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Assessment of S&T as a Policy Making Means: Iran's Experience

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Overview of S&T Assessment in Iran

- Establishment of the Committee for the Supervision and Assessment of Cultural and Scientific Affairs in 2000
- Approval of the S&T assessment objectives, methodology, levels, indicators and procedure
- Carrying out the assessments
- Applying the assessment achievements to S&T policy making



S&T Assessment Objectives

- ☞ To obtain an account of the S&T status in the country
- ☞ To present suggestions to the policy setting bodies
- ☞ To encourage those in charge of scientific activities
- ☞ To provide a fair competition among S&T institutes

Methodology of Assessment



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A Hybrid Method

- Indicator Based Assessment:
Using Quantitative & Qualitative indicators
- SWOT Analysis

Levels of Assessment

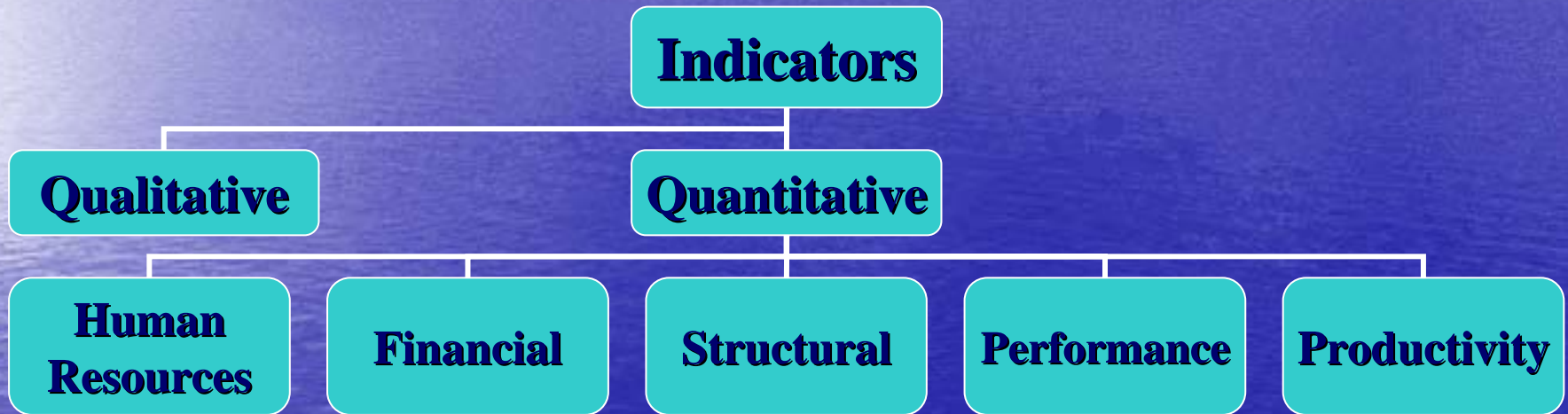
- Macro-Assessment:

S&T status of the country is evaluated in an international scale.

- Micro-Assessment:

The status of S&T institutes are assessed and compared.
A ranking of similar organizations institutes is carried out.

S&T Indicators



Quantitative Indicators for Macro-Assessment



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1. Human resource indicators (11 indicators)
2. Financial indicators (14 indicators)
3. Structural indicators (11 indicators)
4. Performance indicators (14 indicators)
5. Productivity indicators (10 indicators)



