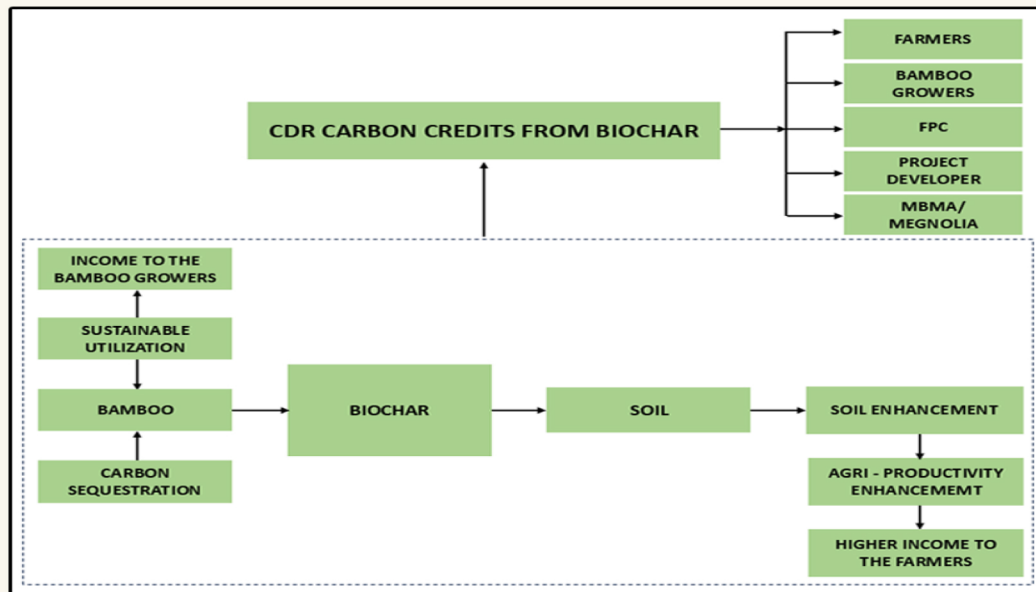
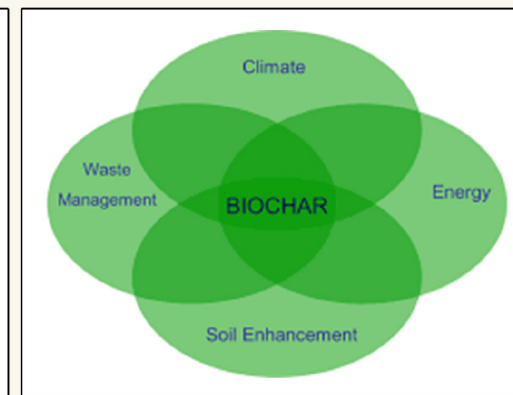


Meghalaya Community Biochar Initiative

ka jing iatreilenag jong ka shnong bad ki nongshong shnong ban pynbha ia ka khyndew, ban kyntiew ia ka kamai kajih bad ban pynkhlain ia ka jinglah ban iakhun bad ka jingkylla ka mariang

Ka Meghalaya ka don ha ka kyrdan kaba kyrpang ban kyntiew ia ka jingroi kaba neh (sustainable development) da kaba pyniasoh lang ia ka rep organic, ka jingpynkhring ia ka jingkylla ka mariang (climate resilience), bad ka jingim jong ki nongkyndong. Kawei na ki lad kiba don jingkyrmen kaba pyniasoh ia kine baroh ka dei ka **biochar**, kaba riwspah ha ka carbon kaba la shna lyngba ka pyrolysis jong ki organic biomass ha ka jaka kaba duna ka oxygen. Da ka jingbun ki marpoh khyndew ha ka jylla bad ka jingkyrshan kaba skhem na ki policy kiba iadei bad ka mariang, ka biochar ka don ka lad ban kylla long ka lad kaba pynkylla dur ia ka lawei kaba iadei bad ka climate resilience ha Meghalaya.



