Ahmedabad: Non-stick cookware has become essential in low-fat urban kitchens though they have also raised safety concerns because of the chemicals used. But who could have imagined that rural communities in our backyard would be using non-stick coating made from natural ingredients on their earthenware?

Members of Dhanuka, Nayak and Bhil community of Chhota Udepur region of Gujarat and the nearby areas in Madhya Pradesh have been traditionally using ‘lac’ to coat their earthen utensils. Lac is obtained from the secretion of an insect, Laccifer Lacca, that lives in the Pohim tree. The lac obtained from this tree is shiny and long lasting. Lac generally contains resins (70-80%), sugars, proteins and soluble salts (2-4%), wax (4-6%) and other extraneous matter (9-14%).

The innovation lies in the selection of a particular kind of lac — and the process of applying it — on the clay surface using natural binding agents. The natural non-stick earthen utensil or ‘hariyali handi’ has been developed by Jentibhai Nayak, Desingbhai Dhanak and Raghubhai Bhil.

Ambala, in Chhota Udepur, is among the few villages known for lac-coating of earthenware to make them suitable for making chapattis and better cooking of other food. Other villages of Gujarat where this tradition of lac-coating can still be found are Devhaant, Kharkhad, Teemla, Bodgaon, Rangpur and Kanalwa and, in Madhya Pradesh, mainly in Chandpur and Khandala villages. Lac is used so that oil does not get absorbed in the earthenware. This allows for less oil to be used and ensures that the surface of the pot or the pan stays hot. It also prevents the surface from being scratched or damaged while scraping the food.

Scientific evidence proves that lac is non-toxic. The National Innovation Foundation, which has scouted and documented this innovation, also got the toxicity tests done. The tests prove that it is non-toxic. To make these utensils, only a particular kind of clay is used and only four or five types of earthen utensils — such as tava and kadhai — are made. The process of coating is quite simple. Raw lac is added to water and brought to boil twice. This makes the solution homogenous, enabling lac to be spread uniformly on the pan which is heated before application. Upon cooling, the lac sticks to the surface of the vessel which can then be used for cooking.