Qualitative Indicators

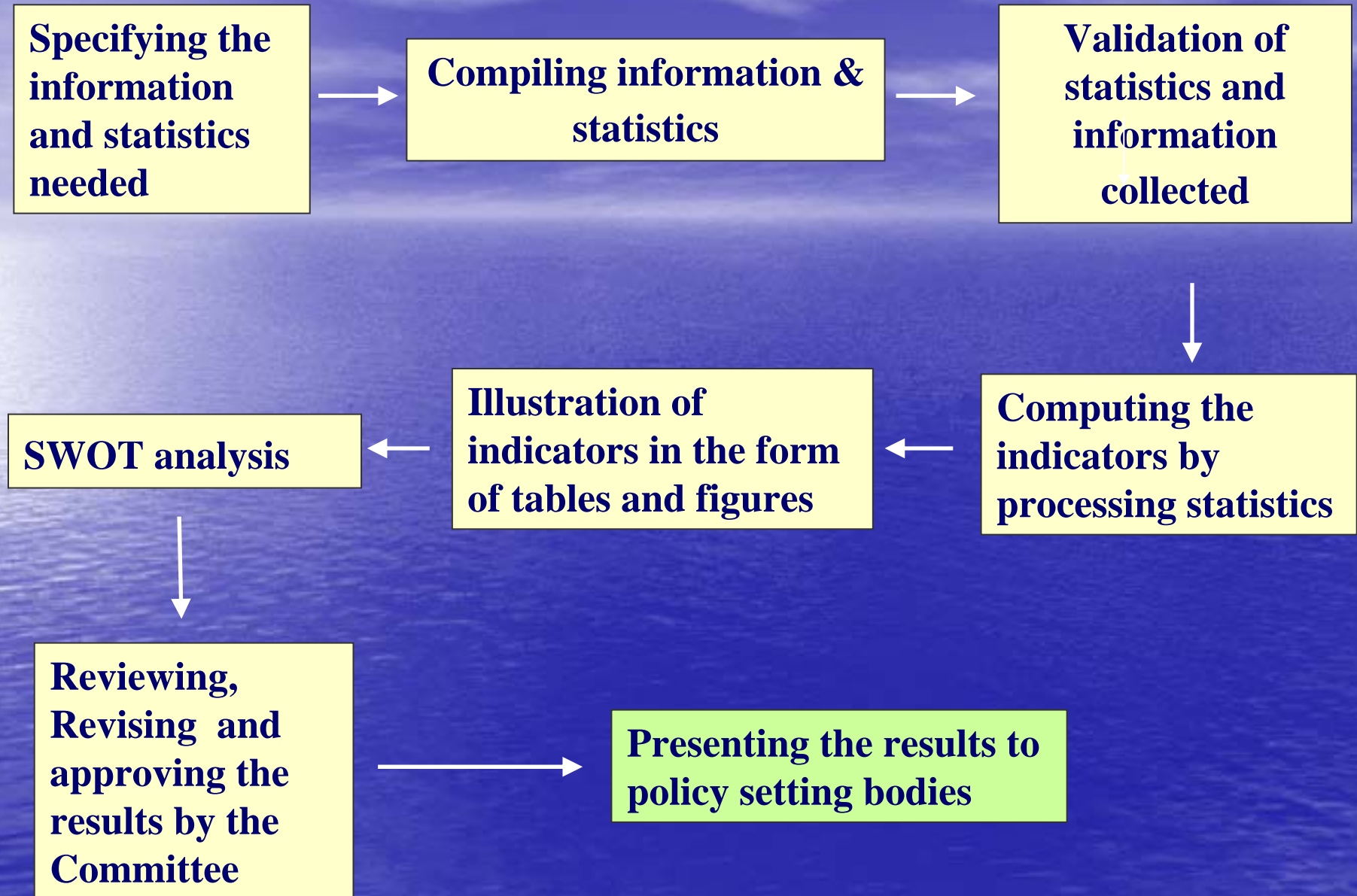
Indicators that are very difficult or even impossible to be investigated quantitatively.



Qualitative Indicators

- ☞ The degree to which research results are practically used in the country
- ☞ Social status and job satisfaction of scientists and researchers
- ☞ The quality and effectiveness of S&T organizing nation-wide

