VANCOUVER MODEL UNITED NATIONS

The 12th Annual Conference • February 1-3, 2013

BACKGROUND GUIDE

Legal Committee



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VANCOUVER MODEL UNITED NATIONS

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Dear Delegates,

My name is Kal, and I'm the Legal Committee Director for VMUN 2013. A senior at St. George's School, I am an aspiring linguist currently studying Latin, French and Japanese. I attended my first MUN conference four years ago, VMUN 2008, way back in Grade 8. Since then, I have attended both local and international MUNs. While I have delegated, staffed and been on the secretariat, I can honestly say that nothing is as rewarding as being able to participate and engage in debate as a delegate. MUNs are not only fun socially, they also provide for the opportunity to expand your knowledge on world issues as well as to improve your ability to analyze and think critically. Personally, I have had amazing experiences in all of the MUNs I have participated in, and I hope that you will this year at VMUN as well.

The two topics chosen for this year's legal committee are both very pertinent international issues. Even though there might not seem to be an imminent crisis associated with our topics, there is no doubt that these two topics will be very relevant on the international stage in the upcoming years.

The first topic is on the freedom of speech in cyberspace. In the developed world where civil liberties are often taken for granted, there is a need to protect and set out clear rules for the same protection of freedom of speech online as in real life. There has not been any major progress as of yet but many countries have taken notice and are attempting to clarify and create solutions.

Our second topic is on the law of trans boundary aquifers. Aquifers, bodies of permeable underground rock that contains groundwater, are perhaps the most important source of potable water for the future. The large number of aquifers that traverse different political boundaries is definitely an area of concern.

Both these topics have been chosen both because of their importance and stimulating nature. I am excited for another great conference filled with great debate. Feel free to contact me or any of the Legal Committee staff if you have an questions or concerns.

Regards,

Kal Leung Director, Legal Committee

Position Paper Policy

What is a Position Paper?

A *position paper* is a brief overview of a country's stance on the topics being discussed by a particular committee. Though there is no specific format the position paper must follow, it should include a description of the positions your country holds on the issues on the agenda, relevant actions that your country has taken, and potential solutions that your country would support.

At Vancouver Model United Nations, delegates should write a position paper for each of the committee's topics. Each position paper should not exceed one page, and should all be combined into a single document per delegate.

For the Legal Committee, position papers are *mandatory*.

Formatting

Position papers should:

- Include the name of the delegate, his/her country, and the committee
- Be in a standard font (e.g. Times New Roman) with a 12-point font size and 1-inch document margins
- Not include illustrations, diagrams, decorations, national symbols, watermarks, or page borders
- Include citations and a bibliography, in any format, giving due credit to the sources used in research (not included in the 1-page limit)

Due Dates and Submission Procedure

All position papers must be submitted by midnight on Friday, January 18, 2013, two weeks prior to the conference.

Once your position paper is complete, please save the file as your last name, your first name and send it as an attachment in an email, to your committee's email address, with the subject heading as your last name, your first name — Position Paper. Please do not add any other attachments to the email or write anything else in the body.

Both your position papers should be combined into a single PDF or Word document file; position papers submitted in another format will not be accepted.

Each position paper will be manually reviewed and considered for the Best Position Paper award.

The email address for this committee is legal@vmun.com.

Topic A: Freedom of Speech in Cyberspace

Overview

The UN Declaration of Human Rights includes a clause for the freedom of expression in all forms of media. Specifically, Article 19 of the Declaration of Human Rights states, "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers."

However, with the advent of the Internet, there have been numerous controversies concerning free speech. The freedom of speech debate has been defined by certain key questions. Should governments be permitted to censor the opinions of its citizens or any potentially offensive material at all, and if so, where do we draw the line? How do existing restrictions on free speech, such as libel and slander laws, apply to cyberspace? These issues all point to a central issue — there is currently no internationally recognized definition of free speech.

In the world today, the debate over free speech centres around the extent to which a government can censor and limit information accessible to its citizens. On one hand, there may be security considerations to justify censorship, and hate speech, profanity, and threats are a veritable danger to the world; on the other hand, there are doubts about whether it is the role of the government to be this moral arbiter, if people are not capable of weeding out harmful content themselves. Given the ubiquity of the Internet, it is crucial for the Legal Committee to address the topic of freedom of speech in cyberspace.

Timeline

1215	The Magna Carta is signed in England.
1689	The Bill of Rights grants "freedom of speech in Parliament" in England.
1789	"The Declaration of the Rights of Man" provides for freedom of speech in France.
1791	The First Amendment (part of the Bill of Rights) to the Constitution of the United States guarantees four fundamental freedoms: the freedom of religion, speech, press, and assembly.
1948	The Universal Declaration of Human Rights is adopted by the UN General Assembly; it includes the fundamental freedoms of expression and religion.
1960	Penguin, a book publisher, wins the right to publish D.H. Lawrence's sexually explicit novel <i>Lady Chatterley's Lover</i> .
1966	The International Covenant on Civil and Political Rights is signed by the UN General Assembly.
1989	Iranian leader Ayatollah Khomeini issues a fatwa against Salman Rushdie's novel for blasphemous content. The fatwa is lifted in 1998.

