Additional information to the proposed JCM methodology

"Energy Saving by Introduction of High Efficiency Firewood Cookstove to Replace Traditional Cookstove in the Philippines" on setting default value for reference emissions

1. The status of using woody biomass for cooking in the Philippines

According to Worldometers, the Philippines 2024 population is estimated at 115,843,670 people at mid year[1]-. From the beginning of the 21st century, biomass energy still plays a vital role in the nation's energy supply. Nearly 30 percent of the energy for people living in the Philippines comes from biomass. Most is used for household cooking by the rural poor[2]. The use of wood for burning directly leads to reduced greenhouse gas emissions. Furthermore, it can be helpful to user's health.

2. Determination of the default value for emission reductions

The proposed project activity aims at reducing the use and demand of non-renewable biomass that would have been used to cook by distributing improved cookstove to replace the traditional one which is used by household in the Philippines. The traditional cookstoves in which three-stones are placed on the ground using firewood (not charcoal), or a cookstove with no improved combustion air supply or flue gas ventilation. Each reference stove might have different efficiency. In a research report on low demand for nontraditional cookstove technologies conducted by Ahmed Mushfiq Mobarak et al., it is stated that traditional cookstove are inefficient, harnessing only 5-15% of biomass energy[3]. Furthermore, in CDM tool 33 version 02.0, the default value for the efficiency of the traditional cookstove is 0.15[4]. Since the efficiency value of the reference stove is inversely proportional to the amount of reference emissions. Thus, in order to secure net emission reductions in the methodology, a default conservative value for the reference cookstove efficiency value is used at **0.15**.

[1] https://www.worldometers.info/world-population/philippines-population/
[2] https://www.reap-canada.com/online_library/Reports%20and%20Newsletters/Mayon%20Turbo%20Stove/3%20Enhancing%20Household.PDF
[3] https://poverty-action.org/sites/default/files/publications/low-demand-nontraditional-cookstove-technologies.pdf
[4] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-33-v2.0.pdf