnson 2013).”

While this was occurring, another computer-based company was founded in the Orem-Provo area: WordPerfect. A word-processing software company, WordPerfect was founded in 1982 by BYU graduate student Bruce Bastian and his computer science professor, Alan Ashton. WordPerfect “was something that kind of just evolved over night (Olson 2013),” former employee Holly Olson recalled. After its initial rocky start, Novell began to experience similar levels of success. One former Novell employee, John Harris, recalled “I joined Novell in May of 1984. By 1989, five years later, we were a billion-dollar company. ... The growth was phenomenal (Harris 2019).” As Novell and WordPerfect grew, “people would leave the company[ies] and start other high-tech companies

(Harris 2019),” including those that would later become: “Signetics, Blendtec, Bluehost, Vivint, Fishbowl Inventory, Qualtrics, Flexsim, Mity-Lite, Omniture, PowerQuest, [and] SecurityMetrics (Winters 2019).”

Unsurprisingly, the growth of this new industry had a substantial ripple effect across the entire Orem-Provo economy. Harris remembers that as the technology industry grew it “brought in more restaurants ... people like Wal-Mart came into the valley ... [and because] both Novell and WordPerfect were making manuals, ... the printing industry grew significantly.” Indeed, many “industries that supported the high-tech industry” were able to grow and expand in the Orem-Provo area during this time period (Harris 2019).

It is no surprise, then, that this economic growth led to a population explosion in the Orem and Provo communities. In Orem, “economic realities led famers to sell their orchards for residential or commercial development (Winters 2019).” Harris recalled that “when we moved into Orem in 1976 ... there were lots of orchards along the side of the road. ... Ten years later, the orchards were going, and lots of housing was going up. Ten more years later, the orchards [were] gone, and there [was] housing everywhere (Harris 2019).”

This population boom is often attributed to two major factors: the increase in university students remaining in the valley, and immigration into the area from other regions. Harris remembers that before the founding of Novell and WordPerfect, “a lot of the kids at BYU ... were leaving the area after they graduated (Harris 2019).” However, after “Novell and WordPerfect took off and provided thousands of jobs,” the BYU graduates “started staying in the valley (Harris 2019).” Olson concurs with this sentiment, adding that “the good thing was [that WordPerfect was] taking graduates from BYU. ... If they wanted to, [graduates] could just stay right here and work for a great company that they could progress in (Olson 2019).” Richard Whitehead, a former WordPerfect employee, remarked that “for me, growing up a poor little Mormon Orem boy, I never in my wildest dreams thought I would be living in Utah still. WordPerfect did that (Whitehead 2013).”

Local growth notwithstanding, a significant number of Novell and WordPerfect employees came from outside of the Orem-Provo area. Howard Johnson, a former Novell employee, remembers that Novell

was “recruiting nationwide and trying to bring people in from wherever (Johnson 2013),” resulting in a major demographic shift in the area. “By 1998, the Hispanic population ... grew in numbers ... [and] their presence was evident in all aspects of daily life in the county.” Additionally, “other groups, families and individuals from many lands established homes and businesses in the county (Holzapfel 1999).” Some came to work for Novell, WordPerfect, or one of their many offshoots, while others came to work in the expanding service sector that accompanied the population boom.

While some celebrated the growth and the changes it brought, many “long-time residents ... were concerned about maintaining a lifestyle and an environment that [was] attractive to those who wanted to continue living in the county (Holzapfel 1999).” However, “as new people moved into the county, the problem of accommodation was exacerbated as the small communities ... experienced unprecedented growth (Holzapfel 1999).” Eventually, a philosophical rift developed between those new to the area, and those who had dwelt there for generations:

Longtime residents ... wanted [the area] to remain mostly residential, while ... newcomers felt that the local government wouldn't be able to provide proper services and infrastructure to the influx of residents unless they became more aggressive in courting businesses and the tax revenue they provided. Over time, the newcomers ... prevailed, in part because they [came to] outnumber the old-timers.

Of course, this was not an easy process for any of those concerned. While the “old-timers” wanted the area to remain relatively the same, “the expansion ... [also] provided challenges to the newcomers as they attempted to fit into the Mormon-dominated society (Holzapfel 1999).” Before long, those who felt “politically and economically marginalized ... [began] to work together on such issues as employment, education, immigration, health and medical care, housing, ... and justice system relations,” for while “they ... often enjoyed economic successes, they face[d] the same challenges that confront ... people who move to a new town, county, state, or country (Holzapfel 1999).”

In addition to economics and demographics, the technology industry changed the course of higher education in the Orem-Provo area. In the late 1970's and early 1980's, as the high-tech industry was beginning to emerge, there were two post-secondary institutions available to

students in Utah County: Brigham Young University (BYU), located in Southeastern Provo, and the Utah Technical College at Provo, known to locals as “the Tech (Wood 2019)” and ironically located in Southwestern Orem. According to Jenna Wood, a life-long Orem resident who grew up in a neighborhood adjacent to the school in the late 1970’s and early 1980’s, the Tech was “this sleepy little college ... for people who weren’t [university] bound but wanted to have some post-high school certification. ... It ... was a nice program, [but] it didn’t seem like a serious school for serious or academic students (Wood 2019).” Instead, “serious or academic students (Wood 2019)” who wished to attend college in the Orem-Provo area chose BYU, as an accredited university with a large selection of two- and four-year degree programs.

However, as the technology industry grew larger and more defined, so too did “the degree or experience [level] ... [the industry] was looking for (Harris 2019).” This demand for more degrees and more specific training spilled over from BYU onto the Tech, so in 1987 “the institution’s name changed ... to Utah Valley Community College, (UVU 2012)” (UVCC) and it started granting “lots of two-year degrees (Wood 2019).” The new designation and degree offerings allowed UVCC to act as a stepping stone, as students “would go there for a couple of years and then transfer (Wood 2019)” to a university with four-year degree programs. Even so, “it wasn’t UVCC very long,” only retaining that name for six years before becoming Utah Valley State College (UVSC) and “rolling out ... four-year programs (Wood 2019).” Then, in 2008, the school entered its final iteration as Utah Valley University (UVU) as it “began offering master degree programs (UVU 2012)” in addition to its large selection of certificates and two- and four-year degrees. Some residents, including Wood, were hesitant about the shift from UVSC to UVU as they believed “we didn’t need another university in the valley (Wood 2019).” However, Wood, and many residents who were initially unsure, later conceded that “it was short-sighted on [their] part [to ignore] the potential that [UVU] had .... as it ... [had] programs that eclipsed programs at BYU (Wood 2019).” This expansion of post-secondary educational opportunities provided more options to both students and employers in the Orem-Provo area, which in turn fed the growth of those opportunities as “tons of people came ... to work ... at [Novell or Word-Perfect], ... [which] led to the growth of the demand for ultimately UVU (Wood 2019).”

In conclusion, the growth of the technology industry in the Orem-Provo area permanently and dramatically changed the way of life for local residents. This occurred as the technology industry revolutionized the economy, leading to a population boom, which in turn led to a dramatic shift in educational opportunities available in the area; turning the Provo-Orem area from a community of farmers and laborers into a vibrant and dynamic urban center with an influence on the rest of the state.

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# Sustainability Goal 5: Can the US Lead?

By: Dirk William Gum-Causey

*William was raised by his single father in Washington State and graduated high school with a General Learning Disability. William has substantially improved his education by attending UVU, challenging his peers' perspectives, and engaging in complex debates on government structures and policies. William is majoring in Political Science, with an emphasis on Policy and Administration. His interests include American government structure, comparative government structures, diplomacy, political media, and nonprofit organizations. William became involved with UIMF during the event "UIMF and UN NGOs Discuss how to Advocate for Mountain Women Globally" and became interested in why advocating for mountain women is important. Later, he learned about Indigenous Americans who live in Utah and advocated for issues they face in the panel "Addressing Indigenous Sovereign Nations" in fall 2018.*

## Introduction

The United Nations (UN) has put forth 17 Sustainable Development Goals (SDGs), and one of the most important goals among them is SDG #5 on gender equality. The United States should be a leading country in achieving this goal; however, this is not possible if the US fails to address sexual assault crimes facing indigenous peoples within its territorial boundaries.

Native American federally-recognized tribes in the US are sovereign nations. Over the last few hundred years, Great Britain and the United States have recognized them as sovereign nations and entered various treaties with them since 1871. This has resulted in the preservation of indigenous sovereign nations within the US territory today. Often, these treaties have been revised without a long-term understanding of the negative effects they will have on the members of sovereign tribal nations. Since the time of those treaties, the US Congress has passed laws to address relationships with sovereign tribal nations, but the judicial system has ruled that sovereign tribal governments do not have the authority to prosecute non-members who commit sexual assault against tribal members.

Indigenous sovereign tribal nations do not have the support structures they need to adequately address sexual assaults targeting their members. The rate of sexual assault is higher when compared to other demographic groups, and the perpetrators are mostly non-Indian and non-tribal members. The federal government has not taken actions to protect indigenous peoples. Recent media reports show that this is a current problem. There are academic articles that discuss horrific crimes, many which never charge offenders. There is also a historical context that must be considered. The federal government needs to take action to ensure that indigenous women are protected from sexual assault crimes and ensure that the US will lead globally in the implementation of SDG #5.

### **SDG #5 and U.S. Policy Towards Indigenous Nations**

SDG #5, “To achieve Gender Equality and Empower All Women and Girls,” focuses on creating equality for women and girls through the collection of data and creating international solutions to address the disparagement that women face globally. UN statistics show that “[o]ne in five women and girls, including 19 percent of women and girls aged 15 to 49, have experienced physical and/or sexual violence by an intimate partner with the last 12 months” (UN n.a.). It also indicates that “49 countries” do not have laws protecting women from this type of violence (UN n.a.).

SDG #5 is important because it establishes international organization, cooperation, and recognition of serious problems facing women globally, with sexual assault being perhaps the most pressing problem facing women all around the world. SDG #5 provides the international community a better understanding of the discrimination that women face and the serious need for international action. The statistics above may sound troubling, yet there is a demographic that is more likely to be sexually assaulted: indigenous women in the United States. The US must resolve the disparagement of indigenous women to secure a leading role in the promotion of SDG #5. However, there have been challenges when the federal government tries to address this topic with legislation.

The National Institute of Justice (NIJ) collects limited statistics from sovereign nations for the Department of Justice. The NIJ points out that Congress passed a law, “Violence Against Women and Depart-

ment of Justice Reauthorization Act of 2005,” which states that the federal government has a “trust responsibility to assist tribal governments in safeguarding the lives of Indian women,” and that the Supreme Court has ruled that tribes do not have criminal jurisdiction of non-Indians (Rosay 2016). This creates a gap in the prosecution of criminals who commit crimes against indigenous women because tribal governments do not have authority to prosecute offenders, and, as is shown later in this paper, in many cases perpetrators are not charged by states either.

In summary, the US Congress has written laws that ensure the government has a responsibility to indigenous women, but it does not allow tribal governments to pursue criminal charges against sexual assault offenders. Seen later in this paper, NIJ statistics show that indigenous peoples are sexually assaulted at higher rates than other demographic groups in the US. Additionally, the judicial branch of government has compounded this problem by establishing court decisions that prevent tribal governments from pursuing charges against offenders. Ultimately, this has resulted in creating a specific realm of jurisdiction that sovereign tribal nations preside over which inhibits them from prosecuting criminal actions perpetrated against their members. Criminal charges generally deter criminals, but sexual assault, rape, and abuse charges can be more difficult to establish for these nations, as opposed to states, because of the problem of jurisdiction as it relates to crimes committed on reservations perpetrated by non-Indians and non-members. This creates a gap in protections for tribal members and may leave them vulnerable to further criminal attacks.

## **The Need for Indigenous Support Services**

While the federal government prevents tribal governments from enforcing laws to prevent these crimes, they also do not assist tribal governments with providing crisis services to sovereign tribal member victims. When crimes do occur, existing support services for indigenous people are incapable of collecting evidence and providing crisis services to those in need because they do not have adequate resources. The Navajo Area Indian Health Service (NAIHS) states that both of their programs, Sexual Assault Nurse Examiner (SANE) and Sexual Assault Response Team (SART), have difficulty providing the necessary services to tribal members. SANE and SART provide services such as victim processing, reports, examination, transportation, shelters, advocacy, collec-

tion of evidence and more (NAIHS 2017). It reports that “[m]ost SANE examiners employed at a facility have other duties that may be neglected due to unscheduled victim needs that occur at times beyond their usual work shift” and that “assaults can happen any time of the day or night” (NAIHS 2017). This means that they must work harder to provide the same basic services that states provide to members.

When domestic violence occurs, “children are often involved and, if they witness any kind of assault, they have been exposed to trauma which may impact them into their adult lives.” Furthermore, “parents can feel powerless in support their children, even when they are adults, and [parents] struggle to assist them” (NAIHS 2017). Children are going without the basic services that they desperately need and parents are suffering from being unable to help them. “Perpetrators can go on without understanding how they are mistreating their families.” This means that abuse continues without treatment and, potentially, without law enforcement. The SANE program opened in 2017, and a year after opening they no longer have the staff they need. “there are still gaps in availability of sexual assault examiners and advocates due to challenges associated with maintaining staff coverage 24 hours per day, 7 days per week” This means that they are unable to fully staff their facilities to provide the services. The report concludes by stating that support systems for child victims need to be improved and additional family assistance is needed (NAIHS 2017).

SANE and SART are examples of programs that are charged with providing services to victims who have suffered from horrendous crimes; however, SANE and SART do not have the resources to provide services in the community they serve, which is within Navajo Nation, as the NAIHS depicts in their report. This shows a lapse of crisis services for indigenous peoples. When indigenous women suffer from sexual assault at the higher rates listed below, it is easy to understand if they feel excluded or targeted for sexual assault crimes. This could also incentivize members to move from their historical family land. Because SANE and SART cannot provide services, children, parents, and adult victims are not receiving the level of support that they require after suffering from trauma as described above. The importance of providing services to children is widespread throughout the US; however, this is an example of when advocacy has failed to address serious problems facing youth in the mountains. There is a great need to ensure that our

most vulnerable members of society are protected because these hardships will likely continue until resources are provided.

## **Sexual Assault Against Indigenous People**

The NIJ's collection of information of violence committed against indigenous people shows that 84 percent of American Indian and Alaskan women have experienced sexual assault; this is 1.2 times more than non-Hispanic white women (Rosay 2016). "The study also found that more than one in three American Indian and Alaska Native women (39.8 percent) have experienced violence in the past year." Also, this report indicated that "American Indian and Alaska Native victims who have experienced violence by a perpetrator who was not American Indian or Alaska Native" (Rosay 2016). Thus, the perpetrators in most cases are non-Indians, or non-tribal members who cannot be persecuted by the sovereign tribal nations. This example shows that it can be hard for these nations to protect their people.

The information above shows that the percentage of indigenous women who are exposed to physical and sexual violence is high, and the likelihood of indigenous women being attacked is higher than other demographic groups in our society. As a solution, states could choose to bring charges for these crimes; however, without support services, like SANE and SART, which collect evidence against perpetrators, it is less likely that criminals will be held accountable for their actions. The NIJ collects reliable statistical information for the Department of Justice which uses this information in their official reports, but this information is not collected for all tribes, which means that these rates could be higher. This isn't just a matter of data collection; it is also a human rights issue as well.

The Navajo Nation Human Rights Commission (NNHRC) was adopted by the Commission's Plan of Operation in July 2008 by the 21st Navajo Nation Council and collects data regarding human rights infringement on Navajo members. The NNHRC discusses a wide array of sexual discrimination issues that plague the Navajo Nation (NNHRC 2016). Most interestingly, they report that the US and Canada are not ensuring "the safety and protection of Native women" and recommend that they "take immediate action to review, monitor and provide comprehensive reports on violence against indigenous women" (NNHRC

2016). It appears that the Navajo people are organized and seeking help through their legal legislative institutions, but may not be receiving the help they ask for.