¹http://www.un.org/en/documents/udhr/index.shtml

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1996	The Communications Decency Act becomes the first piece of legislation passed in the United States that regulates Internet pornography. It is struck down by the Supreme Court a year later.
1997	The Information and Communication Services Act of 1997 is passed in Germany.
2000	In the court case <i>LICRA v. Yahoo!</i> (argued in France), questions over international laws pertaining to the Internet are raised.
2001	In the aftermath of the 9/11 attacks, the Patriot Act gives the US government new powers to investigate individuals who are suspected to be a threat, raising fears about violations of civil liberties.
2002	Nigerian journalist Isioma Daniel provokes a riot that leaves more than 200 dead by writing about the Prophet Mohammed marrying a thirteenth wife.
2005	The Serious Organized Crime and Police Act bans protests within one kilometre of the British Parliament.
2008	In the wake of the 2008 terrorist attacks in Mumbai, the Indian government amends the Information Technology Act to give the government some control over material on the Internet that may be harmful to the government or its citizens.

Historical Analysis

Freedom of speech can simply be defined as the political right to communicate one's ideas and opinions through speech. Nevertheless, every government has some limitation on the extent of this freedom. This is justified by the fact that completely free speech often contradicts other values or laws in society.²

Governments first attempted to regulate cyberspace in the mid-1990s. One of the earliest legal attempts to define free speech in cyberspace was the Communications Decency Act passed by the US in 1996. While the law attempted to regulate pornographic material on the Internet, it is also noted as the first attempt by a nation to prevent indecency on the web. Ultimately, large portions of the law were overturned by the Supreme Court in the case of *Reno v. American Civil Liberties Union (ACLU)*. Regardless, the case set an important precedent in determining how traditional free speech laws applied to new technologies such as the Internet.

That same year, reports indicated that China had banned access to an estimated 100 websites through a filtering system, preventing the delivery of offensive information. Sites that were banned included those run by Western and Taiwanese news outlets and anti-China dissidents; sexually explicit sites and anything else that could pose a threat to the government were also blocked. Since 1996, there have been a number of highly restrictive laws prohibiting the access of political commentary — including various foreign media and human rights websites — considered undesirable by the government. In 2002, China instituted some of the strictest Internet controls to date, holding

²www.fas.org/sgp/crs/misc/95-815.pdf

³http://scholar.google.ca/scholar_case?case=1557224836887427725&hl=en&as_sdt=2&as_vis=1&oi=-scholarr&sa=X&ei=aL85UIb4LY3jigKL6IDYCw&ved=0CB4QgAMoADAA

⁴http://www.tandfonline.com/doi/pdf/10.1080/10584609809342369

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service providers directly responsible for moderating users' access to blocked content; consequently, providers were forced to screen private email for political content and had to remove all controversial content posted on websites, including in online chatrooms and forums.⁵

Around the same time, Germany introduced its own legislation on free speech in cyberspace. In 1997, the Information and Communication Services Act, also known as the Multimedia Law, was drafted. This law made Internet service providers partly responsible for blocking offensive content. However, Germany ran into a problem unique to the Internet: cross-border jurisdiction. In 2000,⁶ attempts to block access to foreign-based neo-Nazi sites proved fruitless, a fact publicly acknowledged by former Deputy Interior Minister and Internet Security Chief Brigitte Zypries. This incident shows the flaws of the status quo, where each country has its own unique legislation.

As another example, in 1999, Australia introduced its own regulatory system. The Broadcasting Services Amendment was updated to include online services and established a rating system for content using the letters R, X and RC, whereby R signified content hosted by Australian servers that was illegal, and X and RC denoted illegal content regardless of the host country.⁷

Considering the nebulous nature of legislation in this area, it may come as no surprise that many legal challenges were soon mounted. In the case of *Germany v. CompuServe* (late 1990s), Felix Somm, the former head of CompuServe Germany (an online service provider similar to AOL) was convicted of failing to block third parties' postings of child pornography on CompuServe's message boards — setting a precedent that internet service providers could be held responsible for content they host. CompuServe Deutschland's head of operations, Felix Somm, was initially given a two-year suspended sentence and a fine of 100,000 marks, but a state court in Munich ultimately reversed the verdict after appeals from both the defendant and prosecutors.

Debate about freedom of speech in cyberspace became more heated in 2000 due to another court case, this time in France, between *La Ligue contre la racisme et l'antisemitisme (LICRA) et Union des etudiants juifs de France (UEJF)* and Yahoo! Inc. LICRA, (the International League against Racism and Anti-Semitism) asserted that Yahoo!, an American-based company, was allowing the sale of Nazi-period mementos through their online auction service, violating French law, which prohibited the sale of such items. French courts ruled that, by selling these items, Yahoo! was causing a domestic risk to public order in France, and ordered the French division of Yahoo! to inform all website vistors that viewing such content could be a violation of French law (effectively eliminating all potential customers). In response, Yahoo! appealed to courts in the United States on the basis that because the servers were in the US, the content should not be subject to French law.⁹ The issue became even more complicated when the United States District Court of the Northern District of California ruled in favour of Yahoo! on appeal, finding the French ruling to be invalid since Yahoo! was based on American soil.¹⁰ Finally, three years later in 2004, US Court of Appeals for Ninth Cir-

⁵http://www.usatoday.com/life/cyber/tech/2002/01/18/china-internet.htm

⁶http://articles.latimes.com/2000/jul/26/news/mn-59399

⁷http://www.comlaw.gov.au/Details/C2004A00484

⁸http://legacy.gseis.ucla.edu/iclp/fsomm.html

⁹files.grimmelmann.net/cases/Yahoo.pdf

¹⁰http://www.edri.org/edrigram/number4.1/yahoocase

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cuit reversed the earlier decision and rejected Yahoo!'s appeal after finding that the District Court did not have jurisdiction over the appellants LICRA and UEJF.

