



Greendex 2010: Consumer Choice and the Environment – A Worldwide Tracking Survey

HIGHLIGHTS REPORT

June 2010

INTRODUCTION

National Geographic conducted its inaugural Greendex survey in January 2008. That first Greendex survey of 14 countries around the world ranked average consumers in those countries according to the environmental sustainability of their behavior. Consumers in the large developing economies of Brazil, India and China scored highest, while Canadians and Americans, with their relatively massive environmental footprints as individuals, scored lowest.

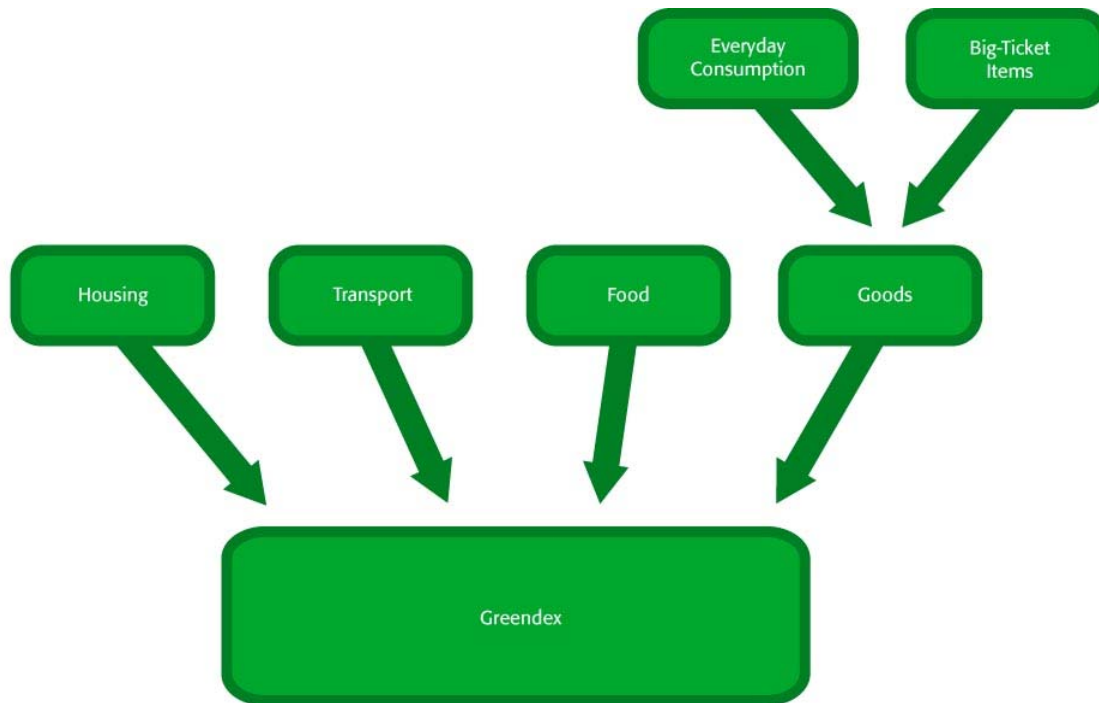


The 2008 findings raised concerns about what economic development and the material aspirations that come with it would mean for the impact that the average consumer in rapidly developing countries has on the environment. At the same time, the results reminded us that consumers in wealthy countries have a proportionately greater impact on the environment than others—and that they can and should make more sustainable choices.

The world has changed since January 2008. How has consumer behavior changed over the past three years? Are trends apparent? With the publication of the results of this the third wave of the research study, we now have insights into the dynamics of sustainable consumption over a three-year period.

The following is an interpretive summary of Greendex 2010: Consumer Choice and the Environment—A Worldwide Tracking Survey.

The Greendex is a comprehensive measure of consumer behavior in 65 areas relating to housing, transportation, food and consumer goods. Greendex 2010 ranks average consumers in 17 countries—up from 14 in 2008 for which changes are tracked—according to the environmental impact of their discretionary and nondiscretionary consumption patterns within these four major categories.



Each respondent earned a score reflecting the environmental impact of his or her consumption patterns within each, and four corresponding “sub-indices” were created. Consumers were then assigned an overall Greendex score (a measure of the relative environmental sustainability of their consumption patterns) out of 100, based on their performance within the four sub-indices.

GREENDEX 2010: OVERALL RESULTS

In their third annual survey to measure and monitor consumer behaviors that have an impact on the environment, the National Geographic Society and the international polling firm GlobeScan have found that environmentally friendly behavior among consumers in 10 out of 17 countries has increased over the past year. The survey results show that environmentally friendly consumer behavior, as measured by the Greendex, has now increased from 2008 levels in all but one of the 14 countries polled in both 2008 and 2010. By environmentally friendly consumer behavior, we mean people’s transportation patterns, household energy and resource use, consumption of food and everyday consumer goods, and what consumers are doing to minimize the impact these activities have on the environment.

