The People's Transition Ballylongford, Asdee, and Beal

Implementation of Community-Led Development for Climate Justice

July 2024

Supported by:

tasc
Think-tank for action on social change

AIB

Rialtas na hÉireann
Government of Ireland

pobal
government supporting communities

TASC receives support under the Scheme to Support National Organisations (SSNO) which is funded by the Government of Ireland through the Department of Rural and Community Development.

Published by:
The Think-tank for Action on Social Change (TASC)
28 Merrion Square North Dublin 2 Ireland
Tel: +353 1 616 9050
Email: contact@tasc.ie
Website: www.tasc.ie
Twitter: @TASCblog

July 2024

Table of Contents

Acknowledgements

This paper details the application of The People's Transition model for implementing community-led development for climate justice solutions in Ballylongford, Asdee, Beal. The People's Transition model is being applied in communities throughout the island of Ireland between 2022 and 2025. This project has been led by the Think-Tank for Action on Social Change (TASC) and supported by AIB.

TASC is grateful to the people we spoke to directly in this project, and those who completed our survey, for telling us what they appreciate most about Ballylongford, Asdee and Beal and their hopes for the area's future. The project would not have been possible without the support and involvement of numerous community members, and we would like to thank each and every one of them.

The People's Transition for Ballylongford, Asdee and Beal has been made possible due to the backing that TASC has received from AIB. This allows us to apply The People's Transition in communities across the island of Ireland. Thanks to Sarah Dempsey and Anne Williamson at AIB for backing this project.
A sincere thank you to Robyn Deasy for creating the fantastic illustrations throughout the report.

At TASC, thanks are due to Dr Shana Cohen, Róisín Greaney, John White, Louisa Mackenzie, Rob Keogh, Camilla Colombo, Sam Burgess and Benedetta Comes. The People's Transition for Ballylongford, Asdee and Beal was managed by Dr Kieran Harrahill.

Executive Summary

The People's Transition describes a model for participative decision making that is intended to enable a community to benefit from the transition to a zero-carbon society. It aims to design climate solutions that give local people and communities ownership of assets of transition and thus enhance public support for climate action by tackling inequality and raising standards of living.

The Ballylongford-Asdee-Beal People's Transition began in December 2022. The intention of the project was to listen to, and learn from, the community's needs and abilities in Ballylongford- Asdee-Beal and then attempt to design a number of climate solutions that would benefit the community and address a number of the main development priorities of the community.

The project had three phases. The first phase was the Mapping Phase. The mapping phase aimed to build a picture of the Ballylongford-Asdee-Beal community, outlining a geographical scope for the project that represents the people who live there. The key was understanding how people within the community could be included by assessing who was at greatest risk of being excluded. In addition to demographics and circumstances, the area was studied to understand the distribution of institutions and organisations, such as schools, churches and community groups, that play a significant role in the locality.

The mapping phase informed the roll out of the second phase – the Listening Phase. From undertaking focus groups and surveys with community members, a number of common themes emerged. These include the range of natural amenities in the area, the lack of local and sustainable job opportunities in the area and the impact this has on keeping young people in the community. Community members also highlighted the loss of a range of services in the area.

Based on the listening phase, the TASC team worked with experts in an array of fields to identify and substantiate viable climate solutions that would address local needs and build on the community's strengths. The first solution focuses on developing a blueway. Nationally, Ireland has been a pioneer in the development of blueways. A blueway could help to boost the number of tourists visiting the area, building upon the location of the communities on the Shannon estuary alongside raising awareness of the other historic and natural amenities in North Kerry. The second solution presents a number of bioeconomy activities that are relevant to the rural economy. These include the processing of crops such as grass and hemp, forestry and anaerobic digestion. The creation of a bioeconomy co-operative could assist in creating new income streams for farmers as well as employment in the processing of biological resources.

These solutions should not be considered the only possible collective climate initiatives community members could undertake in Ballylongford, Asdee and Beal. Others, looking at the same set of needs and priorities, may land on different climate solutions. However, it is hoped that the process, as much as the proposed solutions, provokes thought about how the investment in climate action can address existing development needs rather than perpetuate them.

Key Terms

Climate Action

Political, collective and individual action on climate change can take many forms. Climate action means stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate-induced impacts, including climate-related hazards in all countries; integrating climate change measures into national policies, strategies and planning; and improving education, awareness-raising and human and institutional capacity with respect to climate change mitigation, adaptation, impact reduction and early warning. There are other challenges that intersect climate action and environmental protection, such as enhancing biodiversity and improving water quality.

Community Wealth Building

Community wealth building is a new people-centred approach to local economic development, which redirects wealth back into the local economy, and places control and benefits into the hands of local people. Community wealth building is a response to the contemporary challenges of austerity, financialisaton and automation. It seeks to provide resilience where there is risk and local economic security where there is precarity.

Anchor Institution

An anchor institution is one that, alongside its main function, plays a significant and recognised role in a locality by making a strategic contribution to the local economy. Anchor institutions generally have strong ties to the geographic area in which they are based through invested capital, mission and relationship with customers and employees. These institutions tend to operate not-for-profit. It is much simpler for private businesses to move, so there is no guarantee they will continue serving the local community in the long term. However, there are examples of for-profit organisations playing the role of an anchor institution.

Local Development

Local development is the identification and use of the resources and endogenous potentialities of a community, neighbourhood, city or equivalent. The local development approach considers the endogenous potentialities of territories. Economic and non-economic factors influence local development processes. Among the non-economic factors, social, cultural, historical, institutional, and geographical aspects can be decisive in the process of local economic development.

Sustainable Development

Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development calls for concerted efforts towards building an inclusive, sustainable, and resilient future for people and planet. For sustainable development to be achieved, it is crucial to harmonise three core elements: economic growth, social inclusion, and environmental protection. These elements are interconnected, and all are crucial for the well-being of individuals and societies.

1. Introduction

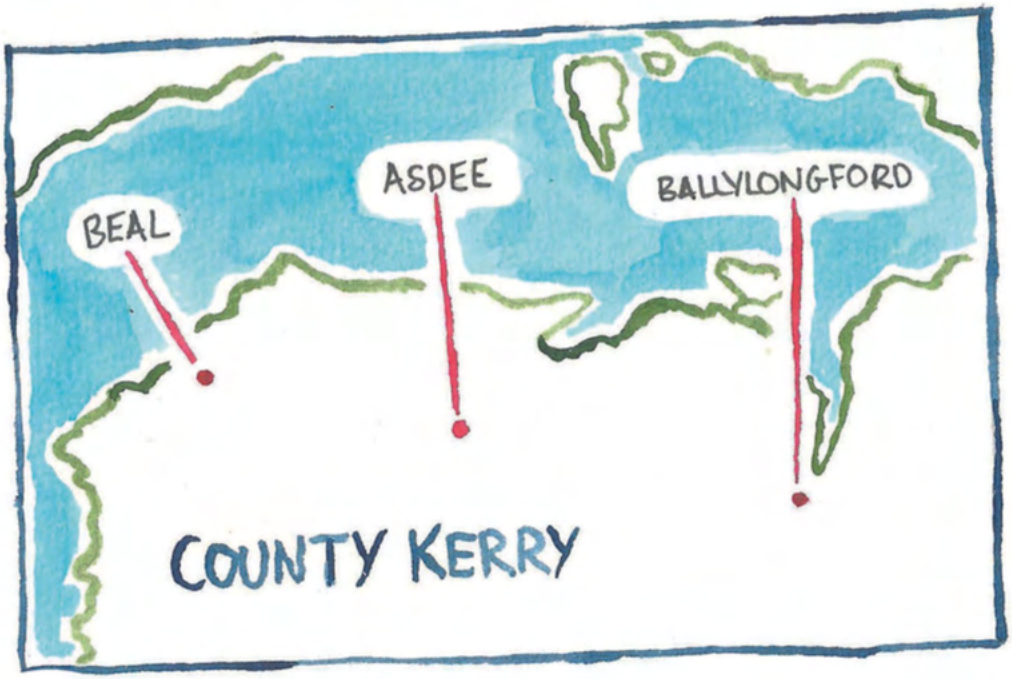
Tackling climate change requires urgent and unprecedented action in communities all around the world. Given the interdependent nature of the crisis, if climate action is to be enduring, then it must be inclusive and equitable, ensuring that its burdens and benefits are shared throughout society. While the importance of inclusive climate policy seems to be widely understood, there are few tried and tested frameworks for the co-creation of climate policy in European communities.

The People's Transition (McCabe, 2020) attempts to address this. It is a participative decision-making model for climate action. It views climate action as an enabler of local development, giving people and communities ownership of the transition to zero carbon societies. The model, which was developed through extensive consultation with communities and organisations around Ireland, seeks to deliver a bottom-up approach to transition that builds local wealth, enables local ownership of climate action and empowers local people. It aims to tackle inequality and raise standards of living through the delivery of climate solutions, thus proactively building social approval, and demand, for climate action.

To transfer the People's Transition model into practice, TASC will apply the People's Transition model in thirty communities throughout Ireland over a three-year period. This report deals with the project undertaken in Ballylongford- Asdee-Beal, located on the Shannon estuary.

The project had three phases, leading to the co-creation of solutions that address the needs of the community. First, a mapping phase made use of existing geographical and census data to outline the groups of people that live in the community, giving particular attention to vulnerable groups and identifying challenges and opportunities for climate action. This information was used to design a listening phase, through which the TASC team engaged directly with the community to understand the needs and priorities of different groups and individuals. The solutions identified were a blueway and a bioeconomy co-operative which focuses on the production of hemp. These specific solutions are designed to meet the need for climate action whilst also being realistic and beneficial for Ballylongford-Asdee-Beal. They provide a blueprint for how the People's Transition Model might be applied in a specific context.

This report presents the findings of all three phases in a narrative which aims to take the reader through the People's Transition process to illustrate why it is important to consider climate action from a people or community centred approach. By listening first, and ensuring that all voices are heard, it is hoped that climate action will benefit from greater social approval and thus will be in higher demand.



2. Phase I: Mapping Phase

The mapping phase aimed to build a picture of the Ballylongford-Asdee-Beal community, outlining a geographical scope for the project that represents the people who live there. An area was mapped to include the anchor institutions, such as schools, churches and community groups, that play a significant role in the locality. These institutions are important since they make a strategic contribution to the local economy and society on a long-term basis (McCabe 2020). Identifying key actors and community leaders in various fields allowed for the inclusion of the groups associated with them in the project, helping the TASC team to connect with the community and identify their needs and priorities.

The neighbouring communities of Ballylongford, Asdee and Beal are located on the Shannon estuary in North Kerry. The area represents a case study of how rural communities will be impacted by trade-offs between the potential for new job opportunities in a rural region and the need to move away from pollutant forms of energy. As will be discussed further in the analysis of census data, a common feature among each of the four electoral divisions that comprise the three communities (Astee, Beal, Carrig and Lislaughtin) has been a fall in population. The collective population of Ballylongford-Asdee-Beal fell by 25% between 1981 and 2016, representing a decline of 520 people between 1981 and 2016. Population decline was slightly reversed in the 2022 census as the population of the area increased by 11. The Pobal deprivation index classes the electoral divisions of Astee and Beal as marginally above average while Carrig and Lislaughtin are marginally below average (Pobal, n.d.). Carrig had been described as disadvantaged in the previous deprivation index which used data from the 2016 census.

Each community have differing levels of amenities. The smallest of the three areas, Beal, represents a townland rather than having a town or village centre. However, it has several natural attractions, such as the Cliffs of Dooneen. The cliffs feature in a song popularised by Christy Moore. Located on the most North-westerly point of County Kerry is Beal strand. Akin to many small villages around Ireland, Asdee has a church, a primary school, a pub and a community centre. In terms of amenities, Ballylongford has the most of the three communities. These include a GAA club, a community playground, a historic mill and a friary. Ballylongford also has a heritage trail. Further information on the historical features of Ballylongford can be found on the 'Ballylongford snaps' website. In terms of climate risks, a strategic flood risk assessment commissioned by Kerry County Council in 2021 found that Asdee is at risk of fluvial flooding while Ballylongford is at risk of both fluvial and coastal flooding (MWP, 2021). In 2014, houses and businesses in Ballylongford were impacted by flooding following heavy rain and severe wind (Hickey, 2015).

The Irish Programme for Government (2020) highlighted the potential of the Shannon Estuary to support regional development in areas such as manufacturing, renewable energy and tourism. Regarding renewable energy, the Shannon Estuary region has been identified as an area for new wind farm developments. This is reported to have the potential to create 50,000 jobs (O'Donoghue, 2022). As noted in the Asdee five-year socio-economic development plan, wind farms are a matter of contention in the locality (O'Raw, 2020).

