**Framework**

**[Value]** I negate and value **Justice** meaning fair treatment for all in society

**[Criterion]** Since Justice entails ensuring everyone is treated fairly in capitalist society, my criterion is **maximizing access to needs.** Maximizing access to needs entails Increasing peoples ability to reach the needs necessary to survive

**Resource DA**

**A. Link**

**[Liss]** Earth won't be resource sufficient for the growing population. Aff supported subdivision philosophy will be for the worse

**Liss:** Liss, Jeffery. Vice chair of ISDCs Toronto. “Why We DO -- And Must -- Go Into Space” *NSS* 2022.

**We can’t keep subdividing Earth’s resource pie**; we need to make the pie bigger. It is **the promise of resources from the Moon, Mars, asteroids and the Sun** that **make**s **space** such a hope for **our future. World population is likely to double within 40 years and re-double shortly after that; world resources will not.** In space, solar power is infinite (reducing the need to use forests and oil and coal merely for fuel, and eliminating the pollution they cause), as are asteroid metals. **These unlimited resources would enable us to reduce the plundering of our planet.** But **to obtain these resources will require large structures in space and the rockets to get there**. Learning how to build those things to obtain such space resources is a long step-by-step process. **If we want** to have those **resources before it is too late, we have to start now.**--------The ultimate purpose of going into space is to live and work there — just as the ultimate purpose of exploring the New World was colonization — **and not merely to sit back on Earth and cogitate about what automated spacecraft report back.** We do not send our cameras to the Grand Canyon; **we go ourselves**. We sent Lewis and Clark not just to describe the American West, but to learn where and how people could live there. **America grew by sending out seeds in different places and then filling the spaces with trade and industry** and new ideas. **People have always found ways to prosper from their environments, however harsh, and we will do so in space as well**. We cannot begin to live and work in space without first going there. And, **it is human destiny to escape the cradle of our planet of birth.**

**B. Internal Links**

**[Guillebaud]** The Aff decimates what we have left on the planet

**Guillebaud:** Guillebaud, John. Professor at University College London. “There are not enough resources to support the world’s population” *ABC* 2014

None of us in those days was worried specifically about climate change. As we’ve just been reminded by the Intergovernmental Panel on Climate Change, that environmental problem is terrifying enough, especially given the risk of runaway positive feedbacks, caused, for example, by methane release from permafrost. Even so, that is far from being the only life-threatening global problem. The UK government’s chief scientist and the last president of the Royal Society have highlighted the imminence of a ‘perfect storm’: water, food and fossil fuel scarcity. Reliable reports on the planet's health such as **The United Nations'** Global Environment Outlook**have found water, land, plants, animals and fish stocks are all 'in inexorable decline'.** Already by 2002 it was calculated that 97 per cent of all vertebrate flesh on land was human flesh plus that of our food animals (cows, pigs, sheep etc), leaving just three per cent for all wild vertebrate species on land. **Not to mention the obliteration of wild life in the oceans through acidification, pollution and massive over-fishing.** Regarding human numbers there is some good news: the total fertility rate or average family size of the world has halved since 1950, when it was over five, to about 2.5 (where 2.1 would be replacement level). The bad news is that despite this, the 58 highest fertility countries are projected to triple their numbers by 2100. In a majority of all countries there is also persistent population momentumcreated by 'bulges' of young people born in high fertility years. Therefore, **the UN warns bluntly that world population, now well over seven billion 'has reached a stage where the amount of resources needed to sustain it exceeds what is available'.** The annual population increase of over 80 million equates to a city for 1.5 million people having to be built, somewhere, every week—with, inevitably, **ever more greenhouse gas emissions and the continuing destruction of forests and wetlands**, with their multiple habitats for the web of life on which all species depend.

**[Barnatt 1]** Affirming leaves us with no options to fix resource scarcity

**Barnatt:** Barnatt, Christopher. Nottingham University Business School. “Resources From Space” *ExplainingTheFuture* 2021

**The resource requirements of the human race continue to escalate, with the United Nations anticipating a three-fold increase in resource usage between 2010 and 2050.** In response, over the past few decades **there has been an increasing focus on 'sustainability' initiatives like recycling and transitioning to alternative energy sources. However, all such measures to consume less can at best only constitute a short-term solution to the resource requirements of future generations**. In the long-term, **we will therefore need to move Beyond** Sustainability to both consume less and find more. **As the resource supplies of the Earth continue to dwindle, the only place we can find fresh supplies of both energy and raw materials is out in space. This could involve the mining of the asteroids and the Moon.** But, before that occurs, our most likely option for obtaining exterrestrial resources is space-based solar power.

