Tropical Agriculture Association
Registered Charity No. 800663

The **Tropical Agriculture Association** (**TAA**) is an international professional association of individuals, institutional/corporate bodies and civil society organisations concerned with the role of agriculture for sustainable development throughout the world – **www.taa.org.uk** (UK Reg. Charity 800663) founded in 1979 and with worldwide membership now

TAA submission to COP26, November 2021, Glasgow, UK via TAA Chairman ejwibberley@btinternet.com

Agriculture is fundamental to World food systems and to the stability of communities and societies. Agriculture is both a contributor to and a victim of climate change; it has to address its contributions to GHG emissions but has unique potential to sequester carbon if the right **agro-ecological, climate-smart** practices are adopted. It is vital to strengthen policies to mitigate climate change and to help communities adapt. It is vital to build resilience of communities to withstand impacts of climate change and to strengthen their capacity for adaptation. This is key for poor communities in low-income countries who contribute least to climate change but are at most risk from it.

*Appropriately large and secured amounts of **capital funding** to meet the current climate challenges must be provided by richer nations to enable lower-income countries to respond to internationally agreed targets for climate responses – and committed **now** at COP26. This Capital is needed for investment in infrastructure; cash to support institutional development, training and grants and the waving of patents on proprietary technologies and royalty free licencing) These may need to be delivered via trusted intermediaries in some cases*.

Following consultation with both long-established and student members of the TAA, other considered **policy suggestions**, are summarised below, and respectfully submitted for policymakers to consider:-

Living Healthy Soils have great potential to take carbon out of the atmosphere if managed correctly, as well as providing the basis for sustainable farming. Managing soils for mitigation and adaptation is an absolute priority.

Farmers and Land Managers need to be incentivised/rewarded for Good Practices such as carbon capture, penalised for neglect or degradation. The 'polluter pays' principle must be applied to any business type infringing land quality.

Water Access is foundational to human need and resource equity on the one hand, and a motive for land-grabbing and conflict on the other.

Models of good water resource management practices must be rewarded at farm to landscape levels, and lessons shared. These include considered adoption of Headwaters management plans, water harvesting, drip irrigation, and of Conservation Agriculture which significantly reduces moisture loss in rain-fed agricultures worldwide.

Agro-Ecological Farming Systems based on enriching soil biology and communities by integrating diverse crops and livestock, and conserving modest-sized farms are keys to a more resilient and regenerative agricultural sector. SME and family farms are the foundation of rural communities but are sadly diminishing with farm amalgamations in favour of larger farming units– policies must enable conservation of many smaller family farms of the 500M now left.

We have seen agro-ecology variously launched with differing emphases as 'organic' (1940s); 'environmentally-friendly' (1960s); 'sustainable' (1980s); 'regenerative' (2000s); 'nature-friendly' 2020s. Worthy examples exist in practice and at scale in various places such as through collaborating NGOs - inter alia, Send-A-Cow in Uganda and elsewhere in East Africa; and via government active adoption as the norm, as in the State of Andhra Pradesh in India.

Animals, Their Health & Welfare are vital as they are fundamental to the ecological cycles farming needs to adopt in order to sequester carbon and cycle organic nutrients. Proper education of farmers to consumers about the ecological roles of grazing animals in the world's vast areas of pastures, which are inedible to humans, is needed.

Strengthen veterinary and animal husbandry services, including Community Animal Health workers, providing international funding to support the benefits of more extensive livestock integration into farming landscapes for biodiversity enhancement, as opposed to livestock intensification and cereal-based diets.

Trees sequester carbon and are seen as a quick fix for carbon offsetting. We should consider **trees and farming** as opposed to **trees or farming** as there are many agro-ecological advantages that accrue from agro-forestry systems.

Agricultural and forestry policies need to be integrated to encourage more Agro-forestry adoption.

More specifically, **Mangrove Zones** at the interface between land and sea, critically need capital support of richer nations to protect their survival and protection, and to support the communities whose livelihoods depend on them.

Specific international funding needs to be allocated to these zones, fishery nurseries monitored, and the International Law of the Sea strengthened to lessen pollution damage/ fund protection by polluters paying.

Education on Ecosystem Security (Food+Water+Energy+Livelihoods+ Geopolitical Stability) needs to be ensured from earliest years through to Higher and Adult education. Community learning is fundamental about dietary and other natural products, their sustainable harvesting and on conserving the resource-base that delivers them.

Recognise, reward and fund community and NGO initiatives that are working – thus leveraging these private seed-capital funds- such as micro-hydro schemes linked to schools or Community Centres, and Community food initiatives.

Innovative Management Solutions need to be encouraged which recognise the complexity of agro-ecosystems, biodiversity aims, building on lessons learned and on scaling up success in specific contexts.

Ask the hard questions of any policy to properly 'rural-proof' and 'biodiversity-proof' it and engage the stakeholders on the ground.