

Symposium on Sustainable Development

Indiana University – Kelley School of Business – Friday, April 8, 2016

Objective: Provide attendees with numerous viewpoints on the current state of sustainable development and the challenges of creating a sustainable future.

The day started with an introduction from Indiana University History Professor Dr. Stephen Macekura. He outlined the history of sustainable development and described some of the challenges in defining the concept. According to Dr. Macekura, those trying to understand sustainable development must consider the following three questions: What are you trying to sustain, and why? Whom does sustainable development benefit? How will you link local efforts to global concerns?

First Panel Discussion – Alternative Energy and Sustainable Development

Azzam Alwash, Founder and CEO of Nature Iraq: Dr. Alwash explained that the people inhabiting the marshes of Iraq have always lived sustainable lives. The advent of technology and the presence of oil, however, have caused many to abandon these traditions. According to Dr. Alwash, oil has been a curse for Iraq. Additionally, he discussed the complications of water policies for bodies of water that touch multiple nations. He argued that nations should develop common policies for dam-building and other critical water-related pursuits.

Silvia Leahu-Aluas, Founder, Sustainable Manufacturing Consulting: Ms. Leahu-Aluas warned that a regeneration of the earth's resources will be impossible after fifteen more years at the current rate of resource utilization. She blamed global problems on a myriad of local decisions. She discussed the three dimensions of sustainability – economy, society, and nature. According to Ms. Leahu-Aluas, the all-purpose transition to wind, water, and solar power is critical. She discussed some recent breakthroughs, including the use of onshore wind power in Indiana. Ms. Leahu-Aluas concluded by stating that clean energy does not necessarily have to destroy jobs.

Mariann Quinn, Director of Sustainable Energy, Duke Energy: Ms. Quinn first noted that Indiana University has improved its energy efficiency more than any other Duke Energy customer in Indiana in recent years. Prior to the recession of 2008, energy use was growing at a steady rate. However, thanks in large part to the recession, people have changed their energy usage practices, and these new habits have remained. She further noted how companies like Duke are changing their business models to embrace clean energy. She also discussed some of the challenges of moving to alternative energy, with energy storage being the most crucial innovation needed in order to achieve sustainable development with alternative energy. Furthermore, she outlined that unforeseen complications are worth noting and anticipating: wind turbines, for example, kill many bats and birds of prey. The ways in which we confront these challenges in coming years will be critical.

Questions for the Panel:

When asked whether sustainable development can bring a centrality of purpose to different parties, Dr. Alwash replied that developing countries have very different priorities from those in

the developed world. He stressed his commitment to water issues and stated his belief that these types of issues are most critical in the developing world. Ms. Quinn added that competing priorities exist even within corporations. She noted that emission intensity and tons of carbon emitted have declined over 20 percent since 2005.

When a member of the audience asked Ms. Quinn why many companies in the energy sector don't provide sustainability reports, the latter replied the Duke Energy does provide these reports. She supposed that the litigious nature of American society is likely a key concern for companies that do not choose to publish such reports. Furthermore, consumer pressure is a key concern. Consumers are likely to be upset that companies can undertake these sustainability efforts but not lower their rates.

Second Panel Discussion – Traditional Energy Sources and Sustainable Development

Gardner Bovingdon, Associate Professor, Indiana University School of Global & International Studies: Dr. Bovingdon, an expert on Central Asia, noted that traditional energy sources will prevail in that region for the foreseeable future. Countries in that region still rely on economies and infrastructures left over from Soviet times. Furthermore, corruption is rampant. Sustainable development has been nearly nonexistent in much of the region. A rare reason for hope is the favorable landscape for wind and solar farms in Kazakhstan. He concluded by stating that capital for sustainable development in this region must come from the outside, as political configurations will prevent internal investment for such development.

Rizwan Uddin, Professor, University of Illinois, NPRE: Dr. Uddin began by asking whether social measures should be included in assessments of sustainability, in addition to material and environmental measures. He added that tracking only environmental measures has been detrimental to social progress. Then he introduced some of the benefits and challenges related to nuclear power. This form of energy is extremely powerful and generally clean. Nonetheless, the threat of nuclear accidents is impossible to ignore. Dr. Uddin did not take a side in the nuclear debate, but he asked the audience to consider how society should compare the potential damage of nuclear power to the damage created by coal power.