Ka Jingpynkut

Ka biochar ka long ka lad kaba pyniasoh ia ka rep ka riang, ka mariang bad ka ioh ka kot. Ka kyrshan ia ka jingpynbha ia ka khyndew, ka pynkiew ia ka jingmih ha ka rep, ka ai lad ia ka jinglum carbon, bad ka thaw ia ki lad kamai thymmai.

Da ka jingkyrshan ba skhem na ki policy sorkar, ka jingiatreilang paidbah, bad ka jingpyniaid hok ia ki marpoh khyndew, ka biochar ka lah ban long ka bynta kaba kongsan ban pynkylla ia ka Meghalaya sha ka **green economy kaba lah ban iakhun ia ka jingkylla ka mariang**. Kam dei tang ka jingthaw thymmai ha ka technology hynrei ka long ruh ka **“win-win strategy”** na bynta ka jingneh ka mariang bad ka jingroi ha ka imlang sahlang

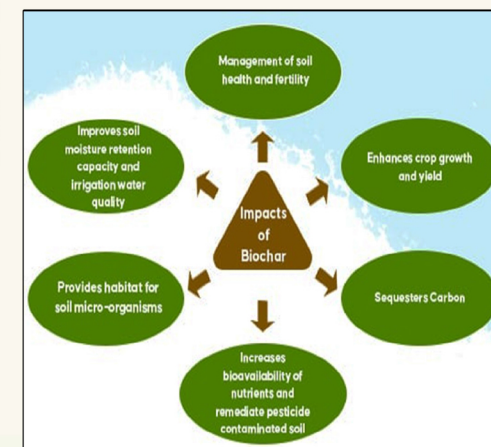


Ka Centre of Excellence (CoE) na bynta Natural Resource Management & Sustainable Livelihoods (NRM & SL) hapoh ka Meghalaya Basin Development Authority (MBDA) ka dei ka institution kaba la pynleit jingmut ban pynkhlain ia ka Natural Resource Management (NRM) ha Meghalaya bad shabar ruh.

Ka koit ka khiah ka Khyndew bad rep kaba seisoh

Kawei na ki jingpyndonkam kaba kongsan tam jong ka biochar ka dei kum ka lad ban pynbha ia ka khyndew. Ki khyndew ha Meghalaya kiba bun ki long kiba khleh (acidic), kiba duna ha ki nutrient bad kiba kiba ban jah noh ki nutrient (leaching). Ka biochar ka iarap ban pynbeit ia kine ki jingeh da kaba:

- Pynbha ia ka jingkhleh (acidity) jong kakhndew
- Pynbha ia ka dur bad ka jingdon ki thliw rit (porosity) jong ka khyndew
- Pynkhlain ia ka bor ban bat um
- Pynroi ia ki microorganism kiba myntoi
- Pynbun ia ka jingdon ki nutrient badpynbun ia ka jingjah (leaching)



Kine ki jingpynbha ki wanrah ia ka jingmih ba kham bha ha ki jingthung jingtep bad ka jingroi slem jong ka khyndew, kaba pynlong ia ka biochar kaba kordor na bynta ki rukom rep kiba neh.

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Da ka jingthmu ban pyniar ha ka jylla baroh kawei, la sdang ia ka Pilot Project halor ka biochar ha ar tylli ki cluster—kawei ha ka thairi Khasi—Jaintia bad kawei ha ka thairi Garo. Ar tylli ki pyrolysis reactor kiba hapteng (mid-size) la dep buh ha ki Biochar Production Plant ha Umsli bad Chenggalgre. Kine ki plant ki don ha ka bynta pdeng jong ki cluster kiba don ki nongrep siej bad ki nongrep. Ki bynta kongsan jong kane ka initiative ki long kumne harum:

- » Ka rukom cluster da kaba iatreilang bad ki Farmers' Organization/ Co-operative Societies
- » Ka jingpynbha ia ka khyndew ban kyntiew ia ka rep organic bad natural bad ka jingpynkiew ia ka jingmih ha ka rep ka riang ka dei ka thong ba kongsan
- » Thaw lad kamai da kaba pyndonkam ia ka biomass kaba don ha shnong ha ka rukom kaba neh – u siej ha ka bynta banyngkong
- » Ka jingiasnoh bad ka Organic Farming Mission kaba dang ia id ha ka jylla da kaba iatreilang bad ka MEGNOLIA
- » Ka jingpynmih kam pynmih jam hapoh ki shnong kiba don ha ka cluster
- » Pynmyntoi ia ki carbon credit na bynta ki paidbah shnong
- » Synniang sha ki thong jong ka ri bad ka jylla ban pynduna ia ka carbon emission
- » Synniang sha ka lynti jong ka green economy ha ka jylla
- » Ka jingiateh bad ki kynhun kiba tbit ha ka ting-pyrtuit (technical partners) ka long kaba donkam tam ban ioh pynmyntoi Carbon Credits
- » Iatreilang bad ki research organization kum ka ICAR bad BRDC

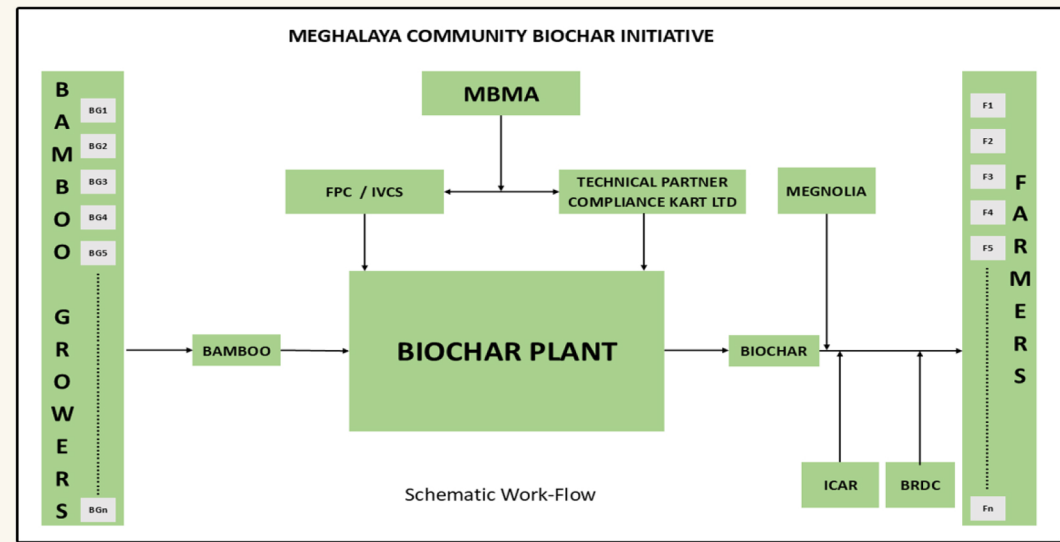
Ka Jingpynduna ia ka Jingkylla ka Mariang bad ka Jinglum Carbon

Ka biochar ka don bynta kaba kongsan ha ka jingpynduna ia ka carbon dioxide (CDR). Ha ka por ba ki jingthung ki dang san, ka biomass ka nguid ia ka carbon dioxide na ka Iyer. Haba pynkylla ia ka sha biochar, kane ka carbon ka kylla long kaba skhem bad ka lah ban sah ha ka khyndew da ki spah haduh ki hajar snem. Kane ka pynlong ia ka biochar kum ka lad kaba carbon-negative, kaba iarap ban pynduna ia ki greenhouse gas katba ka dang pynbha ruh ia ka jingkoit jingkhiah jong ka khyndew.

Namar ka bynta jong ka ha ka CDR, ka biochar ka pynmih ruh ia ki carbon credit, kiba nang kiew dor ha ki iew pyrthei namar ka jinglong skhem jong ki. Man la ka ton jong ka biochar ka lah ban pynmih bun tylli ki carbon credit, bad mynta ki dor ki lah ban kiew haduh kumba 180 US dollar, kaba ai ia ka lad kamai. Ki platform kum ka Puro.earth ki pynsuk ia ka jingdie bad jingthied ia kine ki credit, kaba pynlong ia ki projek biochar kiba myntoi ha ka liang ka pisa.

