

WHAT IS QATAR DOING TO IMPROVE ITS FOOD SECURITY?

- Established the **Qatar National Food Security Plan** (QNFSP) to reduce Qatar's reliance on food imports through developing self-sufficiency in:
 - Renewable energy.
 - Desalination and water management.
 - Agricultural production, with a proposed 1400 agricultural farms (total area of 45000 hectares).
 - Food processing.
- QNFSP is aiming for Qatar to meet 70% of its own food needs in 12 years.
- Established the **Qatar National Vision 2030** to promote and direct human, social, economic, and environmental growth in a sustainable manner.

WHAT IS QATAR DOING TO REDUCE EMISSIONS?

- UN Climate Change Convention signee, Kyoto Protocol signee, (UNFCCC) and International Renewable Energy Agency member (IRENA).
- Bid to host **2012 UN Framework Convention** on Climate Change.
- Proposed **Qatar rail network**, including Doha metro, light rail, freight, and Education City people-mover.
- Use of **solar energy** to heat water and power homes.
- Proposed **bike-share system** covering all of Doha.
- **Sustainably-designed neighborhoods**, such as Musherieb Properties.

WHAT CAN WE REALISTICALLY DO IN QATAR?

- **Purchase choices**
 - Request local food items at your supermarket.
 - Go to the vegetable souk or local farms to purchase your items.
 - Research and buy from businesses with sustainable policies and products.
 - Purchase carbon off-sets
- **Use less electricity**
 - Turn off the lights after you leave a room.
 - Turn off electronics after use.
 - Unplug items that are not in use.
 - Install florescent light bulbs.
- **Use less water**
 - Install low-flow shower heads.
 - Fix water leaks.
 - Use a broom or moist mop to clean floors indoors and patios and driveways outdoors.
 - Use no- or low-water car washers.
- **Emit less**
 - Travel by plane less.
 - Consolidate trips.
 - Rideshare or carpool with coworkers.
 - Have fewer cars.
 - Walk more.
 - Use a bike or shuttles to travel between the buildings and parking lots in Education City.
- **Engage others**
 - Participate in the Sustainable Living Ambassador Program in Education City.
 - Create a student organization focused on local foods.
 - Help your current student organization to discuss how they can make an impact.
 - Encourage family members to adopt a more sustainable way of life.

CAMPUS CONVERSATION

THE IMPACT OF CLIMATE CHANGE ON FOOD SECURITY

20 NOVEMBER 2011
AT THE NEW STUDENT CENTER

5:30 REGISTRATION
6:00 CONVERSATION
8:00 DINNER

REGISTER EARLY!
QATAR.CMU.EDU/CAMPUSCONVERSATION

FOR MORE INFORMATION PLEASE EMAIL
CAMPUSCONVERSATIONS@QATAR.CMU.EDU

WHAT MAKES THIS CAMPUS CONVERSATION UNIQUE IS THAT STUDENTS FROM ALL EDUCATION CITY UNIVERSITIES ARE INVITED TO DELIBERATE AMONGST THEMSELVES, THEN POSE QUESTIONS TO AN INVITED PANEL OF EXPERTS.

جامعة كارنيغي ميلور في قطر
Carnegie Mellon Qatar



DATA & STATISTICS

- In 2007 Qatar had the **highest CO₂ emissions** (53 metric tons per capita) in the world, even though it emitted a comparatively moderate amount of CO₂ (63,002 kiloton) overall.
- In 2008 Qatar had the **highest energy usage** (17,276 kg oil equivalent per capita) in the world.
- In 2007 Qatar had the **2nd highest ecological consumption footprint** in the world (behind the UAE) and Qatar used 8 times the country's available biological resources.
- Each person in **Qatar uses 6 times the available renewable water** resources per day.
- Currently **no alternative or clean energy** (zero CO₂ emissions) is produced for the electrical grid in Qatar.
- Only **10% of all food** consumed in Qatar is actually grown in Qatar.
- Only **1% of land** in Qatar is favorable for agriculture.
- Qatar protects only 0.3% of its rich marine biological diversity within biological reserves.
- Qatar harvested 7,142 metric tons of marine fish (in 2000) and 100 metric tons of shellfish and crustaceans (in 1997) from its marine resources.
- Qatar and the Arabian Peninsula have **high population growth** rates.
- 100% of Qatar's population lives within 100km of the coast.

HOW DOES THE BEHAVIOR OF INDIVIDUALS IN QATAR AFFECT CLIMATE CHANGE?

- **Energy production**
 - Qatar has the **highest electricity consumption** (14,388 kWh per capita) in the Gulf.
 - In Qatar **310 liters of water** is used per person, per day. Water is directly linked to energy consumption since all of Qatar's freshwater is desalinated, an energy intensive process.
- **Transportation**
 - Food and other items brought from abroad.
 - Air travel by Qatar's large immigrant population.
 - Automobiles and other polluting modes of transport.
- To learn more about **the impact of your own behavior**, go online and calculate your . . .

Carbon footprint:
WWW.CARBONFOOTPRINT.COM/CALCULATOR.ASPX

Ecological footprint:
WWW.FOOTPRINTNETWORK.ORG/EN/INDEX.PHP/GFN/PAGE/CALCULATORS/

QUESTIONS FOR CAMPUS CONVERSATION

Should the universities develop sustainability plans, where they publicly commit themselves to meeting specified targets and taking action in response to concerns with climate change and food security?

How do you think that the universities in Education City can use their facilities and other resources more efficiently?

Do the universities have an obligation to help educate their faculty, staff, and students, as well as the outside community in Doha about adopting more sustainable practices?

HOW WILL CLIMATE CHANGE AFFECT FOOD SECURITY IN THE ARAB REGION?

- **Water scarcity** and shortages.
- **Desertification** and reduced agricultural production.
- Rainfall pattern changes (more arid).
- Land loss due to sea level rise.
- Less marine biological resources due to ocean acidification and higher water temperatures.
- Increased food and water prices.
- Over-reliance on external food sources and external farmlands (in Somalia, Sudan, and Australia) could cause a lack of food security in times of crisis (due to war or civil unrest, climate change, and other factors).

QUESTIONS FOR CAMPUS CONVERSATION

Should Qatar Foundation do more to encourage its affiliated programs along with the universities in Education City to work together in constructing curricula or research agendas for addressing climate change, sustainability, and food security issues? Or should this be left for each individual program or university to decide on its own?

Should the universities in Education City devote more or less of their resources to addressing climate change and food security issues?

TO GET COPIES OF THE FULL BACKGROUND MATERIALS AND REVIEW THE RESOURCES CITED IN THIS PAMPHLET VISIT:
QATAR.CMU.EDU/CAMPUSCONVERSATION