These facts provide more evidence that there are not enough actions being taken to prevent these crimes from happening. Indigenous tribal nations do not have the jurisdictional authority to charge non-tribal members with sexual assault crimes, as previously discussed. And, according to the NNHRC (2016), the US needs to implement change. One solution could be to allow tribal nations to charge non-tribal member, non-Indian criminals with sexual assault. Another way to address the problem could be to provide tribal nations with the funding to provide services (SANE and SART) that collect evidence, making it easier on states and the federal government to pursue charges against criminals.

## Media a Coverage of These Issues

Coverage on recent cases has been highlighted in the media. Powell describes the “example of the pervasive issue of sexual assault against people with disabilities and Native Women.” It recounts a recent event when a Native woman, who was in a coma 10 years, “gave birth on December 29, 2018...[B]ecause the woman was Native American; she was also at higher risk of being sexually assaulted.” Powell also states that these issues can be prevented if there were more regulations protecting vulnerable people, that this happens frequently, and that while this country continues to address these problems, we must also make sure that we protect those who are disproportionately targeted and often excluded from protection (Powell 2019).

Powell has comprehensively analyzed the case of a Native woman in a coma who has been targeted for sexual assault, which shows proof that these problems are currently happening. This woman has now given birth to a child that she doesn't know, she may never meet, and cannot take care of. Powell proposes that if the US had regulations in place, this woman may have been protected, and indicates that while this problem is addressed nationally, certain members of the society are excluded from consideration: Native women (Powell 2019). There is a serious need to ensure that this nation is protecting the most vulnerable members of society.

Important to point out is that the perpetrator was a non-Indian and not

a member of the tribe to which the women belonged (Kindred 2019). The perpetrator Nathan Sutherland was “indicted on charges of sexual assault and abuse of a vulnerable adult” and the Native woman “had been in the care of the facility since she was a toddler” (Kindred 2019). Using DNA testing, Sutherland was confirmed to be the father of the child, which led to Sutherland’s voluntary resignation and termination of his nursing license. The investigation is continuing, but at the time of Kindred’s reporting there was no indication that there were any other victims.

Kindred profiles this perpetrator and the seriousness of the crime committed. This indigenous woman was incapacitated and could not give consent due to the nature of her disability, as Powell pointed out. Kindred also points out that the facility had taken care of the woman since she was a child. Unfortunately, clear evidence is not always established, and most perpetrators may not be discovered; however, this does give legitimacy to the need for the collection of evidence that organizations like SANE and SART provide. Without fully funding and supporting these services many more perpetrators of sexual assault, rape, and violence may continue to not be held accountable for their crimes which is discussed next.

Owens covers three different men who raped three different seven-year-old girls in three different states, and the sentences these two men received. One of the men was never charged with rape because the “Assistant United States Attorney (located 150 miles away in Spokane, Washington) declined to prosecute, as they do in 65% of cases coming from Indian Country” (Owens 2012). This is an “all-too-common reality for American Indian and Alaska Native people living in the United States’ domestic dependent nations “[t]he only way to achieve justice, fairness, and consistent outcomes is to put more trust in tribal governments” (Owens 2012).

This article states that three different children were raped and three different men received three different treatments for their crimes as discussed above. Regardless of how these cases were handled, the US is not responding to these cases in a uniform manner. There is a large amount of cases that are not being addressed (Owens 2012), but one solution could be to allow tribal governments more authority to address these crimes. Yet, there are still many cases of rape committed against

indigenous peoples every year. With the frequent occurrences of these crimes, it seems that the issue is pressing.

For instance, Smith states that “violence against Native women has reached epidemic rates.” By discussing legal barriers to address sexual assault against Native women, Smith concludes that Native people need to create their own institutions, work towards independence, and adapt to the existing mechanism to “save the lives of victims” (Smith 2010).

While acknowledging that there is a problem, Smith doesn’t call for the US government to intervene, and instead looks to what tribal governments can do to save indigenous women. This approach does not attack victims but does provide an alternative solution that is different than the conclusions drawn on in this paper. Institutions developed by tribal governments may be an effective means to addressing sexual assault within tribal territories, and, as Smith concludes, should be considered.

## **Conclusion**

To summarize, the United States has written laws in hopes of addressing sexual assault crimes committed against indigenous women; however, court decisions have made charging criminals difficult (Rosay 2016). The NAIHS reported that SANE and SART do not have the capacity to adequately serve their community, leaving many tribal members vulnerable to attack and evidence unaccounted for. The NIJ collects information that clearly indicates that indigenous women are subject to sexual assault at higher rates. As the NNHRC points out, the US and Canada need to take concerted actions to prevent these crimes from happening. This is a continuing problem depicted in the media, and Kindred profiles the perpetrator as a non-Indian, non-tribal member. There is evidence that this problem is not being addressed within current legal institutions as many cases never pursue charges for criminals and there is the need for institutions to be created by indigenous tribal members. And there is a historical context that we must consider when addressing sexual assault against indigenous peoples.

The UN has put forth SDG #5 because there is a need to address gender inequality. As mentioned above, the UN is collecting evidence that this is a global problem. Indigenous women in the US are subject to a higher rate of sexual assault. It is worth considering whether there

are actions that the federal government can take to resolve these issues. The government has passed laws attempting to address these crimes, but the judicial system has prevented tribal governments from deterring criminals by prosecuting perpetrators. Crisis services, like SANE and SART, do not have the capacity to adequately serve the populations they serve. Meanwhile, there is data that indicates that indigenous women suffer from higher rates of sexual assault. This data and recent documented events in the media indicate the seriousness of these crimes. Even when the most heinous crimes against indigenous peoples are committed, many cases are not prosecuted. At the same time, there is a historical context that must be considered. In conclusion, there is a need to address sexual assault crimes committed against indigenous peoples through the creation of institutions and by the federal government taking rigorous efforts to prevent these crimes so that the US can contribute in a substantial way to the achieving SDG #5.

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# Infrastructure and Institutional Measures adopted by Utah for Sustainable Development

By: Rebecca Bindraban

*Rebecca Bindraban grew on the east coast and moved to Utah over 10 years ago. She is a senior at Utah Valley University (UVU) majoring in political science with an emphasis on world politics. She has a passion for international affairs, civil rights, and peace and justice studies. She has been a member of the Utah International Mountain Forum (UIMF), a coalition of student clubs at UVU for a few years now, and has served as the vice president of the Foreign Affairs club as well. During 2017-2018, she was the editor-in-chief of the “Youth and the Mountains” Journal at UVU which highlights student engaged learning and sustainable mountain development. At UVU, Rebecca has had the opportunity to receive an education in international relations, and because of the UIMF, she also had the opportunity to use that knowledge to engage with international leaders and take part in implementation of the UN Sustainable Mountain Development agenda.*

Utah is home to majestic mountains, several national parks, and world-class recreational resorts. Utah’s unique geography demands a collaborative framework within its’ communities to preserve Utah’s natural beauty while also preserving the quality of recreation experiences. The State of Utah has adopted several legislative measures and integrated comprehensive frameworks such as the Central Wasatch Commission to seek solutions for pressing issues and to coordinate and execute actions in the Central Wasatch Mountains. The importance of these institutional frameworks cannot be understated, as they are necessary to engage the public, stakeholders, and policy makers alike while also providing a platform for collaboration. This research paper will present measures Utah has taken to further the collaboration of different groups in Utah along with infrastructure and legislative measures that have been undertaken to preserve the mountainous region.

## The Mountain Accord and the Central Wasatch Commission

In 2014, one of the largest pieces of state level legislation was

signed into agreement in Utah; this agreement was the Mountain Accord. The Mountain Accord was an achievement 30 years in the making, and was created to provide a new instrument to address longstanding environmental issues that had created barriers in decision making for years in Utah. The Accord was also a public statement to proceed with actions that ensure the conservation of the Wasatch Mountains and its valuable watersheds (CWC n.a.-b). Utah is one of the fastest growing states in the union in the context of its economy and population, in Wasatch County and Summit County alone the population is expected to double by 2025. In the face of a huge population surge, the Mountain Accord was a public process, which sought to preserve the mountains for future generations and to realize goals set for the future. Laynee Jones the main author and director of the Mountain Accord made several recommendations about the Mountain Accord implementations. In terms of transportation it was important to create connections between the population centers in urban areas and recreation destinations. Environmental impacts studies had to be conducted to examine the impacts of different modes of transportation on the environment. Last, a projected land exchange package would have a direct effect on the environment. Ownership of 2000 acres of land in ski areas would be given over to public ownership and a permanent federal designation would protect over 80,000 acres of USFS lands from environmental degradation. (Crist 2017).

Though the Mountain Accord was created with the best intentions in mind, the Accord had issues in practice. In 2017, a Utah judge ruled that the Mountain Accord group was subject to, and violating Utah's open meeting laws (McKellar 2017). This led to issues with transparency with the workings of the Mountain Accord because there were no proper indications of when Mountain Accord meetings would be held, minutes of the meetings were not appropriately kept, and the executive committee of the Accord were adopting policies in meetings that were contrary to Utah laws (McNaughton 2017). Additionally, extreme congestion and traffic, and parking issues continued to be an issue in Big and Little Cottonwood Canyon despite the millions of dollars that were used to fund research and consultations on the matter. For these reasons, the implementation of the Mountain Accord's goals was stalled, pending the creation of the Central Wasatch Commission (CWC).

The CWC is an inter-local government entity within Utah,

which has jurisdiction in Alta, Cottonwood Heights, Millcreek City, Park City, Salt Lake City, Salt Lake County, Sandy City, Summit County, and within the Utah Department of Transportation. The CWC is seeking to continue the implementation of goals set by the Mountain Accord. The CWC's mission statement is "to implement the actions outlined in the Accord and will adhere to the principles of public engagement, transparency and consensus building. The Accord is an unprecedented agreement to build a lasting plan to preserve the Central Wasatch. The Central Wasatch Commission is continuing to work on realizing the collaborative vision contained in The Accord." The CWC has created objectives for the commission, which include watershed protection, transportation solutions that are based on transit, walking, and biking, engaging the public and collaborating with stakeholders, and visitor amenities, trails, and canyon stewardship. As outlined previously in the Accord, the CWC also has specific areas of focus including transportation, recreation, environment, and federal land designations (CWC n.a.-b). Though ultimately all these things are interconnected, it is important to view all these things separately as well, in order to develop cohesion and collaboration between the focuses.

## **Transportation and the CWC**

The CWC is tasked with coordinating affected areas in their jurisdiction and within state transportation agencies to address regional mobility in the Cottonwood Canyons and surrounding areas. The continued reliance on private vehicles is unsustainable; as a result, the CWC is focused on increasing transit use, walking, biking, and decreasing the amount of single occupancy vehicles. CWC in conjunction with the Utah Department of Transportation (UDOT) co-manage the Cottonwood Canyons Transportation Action Plan (CCTAP). CCTAP prioritizes a list of actions for future improvements to address long term traffic needs, specifically studies are being conducted about transit, pedestrian and bike facilities, tolling, water quality, and congestion. CWC's role in this study is to engage stakeholders, coordinate with CWC members, facilitate and lead discussion of transportation goals with the CWC stakeholder council, and assist in development of selection criteria. UDOT's role is to supply technical assistance, communication and strategy planning, and the production resources to support the CWC (UDOT 2019). By splitting up the responsibilities in in he CCTAP the hope is to create a sustainable infrastructure in the future to handle future transporta-

tion needs.

## **Environment and the CWC**

A key focus of the CWC is to preserve and manage the delicate environment of the Central Wasatch Mountains. Due to the difficulty of this task in the process of making the Accord, the stakeholders developed the concept of an Environmental Dashboard that would set out to create consensus on new environmental programs. The Environmental Dashboard is designed to compile data of the complete health of the mountain range and creates a baseline of current conditions against potential decisions that may be tested or considered. This also incorporates a mechanism to measure the health of the mountains going forward as well. The Dashboard is also a tool for decision makers to track the environmental health of the Central Wasatch Mountains, aid in evaluating impacts in future planning, and to help reduce the impact of growth, development, and climate change. This tool hopes to ensure the health of the mountain range and provides scientifically rich data, which is technically credible to supply indicators, and stressors that could be impacting environmental health. The Dashboard is supposed to update on a regular basis and provides an online connection for people who are interested in the state of the mountains. Additionally, in the interest of openness and creating public discourse the Environmental Dashboard includes ways the public may be involved whether that be obtaining meeting notes, event notices, and draft materials or contacting project managers with any questions they may have about the Dashboard (CWC n.a.-a).

## **Federal Land Designation Legislation and the CWC**

Over the course of four years the CWC, representatives from local governments, Utah Governor's office and state legislature, environmental organization and recreation interests, private businesses, and residents have worked together on a consensus bill to resolve decades of issues regarding the Central Wasatch Mountains. In 2016 this consensus bill was introduced by Congressman Jason Chaffetz (R-UT), the Central Wasatch National Conservation and Recreation Area Act (CWNCRA). At the time, the bill did not make it through committee but stakeholders engaged the public for comment and changes have since been made to the legislation. The CWC with the Utah Federal Delegation set a time-

line for the reintroduction of the legislation.

In its most current form the CWNCRA is consensus based and locally led with the objectives of protecting water sources, preserving recreational opportunities for the future, and ensuring the enjoyment of the mountains in the face of a growing population. The CWC is seeking a newly created designation of a National Conservation and Recreation Area for the Central Wasatch Mountains. This would mean the law would direct the U.S. Forest Service to manage the public lands contained with the designation but only after careful review and public engagement. The CWNCRA would also create a new Special Management Area designation which the U.S. Forest Service will maintain ownership and management. A new Wilderness Area will be designated, and additions may be made to already existing areas, and natural watersheds will be protected as a result too. Land exchanges between the U.S. Forest Service and participating canyon ski resorts will be authorized, and ski resort permit boundaries on U.S. Forest land will become permanently fixed after some time through existing permitting process. Importance on recreation will continue with all existing permits, though new roads for cars will be prohibited on U.S. Forest Service land. At the same time, future transportation improvements will be able to meet growing recreational demands of the mountains (CWC n.a.-a).

The CWC is seeking the National Conservation and Recreation Area designation because of how all encompassing the designation can be. In terms of landscape management, the Bureau of Land Management (BLM) is enabled to manage larger swaths as entire units rather than fragmented pieces of land. Recreationally this is an advantage because the BLM manages an area including front and backcountry opportunities in its entirety (BLM n.a.). In conjunction with this federal designation, a Citizen Advisory Council is created to work with the BLM. This Citizen Advisory Council is made up of locals who represent a variety of public stockholders and interests, and they are tasked with guiding the local BLM office in the creation of a management plan for the National Conservation and Recreation Area Designation. This ensures the inclusion of valuable public knowledge for the U.S. Forest Service and the BLM. Lastly, this designation would help to diversify the economy of the Central Wasatch Mountains by utilizing opportunities in the front and backcountry of the mountains.

## Conclusion on the CWC

The Mountain Accord had critical issues with transparency and openness which led to the creation of the CWC. The CWC has taken on the mantle of the Accord's objectives while having transparency and public involvement built into its working structure. Thus far, the CWC has proven itself as an efficient institution to conduct environmental studies and further public discourse regarding the state of the Central Wasatch Mountains. The Environmental Dashboard could be very effective in keeping the public informed while also giving a platform for feedback as long as the CWC keeps its commitment to updating it regularly. The CWC may serve as an example for other mountainous regions who are attempting to provide infrastructure and institution for the sustainable development of their mountain regions. The CWC is focused on sustaining the Central Wasatch Mountains and is concentrated on preserving it for future generations. The CWC is still a rather new institution in Utah and time will tell how successful it will be, but according to indicators and public discourse regarding the CWC the future looks bright and sustainable in the Central Wasatch Mountain region.