Jingdon Biomass bad ka jingdonkam ha ka thairi

Ka jylla ka don ka jingbun bha jong ka biomass, kynthup ia u siej, ki bynta ba sah na ka rep ka riang, ki mar khlaw, bad ki jaboh organic. Bun na kine ki biomass mynta kim pat pyndonkam pura; hynrei la ju pynjulor da kaba thang, kaba wanrah ia ka jingjulor ia ka mariang. Haba pynkylla ia kine sha biochar, ym tang ba ka iada na ka jaboh hynrei ka pynmih ruh ia ka mar kaba kordor kaba lah ban p y n d o n k a m h a kiba bun ki bynta. U siej kyrpang u ai ka lad kaba heh bha. Ka Meghalaya ka don ka jingbun bha u siej—la antad kumba 21 million tonne—kaba lah ban lum ha ka rukom kaba neh bad pynkylla sha biochar. Kane ka plie lad ban pynroi ia ka green economy kaba shong ha u siej, ban pynmih kam, ban kyrshan ia ki enterprise biochar kiba shong ha ki shnong, bad ban pynbiang ia ka jingdawa na bynta ka jingpynbha khyndew (soil amendment).



Ki Lad Kamai bad ka Jingim Bha

Ka jingpynshlur ia ka biochar ka lah ban thaw ia ki lad kamai kiba bun jait ha Meghalaya:

- Ki unit rit ban pynmih biochar
- Ka jinglum bad ka jingpynkhreh ia u siej
- Ka training bad ki extension service na bynta ki nongrep
- Ka jingiashim bynta ha ki iew carbon credit

Da ka jingthmu jong ka jylla ban pyniar ia ka Organic Mission sha ka rep kaba heh, ka jingdawa ia ka biochar kan nang kiew bha. Kane ka lah ban wanrah ia ka iew kaba shongdor da ki spah crore tyngka, kaba ai jingmyntoi ia ki shnong nongkyndong bad pynkhlain ia ka ioh ka kot ha ka jylla.

Ka Jingpyniaid Jaboh bad ki Jingmyntoi ia ka Mariang

Ka biochar ka ai ia ka lad kaba neh ban pyniaid ia ki jaboh na ka rep ka riang bad ki jaboh organic. Ha ka jaka ban thang ia ki bynta ba sah—kaba pynmih ia ki CO₂ emission—lah ban pynkylla ia ka biomass sha biochar bad pyndonkam biang ha ka rukom kaba myntoi.

Kiwei pat ki jingmyntoi ia ka mariang ki kynthup:

- Ka jingpynduna ia ki greenhouse gas emission
- Ka jingpynbha ia ka jingkhuid jong ka um lyngba ka bor filter jong ka
- Ka jingiaida na ka jingjulor ka khyndew bad ka jingtyrshem ka khyndew

Jingkyrshan Karkhana bad Policy

Nalor ka rep ka riang, ka biochar ka don bynta ruh ha ki karkhana bapher bapher kum ka jingpynkhuid um, ka jingtei iing, ki cosmetic, bad ki pharmaceutical. Ki policy industry jong ka Meghalaya ki lah ban kyrshan ia ka jingroi jong ki karkhana kiba shong ha ka biochar, da kaba pynshlur ia ka jingthaw thymmai (innovation) bad ka jingbei tyngka (investment).

Ki prokram sorkar, kynthup ia ki pilot project ba ialam da ka COE (NRM & SL) bad ka Meghalaya State Bamboo Mission, ki thmu ban pyni ia ka jinglah ban pynmih biochar na u siej. Kine ki project ki kynthup ia ka jing bynta lang ki paidbah shnong bad ki thmu ban pyniar ia ki biochar plant ba shong ha ki cluster ha baroh ka jylla.