

BACKGROUND

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Resource Consumption and Economic Production in Canada and the United States

**How Economic Activity in North America
Benefits People Everywhere**

**By Ben Eisen and
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In Brief

“...if North American consumption of resources were to drop, there would be more resources available for others to use, and people elsewhere would be better off.”

- North Americans are frequently criticized for consuming more than “their fair share” of the world’s resources. For example, the complaint is often heard that although Canada and the United States make up only 6 per cent of the world’s population, we represent 25 per cent of the world’s annual oil consumption.
- The implication behind the criticism is clear: North Americans consume too many of the world’s resources, leaving “less to go around” for everybody else. The corollary implication is that if North American consumption of resources were to drop, there would be more resources available for others to use, and people elsewhere would be better off.
- This line of argument has intuitive appeal, but it fails to recognize the inextricable link between North America’s high level of resource use and the extraordinarily high levels of productivity achieved on this continent that have created vast amounts of wealth, products, services and innovations that have brought immeasurably large benefits to people across the globe.
- If Canadians and Americans were to drastically reduce their consumption of resources, thereby slowing down economic production, people all around the world would be worse off, as the world would have considerably fewer charitable organizations, new medicines and thriving companies.
- North America’s contribution to charity, innovation and prosperity is disproportionate to the size of its population. For example, although they contain just six percent of the world’s population, Canada and the United States contribute 26 percent of global Official Development Assistance to developing countries. When other forms of assistance such as private philanthropy and remittances are taken into account, the contribution of these countries appears to be even more disproportionate to the size of their populations.

Introduction

North Americans¹ are frequently criticized for consuming more than “their fair share” of the world’s resources. For example, the complaint is often heard that although Canada and the United States have just 6 per cent of the world’s population, we represent more than 25 per cent of the world’s annual oil consumption.² Largely because of high levels of energy use, North Americans are also among the world’s largest per capita emitters of greenhouse gasses. Because of fossil fuel consumption, North Americans are responsible for approximately 20 per cent of the world’s annual emissions of carbon dioxide.

Similarly, North Americans are often criticized for high levels of water consumption per capita. For example, a recent publication from the Safe Drinking Water Foundation disapprovingly notes that water consumption per capita in the United States and Canada are the highest in the OECD at 1730 cubic meters per year and 1420 cubic meters per year respectively.³

The implication behind these criticisms is clear: North Americans consume too many of the world’s resources, leaving “less to go around” for everybody else. The corollary is that if North American consumption of resources were to drop, there would be more resources available for others to use, and people elsewhere in the world would be better off than they are now.

This line of argument has intuitive appeal, but it fails to recognize the inextricable link between North America’s high level of resource use and the extraordinarily high levels of productivity that create vast wealth and vast numbers of products, services and innovations that bring immeasurably large benefits to people across the entire globe. In this *Backgrounder*, we will discuss the link between high levels of resource use and high levels of production in North America as well as how the continent’s incredible productivity levels enhance the quality of life experienced around the world.

“**...Canadians are among the biggest water users on the planet (just behind the United States), consuming an average of 350 litres of water per day.**”

Resource Consumption, Economic Production and Quality of Life

“*Lower levels of resource consumption would diminish this level of production and reduce wealth generation...*”

It is true that North Americans use more raw natural resources than most other people do. However, much of this use occurs during the production of goods, services and new technologies that bring advantages to people elsewhere. For example, we noted that per capita water consumption is much higher in North America than in most other countries. However, most water use in Canada is not household consumption—instead, much of this water (69 per cent in the year 2000) is used in industrial processes such as cooling machinery, producing energy and acting as a solvent.⁴ Domestic water use accounts for just 20 per cent of total consumption in Canada.⁵ Water consumption patterns in the United States are similar, with over 50 per cent of water consumption the result of industrial use.⁶

Domestic consumption does not drive North America’s high levels of water usage. Rather, it is the need for water in productive processes that does so. This also holds true for North America’s high level of per capita energy use. A large share of energy consumption occurs as part of industrial and other productive processes and is a necessary element in the production of goods and services. Lower levels of resource consumption would diminish this level of production and reduce wealth generation in ways that we will argue would leave mankind worse off.