Hideka Yamaguchi, Researcher, Evansville Department of Sustainability, Energy & Environmental Quality: Dr. Yamaguchi examined the question of whether Japan is moving toward a sustainable future. She discussed the disastrous 2011 tsunami and the enormous societal damage related to the Fukushima nuclear power plant, as well as the constantly changing appetite for nuclear power among Japanese politicians. She concluded that Japan probably is not moving toward a sustainable future as long as nuclear energy is a staple of the country's energy supply. She stated that the continued use of nuclear power is both irresponsible and unethical. She concluded by noting the examples of Denmark and Germany, which both gave up advanced nuclear research in favor of reusable energy sources.

Questions for the Panel:

When asked about tradeoffs in the adoption of reusable energy sources, Dr. Bovingdon noted the example of China, which has created a burgeoning reusable energy sector despite unfavorable government control and a reliance on coal. He noted that the nations of Central Asia will have a difficult time overcoming the Soviet system, which existed on the premise of only benefits, not costs. Dr. Uddin added that tradeoffs exist as a matter of fact in various countries. Perceived national prestige of nuclear power and availability of resources are key factors. In the long term, once the problem of energy storage is solved, the world should derive as much energy as possible from solar and wind power.

When asked what forms of evaluation have been overlooked, Dr. Yamaguchi replied that an environmental tax system and taxes on carbon emissions have been effective in the very limited scope in which they have been applied. Dr. Uddin added that interplay between local politics and energy policy is very important. Nations must decide what policies are appropriate. For example, low-income communities often depend on “dirty” jobs.

Day-in-summary Conversation:

What are we trying to sustain, and why?

Dr. Uddin stated quality of life is the primary concern. Dr. Alwash said water is most important. Dr. Bovingdon noted the importance of a culturally meaningful quality of life, one understood not just in economic terms.

How do we measure and compare?

Ms. Leahu-Aluas stated she believes in the importance of living things, aesthetics, and beauty. She wants these all to continue for another 200,000 years. According to her, we will have to give up things in order to make that a reality. Ms. Quinn noted that we should not take technology in the West for granted, as it has been a huge part of human progress. She urged the audience not to adopt an attitude of “us vs. them.” Dr. Alwash stated that the first world has a responsibility to change the world’s reliance on electricity, which, according to him, contributes to climate change. Ms. Leahu-Aluas added that a fundamental transformation is necessary: we must create both demand and passion for new technologies.

For whom should we pursue sustainable development?

Dr. Alwash noted that he has devoted his life to helping the 500,000 people who live in the marshes of Iraq. Ms. Leahu-Aluas stated that we must switch to other technologies faster and stated that we have a responsibility to everything on the planet. Dr. Bovingdon stated that sustainable development would mean an improvement in lives around the world and a decrease in consumption in the first world. He added that the first world would need to decrease voluntarily its standard of living, though he did not specify what impetus would bring about such a change. Dr. Uddin countered that the first world does not have to give up much in the way of quality of life. Rather, it must simply curb its waste. Dr. Alwash and Ms. Quinn both noted that changing life habits of the millennial generation provide reasons for hope.

Where do we shape attitudes about energy consumption?

Ms. Leahu-Aluas stated the key is influencing others, not just personal behavior. Dr. Alwash offered the idea of a country like Iraq renting its sun instead of its oil and asked whether this is fair. Ms. Quinn noted that solving the energy storage issue will make costs acceptable. A climate scientist in the room accused energy companies of preventing the poor from having access to reusable energy. Ms. Quinn replied that this allegation was both unfair and untrue. Competition and regulation are the key factors that determine what people have access to reusable energy. The symposium ended with the conclusion of the day-in-summary conversation.

The panel discussions raised some of the following questions for additional learning:

- *Do developed nations and developing nations have different priorities in terms of sustainable development?*
- *Should nations continue to pursue nuclear power?*
- *Should we examine the costs and benefits of sustainable development primarily through an economic lens?*
- *Does sustainable development necessitate curbs in quality of life? If so, why will governments and individuals choose to accept it?*
- *Do current trends in reusable energy research and human practices support a sustainable future?*