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India to frame policy on synthetic biology

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NEW DELHI: India is taking its first steps to evolve a policy on synthetic biology, an emerging science through which new life forms can potentially be made in labs and existing life forms, such as bacteria and other microbes, tweaked to produce specific proteins or chemically useful products.

The Environment Ministry will be convening a group of experts on biodiversity and biotechnology, to assess synthetic biology work pursued in Indian labs, potential benefits and risks, and the implications of the trans-boundary movement of such life forms.

Synthetic biology in microbial systems holds promise for production of drugs, vaccines, fuel components and other chemicals. A popular example is the production of artemisinin, a powerful anti-malarial drug, in yeast, at a commercial level. Microorganisms have also been constructed to act as sensors that can detect a toxin *in vitro* (outside a living organism) or *in vivo* (inside a living organism).

> The technology could help produce drugs, vaccines, fuel components and other chemicals

There are assorted labs in India that work on synthetic biology.

Last December, officials from the Environment Ministry participated in the United Nations Biodiversity Conference of the Convention on Biological Diversity (CBD) at Cancun, Mexico, where about 8,000 delegates from 180 countries discussed matters related to biodiversity.

India, so far, has no policy on synthetic biology, and according to a presentation made at the venue, it has promised to "put in place a Synthetic Biology Team for articulating India's view" at a forthcoming meeting.

"We do not have any obligations to put in place any policy immediately," Amit Prasad, Additional Secretary, Ministry of Environment and Forests, told *The Hindu*.