“Greendex 2010: Consumer Choice and the Environment — A Worldwide Tracking Survey” is a comprehensive measure of consumer behavior in 65 areas relating to housing, transportation,

food and consumer goods. Greendex 2010 ranks average consumers in 17 countries according to the environmental impact of their consumption patterns and is the only survey of its kind.

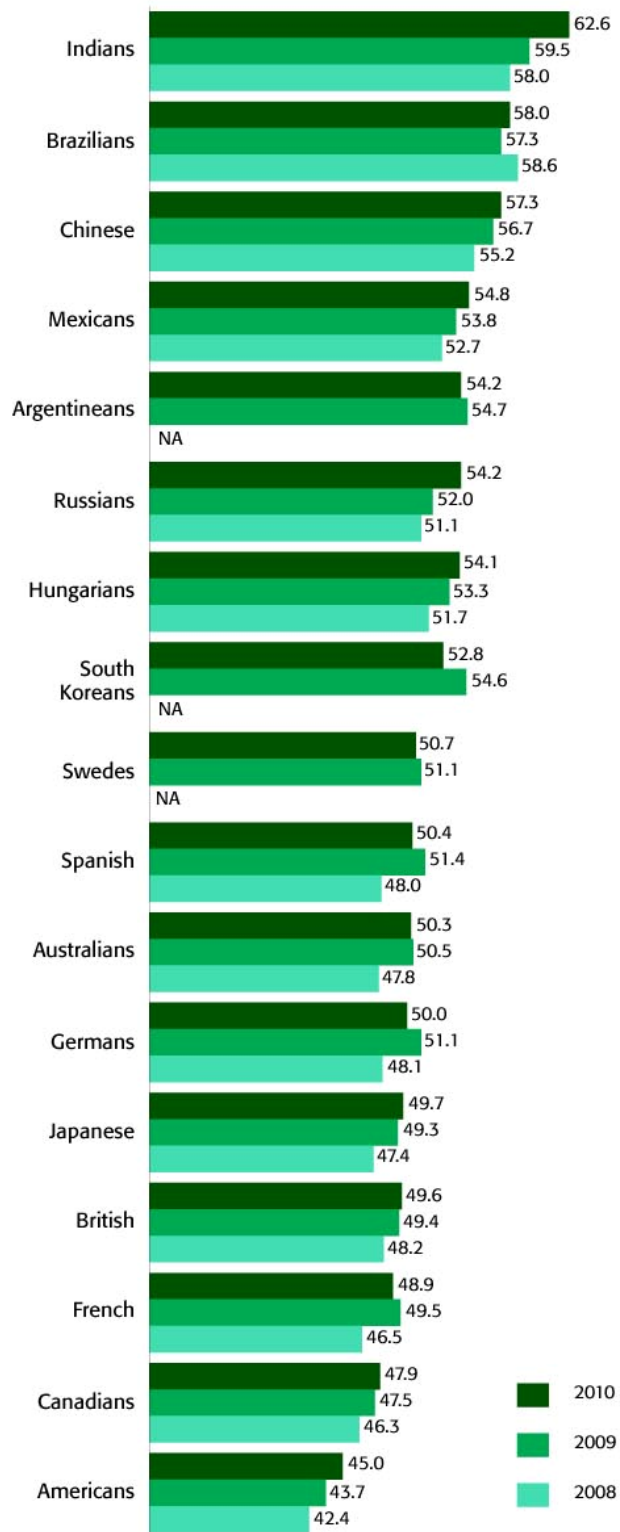
First conducted in 2008, the Greendex survey was expanded in 2009, with the addition of Argentina, South Korea and Sweden to Australia, Brazil, Canada, China, France, Germany, Great Britain, Hungary, India, Japan, Mexico, Russia, Spain and the United States. Seventeen thousand consumers were polled online (1,000 in each country). The same 17 countries were included in the 2010 survey.

As in 2008, the top-scoring consumers of 2010 are in the developing economies of India, Brazil, China, in descending order. American consumers' behavior still ranks as the least sustainable of all countries surveyed since the inception of the survey three years ago, followed by Canadian, French and British consumers. Consumers in emerging economies continue to round out the top tier of the Greendex ranking, while the six lowest scores were all earned by consumers in industrialized countries.

