

Age in chemicals ^{INDO} and plastics 'unsafe' 19/1/22

Caroline O'Doherty
ENVIRONMENT CORRESPONDENT

THE Earth is so polluted by chemicals and plastics, it is no longer possible to know their quantities or what damage they are causing.

An international team of scientists says a planetary boundary has been breached and we have moved beyond a "safe operating space for humanity".

They are calling for a global cap on production similar to the agreements on limiting greenhouse gas emissions.

The team of 14 scientists - from Sweden, Britain, Canada, Denmark and Switzerland - published their findings in the journal *Environmental Science and Technology*.

They say 350,000 different types of man-made chemicals have flooded the planet, 70,000 of them registered in the last decade alone.

Plastics, pesticides, fertilisers, toiletries, household cleaning fluids, industrial chemicals and pharmaceuticals all contain these chemicals, which are termed 'novel entities' as they do not exist in nature, or are being used in concentrations or combined in ways not naturally found.

They are proliferating so fast that regulatory bodies cannot track their final destination, or their impact on biodiversity and human health. NB

"There has been a 50-fold increase in the production of chemicals since 1950. This is projected to triple again by 2050," said team member and report co-author, Patricia Villarubia-Gómez. "The pace that societies are producing and releasing new chemicals and other novel entities into the environment is not consistent with staying within a safe operating space for humanity."

The scientists call for a cap on production and say an international science policy body may be needed to oversee the process. But they warn that reducing production alone will not solve the problem as 80pc of all plastics ever produced are still in the environment, with unknown consequences. 80% NB