

From Research to Implementation: IRRI's Activities on GHG Mitigation in Rice Cultivation

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Over the past couple of years, IRRI's research focus in terms of GHG mitigation has been shifting from basic (upstream) research and measurements towards developing solutions for dissemination of technologies and enhancing technology uptake.

IRRI has started research on GHG emissions from rice production in the 1990s. Since then IRRI has measured methane and nitrous oxide emissions from various crop management practices in different rice growing environments and developed a number of GHG mitigation technologies. However, large-scale uptake of those technologies by farmers often lags behind.

In recent years, global GHG mitigation efforts have become new momentum after the successful negotiation of the Paris Agreement in 2015. All member countries established mitigation plans until 2030. Many rice producing countries have also announced mitigation targets for rice production.

IRRI has therefore conducted analyses of barriers for adoption of new technologies and developed tools that can support national and international efforts to outscale low-emission technologies. At the same time IRRI is developing new low-emission technologies that will help improve future rice systems and ensure sustainable rice production.

This presentation will showcase IRRI's efforts to support outscaling of low-emission technologies in rice production for the example of alternate wetting and drying (AWD). It will highlight GIS-based suitability maps for AWD in the Philippines and Vietnam that IRRI developed funded by the Climate and Clean Air Coalition (CCAC). Furthermore, insight in the current carbon footprint analysis of different rice straw management practices as part of IRRI's research under the 'Climate Change, Agriculture and Food Security' (CCAFS) program will be given.

References

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