## The Emery County Public Lands Management Act and Golden Spike Railroad

In March of 2019 one of the most critical and largest land acts in the state of Utah, The Emery County Public Lands Management Act, was passed. This land management act consisted of over 100 individual bills that were introduced by 50 Senators and several House members. This land act establishes the 216,995 acres San Rafael Swell Recreation Area and designates 661,155 acres of wilderness in Emery County, which have been long contested areas of interest. By demarcating these areas as Wilderness Areas certain areas are restricted to specific activities included motorized travel for conservation purposes. This bill designates 63 miles of the Green River as a "Wild and Scenic River" and places protective regulations on its use. Goblin Valley State Park was expanded as well for better management and now includes land formerly managed by the BLM; this includes the famous slot canyon, Wild Horse Canyon, and Bell Canyon. Congressman Curtis (R-UT) said, "It will generate millions of dollars of help to Utah's school children through school trust and land exchanges." The BLM will exchange acreage with The Utah School and Institutional Trust Lands Administration (SITLA), which

in turn has the mission it to use funds generated in partnership with private businesses, mineral and energy royalties, and estate and surface development to raise money for schoolchildren. Additionally, the act established the Jurassic National Monument, which combined the Dinosaur National

Monument in the north and the fossil finds inside the Grand Staircase-Escalante National Monument further south. The creation of this national monument is very important for Utah because it preserves and protects the fossil sites which Utah is famous for and consolidates Utah's reputation as a prehistoric goldmine (Maffly 2019a).

The Emery County Public Lands Management Act elevated the Golden Spike Historical Site to a historical park, which highlights the historical prominence of the area 150 years after the transcontinental railroad came together in Utah. The Golden Spike railroad was the first transcontinental railroad that revolutionized the economy and the settlement of the American West. The historical site is called Golden Spike because a ceremonial 17.6-carat gold spike was the final spike driven to join the rails of the first transcontinental railroad in Promontory Summit, Utah. The railroad joined the existing U.S. railroad network at Omaha, Nebraska/Council Bluffs, Iowa with the Oakland Long Wharf on San Francisco Bay. This was considered an extraordinary engineering feat for the era. The historical importance of the Golden Spike railroad in Utah cannot be understated as it provided the vital infrastructure Utah and the American West needed to grow and prosper. Before the train was completed, it was not economical to haul wagons filled with ore from Utah mines, refine it, and then ship it to the rest of the world. With the arrival of the railroad rail spurs were built right to the ore mines. The output of the mines increased sevenfold after just one year heavily stimulating Utah's economy. Utah's main state export quickly became metals such as gold, silver, and copper and the resulting economic boom created wealthy metal magnates which would eventually help to develop Salt Lake City and Ogden. The railroad also brought in cheaper and superior quality consumer goods to Utah.

Religious and ethnic diversity in Utah was basically non-existent in Utah until the railroad came too, the mining boom attracted many outsiders. For the first time the Mormon religion had religious competition against groups such as Methodists and Episcopalians which aided in the diversification of Utah's Mormon population (Davidson 2019).

Furthermore, the railroad changed the majority Mormon religious community in Utah which was mostly in isolation from the rest of the rest of the country. Increased notoriety to the practice of polygamy in the Mormon religion lead to attacks against the practice of polygamy which lasted for decades until the Mormon Church finally abolished the practice in 1890. Golden Spike Railroad is credited with also helping to the settle the West. Before the transcontinental railroad, the only major city on its route was Salt Lake City. Within 20 years of completion, western states saw huge spikes in populations; Wyoming is often looked at as a state that was settled because of the completion of the railroad (Davidson 2019). Finally, for Utah the Golden Spike railroad created the Utah tourism industry because visitors were able to travel coast to coast within days rather than weeks and months, eventually the trains made Bryce and Zion Canyon popular tourist destinations. Many historians say the Golden Spike Railroad connected the diverse sections of the United States and changed the economy in a way that soon states became interdependent on one another because of the railroad. Travel barriers were knocked down and goods were being traded from all sectors.

The designation of historical site to historical park for Golden Spike is important as it consolidates its importance in Utah, but this importance of this designation has gained controversy recently in Utah (Maffly 2019b). About 40 miles west of what not is Golden Spike National Historic Park, 26 parcels of land have been sold to an unknown company with no history in energy production. This is problematic because any drilling in the area can have a negative impact on anything within 50 miles, which includes the Golden Spike Historic Park. This calls into question the importance of these types of federal land designations. Energy production in Utah especially drilling has long been a contentious topic among business people and conservationist in Utah, the National Parks Conservation Association (NPCA) and the Southern Utah Wilderness Alliance (SUWA) have protested the BLM's leasing decision, claiming that the practice of drilling so close to Golden Spike would have adverse effects on the historical site and could also potentially disturb the scenic values of the recreational settings for visitors (Maffly 2019b). With the new federal land designation, the Golden Spike Historic Park has given groups such as SUWA and NPCA hope to keep Golden Spike's scenery pristine for future generations to enjoy.

## Conclusion

There is no single way to build institutions and infrastructure into a mountain region. Every mountain region is unique and demands its own set of needs because of the unique topography of mountains. Utah depended on the infrastructure the Golden Spike Transcontinental Railroad provided, and eventually as a result, tourism became a booming industry in Utah. This in turn provided Utah with the opportunity to economically diversify and it also brought a new set of issues in regards to the use of its recreational and tourist attractions. Additionally, in the face of a quickly growing population Utah has been required to take many steps to ensure the sustainable use and development of its mountains and lowlands. Institutions such as the CWC have enacted a multi-pronged approach which addresses several stress indicators on its land and works with other federal and Utah state actors to sustainable develop solutions. Though there is not blueprint for development in mountain regions a multi sector approach with an emphasis on transportations needs, environmental conservation, and land designations through legislation should be part of any developing mountain regions plans. The use of legislation to protect mountainous land can be very effective and is often long term as well. Furthermore, the participation of the public, and stakeholders in mountain areas should be compulsory so that decisions being made will satisfy as many people as possible to avoid issues such as the Mountain Accord experienced. To conclude, solutions to sustainably develop mountain areas must be consensus based and have long-term timelines to be accomplished. Mountain regions are fragile and therefore will need extra diligence and time to conserve them. If other mountain regions adopt a multi pronged approach that addresses several different impacts on the lands, the solutions would be easier to reach and simpler to carry out.

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## **Section 3**

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# **Mountain Issues Worldwide and Comparative Cases**

# Sustainable Development in Bulgaria

By: Matthew Brady Simon

*Matthew Brady Simon grew up in the Northwest Chicago area. In his teen years, he attended James B. Conant high school and worked various jobs ranging from golf courses to warehouses. During this time, Brady was able to achieve the prestigious Eagle Scout award for his work in sending care packages to U.S. soldiers serving in Afghanistan. A year after graduating, Brady served for two years as a volunteer missionary for the Church of Jesus Christ of Latter-day Saints in Long Beach, California. This experience gave him exposure to dozens of different cultures and would later be integral in his desire to work in international relations and national security. After his mission, Brady attended and received his associate's degree from Brigham Young University Idaho in international studies. He then transferred to Utah Valley University to study political science and national security.*

Bulgaria has made efforts to improve its political and financial standing in Europe and undoubtedly wishes to be recognized globally. When many think of Bulgaria, they most likely think about rural farms, uneducated citizenry, and corrupt leadership. While these are all more prominent factors that exist in Bulgaria (as is the case in any country struggling to develop), the state does have certain aspects of its development that present the hope for a promising future. This paper is aimed at analyzing the progress of Bulgaria through their national goals and through their work towards achieving United Nations (UN) Sustainable Development Goals (SDGs). The SDGs that will be primarily addressed here are 1: No Poverty, 2: Zero Hunger, 8: Decent Work and Economic Growth, and 16: Peace, Justice and Strong Institutions. (UN 2018).

I will also focus on identifying factors that prevent Bulgaria from achieving desirable economic prosperity.

When speaking on sustainable development, the picture that often comes to mind is that of a green initiative. Figuring out how to get the best and most efficient use out of a resource without diminishing it. This is certainly a sphere of the SDGs that the UN brings forward. What is also mentioned, and perhaps more pertinent to the state of Bulgaria, are goals that promote sustainable societal and economic development,

such as bolstering consumerism, productive sectors, strengthening political institutions, and creating legitimate political capital (Kates 2005). Fulfilment of one of these goals almost acts as a piece to a puzzle, as one can realize where the next puzzle piece goes after laying down the first piece. It is in Bulgaria's best interests to currently focus on economic prosperity and doing what is necessary to free itself from corruption. Corruption itself acts as a hindrance to all aspects of development for a country. The benefits associated with a corrupt system are marginal at best since impaired infrastructural development can't be outweighed by the ability to instantaneously be granted a request when incentivizing an official. Bulgaria's internal inefficiencies can be explained, possibly by observing their relations with other nations throughout history. One may find that Bulgaria has an innate need for dependency on stronger countries.

None of the Balkan countries can be considered superpowers, nor have they ever been. Traditionally the countries in the Balkan region struggle economically as much as they have with independence in past eras. Their historical location between the Mediterranean and Black seas often put them in the paths of prominent trade routes and conquests, making these regions territorial goals for stronger powers. The Bulgarians quickly became used to empirical rule after initially being claimed by the Roman Empire. After the fall of the Roman Empire and the rise of the Byzantine Empire, Bulgaria was gradually absorbed as powers shifted. Being closer to Constantinople allowed for Bulgaria to be more prominent in politics, thus causing some of their leaders to be legitimized throughout the empire (Crampton 1987).

At this point in time, Bulgaria began to experience small conflicts with Russia due to its vulnerable position, causing a loss of territory, and later a Tatar invasion. After adapting to rule under the Byzantine Empire, Bulgaria then was forced to deal with yet another empirical change after the invasion of the Ottomans. Ottoman rule introduced Islam to the region, which still has a large presence in Bulgaria today. Native Bulgarians were effectively able to push back Ottoman rule primarily through the assistance of the Russian military. This allowed for strong Russian influence in the area. Bulgaria's economy would soon deteriorate with the decline of the gold standard. Suddenly, partnerships with powerful states and economies, such as Germany, had become more attractive (Tooze, Ivanov 2011). Ideological and political conflicts arose,

eventually leading to the integration of communism and a reliance on the Soviet Union.

Keeping Bulgaria's history in mind, it is not difficult to see that they have developed a reliance on more powerful governments. While these dependencies severely crippled Bulgaria's internal development in later years, it was not necessarily foolish to enter into partnerships with Germany or Russia. Bulgarian leaders had made these decisions because they wished to see the survival of their country. This was more likely if they allied with stronger nations. While trying to develop on its own after the fall of the Soviet Union, Bulgaria experienced several issues regarding political coups and economic reforms. Bulgaria tried to severely cut back on spending, while their gross domestic product was decreasing. This, along with protests regarding the environmental toll incurred by the massive industrialization in the Soviet era, all worked against Bulgaria's developing government. Through deliberations in roundtable meetings, the Bulgarian government eventually transitioned to a parliamentary republic.

After the fall of the Soviet Union, Bulgaria had ambitions to become part of the Western world. While everyone had incentives to join international organizations for better connectivity and partnerships for peace, Bulgaria also joined out of a necessity to survive. Staying true to its historical past, Bulgaria reasoned that its survival was more of a guarantee if it joined strong countries that it could partner with. Becoming a member of organizations like the UN and the North Atlantic Treaty Organization (NATO) in 2004 has had its strategic purposes for Bulgaria. NATO has been especially important to Bulgaria as it is located just across the Black Sea from Russia and is also close to the Middle East. Being able to call upon NATO allies to fend off a potentially aggressive Russia is a compelling incentive. This also brings some security in regard to terrorist acts (although Bulgaria has never been much of a target for radical Islamist groups).

Even more vital to Bulgaria is their admittance into the European Union (EU) in 2007. Since then, Bulgaria has been petitioning to become party to all their agreements, such as the Schengen Agreement. In order to join the EU, there are prerequisites for a state to be in agreement with certain human rights standards, as listed in the EU's Copenhagen criteria. Coincidentally, many of the EU's criteria fall in line with many

of the UN's SDGs. Bulgaria, likely along with many other post-communist countries, viewed this as an opportunity to assert a greater presence on the world stage. Membership in the EU and becoming party to the UN's SDGs was comparative to killing two political birds with one stone.

Despite Bulgaria's ambitions, the poor quality of life that most Bulgarian citizens are subject to causes for a lengthy admittance process. Additionally, Bulgaria has struggled to abandon governmental corruption, which has inevitably led to violence, poverty, and civil unrest. The longevity of the admittance process is also attributed to the EU taking time to adapt to changes and learning how to better communicate to aspiring states. Bulgaria's corruption has been highlighted by weak institutions and the malfunctioning of the judicial system (although Bulgaria is currently in a much better place than it was). Adding to frustrations, it appeared that Bulgaria was constantly being compared to Romania, as both countries were seeking EU admittance at the same time, and both countries were post-Soviet states and seemed to struggle with the same problems. Both countries continued to receive a mixture of praise and chastisement from the EU. Such chastisement often involved political sanctions. The EU has also had a history of raising the price of non-conformity when their punishments seemed to have done nothing to improve Bulgaria or Romania's reformation efforts (Dimitrov, Stoychev 2016).

This combination of positive and negative incentives is pushed by using the Cooperation and Verification Mechanism (CVM). Not all of the incentivizing from the EU has been looked at favorably. For instance, Bulgaria (and most likely many of its citizens) have been puzzled at the decision of the CVM in increasing the number of benchmarks for Bulgaria to meet in order to accede into the EU. The CVM has asked Bulgaria to meet six benchmarks, while Romania has remained at only four benchmarks. The CVM has been an effective mechanism in helping Bulgaria achieve developmental goals, but some argue that it muddies the picture with all the penalties that it institutes on Bulgaria for non-compliance (Dimitrov, Stoychev 2016). Some are hopeful that despite Bulgaria's current challenges in these areas, continued incentives from the EU, coupled with pushback from the public, can lead Bulgaria's currently corrupt government to increase the reach and depth of their anti-corruption reforms.

Make no mistake, Bulgaria has made visible efforts to curb corruption, as indicated in Freedom House Findings (2018). Despite this, Bulgaria has had issues with the regulatory framework of their anti-corruption programs, as they often provide little or no accountability to officials engaged in corrupt practices and who manage to stay out of the public spotlight. Most government officials also understand that there is a likelihood of being paid more money when engaging in corrupt practices. In addition, even if a policy maker is not desiring a larger paycheck, officials more likely to engage in corruption probably understand that their desired policies can go forward much faster if they are able to bribe the correct people.

Ultimately, the main issue with the anticorruption framework is that there will always be officials more concerned with their own interests as opposed to curbing corruption. For instance, the Bulgarian parliament approved an anticorruption agency in 2017. The bill to approve this agency was later vetoed by Bulgarian president Rumen Radev. His reasoning behind the veto was that parliament would be the ones appointing the agency's leadership, creating an enormous conflict of interests. Additionally, he feared that an anticorruption agency posed risks of becoming politicized, thus taking away anonymity from those that report corrupt officials (Freedom House 2018). Since 2006, the EU has also repeatedly advised Bulgaria to focus on cutting down crime rates. Whenever Bulgarian government officials have made promises or references to cutting crime, it is usually because they are trying to win votes in an election (Noutcheva, Bechev 2008).

Bulgaria today is regarded as a relatively free country. Despite the alleged freedom, they still struggle to maintain much of their political unity. Being a parliamentary democracy, Bulgaria currently has opposing parties holding some of the most prominent positions in the country. President Radev has been president for over three years now and is a member of Bulgaria's socialist party. At Radev's opposite is Prime Minister, Boyko Borisov, who claims membership in Bulgaria's nationalist Citizens for European Development of Bulgaria (GERB) party. It is easy for one to assume that these opposing parties can serve as desperately needed checks and balances for the Bulgarian government. They actually perform this role perhaps a little too well as one will quickly notice how empowered, opposing ideologies can halt the political process to a standstill. This is an efficient description of current

Bulgarian politics. Within the last year, Radev's party have issued three votes of no confidence to Borisov and the GERB party. All of which they have survived (Anonymous 2018a).

