

# Comparison of Metal Absorptivity of Discarded Fruit Peels

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## THE CURRENT SITUATION

140 million people in Southeast Asia lack access to safe drinking water. The water departments have difficulty in affording quality facilities and technicians that can keep sanitary water.

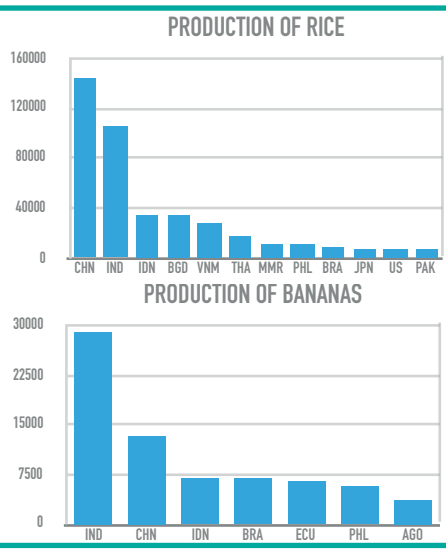


## SUGGESTION

Make charcoal out of banana peels and rice husks

→ Both banana peels and rice husks are common wastes in Southeast Asia.

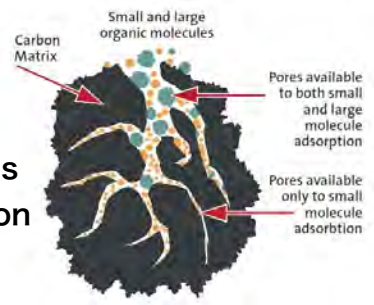
Recycling and purification can be done at same time



## PURIFYING EFFECTS OF CHARCOAL

Key word: Porosity

Porous characteristics help absorption of toxic substances



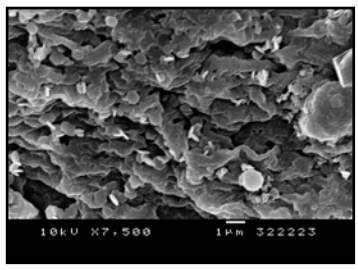
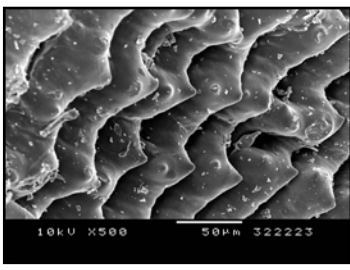
## METHODS



3 hours 450 °C



## RESULTS



## FUTURE TASKS



REFERENCES MAFF: [http://www.maff.go.jp/j/pr/aff/1601/spe1\\_02.html](http://www.maff.go.jp/j/pr/aff/1601/spe1_02.html) Kitakata City Waterworks Bureau: <http://www.kitakata-suidou.jp/kids/handicraft.php> ELGA Lab Water: <https://www.elgalabwater.com/technologies/activated-carbon> Water Quality Products: <https://www.wqpmag.com/researchers-find-banana-peels-remove-heavy-metals-water> JICA: [https://www.jica.go.jp/priv\\_partner/activities/sdgsbvs/kaihatsu/ku57pq00002azxod-att/171012\\_water.pdf](https://www.jica.go.jp/priv_partner/activities/sdgsbvs/kaihatsu/ku57pq00002azxod-att/171012_water.pdf) The Straits Times: <https://www.straitstimes.com/asia/se-asia/140m-in-se-asia-do-not-have-clean-water>