In 2003, Iran made headlines when it attempted to censor a Tehran-based journalist and blogger, Sina Motallebi. Motallebi's blogging career began in 2001 when he began writing about the Internet and other new technologies. However, in 2003, he expanded the subject of his posts to include a variety of international issues, including several articles about Iran's treatment of political prisoners. Motallebi was subsequently arrested and held 23 days in an unknown location; he was eventually released, though only after several protests. Similar arrests by the Iranian government have taken place frequently over the years. As the blogging community, colloquially termed "Weblogistan," grows, it can also be anticipated that the conflicts between those seeking to exercise their freedom of expression and governments seeking to restrict speech will become more common.

Current Situation

In 2003, the World Summit on the Information Society adopted the Geneva Declaration of Principles, which called for the importance of free speech in cyberspace.

We affirm, as an essential foundation of the Information Society, and as outlined in Article 19 of the Universal Declaration of Human Rights, that everyone has the right to freedom of opinion and expression; that this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through and media and regardless of frontiers. Communication is a fundamental social process, a basic human need and the foundation of all social organization. It is central to the Information Society. Everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers.¹²

In 2006, the United Nations, through the World Summit on the Information Society, created the Internet Governance Forum (IGF), where countries meet annually to discuss public policy issues related to Internet governance.¹³

In October of 2011, Russia and several other nations proposed a new Convention on Cybercrime to promote collective security in cyberspace. Russia had put forward the idea several times before, but it has been continuing to stress the importance of establishing a unified criteria for punishing cybercriminals. As of August 2012, there has not been any progress on this front.¹⁴

In July 2012, the Human Rights Council (HRC) of the United Nations unanimously adopted Resolution L13, entitled "Resolution on the Promotion, Protection and Enjoyment of Human Rights on the Internet." Despite the non-binding manner of Resolution L13 and the HRC, it is the first resolution of its kind. While Cuba and China expressed their reservations, representatives from both countries were among the 47 members who ultimately approved the resolution, co-sponsored by the US and Sweden. China's approval of this resolution shows a significant change in its atti-

¹¹http://www.globalpost.com/dispatch/middle-east/090610/attempting-silence-iran's-'weblogistan'?page=0,1

¹²http://www.itu.int/wsis/docs/geneva/official/dop.html

¹³http://www.intgovfoum.org/cms/aboutigf

¹⁴http://english.ruvr.ru/2011/07/20/53481702.html

¹⁵http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205403231_text

¹⁶http://news.yahoo.com/u-n-forum-backs-rights-free-online-expression-100131402.html

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tude and thinking; US ambassador Eileen Donahoe interprets China's actions as "[reflective of] an awareness that the Internet is here to stay, is an essential part of everyone's economy and will be a linchpin of development for all countries and they have to be part of it." With that said, there is neither mandate nor directive for China, nor any of the other 46 countries of the HRC, to actually follow through on this resolution.

UN Involvement

The modern idea of free speech traces its origins to the Declaration of Human Rights, written in 1948. As previously referred to, Article 19 of the declaration states that humans have the right to "receive and impart information and ideas through any media and regardless of frontiers." It is important to remember though that at the time the Declaration on Human Rights was written, there was no Internet; thus, this definition can be considered outdated and not at all applicable to cyberspace.

The International Covenant on Civil and Political Rights, signed by 167 countries in 1966 and ratified in 1976,¹⁹ is a multilateral treaty that discusses the civil and political rights of individuals, including the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights, and rights to due process and a fair trial. Of particular interest to delegates in this committee is Article 19, which provides individual governments with leeway to censor and prohibit free speech:

- 1. Everyone shall have the right to hold opinions without interference.
- 2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.
- 3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:
 - a. For respect of the rights or reputations of others;
 - b. For the protection of national security or of public order (*ordre public*), or of public health or morals.²⁰

As technology has revolutionized the way we live, nations have had to adjust their own national legislation according to Article 19. There are two qualifiers though in determining what is and isn't protected under the article. The first is that national and international law must set clearly worded standards that are accessible to everyone in the population. The second is that free speech can only be limited in order to protect the "rights or reputations of others" and "to protect national security or of public order, or of public health or morals."²¹

In 2005, the United Nations Institute for Training and Research published *The Laws of Cyberspace*,

¹⁷http://www.reuters.com/article/2012/07/05/rights-internet-idUSL6E8I55VH20120705

¹⁸http://www.justice.gov.tr/e-journal/pdf/LW7078.pdf

¹⁹http://www2.ohchr.org/english/law/ccpr.htm

²⁰Ibid

²¹http://www.unhcr.org/refworld/docid/3ae6b3aa0.html

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an in-depth analysis of the problems of cyberspace. It was a sequel to an earlier work entitled *Information Insecurity*.²² The article lays down the background to the problem and proposes a solution that involves the three major parties: the governments, the private sector, and civil society.

