

Scrap Recycling

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A. General Problem

Garbage is one of the major problems in Indonesia. All methods have been applied by government and related institution handling garbage but seemingly it has not shown any significant progress or gained merely minor development. Currently, Indonesia is known as a second-ranking country after China in a case of garbage issue. Garbage absolutely deteriorates the environment where it is thrown away leading to water and soil contamination or impede water channel for instance. Frequently, natural disasters may occur such as flood likely in Jakarta and Bandung which were also known as high flood intensity rate cities. Getting information about flood makes us concerning that garbage is an inevitable problem for people globally.

Garbage is divided into two types; organic and inorganic. Organic garbage is produced by living organism meanwhile inorganic garbage is produced by abiotic. Garbage probably are degradable and the other ones are not. It arises the pros and cons of producing the not degradable ones about its waste handling which may cause a harmful effect. For instance, metal waste is not degradable when it is even buried in soil or thrown away to sea but a dangerous impact will appear instead. The best method to deal with this problem is to recycle the metal waste. Scrap is a metal waste that can be recycled easily or moreover up-recycle

(value-adding from the old ones) able to be achieved.

B. Main Issue and Complication

According to Wikipedia, Scrap is unused materials that consist of recyclable materials left over from product manufacturing and consumption, such as parts of vehicles, building supplies, and surplus materials. Unlike waste, scrap has monetary value, especially recovered metals, and non-metallic materials are also recovered for recycling. All materials made by metallic compound are origin from not renewable resources. Metals can't be separated from human life since we use it in any sectors. As we can imagine if the mining engineer continuously keeps going on exploitation activity, it would be a life-threat for future. Minerals reserve underneath our earth will disappear someday if we lack knowledge in metal disposal handling.

In Developed Country such as Germany, Finland, and United States have been aware of applying recycle of scrap. In Germany, the broken car, old-fashioned car, and the unused car should be taken to the crusher machine in a certain period to be renewed. In the USA, the government releases a regulation regarding scrap recycling and will be paid by cash money depending on the type of metals they have. In Finland, they set

aside the metal waste depending on its type, therefore, it helps a scrap recycling company to reproduce the metal without separating the garbage.

In United States and Canada, launched a mobile application (particularly for iPhone and iPad users) named i-Scrap since 2013. Unfortunately, this app has not been launched outside those countries including Indonesia. Commercially, this app is helpful to gain benefits in both buyers and sellers. At a glance, by downloading this application may help people to find out as follows:

1. The users will be able to get current scrap metal prices
2. Business contact information regarding scrap recycling
3. Locations where users can bring their metal or contact to the nearby right auto wrecker.

C. Conclusion

Scrap is profitable indeed if we are capable of recycling it well. It shall reduce the mining production cost, operation cost, and amount of drilling throughout the world. Roughly, one ton of scrap saves 1,115 kg of iron ore, 625 kg of coal, 53 kg of limestone. Hence, instead of exploiting minerals, we can recycle the metal waste. In addition, if the scrap is unattended exposed to air, it releases harmful effect which may cause greenhouse effect because of its dangerous element.

Unfortunately, Indonesia has not applied this technology yet. Only people who study metallurgical engineering and material science recognize that scrap

recycling must be done to fulfill the human need and save the deposits of mineral in future. A collaboration of related institution must have a partnership to run this program and increase people awareness about scrap recycling simultaneously.

Moreover, it is a good idea to launch i-Scrap in Indonesia as a supporting application for metal production and open a new opportunity for people to earn money through this mobile app.

