Public Consultation: Bioeconomy Action Plan

Submission – TASC, supported by ICOS

27th January 2023

This submission is made on behalf of TASC (Think-tank for Action on Social Change) and ICOS (Irish Co-operative Organisation Society). TASC is an independent think-tank whose mission is to address inequality and sustain democracy by translating analysis into action. TASC's Constitution presents its main objectives as:

1. Promoting education for the public benefit
2. Encouraging a more participative and inclusive society
3. Promoting and publishing research for public benefit

TASC engages in research and public outreach concerning inequality, democracy, and climate justice in the current political, economic, and social environment. Through its work, TASC seeks to increase public knowledge of economic and social policy, improve working conditions, facilitate a Just Transition to advance climate action and protect livelihoods and communities, and more generally, contribute to positive social change in Ireland and the EU.

ICOS is the umbrella body for the co-operative sector in Ireland, and has been providing governance, support, vision and guidance to the sector since 1894. The co-operative ethos, approach and structure can offer much to producers, stakeholders and communities in unlocking the potential of the

Bioeconomy. ICOS is supportive of the work of TASC in ensuring that co-operatives play a significant role in the implementation of a just transition. ICOS has also responded separately to this consultation.

Introduction

TASC and ICOS welcome the call for public consultation on the upcoming bioeconomy action plan. TASC firmly believes that if the transition to zero emissions is to be fast, it must be fair. In line with climate justice, the decarbonisation of all sectors must take a people-first approach, support the most vulnerable and marginalised, and ensure that the benefits and burdens of climate change are shared by all. To the forefront of TASC's work on climate justice is the People's Transition project. The People's Transition is a participative decision-making model developed by TASC that views climate action as an enabler of local development. It gives people and communities a voice in, and ownership of, the transition to a zero-carbon society. It aims to enhance public support for climate action by tackling inequality and raising standards of living through the delivery of climate solutions.

Where the People's Transition has been applied in rural communities, solutions have been identified that align with the bioeconomy. These are the potential for the creation of a biochar co-operative in Ardara, Co. Donegal and an anaerobic digestion co-operative in the border areas of Cavan, Leitrim and Fermanagh. These examples underline the potential for the bioeconomy to support a just transition for rural communities. Consideration is however necessary for how the bioeconomy can be developed in a manner which does not replicate imbalanced value chains which are prevalent in some sectors of agriculture. The two People's Transition case studies underline the importance of a co-operative approach in order to ensure that the transition to the bioeconomy results in new forms of community wealth for rural areas across the country.

What other key issues should the Governance Pillar deal with?

A vital area of importance for securing the proportionate sharing of the benefits of bioeconomy development is to ensure that bioeconomy value chains do not replicate the imbalanced and inequitable nature of certain sectors of agriculture. Avelino and Wittmayer (2016) outline how sustainability transitions relate to technical transitions, such as moving from fossil fuel to renewable transport fuels and socio-political change. This includes potential shifts in actor roles and relations, such as moving away from for-profit energy companies towards community-based, co-operative ownership. This aligns with Rossi and Hinrichs (2011 p.1425), who argues that 'for local people and places to experience substantial economic benefits, corporate dominance in bioenergy industry development should be avoided or curtailed'. One way to address this challenge is by providing finance for co-operative bodies such as community-owned biorefineries. This can ensure the wealth created is retained within local communities. The increased role of co-operatives can also ensure that new options for farm income do not replicate negative aspects of the beef sector in terms of the power that processors hold over producers. A study on the adoption of Anaerobic Digestion for energy production in Irish farms also

found that a majority of likely and possible adopters were interested in partaking in a co-operative scheme as their preferred business model (O'Connor *et al.,* 2021). Aligned was this was the findings of the Border Transition: Building Peace through Community-Led Climate Action report conducted by TASC. Anaerobic digestion was identified by community members in Counties Fermanagh, Cavan and Leitrim as a measure for diversifying farmer incomes, transitioning to sustainable farming practices, and addressing social inclusion issues in tandem (Greaney, 2022). The proposal of an anaerobic digestion cooperative was raised directly by the community members at a Border Transition public event.

What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biological resources and demand?

Processes such as anaerobic digestion can have multiple benefits, such as producing the energy needed to support the decarbonisation of transport, enhance the agronomical value of soils, and reduce dependence on chemical fertilisers in agriculture (Priefer and Meyer, 2019; Valenti *et al.,* 2020). Despite these perceived benefits, it is paramount that steps taken to increase the use of biomass do not lead to environmentally unsustainable outcomes. For example, Lamers *et al.* (2021) note that the biorefinery process can lead to increased sulphur dioxide (SO2) emissions in certain situations. The development of biorefinery projects should therefore take into account the cascading principle of resource use and the 'do no harm' principle in order to avoid contributing to emission creation or other negative environmental impacts.

