

Tiger or Rabbit does not matter: a new look into the recent great achievements of Iranian scientists

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Abstract

Since 2005, scientific acceleration in Iran has enjoyed an explosive surge. In 2009, Iran's growth rate in science and technology was 11 times that of the world's output. In terms of total output per year, Iran has already surpassed countries such as Sweden, Switzerland, Israel, Belgium, Denmark, Finland, Austria or that of Norway.

Keywords: Iran, research, education, publication

In 2010, Debra MacKenzie in a report published in *New Scientist* stated: "It might be the Chinese year of the tiger, but scientifically, 2010 is looking like Iran's year. Scientific output has grown 11 times faster in Iran than the world average, faster than any other country (MacKenzie, 2010). In another report published recently, Iran is introduced as the top of the world in science growth "Which country's scientific output rose 18-fold...? The answer - Iran - might surprise many people, especially in the western nations used to leading science. Iran has the fastest rate of increase in scientific publication in the world (Coghlan, 2011).

On the other hand, Science-Metrix, a data-analysis company in Montreal, Canada, has published a report entitled "geopolitical shifts in knowledge creation". In this report, it is stated that "Overall, growth in the Middle East has been rapid (nearly four times faster than at the world level), with Iran and Turkey leading the pack. In particular, Iran embarked on one of the fastest build-up of scientific capabilities the world witnessed during the last two decades (Science-metrix, 2010a).

In another report entitled "Thirty years of science", Science-Metrix states "Iranian scientists have increased their publications from just 736 in 1996 to 13,238 in 2008, making the most rapid growing country in terms of numbers of scientific publications in the world" (Science-metrix, 2010b). In August 2009, the Islamic Republic of Iran formally announced a 'comprehensive plan for science'. This plan focused on higher education and establishment of stronger links between industry and academia (Sawahel, 2009).

The former CERN director, Christopher Llewellyn Smith, in a Royal Society report entitled "Knowledge, Networks and Nations: Global Scientific Collaboration in the 21st Century," frankly declared "the most surprising finding of the Royal Society report was strong scientific growth in a group of countries not perceived as research powerhouses. Iran, for instance, has increased its yearly number of peer-reviewed science publications from 736 in 1996 to 13,238 in 2008 (Reardon, 2011).

The world might be closing its doors and putting newer sanctions and newer challenges on Iran every day, but it has failed in inhibiting the Iranian scientists from literally reaching the moon. On February 3, 2009, Tehran placed its indigenous satellite into orbit - joining an elite

group of countries capable of both producing satellites and sending them into space using domestic launchers. Omid was sent into space by the Iranian-produced satellite carrier Safir 2 rocket, which is an upgraded model of carrier Safir 1.

Since 2005, scientific acceleration in Iran has enjoyed an explosive surge. In 2009, Iran's growth rate in science and technology was 11 times that of the world's output and in terms of total output per year, Iran has already surpassed the total scientific output of such countries as Sweden, Switzerland, Israel, Belgium, Denmark, Finland, Austria or that of Norway (Iran Science Report, 2010). This is no little accomplishment for a country in which up to a few years ago only a few universities were established and run nationwide. Now a look at the current statistics reveals that not only the Chinese year of tiger was a racing year for Iran's scientists, the rabbit year might also be a year in which the Iranian scientists will jump the hurdles and leap to new scientific heights. It seems that the rapid scientific advancement in Iran sets a new example for the rest of the world challenging the science superpowers with a full force and it has no plans to stop.

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