



**Clean Energy and Human Capital**  
**ICELAND – THE LABORATORY**  
**Small States in Global Development**

**A Keynote Address**  
**by**  
**the President of Iceland**  
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**at World Leaders Forum**  
**Columbia University**  
**New York**  
**22 September 2008**

President Susan Fuhrman,  
Professors, scientists,  
Students, scholars,  
Ladies and Gentlemen.

While the West was preoccupied by the Cold War, the nuclear arms race and the challenge presented by the Soviet Union and its allies, a fundamental transformation of the global community was taking place. It went largely unnoticed, even into the era following the collapse of the communist regimes in Eastern Europe, an era of terrorism and new international conflicts, the era of globalisation and information technology with the emergence of China and India as economic power-houses foreshadowing the decline of Europe and the United States as the primary engines of global growth.

Listening to debates or reading the opinions and analyses by some of the most influential academics, pundits or political leaders of our times, it is clear that many have still not come to grips with the global shift of recent decades. They are stuck in the rhetoric of big power politics, influenced by the old framework of a globe divided between dominant blocs. They have not, as it seems, comprehended the diversified, complex and challenging dynamics of an international order

created by nearly 200 sovereign nations, almost a quarter of which are significantly small.

Traditional thinking in academia, the media and some political circles has been dominated to such an extent by old thought-patterns, by a framework built on theories from previous centuries, that the fundamental changes which by the dawn of the 21<sup>st</sup> century had altered the global scene are often ignored, especially the way in which smaller states can now utilize new opportunities to exert a significant influence on the content of global progress – economic, social and democratic – and help to create international agreements and conclude important treaties.

In the last century, heavy industry, oil resources and manufacturing generated great economic wealth. That was the era of large and powerful nations which employed mass production as the means to advancement. Today, however, the world economy is driven by information technology and globalisation. Innovations can now emerge from any corner in ways that simply were not possible only a decade ago.

Former obstacles to the influence of small states have largely been removed and replaced by a wide and open field where talent, imagination, creativity, determination, vision and the willingness to formulate new initiatives are of crucial importance. In this context the physical resources of a country are no longer a decisive factor. A small country is now well placed to be a creative laboratory, a fertile ground for constructive ideas.

While small nations certainly need to tackle a variety of problems, they also have many important assets. Their contribution towards the evolution of democracy has been significant; the close contact and transparency fostered by smallness has enriched the development of civil society.

It is interesting to note that, in antiquity, the cradle of western democracy was in Athens and Rome, which in those days were small states by modern standards, with a population similar to that of Iceland today. The writings of Plato and Aristotle, the speeches of Cicero and Cato, the political heritage which still moulds the western intellectual tradition, were influenced and inspired by the experience of politics in small states.

In today's world, small states have the great advantage of being a threat to no one. Many doors which remain closed to others are for them wide open. They have no hidden agenda; cannot deploy military might, financial power or strong political pressure to achieve their aims. Consequently there are no problems involved in being their friend, engaging them in a broad cooperation.

Such qualities are genuinely valuable at a time when complex relations, fear and even terror underlie the coexistence of nations.

Not only in Europe, but also in Africa, Asia, the Pacific, the Caribbean and the Middle East, small states now form a significant part of the political and economic mosaic. They are increasingly playing significant roles within global and regional institutions, UN agencies, the IMF and the World Bank. Through their election to the Security Council, they have become, in the company of the major powers, crucial players when issues of peace and security are decided.

In the light of this significant emergence of small states on the global stage, it is remarkable that their special role, their contributions, the hindrances and opportunities which characterize their involvement, their advantages and limitations, their uniqueness and common features have not been explored and examined in a way worthy of such a fundamental transformation of the international order.

The manner in which Iceland hosted the Nixon–Pompidou meeting in 1973, and in 1986 the historic summit between Reagan and Gorbachev, is an indication of how a small country can also become a suitable venue for dialogue of international consequence. Furthermore, Iceland's leadership in the recognition of the sovereignty and independence of the Baltic States shows that a small state can significantly influence the course of world transformation.