The preceding paragraphs have shown that while North America’s consumption of natural resources is indeed high, that consumption is inseparable from the extraordinarily high levels of production that occur every year in Canada and the United States. Just how productive are these two societies? Although Canada and the United States represent just 6 per cent of the world’s population, they contribute 22 per cent of all the economic production in the world. North Americans do not simply “consume” a disproportionate amount of the world’s resources—they also produce a similarly disproportionate amount of the world’s goods and services.

This high level of productivity has afforded residents of these countries with an extremely high quality of life, and it has not left others around the world worse off. Instead, it has enabled the creation of wealth and the investment of resources in charitable activities and research that have generated benefits for people the world over.

How have high productivity levels in North America improved the lives of people elsewhere? There are many different ways, and we will start by considering one of the most obvious.

The massive productivity of Canada and the United States has generated an incredible amount of wealth. This newly created wealth has enabled Canada and the United States to engage in levels of international charitable giving that are highly disproportionate to the number of people living in North America.

We noted the favoured refrain of North America's critics that it is unfair that 6 per cent of the world's people consumes 25 per cent of the world's energy. However, detailed statistics from the Organization for Economic Co-operation and Development show that this resource use enables massive levels of production that allow North Americans to contribute disproportionately to international charitable efforts. Specifically, in the year 2009, a total of approximately \$128-billion dollars worth of Official Development Assistance (ODA) was provided to developing nations. Of this amount, \$32.8-billion came from Canada and the United States.⁷ In other words, the 6 per cent of the world's residents who live in North America contribute approximately 26 per cent of all ODA contributions to developing nations.

When other forms of assistance to developing nations, such as private philanthropy and remittances, are taken into account North America's contribution appears even larger. Unfortunately, statistics surrounding total private philanthropy and remittances are less reliable and consistent than those surrounding ODA. However, the data which does exist clearly demonstrates that North Americans contribute disproportionately to these forms of assistance for people in developing countries. For example, The Hudson Institute's Index of Global Philanthropy and Remittances reports that in 2009, United States residents gave \$37.5 billion in private philanthropy to developing countries, by far the largest total amount of any country in terms of overall dollars, and among the largest amounts in terms of percentage of national gross domestic income.⁸

This enormous contribution to international charitable giving improves the lives of some of the poorest people in the world, and it would not be possible without the high levels of resource consumption and related production that occur in Canada and the United States each year.

Enabling high levels of charitable giving is just one especially direct way that high levels of economic production in North America benefit people elsewhere. There are other somewhat less direct but extraordinarily important ways in which economic production in North America benefits people elsewhere. For example, the creation of vast amounts of wealth in North America (again, wealth that would not exist in the absence of productive activity), have allowed governments and companies on this continent to invest tremendous amounts of money in medical and scientific research that has brought benefits to people around the globe.

...international charitable giving ... would not be possible without the high levels of resource consumption and related production...

As a result, North America has contributed disproportionately to advances in technology and, specifically, medical technology. A recent study of the distribution of the locations of pharmaceutical innovations between the years 2000 and 2009 showed that in each year at least 50 per cent of the inventors of new medicine patents were located in either Canada or the United States.⁹ In some years, the number was much higher. For example, in 2005, 74 per cent of inventors of new drugs were located in North America. To use once again the preferred formulation of North America's critics, despite having just 6 per cent of the world's population, this continent is responsible for more than half of the pharmaceutical innovation in the world over the past decade.

Medical technology is just one area in which the tremendous productive capacity of North America enables investment in research and development that ultimately creates products and innovations that benefit people elsewhere. If we examine the world's patents, we see that North America contributes disproportionately to the development of new technologies in a wide variety of areas—not just medical. The Conference Board of Canada notes that counting patent shares is one way of gauging the extent to which countries “transform knowledge into usable inventions.” This process benefits people across the world.