The plan outlines a 'near universal acceptance of the science associated with climate change, and a commitment to reduce fossil fuel consumption'. Community members are, however, impacted by a disproportionate number of commercial wind farms in their locality. Impacts of this include community members questioning the ownership of the wind farms and the destination of the profits they generate alongside the environmental impact of constructing wind farms on peatlands. This example may point to the multiple reasons why communities resist the introduction of windfarms or other forms of renewable energy infrastructure in their area. Alongside issues such as the impact it has on the local landscape and health concerns, a further factor may be the question of who benefits from the instillation of wind energy. This align with the focus on community ownership, community wealth building and community-led local development inherent to the People's Transition.

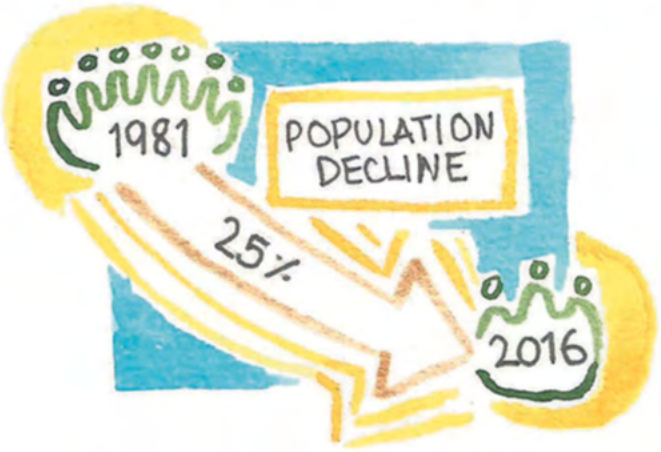
Focusing on the Ballylongford area has been identified as a location for developing green hydrogen and e-methanol (RadioKerry news, 2022). Alongside its potential to contribute to greener forms of energy, Ballylongford has been identified as a location for a Liquified Natural Gas (LNG) facility. The Shannon Estuary Economic Taskforce interim report from November 2022 details how the proposed LNG import, storage and distribution and electricity generation facility in Ballylongford (known as The Shannon Technology and Energy Park) 'has been the subject of many submissions to the Taskforce, the vast majority of which were highly supportive' (Shannon Estuary Economic Taskforce, 2022 p.3). The report outlines the economic benefits the LNG facility could have for North Kerry, given that it is an area 'that has not secured any major new industrial investment in almost 50 years and is suffering significant decline' (Shannon Estuary Economic Taskforce, 2022 p.3). In September 2023, planning permission for the Shannon LNG terminal was refused by An Bord Pleanála (O'Sullivan & Lucey, 2023).

While some political representatives have underlined the job opportunities LNG can bring to the North Kerry area, there has also been opposition, particularly among environmental organisations (Beesley, 2022; Nolan, 2022; RadioKerry news, 2022). The 2020 Programme for Government outlined that the move towards carbon neutrality meant that it did not 'make sense to develop LNG gas import terminals importing fracked gas'. Furthermore, the Shannon LNG terminal would be 'removed from the EU Projects of Common Interest list in 2021' (Government of Ireland, 2020 p.36). The focus on Europe's dependence on Russian gas following the invasion of Ukraine has led to support for using LNG among decision-makers. The case of Shannon LNG provides a clear example of the 'jobs versus the environment' initiative in terms of the trade-off between moving away from fossil fuels and creating new opportunities for a region in decline. The People's Transition of Ballylongford-Asdee-Beal can provide an example of how community-led local development for climate justice can address issues relating to a lack of job opportunities in a rural area and the need to move towards a more sustainable society.

The mapping of organisations and facilities within Ballylongford-Asdee-Beal gave an idea of some of the places where the community is already meeting and institutions that might be involved in a plan for community-led climate action. More detailed information was gathered from the area using census data. This allowed for an assessment of potentially underrepresented groups so that inequalities in participation could be better addressed during the listening phase. The mapping phase also helped to identify potential barriers that people might face to participate in climate action. On the flip side, opportunities for engaging in climate action were identified, with information collected on resources available to the community that might strengthen the project.

2.1. Community Data

Data from the most 2022 census was utilised in the mapping phase. The combined population of the four electoral divisions where the communities are located stood at 1,572 in 2022. The proportion of people aged 19 or younger fell from 23% in 2016 to 21% in 2022 while the proportion of people aged 65 or older grew from 21% to 25%. This is 10% higher than the national average (Central Statistics Office, 2023a). 21% of the population have a disability. This represents an increase of 6% from the previous census. A notable factor within census data relating to employment was the decline in the number of people farming and the increase in agricultural workers. The number of farmers fell by 85 while agricultural workers increased by 36. While data on the types of work completed is not included in the census, one cause of this increase may be the additional labour requirements needed on dairy farms following the removal of milk quotas.



In terms of housing, almost 20% of the total housing stock was built before 1945. This is higher than the national average of 14.6%. The age of houses may lead to additional challenges for people, particularly in the energy efficiency of housing. Regarding energy sources, oil was the main source of energy for 54% of homes in the four electoral divisions. Turf was the second most common energy source, being used in just under 30% of homes. This is much higher than the national average which was just under 4%. It is noticeable however that the number of homes using turf fell from 272 in 2016 to 185 in 2022. Given the introduction of a ban on the retail sale of turf in the Republic of Ireland in October 2022, it is critical that alternative energy sources that are affordable are identified to avoid fuel poverty and resistance to climate action more broadly (Hosford, 2022). The number of homes using electricity for energy rose from 9 to 20 between 2016 and 2022. Regarding house ownership, less than 7% of houses were rented from a private landlord, while 4% were rented from the local authority. 19% of homes had no internet connectivity.

A further finding of note within the census data is the high dependence on cars for transport. 65% of people used a car as a driver or passenger. This is slightly higher than the national average of 63% (Central Statistics Office, 2023c). The number of people who use a bus to commute to work, school or college fell from 104 in 2016 to 89 in 2022. Out of a total commuter population of 971 (how people travel to work, school or college), only 2 people in the four electoral divisions cycled.

2.2. Active Citizenship

Each of the three communities has a tradition of active citizenship and community groups engaged in local development. Beginning with Asdee, its local development association produced a five-year socio-economic development plan in 2020 (O'Raw, 2020). Similar to the People's Transition process, this community-led initiative consisted of an intensive and in-depth consultation and engagement process that took place over several months. The report notes the challenges facing the local community and the pride community members have for the history, heritage, traditions and identity of Asdee. In terms of findings from this report, the need to make the area more attractive to young couples was noted alongside enhanced infrastructure and tackling rural isolation. Community members also identified several climate and cooperative solutions that could address community challenges. These include the development of alternative renewable energy projects with the potential to provide energy to the village hub, the acquisition of a site for a community allotment and the creation of a community-owned visitor centre.

The undertaking of the socio-economic development plan resulted in Asdee being awarded a gold prize at the Facilitation Impact Awards (Fernane, 2021). Located in Toronto, Canada, The International Association of Facilitators is a global participatory organisation which seeks to enable facilitation and address challenges faced by communities. Alongside developments in Asdee, a development association is in place in Ballylongford, which aims to promote and develop the area as an attractive location for people to live and work. It also seeks to promote the tourist and environmental attractions in the area. In 2018, Ballylongford featured in a TG4 documentary Tabú: Bánú nó Slánú (Taboo: Decline or Salvation). The documentary focused on rural decline in Ballylongford and Kiltyclogher in Co. Leitrim. The documentary highlighted the lack of employment opportunities in the local area alongside the loss of public services, such as the local post office.

While Beal does not have a development association similar to the other two areas, a community member has been integral to supporting the growth of hemp farming in Ireland by acting as the chair of Hemp Cooperative Ireland. They noted that hemp could potentially be a valuable rotational crop for farmers. They have also described how the growing of hemp within a cooperative can move farmers higher in value chains in contrast to certain agriculture sectors currently where they act as 'price takers', dependent on processers for their income (LIAISON, 2019).

It was clear from an early stage that any suggested solutions emerging from the People's Transition would need to complement, rather than duplicate, existing efforts and that the future success of the proposals from this People's Transition pilot project will rely on the adoption by the strong network of community groups. The mapping phase highlighted information that was the foundation of the listening phase. An understanding of the community dynamics, vulnerable groups and demographic data, allowed TASC to design a listening phase that was inclusive and built on existing community relations and social fabric. This listening phase set out to understand the needs and priorities of the community, thereby taking steps towards identifying suitable community-led climate solutions to meet societal needs.

The mapping of organisations and facilities within Ballylongford-Asdee-Beal gave an idea of some of the places where the community is already meeting and institutions that might be involved in a plan for community-led climate action. More detailed information was gathered from the area using census data. This allowed for an assessment of potentially underrepresented groups so that inequalities in participation could be better addressed during the listening phase. The mapping phase also helped to identify potential barriers that people might face to participate in climate action. On the flip side, opportunities for engaging in climate action were identified, with information collected on resources available to the community that might strengthen the project.

3. Phase II: Listening Phase

3.1. Community Outreach

The Listening Phase was designed to foster trust, gather knowledge and build capacity whilst identifying community needs and priorities. A communications plan was developed to bring attention to the People's Transition project, increasing engagement in the listening phase, and informing the community of the outcomes of the project. Following the first community focus group which took place in Asdee in April 2023, an interview on the project was conducted on Radio Kerry.

The aim of these conversations was, first and foremost, to listen. Each focus group was asked the same questions: what do you like most about Ballylongford-Asdee-Beal, what do you think are the main challenges facing Ballylongford-Asdee-Beal, and what do you feel is lacking in Ballylongford-Asdee-Beal? Listening to the lived experiences of the communities allowed the project team to build a picture of the challenges facing community members in the area. To gather further data, a community wide survey was developed. The survey aimed to check the findings from listening to community members about the key issues identified. 31 people participating in focus groups and 36 people completed the community survey.

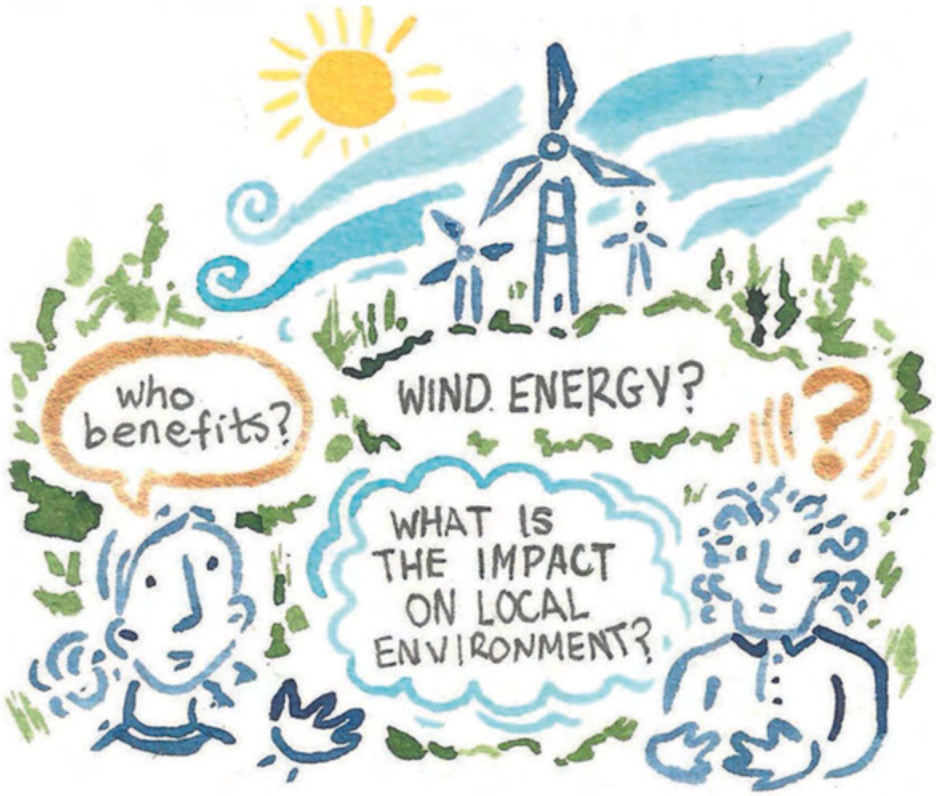
3.2. What we heard?