Consumers registering the largest 2010 vs 2008 increase in environmentally sustainable consumer behavior were the Indians, Russians and Americans. Environmentally sustainable behavior among average consumers in India, China, Mexico, Russia, Hungary, Japan, Great Britain, and Canada has also increased steadily each year. In contrast, consumers in Germany, Spain, Sweden,

Greendex: Overall Rankings

Consumers in Each Country, 2008–2010



NGS10_greendex_overall

France and South Korea have slipped slightly over the past year.

Notably, in a majority of the countries surveyed since 2008, three-year trends toward improvement have occurred. While these increases in Greendex scores are sometimes subtle, the trend is in a positive direction. Others have been more distinct. For instance, Americans' average Greendex score has increased by 1.3 points in each year. Still, Americans have yet to surpass Canadians' 2008 score.

Much of the increase in the overall Greendex scores was due to more sustainable behavior in the housing category in both 2009 and 2010. Here, the Greendex measures the energy and resources consumed by people's homes. Americans, Hungarians, British and Australians all saw marked increases in this area, as consumers made moves to improve the energy efficiency of their homes. In some countries, economic stimulus programs may have been a factor in motivating change.

Changes in personal behavior within the categories of personal transportation, food and consumer goods were mixed, with some countries improving and some deteriorating.

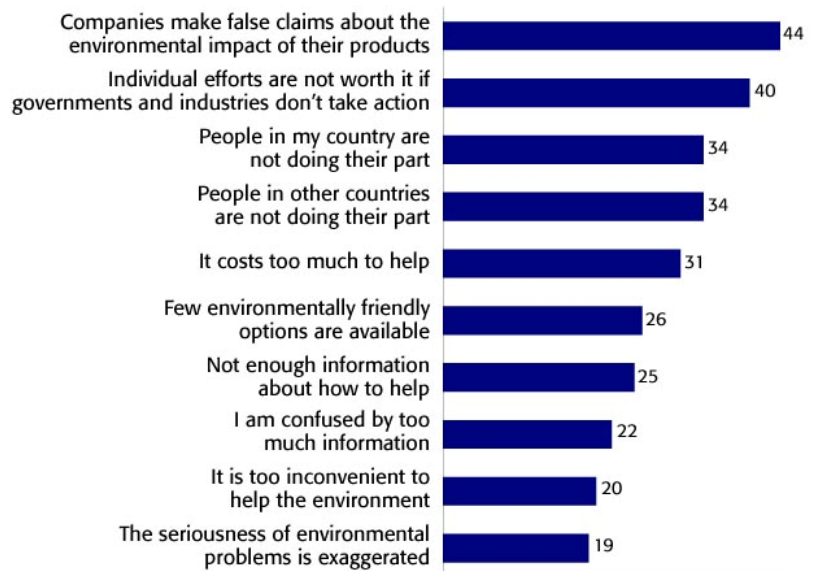
The survey results show that both cost considerations and environmental concerns motivated consumers to adopt more environmentally sustainable behavior over the past year. When consumers who reported decreases in their energy consumption were asked why their consumption declined, most cited cost as one of their top two reasons, but significant percentages ranging from approximately 20 percent to 50 percent said that environmental concerns were one of the main reasons for the decrease.

Recognizing that behavior does not change overnight and that consumers face obstacles to improving the environmental impact of their consumption patterns, National Geographic and GlobeScan explored what inhibits people from being more environmentally active as part of the 2010 survey.

When asked to what extent 10 different factors discourage them from doing more for the environment than they do now, the largest proportion across the

What Discourages More Environmentally Friendly Consumer Behavior?

"Discourage,"* Percentage of Consumers in Each Country, 2010



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*"Discourage" represents 4+5 (on a scale of 1 to 5 where 1 means "Does not discourage you at all" and 5 means "Discourages you a great deal").

17 countries said they do not do more because companies make false claims about the environmental impacts of their products. The second most commonly cited obstacle was that further individual efforts are not worth it if governments and industries do not also take action.

GlobeScan's analysis of the data reveals that these two perceptions directly or indirectly suppress more sustainable consumption and put downward pressure on Greendex scores. Cost, a lack of environmentally friendly options and information are barriers for significantly fewer people. The belief that environmental problems are exaggerated is the least common obstacle. It appears that consumers are sending a message that they want "less talk and more action" from business and government, or at least action before talk.