Finally, as noted above, in 2012, the UNHRC passed Resolution L13, which, though a step forward, is nonbinding.

Possible Solutions and Controversies

The Conflict Between Free Speech and Harmful Content

Perhaps the most serious issue relating to the Internet is the protection of free speech weighed against protection from harmful content. While, in the United States of America, freedom of speech is heavily favoured, European countries and Australia tend to lean towards more restrictive measures to control the spread of harmful content. Finally, in general, different governments will view different materials as harmful or offensive, leading to nuanced but nevertheless important differences in regulation of the Internet.

International law thus has a tremendous role to play regarding these differences, as this also gives rise to a jurisdictional issue — if a dispute on Internet content crosses borders (as in the aforementioned two court cases), which country's laws apply? Currently, international disputes concerning the Internet are treated like any other transnational issue; this approach will continue to be used by most nations until a treaty or other document is signed.

Regulatory Paradigms

The Internet, by combining the various traits of traditional communication media, poses problems for censorship because content becomes difficult to classify and regulate. This is a part of the regulatory paradigm.

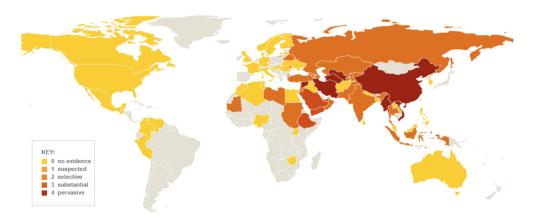
There are five different categories that countries can be classified into based on the strictness of their Internet censorship: pervasive censorship, substantial censorship, selective censorship, suspected censorship, and no evidence. These various types range in degree of what information and how much of it is censored; the two most concerning categories are pervasive and selective censorship. Pervasive censorship is defined as where a significant portion of content is blocked in all categories of information; the People's Republic of China uses pervasive censoring to eliminate and block information regarding sensitive issues such as police brutality and Tibetan independence.²³ Substantial censorship is also prevalent in Pakistan for content on specific sites, such as YouTube, is censored. Meanwhile, selective censorship is where a small number of specific sites are blocked; India falls into this category because its government has some control over Internet content that poses a risk to public safety. Countries with the classification of suspected censorship will monitor certain individuals or organizations, but will not block their cyberspace activity.

With five different types of censorship, it is essential to remember that compromises will be vital if this committee is to have any hope of creating a unified law to govern free speech in cyberspace.

²²http://www.un.int/kamal/thelawofcyberspace/

²³http://opennet.net/countries/china

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Bloc Positions

Asia

Asian countries, led by China, have demonstrated that they are not afraid to heighten censorship in the face of political threat. At least six countries in the region have blocked YouTube in one way or another.

Countries in this bloc have increasingly tried to moderate speech online. India, with its recent amendment to Information and Technology Act, allows anyone to demand that Internet sites and service providers remove objectionable content.

Australia

Australia may have, after China, the most restrictive policies of any country regarding the Internet and free speech. State and territory criminal laws apply to both content providers and creators; this enables the prosecution of Internet users who make material deemed "objectionable" or "unsuitable for minors" available.

United States

Embedded in the First Amendment to the Constitution is the concept of freedom of speech. The First Amendment has greatly defined America's attitude towards freedom of speech in cyberspace. Two federal acts to restrict online content, the Communications Decency Act (CDA) and the Child Online Protection Act (COPA) were both proposed but ultimately rejected. Similarly, four states (New York, New Mexico, Michigan and Virginia) have attempted to pass Internet censorship legislation restricting online distribution of material deemed "harmful to minors," but all of these laws were struck down on constitutional grounds.

European Union

Most member states of the European Union follow the 1996 recommendations of the European Commission in dealing with illegal and harmful content on the Internet. Specifically, content that is illegal in other forms (e.g. racist materials) is also illegal when presented online.

The EU Safer Internet Action Plan, developed from 1999 to 2002 with a budget of 25 million euro,

²⁴http://deepblue.lib.umich.edu/bitstream/2027.42/64966/82/Pilz-PubPol688-Week%25202-Drill-COPA-CDA%2520History.pdf

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created a more specific approach, outlining four main goals of Internet legislation:²⁵

- The creation of a safer environment through hotlines, encouragement of self-regulation, and codes of conduct
- The elimination of unwanted and harmful content
- The development of filtering and (internationally recognized) rating systems
- The education of parents, teachers, and children about the Internet's benefits and drawbacks

Discussion Questions

- 1. Does your country censor or impose limits on access to information in cyberspace?
- 2. How strongly does your country believe in its current policies regarding freedom of speech on the Internet?
- 3. To what extent should governments limit harmful online content, if at all? What kinds of content should be classified as harmful?
- 4. Has your country been involved in creating internationally agreed-upon standards for Internet regulation?
- 5. How far does the freedom of speech extend?
- 6. Can harmful content be completely filtered out from the Internet?
- 7. Is it possible to pass a universal law considering the different levels of censorship amongst member nations?