Assessment Procedure





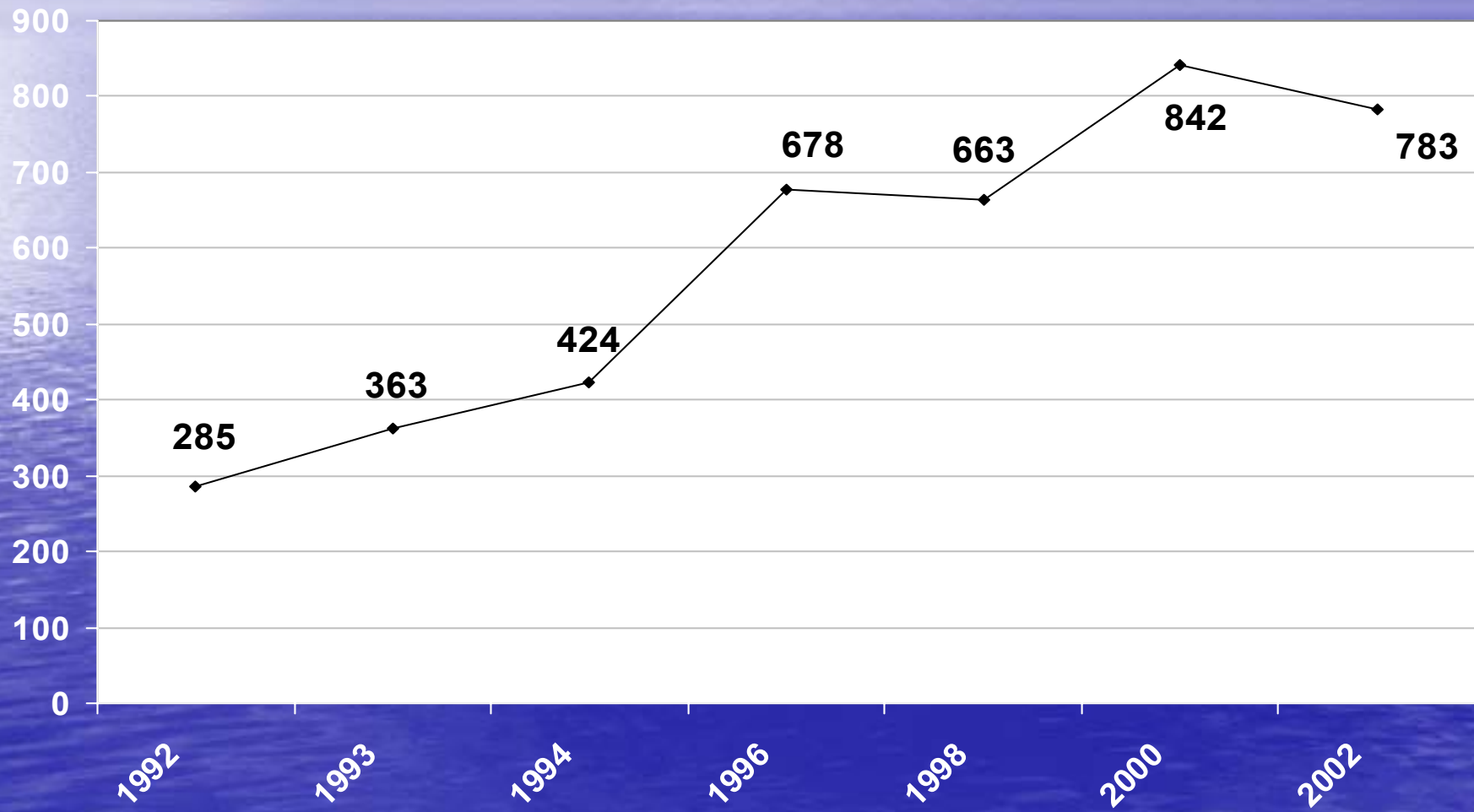
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Selective Results of S&T Assessment in Iran



Total researchers per million populations

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Total R&D budget (Billion Rials)

