

Performances of Direct Seeding on Mulch Cropping System (DMC)

On October 25th, 2011, two CEDAC staff members (Ms. Pheng Chandy and Ms. Clare Ortblad) attended the presentation titled “Performances of Direct Seeding on Mulch Cropping System (DMC) technologies in Wet Tropical Regions, Comparisons Between Brazil and Southeast Asia,” which was prepared by Dr. Lucien Seguy (a Consultant-Senior Agronomist). Dr. Seguy’s colleague, Stephane Boulakia (from CIRAD/MAFF) spoke on his behalf for the presentation. Attendees for this presentation included staff from the General Directorate of Agriculture (GDA), Phnom Penh Water Supply Authority, EU, and CEDAC. The 3 main principles of DMC are as follows: no soil tillage; soil gets permanent plant/crop cover; and rotation of species. DMC is multi-functional because it increases yields, provides protection, reduces the number of pests, is a carbon loader, and helps plants to grow deeper roots. Additional benefits of DMC includes increasing the amount of organic matter in the soil, alleviating soil erosion, and helping to balance the pH level of soil.

Mr. Boulakia showed through graphs and pictures that large-scale, cash crop farming practices are reducing carbon stock in the soil, leading to soil degradation. Mr. Boulakia then presented facts about how DMC and the no tillage policy have helped farms to fix the problem of soil erosion and produce higher crop yields. He also made the point that intense soil degradation has caused large migrations between provinces. For instance, 1.6 million Cambodians (12% of the total population) have moved in the last 4 years (2003-2007) from one province to another province because they could no longer farm on the soil in the previous province.

To conclude the presentation, Mr. Boulakia proposed that Cambodia’s government make a strategy for agriculture that incorporates everything - upland cultivation development (for crops other than rice such as cassava and maize), DMC, and economic land concessions. He called this potential agricultural plan a “Special Agriculture Development Zone.” He also suggested **small** economic land concessions and that they could be in the same area where they implement pilot development projects using DMC.