3.2.1. *'Beaches, fresh air, beautiful walks'*

When asked what they like most about Ballylongford-Asdee-Beal, a common theme was the range of natural amenities within the communities. This included the green fields and agriculture surrounding the area, the presence of several beaches, including Littor and Beal beaches and Saleen Pier. Community members noted that 'the beach is an escape' and that the beaches are great locations for swimming. Alongside the presence of natural amenities, there was also the sense that 'we have a lot of nature in North Kerry'. Living along the River Shannon and the scenery this provides were also highlighted by community members. The coastline which covers the three communities looks directly across to County Clare (O'Raw, 2020). Being a part of the Wild Atlantic Way was also viewed as a positive for the area. Alongside the range of walks, wetlands and wildlife within the area, a notable comment was that the area had:

'A traditional landscape except for wind farms'.

This mirrors comments in the Asdee socio-economic development plan, which highlighted that installing wind farms in the area was a matter of contention among community members (O'Raw, 2020). The erection of wind farms on peatlands was not viewed as a positive development.



A further positive aspect of living in Ballylongford-Asdee-Beal was the pace of life in the area. Community members described the area as being remote, rural, peaceful, secure and home. Several focus group members identified the quality of life provided by the area as their favourite aspect of living in this area of North Kerry. A perceived benefit of the area was the cost of living compared to the main cities in Ireland. As noted by one community member:

'People want to move out of Dublin (but there is) nothing here for them'.

As discussed in further sections, the need for improved services was identified as a factor that could help bring families into the area. As the area is approximately one hour from Limerick city and larger towns in South Kerry, the proximity to these urban centres was also highlighted as a benefit for the area. Alongside the peaceful nature of the area, community members in Ballylongford described how the village is quite artistic due to the heritage of music, poetry and the arts in the area. Similar to the emphasis placed on the natural assets, historical features and contemporary events were also discussed as positive aspects of the area. Within Ballylongford, the presence of Carrigafoyle Castle and the Abbey, alongside famous natives, such as the O'Rahilly, a participant of the 1916 Easter Rising and Brendan Kennelly, a poet and novelist, were highlighted as assets that bring people to the local area. Events that take place in the locality were also discussed. These include the Oyster festival which takes place in Ballylongford during the August bank holiday weekend. This was described by one community member as being the 'highlight of social calendar'. Christmas time represents an occasion where community groups in Asdee and Ballylongford come together. The Asdee report notes a live crib has been established for the duration of Christmas. In Ballylongford, there had been no community Christmas tree. Community groups came together and donated money to support fundraising. This has resulted in the turning of the Christmas lights being a big event for the local community. Alongside the positive impacts that community events of this nature can have, it was noted that getting insurance cover for running community events is a challenge.

Community members spoke of the strong sense of community in the area. One in three survey respondents used the word community when asked what one word sums up the things you currently value about Ballylongford-Asdee-Beal. The report by O'Raw (2020) highlighted how people in Asdee are very willing to get involved in new initiatives and come together for their village's common good. A similar description was provided by community members in Ballylongford, who detailed how there is a close-knit community where *'everyone knows everyone*' and *'there's always someone that supports you'*.

The range of community groups present was also highlighted. These include active GAA and soccer clubs, a development association, a tidy town committee, and a community centre described as *'the pride of place'* for the local area. The humour of community members was also noted alongside the view that Ballylongford is an age-friendly village.

A final topic related to why people like living in this area of North Kerry is the facilities that are currently in place. This includes the primary schools, GAA grounds, churches and shops. The quietness of the town means that there are no traffic jams and the streetscape of Ballylongford village was also referenced as a positive for the local area. While the area has access to broadband, its quality was described as debatable. There have also been in new developments in the area, such as a new bus service which connects both Ballylongford and Asdee to Tralee. This was described as beneficial for students studying in MTU Tralee.

3.2.2. *'15 to 20 jobs here is the same as 2000 in Dublin'.*

The primary challenge identified by community members was emigration and the need for full-term and part-time employment in the local area. 94% of survey respondents identified local employment opportunities as a high priority. Aligned with this was the need for local education and training. As noted by one community member, while employment has never been higher at a national level, employment was based in larger urban areas, such as Limerick or Tralee. Similarly, another community member described how employment was the key to addressing the broader issue of depopulation. The benefits that more jobs would have for the wider local economy was illustrated in the statement that '15 to 20 jobs here is the same as 2000 in Dublin'. While it was noted that some people are moving back to rural communities due to the cost of living in places such as Limerick, there was a sense that the cost of living in other places was not enough to attract people back to the community. Aligned with the description of the natural amenities provided in the previous section, the opportunity to work remotely was identified as a positive for the community. One community member described how they had moved from Dublin to the local area. They described how this allowed them to go to the beach and how there was a greater sense of security for their children compared to being in the city. Alongside the lack of employment opportunities in the local area, the potential for Shannon LNG to create jobs was highlighted by community members as an opportunity to create local jobs. While the landbank had been developed in the 1960s, recent proposals around the development of an LNG facility were described as being the closest to coming to fruition.

Alongside the direct employment that Shannon LNG could provide, community members also highlighted the need for a transport industry to support it. Alongside support for Shannon LNG, there was also some scepticism about whether it would benefit the local area. As discussed by one person,

'People won't live in Bally because of the LNG, (they will) live in Limerick.'

Regarding other potential areas for employment, the potential for boat tours and walking tours of the local amenities were identified. Ideas mentioned included jobs for guides who provide sunset tours of the Shannon estuary and tours of Carrigafoyle Castle. In support of this was the need to utilise the natural amenities present. 89% of survey respondents stated that there should be more tourism in the area. Other potential job opportunities include providing training for traditional skills as well as indigenous industry. Suggestions included developing community co-operatives and food co-operatives and facilities for anaerobic digestion and the restoration of old buildings.

3.2.3. Population Decline

Aligned with the lack of job opportunities within the community, population decline was a common talking point during community engagement. The challenges this creates for people of all age groups and services in the area were highlighted. The need for more young people was described as a challenge for retaining primary school numbers alongside having enough people to play on GAA teams.

A similar sentiment was present in the Asdee report which outlined the need to make Asdee and adjoining communities in North Kerry, more attractive to people in the family-formation stage of life and those with young families. This requires affordable housing and decent transport links which would provide people with the ability to commute to work elsewhere (O'Raw, 2020). The benefit of having more young people in the community is the potential for more people to become involved in community group committees, as 'new blood breeds new ideas'. When asked what would make the area a strong, inclusive, sociable place that would help everyone reach their full potential, 78% of survey respondents said having more young people involved in decision-making. One person spoke of how the reduction in the number of fishing boats based on Saleen Pier in Ballylongford represented a population decline.

'30 years ago (there were) 3 times as many boats there'.

Although it was noted that the cost of living was a factor that could bring people away from big towns to communities, there was also the view that cheap house prices were not enough of a draw to bring people back to rural communities. Alongside issues around retaining young people in the community, the challenges facing older community members were highlighted. This includes the issue of rural isolation. In a focus group in Ballylongford, one community member spoke of how people have lost touch with engaging with others since COVID-19. This has resulted in isolation, where older people live in poor conditions. Similarly, they spoke of how the number of community members involved in active retirement initiatives locally has fallen from between 15 and 18 to 8 over recent years. Another example of the changing landscape identified by one community member was the sharing of a parish priest between Ballylongford and the neighbouring town of Tarbert.

Alongside the challenges unique to the communities of Ballylongford, Asdee and Beal, community members also spoke of wider challenges facing rural communities. A notable example of this was issues concerning decision-making and receiving planning permission. Examples include the challenge of receiving planning permission to build a house on land owned by a family member. 84% of community members described not having a say in, or ownership over, local development projects as being a big challenge to them. Furthermore, there was a sense that the needs of rural communities need to be promoted at the national government level. Aligned with this was the sense that communities need to promote themselves by looking at the positive aspects that are present. One community member described how *'unless we talk, no one is going to talk for us'*. Another community member described how:

'What we don't need is more reports'.

They noted that a report had been compiled by KPMG focusing on the North Kerry and West Limerick area as it is one of the country's 'most deprived areas' within a rural context. Aligned with this was the view that good village plans had been put together in the past and that decision-makers at the local authority level were writing off the area. An example of this is referenced in the report by O'Raw (2020). They describe how the Landscape Character Assessment of 2012, which informed Kerry County Council policy on planning and development in North Kerry, stated that the landscape in Asdee and Ballylongford was not important for scenery, tourism or recreation. Aligned with this was the sense that Ballylongford, Asdee and Beal were being bypassed by tourists coming from the Ferry in Tarbert and going to the beach in Ballybunion. There was also a sense that the area was not being recognised on the Wild Atlantic Way and more signage was needed to bring tourists to the communities.

One suggestion for addressing the lack of community input in decision-making was the establishment of a community committee, which would consist of representatives from the different committees active in the area. One of the perceived benefits of this is that it would reduce competition between community groups for funding and support collaboration in the community. Aligned with this was the view that more investment was needed in communities.

3.2.4. *'It's not until something is gone you realise that you miss it'.*

A further challenge community members identified was dereliction and a need for more infrastructure within the community. This included a lack of sewerage system in Asdee, the loss of a Garda station and credit union in Ballylongford, and a lack of tourist accommodation. Community members spoke of the decline experienced over the preceding 20 and 30 years. This has resulted in Ballylongford lacking a bank, a petrol station and a doctor. The loss of the local post office was also discussed. One community member spoke of going to Adare, a town 54 kilometres from Ballylongford, for a doctor's appointment. They noted that the only reason they were able to get an appointment was because they had been to that GP when they were a baby. Alongside the lack of essential services in the area, community members also spoke of the lack of amenities for leisure in the area. The nearest cinema is in Tralee, approximately 40 kilometres from the North Kerry coast. It was noted that while there are 6 pubs in Ballylongford, none serve food. One person noted how:

'I like to go to (the local takeaway) *for a nice romantic meal'.*

The lack of spaces for people to socialise was viewed as particularly negative for younger people, leading to boredom and anti-social behaviour such as car racing. The lack of public transport was identified as another issue impacting particular community members. For young people to undertake an apprenticeship, they must travel to Tralee. Limited access to public transport means that there is a reliance on driving. The lack of a direct bus link to Listowel, the largest town in North Kerry, was also highlighted due to the need to travel here for services such as accessing pharmacies and banks. The issue of addressing climate change without providing adequate services, such as public transport or easily accessible public services was underlined by one community member who described how:

'To go to the post office, you have to go to Tarbert or Listowel. It's a joke'.

One suggestion to address the area's lack of public transport options was to develop a taxi service that supports older people who do not have family members and are, therefore, more isolated and dependent on others. The affordability of taxi services was identified as a potential issue in their development. The level of derelict properties present within communities was also noted. The vacancy rates in the area, as noted in the 2022 census, was 18% in the Carrig ED, 17% in the Lislaughtin ED, 19% in Astee and 29% in Beal ED (Central Statistics Office, 2023b). The rate was just under 11% for all of County Kerry. A factor impacting the potential for renovation was the difficulties in securing grant funding. A positive aspect was that several houses for sale in Ballylongford have received offers. Similarly, a playground in the village was noted as being one of the community's best resources.

3.3. From community needs to community solutions

Building upon what was learned during the Mapping and Listening phases, the TASC team worked with several stakeholders to flesh out solutions for climate action that address community needs and priorities. Understandably, not all needs identified could be addressed through community-led climate action, so it was necessary to hone in on several pertinent issues. It must be stressed that this is not an exact science, and others, looking at the same needs and priorities, may land on different climate solutions. However, it is hoped that the process, as much as the proposed solutions, provokes thought about how the investment in climate action can address existing development needs rather than perpetuate them.

The engagement process with local communities shone a light on several issues that interlink with climate action. This included the potential for Ballylongford-Asdee-Beal to develop as a tourist location due to the range of natural amenities in the area. The need for jobs connects with the need for new industries to develop in order to reduce emissions in sectors such as energy and agriculture.

By adopting an intentionally inclusive approach and foregrounding groups whose voices are not often heard, the People's Transition for Ballylongford-Asdee-Beal has sought to enable the creation of solutions grounded in expanding the capabilities of community members. In this way, the project hopes to be a catalyst for community-led local development in a way that works for Ballylongford-Asdee-Beal. Fundamentally, climate action based on rights, equity and dignity is most likely to proactively build social approval.

4. Phase III: Solutions Phase

Having completed the mapping and listening phase, the TASC team worked with relevant experts to identify potential solutions for the community that would both accelerate climate action, address local needs and priorities, and build community wealth. The team settled on developing two concepts: a blueway and a bioeconomy co-operative. Building upon the development of blueways along rivers in other parts of Ireland, developing a blueway could help to promote the range of natural amenities in the area, such as beaches, biodiversity and historic buildings. A bioeconomy co-operative could help to create local jobs in biorefining while also helping to increase farm incomes. These solutions should not be considered the only possible collective climate initiatives that could be undertaken in Ballylongford-Asdee-Beal, they were just two initiatives which the team felt would be feasible and implementable.