Another example of a small state breaking the ice on important global matters was the role played by the enlightened leaders of Trinidad and Tobago in the campaign for the establishment of an international criminal court. Their vision was subsequently supported by numerous civic organizations throughout the complicated negotiations which led to the creation of this vital institution. Now, those who are accused of genocide and crimes against humanity, war criminals who cannot be tried in their own countries, are put on trial in the Hague. Thus, what in the early 1990s was an idealistic vision on the part of the leaders of a small Caribbean island, has now become a remarkable instrument of international justice.

Last May we witnessed another outstanding example of how a small state can succeed in bringing peace and stability to a suffering region when Qatar led the negotiations which brought the factions and the forces in Lebanon to an agreement which paved the way for the election of a new president and the creation of a harmonious government. Where some of the most powerful countries in the world had failed, small Qatar succeeded.

We can also list the work of the Maldives and other small island states in drawing attention to the threat of climate change as a security challenge long before that debate became the focal point of the global agenda. Their survival was at peril and therefore they strove intensely and, as it turned out, successfully to rouse the rest of the world.

My country can in many ways be described as a theatre of the evolving climate change process, the nation witnessing the alarming rate of melting of our glaciers, which are the largest in Europe. The pace of retreat is so striking that mountains and valleys which have been covered by ice for centuries have now become clearly visible. But not only do we have the largest glaciers in Europe, we also struggle with the largest desert in Europe, fighting it for a century with systematic scientific projects in soil preservation and soil reclamation, producing lessons and experience which have now become increasingly relevant for nations in Africa and Asia, and even for the United States, where Arizona is a frontier that reminds us how global warming is enlarging the deserts.

Furthermore, the people of Iceland are highly aware of how the Gulf Stream, which encircles our island, a gift delivered continuously to the North Atlantic from the Gulf of Mexico, joins the water produced by the melting of the Arctic and the Greenland ice sheet and thus creates what can best be described as the motor which drives the entire global conveyor belt of ocean currents, influencing the climate in Asia, Africa and the Americas.

On the positive side, Iceland can also serve as an inspiration, as an example of how to battle climate change through comprehensive transformation of energy systems. In the early years of my life, over 80% of Iceland's energy needs were met by using coal and oil. My daily duty in the fishing village where I grew up was to carry the coal and check the oil so we could cook our meals and warm our dwellings. We knew no energy sources except fossil fuel.

Now, 100% of Iceland's electricity is produced from clean energy resources, geothermal and hydro, and over 75% of our total energy consumption, including fuel for cars and shipping, is derived from the same clean resources. Within the lifetime of one generation, we have transformed Iceland from being predominantly a fossil-fuel user into a world leader in the production and consumption of clean energy, making us an uncontested champion of sustainable energy.

Having created a 100% clean electricity system, we are now in the process of formulating plans to become completely independent of oil by providing our car fleet and our shipping fleet, both fishing and commercial, with clean energy. We made Iceland a testing ground for an

international hydrogen project, based on cooperation with Daimler-Chrysler, Shell and Norsk Hydro. It resulted in the first public hydrogen power station for cars being opened in our capital Reykjavík in 2003. Hydrogen buses were consequently tested for three years in the Reykjavík traffic system, examining how a power source which is primarily water can withstand the frosts of winter and now hydrogen-powered private cars are being introduced. Furthermore, at a conference on sustainable driving held in our capital last week, extensive plans for the use of electric cars were announced and Mitsubishi revealed that it had chosen Iceland to be the first country in Europe to witness its new electric car, paving the way for an urgently-needed global revolution.

The history of clean energy developments in my country is a strong indication of how small states can serve as laboratories in crucial areas of human progress, how they can lead the way and inspire others.

The Icelandic motto is simply this: If we could do it – so can others!

The fight against irreversible climate change is fundamentally about the future of energy. If the Icelandic model were followed on a global scale by utilizing the variety of clean energy resources available to every country, global warming could clearly be slowed down or even averted.