Additional Resources

http://ec.europa.eu/information_society/activities/sip/index_en.htm

European Union Safer Internet Programme

http://cyber.law.harvard.edu/ilaw/Speech/

Harvard Law — Freedom of Expression on the Internet

http://opennet.net/

OpenNet Initiative

http://www.ohchr.org/EN/HRBodies/HRC/Pages/HRCIndex.aspx

UN Human Rights Council

http://www.itu.int/wsis/index.html

The World Summit on the Information Society

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²⁵http://www.riso.ee/en/node/70

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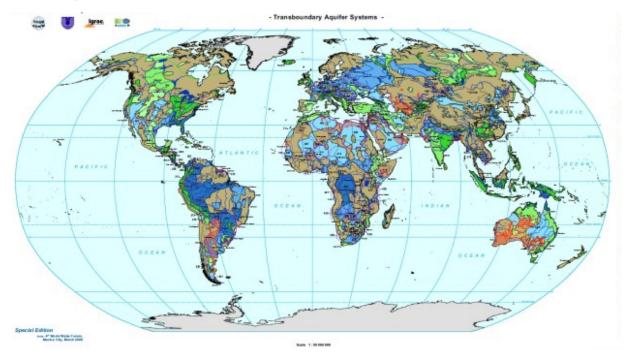
"The Universal Declaration of Human Rights." The United Nations. N.p., n.d. Web. 20 Aug. 2012. http://www.un.org/en/documents/udhr/index.shtml.

Topic B: The Law of Transboundary Aquifers

Overview

Almost 96% of the planet's freshwater resources are to be found in underground aquifers, many of which lie across numerous national borders.¹ One of the world's greatest and most valuable resources, aquifers lie entirely hidden. These underground layers of rocks and sediments, from which water can be extracted, hold 100 times the volume of freshwater that flows down rivers and streams around the world.² Research conducted by the UN Educational, Scientific, and Cultural Organization (UNESCO) has identified 273 trans-boundary aquifers, 68 of which are in the Americas, 38 in Africa, 155 in Europe and 12 in Asia.³

Aquifers are protected by international law and the Nuremberg Principles; it is considered a war crime to attack any essential civilian infrastructure, including aquifer-processing facilities.⁴ However, despite the large number of commonly shared aquifers around the world, there is not an internationally agreed upon law to regulate the potential usage of these aquifers. This is especially concerning in light of potential shortages of accessible water in the near future. As noted by Jeffrey Sachs, the director of the UN Millennium Development Project, "the world is running out of water and needs a radical plan to tackle shortages that threaten the ability of humanity to feed itself.⁵" This pressing issue requires a prompt resolution before the precious resource of water is depleted. `



¹http://www.unesco.org/new/en/natural-sciences/environment/water/ihp/ihp-programmes/whymap/links/

²http://books.google.ca/books?id=_RZb0qUzRrgC&printsec=frontcover&source=gbs_atb#v=onepage&q&f=false

³http://www.newscientist.com/article/dn11593-ancient-megalake-discovered-in-darfur.html

⁴http://humanrightsinvestigations.org/2011/07/27/great-man-made-river-nato-bombs/

⁵http://www.guardian.co.uk/environment/2007/jan/22/water.china

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Timeline

1969	The Disi Aquifer, shared by Jordan and Saudi Arabia, is discovered by the UN Development Programme.
1986	The Seoul Rules on International Groundwaters are adopted by the International Law Association, a non-profit organization that promotes the development of international law.
1988	The Bellagio Draft Treaty on Transboundary Groundwaters is proposed to the UN by Mexico and the United States.
1989	Libya begins irrigating the Nubian Sandstone Aquifer, the largest known fos-sil-water aquifer system.
1992	Jordan lodges a formal complaint against Saudi Arabia over exploitation of the Disi Aquifer.
1997	The Convention on the Law of the Non-Navigational Uses of International Water-courses is signed.
2000	UNESCO creates the International Hydrological Programme.
2002	The International Shared Aquifer Resources Management (ISARM) is launched.
2003	The International Law Commission invites a Special Rapporteur to investigate transboundary aquifers.
2006	The US-Mexico Transboundary Aquifer Act is signed.
2008	UNESCO releases the first official map detailing underground aquifers around the world.
2008	Draft articles of the Law of Transboundary Aquifers are introduced to the Legal Committee.
2010	Argentina, Brazil, Paraguay and Uruguay sign the Guarani Aquifer Agreement.
2012	Namibia discovers Ohangwena II, a vast aquifer that crosses into southern Angola.

Explanation of Key Concepts

Aquifers are geological formations that can store or transmit water. There are two basic types of aquifers: confined and unconfined.⁶

Unconfined aquifers are aquifers where water seeps in from the ground surface directly above the aquifer.

Confined aquifers are those where an impermeable dirt or rock layer exists that prevents water from seeping into the aquifer from the ground surface located directly above. Instead, water seeps into these aquifers from elsewhere where a permeable layer exists. Fossil aquifers are the main type of confined aquifers and are by definition, a non-renewable resource.⁷

Transboundary aquifers are simply defined as any aquifer that crosses over two or more national

⁶http://texaswater.tamu.ed/groundwater/aquifers

⁷http://drinking-water.org/html/en/Sources/Fossil-Water-in-Libya.html

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borders. These aquifers are an important component of global water resource systems, yet their recognition in international water policy is very limited; current international conventions and agreements barely address aquifers.