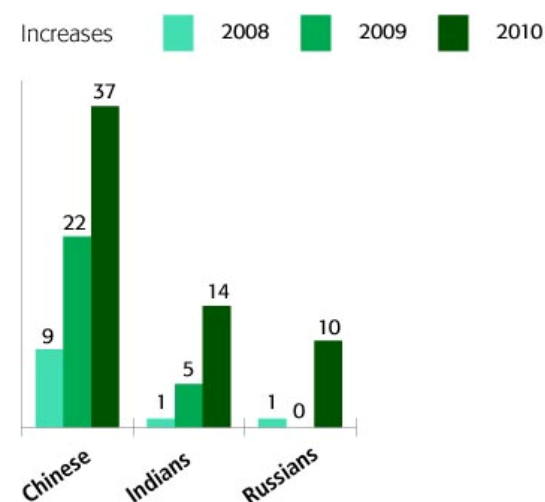
Despite Indian consumers' lifestyles continuing to emerge as the most environmentally sustainable of any of the countries surveyed according to the Greendex, Indians were also the most likely to cite the perception that the seriousness of environmental problems is exaggerated as a barrier to action. In all other countries surveyed, fewer than one-quarter said that they are discouraged from taking action because they think that environmental problems are exaggerated, while 40 percent of Indians said they feel this way. In the longer term, these perceptions may act as a brake on a long-term adoption of sustainable lifestyles in India as the subcontinent's economy continues to develop.

For now, the survey results as a whole point to an emerging environmental conscience in three of the largest emerging economies, including India. There, as well as in Russia and China, the percentage of consumers who said that the environment is the single most important issue facing their country has increased notably. More consumers in China than in any other country surveyed cited the environment as most top-of-mind. When prompted about how much they are concerned about the environment, we observe increased numbers from 2008 and/or 2009 in these countries as well.

These increases in public concern about the environment appear to be triggering behavior change. Overall Greendex scores have increased in India, China and Russia as a result of changes in a number of the indicators that make up the Greendex.

Most Important National Issue: Environment

Unprompted, Percentage of Consumers in Each Country, 2008–2010



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HOUSING

Brazilians, Indians, Mexicans, and Chinese top the housing sub-index, while Germans, French, Canadians, British, Japanese, and Americans round out the bottom six. For the most part, the housing sub-index scores have trended upward from 2008.

Japanese and Chinese households rely heavily on non-renewable and environmentally unfriendly sources of energy to heat their home. Among Japanese households that have home heating, a little more than half use oil, and of those Chinese consumers who have home heating, almost half use coal. These characteristics have a downward effect on Greendex scores.

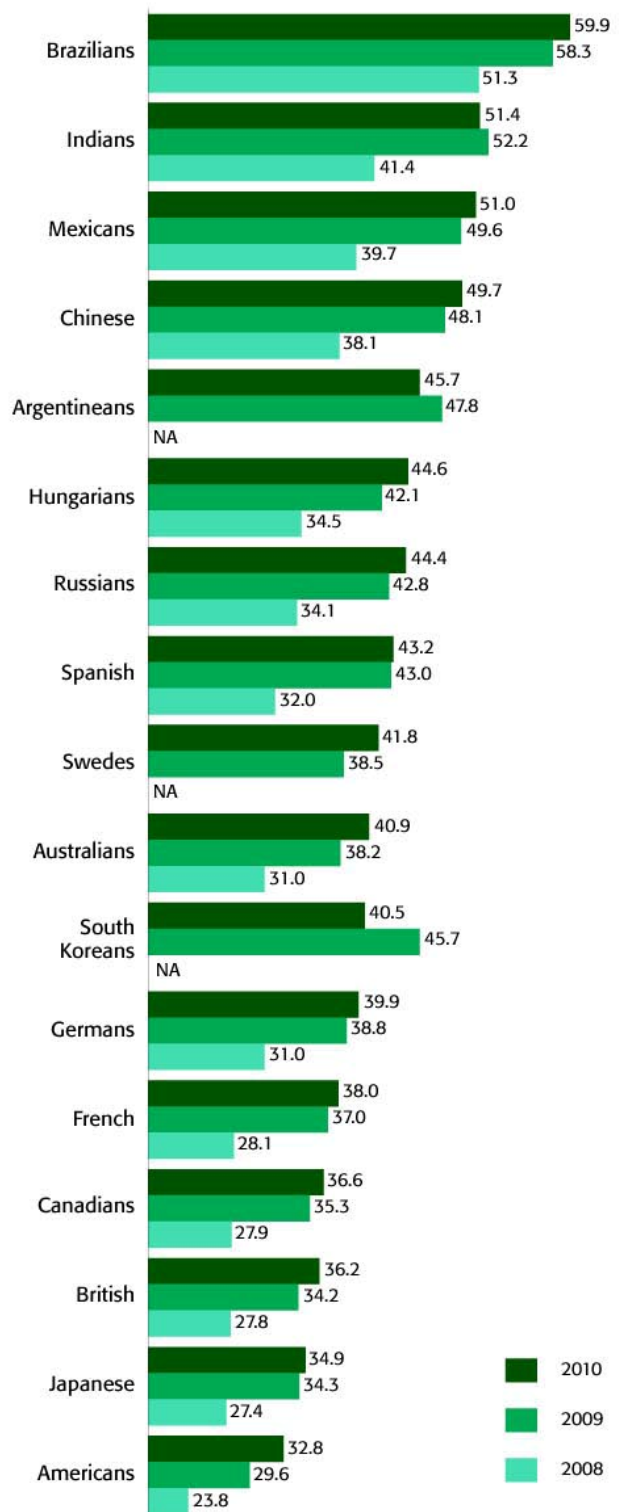
Air conditioning is very common in Japanese and American households. Air conditioners are not a usual feature of European households, with the exception of Spanish homes.