In addition to inter-party conflicts, the EU has repeatedly demanded for Bulgaria to address issues concerning human rights along with government corruption. In addressing Bulgaria's civil rights conditions, the country suffers from larger degrees of discrimination with many of the minorities that reside within the country. This includes Jews, Turkish Muslims, and the Roma or gypsies. The Roma in particular suffer discrimination perhaps on a more advanced level. Roma will build makeshift dwellings to live for a period of time only to have them demolished on a regular basis by the Bulgarian government. These homeless Roma are not even provided alternative shelter after their makeshift homes are destroyed (Freedom House 2018). The UN has also been focused on encouraging Bulgaria to do more to protect refugees, as Bulgaria has traditionally had a tighter policy on the admittance of those coming to the EU for refuge (UNHCR 2018).

Another challenge that infringes on human and civil rights is the lack of power in important institutions such as the press. Bulgaria does have laws that grant free speech, but ultimately members of the free press (specifically those that are unaffiliated with state sponsored press) do not feel that they are being protected by the government or the police. In some cases, these institutions have threatened journalists when they try to publish work that is not in agreement with the government's goals (Harrison, Pukallus 2018). This helps in explaining the fact that most of the Bulgarian news websites are mostly sponsored by the government, and essentially state-run.

Turning attention to Bulgaria's economy, Bulgaria has consistently borrowed funds from the EU for development. So often these funds appear to have little effect on Bulgaria's economy as a whole, undoubtedly due to the corruption that is so pervasive in Bulgarian politics. There should be even more cause for concern if the EU was not pressing Bulgaria to spend the money more wisely. In recent years, the blame for this corruption was pinned on Radev and the socialist party's operations. This provided a clearer choice for the Bulgarian people when election time came around, as Borisov and his GERB party were appearing more attractive, despite their tendency to lean further right.

As a result, it has created the split parliamentary government within the country today. With Borisov, Bulgaria has witnessed some housecleaning in terms of corruption and the EC has begun making preparations to integrate Bulgaria into the Schengen area. This is one of the promised incentives for positive results from reforms. However, Bulgaria's judicial system is still in need of some attention as it has proved to be one of Bulgaria's toughest reformative challenges yet (Spendzharova, Vachudova 2012).

The previously mentioned financial inconsistencies in Bulgaria's reception of EU funds has not improved the country's economic environment either. After the fall of the Soviet Union, Bulgaria was hit hard financially, as they had just lost one of their biggest trading partners. Trade had declined, and Bulgaria was forced to essentially rebuild their trade economy from the ground up (Vassilev 2003). Bulgaria currently operates under a flat-tax system and an undeclared economy. Because of this, Bulgaria has lost several millions of leva in the revenue it could have used to provide better services and healthcare. Additionally, Bulgaria only provides certain benefits such as childcare to a small minority of their population while these same benefits are generously being shared among other EU states (Leventi, et al 2018). Accentuating this issue is the fact that the condition of the working class on the other end of the economy is abysmal due to the tax system. Not all private entities are required to pay taxes and adhere to a public standard for safe workplace conditions and healthcare (Williams, et al 2014).

Poverty is a problem that goes hand in hand with financial instability. Bulgaria and Romania in particular have been states of concern for the EU in terms of alleviating the poverty level. Unemployment in Bulgaria was estimated to be at 6.2 percent in 2017. In 2016, Bulgaria was estimated to have had 23.4 percent of the Bulgarian population living beneath the poverty line (CIA 2018). Others estimate that the percentage of the population of Bulgaria being at risk of living in poverty is closer to 54.8 percent, with the probability of many of these individuals residing in or near more rural areas (Kalinowski, Kielbasa 2019).

Those living in rural areas typically get by through subsistence farming. While these individuals are more prone to experience poverty, the areas that they live in host a vast amount of resources. Over a third of Bulgaria's land consists of mountainous territory, providing resour-

es such as lumber, minerals, food, and ingredients to the population of Bulgaria. Most importantly is the abundance of freshwater that is created from runoff from snow accumulation in the mountains. Bulgaria has passed numerous environmental laws concerning their mountains, including the preservation of the mountain's forests, developing emergency strategies for floods and avalanches, and providing tax reductions for companies that perform work in the mountains and assist in mountain development (Lynch, Maggio n.a.). Despite much of the visible efforts to preserve their natural land, much of Bulgaria's working class and an equal portion of its politicians have voiced against environmental measures such as raising the carbon cutting targets that were agreed upon in the almost universally recognized Paris Agreement (Anonymous 2018b).

So, what can be done regarding Bulgaria's previously mentioned financial situation? Some individuals observe that Bulgaria may see improvements if it revamped its tax system and increased income tax thresholds (Leventi, et al 2018). Some scholars theorize that this problem can be tackled with the growth of social enterprise in Bulgaria. A social enterprise is essentially a company that primarily focuses on providing a necessary service as opposed to making a profit. This form of enterprise has the potential to improve national conditions in two ways. First, an important service is provided in more abundance to the population. Second, the profits made from the social enterprise can be used towards stimulating the economy (Terziev, Arabska 2017).

Additionally, even Bulgaria's own government has called for more entrepreneurs to find ways to provide greater societal contributions through social enterprise. Unfortunately, most Bulgarians, like anybody, view this proposition at face value. They think that they would be making less money giving to society instead of focusing purely on making the most profit. The reason this business model could be vital for the development of Bulgaria's economy is that there is still huge potential to make a profit, especially if an underprovided service is being offered. Social enterprise can help teach Bulgarian entrepreneurs that it is possible to make a sizable profit while maintaining good ethical and moral business values. Many Bulgarians are catching on to this and are attempting to start their own businesses. The abundance of startup companies that are appearing in the traditionally poverty-ridden state has earned Bulgaria the unofficial title of the Silicon Valley of Eastern Europe(Anonymous 2018c).

One can conclude that while there are many societal issues that cling to Bulgaria, the act of alleviating the burden of just one of these problems can better position the country to alleviate many of the other problems it faces. Ideally, the solution would be geared towards Bulgaria's corruption problem, but realistically, no amount of calls to action by the UN, EU sanctions, or national conflict has produced the desired results. Bulgaria should not wait around for the government to purify itself. Instead, the citizens of Bulgaria should ask themselves what they can do to improve the economy in their respective areas.

Ultimately, the SDGs of the UN highlight several integral problems that countries such as Bulgaria have yet to overcome. If the UN or the EU wishes to see Bulgaria in full conformity with its standards, it must take into account the centuries of history it has been dependent on larger countries. The EU should act as a facilitator for Bulgaria's internal growth and not another Byzantine or Russian empire simply providing funds for the government to use almost indiscriminately. Additionally, when placing negative incentives on Bulgaria, the UN and EU must also realize that it takes time to implement new policies. Punishments should act as a motivator, and not a hindrance, for internal growth.

In reality, it all comes down to how the state's government decides to operate for their people. Creating new systems of accountability that do not punish those who are honest and does not gratify those who are greedy would go a long way for Bulgaria. Taking the time to reevaluate and theorize new solutions for improving the economy will be just as vital to the state's development as the contributions of the country's entrepreneurs in pursuing social enterprises. This will not only allow Bulgaria to be better equipped to assist its citizens but will also open doors to resolve other problems that inhibit Bulgaria from achieving goals for sustainable development.

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# Sustainable Development Goals of Kyrgyzstan

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## Introduction

The Sustainable Development Goals (SDGs) have helped developing nations identify problem areas in their country and also helps them to set goals in order to resolve those issues. All of these categories under the SDGs are extremely helpful and vital to the creation of a successful and independent nation. One goal that stands out in particular in the case of Kyrgyzstan is SDG #16: Peace, Justice, and Strong Institutions, which is crucial in order to get accomplish other initiatives in the country.

At first glance, Kyrgyzstan seems to be in trouble—with extensive corruption and weak rule of law, it appears to be in the early stages of becoming a failed state. However, the country has only been independently run with a democratic system for about 27 years; to put that in perspective, the United States has been operating under a democratic system for just under 250 years and corruption is still prevalent within the U.S. government. While Kyrgyzstan struggles with SDG #16 significantly more than many other countries, it is important to note that they have made great strides in a relatively short amount of time.

## Historical Background

Kyrgyzstan's struggles with corruption can be understood by looking at its unsteady history—a history that is built on revolution, overthrown governments, and that was started by an already corrupt

Soviet Union. The first revolution Kyrgyzstan experienced was in 1991 at the fall of the Soviet Union: the Democratic Movement in Kyrgyzstan began an 8 day strike with multiple demands, the resignation of the communist leader, a move to a presidential system allowing for a multi-party system to ban the communist party from being the sole authority, and the investigation of an incident in the city of Osh (Kiliç 2011).

Soon after, Kyrgyzstan experienced yet another revolution which would later come to be known as the “Tulip Revolution” in 2005, in which President Askar Akaev was overthrown. This revolution is significant because of the outside conflict it created. Russia felt that the revolution was caused by the United States and CIA interference in the country. However, a significant factor that is often overlooked is the 2002 protests in Aksy, in which locals protested the arrest and trial of Azimbek Beknazarov by the Kyrgyz government. During the protests five civilians were shot and killed by police; this ultimately sparked more chaos and led to a deal being made between the government and Beknazarov (Lewis 2008).

It was this event that exposed the weakness of the central government and Akaev’s regime as a whole and set the stage for the 2005 revolution. This is an important factor because it shows that while there was undoubtedly outside influence on the country, the driving force behind the overthrow came from within the country itself. Internal revolutions make democratic advancements difficult because they are essentially a reset button, and while they might not start back from square one, the government is set back considerably. This can be a positive change but if it happens too often, the progress is slow, and it becomes a “one step forward two steps back” type of scenario.

Only five years later, revolution struck the country again in the form of the April Revolution, in which President Kurmanbek Bakiev was removed from office and his regime was crippled. After the Tulip Revolution, the expected democracy never appeared but was replaced by a more authoritarian regime, which is why this second revolution happened so quickly afterwards. However, after the April Revolution in 2010 the country experienced the freest elections they had ever had and are still trying to promote democracy today (Collins 2011).

## View of Corruption

It is no secret that Kyrgyzstan has struggled in the past with corruption at all levels—hence the frequent revolutions and forced regime changes. It would be easy to say that the corruption is so deeply rooted within the Kyrgyz society, and with the constant revolutions causing government instability, that Kyrgyzstan is a lost cause. However, the fact that they continue to have these revolutions is actually an encouraging sign for the future. Arguably, every country in the world has some form of corruption occurring within some level of their government at any given time, and the citizens of many of these countries accept this fact. The key difference between Kyrgyzstan and other developing nations is that this fact is unacceptable to the Kyrgyz people.

A society will revolt against a government when they have reached a point of distrust or when that government has pushed the people past an acceptable point of tolerance. Thus, if corruption is rampant in a country and there is no revolution, it points to the idea that the people of that country, while they might not like corruption, are willing to tolerate it. This is not the case in Kyrgyzstan, however, for the general population to be willing to rise up as frequently as they have in the past indicates less tolerance of corruption or authoritarian regimes. In addition, revolutions aren't an easy process, they are filled with chaos and uncertainty, so the revolutionaries have to be willing to put forth an incredible amount of effort in order to accomplish their goals. This shows that the people of Kyrgyzstan not only do not tolerate the corruption, but they are willing to do whatever is needed to root it out up to and including revolting.

## Causes of Corruption

According to Murat Cokgezen, corruption is caused by four main factors, economic, political, juridical, and cultural. In addition, Kyrgyzstan is at a disadvantage because it is a post-Soviet nation, which nations have been proven to have higher levels of corruption depending on how long they remained in the Soviet Union (Cokgezen 2004). After the fall of the Soviet Union, Kyrgyzstan's income dropped dramatically and over the next few years the situation improved slightly but remained behind what it used to be. This became an easy justification for corrupt politicians who had become accustomed to a certain amount

of income but were not struggling drastically. This scenario applied to all government employees and by extension the people of Kyrgyzstan, especially those in the southern part of the country.

With these types of economic shortages, the government was no longer able to pay for the same type of services it once had. Things that had previously been paid for by the government were left to fend for themselves. The education system is a good example of this, as the schools were no longer receiving funding, and many were forced to make dramatic cutbacks and even close down at certain times of the year. Many students thus left school and worked to support their families (Cokgezen 2004). This creates obvious long-term issues: if a country's young people are no longer going to school, then later on when those individuals are the ones running the country, they lack formal education. This can also create corrupt institutions because many organizations that lose funding will be trying to maintain as close to the same lifestyle as they did before, which could mean bribing political figures.

The Judicial system in any corrupt country becomes extremely significant: if criminals can bribe members of the justice system like police or judges then it doesn't matter what laws are in place because they will never be enforced. This is especially significant in a country like Kyrgyzstan where the mountainous terrain makes it difficult to maintain control of villages and cities that are isolated from the central government. This, in addition to low wages within the judicial system, makes it easy to see how its members justify corrupt behavior, especially when it seems like there is no real consequences.

The Soviet Union was extremely corrupt during the late Stalinist period. According to James Heinzen, "bribery was one of the many unofficial mechanisms that we think of as 'corruption' in the post-war period; it can be regarded as a particular form of informal (sometimes illegal) relationship by which many individuals, both officials and average people, were able to get things done (Heinzen 2007)." Anytime there is a long period where something like corruption becomes the norm, it is very difficult to break that cultural habit. It was such an intricate and understood part of Soviet life (especially in the satellite nations) that to suddenly switch to a democracy where those practices are unacceptable, conflicts are to be expected. Even if the majority of the population is no longer participating in corrupt behavior, if a small number of high-

er-level officials are still corrupt, then the democratic system becomes ineffective.

It's not hard to see how Kyrgyzstan has come to be in the situation that they currently are; one simply has to look back over the last 50 years and can see the obvious signs that lead to instability. While formulating a culture of zero tolerance for corruption is very important and is the foundation on which any anti-corruption campaign has to be built, at some point, laws must be implemented and subsequently enforced in order to make a difference.

## **Peace, Justice, and Strong Institutions**

In order for Kyrgyzstan to set goals to end corruption and strengthen their current institutions, they need to first identify the problems. It is also helpful to look at a country with similarities that have a good handle on SDG #16 and try to emulate that process. A good example in the Asian region is Singapore, as they are one of the best countries in the world at rooting out corruption, and they follow four simple rules to do it. First, a strong political will is critical and something that Kyrgyz people have shown to possess; second, reliance on one anti-corruption agency as opposed to multiple; third, enforcing anti-corruption laws impartially and avoiding using corruption as a weapon against political opponents; and lastly, addressing the causes of corruption as opposed to the effects (Quah 2016).

In addition, it is important to realize that all the SDGs are interconnected in some way, and that improving one goal might require improving several others. For example, one reason for corruption within Kyrgyzstan is because of poverty stricken areas primarily in the south. Eliminating poverty is part of SDG #1, and by improving in this area, one could expect the corruption levels to reduce because there will be less of a need to bribe officials and less need for those officials to accept bribes. SDG #4 is Quality Education; it has already been mentioned how the education system has sustained an economic blow after the fall of the Soviet Union and by extension, how many students were forced to leave school to help provide for their families. Understanding why corruption happens is equally, if not more important than understanding how corruption happens.

## Sustainable Development Goals

The Sustainable Development Goals went into effect in January of 2016 and will continue to be funded until 2030. The United Nations Development Program (UNDP) is placed at the head of the effort to help around 170 countries with these goals (UNDP n.a.). Kyrgyzstan has much to gain by implementing recommended goals within its country to not only reduce corruption, but also to increase its general productivity and global contributions. While all of the SDGs are important, the Kyrgyz people should put emphasis on certain goals that would benefit their country the most—namely, SDGs 1, 8, 9, 11, and 16. Respectively, these goals are no poverty, decent work and economic growth, industry innovation and infrastructure, sustainable cities and communities, and lastly peace, justice, and strong institutions.

Poverty within Kyrgyzstan is an issue in which the economic inequality between the north and the south has been a contentious issue for years. The south is traditionally much more impoverished than the north, and the rift between the two parts of the country has only grown deeper over time and through the multiple revolutions they have experienced. Obviously, there isn't a "quick fix" for an issue as large as poverty, but there are certain steps that can be taken to reduce the poverty level and give the people more economic opportunity so they can help themselves get out of poverty, as opposed to reliance on the government to do so.