**[Barnatt 2]** Affirming sentences us to earth, we need to go into space, it's our destiny

**Barnatt:** Barnatt, Christopher. Nottingham University Business School. “Resources From Space” *ExplainingTheFuture* 2021

All of our endeavours to harvest off-world resources are going to be complex, risky and expensive. And yet, **if we don't** at least **try to obtain resources from space, we face an inevitable future of increasing scarcity, mass depopulation, and relentless decline.** As we pursue the new industrial frontiers of space-based solar power, asteroid mining, and mining the moon, we may perhaps additionally bolster the human spirit by creating a thriving space tourism industry, and just possibly by landing the first human being on Mars. Unless we become extinct first, **the destiny of human civilization has to be to evolve into space.** The ideas outlined on this page, and in my accompanying "Resources from Space" videos, may therefore be just the beginning . . .

**C. Impact**

**[Maxwell]** Resource scarcity leads to conflicts and collapse of underdeveloped nations

**Maxwell:** Maxwell, John. Indiana University. “Resource Scarcity and Conflict in Underdeveloped countries” *Sage Journals* 2000

**As** time passes, **renewable resource scarcities are becoming more common**. There is increasing evidence that **these scarcities are a causal factor in political conflict, especially in developing countries.** We present a simple dynamic model of renewable resource and population interaction featuring the possibility of conflict triggered by per capita resource scarcity. In the model, **conflict diverts resources away from resource harvesting, increases the death rate, and damages the resource.** The two former effects may speed the return to a peaceful steady state. **If conflict results in resource destruction, however, it may destabilize the system, leading it towards collapse. Conflict due to renewable resource scarcity could be cyclical,** implying **recurring phases of conflict.** However, such conflict cannot last for ever. We use the model to examine various policy scenarios concerning population control and technical innovations in harvesting and natural resource growth. A key insight of the model is the importance of the bidirectional interplay between conflict and resource scarcity, as opposed to the unidirectional notion that resource scarcity leads to conflict. As such, the model points to the need for the use of simultaneous equation econometric models in empirical investigations of resource scarcity and conflict.

**Case**

**[Williams]** Satellites are essential for earth, and private entities supply them. We need private entities to increase the production of these important satellites

**Williams:** Williams, Matthew, Space writer HeroX “Is it worth it? The cost and benefits of space exploration” *Interesting Engineering* 2019

**The** most obvious **benefit of** the **Space** Age **was the way it advanced humanity**'s knowledge of space. **By putting satellites and** crewed **spacecraft into orbit, scientists learned a great deal about Earth**'s atmosphere, Earth's ecosystems, **and led to the development of** Global Position Satellite (**GPS)** **navigation**. The deployment of satellites also **led to a revolution in communications technology**. Ever since *Sputnik 1* was launched to orbit in 1957, about **8,100 satellites have been deployed** byforty countries **for** the purposes of **telecommunications, television, radio broadcasting, navigation, and military operations.** As of 2019, the United Nations Office for Outer Space Affairs (UNOOSA) estimated that were [5,074 satellites](http://www.unoosa.org/oosa/osoindex/search-ng.jspx?lf_id=#?c=%7B%22filters%22:%5B%7B%22fieldName%22:%22en%23object.status.inOrbit_s1%22,%22value%22:%22Yes%22%7D%5D,%22sortings%22:%5B%7B%22fieldName%22:%22object.launch.dateOfLaunch_s1%22,%22dir%22:%22desc%22%7D%5D%7D) in orbit of Earth. And **in the coming years, thousands more are expected as part of the growing telecom and satellite internet markets.** In the latter case, these **satellites will be essential to meeting** the growing **demands** for wireless services **in the developing world.** Between [2005 and 2017](http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx), the number of people worldwide who had internet access went from 1 billion to over 3.5 billion - 16% to 48% of the population. Even more impressive, the number of people in developed nations to have internet access went from 8% to over 41%. **By the latter half of this century, internet access is expected to become universal.**

