# Climate Smart Agriculture Practices (CSA) in Battambang

- The CSA through FFS were organized in several selected districts of Battambang.
- Topic includes: (a) climatic stress tolerant rice varieties; (b) water harvesting system; (c) ecological engineering; (d) plant clinic; (e) compost production; (f) integrated crop management; and (g) drip irrigation system.
- Methodology: FNA with the combination of FFS, Experimental learning and F2F.
- Constraint: response to the market and access to financial resource.
- Measuring Resilience and Sustainability performance







#### Biogas: an integrated farming solution



- Why Biogas
- The National Biodigester Programme (NBP) was established in 2006 in line with Cambodia's Climate Change Strategic Plan (2014 – 2023) and Climate Change Priorities Action Plan For Agriculture, Forestry, and Fisheries Sector (2016-2020).
- After 10 years of programme duration, by the end of July 2016, NBP has built 25,115 biodigesters built with 130,500 direct beneficiaries in all provinces.
- NBP provides farmer US\$150 incentive per biodigester to reduce the financial burden of farmers to purchase biodigester technology.
- The programme, in cooperation and coordination with 3 microfinance institutions (MFIs), namely PRASAC, Amret, HKL in order to provide special loans with a maximum loan of \$1,000 with monthly interest of 1.2% per month to farmers who decide to build a biodigester.
- The IFAD supported project S-RET is supporting the installation of an additional 3,000 biodigesters.





#### Biogas: an integrated farming solution



### Facilitating factors:

- Supporting innovative financing packages and loan repayment schemes
- Enhancement of the NBP protocols for demonstrating of powering small-scale machinery such as water pumps, chaff cutters and milking machines.
- Major challenges is network establishment for timely after-sales services.
- Aside from cost, farmers list the main downside is the substantial amount of animal manure required to kickstart biodigesters.





## Clean char-briquettes using recycled coconut shells



Clean char-briquettes process and market

Char briquettes also test with poultry

production