4.1. Solution 1: Blueway

4.1.1. Policy Context

The Kerry County Development Plan for 2022 to 2028 highlights how Rural Kerry is an important national and international tourism and heritage asset. Furthermore, due to the peripherality of some areas of the county, tourism represents an integral part of the local economy (Kerry County Council, 2022). The overarching principles of developing the tourism industry in Kerry are to protect the environment, safeguard the needs of host communities, support job creation and promote the circular economy and climate action. At the European policy level, the Common Agricultural Policy has been used to recover abandoned and pre-existing routes for pedestrians and cyclists that can be used for human recreational activities (Menconi et al., 2023). The Kerry County Development Plan for 2022 to 2028 also notes that there has been a growth in demand for nature tourism. This aligns with the principles of community-based tourism, whereby tourism activities are community-managed, comprise of locally-owned businesses to provide economic, social and cultural benefits to the community and support the idea of conservation (Dodds et al., 2018; Strydom & Mangope, 2019). While nature tourism could benefit rural communities, support measures are required regarding transport infrastructure, access to appropriate accommodation and development of visitor attractions. As referenced by community members in the engagement phase, adequate signage is also necessary.

With relevance to Ballylongford-Asdee-Beal, the County Development Plan highlights the need to strengthen connectivity and references North Kerry and the Shannon Estuary Network as part of this. Given the communities' proximity to the Shannon Estuary, the objective of Kerry County Council to 'promote opportunities for enterprise and employment creation in marine tourism where it can be demonstrated that the development will not impact negatively on the marine environment' is highly relevant. (Kerry County Council, 2022 p.189). The Asdee socio-economic plan also highlights how the presence of Asdee within the Shannon Way Trail, North Kerry Cycle Route and Wild Atlantic Way means that tourism can play a part in enabling local economic diversification (O'Raw, 2020). The County Development Plan also emphasises promoting and facilitating the sustainable development of outdoor activities. One example of this is the development of blueways.

4.1.2. Blueways

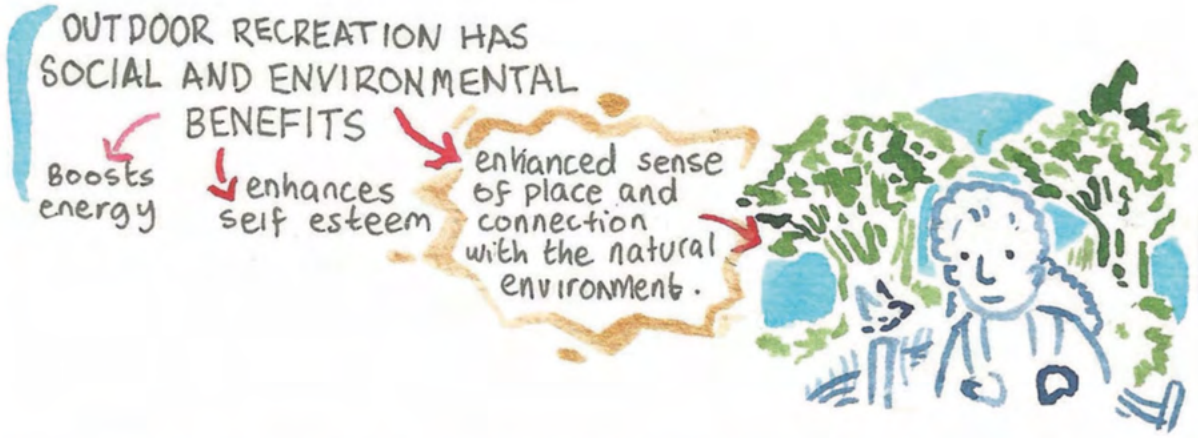
Blueways are a relatively new water-based tourism initiative which seek to encourage more people to experience inland waterways, lakes, rivers and coastal areas around the island of Ireland (Kerry County Council, 2022). Similar to the concept of greenways, a blueway is defined as 'a network of approved and branded multi-activity recreational trails and sites, based on, and closely linked with the water, together with providers facilitating access to activities and experiences' (Blueways Ireland, n.d. p.5). Examples of activities include kayaking and paddleboarding (Blueways Ireland, n.d.; Gordon 2022). Blueways Ireland also highlights how blueways are set in the context of places to stay, eat and go alongside enriching local culture, heritage, arts and visitor attractions (Blueways Ireland, n.d.). A range of bodies have been involved in developing blueways across Ireland. These include Fáilte Ireland, Sport Ireland, their equivalents in Northern Ireland, Waterways Ireland and Local Authorities (Querelle, 2022). The National Marine Planning Framework highlights how the development of infrastructure, such as blueways, can encourage tourists to visit an area, potentially creating year-round sources of revenue for local businesses and creating a positive impact on the local community (Government of Ireland, 2021). Alongside the economic benefits that blueways can provide, developers must also be mindful of the potential impacts an increased number of tourists visiting an area can have on the local environment (Kerry County Council, 2022). Blueways Ireland details several selling points for attracting tourists to these areas. These include being active in nature, exploring waterscapes and responsible recreation within the environment (Blueways Ireland, n.d.).

County Kerry is well-positioned to benefit from the development of blueways. A study by Hynes et al. (2019) found that it had the highest level of coastal and marine tourism activities in Ireland, followed by Counties Galway and Clare. From a survey conducted with over 600 overseas visitors to coastal areas in Ireland, the report found that the travelling party spent an estimated €699 in coastal areas. The report also found that activities such as coastal sightseeing, beach vitiations, island visits, walking/running, and cycling along the coast were popular among overseas visitors. All of these activities are connected to developing a blueway. Of relevance to Ballylongford-Asdee-Beal, Balgaranov (2022) highlights how blueways can provide smaller communities in rural areas with the opportunity to showcase their local area, supporting the creation of links between urban and rural communities. El-Hady et al. (2021) present several necessary factors for creating a good blueway. These include the selection of an appropriate location, accessibility, safety, and the creation of a unique experience for visitors. Among overseas visitors, Hynes et al. (2019) found that the activity most undertaken by survey respondents was walking or running along the coast, beaches and cliffs. Visiting nature reserves along the coast and offshore islands and cycling were popular coastal leisure activities among respondents.

4.1.3. Activities and Attractions

There are several areas where a blueway could create new employment opportunities for the communities of Ballylongford-Asdee-Beal, including bicycle and e-bike hires, walking tours and watersports. Hynes et al. (2019) highlight how new small and medium enterprises have been developed on the west coast to cater to growing tourist numbers in areas such as nature watching and coastal tour guides, sea angling, kayaking, and snorkelling. Both McCarroll (2017) and Mulvey (2020) describe how the natural assets in coastal communities can support rural regeneration by developing education programmes relating to biodiversity. Alongside the focus on water-based tourism, McCarroll (2017) also highlights the potential for blueways to expand into other activities such as food, heritage, music and the arts. They provide the example of an ancient spiritual trail alongside the Shannon blueway. These inland waterways were once the primary means of transport in Ireland, with the presence of Monastic settlements along the waterway. In support of this is Menconi et al. (2023), who describe how local culture and heritage can act as a further tourist attraction for communities. The Kerry County Development Plan outlines that an objective of the Council is to 'protect sites of significant historical military importance along the Shannon Estuary', including the Battery on Carrig Island and Carrigafoyle Castle (Kerry County Council, 2022 p.153).

In support of this is the aim of developing a heritage trail within the Asdee socio-economic development plan, which would include the Jesse James Tavern. Asdee was the home of the ancestors of Jesse James, one of the most famous outlaws of the American West in the 19th Century (Nolan, 2022). Alongside the economic benefits of blueways, the study by MacIntyre et al. (2020) also highlights the wider social and environmental benefits of outdoor recreation. These include enhancing self-esteem, boosting energy and creating an enhanced sense of place and connection with the natural environment.



4.1.4. What is needed to support Blueway development?

In terms of the practicalities of developing a blueway, there are several stages, as presented by Blueways Ireland. The first stage is an initial planning and development stage. These include establishing a development group that could lead plans for a blueway at the local level. Following this, a feasibility study and consultation with community members is required. This will help to create a development action plan which can provide the basis for securing funding. Within Ireland, an assessment of the feasibility of a Blueway is undertaken by a Blueway Accreditation Inspector for a Blueway Accreditation Panel. This depends on a number of factors, including:

- **Experience** - Are the visitors' expectations met?

A blueway management plan requires a formal process to monitor visitor feedback. The blueway experience must offer a minimum experience duration of between half a day and one day. Alongside offering an attractive landscape, unique heritage and multiple land and water activities, blueways must also incorporate places to eat and stay. The lack of places to eat was identified by community members in Ballylongford as one amenity that needed to be added there. Jordan and Wright (2023) note that a shortage of accommodation is a factor impacting tourism in rural communities in Ireland.

- **Safety** - Is risk being appropriately managed?

Regarding safety, blueways must be suitable for novices with little to no experience undertaking activities. Visitors must not be exposed to hidden dangers and should be aware of any risks they may face. Hazards along water must be marked (El-Hady et al., 2021). Walking, snorkelling, and paddling trails must comply with the standards the relevant bodies have set, e.g., Sport Ireland. Hynes et al. (2019) note that acquiring insurance has been a major issue for leisure activity operators, and policy actions are needed to ensure that insurance coverage is available and accessible at a reasonable price for existing and new marine leisure operators.

- **Technical** - Does trail infrastructure and signage follow best practice?

Trails must provide and identify facilities such as toilets and parking and take steps to provide access to people with disabilities. The absence of public transport options can discourage tourists who do not have cars. Alongside adequate accessibility, investment may be needed in areas such as budget accommodation for short-stay visitors, bicycle rental shops, and paddleboard/kayak/canoe and rowing boat rentals (Sierociuk, 2022).

- **Conservation/ Environment** - Does the blueway avoid any negative impact on the environment or ideally add to or improve the environment e.g. through education and access?

Smith et al. (2022) highlights how new developments that seek to attract increased visitor numbers might become more susceptible to climate change impacts moving forward, especially on the coast. Actions must be taken to avoid environmental damages such as the spread of invasive species and keep the area free from litter. The National Marine Planning Framework details the need to 'preserve views of coastal/marine areas from touring routes, walking / cycling trails and blueways' (Government of Ireland, 2021 p.180). The undertaking of an Appropriate Assessment by the relevant local authority (Kerry County Council) is, therefore, necessary to understand the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site (Natura 2000 site or an area related to Birds and Natural Habitats Regulations) (Department of Housing, Local Government and Heritage, 2022).

- **Access** - Will the Blueway be open for public use for at least ten years following accreditation?

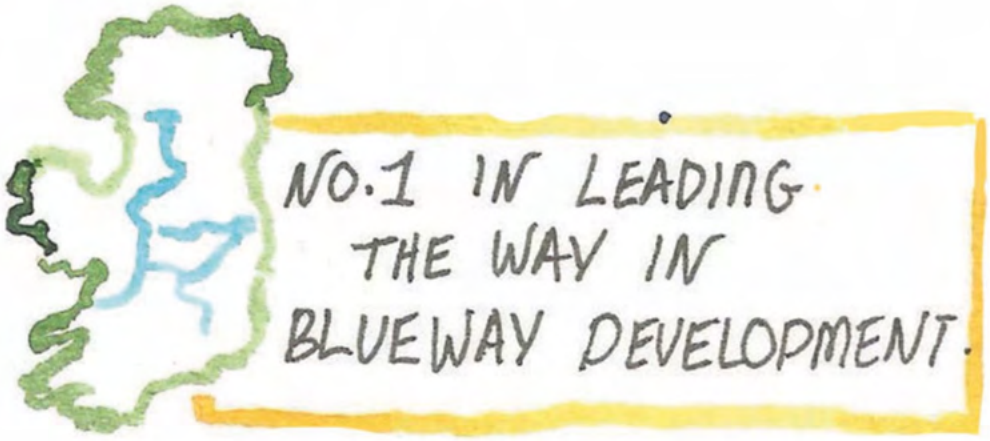
Blueways require agreements to access the space being used by all landowners and relevant authorities for ten years. Public liability insurance must also be in place to cover all infrastructure and land and water-based trails that are part of the blueway.

Blueway Development Groups are required to cover the cost of preliminary and registration assessments to be carried out on Blueways. Alongside the requirements necessary to develop a blueway, support is also provided by Blueways Ireland to support developments. These include a Blueway Development Advisor's support and learning about best practice knowledge from other blueway developers/managers through an annual Blueway Forum meeting. Achieving recognition as a blueway can also attract tourists to the community. Blueway accreditation can also support communities in applying for further funding to enhance the level of services provided within the community.

