



Biochar: A new GHG emission mitigation strategy?

❖ Introduction

- Introduction on historic and projected future climate change
- Need for further work on new mitigation strategy
- Introducing Biochar
 - What's Biochar
 - Biochar attributes
 - Physical and chemical properties
 - Longevity of biochar
 - Biochar Implementations

❖ Capacity of Biochar as new mitigation strategy

- Carbon sequestration
- CO₂ interaction
- N₂O interaction
- CH₄ interaction

❖ Conclusion

❖ What is missing?

What we have seen so far that, it's some kind of persuasive to use biochar as a new mitigation strategy, while we need first more dig into "Challenges to Applying Biochar"

idea. In the following, this section will cover the economics of alternative uses of biochar, handling of biochar and Potential Soil/Crop drawbacks of this material.

Perhaps the most daunting challenge of using biochar is economic. In order to be sustainable in a market-driven society, biochar application must provide reasonable income to consumers that can compete with multiple alternatives. As can be seen from the charcoal and activated carbon industries today, there are other and sometimes very high-value alternative uses for chars. For example, future high costs of emissions from coal-burning power plants and metal smelters may drive these industries to obtain their power and heat from charcoal instead. Likewise, producers of certain low-ash chars may decide to make more profit by selling the chars as activated carbons for water treatment rather than to farmers or gardeners. There for business plans for the large-scale production and sale of biochar, may need to focus on co-products such as heat or electricity with more developed markets until such biochar quality and performance information becomes available.

- handling of biochar
- Potential Soil/Crop Drawbacks

❖ Future work

❖ References

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