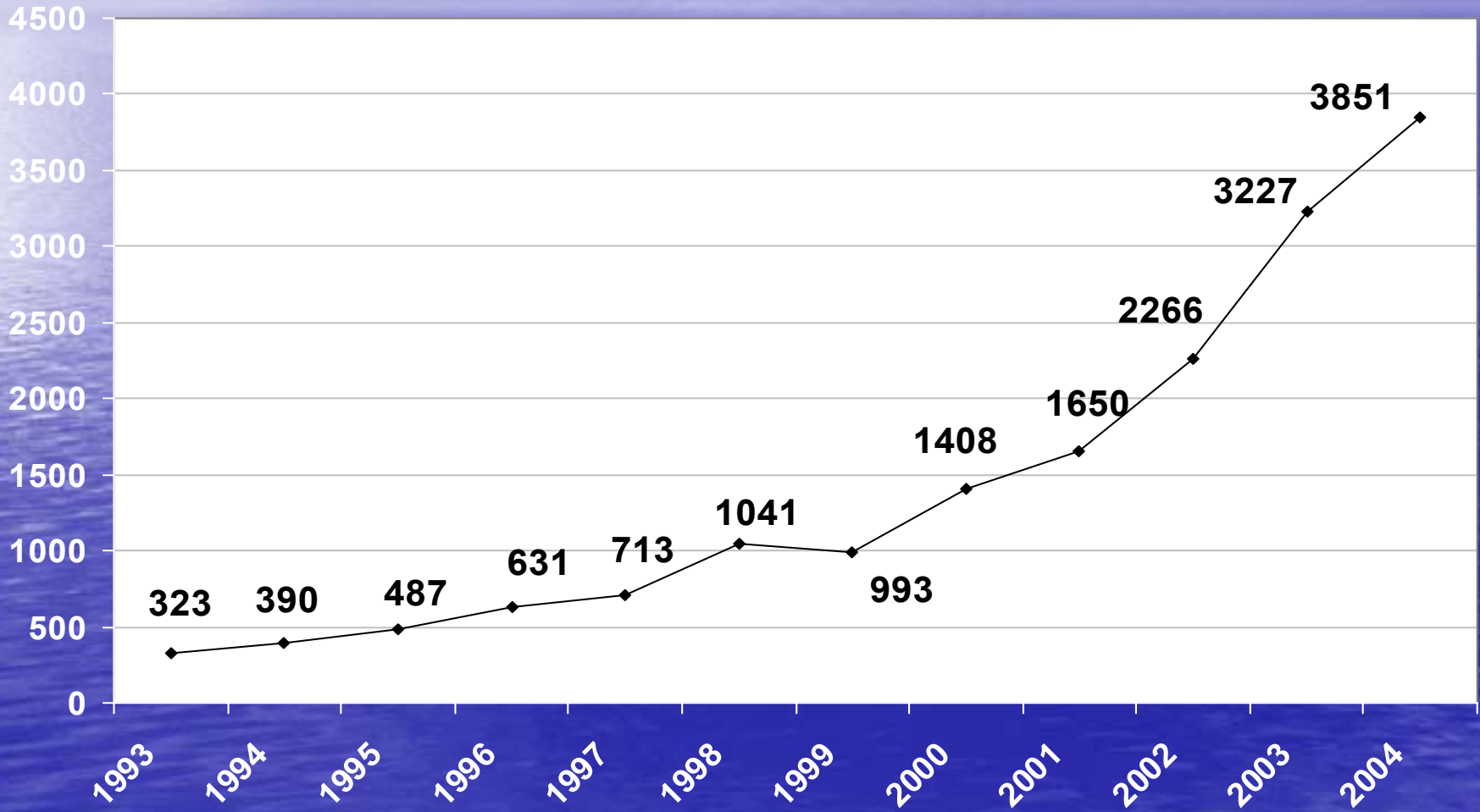


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