Again, with just 6 per cent of the world's population, Canada and the United States had 32 per cent of all the world's patents in 2007.¹⁰

This area is one in which the United States' contribution is much greater than Canada's is—the United States had 30.1 per cent of all global patents in 2007 compared with 1.4 per cent in Canada. Again, however, taken as a whole, this metric suggests that North America has contributed disproportionately in the global transformation of knowledge into useful technologies. This type of contribution to innovation is enabled by high levels of production that create wealth and allow for investment. We have seen that the continent's high levels of natural resource usage are closely linked to this production.

These levels of productivity in Canada and the United States benefit people globally in countless other ways. For example, out of the 500 largest companies in the world in terms of revenue in 2011, 144 (29 per cent) were located in either the United States or Canada.¹¹ Each of these companies invests money in the development of new technologies or strategies for the better delivery of services to consumers, thus enhancing the lives of their customers while providing jobs for (in total) millions of people in North America and elsewhere. Without the large-scale consumption of resources in productive processes, the growth of these types of companies, along with the wealth and jobs they generate, would be much slower.

“North America has contributed disproportionately in the global transformation of knowledge into useful technologies... high levels of natural resource usage are closely linked to this production.”

Conclusion

Canada and the United States are frequently criticized for consuming “more than their share” of the world’s natural resources. The implication is that if they were to consume less, there would be more to “go around,” and the lives of people elsewhere would be improved. Nothing could be further from the truth. The high levels of resource use in North America are necessary components of the productive process in Canada and the United States. These high levels of economic production have resulted in large-scale investments in medical technologies, research and development for new products, and in charitable giving and have generated enormous material benefits for people elsewhere. It is true that North Americans consume more resources than people elsewhere do; however, this consumption is a necessary component of the disproportionate production that occurs in North America that generates benefits for people there and all over the globe. If Canadians and Americans were to drastically reduce their consumption of resources, thereby slowing down economic production, there may be somewhat more oil to “go around,” but there would be dramatically less charity, less new medicine and fewer thriving companies in the world.

High levels of resource consumption in North America are connected inextricably to the high levels of production in Canada and the United States. This very high level of economic productivity has created a quality of life for the residents of these countries that is among the very highest in the world. It has also created substantial benefits for people elsewhere by serving as the enabling condition for the disproportionately large North American contributions to international charity, new technology development and medical advances that have helped people on all continents lead longer, healthier and more prosperous lives.

“If Canadians and Americans were to drastically reduce their consumption of resources ... there would be dramatically less charity, less new medicine and fewer thriving companies in the world.”

Endnotes

1. Throughout this paper, the term “North America” refers only to the two economically developed North American countries: Canada and the United States.
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FURTHER READING

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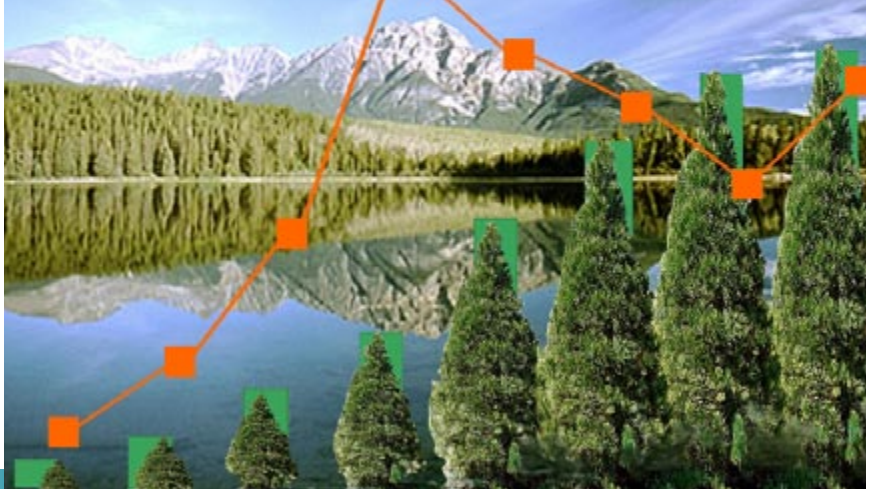
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Fact Check on Greenhouse Gas Emissions
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The Environmental State of Canada
Ben Eisen, and Kenneth P. Green

<http://www.fcpp.org/publication.php/2826>



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