In order to reduce poverty, people have to be working, which means jobs need to be created and be readily available to those that are willing to work. This should lead Kyrgyzstan to look into SDG #8 on decent work and economic growth. If the economy is going to grow, there has to be economic opportunity for the people, which means there has to be businesses moving in or starting up inside the country. Investment is also crucial to the building up of the countries' economy, but people aren't willing to invest in a place where there is no innovation or room for economic improvement. Jobs and economic opportunity, along with the potential for growth and advancement, are critical for the continuing success of an economy.

Industry innovation is the next step in building up a weak economy. By having industries that grow and improve, in addition to creat-

ing more jobs, these industries will also attract more investors and by extension build up the city around itself in order to accommodate the growing demand. Kyrgyzstan is a very mountainous country, with travel around the country being difficult due to lack of infrastructure, but with a growing economy and expanding industries the government, along with private corporations, will be forced to improve the infrastructure of its cities and connect them to each other. This will help entice workers to move into the cities and make it easier for them to do so. With people moving from the small mountain villages into a more urban setting, the country will begin to modernize in response to the industrial innovations.

As cities grow and expand, upkeep will become extraordinarily important to improve the quality of life for its citizens. If there is no promise of improvement of living conditions and economic opportunity, there will be no draw to move to the new industrialized cities. It is crucial to make sure that the cities and communities are not only a drastic improvement to the citizens' previous conditions, but also that those conditions are sustainable. If cities begin to spring up or if existing cities begin to drastically expand and then fail, people will be wary of uprooting themselves in order to move. Creating a budget for sustainable upkeep and consistent improvement of these rapidly modernizing cities will be a determining factor in whether or not people not only move in but also stay.

History has shown that anytime there is more economic freedom and growth, the opportunity for corruption can also rise. It would be of paramount importance to, from the beginning, crack down on any and all forms of corruption. In addition, making sure that the rule of law in these newly formed cities is enforced without bias and consistently is also important. By making sure this is understood early in the creation of these new industries, Kyrgyz people would effectively create a new modernized culture of abiding by the law, making it understood that nobody is above the law in this new, modern society.

## **Conclusion**

While it is true that Kyrgyzstan is not devoid of issues, especially when it comes to corruption, it is clear that the Kyrgyz people have a desire to improve their country, and as outlined above, there is a way to

do so. The SDGs give the nation a clear outline of what needs to be done and allows them to focus on certain aspects of the future development of the country. If implemented correctly, the SDGs will give Kyrgyzstan a pathway into the future that is bright with opportunity, improvement, and most importantly for the people, stability.

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# Afghanistan: Path to Peace and Prosperity by Following the Framework of the UN Sustainability Development Goals

By: Brandon Pedler

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## Introduction

Afghanistan has been a country embroiled in conflict for the past seventeen years. Ever since United States-led coalition forces invaded the country, Afghanistan has found itself in constant turmoil, as foreign troop levels have risen and fallen over the years. Currently, this mountainous country is facing an uphill battle in trying to rebuild and reinvent itself. Challenges such as a weak central government, continual violence, and poor infrastructure are just some of the problems that are facing this country. The path to prosperity for Afghanistan will not be an easy one, but by focusing on several of the United Nation's Sustainable Development Goals (SDGs), one at a time, the country may create stability and peace.

## The First Steps

The first and likely most critical step for Afghanistan is fostering peace. SDG #16 focuses on Peace, Justice, and Strong Institutions. For seventeen years, Afghanistan has been embroiled in conflict, as inter-

national forces led by the United States fight against Taliban and terrorist forces within the country. This conflict has been the very center of all of Afghanistan's inability to move forward as a country. It is next to impossible to build up infrastructure, education, and a strong government while the nation is in the midst of a civil war. In order to make any appreciable progress, peace must be the very first goal. Afghanistan itself has no current plan in relation to this SDG, which is surprising, considering the level of disruption the continual violence is having on the nation.

Peace may come in a variety of ways. The United States and its allies could finally drive the Taliban from the county entirely. This prospect seems to be less and less likely as American favor for the war continues to drop and as US political leaders continue to question their nation's involvement in the war. The US could merely remove its troops and allow the Taliban to overrun the country and destroy the central government; however, this is not an acceptable strategically to the United States. Thus, a single option remains: to negotiate a peace between the warring parties.

Efforts are currently underway to try and find a peaceful solution to the conflict. The US has sent a special envoy and delegations to meet with the leadership of the Taliban and try to get them to the negotiating table. Russia also has reached out to both sides to act as a neutral meeting ground. This negotiation would allow the parties to meet with less distrust and may help lead to a peaceful settlement. However, the Afghan government has stated that any peace deal with the Taliban would require that the organization eliminate any and all ties from terrorist groups and actions. They would be allowed to have a voice in the government, maybe even their own political party, but only if these stipulations are met. (Ward, 2019)

*“Everyone, it seems, is pushing for peace in Afghanistan these days. President Trump’s special envoy is racing around the region, trying to drum up support for talks with the insurgent Taliban. The Russians, eager to get into the act, have hosted a conference on the issue. The Pakistanis, long accused of abetting the insurgents, insist they want to help end the war. Afghan President Ashraf Ghani hopes to win reelection in April as the man who brought peace to his country after 17 years... “We are in a hurry to end the Afghan tragedy,” Khalilzad told “PBS NewsHour” last week. “...*

*Ideally, of course, it would be good to have an agreement with the Taliban first and then have the presidential election,” in which the Taliban could participate as voters.” (Constable, 2018)*

If and when peace is achieved, the next step would be strengthening the central government, reestablishing the rule of law, and strengthening its institutions, such as its courts. The years of war have left these institutions weakened. The combination of war, delayed votes, and lack of government control in many of Afghanistan’s regions has led to the deterioration of the central government’s legitimacy in the eyes of the populace. The establishment of peace and restoration of government control, along with regular and free elections without the threat of violence, would strengthen the legitimacy of the Afghan government because its people would have a say in creating it. One of the major sticking points for the Taliban has been their view of the current government as being illegitimate and no more than an American puppet. Including the entire country in the electoral process would go a long way in legitimizing the central government in the eyes of the populace. However, this is not the only problem in the legitimacy question that the country faces.

## **Corruption**

Corruption is another major issue that must be addressed, both at the local and statewide level. The problem peaked with President Karzai and his habit of turning a blind eye towards corrupt practices within his administration. He even went as far as to actively work against anti-corruption measures that were put in place by the United States and its allies to try and curb Karzai’s corruption. All nations have some corruption, no matter the strength of their institutions and laws, but it becomes a larger problem when it becomes widespread and institutionalized. Afghanistan has had a severe problem with corruption. However, it is making slow progress towards mitigating and eliminating corruption. The United States and its allies have applied both international and diplomatic pressure to Afghanistan, effecting some degree of reform, but the rate of change is slow. (Sopko, 2018)

A large part of the issue of corruption and why it is taking so long to change lies with certain cultural practices of the region. Being a tribal nation where tribal ties and family are more important than loy-

alty to an organization and state, it is not uncommon for family or tribal members to be promoted or recruited to positions of power, instead of someone who has merit. Nepotism has become more of the rule in the country than the exception, and it is hard to calculate what kind of impact that this has on the county. (Faiez, 2015)

Without any hard data, and the difficulty of proving nepotism in some of the more rural regions, there is not an easy answer or solution to the problem. Additionally, the central government has not been immune from this—even at the highest level. After the death of his brother, President Karzai appointed yet another one of his brothers to be the protector of his power in the Kandahar region. This again is not an unusual practice, and it did not stop with the end of the Karzai presidency. The continued practice is also preventing effective legislators, lawyers, and qualified persons from serving in capacities where they could do good for the country, simply because they are not related to those who are currently in power. On the other side, many who have been selected by family members to positions of power have never governed and are often unequipped to deal with the major issues facing the country.

## Culture

In addition to the problems caused by corruption, the cultural practice of Baksheesh, or the giving of gifts, is extremely prevalent in the region. Often when one goes seeking of help or when they have a favor to ask, a small gift or a small amount of money is also presented with the request. While this practice is normal for the culture, when brought into the context of governing a country, it can create major issues. Small bribes can be used to pay of security forces or police into not reporting or prosecuting crimes or to help buy favors from local tribal leaders. On a larger scale, competing groups and organizations may find themselves in competition to try and buy-off government officials, or purchase influence in the parliament, or presidential cabinet. This normalization of bribery and gift giving, while seemingly innocuous at a small and local level, can have wide-reaching and powerful effects when scaled up to a national scale. Gifts can have undue influence on policy, infrastructure, and other decisions, that may not be in the best interest of Afghanistan as a whole.

“During 2012, the Afghan government continued to suffer from a profound legitimacy crisis. Afghans have become disconnected and

alienated from the national government and the country's informal power arrangement dominated by former warlords and new mafia-like power brokers. They are profoundly dissatisfied with Kabul's inability or unwillingness to provide basic public services and with the widespread corruption of elites. They intensely resent the abuse of power, impunity for power brokers and government officials, and lack of justice that have become entrenched over the past decade." (Felbab-Brown, 2013)

This continuing legitimacy crisis is absolutely critical to the stability of Afghanistan. If the central government cannot gain the support and trust of the Afghani people, it will never be able to govern effectively.

*"Nevertheless, there are some indications of progress. The 2014 election of President Ghani presented an opportunity for reform. His creation of the National Procurement Commission to personally review all major procurements on a weekly basis has produced some results. Most importantly, both President Ghani and the U.S military and civilian leaders now appear to understand that, to a large extent Afghanistan's future may be determined by the extent to which the United States and its allies, along with the Afghan government, are able to make serious inroads against the corruption that has kept Afghanistan mired in war and poverty." (Sopko, 2018)*

This slow progress breeds some hope for the future of the central government. Despite some improvement, the government will still be hard-pressed to eliminate corruption. It will take principled and honest government officials, international support and watchfulness, and the rule of law to help eliminate any widespread corruption. If this issue is not rectified, it will continue to threaten the political stability of the country and lame any future programs or large-scale projects that the government wants to undertake. One needs only to look at examples such as the Sochi Olympic Winter Games for a clear example of what corruption can do to a project. That same level of corruption on such things such as water or electric projects can cause much more damage and have immediate and lasting effects on the population.

## Education

After stabilizing the government, the next task is creating a pros-

perous nation. SDG #4 focuses on Quality Education, and for Afghanistan to be successful in the future, it must implement a national education system. Education will be key to creating a population that can have upward mobility and opportunities that they would not have had before. All prosperous nations have basic education for their populace, and such will also be the most basic requirement to create financial and economic prosperity for Afghanistan. The implementation of a national education system will teach millions of people reading and writing skills, mathematics, and help them to develop critical thinking skills needed to create businesses and work in them.

*“In 1995 UNESCO presented that the developed countries increased their literacy rate more rapidly than the least developed countries. In fact, during the period from 1980 to 1995, the illiterate population decreased by 16 million in developed countries, whereas developing countries the illiteracy increased by 24 million people. It seems that there is a logical relationship between poverty and education, which could explain the persistence of poverty in developing countries lies in the persistence of illiteracy... Therefore, low growth leads to high rates of illiteracy, higher illiteracy means higher rates of poverty, an environment of poverty leads to other problems such as increased violence and corruption, high rates of violence and corruption increase educational lags and decrease the possibilities of schooling, and, thus a high illiteracy rate.” (Andrade, 2017)*

Without education, there will be no economic prosperity, which often makes people desperate. These desperate people are more likely to resort to violence, are more easily radicalized, and have less opportunity than those with an education, which can breed resentment of an educated elite. Many of the problems that Afghanistan faces right now is because of the lack of an educated populace. Many of the fighters of the Taliban are young, uneducated, and frustrated men who are fighting against a government they believe is corrupt and evil. Education would help these people to be able to think for themselves, instead of being told what to believe.

## **Industry, Innovation, and Infrastructure**

Along with education is SDG #9 on Industry, Innovation and Infrastructure. Education will help the population to form their own native and local industries. People will be able to create their own busi-

nesses. Many of these may be small and simple at first, such as a small farm or goat ranch, but small business will enable the people to improve their situation and earn more than they would have otherwise. These local industries will help to spur new ones. The basis of each great economy in the world is built upon the creation of a robust and healthy small business economy. These are the steppingstones that lead to economic prosperity.

Competition bred from these new industries will help the people of Afghanistan to innovate, increasing efficiency and using technology and new techniques to reduce the cost of their business. This innovation will help the country further improve its prosperity. However, it must be emphasized that much of this change will happen slowly. The change in prosperity and innovation will not happen overnight, and it is also important that indigenous industries and advancements not be subsumed by the international community. The country must be allowed to build a stable domestic market for it to maintain its stability.

Infrastructure is another area that needs to be developed. There is a distinct lack of paved and passable roads in Afghanistan. The United States attempted to create a great circle road that would connect many of the regions that was to be a major highway and lifeline. However, the project was never completed, and what sections were completed have now either been heavily damaged by violence or by a simple lack of maintenance. While the road was being constructed and maintained, positive change was seen both in commerce and in the decrease of Taliban activity. However, the road was never completed and in many ways it allowed the Taliban to make major inroads back into areas where they had formerly been pushed out. As Sam Ellis, a reporter from Vox put it:

“But after sixteen years, \$3 billion has been spent on the Ring Road, and it remains unfinished. In fact, it’s rapidly deteriorating. The Taliban have swept back through Afghanistan and now claims almost half the country.” (Ellis, 2018)

The Afghan government would need to start on large scale construction projects to start connecting their many communities together. Roads, rail, and airports will be critical in connecting the nation’s many disparate communities together. These connections will also help foster trade, peace, and prosperity. People will be able to move about more freely around the country, and it will help tie the nation together. It will

also help turn Afghanistan into a top agricultural producer and exporter in the region.

“Afghanistan has significant competitive advantages in agribusiness. Much has been said about Afghanistan’s unrealized potential in this sector over the years and many specialists have highlighted challenges in infrastructure, access to finance, and inadequate legislation as barriers to growth in the sector. Many have also pointed to its potential productivity increase as a way to help alleviate food security issues. With adequate access to finance and infrastructure, Afghanistan should, in theory, be a top exporting country in all agricultural sectors.” (Khalid, 2016)

The opportunity to become such an exporter would not only eliminate the food insecurity that the nation faces, but also give Afghanistan a way to pay for future services and industries. The potential for improvement is within reach, but for that to happen, changes must be undertaken at a massive scale and the government must take leadership of the issue.

### **Access to Clean Water**

The government will also need to tackle the issue of clean water and sanitation. SDG #6 is focused on helping millions of people around the world have access to clean water and sanitary facilities. This issue plagues many of the rural regions of Afghanistan as well, where limited access to clean drinking water and basic sanitation causes many illnesses. These issues are compounded with the aforementioned issues driving instability, particularly in the rural regions where the Taliban have the strongest hold.

“A case study from Kapisa Province, Afghanistan, illustrates how the development of community capacity for integrates water-resource management has enabled economic revitalization and health improvement, which have contributed towards building social cohesion at the family and community level, ultimately enhancing peace and stability in the district...In a post-conflict context, the well-planned and effective management of water resources is essential for economic revitalization through energy provision, agricultural irrigation, and flood management, which improve the living conditions and stimulate employment and economic growth. At the same

time, provision of water and sanitation services reduced the incidence of infectious diseases and contributes to a healthier and more prosperous society.” (Keiru, 2011) “

Lack of clean drinking water in many of the regions of Afghanistan helps lead to disease. Providing access to clean water sources will help to further stabilize the region.

## **Disease**

Disease is another problem that has been a threat to the stability of Afghanistan in the last several years. Despite many of the regions still being under threat of violence, great strides have been taken and healthcare has been on the rise, even in the areas not directly controlled by the central government. According to the World Bank, the rate of children death before the fifth birthday has dropped by 34% from 2003 to 2015. (The World Bank, 2018) Women’s health has also improved, as has the infant mortality rate, even though it remains one of the highest in the world.