Historical Analysis

Aquifers have long been recognized as a valuable asset and, as early as the 1950s, have been extracted for irrigational and drinking purposes.⁸

Libya, for example, is habitable largely because of the existence of aquifers: the North African country receives little precipitation and 95% of Libya is desert. It is unsurprising that Libya has a sophisticated water distribution system. The Great Man-Made River Project, launched in the 1980's under Muammar Qaddafi, is a grand system of pipes, reservoirs and engineering able to pump from 1,300 paleowater wells and move 230 million cubic feet of water every day, supplying water to 70% of the population. Indeed, this water source is so important that many Libyans refer to it as the "eighth wonder of the world."

The Nubian Sandstone Aquifer System (NSAS), the world's largest fossil water aquifer system, is highly applicable to the discussion of international law. The aquifer, being the largest fossil water source, contains ancient water (it is beyond the scope of radiocarbon testing, indicating the water is more than 40,000 years old). It is estimated to contain around 375,000 cubic kilometers of water, covers around two million square kilometres of land, and stretches underneath the four African countries of Chad, Egypt, Libya and Sudan. Each of these countries shares similar characteristics including arid climates, scarce surface water sources, fragile ecosystems, and persistent droughts. Yet today, threats to the NSAS are ever more imminent. In Egypt, for example, the population has risen from about 26 million to 68 million between 1960 and 2004;9 consequently, it has already used more than its quota of 55.5 billion cubic metres of water from the Nile River. Combined with increased usage of water from the Nile Basin by countries such as Ethiopia and Uganda, it is apparent that firm measures and state initiatives are needed to sustain demand for water in the long term in this region.

The scarcity of water in the Middle East has led some countries to explore alternative water resources. One such initiative is the Disi Water Conveyance Project located in Jordan, which extracts water from the Disi Aquifer located in Jordan. However, the majority of the aquifer lies beneath Saudi Arabia, which also draws water from the aquifer (which it calls the Saq Aquifer). This has caused numerous controversies between the two countries due to the lack of a formal agreement between the two concerning the usage and management of the water. Further complicating issues, the Disi Aquifer is a nonrenewable fossil aquifer. Coupled with numerous other controversies regarding the radiation and safely level of the water, the dispute has the potential to become even fierier.

The demand for water is not only limited to the Middle East. Barcelona and its surrounding regions

⁸http://news.nationalgeographic.com/news/2010/05/100505-fossil-water-radioactive-science-environment/

http://www.nytimes.com/2008/07/02/world/africa/02iht-egyptecon.4.14179781.html?pagewanted=all

¹⁰http://www1.american.edu/TED/ice/aquifer.htm

¹¹http://today.duke.edu/2009/02/jordanwater.html

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have suffered from droughts in the past decade, most recently in 2012. Spain has subsequently been forced to import water from France and other European countries at high costs. Many other countries, both developing and developed, are facing water scarcities. Turkey provides Israel, Syria, Jordan and Greece with water, while France sends tankers with millions of gallons to Algeria. Malaysia provides most of Singapore's water.

An example of a relatively well-managed, large-scale aquifer is the Guarani Aquifer located in South America. Covering 1.2 million square kilometres beneath territories belonging to Brazil, Paraguay, Uruguay and Argentina, this aquifer, the largest on its continent, is vital to South America. Even the name, given in 1994, is indicative of the four countries' cooperation: Guarani refers to the native peoples who inhabited he region overlying the aquifer and was used to signal recognition of the fact that the aquifer is a shared resource. The four countries continue to explore ways to maximize the efficiency of the aquifer and prevent overexploitation. The Guarani Aquifer Agreement signed in 2010 was a monumental step in terms of legal agreements to manage the aquifer.

Another specific example of cooperation is the case between Switzerland and France. In 1977, the Canton of Geneva in Switzerland and the Department of Upper Savoy in France concluded a convention on the protection, utilization and recharging of the shared Geneva aquifer. The aquifer, which was overused during the 1960s and 1970s, was nearly depleted by 1975 when the decision was made to create an artificial aquifer recharge plant that would recover the use of wells as well as extract water from the Arve River — the aquifer's main natural recharge source. The process would include treating and channelling the water into the aquifer. Although the artificial recharge plant has been operational since the 1980s, it has required tremendous initiatives from both France and Switzerland to coordinate such a system.

Other important shared aquifers identified by the UN include the Vechte aquifer in Western Europe, the Karoo Aquifers in Southern Africa, the Praded Aquifer in Central Europe, and the Slovak Karst-Aggtelek, also in Central Europe.

Current Situation

There has been significantly more attention paid towards the cooperative governing of transboundary aquifers in the past decade. The Draft Articles on Transboundary Aquifers were introduced in 2008 to the General Assembly and were well-received by the majority of countries. The first universal map attempting to detail all transboundary aquifers was released in 2008 by UNESCO and has similarly been useful, despite it being incomplete and frequently out of date.

Two shared aquifers are of particular interest.