The Sports Ireland website provides a step-by-step guide to how a community can apply to develop a blueway in their locality (Sport Ireland, n.d.). After deciding whether the location abides by the abovementioned requirements, the next step is to seek accreditation. Developers must ensure that there is a right to access land and water which will form part of the blueway and that it is safe. An important step is engaging with the relevant Local Authority (Kerry County Council), as they will play an important role in approving planning permission. As well as working with local actors, such as the Local Authority and private landowners, other organisations should be engaged early in the planning process. These include Waterways Ireland, the Local Authority Waters Programme and the National Parks and Wildlife Service, among others. While there is no template for how long it takes to develop a blueway, it is advised that it is launched in the spring or summer. The development of promotional materials and a website are also advised to raise awareness of the blueway.

4.1.5. Case Studies

Blueways within Ireland are among the first in the world to be accredited. In 2022, blueways opened in counties Meath, Tipperary, Clare and Galway (Kelly, 2022). In South Tipperary, the Suir Blueway consists of a 53km paddling trail between Cahir and Carrick-on-Suir and a 21km walking and cycling trail between Carrick and Clonmel (Gordon, 2022). The development cost €5.6 million and was funded by Tipperary County Council, the Department of Transport Tourism and Sport, Sporting Ireland and the Department of Rural and Community Development (Allen, 2019; Keating, 2019). The blueway offers tourists a combination of walking, cycling and water sports alongside history and heritage via the pre-existing medieval Butler Heritage Trail. (Keating, 2019). An article from Agriland highlights the importance of considering potential damage to crops, trespassing, and the effect on land value and insurance (Allen, 2019). The development of the blueway has resulted in a new bike hire company being established in the local area (Keating, 2019). Another blueway with connections to Tipperary is the Lough Derg Blueway. This traverses through counties Tipperary, Clare, and Galway. This blueway runs for more than 160 kilometres. On dryland, the blueway also consists of Portumna Forest Park and a hike between Twomilegate and Scarriff. Heritage sites abound alongside a 1,500-year-old monastic site on Holy Island (Gordon, 2022). The Boyne Blueway includes a two-hour guided kayaking trip and a historical rafting tour, including Trim Castle (Gordon, 2022).



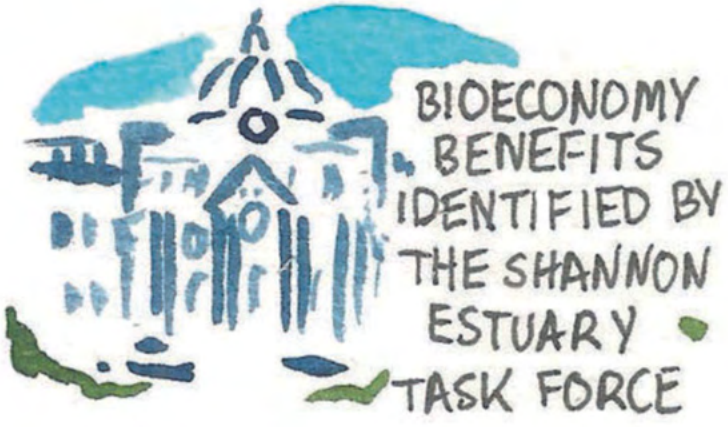
On Achill Island, two blueways have been developed. The Kayak Trail, located north of Achill Island, consists of a 2.4-kilometre trail. Sightings of bottlenose dolphins and seals are possible along this trail, while the Snorkel Trail, located in Keem to the west of the island, is occasionally visited by Basking sharks (Achill Tourism, 2023). On the northern banks of the Shannon, the Shannon Blueway consists of over 100km of paddling area. Running from Leitrim, through Roscommon, to county Longford, the walking and cycling trails start on Ireland's first floating boardwalk (Leitrim Tourism, n.d.). Alongside developments in Ireland, Barcelona is one of the first areas in Europe to develop a blueway. Barcelona's blueways seek to create a network of sustainable local mobility, improve the accessibility to the region's diverse heritage and support the development of local tourism (Querelle, 2022).

4.2. Solution 2: Bioeconomy co-operative

4.2.1. Policy Context

To reduce emission levels at an EU level, the European Green Deal sets out the EU's ambition of becoming climate neutral by 2050. The Green Deal aims to support a transition to 'a modern, resource-efficient, prospering and competitive economy, in which environment, health and wellbeing are priorities' (European Commission, 2022 p.1). Central goals of the Green Deal include reducing dependence on fossil fuels by increasing investment in renewable energy, supporting biodiversity protection and reducing waste by moving towards a circular economy. Another feature is the focus on the bioeconomy. The bioeconomy comprises all sectors and services that 'produce, use, process, distribute or consume biological resources' (European Commission, 2022 p.1). This means using natural resources from the land and the sea in new ways to reduce dependence on products from fossil fuels. Examples of bioeconomy initiatives include bio-based packaging, biofuels, agrochemicals, and converting sewage sludge into fertiliser. Alongside environmental benefits, the EU's bioeconomy strategy highlights the connections between bioeconomy and agriculture in terms of ensuring the right to access nutritious food and for land managers and primary producers to fair living and working conditions. Furthermore, it emphasises the potential for these new industries to create jobs, particularly within rural and coastal communities, alongside supporting social fairness and a just transition.

Published in 2023, the Irish Bioeconomy Action Plan highlights several actions that will be taken to support bioeconomy development in Ireland. Of particular relevance to Ballylongford-Asdee-Beal, the plan highlights how the Shannon Estuary Region and its task force 'offers the opportunity to consider the development of exemplar bioeconomy development aligned with renewable energy sources and the greening of food system and industrial value chains' (Government of Ireland, 2023 p.26). Other national initiatives, such as the National Planning Framework and Climate Action Plans, also offer the opportunity to engage with stakeholders and develop bioeconomy pathways from local bioresources. Several organisations have been identified as partners supporting bioeconomy development in Ireland. These include higher education institutions, regional and local Governments, semi-state bodies and industry groups. Regarding bioeconomy activities which could be undertaken in rural communities, the action plan notes that the production of biomethane from farm waste can assist in increasing the production of renewable energy while also providing income diversification opportunities for farmers and a land-use alternative to livestock production. Furthermore, co-locating anaerobic digestion with the refining of other resources, such as crops, is also highlighted as a key consideration within the report. Aligned with the priorities identified within the engagement phase of this report in terms of the importance of jobs, the Irish Government argues that the bioeconomy can support a Just Transition by creating new jobs and income opportunities.



4.2.2. Examples of Bioeconomy Activities

Hemp

Several bioeconomy activities are relevant to rural communities, such as Ballylongford-Asdee-Beal. One example is processing crops such as hemp, flax, sugar beet and starch crops (Folkeson-Lillo et al., 2019). Hemp is described as an ideal crop for use on marginal land due to its suitability for areas with high rainfall and small farms of 20 to 30 hectares (European Commission, 2019). Hemp is a crop with a long history of industrial use in fibre, food, medicine and other practices (Parvez et al., 2021). The American Declaration of Independence was drafted on hemp paper (Yano & Fu, 2023). In Europe, hemp was subsidised as part of the Common Agricultural Policy in the 1970s (Mark et al., 2020). The versatility of hemp can be seen in its range of outputs. Essential oils obtained from hemp seeds are described as having a high value in the market (Nath, 2022). It can be used in areas relating to cosmetics, such as hand soap, shower cream, and face cream, among others. Hemp is suitable as a more sustainable alternative to cotton due to low pesticide use and water (Yano & Fu, 2023). Hemp can also be used as a sustainable alternative to concrete. Hemp blocks have been developed due to several beneficial properties such as being fire-proof, water-resistance and self-insulation (Daly et al., 2012). Increasing the use of hemp for paper compared to wood paper could also help to reduce deforestation (Parvez et al., 2021). As discussed in a further section focusing on anaerobic digestion, hemp can also be used to provide biofuels. Alongside replacing natural gas, hemp can be used to create briquettes for home heating, reducing the emission of toxins (Parvez et al., 2021). The range of outputs that hemp can provide means that it can support the creation of local and regional supply chains (Kaur & Kander, 2023).

As is the case with most crops, several factors must be considered when growing hemp. These include the seedbed conditions, seeding rates, and the dates of growth and harvesting (Cherney & Small, 2016). Focusing on the United States, Cherney and Small (2016) highlight how a four-year crop rotation is necessary to minimise pest buildup. A decorticator is a machine that is used to separate fibre from the bark of the hemp plant (Kaur & Kander, 2023). After being separated, hemp fibres, either dried or baled, can be processed further, such as shredded into smaller lengths or spun into yarn (Kaur & Kander, 2023). The leftover piece of the hemp plant, known as the hurd, can be used in various ways, such as animal bedding, oil absorbents, and paper (Nath, 2022). Figure 1 presents an overview of a decorticator.

Current decortication processes are described as economically impractical due partially to their labour-intensive nature. Despite this, new processes that allow for more effective co-production between hemp outputs, such as fibre and hemp seed, are described as allowing for potentially greater profitability (Parvez et al., 2021).

Figure 1: Image of a hemp decorticator. Source: FormationAg (2018).

Regarding the potential benefits of developing the hemp industry, hemp can produce large biomass yields from relatively low water input (Parvez et al., 2021). It requires low levels of pesticides and herbicides, resulting in a low environmental impact during its growth (Colmorgen et al., 2020). It can also sequestrate or soak carbon from the atmosphere. In terms of addressing the challenges identified by community members, developing small-scale biorefineries to convert hemp fibres into new products can support the creation of jobs in rural communities. Nath (2022) describes how growing hemp can create job possibilities, especially in agriculture-dependent areas. Aligned with emphasis placed on keeping young people in Ballylongford-Asdee-Beal, a review of 30 hemp farms in Italy by Giupponi et al. (2020) found that 57% of farms were run by farmers under the age of 35. Alongside the opportunities that hemp can create for processing and the production of biogas via anaerobic digestion, there is also the potential for hemp to be combined with solar energy, whereby solar panels are placed above the hemp crop (Kaur & Kander, 2023).

In terms of barriers that may impact the growth of hemp, a significant factor is the lack of processing infrastructure in Ireland (Daly et al., 2012; Caslin, 2017). Studies from around the world also highlight how the presence or absence of existing infrastructure is critical to establishing a hemp industry (Mark et al., 2020; Parvez et al., 2021). The reliability of machinery is also relevant. Mowers, similar to those used to cut grass for hay, are used for hemp harvesting. They can become clogged, and blades can become blunt due to frequent use (Kaur & Kander, 2023). This can add additional costs to the harvesting of hemp. In addition to the need for specialised machinery to produce hemp products, the cost of processing must also be considered. It is typically labour-intensive and is currently undertaken in countries with low labour costs (Kaur & Kander, 2023). Health and safety factors must also be considered. Similar to other textile sectors, there is the risk that exposure to hemp dust can lead to respiratory infections (Kaur & Kander, 2023).

Alongside the processes that go into creating hemp products, ensuring a market for products is critical. Similar to the issue of labour costs mentioned previously, Cherney and Small (2016) note that hemp production in Europe is maintained through government subsidies, while the hemp industry in China can produce large quantities of competitively priced hemp fibre due to low labour costs. Regarding the United States, Cherney and Small (2016 p.19) state that there is 'insufficient evidence to suggest that a large market demand will materialise to meet a large supply'. Alongside access to markets, access to credit to support the development of hemp is another potential issue (Mark et al., 2020). The absence of contracts from buyers means that investing in hemp could involve significant risk for growers (Mark et al., 2020). As will be discussed later, one means of overcoming this is by taking a co-operative approach whereby farmers come together to sell hemp as a collective unit rather than as individuals.

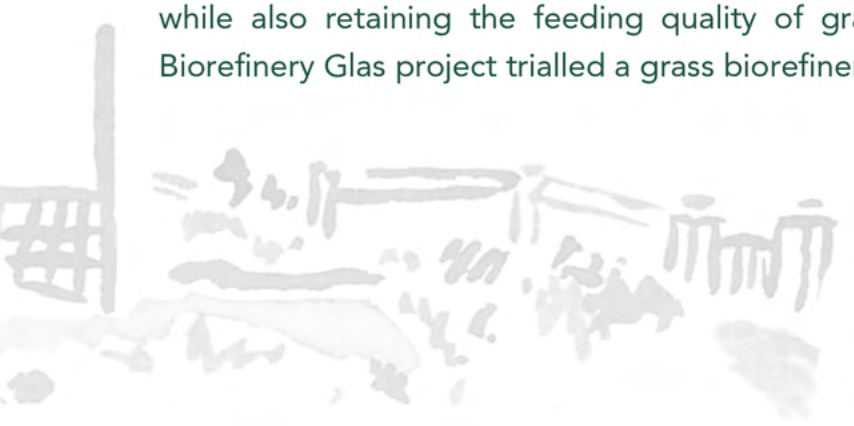
A further issue with growing the hemp industry in Ireland is a lack of knowledge relating to hemp as well as societal attitudes. Organisations that could be central to developing the sector on the ground, such as agricultural advisors or organisations supporting social enterprises, may not be familiar with the array of issues connected to growing hemp (Mark et al., 2020). Furthermore, there may be confusion relating to the legality of growing hemp due to its association with cannabis. The primary difference between hemp plants and marijuana plants is the tetrahydrocannabinol (THC) content (the principle psychoactive constituent of cannabis) (Parvez et al., 2021). Hemp has at most 0.3% of tetrahydrocannabinol (THC) content per dry weight compared to marijuana plants that have more than 0.3% (Schumacher et al., 2020).