However, many are concerned that these improvements are not coming at the hand of the Afghan government, but rather from international actors and NGOs. These groups are unlikely to be able to stay long term in the country and the burden of providing healthcare will then be the responsibility of the Afghan government, which has thus far been unable to provide many critical aspects of healthcare to its citizens. At the moment, it primarily provides financing and coordination for the NGOs present. Eventually, they will need to take the reins and start governing all aspects of the country’s health care industry. This includes health campaigns to raise awareness about issues affecting sanitation and available medicines.

## **Reducing Inequality**

The next aspect upon which Afghanistan must focus to start on the path of prosperity is reducing inequality. SDG #10 focuses primarily on reducing the inequality between different cultural and ethnic groups. Afghanistan is home to many different cultural groups, many of whom do not speak the same language or have the same customs. In order for the country to develop, none of these groups can be marginalized or

persecuted. A nation is only as strong as its people, and Afghanistan is a nation of many peoples and each of those peoples need to have equal opportunities for extremism and instability to finally be put to rest.

Along with this issue, gender equality in Afghanistan has a long road ahead of it. SDG #5 deals in particular with this issue. Afghanistan has historically been a very patriarchal society, with men having most of the control over the lives of their wives and daughters. In more metropolitan areas, women have seen some advances in women's rights, but many of the more rural regions continue to see the suppression of women in both education and employment opportunity. Under the Taliban, women saw widespread oppression, but since the US invasion and establishment of the new government, women's rights became a focus.

“The new constitution recognized women's legal equality; a Ministry of Women's Affairs was set up in 2002 to deal with gender issues; while the mandate of the new Afghanistan Independent Human Rights Commission explicitly included women's rights...The externally led character of these interventions has given rise to fresh debates about gender relations and women's position in Afghan society, which has produced a similar divide between universal rights versus cultural relativism evident in the wider feminist literature. The revered place assigned to women within a local culture is upheld by Quranic teachings, while Afghan women themselves claim to exercise considerable power within the domestic domain. Barakat and Wardell suggest that, regardless of differences of ethnicity, location, and class, women's roles as wives and mothers are central to their identity and take primacy over other possible roles.”  
(Khan, 2014)

This push and pull between the two views of the position of women in Afghan society is not one that can be determined by the international community. It is a question that must be decided by Afghani society. However, one thing that cannot be denied is that Afghani women deserve the same rights and protections under the law as their male counterparts. They have the right to receive an education and to make determinations for themselves. If that determination leads them to decide to be active in domestic affairs, rather than pursuing professional or other goals, then that is their right. Women must have a place in making the future of Afghanistan a bright and hopeful one, and they can only do

that if they are empowered, and in a legal position, protected under law to make their own decisions. Without these protections, the chance for peace and stability in the nation will be retarded.

## Conclusion

While these points do not cover all the issues that face Afghanistan today, the implementation of these first steps will help the country begin to recover from decades of absolutist rule and war that it has suffered. The path will be long and difficult, with progress sometimes coming slowly, or seemingly not at all. Many times, it takes decades or generations to implement sweeping economic and societal change, but with international support and experience, Afghanistan can join the world as an equal and strong partner in the international community.

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# Sustainable Development in Chechnya (or Lack Thereof)

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In 2015, the United Nations announced the 2030 Agenda for Sustainable Development (United Nations 2015). At its core are 17 Sustainable Development Goals (SDGs) crafted to help participating states sustainably develop by 2030. These goals cover a variety of economic, social, political, and developmental issues ranging from ending poverty to ensuring access to clean water (United Nations n.a.). Through the implementation of these 17 SDGs, states will have the opportunity to become sustainably responsible and allow future generations to benefit from the results. Implementation efforts will also allow states to expand sustainability efforts from a government-centric approach to one that encompasses the whole of society while increasing connectivity between different states. While the SDGs are only 3 years old, they provide a helpful scope with which to view different regions. They aid in seeing how sustainable those living within a particular region are, and more importantly, how they can increase their own sustainable development. Like many other states, Russia could stand to benefit from the implementation of the SDGs. In 2015, they announced their support for the 2030 Agenda for Sustainable Development with special interest given to ending extreme poverty and addressing climate change concerns (Lavrov 2015). Such commitment is admirable, but it is worth looking into the regions within Russia to see which, if any, of the SDGs are being implemented. Chechnya is one such region worth observing.

Located in the North Caucasus, Chechnya is a Russian Republic that is dominated by mountains. These mountains have continually had an impact on those living in Chechnya. These mountains have en-

couraged the Chechen population to remain decentralized, as seen by the stark difference in population between the Chechen capital Grozny and Urus-Martan. It is little wonder that power has been centralized in order to maintain some stability. It is also important to remember Chechnya has been a nexus for Islam in the Caucasus and has traditionally been a headache for the Kremlin. Shortly after the collapse of the Soviet Union, Chechnya attempted to withdraw twice. This resulted in two bloody wars between Chechnya and Russia, in which Russia was the victor of both (Anonymous 2018). In 2003, Akhmat Kadyrov came into power, though he was assassinated a year later by Chechen rebels. In 2006 his son Ramzan Kadyrov became the head of Chechnya (Anonymous 2018). Since his ascent to power, Kadyrov has ruled Chechnya with an iron fist and has since been accused of human rights abuses (Anonymous 2018) with the United States sanctioning the leader due to these human rights allegations (Rubenfeld and Talley. 2017). Despite allegations and sanctions, Putin continues to tolerate Kadyrov's behavior (Arutunyan 2017). Perhaps this is because, despite his behavior, Kadyrov has ensured stability and an uneasy peace between Chechens and Russians since Russian military forces withdrew from Chechnya in 2009 (Anonymous 2018). Though that stability is being tested as security concerns are beginning to grow. With the Islamic State's loss of territory and the prospect of foreign fighters returning home, fears have been raised over what will happen as Chechen extremists trickle back into Chechnya after having fought for the Islamic State and gained valuable operational experience (Arutunyan 2018). Radical Islam militants have launched several attacks in the Chechen capital Grozny this year. One attack targeted a Christian Church (Devitt and Tolba 2018) while the others targeted Chechen law enforcement (Grove 2018). These attacks beg the question of whether or not Kadyrov's authoritarian approach is truly curbing unrest or if it is offering short term peace at the cost of long-term stability and development. If Chechnya wants to become truly sustainable and achieve new levels of peace and prosperity that are lasting then an audit of Chechen practices is needed and Chechens themselves need to start thinking sustainably. The UN SDGs provide an effective framework with which to identify how sustainable Chechnya is and what goals they need to begin working on in order to become a sustainable developing republic.

Chechnya has been criticized for human rights behaviors as reports have surfaced of minorities being persecuted (Rubenfeld and Tal-

ley. 2017). These abuses have forced some Chechens to flee Chechnya for Moscow, Russia and perhaps other areas for protection. Kadyrov has launched a campaign of persecution and intimidation in an attempt to curb this, even as he promulgates an ideology of “Chechen nationalism, devotion to President Putin, Russian patriotism and Sufi Islamism (Anonymous 2015).” Such a message risks leaving Chechens confused and encouraged to draw lines between themselves and others on religious and/or ethnic grounds. On the one hand, Chechens are being told to support Russia and to specifically support Putin (Anonymous 2015). However, on the other hand, they are being told that their Chechen identity trumps their Russian identity and are being encouraged to be nationalistic in their allegiance to Chechnya (Anonymous 2015). Further complicating all this is the fact that they are being encouraged to advance their Islamic beliefs. While the encouragement of religious beliefs is completely acceptable, it isn’t when authorities are calling for the death of those who practice Wahhabism and “regularly use violence against individuals displaying Salafi symbols (Anonymous 2015).” Wahhabists are not the only ones who are the target of violence and possibly other forms of persecution. Women are becoming subjected to an increasing number of grievances as they are the victims of “honor killings, underage marriages, and violence (Anonymous 2015).” Despite these social persecutions, there is little that can be done in terms of justice. Kadyrov has been allotted the privilege of operating outside the bounds of Russian law with impunity. Judicially those judges who do attempt to rise up and offer justices to minorities being persecuted are forced to back down due to intimidation from local authorities (Anonymous 2015). Courts outside Chechnya have attempted to ameliorate the situation. For example, “The European Court of Human Rights has issued almost 300 judgments on Chechnya (Anonymous 2015).” However, without any authority to execute these rulings, little will change and such rulings will amount to little more than lip service.

There are small numbers of Chechens who have criticized Kadyrov for a variety of reasons; however, his regime has developed a unique, albeit oppressive, way to silence those who criticize Kadyrov. Chechnya has begun to practice a method of publicly shaming critics of the Chechen government on public television (Robinson 2018). Multiple instances have been reported of Chechens criticizing Kadyrov’s government for any number of reasons, only to be quickly brought on television where they are berated and forced to apologize for their comments

saying they were unfounded and/or meant to slander Kadyrov (Robinson 2018). Public shaming serves to slander critics and silence potential critics while attempting to present a government that is infallible. Their scope of what is considered worthy of public shaming continues to grow “Chechens have apologized on screen for a wide range of perceived offenses, from spreading rumors about vaccines and child abductions to complaints about local officials, to allegations of human rights abuses.” When critical of the Chechen government there are only bad options to choose from: go on television and leave a social pariah with your reputation in tatters or face the consequences (Robinson 2018). Those consequences often expand beyond the critique to include family members (Robinson 2018). While it has only been a few months since this practice of public shaming has been reported on, it is highly likely that this practice will result in the silence of critics with legitimate grievances regarding the state of things in Chechnya. Continuing this trend of silencing critics, Kadyrov announced in fall of 2018 that he would ban the entry of all human rights groups into Chechnya claiming that they only sought to harm Chechnya (Farber, Tetrault, Balmforth, and Roche 2018). This announcement came after numerous human rights groups criticized his many reported cases of abuse. The public shaming of Chechen critics and the banning of human rights groups may help Kadyrov keep power in the short term, but in the long term, such moves will result in a dysfunctional society that risks being socially backwards. Such harsh tactics also run the risk of pushing Chechens into the arms of separatist movements and extremist organizations providing personnel to carry out potential attacks on Chechnya while silencing those Chechens who truly wish for a prosperous and peacefully developing Chechnya.

Chechnya has remained economically dependent on Russia for years (Hille 2018). It is no secret that the Chechen economy lives and dies by Russian subsidies. Regardless of what may or may not be said Kadyrov is reliant on Putin for his resources. That may be why Kadyrov rules with an iron fist and justifies asking for large subsidies: because without a stable Chechnya, Kadyrov has nothing to offer Putin. However, this relationship goes both ways as last year Chechnya was exempt from funding cuts taking place across Russia, underscoring the value of Kadyrov’s regime in the eyes of Putin (Fuller 2017). Russia has been offering Chechnya funding since before Kadyrov became head of the Chechnya Republic. From 2002-2012 Russia offered Chechnya \$7.8 billion in funding for post-conflict reconstruction projects, though they

supposedly allowed for some of the funds to be reallocated for Kadyrov's personal use after he came to power (Fuller 2017). To date, it is estimated that 80-82 percent of Chechnya's annual budget comes from subsidies (Fuller 2017). Attempts have been made to improve Chechnya's economy but have at best had limited success and at worst failed completely. This was the case with the creation of a Special Economic Zone in Chechnya, which was meant to incentivize foreign investment but has not done much (Fuller 2017). Despite these failures, Chechnya continues to project economic growth through the situation on the ground runs contrary to such projections, and "locals say the figures are misleading, unemployment remains high, and they suffer from egregious corruption and a parallel system of economic relations reportedly based on extortion and informal taxes and dues (Anonymous 2015)." This parallel economic system is the result of a combination of subsidies being transferred to a separate fund and public sector employees being forced to donate 10% of their salary to this same fund (Fuller 2017). While the fund was supposedly created for charitable purposes and to assist in the creation of new jobs there is a belief that this fund is also being used for Kadyrov's personal life (Fuller 2017) though this belief lacks any concrete evidence. Failure to grow the Chechen economy might change as Chechnya acquired control of an oil company in Chechnya (Triebert 2018) giving Chechnya the opportunity to grow its economy through oil sales, though this move does not come without risk. Economic growth could result in a more independent Chechnya and diminish some of the control Putin has over Kadyrov (Goble 2018). Though even with this potential boon to their economy, Chechnya still must grapple with corruption and lack of foreign investment, both of which could limit any potential economic growth. If Chechnya can find a way to overcome these issues as well as develop Chechen oil fields, many of which have fallen into disrepair, then Chechnya may have a real opportunity to grow their economy.

Chechnya is a region that is not sustainably developing. It is politically oppressive, socially backwards, economically dependent on Russia, and has security challenges brewing below the surface of their oppression. With the SDGs, Chechnya could develop into a region that is far more capable than it currently is. While all 17 SDGs are valuable, it is integral to identify no more than a few SDGs to work on at a time, depending on the needs of the state and/or region, otherwise one runs the risk of being overwhelmed and only being able to partially complete any one of the SDGs by 2030. Chechnya would be best served by

focusing on the following 3 SDGs: SDG 5, SDG 8, and SDG 16 (United Nations n.d.). SDG 5 Gender Equality (United Nations n.d.) will allow Chechnya to address its growing gender inequality issue. The more women are oppressed the more Chechnya will stunt their growth as they constrain women from being a part of Chechnya's future and limit valuable contributions from these same women. SDG 5 would bring equality to Chechnya and give women a voice allowing them to help shape Chechnya's future. The pursuit of this goal could also help eliminate persecution and killings of other minorities in Chechnya which have been the source of international criticism. By implementing SDG 5 Chechnya could limit cause for criticism and show that they are socially mindful of challenges and actively seeking solutions. Kadyrov might stand to benefit on a personal level as a cessation of persecutions could give the United States reason to limit their sanctions on him. SDG 8 "Decent Work and Economic Growth" (United Nations n.d.) is needed to help build up Chechnya's abysmal economy. Without a strong economy, Chechnya will continue to economically be at the mercy of Moscow and combined with social and political challenges being faced run the risk of festering extremism. Russia as a whole will benefit as they can lower the subsidies being sent to Chechnya and redistribute them to other parts of Russia whose economies may be struggling as well as helping to counter violent extremism. While both of these SDGs are extremely important neither of them will likely make much progress without the implementation of SDG 16 "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels" (United Nations n.d.) In many ways, the implementation of SDGs 5 and 8 hinge on Chechnya's ability to implement this SDG. Without it, corruption will persist which will help drive a weakened economy and persistent gender inequality. While the cessation of persecutions may be encouraged through SDG 5 they will be better addressed by SDG 16 as it addresses human rights abuse and helps provide a platform to build human rights on. The construction of strong institutions will also help encourage human rights and will allow for venues where human rights abuses may be answered or at least will incentivize Chechnya to improve their human rights track record by providing a system of accountability. It is difficult to single out one SDG of the three that have been identified, however, Chechnya would benefit the most by focusing on SDG 16 while placing SDGs 5 and 8 into a secondary role. As SDG 16 progresses it will likely create opportunities for further implementation

of SDGs 5 and 8 and help lead to the integration of all three SDGs mentioned putting Chechnya on the road to sustainable development.

Chechnya is a region full of potential. Unfortunately, that potential has been stunted by unsustainable policies. Both Chechnya and Russia overall stand to benefit from a successful implementation of all 17 SDGs and it starts with the implementation of the three SDGs previously discussed. As Chechnya becomes sustainable, drivers of violent extremism may very well go down, eliminating recruitment opportunities and limiting terrorist organizations ability to effectively operate. Combined this will help usher in an era of peace and prosperity and is that not worth pursuing?

