

## **Saudi Arabia can lead sustainable policies in the Arab world: Sustainable development is also a human right issue**

**By Fouad Hamdan, Executive Director, Arab Human Rights Fund**  
**Speaking at the panel, "The energy equation: Balancing priorities"**

Oil-producing Saudi Arabia needs to diversify its economy because the Oil Age will soon be over, and because it is facing mounting pressure to address climate change. The International Energy Agency has warned of a global oil supply crunch in five years based on the fact that economic growth is still linked to rising oil and gas consumption, and emerging economies like China and India are extremely energy-hungry. In addition, population growth and ambitious development plans in the Gulf have seen energy consumption skyrocketing there.

The Gulf real estate sector aims to deliver approximately US\$ 500 billion worth of development projects over the next seven years. This will require an additional two million cubic meters of water per day and 75 million additional megawatt hours of energy per year, representing an increase of about 100 per cent on current levels. If governments in the Gulf continue in line with the "business as usual" scenario, however, these requirements will be unsustainable. Indeed, these governments face the enormous challenge of adapting current energy, water and waste consumption rates in relation to development. If they fail, Gulf nations could overstretch their infrastructures, leaving a damaged environment for future generations.

In fact, given massive reliance on burning fossil fuels like oil, gas and coal, the way the energy-dependent world economy is ticking along today is not sustainable. The result is an increase of climate damaging carbon dioxide (CO<sub>2</sub>) emissions. Moreover, the consequences of climate change will have a dramatic global impact, creating more floods and droughts, and waves of environmental refugees. Climate change is also a peace and human rights issue. People have a right to a clean environment because a depleted ecological system can lead to dramatic violations of many human rights, like right to food, to health, to education, to housing and to work.

In 2006, Abu Dhabi launched Masdar, a strategic initiative aimed at positioning the Emirate as a global player in the development of economically viable renewable energy technologies. In early 2008, construction began on Masdar City, the world's first zero-carbon and zero-waste urban center. The city will house clean technology companies, and a research and development institution run in cooperation with the Massachusetts Institute of Technology. Masdar City will have a photovoltaic power plant and a concentrated solar power plant.

Investing in solar power is the right path. Most Arab states have the potential not only to produce solar energy, but also to export it. From Morocco to Iraq, and from Syria to Yemen, Arab states are blessed with large uninhabited areas that could produce more than enough solar energy for themselves as well as for export. In order to help to avert climate change, much less oil and gas should be consumed, thus enabling future generations of Arabs to profit from the reserves of these resources – for many more decades than originally planned. This should not be interpreted as an economic disaster for Arab oil-producing countries. On the contrary: It is a historic chance to guarantee a better future; a chance that is directly related to solar power and other renewable technologies. In fact, this solution is capable of slowly stretching the lifespan of oil and gas reserves by lowering oil and gas production while dramatically increasing solar energy output.

It is also worth noting that at present, humanity's *ecological footprint* is about a quarter larger than our planet is capable of regenerating. In other words, it now takes roughly one year and three months for the Earth to regenerate what it used to generate in a single year. The Global Footprint Network has calculated that Saudi Arabia and other oil-producing Gulf states are seriously "overshooting" in this regard.

When humanity's ecological resource demands exceed what nature can continually supply, we move into what is known as "ecological overshoot". Examples of this include collapsing fisheries, climate change, species extinction, deforestation and the loss of groundwater. Remember that we all depend on these ecological assets to survive.

The expansion of infrastructure in Saudi Arabia today – roads, power plants and new cities – could last 20 or even 50 years. These investment decisions largely determine the level of resource consumption for decades to come, for example, of oil, gas or water. Developing urban centers and consuming energy in line with the business-as-usual scenario will inevitably drive Saudi Arabia into an ecological and economic dead end. Hence, Saudi officials should ask themselves, with regard to each and every infrastructure investment decision or land-use plan, whether they are creating traps or generating opportunities.

If Saudi Arabia wants to take the sustainable path then it needs to calculate its *ecological footprint*. No nation can seriously develop sustainable policies without doing exactly that – the United Arab Emirates, for instance, is working on this.

The *ecological footprint* is a resource management tool that measures how much land and water – in terms of area – a human population requires to produce the resources it consumes and to absorb its waste using current technology. By measuring the *ecological footprint* of a nation, authorities can assess a country's "overshoot" and then manage ecological assets in a sustainable way. The *ecological footprint* illustrates who uses how much of which ecological resources, with populations defined either geographically or socially.

Indeed, the *ecological footprint* clarifies the relationship of resource use to equity by explicitly tying individuals' and groups' activities to ecological demands. These connections help decision makers to shape policy more accurately and equitably in support of social and environmental justice.

Saudi Arabia, like all nations, relies on gross domestic product (GDP) to measure progress, wealth and well-being. But in order to measure such things effectively, the *ecological footprint* needs to be considered in parallel with GDP, because it is more inclusive than GDP – and because it incorporates social and environmental issues.

The way Saudi Arabia shapes and builds its cities will make or break its future. Can Saudi Arabia future-proof its cities in time and become sustainable? Will it be able to develop and at the same time allow all its citizens to fulfill one of their basic human rights: living within the means of our only planet without destroying the foundations of future generations? As a political and economic heavyweight, Saudi Arabia can lead the Arab world into a sustainable future.

Thank you

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