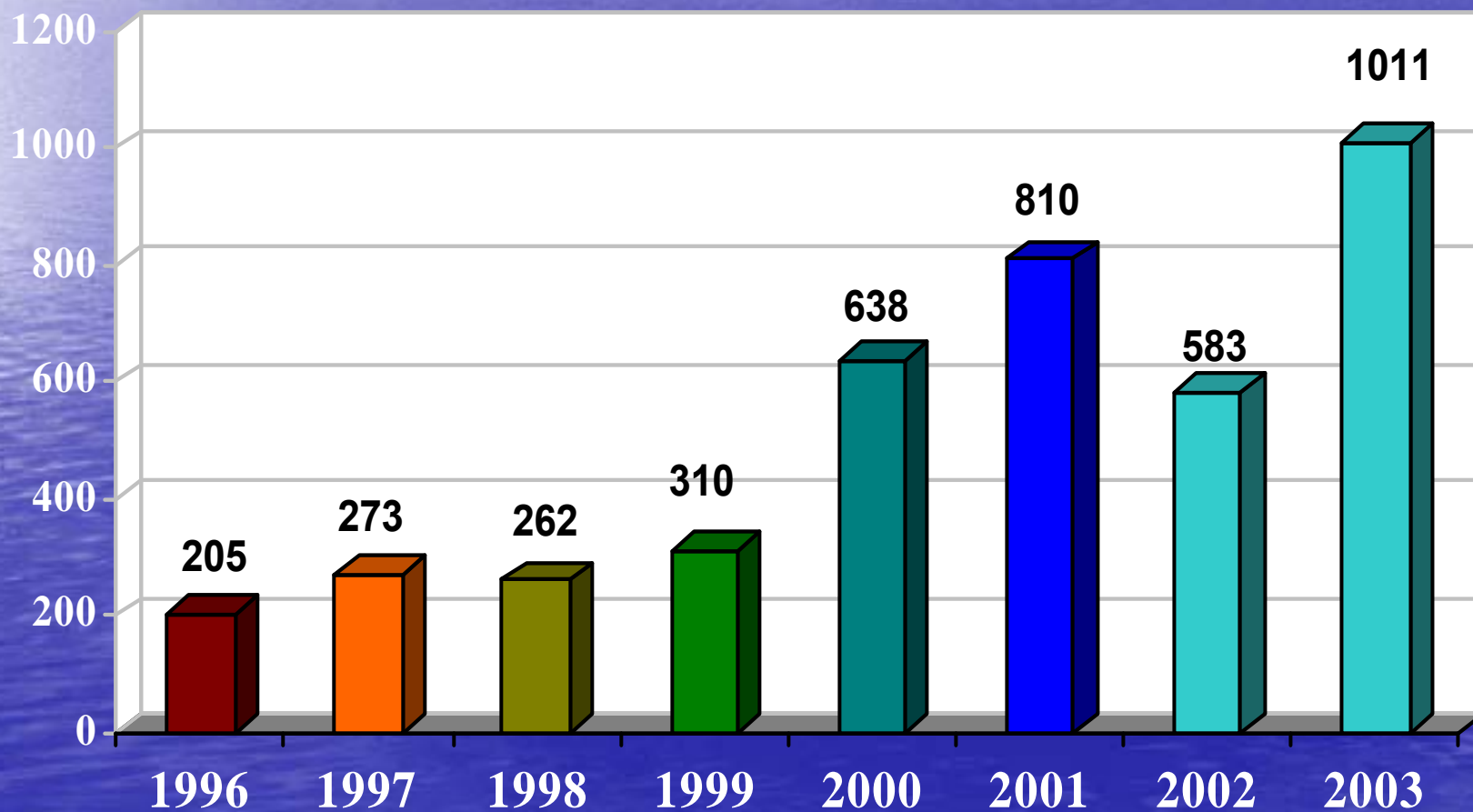