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# Potato Production in Peru

By: **Vanessa McCann**

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The Andean mountain range in Peru is a vital epicenter for a variety of crops which are exported globally; specifically, the potato crop, one of the most prominent crops in the world, carries a long history in the Andes (Sayre, Stenner, and Argumedo 2017). Most importantly, the potato crop is the most essential crop in Peru; it was historically responsible for the Andean people's survival throughout the Andes mountains. Due to the importance of the crop to Peru's history and modern culture, it has a large role within sustainable development in Peru. Internationally, the global impact this crop has addresses hunger and poverty throughout the world. Exploring the role of the potato crop and its importance, in comparison to other crops harvested in Peru, may also explain additional matters related to sustainable development within the country. Agricultural research centers around the world, as well as focused research institutions in Peru, provide efforts to sustain and increase the benefits of Peru's essential crop.

Farmers from the Andean mountains have led the world with over 8,000 years of experience in harvesting potato crops (Sayre, Stenner, and Argumedo 2017). Historically, the Inca Empire in Peru needed a food which had a lasting shelf life, nutritional value, and that traveled well, in order for the people to travel and endure well through the

extensive distance of the Andes (Romero 2016). The potato crop was a crucial necessity for the Andean people to survive year-round, it was the aid for survival for the constant physical labor which was a part of their everyday lives (Duke, Vasquez-Sanchez, and Rosales-Tham. 2018). Its vital importance was born when critical use was found to benefit the lives of the Andean people, which would later advance to benefit people from all over the world. This crop has become a symbol of tradition, which Andean agricultural communities carry with pride. Farmers continue to maintain their traditional knowledge throughout centuries of harvesting potato crop varieties, increasing crop diversity and their cultural uses.

Today, this crop continues to be fundamental in the Peruvian diet. Throughout Andean countries, there is an annual consumption per person of 100-200 kilograms of potatoes (Gianessi and Williams 2011). Comparatively, the potato crop can yield over twice as much as grain crops, as well as use far less water to food amount produced, than any other crop (CIP n.a.). In rural areas of Peru, such benefits are immense to the people who rely on the climate and land to feed their families and communities. Applying this idea of growing a nutritious crop, which yields an above average amount as well as uses less water than other crops, to other developing nations is groundbreaking for the mission of ending world hunger. The International Potato Center (CIP) in Lima, Peru dedicates a large portion of their organization to research related to how the crop can be grown in other climates, altitudes, and environments. As a research-for-development organization, the institute aims to innovate solutions to create and increase access to nutritious, as well as affordable, food (CIP n.a.). The research, which is being carried out to best secure a future with food and reduce poverty in developing countries through a national research institute, is highlighted in the mission of the International Potato Center, which is to aim toward a healthy and resilient world (CIP n.a.).

Within the mission to end hunger in developing countries, including areas throughout Peru, the national agricultural research currently being performed in Peru has focused on nutritional objectives; to not only feed the hungry, but to provide them with a nutritious and sustainable diet for the long-term, one they can continually produce and sustain themselves (Rose, Burgos, Bonierbale, and Thiele, 2009). For example, using a science-based approach to the potato crop, biofortified varieties are studied at the International Potato Center

(CIP) to reduce micronutrient malnutrition by improving the nutrients found in the crop (Rose, Burgos, Bonierbale, and Thiele, 2009). Nations who are or have adopted research findings can directly benefit through the improvement of the crop. Thanks to conducting research with beneficial results, Peru has been an example to other developing nations around the world, which are also attempting to achieve similar sustainable development goals.

With the advancement of technology and infrastructure, highland farmers have been able to connect with one another creating a dynamic urban market and reducing marketing costs (Horton and Samanamud 2013). Expansion is a modern concept through creating partnerships for a more successful agricultural sector. Although the agriculture in Peru has been vital and positive to the country's economy and sustainability by reducing the poverty rate, malnutrition and poverty still widely exist throughout the Peruvian rural highlands. The economic and cultural importance of potatoes cultivated in Peru give farmers a competitive advantage to widen their agricultural efforts on a national and global scale. The Papa Andina Initiative was created in 1998 by the International Potato Center (CIP) to reduce poverty within the Andean region by combining efforts to involve smallholding farmers with the national market of value chains (Tobin, Brennan and Radhakrishna 2016). The exposure to large market chains for farmers creates a large impact on the rural communities by allowing growth of the local agriculture sector, therefore potentially decreasing the poverty rates. It is a continuous process only sustainable by research and non-governmental organizations willing to step in.

Furthermore, a Peruvian NGO, FOVIDA, based in the region of Junín in the Andean highlands, has been promoting efforts for the integration of the Andean community with value chains, by giving the opportunity to native smallholding farmers to participate in a farmer association (Tobin, Brennan and Radhakrishna 2016). Membership in this association allows farmers to increase crop production by having access to large scale markets otherwise unavailable to local small farmers. For example, large enterprises can benefit from purchasing locally and, in return, benefit smallholding farmers by them receiving funds to continue their production. FOVIDA, directed by local community leaders, has also been responsible for joining members of the farmers association to transnational corporations (Tobin, Brennan and Radhakrishna 2016). From a domestic partnership to a global market, the Andean region can have a large impact for generations to come.

This national NGO is involved in working with 23 communities and 11 districts within the Andean region; the fact that it is member-based creates a two-way relationship between the organization and the farmers.

Although overall Peru has the same harvesting area today than they did half a century ago, production has actually doubled (CIP n.a.). The high altitude of the Andes was a factor which greatly benefited the people in the Andes due to its ability to grow at zones of over 4,000 meters above sea level, as well as endure climate extremes; as long as altitude climate remains at certain levels, production will not be affected. However, harvesting is still possible in different altitudes and climates, and determined through research at national and international institutes. This has led developing countries to adopt or increase the harvesting of potatoes in a variety of climates around the world. Now, over half of production of the potato crop is accomplished in developing nations, which benefits the country directly and transnationally to where the crop is exported to (CIP n.a.). This monumental impact is paramount to the effort of ending hunger and starvation throughout the globe. Technological change has also been responsible for improvement in production and harvesting; technology improvement has not only connected these communities to one another but to large-scale organizations as well.

The improvement in infrastructure, including roads connecting communities, has given physical access to food to rural communities who otherwise must live off most of their own harvesting. However, many families may not be able to travel as often to towns where local markets are, due to financial restrictions. Travel frequency to the local markets may range from twice a month to twice a week (Tobin, Brennan and Radhakrishna 2016). Thus, it is vital for communities to have access to harvesting crops that are nutritious and resistant to drastic climate changes. Without applying agriculture in such small communities, people will be vulnerable to poverty and hunger until solutions are applied. One reason for the vitalness of harvesting the potato crop is that, specifically during winter months when harvest becomes more difficult, communities are able to use stored potatoes in order to survive. The crop has been proven to be a food high in carbohydrates, which are essential and necessary to the dangerous scarce diets some communities face. Self-produced food is essential to people in rural areas throughout Peru, and the potato crop allows those benefits needed

to thrive.

Though there still is room to grow within the agricultural sector of Peru, the potato crop faces several threats which are continually challenging the Andean communities, therefore affecting partners connected to the communities. The late blight disease is currently the biggest biological restraint to potato production. Caused by the fungus *Phytophthora infestans*, it infects crops within days after contact and has the capability to wipe out an entire harvest dangerously fast (Giannessi and Williams 2011). Consequently, research is imperative through the International Potato Center (CIP) to find science-based solutions that fight back against the *Phytophthora infestans*. So far, Andean farmers have been using fungicides as their primary method to control late blight, but this is an additional financial strain to smallholding farmers who are financially restricted; however, it is necessary to prevent total loss of the crop.

Similarly, a study of cultural and agricultural changes occurring due to climate change was conducted in 2016 by the Potato Park. This analysis involved documenting farmer fields across several ecological zones, which had farmers who had previously worked with researchers from the International Potato Center (Sayre, Stenner, and Argumedo, 2017). Surveys showed that farmers have been moving their fields upslope on the Andean mountain range to better preserve the varieties of potatoes which best grow under colder weather. However, challenges this move presents are a lack of fertile soil, increased amount of rocks in the land, difficulty in accessing the fields, as well as several other issues. Agricultural challenges and threats brought by uncontrollable circumstances to the Andean community create a domino effect by also making an impact on farmers income, the community economy, and changes to cultural traditions that have not been drastically changed in thousands of years.

Another challenge which threatens the potato crop, as well as other crops, in Peru is climate change. Farmers are attempting to adapt to quick changes of the climate in such high altitudes, making agricultural land vulnerable to global warming. Through thousands of years of traditional agricultural work, climate change presents a new challenge to the Andean community and the rest of the world. Climate change so far has affected Peruvian agriculture through unpredictable rainfall patterns, floods, droughts, extreme weather, and threatening

water sources (Sayre, Stenner, and Argumedo, 2017). With 70% of the earth's tropical glaciers in Peru's Andes region, global warming presents an immense threat; the relatively rapid disappearance of the tropical glaciers affect the freshwater sources, which farmers have relied on for thousands of years (Sayre, Stenner, and Argumedo, 2017).

Through collective efforts with the Biocultural Heritage Territory (BCHT), native farmers are better adapting to the increasing climate change impact (Sayre, Stenner, and Argumedo, 2017). More specifically, the Potato Park Biocultural Heritage Territory is directly run for the Andean community in Cusco, Peru. Part of the work from the organization is the development of management plans and services to combat unpredictable change (Argumedo 2013). Programs strive to apply resilience methods to communities affected by climate threats to best function despite ecosystem and climate disturbances. Organizations like Association ANDES and the Potato Park focus on global policy to receive national and international support for the livelihoods of Peru's agricultural ecosystems in the Andes. Equally important, the Potato Park organization has created national agricultural benefits including food and seed security. With biodiversity-based microenterprises, meaning combining conservation of biodiversity while striving to lift communities out of poverty, productivity is increased along with higher income being generated due to the distribution (Sayre, Stenner, and Argumedo, 2017). The connection between smallholding farmers and national or global enterprises is now an imperative partnership to protect agriculture and biodiversity in Andean communities.

Within the Biocultural Heritage Territory, three countries currently lead organizations in their respective countries and are all branches connected to BCHT: Peru, China, and Kenya (Argumedo 2013). Together, initiatives of these countries are part of the Smallholder Innovation for Resilience Project (SIFOR), which is run by Asociación ANDES and the International Institute for Environment and Development (IIED), both located and run in Peru (Argumedo 2013). BCHT alone focuses on efforts of adaptation to climate change impacts by introducing community-led action research; this includes education of potato diversity, biocultural heritage support, and participation in policies related to defending the rights of smallholder farmers and indigenous people. Initiatives formed by BCHT are supported both nationally and internationally (Sayre, Stenner, and Argumedo, 2017). These organizations and more are brought together by a cultural and

agricultural commonality; although separate entities keeping a connection to one another, specific research can be conducted by each organization to a focused area and later brought together to make the greatest impact in agricultural-focused nations.

Moreover, ecosystem-based adaptation (EbA) is being applied by several national and international organizations toward the ongoing efforts related to domestic and global policies for climate change and development. The United Nations Convention on Biological Diversity (CBD) defines EbA as the “use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change as part of an overall adaptation strategy” (Reid, Argumedo, and Swiderska, 2018). These types of adaptation efforts are used mainly for mountain ecosystems, in this case directly applying to the Peruvian Andes. Criteria needed for an effort to be defined as an ecosystem-based adaptation (EbA) must include: reducing population vulnerability of climate change, increasing the resilience of biodiversity, and not harming biodiversity or ecosystem services (Nyman, Abidoje and Rossing 2015). Measures of the projects in Peru, which provide a direct benefit to the potato crop, include the priority to restore water channels and secure water supply in reserve communities, therefore protecting communities and providing an increase of resilience to severe weather changes.

Finally, farmers across the Andean region mountain range provide a culture which has revolved around the potato crop for thousands of years and has represented the Andean communities on a global scale most recently. The role of potato crops in Peru stretches much further than nationally and is affecting nations all over the world through historical traditions, national research, and adaptation to presented climate challenges. Globally, potato biodiversity has directly influenced a change in feeding the hungry, harvesting under different climates and altitudes, and additional research.

In conclusion, the objective from potato biodiversity from Peru continues to thrive throughout challenges presented. Combining traditional and local knowledge with modern science-based research creates a stronger Andean community, benefits communities in poverty across the globe, and allows research of biodiversity to advance. Significantly, impact from the involvement of organizations in the Andean community has the capability to make a significant difference in sustainable development for Peru as a whole. Partnership with

organizations and enterprises is necessary and imperative for Andean communities to thrive. The potato crop will continue to stand out by reaping the greatest benefits through agriculture and research of the crop.

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# Sustainable Development in Iraq

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Like many countries of the Middle East region, Iraq has a very hot and dry climate that can be very hostile to the people living there. Additionally, it can be difficult to grow certain crops, as well as retain large amounts of water needed for the population. Especially in the summer months of Iraq, it is rare to see rain fall, and the whole year averages to about 4 to 7 inches of rain fall (Mandi 2017). Though this arid climate can prove difficult to produce and maintain many resources, it is something that Iraq and the world continue to work towards. It is important to note that Iraq is similar in climate to the rest of the Middle Eastern and North African countries. Often, sustainable development goals in Iraq also apply throughout the MENA region.

The United Nations (UN) has worked hard to make sure that countries are creating sustainable development goals in order to maintain secure living for the future. These goals are important to the UN as well as the rest of the world. Effective sustainable development will ensure that “future generations can live in peace and harmony with other nations and where all resources are utilized in a sustainable manner catering to the well-being of Iraq’s current and future generations and ecosystems” (WSSD 2018). Currently, the UN along with Iraqi organizations and government have been creating these goals that will be applied throughout Iraq at the national and local government levels.

In 2002 and 2012, the World Summit on Sustainable Development was held for the second and third time to discuss different sustainable development strategies for the countries of the world. During these summits, Agenda 21, the action plan for worldwide sustainable development that was a result of the previous summit, was reinforced

and amended. Reading through the Iraq country profile from the 2002 Johannesburg summit, it can be seen that Iraq does not have many international goals for sustainable development. Iraq's sustainable development goals are determined more internally, and they are focused on specific areas. These areas include goals to maintain fresh water resources, and education towards sustainable development goals in order to keep people informed about how to maintain the environmental status. "Environment and sustainable development curricula have been integrated into education at both primary and secondary levels. Programmes for educating the media are undertaken in cooperation with television and radio" (United Nations 2002).

Iraq has been relatively unenthusiastic about joining with the global agenda for sustainable development. "Iraq is perhaps the last in the list of nations to join the process of sustainable development" (Anonymous 2012). The purpose of this essay is to discuss the different challenges to sustainable development in Iraq as well as consider the options of how to better maintain resources and maintain the environment in Iraq. It will focus on particular sustainable development topics that are important to the Middle East, and Iraq specifically.

Many groups and organizations within and outside of Iraq have come up with goals to help Iraq's sustainable development. For example, The Global Initiative Towards a Sustainable Iraq (GITSI) is a partnership that is dedicated to promoting and planning for sustainable development in Iraq. One of their main goals is the "promotion and contribution to the formulation, development and implementation of a National Sustainable Development Strategy Framework (NSDSF) for Iraq" (Anonymous 2012). GITSI also pushes for the creation of a fund that will make these goals achievable, campaigns that will raise awareness of the issues, cooperation between the government of Iraq, inter-governmental organizations, public authorities, and private businesses (Anonymous 2012). These goals are built around the United Nations Agenda 21, which outlines some of the main concerns in Iraq with regards to sustainable development.

The following are a few listed: maintaining and protecting a fresh water supply which involves quality control and protection from chemicals and waste, maintaining human health and providing a safe environment for people to live without poverty, and proper treatment of the atmosphere such as air quality (Anonymous 2012). Other import-

ant topics not mentioned there are the importance of mountains in the region as well as maintaining healthy biodiversity throughout Iraq. This essay will discuss sustainable development problems, goals, and solutions for the water, land, and air in Iraq, as well as the importance of sustainable mountain development. Focusing on these four areas is crucial to life and health in Iraq.

