

# Agroforestry and Low Carbon Development in Africa - Good Practices and Lessons Learned: The Case of Kenya

By

George Tarus

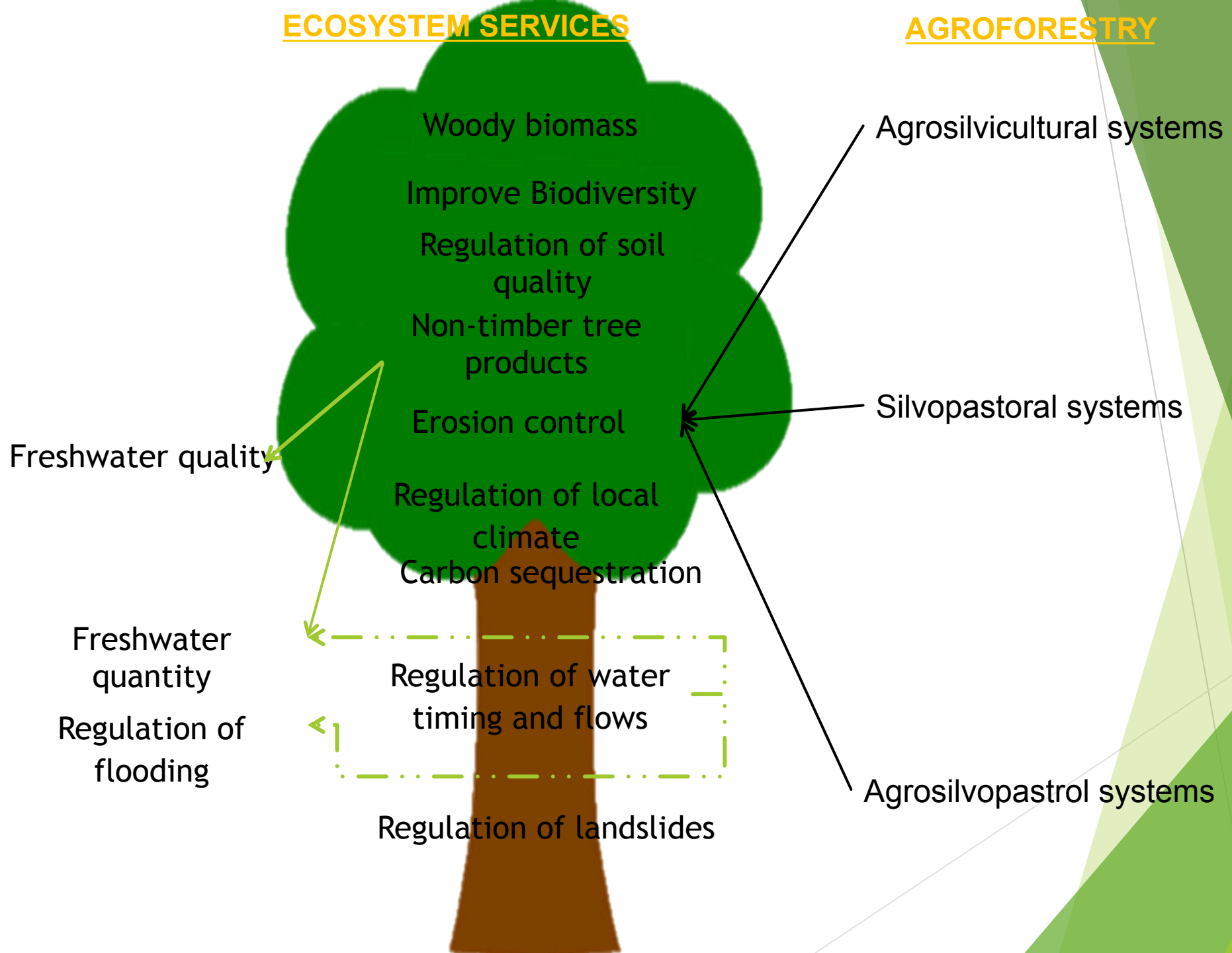
Email: [tarus2014@gmail.com](mailto:tarus2014@gmail.com)

# Introduction

- ▶ Agroforestry- Consists growing of perennial trees and shrubs in association with agricultural crops, pastures and /or keeping livestock in the same field
- ▶ Agroforestry-Land use management system in which trees/ shrubs are grown around and among crops or pastureland
- ▶ Agroforestry is a multifaceted, ecologically based, natural resource management system that, through the integration of trees on farms and within the agricultural landscape
- ▶ Common agroforestry technologies include; boundary planting, home-garden, woodlot, scattered trees, alley cropping and fodder banks

# ECOSYSTEM SERVICES

# AGROFORESTRY



# Agroforestry in Kenya

- ▶ Agroforestry build livelihood resilience to floods and drought(Quandt et al,2017)
- ▶ Farmers enhance their resilience to climate variability by embracing the multiple agroforestry practices(Asena et al,2017)
- ▶ If integrated at the household level, agroforestry has the potential to provide economic, social and environmental benefits neccessry for addressing household income, livelihoods and food insecurity and environment related challenges(Mugure and Oino,2013)
- ▶ There is a strong association between socio-economic levels and availability of trees on farms(Rotich et al,2017)
- ▶ Adoption of agroforestry was significantly influenced by the size of the household, mode of acquisition of land, security of land tenure, size of landholding, gender and the level of education of the head household(Maluki et al,2016)

# Incentives towards Agroforestry

- ▶ Legislation and Policies-COK,2010,FCMA,2016,Farm Forestry Rules,2009,National Forestry Programme(2016-2030)
- ▶ Commitments-Bonn Challenge,AFR100(4m),Aichi Targets,Land Degradation Neutrality,Climate Smart Agriculture,Climate Change Agreements,LEDS
- ▶ Structures and sector dynamics-(Farm Forestry Smallholders Producers Associations(FFSPAK),Kenya Tree Growers Assiciation(KETGA),Kenya Association of Tree Seeds and Nursery Operators(KATRESNO)
- ▶ Funds(Loans,grants)

# Agroforestry and Climate Change

- ▶ Agriculture is the biggest contributor (40 percent of overall total emissions in 2015) to Kenya's GHG emissions
- ▶ LULUCF sector is the second largest contributor (32% of emissions in 2015) to Kenya's GHG emissions
- ▶ Agroforestry is the mitigation option with the greatest emission reduction potential (4.6 MtCO<sub>2</sub>e) in the Agriculture and contributes to mitigation options (Restoration targets for LULUCF) (32.6 MtCO<sub>2</sub>e)
- ▶ Pilot of REDD Abacus in the analysis of the opportunity cost of land use changes within the agroforestry systems to generate the abatement cost curve

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