

New project will study development of Iran's economy

January 2 2017, by Alex Shashkevich



Pooya Azadi manages the Stanford Iran 2040 Project, which brings together experts from around the world and a variety of disciplines. Credit: Pooya Azadi

A new research initiative at Stanford is bringing together experts to create independent data-driven analysis on the current state of Iran's

economy and what its future could look like.

Stanford's Iranian Studies Program launched the Stanford Iran 2040 Project about eight months ago to conduct interdisciplinary research on economic and technical matters related to the country's long-term, sustainable development and evaluate their possible implications in a global context. The project is called Iran 2040 because of its forward-looking nature and focus on long-term analysis.

The initiative serves as a hub for researchers around the world, particularly scholars within the Iranian diaspora, and is sponsored by the Iranian Studies Program and the Center for Democracy, Development, and the Rule of Law at Stanford.

"The purpose of this initiative is to study the Iranian economy, looking at it from a purely economic point of view, regardless of politics," said Abbas Milani, director of the Iranian Studies Program and a research fellow at the Hoover Institution. "Let's collect the facts, identify problems and solutions and put them on a website in one place."

Over the last 10 years, the Iranian Studies program has worked to develop Stanford's course offerings in topics such as Iranian cinema, arts, poetry, politics and language and has become a hub for research on Iran. Creating a separate initiative focused on studying Iran's economic development seemed like a natural next step, especially in light of the easing of sanctions after the U.S.-Iran nuclear deal, Milani said.

Pooya Azadi, the manager of the Stanford Iran 2040 Project, said there is a lack of analysis that gives a bird's-eye view of what's going on in Iran and its future outlook.

"Macro-level quantitative analysis of different sectors of the economy is what Iran needs the most for planning towards [sustainable development](#)

but, sadly, such studies are catastrophically scarce," said Azadi, whose primary research focus includes energy production and economics. "Our foremost goal is to provide an accurate and unbiased understanding of the status quo for the major problems of the country, and suggest solutions and roadmaps to help make a better future."

The goal of the project's first phase is to cover the topics of economy, energy, water, environment, agriculture and transport.

Declining oil

The project's first working paper, which was published in October, analyzed the future of Iran's oil, which makes up about 30 percent of the Iranian government's revenue. Scholars had speculated that Iran could be running out of oil, given declining yields.

The report highlighted different hurdles oil-dependent Iran faces in the light of these declines and of future changes in the global energy market relating to climate change. The paper was co-authored by Azadi as well as by Hassan Dehghanpour of the University of Alberta, Mehran Sohrabi of Heriot-Watt University, and Kaveh Madani of Imperial College London.

The group argues that previous concerns about how much oil Iran has are likely irrelevant given new policies addressing global warming that will limit the world's need for fossil fuels. They suggest Iran will likely never exhaust its reserves.

The group examined the production yields from 98 major oil fields and reservoirs in Iran from 1913 until the present and found that the average decline rate of Iran's oil fields is about 6 percent per year.

While Iran could compensate for that decline by tapping into its

undeveloped oil reserves, it will be hard to maintain the same level of oil export profit after around 2025 without using and investing in new technologies for oil extraction, according to the report. On the other hand, implementation of new technologies would take a long time to pass through the bureaucratic process in Iran.

"If Iran wants to keep its current production level or further increase it, the country's officials have to start investing in the new technology to help get to hard-to-get oil 10 years from now," Azadi said.

Agricultural issues

The project's second report, published recently, tackled agriculture in Iran, where scarcity of water, soil degradation and the effects of climate change are limiting production. Iran's agricultural market supplies 90 percent of the food Iranians eat and contributes about 10 percent to the gross domestic product.

"The extent to which the land and water resources of Iran can meet the nation's future food demand is unknown," said Mohsen Mesgaran, a research fellow at the University of Melbourne who led the analysis effort on the agriculture report. Besides Mesgaran and Azadi, the report was co-authored by Hossein Hashemi, a geophysics postdoctoral research fellow at Stanford, and Kaveh Madani of Imperial College London.

The research team showed that a significant portion of Iran's crops are located on lands considered to be unsuitable or that have very poor suitability. Cropping on such lands produces low yields and represents unsustainable agricultural practices.

Researchers estimated nearly 10 million acres of medium-quality land are currently unused. According to the team's estimations, if the country

could implement rainfed cropping for the quarter of those lands, the annual production of cereals could rise by 0.8 million ton, which corresponds to 5 percent of the current production level.

Evolving effort

The initiative is still in its early stages. Azadi said he hopes that as the effort expands, the project will focus on additional topics, such as health care, and create opportunities for undergraduate and graduate students to take part.

Besides publishing reports on concrete subjects, Azadi said, the project's goal is also to encourage Iranian researchers to think macro and long-term.

In its short lifespan, the Stanford Iran 2040 Project has established a network consisting of more than 20 scholars from various research backgrounds and locations.

"This project has already generated a good deal of enthusiasm within the community," Azadi said. "I'm excited about what we can do going forward."

Provided by Stanford University

Citation: New project will study development of Iran's economy (2017, January 2) retrieved 26 April 2024 from <https://phys.org/news/2017-01-iran-economy.html>

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