Total scientific publications indexed in ISI 1993-2004





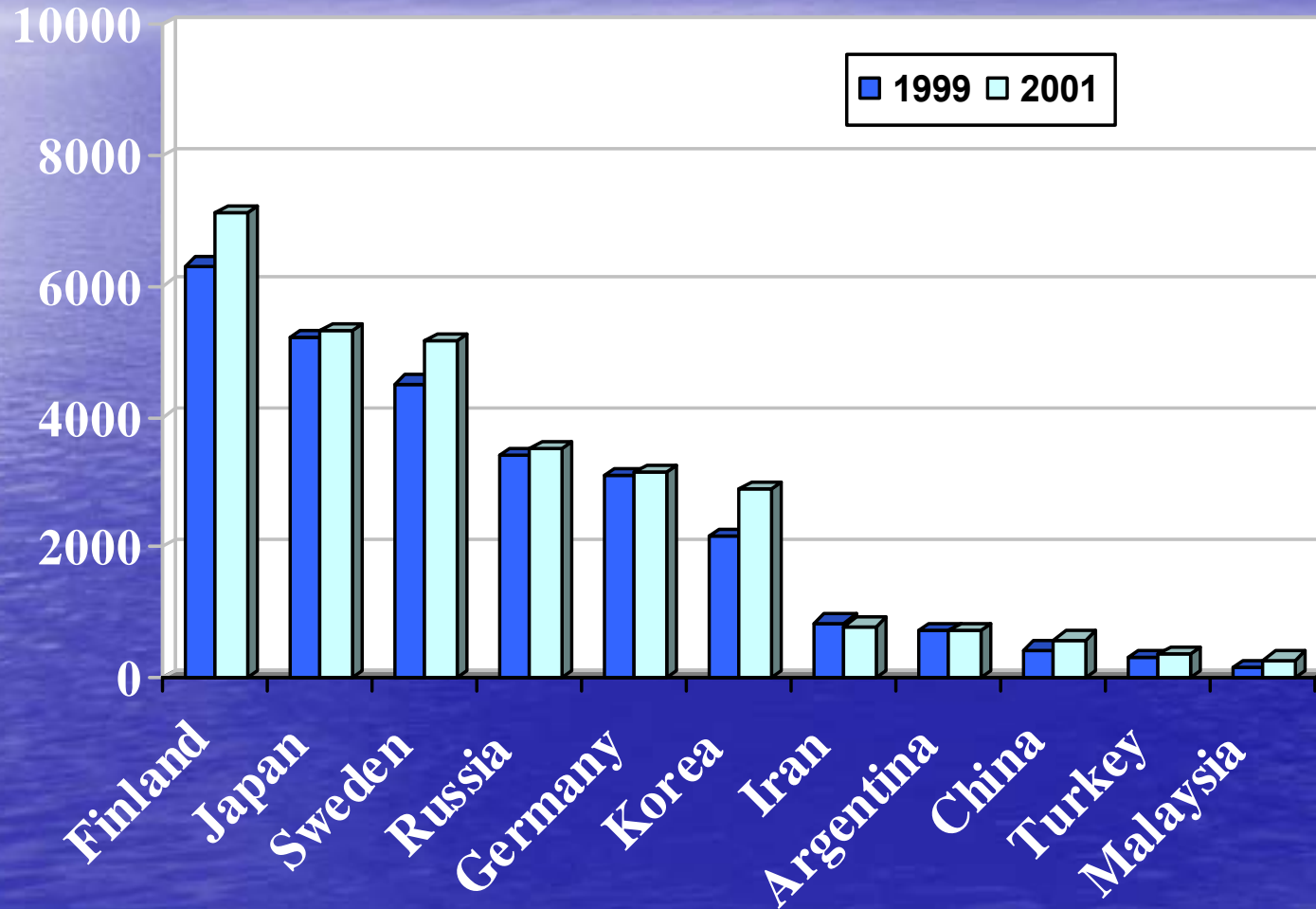
Number of domestic patents



Total researchers per million