

# Scientific research is declining in India, says CAG report

## Times News Network

NEW DELHI: Is Indian science declining? Well, it would certainly seem so if one pursues the latest report of the Comptroller and Auditor General of India on the country's scientific departments.

There are two key indicators of the output in research and development: the number of patents sealed and the research papers published in a country. Both these indicators, in comparison to data of previous years, have shown a downward trend in India, holds the CAG report.

The number of papers published in the country by the research laboratories under the Union and state governments and the in-house R&D units of public and private sector industries has declined

from 50,592 in 1994 to 42,263 in 1998.

"While there was a steep decrease in the number of papers published in agriculture, biological sciences, earth sciences and engineering, in other applied areas like chemical sciences, physical sciences and medical sciences, it was almost stagnant," says the report. India's contribution to world publications was a measly 2.2 per cent from 1989 to 1998.

As for patents, the number of them sealed in India declined from 1,890 in 1989-1990 to 1,881 in 1999-2000, even though the expenditure on R&D has increased every year.

Moreover, the number of patents sealed in the name of foreign nationals in India continues to be much higher than those sealed by Indians during the decade. In 1999-

2000, for instance, the tally for foreign nationals was 1,324, while it stood at 557 for Indians.

Talking of expenditure as a whole on R&D, the report says it "increased 232 per cent from 1989-1990 to 1999-2000, while, as a percentage of the Gross National Product, it declined by 22 basis points during this period".

Global comparison of R&D efforts shows that most developed countries spend over two per cent of their GNP on R&D. Developing countries, with some exceptions, in turn, spend around 0.5 per cent.

"Though the R&D spending was 0.7 per cent of the GNP in India, the country still needs to enhance its R&D expenditure to reach a level comparable to developed countries," says the CAG report.