Forestry

Alongside the processing of hemp, there are other bioeconomy initiatives which could be relevant for rural communities. In their report on LEADER funding and the bioeconomy, Conway and Farrell (2021) highlight how the programme can support the development of the bioeconomy through its locally-led, 'bottom-up' approach to support the development of rural communities and enterprises. The report also presents several initiatives that have been established across Ireland. Several of these focus on the use of forestry. Examples of bioeconomy initiatives connecting to forestry include producing and distributing wood chips to meet renewable energy and carbon targets as Ireland switches from non-renewable fossil fuels. Aligned with the emphasis on developing tourism activities in the engagement phase and the potential of a blueway to support this, the study by Rinn et al. (2023) highlight how bioeconomy-based tourism can support the effective use of natural resources.

Anaerobic Digestion

A third bioeconomy activity relevant to rural economies such as Ballylongford-Asdee-Beal is anaerobic digestion. Within anaerobic digestion (AD), biomass feedstocks, such as slurry and silage, are broken down or digested to produce two outputs. The first is biogas, which can be used as an alternative to natural gas, while digestate can replace chemical fertilisers. Sørensen (2022) highlights how Ireland is one of the countries in Europe with the most collectable farm manure per km2. Anaerobic digestion can reduce greenhouse gas emissions since biogas can replace fossil fuels in energy production (Colmorgen et al., 2020). AD plants can potentially create new income streams for local farmers, mainly from biogas and fertiliser production. Securing their development depends on local circumstances, such as the support in place and their ability to compete with fossil fuels in terms of cost (Colmorgen et al., 2020). Furthermore, Malhotra et al. (2022) caution that the excessive usage of digestate, an alternative to fertilisers, can negatively impact receiving environments. AD can also be mixed with the process of grass biorefinery. This extracts proteins from grass that can be used for pig feed and in the cosmetics industry. It can provide farmers with new income streams while also retaining the feeding quality of grass for their herd. Within Ireland, the Biorefinery Glas project trialled a grass biorefinery on dairy farms in West Cork.



A common theme across bioeconomy initiatives is the emphasis on developing co-operatives to promote the bioeconomy. Aligned with the tradition of co-operatives in the Irish rural economy, particularly in dairy farming, co-operatives have a number of benefits. These include reducing transaction costs, creating economies of scale for farmers and providing them with greater bargaining power alongside mobilising local actors (European Commission, 2018). Farmer-owned co-operatives were identified as critical to supporting the growth of the bio-fuels sector in the Midwest region of the United States (Devaney and Iles, 2019).

4.2.3. Benefits of the bioeconomy

The bioeconomy is described as a development that promotes sustainable economic growth (Kleinschmit et al., 2014; Dietz et al., 2018). As discussed by Egea et al. (2018), the bioeconomy can potentially create new jobs in various areas. These include transportation, crop management, quality control, consultancy and marketing, research, and technical support. Alongside employment opportunities, literature also describes the potential for the bioeconomy to increase farmer incomes by creating more added value to agriculture products and by-products (Scarlat et al., 2015; Issa et al., 2019; Mac Clay & Sellare, 2022; Fasolino et al., 2023). As detailed in the National Policy Statement on the Bioeconomy for Ireland, the case is made that rural areas can benefit from new employment opportunities due to the importance of the agri-food sector to rural Ireland (Government of Ireland, 2018). Rural areas are described as having a competitive advantage for developments such as applying new biorefining technologies (Government of Ireland, 2018). Given the high biomass and agricultural waste levels in rural areas, these locations are depicted within the literature as optimal sites for biorefineries (Schmid et al., 2012; Kircher et al., 2018). Studies note that the development of the bioeconomy could assist in reducing the remoteness of rural areas alongside creating opportunities for rural areas to engage in new value streams (Pleissner, 2020; Galanakis et al., 2022; Perišic et al., 2022). In Finland, the bioeconomy has been presented as a way of transforming the declining forestry sector Kellokumpu, 2022). A report from the European Commission (2018) highlights the example of the Lisheen mine in Co. Tipperary. A closed zinc mine was converted into a space for supporting bioeconomy innovation and reindustrialisation in a rural region.

Alongside addressing the immediate needs identified by community members in terms of creating local employment opportunities, the bioeconomy can also support emission reduction in several ways. This includes reducing the level of waste created (Devaney and Henchion, 2018a; Issa et al., 2019). Regarding the consumption of products, literature discusses how the bioeconomy can also support the replacement of fossil-made chemicals and other non-renewable raw materials with environmentally friendly renewable materials (Mengal et al., 2018; Issa et al., 2019; Wohlfahrt et al., 2019). In the area of energy, the development of biomethane from anaerobic digestion can potentially support a transition away from dependence on imported fossil fuels (Priefer et al., 2017; Guo and Song, 2019). On this point, Johnson and Altman (2014) describe how the move towards bio-based sources can provide greater energy security to countries by reducing dependence on overseas regions marked by geopolitical instability. This is particularly relevant given the increase in energy prices, which coincided with the Russian invasion of Ukraine. Studies also outline how the bioeconomy can support the attainment of several Sustainable Development Goals (SDGs) (Talwar & Holden, 2022). These include sustainable economic growth and full employment (SDG 8), infrastructure development, industrialisation, and innovation (SDG 9) and the attainment of sustainable cities and communities (SDG 11) (Gawel et al., 2019).

4.2.4. Challenges for developing the bioeconomy

Alongside the benefits that the bioeconomy could have for address the lack of jobs in rural communities in a manner that is viewed as sustainable, there are a number of challenges and questions related to its development. At a practical level, bio-based products must be able to compete with established fossil-based products. This depends on a number of factors, such as the cost of refinery technologies to convert biological resources into products of value, the cost of transportation as well as the cost of fossil fuel products (Guo and Song, 2019). Within an Irish setting, Devaney and Henchion (2018) describe how the fragmentation of resources may lead to difficulties in achieving the critical mass and economies of scale required for capital investment. A further area of competition that the bioeconomy may face is the production of other forms of renewable energy. Studies note that consumers may be less willing to use biomass-based energy compared to more conventional forms of renewable energy due to the higher potential for adverse environmental side effects in bio-energy production (Goven and Pavone, 2015). Alongside challenges in producing bio-based products, studies highlights how the lack of an established market for bio-based products is a challenge for securing the bioeconomy's development (Giurca and Metz, 2018; Stern et al., 2018). Providing financial support for investment in bioeconomy technologies is identified as one measure that can support a transition to the bioeconomy (Scarlat et al., 2015; Mengal et al., 2018).

Another possible factor for limited support for bioeconomy development is the experience of past failings. Goven and Pavone (2015) and Giampietro (2019) discuss how previous developments such as nuclear energy, genetically modified crops and hydrogen energy were presented as revolutionary ideas that would reduce dependence on fossil energy or end world hunger. Despite this, they have failed to meet these objectives. This is also referenced by Meyer (2017) when they highlight the risk that the bioeconomy will ultimately meet a similar fate in failing to meet its far-reaching promises of creating a bio-based society. Dupont-Inglis and Borg (2018) outline how previous experiences with the shortcomings of biofuel policies have led to environmental NGOs being sceptical of policy statements highlighting the ecological benefits of the bioeconomy. Vivien et al. (2019) argue that the bioeconomy could become a form of greenwashing whereby corporate bodies utilise biomass while failing to address other causes of climate change. Focusing on the application of anaerobic digestion in Ireland, Emmet-Booth et al. (2019) discuss how using grass to fuel anaerobic digestion can displace carbon dioxide. Still, it could also increase nitrogen fertiliser usage, creating greenhouse gas emissions.

Increasing biomass cultivation and the use of green technology installations could also lead to some sources of pollution, including soil, water, air and noise pollution, as well as biodiversity loss (Tyndall et al., 2011; Murphy and McDonnell, 2017). Another aspect of the bioeconomy which has been met with resistance is the development and application of bioeconomy technologies. Priefer and Meyer (2019) describe local opposition as a central obstacle to developing waste fermentation plants. Andersen et al. (2022) detail how the bioeconomy may repeat the experiences of wind energy, whereby noise and amenity nuisances cause local resentment. This is particularly relevant to the case of Ballylongford-Asdee-Beal given that the presence of wind mills was identified as a negative feature in the area.

4.2.5. Case Study: MTU Tralee

In terms of organisations that could support the development of the bioeconomy in North Kerry, Munster Technological University Tralee has become one of the leading research organisations promoting the development of the bioeconomy in Ireland. It has collaborated with UCD and Teagasc in developing a Master's degree in Circular Bioeconomy with Biobased Business (Government of Ireland, 2019). It was also the lead partner in the grass biorefinery pilot project described in section 4.2.2. MTU, alongside Enterprise Ireland, established the Circular Bioeconomy Cluster South-West in 2021. This cluster aims to bring together different actors, such as researchers, industries and decision-makers, to support the development of the bioeconomy in the areas of agriculture, marine and waste to value. The cluster provides several services, such as knowledge transfer, marketing and raising capital. One example of an initiative led by MTU Tralee is the wool hub. The wool hub aims to connect the different parts of wool value chains to increase the value of wool and ensure fairer financial returns to sheep farmers.

5. Conclusion

The model described in The People's Transition: Community-led Development for Climate Justice aims to systematically include people and communities in the design, implementation and ownership of climate action such that communities would begin to see the benefits of sustainable development in their lives and thus would support a rapid deep decarbonisation push towards zero emission societies. It also recognises that public investment in climate action, if directed towards community-led initiatives, could provide an enormous boost for local development across Ireland and address issues of inequality that exist on the island.

But theory is one thing, and practice is another. Thanks to the backing of AIB, TASC has been able to work with the community of Ballylongford-Asdee-Beal to bring the People's Transition model to life. Among the various groups with whom the TASC team engaged, a common topic was the lack of local and sustainable employment and the impact this has on the retention of young people in the local area. The lack of community consultation regarding the location of windmills also highlights the negative impacts that a top-down approach to climate policy can have on supporting the transition from fossil fuels to renewable energy. By listening to community needs and understanding what people appreciate most about their local area, such as the sense of community and the presence of tourist attractions, local development can occur in a manner which addresses immediate needs while also having a beneficial impact on the environment. The solution of a blueway builds upon some of the aspects which community members value most about their local area in terms of natural beauty and historic features. The concept of the bioeconomy and the focus on hemp in particular can help to address the need for new income streams for farmers and create new sources of local employment in the form of processing biomass.

In terms of next steps, while the three phases of the People's Transition model have been completed, this is not the end of TASC's connection with Ballylongford-Asdee-Beal. Upon the publication of this report, TASC will continue to engage with community members to identify actions that can help support the development of the solutions proposed in this report.

References

Achill Tourism, 2023. *Achill Island Blueway*. [Online]
Available at: https://achilltourism.com/experience-achill/blueway/ [Accessed 12 January 2024].
Allen, C., 2019. *https://www.agriland.ie/farming-news/farmer-sees-blueway-as-good-for-tourism-and-the-area/*. [Online] Available at: https://www.agriland.ie/farming-news/farmer-sees-blueway-as-good-for-tourism-and-the-area/ [Accessed 12 January 2024].

Andersen, M. et al., 2022. To facilitate a fair bioeconomy transition, stronger regional-level linkages are needed. *Biofuels, Bioproducts and Biorefining*, 16(4), pp. 929-941.

Balgaranov, D., 2022. *World's first blueways: Ireland leading the way in sustainable tourism*. [Online]
Available at: https://www.themayor.eu/en/a/view/world-s-first-blueways-ireland-leading-the-way-in-sustainable-tourism-10229 [Accessed 24 January 2024].

Beesley, A., 2022. *Call for Kerry councillors to support €650m LNG terminal*. [Online]
Available at: https://www.irishtimes.com/news/ireland/irish-news/call-for-kerry-councillors-to-support-650m-lng-terminal-1.4837522? [Accessed 19 December 2022].

Blueways Ireland, n.d. *Blueway Management and Development Guide*, Enniskillen: Blueways Ireland.