The Karoon Aquifers, a sandstone aquifer underlying Namibia, South Africa and Botswana, have faced economical challenges. While it is a minor source of drinking water, there is a massive volume of irrigation dependent on this aquifer. However, oil companies have recently discovered fracking — a method of extracting underground natural gas by creating fractures in the underlying rock

¹²http://www.siagua.org/sites/default/files/documentos/documentos/geneva.pdf

¹³http://www.scaldwin.org/project-NL/documenten/presentation-the-transboundary-aquifer-of-the-geneva-region-switzerland-and-france

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formations — opportunities in the Karoo system.¹⁴ As a result, Royal Dutch Shell has been pushing to prospect an area of almost 100,000 km. However, fracking can cause significant environmental damage, sometimes contaminating nearby water source as well as destroying of local ecosystems.¹⁵ Water is scarce in the Karoo region and should the groundwater be rendered unusable for irrigation, the regional agricultural industry would be devastated. There has thus been public outcry from farmers of all four countries against the plans of Royal Dutch Shell.¹⁶ Currently, in light of the lucrative potential economic returns from fracking, the governments sharing the Karoo system are attempting to create a strategy to balance energy and conservation concerns.

In Europe, Hungary and Slovakia share the Slovak Karst-Aggtelek Aquifer (SKAA), which covers 55,800 hectares of area. In the SKAA are 712 solution caves, which are considered protected cultural areas and which the United Nations has declared a World Heritage Site. Both Slovakia and Hungary have made efforts to highlight the cultural, historical and scientific significance of the caves; artifacts from the Neolithic, bronze, and iron ages show human activity in the caves as early as 7,000 years ago. With this said, the SKAA provides valuable resources and both sides have been using the water for drinking purposes though in general, Slovakia has a higher intake of groundwater than the Hungarian side. The problem with the SKAA is the lack of an efficient monitoring and assessment system and clearly defined responsibilities for both Hungary and Slovakia to balance the preservation of the site with practical concerns about water supply.

UN Involvement

The Helsinki Rules, published in 1966, touched on shared water sources, but were focused mainly on rivers and their connected groundwaters. The first major document to specifically address the issues of aquifers were the Seoul Rules drafted in 1986¹⁷. However, the treaty was created by the International Law Association (ILA), an independent non-profit organization, and not by governments.

The Seoul Rules further reinforced the Helsinki Rules and would be the basis of the Convention on the Law of the Non-Navigational Uses of International Watercourses, signed by the United Nations in 1997. A key point was the protection of groundwater by each basin state either by the prevention or abatement of pollution. This necessarily entailed consultation and the exchange of relevant information between member states and conjunctive use of the waters.

Two years later, in 1988, the United States of America and Mexico proposed the Bellagio Draft Treaty to the United Nations. The Draft required joint management of shared aquifers and described principles based on mutual respect, cooperation, and reciprocity. Importantly, the draft recognized that obtaining groundwater data is often difficult and expensive and that mutually acceptable information relies on cooperative and reciprocal negotiations. It served as a useful framework for future diplomatic efforts concerning groundwater.¹⁹

¹⁴http:/www.canadians.org/water/issues/fracking/index.html

¹⁵http://af.reuters.com/article/energyOilNews/idAFN3124052020110201

¹⁶http://www.iol.co.za/business/companies/shell-under-fire-for-karoo-gas-plan-1.1021119#.UGf3BhwfHuc

¹⁷http://www.internationalwaterlaw.org/documents/intldocs/seoul_rules.html

¹⁸http://www.unwater.org/downloads/wwf_un_watercourses_brochure_for_web_1.pdf

¹⁹http://www.colsan.edu.mx/investigacion/aguaysociedad/proyectofrontera/Documentos/INSTRUMENTOS%20

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However, the most important, and the first, international water treaty is the Convention on the Law of Non-Navigational Uses of International Watercourses, adopted by the United Nations on May 21, 1997. The Convention pertains to the uses of all waters that traverse borders, including both surface and groundwater. The document sought to create obligations on member states so that they would consider the impacts of their actions upon other states with whom the water source was shared²⁰. Additionally, in the event that one state is considered to be harming the water source, all involved parties would be required to negotiate a resolution directly or appeal for arbitration to an international organization such as the International Court of Justice. The Convention was approved with 103 members voting in favour; only 3 states voted against the Convention.²¹ However, to enter into force, the document required at least 35 ratifications from member states and as of 2009, only 16 members states have ratified. In the summer of 2012, there appeared be a revival of the Convention, but the effort soon petered out.²² Nevertheless, this convention is a valuable resource for future frameworks.

Apart from legal documents, the United Nations has commissioned many efforts to review and research international aquifers. Examples include the and the appointment of Special Rapporteur Chusei Yamada to study of sustainable groundwater and ISARM (International Shared Aquifer Resources Management System), incepted in 2002.²³ ISARM's overall mandate is:

To contribute multifaceted efforts in global co-operation through providing for the planets needs in sustainable environments, economy, social and political security on internationally shared aquifers.²⁴

The Draft Articles on the Law of Transboundary Aquifers in 2008 are a culmination in document form of these ideas and efforts in the past decade. Adopted by the International Law Commission in 2008, the draft was submitted to the General Assembly (GA) later that year, and the GA finally adopted the Resolution (A/RES/63/124), titled the Law of Transboundary Aquifers, in December 2008. This was a tremendous step forward, as the resolution is not a convention and thus not legally binding (*jus gentium*),²⁵ which is the objective of the Legal Committee for this issue.