Regarding the feedstocks needed for biorefinery, the potential need for grass input in AD leads to a possible increase in the use of nitrogen fertiliser usage, thereby creating greenhouse gas emissions (Emmet-Booth *et al.,* 2019). While the use of grassland and agricultural waste in the AD process could unlock new income streams for low income agricultural sectors, it is vital that biomass is sourced in a sustainable manner without the need for additional chemical fertiliser application. It should be noted that there is potential to produce grass without additional fertiliser through the use of multi-species swards. Another factor to consider is the potential for the 'food versus fuel' trade-off. O'Brien *et al.* (2017) detail how the need to feed the global population and meet energy demands could result in increased competition for land. It is therefore necessary that a 'food-first' approach is prioritised within bioeconomy development. Competition between food production and energy cropping is also identified as having negative environmental impacts, such as increasing the scarcity of resources such as water and the loss of biodiversity (Priefer *et al.,* 2017; Liobikiene *et al.,* 2020). One potential means for overcoming this trade-off is increasing the role of green hydrogen in Ireland's energy mix. Green hydrogen is noted alongside biomethane as an initiative supporting the transition towards zero-emission gases (Government of Ireland, 2021).

What key issues should the Agriculture, Food & the Marine Pillar deal with?

As noted in various policy documents published by the Irish government, a benefit of the bioeconomy is its ability to create new income streams, particularly for agriculture, aquaculture and forestry producers. Agricultural waste, such as effluent and straw, alongside other waste products and residues from the agri-food sector, are identified as sources of biofuels (Schmid *et al.,* 2012; Ubando *et al.,* 2020). While the development of energy crops such as miscanthus can create new sources of income for farmers, there are potential constraints to farmers' involvement in these value chains. This includes a lack of experience in cultivating these crops alongside income security concerns (Petig *et al.,* 2019). Clancy *et al.* (2012) do, however, note that providing contracts with fixed prices for biomass feedstock can reduce financial concerns on the part of farmers. A major limiting factor for securing farm diversification is the cost that this will entail for farmers in terms of altering their farm practices and utilising new technologies. Providing financial support is, therefore, critical to securing farm diversification. While the application of a Just Transition within agriculture is novel, it is welcome that the previous Climate Action Plan noted the potential for diversification options for farmers, including the production of biomethane and energy, agroforestry and afforestation. Further steps that could facilitate a transition to these new income sources include providing knowledge transfer via networks such as Teagasc discussion groups and agricultural consultants. For this reason, the agriculture, food and marine pillar must identify development pathways that can support primary producer involvement in bioeconomy value chains in a manner which does not replicate inequitable value chains present in the agriculture sector.

What key issues should the Communities Pillar deal with?

One area which is critical to the development of the communities pillar is ensuring that communities where bioeconomy activities are based benefit from their development. Furthermore, it is vital that these communities have the ability to influence decision-making processes. As detailed by Harrahill *et al.* (2022), there have been various international examples of the negative impacts of a top-down approach on societal support for biobased activities. Firstly, in the United States, while farmer co-operatives were instrumental in growing biofuel production in the Midwest region, they declined once larger companies entered the biofuel sector (Devaney and Iles, 2019). Secondly, Bastos Lima (2021) argues that the ability of dominant privately-held agri-businesses to dictate bioeconomy development in Brazil does not bode well for the legitimacy of bio-based activities, the involvement of smallholder farmers in these activities and the health of natural ecosystems more broadly. This is reiterated by Ramcilovic-Suominen (2022), who describes how agri-businesses have been positioned pre-eminently within the European bioeconomy. Focusing on biofuels in particular, Lewandowski (2015) found that the lack of smallholder farmers' involvement in the sector's development led to poor acceptance among the farming community. For the growth of the bioeconomy to take place in a manner which aligns with the principles of a Just Transition, measures must be taken to ensure that it is not only the 'usual suspects' (e.g. large business

interests and policymakers) who participate in decision-making processes (Rose *et al.,* 2021 p.3). These examples once again underline the rationale and benefits that developing the bioeconomy based on co-operative principles and structure can have for building support for a transition to a sustainable bioeconomy.

What key issues should the Knowledge & Skills Pillar deal with?

Further education and the upskilling of workers represent an important aspect of securing a Just Transition. The study by Harrahill and Douglas (2019) includes re-training as one of four indicators for evaluating the success of a just transition. It notes that re-training for workers from a primarily low-skill base is vital for workers to have the necessary skills to work outside of pollutant industries. Given that Bord na Móna has transitioned from the brown to green economy, it is crucial to ensure that workers in the midlands are also supported in the transition towards the bioeconomy. Training programmes in areas relating to business and technology could assist in supporting the transition to a net-zero economy. Colleges of further education, education and training boards and technological universities could be potential providers of upskilling due to their reach within communities as well as their expertise in technical skills. As well as the provision of services, funding will be an important factor in ensuring people have access to the training and skills needed to participate in the net-zero economy. In Australia, the 'Victorian Training Guarantee' reduced the cost of receiving further training, thereby making these services more available to people. Beyond issues of finance and accessibility, consideration is provided regarding what new skills may be needed on the part of farmers in order to participate in the bioeconomy. This represents an area where Teagasc knowledge groups could act as a source of knowledge for farmers interested in participating in the bioeconomy.

Thank you in advance for your consideration.

Regards,

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On behalf of On behalf of

TASC. ICOS.

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