

Humans shove Earth into a new epoch

THE human impact on Earth's chemistry and climate has cut short the 11 700-year-old geological epoch known as the Holocene and ushered in a new one.

The Anthropocene, or "new age of man", will start from the mid-20th century if a recommendation by scientists, submitted to the International Geological Congress in Cape Town yesterday, is adopted.

That approval process is likely to take at least two years and requires ratification by three other academic bodies.

But after seven years of deliberations, the 35-strong working group has unanimously recognised the Anthropocene as a reality and voted 30 to three, with two abstentions, for the transition to be officially registered.

"Our working model is that the optimal boundary is the mid-20th century," said Jan Zalasiewicz of the University of Leicester.

"If adopted, and we're a long way from that, the Holocene would finish and the Anthropocene would formally be held to have begun."

Scientists refer to the period starting from 1950 as the "great acceleration" and graphs tracking a number of chemical and socio-economic changes make it obvious why.

Concentrations in the air of carbon dioxide, methane and stratospheric ozone; surface temperatures, ocean acidification, marine fish harvesting; and tropical forest loss, population growth, construction of large dams and international tourism — all of them take off from about mid-century.

One of the main culprits is global warming driven by the burning of fossil fuels. A telltale surge in the spread of invasive plant and animal species is also a legacy of our species.

"We are spoiled for choice," Zalasiewicz said. "There's a whole array of potential signals out there."

Micro-plastics, for example, synthetic, man-made substances "are now components of sediment around the world, both in land and in the sea". — *AFP*