populations in 1999 & 2001

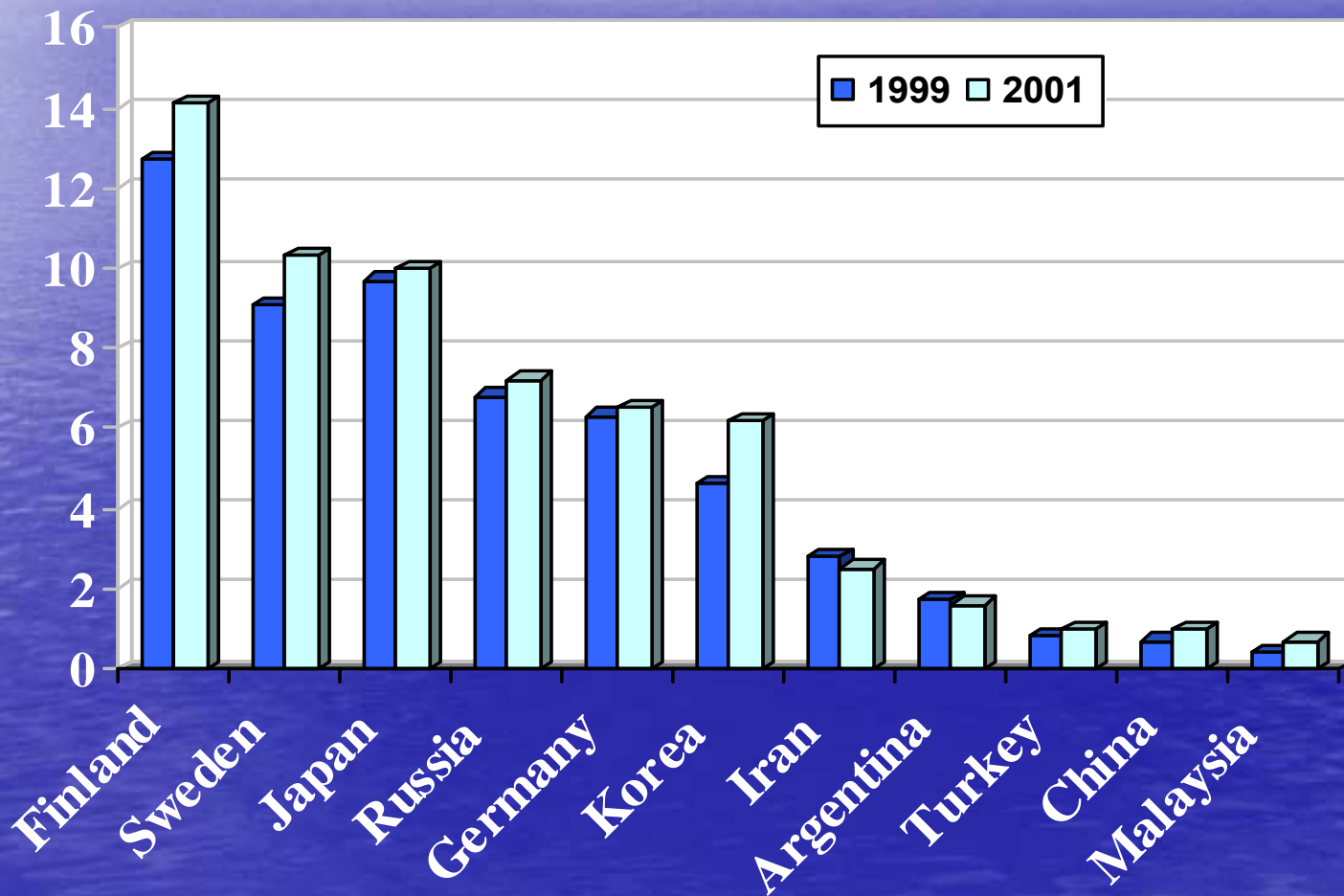


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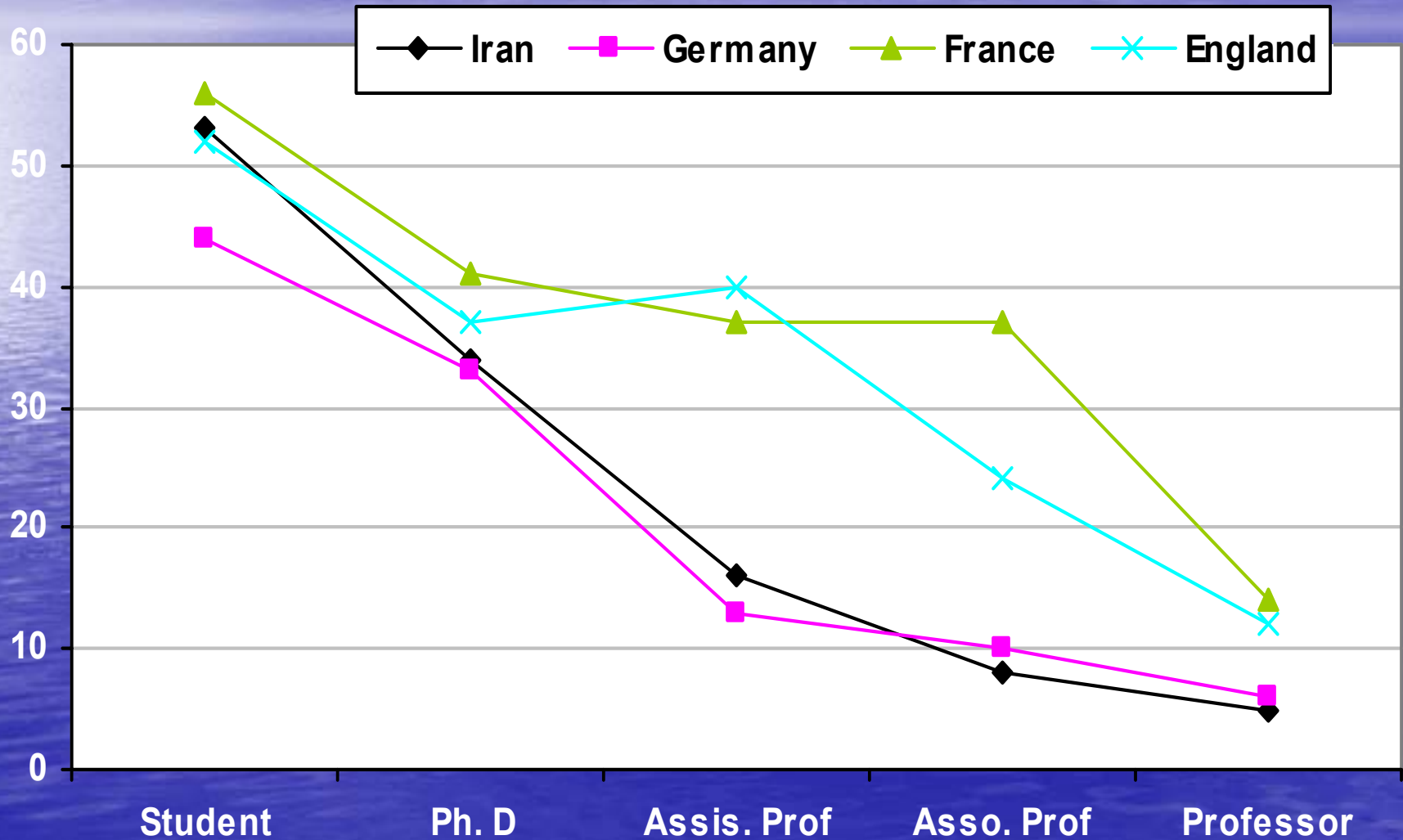