D. References

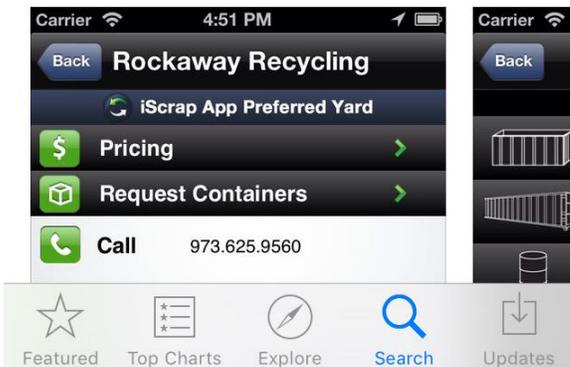
1. <http://sains.kompas.com/read/2016/08/02/15373691/indonesia.penghasil.sampah.plastik.kedua.terbesar.di.dunia.lipi.ak.an.buktikan>
2. <https://itunes.apple.com/us/app/iscrap-app/id659591706?mt=8>
3. <https://en.wikipedia.org/wiki/Scrap>
4. <http://earth911.com/eco-tech/basics-recycling-scrap-metal-money/>
5. <https://rockawayrecycling.com/scrap-metal-prices/>

Those links were accessed on Friday, May 19th 2017

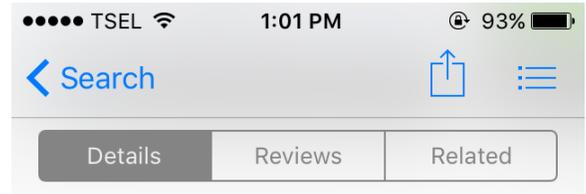
D. Attachments



iPhone



Picture 1. The author is an iPhone user. Hence he downloads the app using App Store

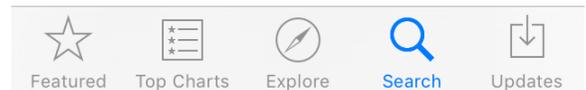


Description

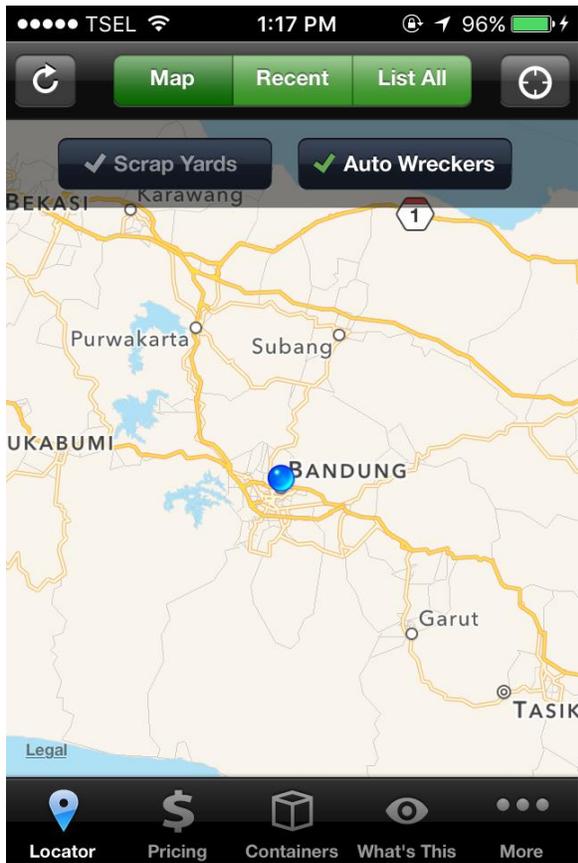
The iScrap App™ is revolutionizing the scrap metal industry. With scrap yards, auto wreckers, and metal recyclers in the US & Canada listed throughout the directory, users will be able to get current scrap metal prices, business contact information, directions, and much more directly through the app.

The iScrap App™ is focused to deliver scrappers, peddlers, homeowners, and contractors like plumbers and electricians, all of the information they need to recycle their scrap metals. Being a FREE app for the user, the iScrap App™ will be able to find the right location for users to bring their metals or contact the right auto wrecker in the area for salvage parts and pick up services.

The iScrap App™ provides users with daily scrap



Picture 2. The description of App that only works in The USA and Canada.



Picture 3. The author did not find any auto wrecker or scrap buyers in his address



Picture 4. The author inputs "New Hampshire" as its location and the app detects automatically