Possible Solutions and Controversies

While some progress has been made towards creating an effective system to manage aquifers, there are still many problems that need to be resolved before a wide-ranging resolution can be created.

The first issue is the ratification process. The nature of international law requires independent states to willingly abide by statutes passed in the United Nations to take effect. Whereas it would be advantageous for every country without an aquifer to sign onto an agreement to ensure that international resources are being protected, the same cannot be said for countries that are highly dependent on

INTERNACIONALES/bellagio%20(ingl%E9s)%201989.pdf

²⁰http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf

²¹http://waterwiki.net/index.php/Convention_on_the_Law_of_the_Non-Navigational_Uses_of_International_Water-courses

²²http://www.circleofblue.org/waternews/2012/world/support-for-un-water-treaty-on-accelerates/

²³http://www.isarm.org/publications/147

²⁴http://www.isarm.org/publications/290

²⁵http://www.merriam-webster.com/dictionary/jus%20gentium

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aquifers. For the latter group, it makes little sense for them to choose to abide by an international law that would have them relinquish their control over aquifers. Persuading these countries of the long-term importance will be a huge step towards a universal solution.

The second controversy is scarcity. With many new cross-boundary aquifers being discovered in Africa,²⁶ the problem of sustainable use emerges. Many of these developing countries have tremendous desires to extract as much as possible in as little time, leading to concerns about over-exploitation. Partially dependent on whether the aquifer is confined or unconfined, the water can be extracted before it ever has a chance to be replenished. Taking the NSAA as an example, with water tables rapidly decreasing each year, experts are already warning these fossil waters are just temporary measures until new conservation technologies can be adopted. Shortages, in turn, lead not only to environmental issues but potentially also to conflict — so-called "water wars."²⁷

A final important concern relating to aquifers is the treatment of the water. The Disi Aquifer, as examined earlier, is Jordan's last primary water reserve and has been ambitiously extracted. However, the radiation content in the water was found to be twenty times the maximum acceptable levels. This contamination can be attributed to the presence of sandstone, which has slowly leached radioactive contaminants over the millennia. While in this case, the contamination was not a result of human activities, it does illustrate that negligent drilling and extrication by one country could render the aquifer unsafe and unusable for several.

Bloc Positions

United States of America & Mexico

Both the United States and Mexico have reached general bilateral agreements to regulate their shared water sources, including Minute 242, which was signed in 1973. There have not been any treaties specific to the many aquifers found along the 2,000-mile-long border between the two countries, however.²⁹ The United States of America is largely uninterested in partaking in any international treaties that would overly affect their ability to control their own aquifers.

South America

Led by the four countries with claims to the Guarani Aquifer, South America has been at the centre of the development of international law concerning transboundary aquifers. Even though Brazil, Paraguay, Uruguay, Argentina have already shown cooperation by signing the Guarani Aquifer Agreement, there are still disagreements concerning specific responsibilities. Thus, all most countries in South America are pushing for an international agreement that is fair to all parties.

Central Europe

There is not a high dependency for ground water in this region, yet transboundary aquifers, such as the Vechte, the Slovak Karst-Aggtelek, and the Franco-Swiss Genevese, do exist. Countries in this

²⁶http://www.unesco.org/new/en/natural-sciences/environment/water/ihp/ihp-programmes/whymap/links/

²⁷http://www.aljazeera.com/indepth/features/2011/06/2011622193147231653.html

²⁸http://news.nationalgeographic.com/news/2010/05/100505-fossil-water-radioactive-science-environment/

²⁹http://geo-mexico.com/wp-content/uploads/2010/02/Geo-Mexico-Sample-Chapter.pdf

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bloc understand the importance of preserving the water for the future and are willing to cooperate on the international level.

Northern Africa

Libya, Egypt, Chad, Sudan, Niger, Nigeria, and Benin are all currently collecting, or located, above underground water sources. These countries are economically focused and environmental concerns are peripheral. It is clear that international laws are needed to help regulate the use of aquifers in this regions, but whether or not these countries will cooperate and agree is up in the air.

Southern Africa

Southern Africa is similar to Northern Africa in that there is a strong desire for extraction but there is little information and interest in research. Currently, local communities in Botswana and South Africa use aquifers for drinking water and stock supplies. This issue is not a high priority for any of the Southern African governments but, at the same time, they are open to ideas. The largest aquifer in this region is the Kalahari Karoo Aquifer.

Discussion Questions

- 1. Does your country have a strong dependency on aquifers? Is scarcity of water an important concern in general?
- 2. Does your country have access to alternative water sources? If not, does it seek to develop them?
- 3. To what extent should an international agreement regulate the use of aquifers, and how much should be left for states to decide among themselves.
- 4. Is there a body for water governance sponsored by your government?
- 5. Are aquifers a viable long-term water source for the world's growing population?

Additional Resources

http://www.ila-hq.org/

International Law Association

www.isarm.org/

International Shared Aquifer Resources Management

http://ngm.nationalgeographic.com/2010/04/table-of-contents

National Geography Water Series

http://www.unesco.org/new/en/natural-sciences/environment/water/

UNESCO: Water

http://newswatch.nationalgeographic.com/files/2012/07/whymap_140.jpg

Aquifers World Map

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