

## Ensuring global uranium supplies

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With Arab leaders announcing that they are looking to jointly develop nuclear energy, with Iran already out of the nuclear gate, and with countries like South Africa precariously perched on the fence, a new look at global atomic energy supplies is sorely needed.

Technology used to enrich uranium for fuel can enrich it further for nuclear bombs, so the international community is thinking hard about how to manage the nuclear fuel market. But some potential major players are missing from the discussions: the insurance and finance industries.

Currently 442 nuclear power plants operate in 30 countries. But few countries — the United States, Britain, France, Germany, the Netherlands and Russia — currently enrich uranium for commercial export. Trusting current suppliers not to use nuclear fuel supplies for political leverage has led to discussions of how to guarantee fuel supplies.

Consensus is building toward some form of international or multinational enrichment, which fits the original 1940s conception of international responsibility for nuclear development. To spur the process, in September, the American financier and philanthropist Warren Buffett promised the International Atomic Energy Agency \$50 million if it could raise another \$100 million over the next two years and build a multinational bank of enriched uranium that would be used in case of disruption to global nuclear fuel supplies.

Should that option work, some countries would have one less reason to develop the enrichment facilities that would bring them closer to making bombs. Other proposals are also being put forward, including the IAEA's establishing an enrichment facility. As necessary as these programs may be, however, they won't be enough to ensure fuel supplies.

First, although the IAEA worries about the spread of enrichment technologies, country utilities worry about getting their fuel, which also requires securing the uranium ore then converting it into fuel — not to mention transporting it among these operations, which can occur in different countries. Since the fuel can be held hostage to politics at points other than enrichment, to be most credible, any guarantee of enriched uranium requires wider assurances of supply.

Second, states may not trust the IAEA board to be independent of dominant member countries. Third, the IAEA does not have the management staff to efficiently operate such facilities.

The solution to these problems is to involve the private sector, starting with the largest industries in the world, insurance and finance.

The IAEA should consider facilitating the establishment of a mutual insurance facility. Such a mutual could combine securing the full fuel cycle against political interruptions and natural disasters, and insurance of some of the economic losses associated with fuel-supply disruption.

The members of the mutual would be countries that need enriched uranium for their nuclear plants, or the owners of these plants. They would pay premiums that the mutual would use to purchase financial coverage via insurance and reinsurance, to purchase options to assure the fuel supply, and to establish a cash reserve.

To limit insurers' and reinsurers' exposure to a level at which they would be comfortable, the entity might also benefit from an additional layer of protection from IAEA member countries.

The biggest benefit of this proposal is that it has universal applicability: states, including the major enrichment states, could recognize their dependence on international markets for different aspects of their fuel, from ore to fabrication, and elect to participate. Under this facility, a state could be less likely to use its nuclear fuel supplies for leverage against others, as it not only would lose its own guarantees but also would find its actions much less effective.

Including private insurers and reinsurers as part of the mutual equation also removes some of the politics. The mutual facility would supply a utility when called unless stopped by the UN Security Council.

Having an insurance scheme would not stop a country that wants to develop nuclear technology for bombs, but it would certainly reduce its cover.

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