Caslin, B., 2017. *Industrial Hemp Production*. [Online]
Available at: https://www.teagasc.ie/rural-economy/rural-development/diversification/industrial-hemp-production/ [Accessed 14 May 2024].

Central Statistics Office, 2023a. *Older Persons Information Hub*. [Online]
Available at: https://www.cso.ie/en/releasesandpublications/hubs/p-opi/olderpersonsinformationhub/ageingpopulation/populationaged65/ [Accessed 4 January 2024].

Central Statistics Office, 2023b. *Census of Population 2022 Profile 2 - Housing in Ireland.* [Online]
Available at: https://www.cso.ie/en/releasesandpublications/ep/p-cpp2/censusofpopulation2022profile2-housinginireland/vacantdwellings/ [Accessed 27 May 2024]

Central Statistics Office, 2023c. *Census of Population 2022 Profile 7 - Employment, Occupations and Commuting*. [Online] Available at: https://www.cso.ie/en/releasesandpublications/ep/p-cpp7/censusofpopulation2022profile7-employmentoccupationsandcommuting/keyfindings/ [Accessed 27 May 2024].

Cherney, J. & Small, E., 2016. Industrial hemp in North America: production, politics and potential. *Agronomy*, 6(4), p. 58.

Colmorgen, F. et al., 2020. *Bio-Based Strategies and Roadmaps for Enhanced Rural and Regional Development in the EU. In 28th European B*, s.l.: 28th European Biomass Conference and Exhibition.
Conway, S. & Farrell, M., 2021. *LEADER and the bioeconomy: Examples of funded projects/initiatives*, Dublin: Department of Rural and Community Development.

Daly, P., Ronchetti, P. & Woolley, T., 2012. *Hemp Lime Bio-composite as a Building Material Irish Construction*, Dublin: Environmental Protection Agency.

Department of Housing, Local Government and Heritage, 2022. *FS006909 Broadmeadow Way Greenway*, Dublin: Department of Housing, Local Government and Heritage.

Devaney, L. & Henchion, M., 2018. Consensus, caveats and conditions: International learnings for bioeconomy development. *Journal of Cleaner Production*, Volume 174, pp. 1400-1411.

Devaney, L. & Iles, A., 2019. Scales of progress, power and potential in the US bioeconomy. *Journal of Cleaner Production,* Volume 233, p. 379–389.

Dietz, T., Börner, J., Förster, J. & Von Braun, J., 2018. Governance of the bioeconomy: A global comparative study of national bioeconomy strategies. *Sustainability*, 10(9), p. 3190.

Dodds, R., Ali, A. & Galaski, K., 2018. Mobilizing knowledge: Determining key elements for success and pitfalls in developing community-based tourism. *Current Issues in Tourism*, 21(13), pp. 1547-1568.

Dupont-Inglis, J. & Borg, A., 2018. Destination bioeconomy – The path towards a smarter, more sustainable future. *New Biotechnology*, Volume 40, pp. 140-143.

Egea, F. J., Torrente, R. G. & Aguilar, A., 2018. An efficient agro-industrial complex in Almería (Spain): Towards an integrated and sustainable bioeconomy model. *New Biotechnology*, Volume 40, pp. 103-112.

El-Hady, A., Sahar, I., Abdulghany, R. & Elattar, A., 2021. Design criteria of a healing blue-way water related experience using healing landscape. *Journal of Egyptian Academic Society for Environmental Development. D, Environmental Studies*, 22(1), pp. 47-62.

Emmet-Booth, J. P., Dekker, S. & O'Brien, P., 2019. *Climate Change Mitigation and the Irish Agriculture and Land Use Sector*, Dublin: Climate Change Advisory Council.

European Commission, 2018. *The Workshop on "Best practices in integrating primary production (farmers and forest owners) in the Bioeconomy (BE) value chains and boosting the development of the Bioeconomy (BE) in rural areas"*, Luxembourg: Publication office of the European Union.

European Commission, 2019. *The Workshop on "The role of cooperatives and cooperation structures of primary producers for mainstreaming the Bioeconomy"* , Luxembourg: Publication Office of the European Commission.

European Commission, 2022. *EU Bioeconomy Strategy Progress Report*, Brussels: European Commission.

Fasolino, N. G., Zavalloni, M. & Viaggi, D., 2023. The role of collaboration and entrepreneurship in strengthening the participation of primary producers in the bioeconomy. In: C. Keswani, C. Possas, E. Koukios & D. Viaggi, eds. *Agricultural Bioeconomy: Innovation and Foresight in the Post-COVID Era*. Cambridge: Academic Press, pp. 231-244.

Fernane, S., 2021. *Asdee is first in Ireland to win Gold at International Facilitation Awards*. [Online] Available at: https://www.independent.ie/regionals/kerryman/news/asdee-is-first-in-ireland-to-win-gold-at-international-facilitation-awards-40983289.html [Accessed 19 December 2022].

Folkeson-Lillo, C., Paredes Diaz, I. & Hernando Calvo, M., 2019. *Study on the participation of the agricultural sector in the BBI JU: Business models, challenges and recommendations to enhance the impact on rural development*, Madrid: Bio-Based Industries Joint Undertaking (BBI-JU).

FormationAg, 2018. *Fiber Track 660 Hemp Decorticator*. [Online]
Available at: https://www.youtube.com/watch?app=desktop&v=XXgbNwsp7p4 [Accessed 27 May 2024].

Galanakis, C. M. et al., 2022. Bioeconomy and green recovery in a post-COVID-19 era. *Science of The Total Environment* , Volume 808, p. 152180.

Gawel, E., Pannicke, N. & Hagemann, N., 2019. A path transition towards a bioeconomy - The crucial role of sustainability. *Sustainability*, 11(11), pp. 1-23.

Giampietro, M., 2019. On the Circular Bioeconomy and Decoupling: Implications for Sustainable Growth. *Ecological Economics*, Volume 162, pp. 143-156.

Giupponi, L. et al., 2020. Overview on Italian hemp production chain, related productive and commercial activities and legislative framework. *Italian Journal of Agronomy*, 15(3), pp. 194-205.

Giurca, A. & Metz, T., 2018. A social network analysis of Germany's wood-based bioeconomy: Social capital and shared beliefs. *Environmental Innovation and Societal Transitions*, Volume 26, pp. 1-14.

Gordon, Y., 2022. *On the Blueway to Tipperary: nature and history on Ireland's new kayaking routes*. [Online]
Available at: https://www.theguardian.com/travel/2022/oct/26/on-the-blueway-to-tipperary-nature-and-history-on-irelands-new-kayaking-routes [Accessed 12 January 2024].

Goven, J. & Pavone, V., 2015. The Bioeconomy as Political Project: A Polanyian Analysis. *Science Technology and Human Values*, 40(3), pp. 302-337.

Government of Ireland, 2018. *National Policy Statement on the Bioeconomy*, Dublin: Government of Ireland.

Government of Ireland, 2019. *Bioeconomy Implementation Group: First Progress Report*, Dublin: Government of Ireland.

Government of Ireland, 2020. *Programme for Government: Our Shared Future*, Dublin: Government of Ireland.

Government of Ireland, 2021. *National Marine Planning Framework*, Dublin: Government of Ireland.

Government of Ireland, 2023. *Bioeconomy Action Plan 2023-2025*, Dublin: Government of Ireland.

Guo, M. & Song, W., 2019. The growing US bioeconomy: Drivers, development and constraints.. *New Biotechnology*, Volume 49, p. 49.

Hickey, D., 2015. *Kerry villagers on flooding alert ahead of high tides*. [Online]
Available at: https://www.irishexaminer.com/news/arid-20309099.html [Accessed 19 December 2022].

Hosford, P., 2022. *Retail sale of turf to be banned at end of October*. [Online]
Available at: https://www.irishexaminer.com/news/arid-40918538.html [Accessed 14 July 2022].

Hynes, S. et al., 2019. *A Survey of Domestic Coastal and Marine Tourism and Leisure Activity in Ireland*, Galway: National University of Ireland, Galway.

Issa, I., Delbrück, S. & Hamm, U., 2019. Bioeconomy from experts' perspectives – Results of a global expert survey. *PLoS ONE*, 14(5), pp. 1-23.

Johnson, T. G. & Altman, I., 2014. Rural development opportunities in the bioeconomy. *Biomass and Bioenergy*, Volume 63, pp. 341-344.

Jordan, D. & Wright, A., 2023. Starting the conversation for a town centre management framework for small towns in rural places: An Irish context. *Journal of Rural Studies*, Volume 97, pp. 395-404.

Kaur, G. & Kander, R., 2023. The Sustainability of Industrial Hemp: A Literature Review of Its Economic, Environmental, and Social Sustainability. *Sustainability*, 15(8), p. 6457.

Keating, D., 2019. *Suir Blueway creates new tourist potential for South Tipperary*. [Online]
Available at: https://www.munster-express.ie/business/suir-blueway-creates-new-tourist-potential-for-south-tipperary/ [Accessed 12 January 2024].

Kellokumpu, V., 2022. The bioeconomy, carbon sinks, and depoliticization in Finnish forest politics. *Environment and Planning E: Nature and Space*, 5(3), pp. 1164-1183.

Kelly, B., 2022. *Galway has one of the world's first accredited Blueways.* [Online]
Available at: https://www.galwaydaily.com/life-style/tourism/galway-has-one-of-the-worlds-first-accredited-blueways/ [Accessed 12 January 2024].

Kerry County Council, 2022. *Kerry County Development Plan*, Tralee: Kerry County Council.

Kircher, M., Breves, R., Taden, A. & Herzberg, D., 2018. How to capture the bioeconomy's industrial and regional potential through professional cluster management. *New biotechnology*, Volume 40, pp. 119-128.

Kleinschmit, D. et al., 2014. Shades of green: a social scientific view on bioeconomy in the forest sector. *Scandinavian Journal of Forest Research*, 29(4), pp. 402-410.

Leitrim Tourism, n.d. *Shannon Blueway*. [Online]
Available at: https://leitrimtourism.com/treasured-landscapes/shannon-blueway/ [Accessed 12 January 2024].

LIAISON, 2019. *Hemp Cooperative*. [Online]
Available at: https://liaison2020.eu/ambassadors/hempcooperative/ [Accessed 19 December 2022].

Mac Clay, P. & Sellare, J., 2022. *Value chain transformations in the transition to a sustainable bioeconomy*, Bonn: Centre for Development Research.

MacIntyre, T. O. G., Walkin, A. & Calogiuri, G., 2020. From tracks to trails. In: A. A. Donnelly & T. MacIntyre, eds. *Physical Activity in Natural Settings*. Abingdon-on-Thames: Routledge, pp. 193-209.

Malhotra, M. et al., 2022. Biorefinery of anaerobic digestate in a circular bioeconomy: Opportunities, challenges and perspectives. *Renewable and Sustainable Energy Reviews*, Volume 166, p. 112642.

Mark, T. et al., 2020. *Economic Viability of Industrial Hemp in the United States: A Review of State Pilot Programs*, Washington DC: United States Department of Agriculture.

McCarroll, C., 2017. *The Inland Waterways: A catalyst for the regeneration of Cities, Towns and Rural areas*, Enniskillen: Waterways Ireland.

Menconi, M. et al., 2023. Rural Slow Routes as Connectors of Local Communities for the Promotion of Place Identity. *Sustainability*, 15(4), p. 3344.

Mengal, P. et al., 2018. Bio-based Industries Joint Undertaking: The catalyst for sustainable bio-based economic growth in Europe. *New biotechnology*, Volume 40, pp. 31-39.

Meyer, R., 2017. Bioeconomy strategies: Contexts, visions, guiding implementation principles and resulting debates. *Sustainability* , 9(6).

Mulvey, K., 2020. *Just Transition Progress Report*, Dublin: Government of Ireland.

Murphy, F. & McDonnell, K., 2017. Investigation of the potential impact of the Paris Agreement on national mitigation policies and the risk of carbon leakage; an analysis of the Irish bioenergy industry. *Energy Policy*, 10(1), pp. 80-88.

MWP, 2021. *STRATEGIC FLOOD RISK ASSESSMENT: Kerry County Development Plan 2022 - 2028*, Tralee: MWP.

Nath, M., 2022. Benefits of cultivating industrial hemp (Cannabis sativa ssp. sativa)—A versatile plant for a sustainable future. *Chemistry Proceedings*, 10(1), p. 14.

Nolan, D., 2022. *Iconic Jesse James Tavern in Asdee reopens in a new guise*. [Online] Available at: https://www.independent.ie/regionals/kerry/news/iconic-jesse-james-tavern-in-asdee-reopens-in-a-new-guise/42040175.html [Accessed 22 January 2024].