Brazilian consumers continue to be the most likely to report that they purchase electricity sold as “green” or generated from renewable resources, but this has declined somewhat from last year. Brazil continues to produce large amounts of biofuel. Green electricity consumption is becoming more common in China, Germany, Spain, and Sweden, resulting in higher Greendex scores.

Since 2008, a three-year trend shows an increase in the number of consumers in many countries engaging in energy-saving activities. More than half of consumers in 14 of the 17 countries surveyed report that they frequently moderate the temperature settings in their homes to save energy. There is also a growing trend to conserve fresh water, particularly among Indian and Russian consumers.

Greendex: Housing

Consumers in Each Country, 2008–2010



NGS10_greendex_housing

In most countries, more consumers report having decreased their home energy use over the preceding 12 months than say that their consumption has increased. Only Indians and South Koreans are more likely to report that their consumption of fuel has increased than to say that their consumption has decreased.

Across all countries surveyed except Japan, cost is cited as the number-one reason for decreased household energy consumption.

Among those who report decreased consumption of home energy, environmental concerns are one of the top two reasons for the reduction for four in ten consumers overall. Australians and Chinese are particularly likely to have reduced their energy consumption for environmental reasons.

Close to half of North American, Chinese, and Brazilian consumers report possessing energy-saving televisions. Over the past three years, ownership of these types of televisions has increased considerably among consumers in Australia, Canada, China, France, Germany, South Korea, and Sweden, pushing Greendex scores higher. This likely reflects a transition to the use of LCD technology in televisions.