Total researchers per thousand labor force in 1999 & 2001





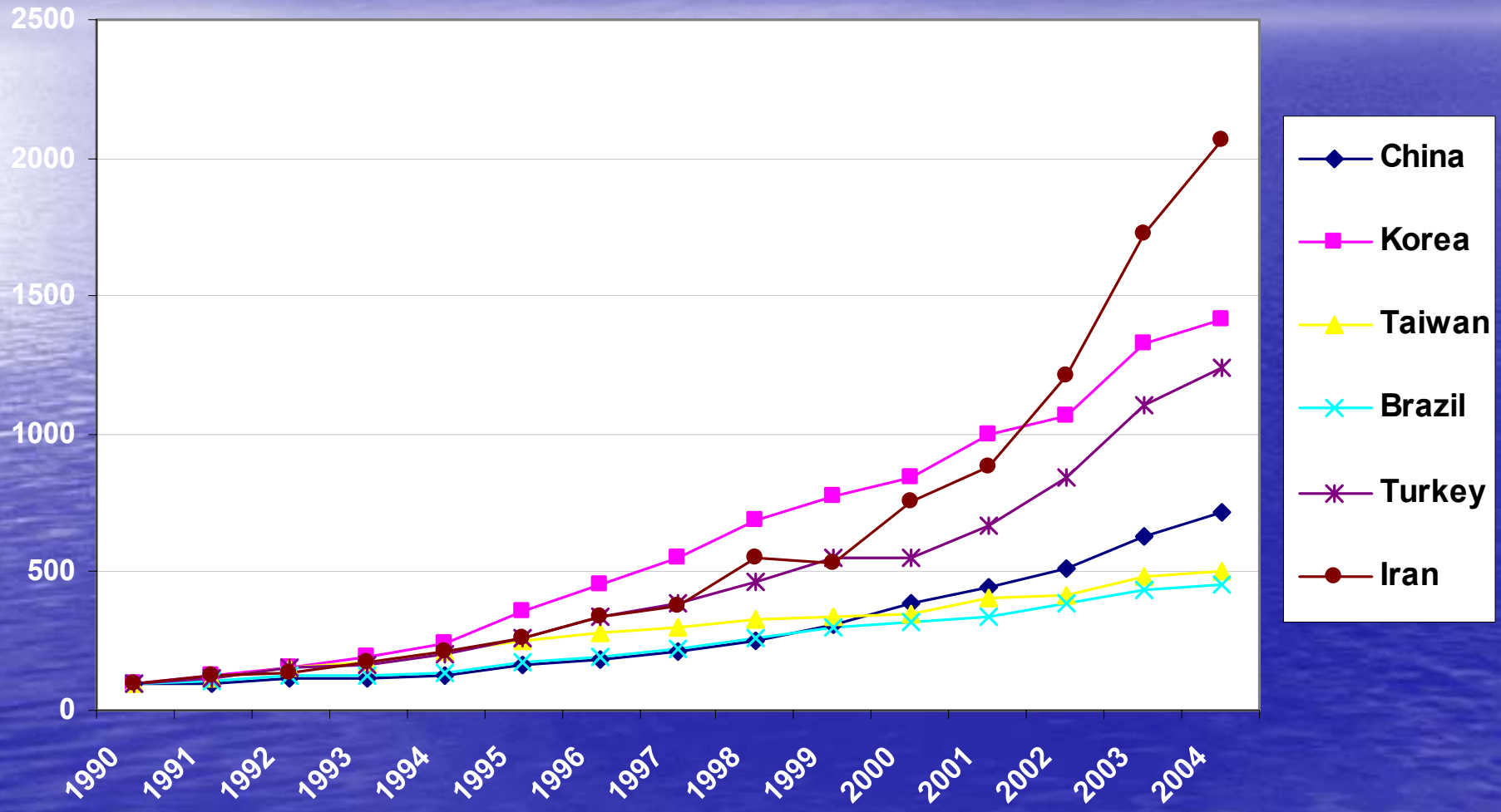
Share of women in different scientific positions in 2000



The growth of scientific publications (base year 1990=100)



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Assessment Conclusions

- The human resources in S&T sector has been developed rather satisfactory.
- Some of the S&T indicators have rapidly improved in recent years.
- There is more emphasis on Science rather than on Technology.



- There is a large gap between S&T pioneers and other researchers in the sector.
- The progress achieved in different fields is not uniform
- There is still a large gap between Iran and industrial countries in both Science and Technology.

From S&T Assessment to S&T Policy



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Results of Indicator
Based Assessment

+

SWOT Analysis

Policy

Recommendations

Also

Indicators as Policy

Recommendations to Policy Setting Bodies

- To Supreme Council for Cultural Revolution
- To Management & Planning Organization
- To Ministries

Policy Recommendations

- Quality of researchers
- Technology development and assimilation
- Bridging the gap between S&T pioneers and other researchers
- A more uniform progress among scientific fields