

# Council of Scientific and Industrial Research

The Council of Scientific and Industrial Research (CSIR) is an autonomous body established in 1942. Its Director-General is Shekhar C. Mande who took charge in 2018

Since its inception, the CSIR has become the largest research and development organisation in India with over 38 laboratories/institutes, 39 outreach centres, 3 Innovation Centres and 5 units throughout the nation.

This article will give details about the Council of Scientific and Industrial Research within the context of the IAS Exam.

## History of the Council of Scientific and Industrial Research

In the 1930s there was a growing need for establishing research organisations for the development of natural resources and new industries in India. Prominent scientists such as C.V. Raman (passed on November 21, 1970) and J.C. Ghosh proposed and an advisory board of scientific research.

Indian scientists at Calcutta and Bangalore initiated schemes to launch a National Institute of Sciences and an Indian Academy of Sciences, respectively. At the Fifth Industries Conference in 1933, the Provincial Governments of Bombay, Madras, Bihar and Orissa unanimously reiterated their demand for a co-ordinating forum for industrial research. Lord Willingdon, the Viceroy of India at the time found it unnecessary to promote the application of research to natural resources. Instead, he offered to create an Industrial Intelligence and Research Bureau, which came into operation in April 1935.

When World War II broke out in 1939, the British government decided to divert funds to help the war effort. It was when Arcot Ramaswamy Mudaliar recommended that the Bureau be terminated but not for economic reasons, instead to make room for a Board of Scientific and Industrial Research. Since he was a member of the Viceroy's executive council, his recommendation held sway. His recommendation paid off when the Board of Scientific and Industrial Research (BSIR) was created on 1 April 1940. Mudaliar was made chair of the board.

Since its inception, the achievements of BSIR included the development of the research on vegetable oil blends as fuel, plastic packing case for army boots and ammunition, dyes for uniforms and preparation of vitamins.

Then the constitution of the Council of Scientific and Industrial Research (CSIR) as an autonomous body was prepared under Mudaliar and Bhatnagar. Thus, CSIR came into operation on 26 September 1942 when a decision was made to create an organisation to further the advancement in industrial research.

## Notable Achievement of the CSIR

Regarding intellectual property, the CSIR has over 2971 patents filed internationally with 1592 patents filed in India. Since its inception in 1942 over 14000 patents have been granted worldwide. It was awarded the National Intellectual Property Award in 2018 by the India Patent Office.

The Council of Scientific and Industrial Research has carried out development activities in the realm of aerospace engineering, structural engineering, ocean sciences, life sciences, metallurgy, chemicals, mining, food, petroleum, leather, and environmental science.

Some of its notable achievements in these fields are as follows:

- Development of the indigenously developed synthetic drug, methaqualone
- Design of the first India Tractor - Swaraj - in 1967
- First organisation in India to analyse the genetic diversity of the tribes of Andaman and Nicobar islands.
- Designed India's first-ever parallel processing computer, Flosolver.
- Upgradation of one of India's oldest refineries at Digboi using modern distillation technology
- Establishment of the 'Traditional Knowledge Digital Library' which can be accessed in five languages - English, German, French, Japanese and Spanish
- Successfully challenged the grant of patent in the US for use of haldi (turmeric) for wound healing and neem as an insecticide.
- Successfully completed the sequencing of the Human Genome in 2009
- In 2020, initiated clinical trials to evaluate Sepsivac's efficacy to reduce the mortality rate in COVID-19 patients.