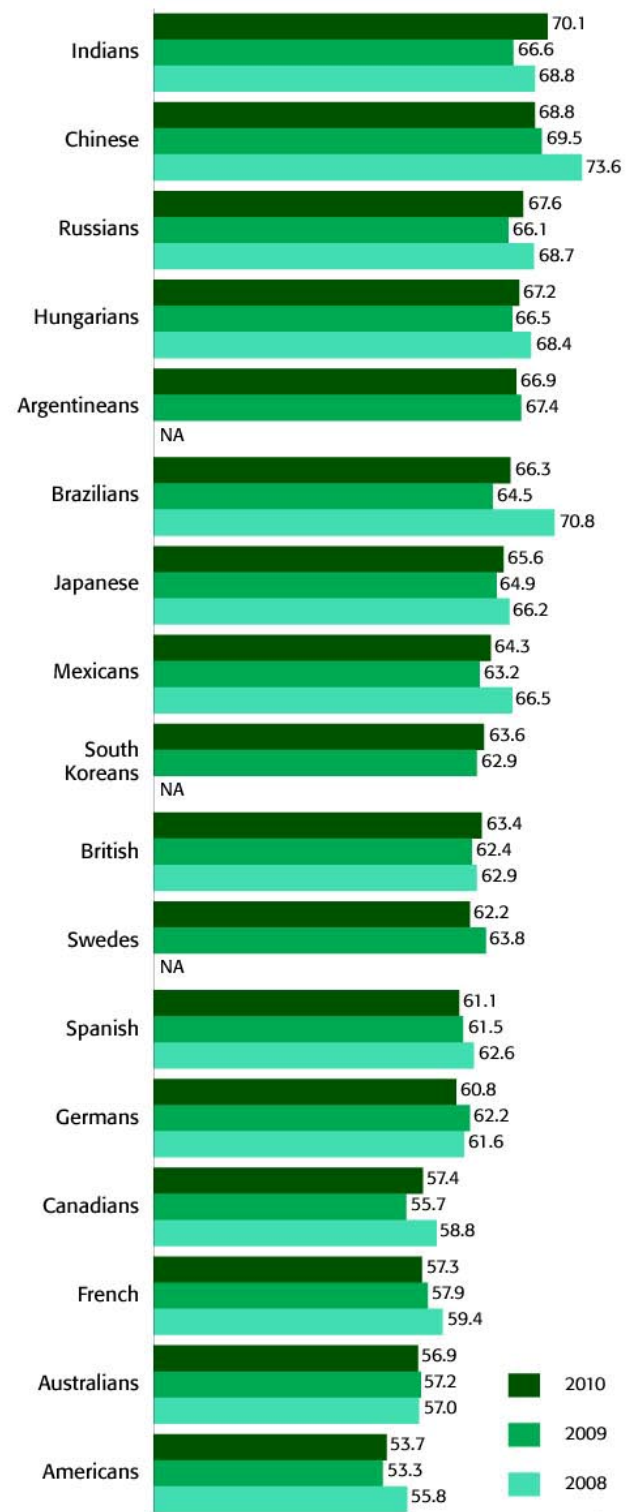
TRANSPORTATION

Transportation sub-index scores are up from 2009 in ten countries, for most only slightly, and down in the remainder, again usually only slightly. Consumers generally appear to be stuck in their transportation routines, either unwilling or unable to make meaningful changes in their behavior.

The possession of cars or trucks is much more common among consumers in industrialized economies than emerging economies. Consumers in China, India, and Argentina are the least likely to own at least one, but the use of cars is increasing

Greendex: Transportation

Consumers in Each Country, 2008–2010



NCS10_greendex_transportation

at least in China and India. Still, Chinese and Indian consumers are the most likely to say that they live close to their usual destinations to minimize the impact of their personal transportation on the environment, and Indians and Chinese retain the first and second ranks on the sub-index respectively. If trends in Chinese transportation habits continue, however, Greendex scores will decline further.

Since 2008, British, Canadian, and Indian consumers have reduced their frequency of driving alone in a car (perhaps due to fuel costs), while the percentage of Chinese consumers who drive alone in a car or truck has increased by six percentage points.

The frequency of use of public transportation is relatively low in most countries. Half of Russians, however, use public transportation every day or most days (47 percent), which contributes positively to their Greendex score. Australian, Canadian, and American consumers are the least likely to use public transportation and are less inclined than others to do so to save fuel and reduce pollution. Consumers in these countries are also the least likely to walk or ride a bike to their usual destinations, pushing their scores lower.

Chinese and Indian consumers are the most frequent users of public transportation and the most likely to report that they use it to save fuel and reduce pollution at least in part. Chinese consumers (73 percent) also remain the most likely to walk or ride a bicycle to their usual destinations.

FOOD

Food sub-index scores have increased in seven countries but have decreased in ten countries. The score among Indian consumers has increased notably and is much higher than the score for average consumers in other countries, with low meat consumption being the main reason. Brazilians and Mexicans continue to score lowest.

Generally, most consumers in most countries surveyed consume beef at most once or twice per week. Argentinean and Brazilian consumers are the most likely to consume beef and, with over 50 percent indicating they consume it daily or several times a week, they have lower food sub-index scores as a result. Indians, in contrast, eat the least beef.

Australians, Russians, Chinese, and Indians are the most likely to consume locally grown food frequently, while only one-third or less of Swedish, Japanese, and South Koreans report that they consume locally grown food at least several times a week.

Over the past three years, the trend shows that British, French, and Spanish consumers have significantly increased their consumption of locally grown food, while Brazilian and Chinese consumers have significantly decreased their consumption of it, pushing Greendex scores higher and lower respectively.

