

Non-technical Summary: Healthy cooking initiative for Tea Estate Workers of Nepal

Environment Protection Centre, Nepal (EPC, Nepal) along with VNV Advisory Services intend to promote metallic improved cooking stoves (ICS) with natural or forced air draft. The project developer wishes to target a segment of low income labors working in the tea estates for their livelihood. Devices proposed under this project will have better efficiency compared to traditional cooking stoves. Operating at a higher efficiency, the project devices will consume less firewood to prepare an equivalent quantity of meal. Displacement of less efficient traditional cooking stoves from kitchen will lead to reduced exposure of the family members, specifically women, to the indoor air pollution and reduce drudgery related to firewood collection or cleaning of utensils. These benefits will help in saving of health expenses. Each stoves disseminated under the project will reduce the consumption of non-renewable biomass thereby reducing potential emission of greenhouse gases. The project developer wishes to disseminate 1,500-2,000 ICS to the targeted households. While the developer will focus on dissemination of the forced draft ICS, users' preference will be considered final for the chosen technology type. The project will include ICS disseminated to the labors of tea estate in Jhapa and Ilam districts starting from May 2021. Each ICS within the project will have a minimum life of five years and upon installation all stoves, the project is expected accrue around 10,000 tons of carbon dioxide equivalent as emission reduction. The project devices shall be disseminated to the households for free and the associated costs shall be recovered through the revenue generated through the sales of carbon credits.

The nexus of consumption of solid biomass with the indoor air pollution and greenhouse gas (GHG) emission is well established. Specifically, the firewood sourced from Nepalese forest does not entirely come from the forest area that is renewable. Therefore, the firewood consumed is fossil in origin that results in irreversible emissions of GHGs. By use of ICS the firewood consumption will be reduced which will improve the indoor air pollution and therefore health of family members. In domestic sector, household air pollution is one of the biggest health risks in Nepal which is largely attributed to the use of solid biomass, mainly firewood, for cooking and heating. This way of using biomass causes about 8,700 premature deaths annually (WHO, 2009). Health safety concerns from open fire traditional cookstoves are additional risks faced by poor households contributing to a substantial percentage of subsequent injuries. Project will positively contribute for better health and wellbeing, access to clean cooking and reduction of the GHG emissions in the environment.