Nolan, D., 2022. *Is the Shannon Estuary the answer to Ireland's energy uncertainty?*. [Online] Available at: https://www.independent.ie/regionals/kerryman/news/is-the-shannon-estuary-the-answer-to-irelands-energy-uncertainty-42213671.html [Accessed 19 December 2022].

O'Donoghue, P., 2022. *New wind farm plan to transform Shannon estuary and create 50,000 jobs.* [Online] Available at: https://www.businesspost.ie/news/new-wind-farm-plan-aims-to-transform-shannon-estuary-and-create-50000-jobs/ [Accessed 19 December 2022].

O'Raw, P., 2020. *Asdee Community Development Association: Socio-Economic Development Plan 2020-2025*, s.l.: s.n.

O'Sullivan, K. & Lucey, A., 2023. *Planning board refuses permission for €650m Shannon LNG terminal.* [Online] Available at: https://www.irishtimes.com/environment/2023/09/15/planning-board-refuses-permission-for-650m-shannon-lng-terminal/ [Accessed 8 January 2024].

Parvez, A., Lewis, J. & Afzal, M., 2021. Potential of industrial hemp (Cannabis sativa L.) for bioenergy production in Canada: Status, challenges and outlook. *Renewable and Sustainable Energy Reviews*, Volume 141, p. 110784.

Perišić, M. et al., 2022. The role of bioeconomy in the future energy scenario: a state-of-the-art review. *Sustainability*, 14(1), p. 560.

Pleissner, D., 2020. Chances and challenges of the biologization of the economy of rural areas. *Current Opinion in Green and Sustainable Chemistry*, Volume 23, p. 46–49.

Pobal, n.d. *Pobal HP Deprivation Indices*. [Online] Available at: https://data.pobal.ie/portal/apps/experiencebuilder/experience/?id=3b0acba7eb694ffa85340a60f81d516c [Accessed 4 January 2024].

Priefer, C., Jörissen, J. & Frör, O., 2017. Pathways to shape the bioeconomy. *Resources*, 6(1), pp. 1-23.

Priefer, C. & Meyer, R., 2019. One concept, many opinions: How scientists in Germany think about the concept of bioeconomy. *Sustainability*, 11(15), pp. 1-21.

Querelle, J., 2022. *Could Blueways start a new wave in sustainable tourism?*. [Online] Available at: https://heritagetribune.eu/ireland/could-blueways-start-a-new-wave-in-sustainable-tourism/#:~:text=Although%20Ireland%20might%20have%20the,municipalities%20across%20seven%20different%20counties. [Accessed 11 January 2024].

RadioKerry news, 2022. *Kerry climate activist accuses politicians of playing local people against national interest*. [Online] Available at: https://www.radiokerry.ie/news/kerry-climate-activist-accuses-politicians-of-playing-local-people-against-national-interest-291983 [Accessed 19 December 2022].

RadioKerry news, 2022. *Shannon Estuary on course to become international floating offshore wind energy hub*. [Online] Available at: https://www.radiokerry.ie/news/shannon-estuary-on-course-to-become-international-floating-offshore-wind-energy-hub-304117 [Accessed 19 December 2022].

Rinn, R., Kalábová, M. & Jarský, V., 2023. Bioeconomy-based tourism: A new concept responding to the support of bioeconomy. *Frontiers in Environmental Science*, Volume 11, p. 1122440.

Scarlat, N., Dallemand, J., Monforti-Ferrario, F. & Nita, V., 2015. The role of biomass and bioenergy in a future bioeconomy: Policies and facts. *Environmental development*, Volume 15, pp. 3-34.

Schmid, O., Padel, S. & Levidow, L., 2012. The bio-economy concept and knowledge base in a public goods and farmer perspective. *Bio-based and Applied Economics*, 1(1), pp. 47-63.

Schumacher, A., Pequito, S. & Pazour, J., 2020. Industrial hemp fiber: A sustainable and economical alternative to cotton. *Journal of Cleaner Production*, 268( ), p. 122180.

Shannon Estuary Economic Taskforce, 2022. *Shannon Estuary Economic Taskforce: Interim Report November 2022*, Dublin: Government of Ireland.

Sierociuk, L., 2022. *The Ulster Canal Regeneration Project: Reimagining the Central Border Region's Tourism Infrastructure*, Enniskillen: Irish Central Border Area Network.

Smith, G., LeTissier, M., O'Hagan, A. & Farrell, E., 2022. Policy coherence for climate change adaptation at the land-sea interface in Ireland. *Planning Practice & Research*, 37(2), pp. 173-188.

Sørensen, J. & Jørgensen, H., 2022. Rural development potential in the bioeconomy in developed countries: The case of biogas production in Denmark. *Sustainability*, 14(17), p. 11077.

Sport Ireland, n.d. *Frequently Asked Questions for Blueways*. [Online] Available at: https://www.sportireland.ie/outdoors/frequently-asked-questions-for-blueways [Accessed 29 May 2014].

Stern, T. et al., 2018. Understanding perceptions of the bioeconomy in Austria—An explorative case study. *Sustainability*, 10(11), p. 4142.

Strydom, A. J. & Mangope, D., 2019. A critique of the interface between tourism, sustainable development and sustainable tourism in community based tourism theory. *African Journal of Hospitality, Tourism and Leisure*, 8(5), pp. 1-12.

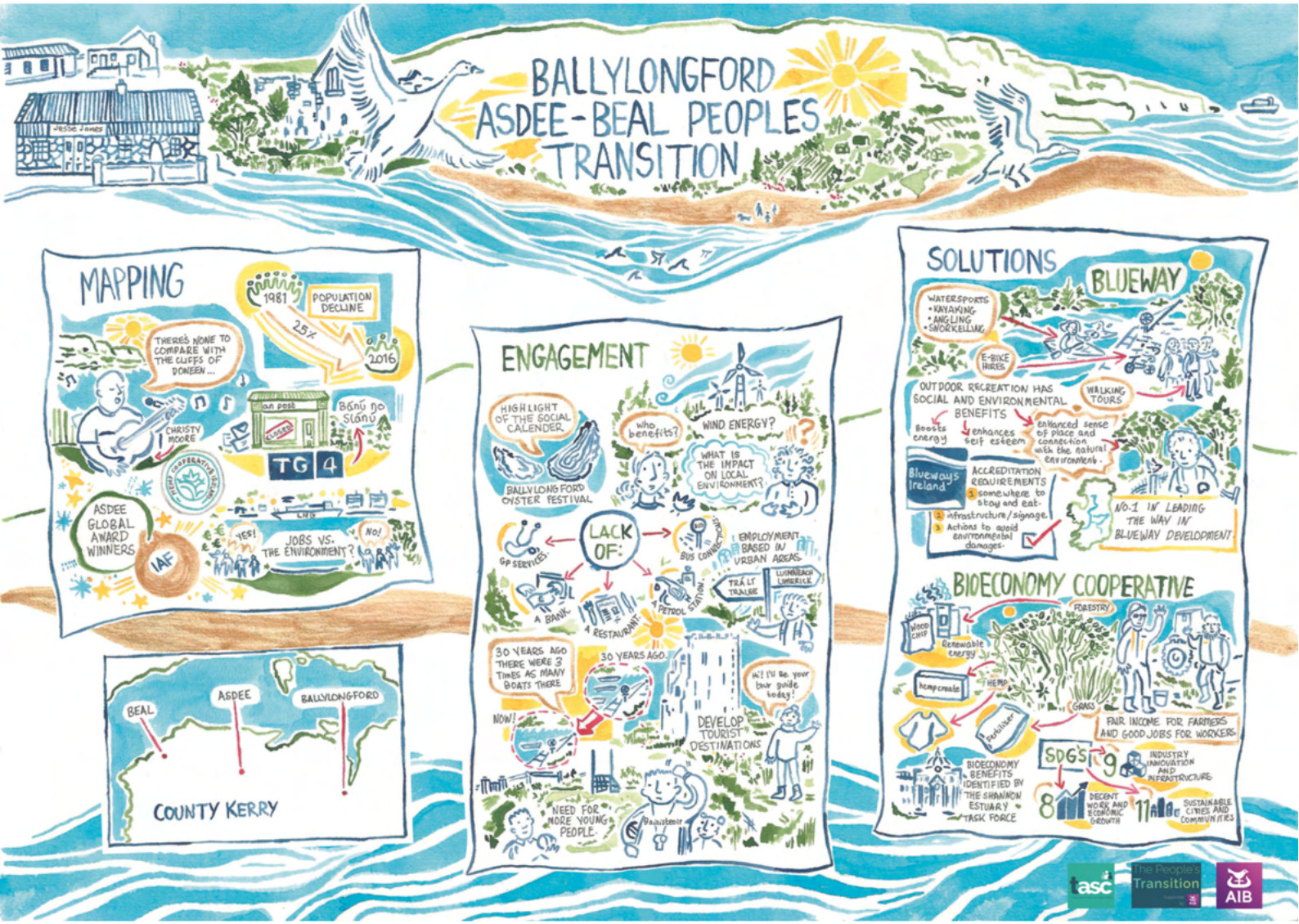
Talwar, N. & Holden, N. M., 2022. The limitations of bioeconomy LCA studies for understanding the transition to sustainable bioeconomy. *The International Journal of Life Cycle Assessment*, 27(5), pp. 680-703.

Tyndall, J. C., Berg, E. J. & Colletti, J. P., 2011. Corn stover as a biofuel feedstock in Iowa's bio-economy: An Iowa farmer survey. *Biomass and Bioenergy*, 35(4), pp. 1485-1495.

Vivien, F. et al., 2019. The Hijacking of the Bioeconomy. *Ecological Economics*, Volume 159, pp. 189-197.

Wohlfahrt, J. et al., 2019. Characteristics of bioeconomy systems and sustainability issues at the territorial scale. A review. *Journal of Cleaner Production*, Volume 232, pp. 898-909.

Yano, H. & Fu, W., 2023. Hemp: A sustainable plant with high industrial value in food processing. *Foods*, 12(3), p. 651.


BALLYLONGFORD ASDEE-BEAL PEOPLES TRANSITION
MAPPING
1981
POPULATION DECLINE
25%
2016
THERE'S NONE TO COMPARE WITH THE CLIFFS OF DOONEEN...
CHRISTY MOORE
an post
Bánú no Slánú
TG 4
ASDEE GLOBAL AWARD WINNERS
IAF
JOBS VS. THE ENVIRONMENT?
YES!
NO!
BEAL
ASDEE
BALLYLONGFORD
COUNTY KERRY
ENGAGEMENT
HIGHLIGHT OF THE SOCIAL CALENDER
BALLYLONGFORD OYSTER FESTIVAL
Who benefits?
WIND ENERGY?
WHAT IS THE IMPACT ON LOCAL ENVIRONMENT?
LACK OF:
GP SERVICES
A BANK
A RESTAURANT
PETROL STATION
BUS CONNECTIONS
EMPLOYMENT BASED IN URBAN AREAS
TRÁLÍ TRALEE
LUIMNEACH LIMERICK
30 YEARS AGO THERE WERE 3 TIMES AS MANY BOATS THERE
30 YEARS AGO
NOW!
Hi! I'll be your tour guide today!
DEVELOP TOURIST DESTINATIONS
NEED FOR MORE YOUNG PEOPLE
SOLUTIONS
BLUEWAY
WATERSPORTS
• KAYAKING
• ANGLING
• SNORKELLING
E-BIKE HIRES
WALKING TOURS
OUTDOOR RECREATION HAS SOCIAL AND ENVIRONMENTAL BENEFITS
Boosts energy
enhances self esteem
enhanced sense of place and connection with the natural environment
Blueways Ireland
ACCREDITATION REQUIREMENTS
somewhere to stay and eat
infrastructure/signage
Actions to avoid environmental damages
NO.1 IN LEADING THE WAY IN BLUEWAY DEVELOPMENT
BIOECONOMY COOPERATIVE
FORESTRY
Wood CHIP
Renewable energy
HEMP
hempcreate
GRASS
Fertiliser
FAIR INCOME FOR FARMERS AND GOOD JOBS FOR WORKERS
BIOECONOMY BENEFITS IDENTIFIED BY THE SHANNON ESTUARY TASK FORCE
SDG'S
9
INDUSTRY INNOVATION AND INFRASTRUCTURE
8
DECENT WORK AND ECONOMIC GROWTH
11
SUSTAINABLE CITIES AND COMMUNITIES
tasc
The People's Transition
AIB

The People's Transition

tasc

Supported by AIB

Rialtas na hÉireann
Government of Ireland

pobal
government supporting communities

TASC receives support under the Scheme to Support National Organisations (SSNO) which is funded by the Government of Ireland through the Department of Rural and Community Development.