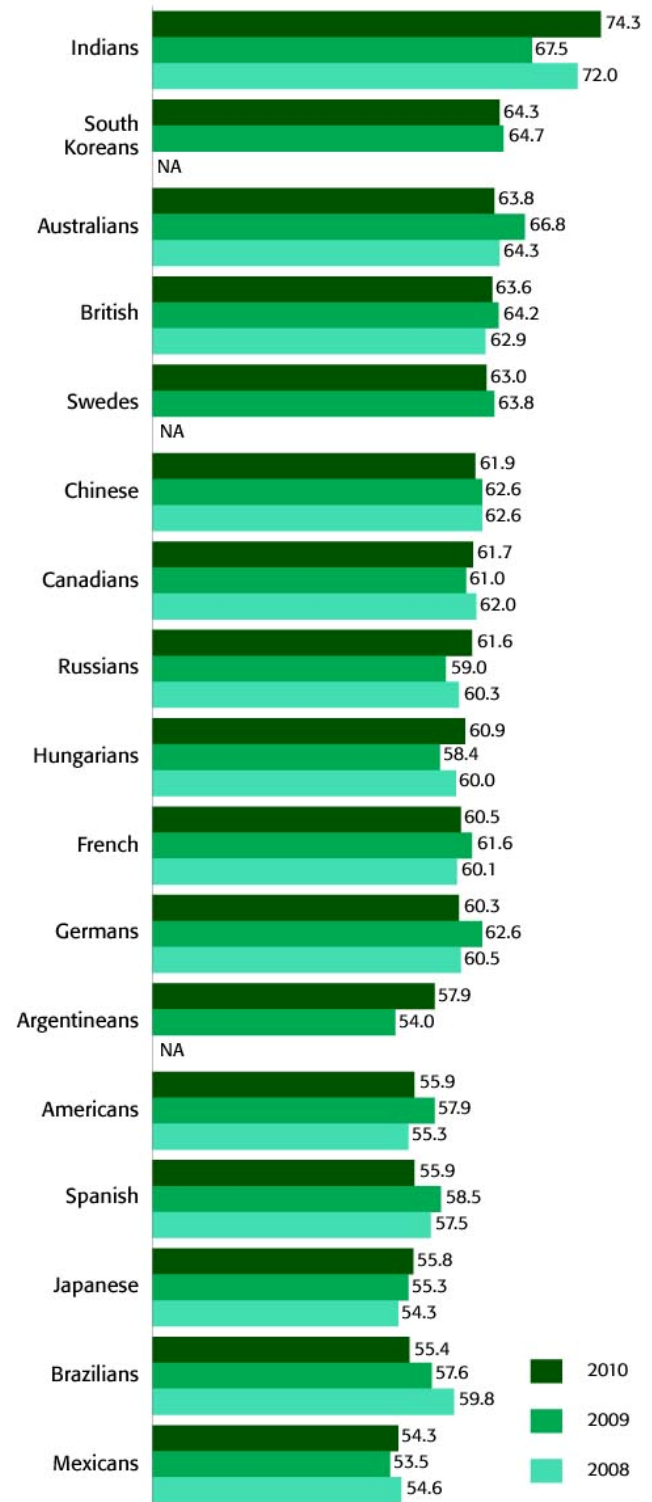
Russians, Australians, Hungarians, Chinese, and Indians consume food they have grown on their own more frequently than those in other countries, which contributes positively to their Greendex score.

Japanese consumers are the most likely to consume fish and seafood, with more than 50 percent indicating that they consume it daily or several times per week. Their food score is therefore lower. Consumption of fish and seafood has decreased among consumers in Argentina, India, and South Korea, while consumption in Brazil has increased since 2008.

Drinking bottled water is very common among German consumers, with 65 percent reporting that they do so on a daily basis. Germans continue to consume more bottled water than those in all other countries surveyed and this negatively affects their score.

Greendex: Food

Consumers in Each Country, 2008–2010



NGS10_greendex_food

GOODS

Greendex goods scores for average consumers have increased in seven mostly less wealthy countries, including Brazil, Russia, and Mexico, but also in the USA. Scores have decreased somewhat among Europeans, Canadians, and Australians.

Majorities of consumers in 15 of the 17 countries surveyed indicate that they prefer to repair something when it is broken rather than to replace it, which has a positive impact on Greendex scores. Since 2008, the number of consumers who prefer to repair rather than replace broken items has continued to increase in China, India, and Russia.

Since 2008, there has been a significant increase in the number of Americans, Chinese, and Indians who generally try to buy things “used” or “pre-owned” rather than new (up 11, 9, and 21 points respectively). This also affects Greendex scores positively.

In most countries, consumers report a preference for reusable over disposable products, especially in Japan, Sweden, and South Korea. India is one exception.