**[Plait]** Space will eventually save the human race, it's important to put time and research into it now

**Plait:** Plait, Phil. University of Virginia. “The Value of Space Exploration”*Universe today* 2008

First, the question of why spend money there when we have problems here is a false dichotomy. **We have enough money to work on problems here and in space! We just don’t seem to choose to,** which is maddening. **$12 million an hour is spent in Iraq; the US government chose to do that instead of fix many problems that could have been solved with that money. NASA is less than 1% of the US budget**, so **it’s best to pick** your **fights wisely** here. Second, **space exploration is necessary. We learn so much from it**! Early attempts discovered the van Allen radiation belts (with America’s first satellite!). Later **satellites found the ozone hole, letting us know we were damaging our ecosystem.** Weather prediction via **satellites is another obvious example,** as well as global communication, TV, GPS, and much more. If you want to narrow it down to exploring other planets and the Universe around us, again we can give the practical answer that **the more we learn about our space environment, the more we learn about the Earth itself. Examining the Sun led us to understand that its magnetic field connects with ours,** sometimes with disastrous results… yet we can fortify ourselves against the danger, should we so choose. **Space exploration may** yet **save us from an asteroid impact**, too. **Spreading** our seed **to other worlds may** eventually **save the human race.** But I’m with Fraser. These are all good reasons, and there are many, many more. But **it is the very nature of humans to explore**! We could do nothing in our daily lives but look no farther than the ends of our noses. We could labor away in a gray, listless, dull world. Or we can look up, look out to the skies, see **what wonders** are there, marvel at exploding stars, majestic galaxies, ringed worlds, and perhaps planets like our own. That **gives us** beauty and joy in **our world,** and adds a depth and dimension that we might otherwise miss. **Space exploration is cheap. Not exploring is always very, very expensive.**

**[Fernholz]** The appropriation of Outer Space by private entities is how we’ve done everything in space

**Fernholz:** Fernholz Tim, Economy and politics, NASA Has Always Needed Private Companies to go to the moon, *Quartz* 2021 JG

“We got to the Moon without private contractors, if I’m not mistaken,” US rep. Jamaal Bowman [said yesterday](https://science.house.gov/hearings/a-review-of-the-presidents-fiscal-year-2022-budget-proposal-for-nasa), leading me to collapse in a frothing heap. NASA administrator Bill Nelson had a calmer response: “**In the Apollo program,** Mr. Congressman, **we got to the Moon with American corporations.”** A dozen **major US companies worked** closely **with the US space agency to build the vehicles that took the first humans to the lunar surface. NASA scientists and engineers** planned the mission and the technology needed to accomplish it, then **worked with** the most advanced **tech firms** of the day **to produce rockets, capsules, landers, suits, and rovers. There’s no doubt** Apollo was a big government program, but **the private sector was essential.** Why does this history matter? In the last decade, **the US space program has made major leaps by handing more work directly to private firms.** Rather than designing a new space vehicle to carry cargo or astronauts to the International Space Station and hiring someone to build it, **NASA effectively told its needs** to the marketplace, **and accepted proposals from companies that would** not only design the spacecraft, but **operate them as a service. This** choice **launched** SpaceX and **a** [**new era of private sector space in the**](https://qz.com/1855377/spacex-aims-to-launch-two-astronauts-and-change-space-forever/) **US.** The logic of this kind of partnership rests on several factors: These are tasks that have been done before, **paving the way for new organizations** to take them on more easily. Private firms are now willing **to invest their own capital** alongside the government, **saving** public **money. They can** take more risk, and **use more advanced program management techniques than government-run programs.** And they seem to result in more accountability for taxpayers when things go wrong: NASA shoulders the extra cost for Boeing’s long-delayed and over-budget SLS rocket, a traditional program; the same company is paying hundreds of millions of dollars to [re-test its Starliner spacecraft](https://qz.com/1878725/boeings-software-troubles-show-an-engineering-culture-clash/), bought through a public-private partnership

Because government appropriation of space is just, and private entities will have to abide by the same laws, and it is unfair to limit private entities’ usage of outer space **I negate and move onto the aff**