It has consequently become a fundamental part of my mission to spread this simple truth, to build bridges and networks so other nations can be inspired by our example.

In recent years we have created clean energy projects in California and China, in East Africa, Western Europe, Central America and Asia. The know-how and the technology created over previous decades in my small country has now become the basis of clean energy projects in different parts of the world, a fundamental proof that even the smallest of nations can provide leadership in solving the greatest challenge of our times.

There is a deeper lesson here. Our success is above all based on human resources, on the educational and intellectual capital created in institutions of learning, a result of a comprehensive educational system which grants each and every citizen, independent of class, income or location, the right to achieve university education.

Nearly a half a century ago we established The Student Loan Fund which gives every student the right to 30-40 year loans at a very low rate of interest. This has enabled talented sons and daughters of farmers and fishermen to reach Harvard and Yale, Columbia and California, to go to Paris or London, to opt for Argentina or China.

By making human capital the essence of our progress and creating a comprehensive educational framework to support it, we have made the country a dynamic renaissance society where young people are constantly returning from different parts of the world armed with the most recent knowledge, trained at many of the best universities and research institutions.

The creation of knowledge and a clean energy future will increasingly determine the competitiveness of nations. The examples I have briefly outlined, and many others, demonstrate that in this respect, size does no longer matter. Ideas, vision, the courage to set out on new roads and enter new venues – these are the elements that provide the key to success.

Small states which cultivate these skills and make their lessons known can have significant influence on international development, on the course taken by others. If leadership in global progress were left only to powerful states and their alliances, many of the key issues facing mankind in the coming years would not be successfully resolved.

The contributions made by small states towards reforming the international community and making the world more civilized are certainly far out of proportion to the size of their populations. The explanation lies partly in their flexibility, in their ability to act and initiate when others are silent and passive, in their freedom to engage in operations which would be unthinkable if larger countries were involved, because those countries often have complex interests and huge bureaucracies which at times render them unable to act quickly or productively.

A good example is how Iceland played a leading role in the creation of the Law of the Sea. The fertile fishing grounds around the country had for a long time been exploited by large fleets of foreign trawlers. If Iceland was to become economically independent as well as politically sovereign, the ocean resources had to be harnessed in a sustainable way, securing a long-term benefit for the nation.

Thus, against heavy international odds, a small country set itself the task of reforming global law regarding the ocean by unilaterally extending its fishing limits, first to 12 miles in the 1950s and then to 50 and finally to 200 miles in the 1970s, simultaneously playing an enlightened role in international negotiations which cumulated in the creation of the Law of the Sea, a legal framework benefiting all nations, large and small; a treaty which the United States is now discovering is essential if the governing of the rich energy resources of the Arctic sea bed is to be successful.

A small state took the initiative; led the way by its example. As a result, every country has acquired the right to a 200-mile exclusive economic zone. The position of small island nations was significantly strengthened, enabling them to become an influential bloc within the United Nations; a strong moral force in the light of emerging climate change and rising sea levels.

The rule of law within the modern democratic system is also in many other ways based on the heritage provided by small states or communities. I referred before to the legacy of ancient Athens and Rome – and could add the cultural inspiration provided by medieval Florence and Venice; all small states by modern standards. But let me conclude by reminding our American friends that the foundations of this great Republic, of the United States, were built by thinkers and visionaries, political leaders and statesmen who all were trained and influenced by the culture and the spirit fostered by small American communities.

The Philadelphia of the Founding Fathers, the Boston of the democratic rebels, the Washington of the first presidents and the early Congress were all very small by modern measures.

Yet it was the experience moulded by these small communities which provided the philosophical vision which has successfully guided American democracy to this very day, formed the essence of your institutions, the foundation of law and the balance of powers.

The core of western democratic traditions was created in societies which were more akin to the small modern states than to the superpowers of the 20<sup>th</sup> century.

It is now our good fortune that the world is rich in similar laboratories which can provide both inspiration and guidelines for the success of our journey.