



Ex-coal mining soil development for agriculture in East Kalimantan has been conducting and has been one of AIAT of East Kalimantan main project which is still in progress until now. Several commodities had been tested and developed namely food crop, and vegetables. One of the prospective commodity that also been developed is cassava. This commodity has huge potency as its fresh and processed products.

Cassava is one of the commodities that has been cultivated by farmers in relatively wide area of field in East Kalimantan. Cassava area of cultivation spreads in whole regencies/cities of East Kalimantan, and reaching 5.214 ha in 2011 with productivity reaches 4.91 % ( East Kalimantan Statistical Beureu, 2012). In ex-mining soil area od Embalut village, Tenggaraong Seberang District, Kutai Kartanegara Regency, is already cultivated a type of cassava known as “singkong gajah” which has characteristic of big tuber which can reach 60 kg of each for around 9 months.

One of the cassava based products which already known and developed in East Kalimantan is Mocaf (Modified Cassava Flour). Mocaf is flour made from cassava which iits processing is through fermentation and drying process so that it can produce flour which has characteristics of bright color and clean s it has its own potential as a substitution of wheat flour. These advantageous gives a market potency and opening a chance for the development of cassava based products as a part of the effort to support food diversity and security.

Development of ex-mining soil for agriculture gives huge potency for cultivation of mocaf’s raw material that is cassava. Huge amount of material will give an opportunity of the application of post harvest technology as for to anticipate huge amount of cassava yield resulted. The application of cultivation technology and strengthening of farmer institution in sustainable way will support the effort of mechanization technology implementation by farmers which latter will give a positive feed back to farmers.



**Figure:** “Singkong gajah” which adaptive in East Kalimantan has huge potential to be developed.

As for that effort, AIAT of East Kalimantan as a part of the innovation agent in the region has been assessing and applying mechanization technology to support the development of ex-mining soil and strengthen farming in East Kalimantan. This activity will support the development of agriculture in ex-mining soil, pioneering, and effective and efficient technology input which are expected will be adopted by other farmers, also strengthen the cooperation between many related parties so that it will strengthen the outcome which will be resulted.

In 2015, AIAT of East Kalimantan has been cooperating with IACERD, Local Research and Development Agency, Kitadin Corp., Mocaf producer and local farmers to apply an effective and efficient drying machine through KKP3SL program launched by IAARD as a part of the effort to develop cassava comprehensively and sustainable in ex-mining soil land area. Dryer which will applied is a hybrid type of dryer which adopting glass house effect of dryer using racks by additional equipments such as heat exchanger and sources which can be found in the environment surrounding. This dryer will give a practical solution especially at a condition of rainy season with low sunlight. Cassava dried material production will be conducted by minimizing contact with the environment and can produce dried material with high quality so that it will resulting better quality of cassava flour and more competitive.