In the initial screening the extracts were tested for antibacterial and antifungal activity and it was clear that *Abrus precatorius* showed higher activity followed by *Acacia nilotica*.

Among 53 plants screened for antibacterial and antifungal activity, *Abrus precatorius* and *Acacia nilotica* activity were further investigated using different plant parts — leaves, bark, roots and seeds.

Three different extractions were employed for the assessment of activity. The powdered plant parts were extracted in distilled water, ethyl alcohol and ethyl acetate.

The activity was assayed using three different dilutions as 1, 0.5 and 0.25 of the stock solution made after first extraction.

The plant parts were assessed for antibacterial activity against two bacterial human pathogens: *Staphylococcus aureus* and *E. coli* and two plant pathogens: *Xanthomonas malvacearum* and *Corynebacterium sp*.

For antifungal activity, the plant parts were assessed against two human pathogens: *Candida albicans* and *Trichophyton rubrum* and two plant pathogens: *Alternaria solani* and *Helminthosporium turcicum*.

Ethyl acetate was found to be superior extractant followed by ethyl alcohol and lastly water in all the plant parts for both the plants.
⇒ It was evident from the overall study that in both the plants seeds possessed highest activity followed by roots, bark and least was observed with the leaves for antifungal and antibacterial activity as well.

⇒ Gram-positive *Staphylococcus aureus* was most susceptible to all the extracts closely followed by Gram-positive *Corynebacterium sp.* indicating the susceptibility of Gram-positive bacteria to the component of the extracts.

⇒ Gram-negative *Xanthomonas malvacearum* was most resistant to all the extracts closely followed by Gram-negative *E. coli* indicating the Gram-negative bacteria are resistant to most chemicals owing to their cell wall structure.

⇒ *Trichophyton rubrum* was most susceptible to all the extracts closely followed by *Candida albicans* indicating the susceptibility to the components of the extracts.

⇒ *Helminthosporium turcicum* was most resistant to all the extracts closely followed by *Alternaria solani* indicating the resistance to plant originated chemicals being familiar to such chemicals.

⇒ The maximum zone of antibacterial effect was observed with the extract of *Abrus precatorius* (30mm) followed *Acacia nilotica* (28mm) against the Gram-positive organism *Staphylococcus aureus*. 
The maximum zone of antifungal effect was observed with the extract of *Abrus precatorius* (33mm) followed *Acacia nilotica* (30mm) against *Trichophyton rubrum*.

The analysis of both the plants leads to separation into 5 fraction containing fibres, lipids, phenolics, alkaloids and quaternary alkaloids.

These fractions on further separation and characterization by TLC leads to presence of various numbers of compounds.

The second fraction containing lipids and derivatives of *Acacia nilotica* showed the presence of five different compounds, third fraction contains six compounds, fourth fraction contains three compounds, fifth fraction contains two compounds, all these compounds were active against all the tested microorganisms.

The second fraction containing lipids and derivatives of *Abrus precatorius* showed the presence of six different compounds, third fraction contains four compounds fourth fraction contains four compounds, fifth fraction contains two compounds, all these compounds were active against all the tested microorganisms.

Various uses of these two plants were recorded from various local people, herbalist, herbal vendor etc. A total of 56 people using these plants as medicine were interviewed.

The most prominent use of *Acacia nilotica* as justified by the study was for its usefulness in diarrhea and dysentery, gastrointestinal
problems skin diseases urinary tract infection. Mostly these diseases are caused by the tested microorganisms.

⇒ The most prominent use of *Abrus precatorius* as justified by the study was for it usefulness in treatment of anthrax, application on wounds, skin abrasion and scratch, gastrointestinal problems like diarrhea and dysentery. The test organisms like *Staphylococcus aureus*, *E. coli*, *T. rubrum* and *C. albicans* are responsible for some of these diseases.

⇒ The inhibition of bacterial plant pathogens viz. *Xanthomonas malvacearum* and *Corynebacterium sp.* were recorded by *Acacia nilotica* and *Abrus precatorius*.

⇒ The inhibition of fungal plant pathogens viz. *Alternaria solani* and *Helminthosporium turcicum* were recorded by *Acacia nilotica* and *Abrus precatorius*. 