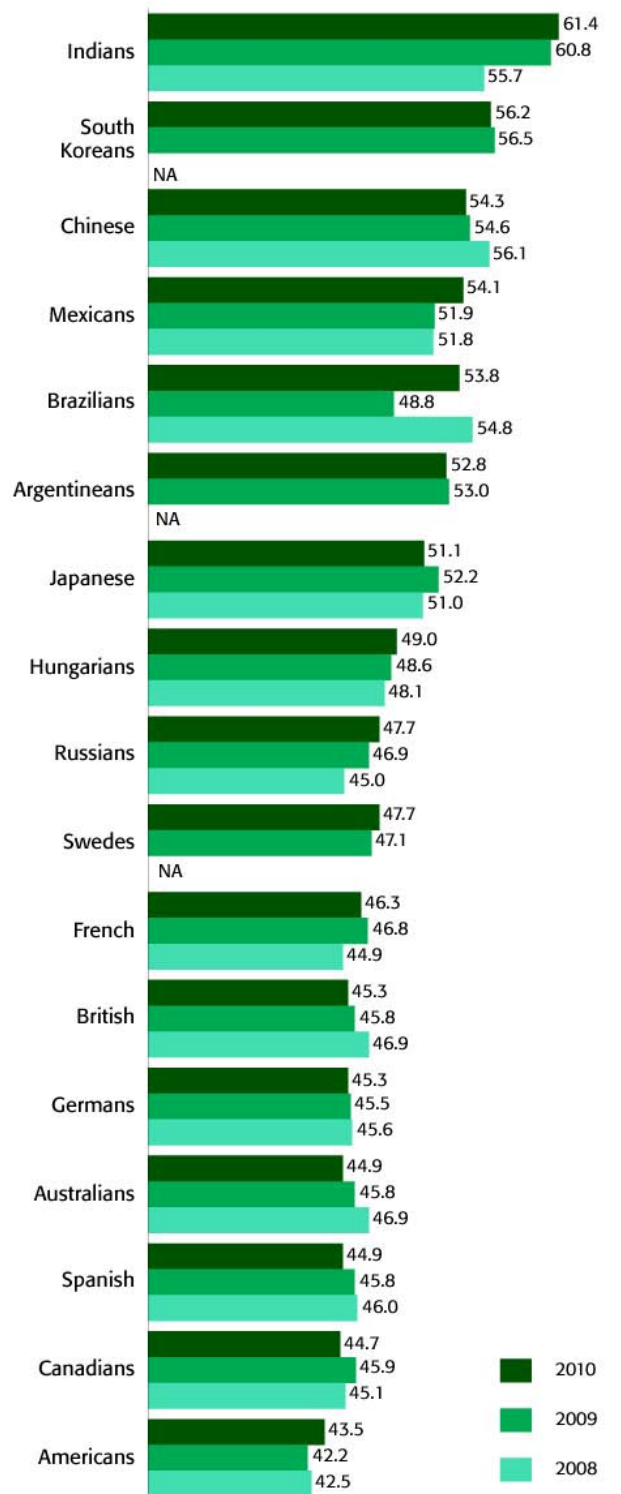
Consumers in most countries say that environmentally friendly product premiums are generally worth it to them, but Russians, Indians, and Brazilians have the opposite opinion.

Consumers in North America and Western Europe are the most likely to report that they recycle materials “all of the time” or “often.” Only half of Hungarians, Russians, Mexicans, Argentineans, and South Koreans report recycling “all of the time” or “often.”

Actions such as avoiding environmentally unfriendly products or buying environmentally friendly products are most common in emerging economies, particularly among Chinese and Indian consumers.

Greendex: Goods

Consumers in Each Country, 2008–2010



NGS10_greendex_goods

British and Japanese consumers are the least likely to report such behavior.

Indians and Chinese are the only two countries in which a majority of consumers reports avoiding excessively packaged goods. This tendency has increased from 2008 levels.

Majorities of consumers in most countries frequently use their own durable bags when visiting stores, with French consumers the most likely to do so. Considerably more Canadian consumers have adopted this behavior in the past year, which bolsters their score. Indeed, two of Canada's major grocery stores charge a five-cent surcharge on all plastic bags, and governments are increasingly putting in place similar disincentives. Government regulation can have a powerful impact on everyday consumer behavior.

Nearly all consumers report possessing a least one television or one computer. More American consumers than others report living in households that contain four or more televisions, and this drives their score downward.

More than half of American, British, and Canadian consumers, however, say that they frequently recycle their electronic items, up from 2008 levels. Electronic recycling has increased in five countries in total, likely as a result of both private and public sector initiatives.

ABOUT THE GREENDEX

This quantitative consumer study of 17,000 consumers in a total of 17 countries (14 in 2008) asked about such behavior as energy use and conservation, transportation choices, food sources, the relative use of green products versus traditional products, attitudes towards the environment and sustainability, and knowledge of environmental issues. A complex algorithm is applied to results to generate an index score, i.e., a Greendex score, for each individual respondent that reflects the relative environmental impact of his or her consumption patterns in the areas of housing, transportation and the consumption of food and consumer goods. Individual scores are averaged to create a mean score for each country. The Greendex measures the impact of the average consumer in each country surveyed; it does not measure the environmental impact of a total country.

DISCOVER YOUR GREENDEX SCORE

Individuals around the world can find out where they rank on the Greendex scale by visiting nationalgeographic.com/greendex and taking an abbreviated survey. They can also examine the Greendex survey results by country, measure their knowledge of some basic green issues against what others around the world know and get tips on living a more environmentally friendly lifestyle.