## Sustainable Water Development

There are many reasons for the water to be a concern in Iraq. It is a dry, desert climate where water is scarce. The water that is there tends to go fast and very commonly becomes polluted and unusable. “Due to the collapse of sewage treatment systems, huge quantities of raw sewage, mixed with industrial waste (as there is no separate system for industrial discharges) are being discharged into water bodies every day” (UNEP 2003a). There are other factors that go into depleting usable water such as energy use, or war that devastates water supply. “Damage from the Iran-Iraq war during the 1980’s, the 1991 Gulf War, environmental mismanagement by the former Iraqi regime, the economic impact of sanctions and underlying environmental stresses have resulted in severe damage” (United Nations n.a-a.). Therefore, the UN treats preservation of Iraqi water supply as a priority. After the war in 2003, it became important to reanalyze the water in Iraq and take action in cleaning the water for better sustainability. “Initial field visits by the UNEP team indicated the need to urgently assess the level of contamination at a number of industrial sites” (UNEP 2003c). In 2005, UN Environment Programme (UNEP) conducted a test in Iraq sampling bodies of water to determine the cleanliness of the water. “UN Environment remotely managed the assessment of five contaminated industrial sites by teams of Iraqi experts from the Ministry of Environment” (United Nations n.a-a.). During this assessment, the UNEP found that the contaminated sites were still at a stage where they could be cleaned up if quick action were taken. It was decided by the UNEP that “Urgent action should be taken as soon as possible” (UNEP 2003c). Because of these test results, UNEP was granted funding from the UN Iraq trust fund in order to commence cleanup operations. It was also found that the Mesopotamian Marshlands in Iraq were in very poor condition, almost destroyed from “drainage work and upstream damming” (United Nations n.a-a.). This caused a large crisis in Iraq due to the many people who were displaced and forced to move because of lack of water. This is a good example of the importance of maintaining

clean and usable water in Iraq.

## Water Sources in Iraq

Water in Iraq is quickly evaporated by the dry arid climate. Thus, it is hard to hold on to water produced by rain. Groundwater recharge zones are located in the north eastern parts of Iraq. Water is drained mostly with water pumps and treatment plants in the large industrial areas and by wells in the less populated areas (UNEP 2003c). There are two main rivers that pass-through Iraq. The Euphrates and Tigris rivers provide much of the water that is used for irrigation for fields in Iraq. Dams are built to control the flow of water and for use for agricultural needs. The Euphrates river comes from Turkey, and much of the water received from it is shared with other countries in the Middle East. Iraq also draws water from underground fresh water aquifers. Mountains in Iraq can also be a good source of water. Mountain ranges such as the Zagros mountains collect snow in the winter seasons, which drains through valleys and can be used for water supply.

## Water Problems in Iraq

Iraq has run into many problems concerning water consumption and sustainability. The wetlands have been drained to the point that they were almost completely destroyed back in 2003. This was largely due to the political unrest in Iraq at that time. “The vacuum created by the collapse of the Iraqi government left the centrally controlled hydraulic and irrigation drainage works without regular supervision” (UNEP 2003b). As mentioned earlier, the UN has worked to fix this problem with funding from the UN Iraq Trust Fund. “Positive signs of an environmental upturn in the marshlands started to emerge almost immediately following the end of the war in May 2003, as arid land was re-flooded for the first time in a decade” (UNEP 2003b). The marshlands have completely recovered since that time and are being monitored by Iraq environmental groups as well as the UN.

Another current problem with Iraq water is pollution and contamination from waste and sewage. There has been a lack of waste treatment and disposal systems that have been “exacerbated by the ongoing conflict and the impact of sanctions” (UNEP 2003a). This has caused many hazards to human health and dangers to the environment. Military waste, landfills and big industry waste are among the

most common causes of waste that get into the water supply. Despite these problems with contamination, “There is very little information available on waste management practices in Iraq” (UNEP 2003a). It is likely that Iraq is not emphasizing enough the importance of proper waste removal and treatment.

The effect of oil on Iraq’s water supply has been another problem concerning the sustainability of water in Iraq. Like many other countries in the Middle East, Iraq has a large amount of oil and thus relies on it for much of its economy. Oil operations require high maintenance in order to control it and keep it from contaminating other resources. “Oil industry maintenance standards fell due to a lack of spare parts under the UN sanctions regime” (UNEP 2003a). The water supply is in danger of oil spills and oil well blowouts, which can lead to widespread contamination. Because of the lack of resources to better maintain these oil operation standards, oil is contaminating the water in Iraq (UNEP 2003a). If actions are not taken to improve technology, protect aquifers, and properly dispose of oil waste products, Iraq will continue to have a growing water crisis.

The last problem to consider when it comes to Iraq’s water supply is the salinification of water. The fields in Iraq are watered by the Iraqi rivers. Due to the dry and arid climate, water evaporates and often tends towards salinity. Adding to this problem are “poor irrigation practices” (UNEP 2003a) that have been a problem in Iraq throughout many years. Iraq still has not perfected these practices, but they recognize that it is a problem and are working to correct it.

Therefore, water in Iraq has become a very large problem. In a desert climate, water is crucial to a successful country and the well-being of its people. “The amount of water available per person per year decreased from 5,900 cubic meters to 2,400 cubic meters between 1977 and 2009. The Tigris and the Euphrates rivers... could dry up by as early as 2040 if current trends continue” (Iraq STI 2017).

## **Sustainable Development for Life on Land**

Just as water is important in the arid deserts of Iraq, so is the ability to maintain life on the land such as plants, animals, and, of course, people. In this section, it can be seen that many of the problems that are affecting the water are also affecting life on the land such

as pollution, waste materials, and improper disposal of dangerous chemicals, wartime destruction and the dry climate. “Today we are seeing unprecedented land degradation, and the loss of arable land at 30 to 35 times the historical rate” (United Nations 2018). With the modern use of industry and the very large and growing population, there is a high demand of resources, which causes the land to be stripped of many natural resources. “Drought and desertification is also on the rise each year, amounting to the loss of 12 million hectares and affects poor communities globally” (United Nations 2018). As discussed before, desertification is especially a problem in Iraq that effects the production of food and the sustaining of fresh water sources. Additionally, the Iraq State of Environment Report in 2014 “estimates that 5 to 8 % of Iraq’s GDP is lost annually to environmental degradation” (Iraq STI 2017). According to the United Nations, this has been the cause of the extinction of many breeds of animals and continues to cause a problem threatening the extinction of many other breeds. Without a sustainable environment for a large biodiversity of plants, animals, bacteria, etc., Iraq will not be able to support human life, especially for larger populations.

In 2003, The Iraq governing council chose its new cabinet members, “which included the appointment of a Minister of Environment, Mr. Abdul-Rahman Sidiq Kareem” (UNEP 2003b). Since this time, there have been new responsibilities given to the Ministry of Environment to oversee protection of the environment. Regulations have since been in place to help control environmental use and preservation. This could be considered as a big step towards better sustainable development in Iraq. Along with the Ministry of Environment, there are other government offices that take on responsibilities of environmental preservation such as health, safety, oil management, agriculture, and more (Iraq STI 2017). In 2014, the Iraqi Ministry of Environment met with UNEP in order to address the main challenges to sustainable development and come up with solutions to the problems. After these meetings, Iraq has shown more cooperation with the UN to increase sustainable development. “For the first time, Iraq released its State of the Environment and Outlook Report.” This included “Information in the report highlights serious challenges to sustainable development in Iraq” (Iraq STI 2017). The Iraqi government agreed to cooperation for a five-year plan to make the necessary changes for environmental management.

## Hunger

Perhaps one of the most important products of the land is food. The United Nations is very concerned with the large amount of hunger that is in the world. They have set worldwide goals for every country to maintain a rich food supply and completely eradicate hunger from all countries. These goals involve plans to protect biodiversity and plant life which bring a large amount of food to the population. “Plant life provides 80 percent of our human diet, and we rely on agriculture as an important economic resource and means of development” (United Nations 2018). Additionally, population is continuing to increase at a quicker rate due to advancing technology and building of industry, which increases the problems dealing with food resources. “The population is expected to grow to almost 50 million people by 2030, exacerbating these pressures even further” (Iraq STI 2017). In order to fix hunger problems in Iraq, action must be taken to decrease drought and desertification. Plans must be created in order to preserve resources. Scientists should continue to find more efficient ways of keeping the environment suitable for food production. The UN suggests that “Urgent action must be taken to reduce the loss of natural habitats and biodiversity” (United Nations 2018).

## Oil

Like many middle eastern countries, Iraq relies primarily on oil mining and production for their economic success. There is a large amount of oil to be found in Iraq. The Department of Energy estimates that the Iraqi area has about 112 billion barrels of oil that have been discovered. But it is likely that there could be many other oil reserves that have not been discovered. In fact, some researchers have predicted that there could be around 200 to 300 billion barrels of undiscovered oil reserves (Luft 2003). This amount of oil has given Iraq a huge potential for economic success and power in the international system. However, there continues to be struggles that keep Iraq from its full potential. Many of the wars in the recent past have involved oil, making it an important topic to focus on when considering life on the land.

“In the 1991 Gulf War, key infrastructure and industrial sites were targeted by coalition air strikes. Important targets included the arms industry, power generation, oil refineries and export pumping stations” (UNEP 2003c). These attacks have presented many problems

to the oil industry in Iraq including adding more pollution to the environment and wasting valuable resources. As mentioned before, the damage caused to refineries and pumping plants is devastating to Iraq's water resources as well as the land and air. It can be especially bad when the oil is burning as often happens during and after attacks. "The sites destroyed were abandoned and not cleaned up and so represent a contaminated site legacy of their own" (UNEP 2003c). In 1991, during the conflict between Iraq and Kuwait, a common strategy was to damage or waste oil products thus both damaging the economy and polluting the environment. Soldiers would damage wells allowing oil to spill onto the rest of the land. Other oils were set on fire causing all the oil in the wells to burn and pollute the air. The oil let off many toxic chemicals such as "mercury, benzene, toluene, ethylbenzene, xylenes (BTEX) and polyaromatic hydrocarbons (PAHs)" (UNEP 2003a), which are difficult to clean up and control. Additional pollutants were added to the air through massive plumes of smoke. Since 1991, there have been other conflicts that have involved targeting oil wells, such as the conflict with the Islamic State in Iraq and Syria (ISIS). Problems caused by these past situations are often still dealt with today.

Despite these oil problems, Iraqi refineries have recently been very protected, and Iraq has been relatively efficient in controlling oil operations and maintaining environmental safety from oil hazards. "Any existing problems are expected to be at least partly contained by site management" (UNEP 2003c). Additionally, more money has been put into the maintenance and safety of the refineries. This could mean a cleaner future for Iraq.

## **Sustainable Development in the Air**

Another important part of effective sustainable development is keeping the air clean. Air quality affects the lives of many people, especially those who live in the populated or industrial areas of Iraq. Countries like Iraq are particularly prone to air pollution problems because of their desert climates. There are few trees to produce clean air and little rainfall that will take pollutants out of the air. Additionally, Iraq has seen large amounts of conflict over the past years that have done much damage to the air quality. For Iraq to have effective sustainable development for the air, there must be systems in place to decrease air pollution.

Like water pollution, air pollution is not as dangerous to plants and other resources as it is dangerous to the people. Long term exposure to dangerous chemicals in the air caused by smoke and other gases, can cause serious trauma to the lungs and sinuses. Even short-term exposure can cause lung problems. “The minute dust particles can make their way deep into the lungs and stay there, causing long-term health risks” (Anonymous 2011). The pollution is so dangerous that it has been responsible for numerous birth defects to newborns. “Air pollution caused by war may be a major factor in the numbers of birth defects and cancers being reported in Iraq and other war zones” (Vidal 2016). Currently, the air pollution levels in Iraq are very high, making it a very dangerous and important issue in Iraq.

## **Conflict Pollution**

Many of the air pollution problems currently dealt with in Iraq are caused by the continuous conflicts. “While Iraq is still recovering from the environmental impact of both Gulf wars, it now faces new environmental problems caused by the current conflict against the Islamic State (IS)” (Zwijnenburg 2015). Many battles with the Islamic State have happened around oil refineries, industrial areas, and cities (Vidal 2016). Burning oil as well as other toxic chemicals are released into the air through these battles causing large dark clouds of pollution. The Islamic State purposely targeted these places in order to cause maximum damage to their targets. Iraqi citizens are not the only ones to be affected by this pollution, but also visitors to Iraq such as U.S. soldiers that participate in fighting in Iraq. “Human exposure to heavy metals and neurotoxicants from the explosion of bombs, bullets, and other ammunition affects not only those directly targeted by bombardments but also troops and people living near military bases” (Vidal 2016). The common cause for these soldiers’ health problems were Iraqi burning pits, which would burn toxic chemicals and other waste that needed to be disposed of. John Vidal from “The Guardian,” states that in a book written about the burning pits, it is said that “foam, electronics, metal cans, rubber tyres, ammunition, explosives, human faeces, animal carcasses, batteries, asbestos insulation and heavy metal waste were doused in jet fuel and set on fire during the Iraq war” (Anonymous 2011).

## **Cleaning Up the Air**

Normally, cleaning up the air would require more efficient industry, careful energy use, and conservation. These methods are important for Iraq as well, but Iraq will require different methods to overcome this problem. The Iraqi Ministry of Environment has put forth efforts in improving the monitoring systems and the methods of control and prevention (Anonymous 2011). The Iraqi government has cared greatly about the pollution in the air because of its many damages to public health. They created a law in 1997 for reduction of air pollution in the environment. "The Iraqi legislature issued a new law..., which established a board to protect and improve the environment..." (Ashour, Wahab 2016). This law gives power to the government to create public policy for a cleaner environment, to work with other countries in order to prevent further pollution, and to manage activities with other authorities in order to create innovative ways to clean the air (Ashour, Wahab 2016). Even with the creation of these laws and systems, Iraq has a long way to go before it can become effective at controlling air pollution in the environment.

## **Sustainable Mountain Development**

The last focus of this research will be sustainable development for mountain communities in Iraq. Especially in Iraq, the environment of mountain communities does not receive proper attention. In SDG 15 of the UN 2030 agenda, it specifically mentions "mountains among the ecosystems to be conserved, restored and sustainably used in line with international agreements" (United Nations n.a.-b). Mountains have fragile ecosystems that, when damaged, can be very harmful to the communities living in and around the mountains. Mountains in Iraq have statewide importance as they are a large source of water. Along with water, mountains are the source of minerals, forests, agricultural products, and a home to a wide range of biological diversity (Convention on Biological Diversity n.a.). Mountains worldwide act as protection for these resources and ecosystems. With the modern consumption of these resources, mountains are subject to environmental degradation. "Mountains contribute only in a modest way to the production of greenhouse gases but are particularly affected" (Schild and Eklabya 2011). Thus, mountains are very susceptible to changes in the climate and other damage caused by the consumption by large populations. If the mountain environments are damaged in Iraq, the country will face serious challenges. Along with the population of Iraq, the communities living around or on the mountains are especially in

danger of these damages to the mountain environment.

It will be important for the Iraqi government to put more effort into the sustainability of their mountains. With the improvement of sustainability goals for the mountain environment, mountain communities will be able to prosper and have sufficient resources to live well. In order to secure these goals, Iraq must continue to work with the United Nations to create goals specific for sustainable mountain development. These goals should include methods for conservation of resources and methods of strengthening and cleaning the mountain environments in their current state. The Iraqi government should also cooperate with the mountain communities, as a way to promote the importance of these goals. As of now, there are not enough specific goals for this cause.

## Conclusion

Sustainable development should be treated as a priority in Iraq. In summary, Iraq relies heavily on its very limited resources. Because it is a desert country, it must develop ways to maintain clean water supply, fertile and unpolluted soil that can be used for growing food and other necessities, and clean air for the health of the people. Because of Iraq's large amounts of oil, it is also heavily reliant on oil for its economy. Unfortunately, this is also the cause of many pollution problems. Iraq's tendency towards conflict has also brought destruction and pollution to the country in very large quantities. Thus, it is crucial for Iraq to continuously strive for efficient sustainable development for the land in order to maintain a strong economy and a healthy population.

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