

The contents of this report have been compiled by our project team with oversight from Fyne Futures board. The report sets out the genesis of the project, details of project delivery, what we learned along the way and what we achieved. With thanks to the Community of Isle of Bute for their continued support.

# Isle of Bute Closed Loop Food Chain Project – CCF 4076

## Final Project Report

Reeni Kennedy Boyle

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Who we are



# Futures Ltd

Our Community – Our Environment – Our Actions

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Figure 1 Fyne Futures Team

## Starting Point

### Background

Based on Isle of Bute and with a remit to delivery services across Argyll & Bute, Fyne Futures is a registered charity and established social enterprise. It is a subsidiary of Fyne Homes Ltd, a housing association with a focus on community regeneration and environmental sustainability.

Since 2005, Fyne Futures has been delivering a range of social and environmental benefits to Bute and beyond. Initially activities were concerned with recycling, which successfully secured funding from Scottish Government, Argyll & Island European Leader and Highlands & Islands Enterprise. The Company has continued to grow and evolve to ensure sustainability, grow our income and support our social and environmental objectives. We provide local employment, currently employing 20 people and supporting 10 volunteers.

- Recycling and Reuse activities: we diverted 251 tonnes of waste from landfill in 2015. We have contract in place with Argyll & Bute Council until March 2016 to provide kerbside and bring site collections services for Bute and Cowal; we have grown our commercial recycling collections and are progressing a business case to increase our capacity in the next financial year. We grew our Reuse activities collecting furniture, refurbishing and retailing back into the community and have one retail outlet and one large store. The business case includes extending reuse to include Waste Electrical and Electronic Equipment during 2015. It is from work connected to the business case that has informed this application to deal with CO2e emissions from food waste.



Figure 2 Domestic Recycling - pic by Ashley Coombes

- Low carbon living activities: Towards Zero Carbon Bute, established March 2009, after widespread community consultation with aims of demonstrating carbon reduction achievements whilst realising the benefits of a low carbon economy for the island. Towards Zero Carbon Bute aims to reduce carbon emissions through encouraging behaviour change on short journeys by increasing walking and cycling; and actively support energy saving in Bute's built heritage by supporting behaviour

change, installation of energy efficiency measures and where possible renewable energy technologies. TZCB successfully secured support from Keep Scotland Beautiful Climate Challenge Fund for this project, which was in place until March 2014 – CCF-2335. Previously CCF fund projects focused on Renewable Energy and Business energy efficiency CCF-1392; Active Travel for School Children CCF-1031; and CCF-200 which saw Bute's carbon foot print being measured, energy efficiency in homes, and a range of pilot projects including setting up Bute Produce.

Bute Community Power, a community benefit society, set up to own and manage renewable energy developments on Bute, is a direct legacy from consultation work undertaken in CCF-200 and feasibility studies completed during CCF-1392. This is a separate legal entity from Fyne Futures, with 101 members, which has gained CARES funding to progress a 2 X 250 kW wind project.

- Community services: Car Bute was established October 2011, as Scotland's first island based community car club, to challenge thinking on car ownership; provide innovative method for low income household to access off island services and amenities and generate an income for our charity. We operate three fuel efficient cars and have over 130 members including contracts with Argyll & Bute Council and a number of local businesses. This is a legacy enterprise from CCF-200 which trialled car sharing and undertook community consultation on the concept of car clubs.



Figure 3 Car Bute at Rhubodach

- Local Produce activities: Bute Produce, officially opened September 2009, as a healthy eating initiative with environmental aims of reducing food miles. The project was successful in gaining Argyll & Islands European Leader and Highland & Island Enterprise support, May 2011, to focus on developing our 6-acre site into to a market garden and delivering employability skills for long term unemployed and young people. Bute Produce now has a 'Veg Shack' on site as well as our Green Box Delivery Scheme and offering a bespoke box service. This project ended September 2013. We also own and manage 'Jenny' a 6kw wind turbine at the Site, which provides a small additional income stream.

During 2014, Bute Produce became an accredited training centre associated with Royal Botanic Gardens Edinburgh for practical horticulture, linked with Ryton Seed Library and hosted a seed saving workshop for 20 people, undertaken historical research into the importance of local produce to Bute’s culture and economy, and have successfully re-introduce Bute Heritage Potatoes as part of a Heritage Lottery Funded project. The remaining project will see us linking with the schools on the island, horticulture society and local farmers to have practical demonstrations of the heritage skills we have un-covered.

Bute Produce has also completed a pilot project in collaboration with Bute Advice Centre, which was to explore Grow Your Own as a possible solution food poverty and health & well-being issues. The work from this collaboration has helped in form this application, particularly around linking food, waste, climate and taking empowering actions.

## Project Description

There is an estimated 782 tonnes of green and food waste going to landfill each year. Around 520 tonnes of green and food waste is from householders, and we estimate that around 147 tonnes is diverted from landfill through home composting and feeding domestic livestock.

Green and Food Waste Source	Estimated Annual Tonnes
Hospitality and Retail Sector Food Waste	262
Household Food Waste	264
Garden Waste	256
Total	782

The vast majority of food is shipped onto the island, and all general refuse is transported off the island. Over 80% of householders currently deal with food waste through general refuse on Isle of Bute.

Domestic food waste contributes 1,004.94 tonnes CO<sub>2</sub>e to the island’s footprint. This is split 89% embodied emissions, created during production and transportation to Bute, and 11% when food waste is sent to landfill off island.

The proposed project would seek to reduce this during the project year in 2 ways:-

- Increase amount of fresh produce grown on the island, thereby reducing amount of produce brought on to the island, through Grow Your Own project
- Reduce amount reaching landfill through community composting and food waste collection pilot

The project would raise awareness of the link between our food supply chain and climate change for the island and in wider context; train up to 40 people in Grow Your Own focussed on container and small space growing; have 10 people receive accredited training in “Community Composting for Local Food Growing”; pilot a food waste collection service with up to 50 households; develop Bute Produce as a training hub for “Community Composting for Local Food Growing” and include development of a business plan for in-vessel composting operation based on empirical evidence.

We believe that the project could divert up to 15,600 kg of food and green waste from landfill and produce an extra 272kg of local grown food within the year. This would result in 4985.68 kg CO<sub>2</sub>e avoided. 976.48kg CO<sub>2</sub>e saved from embodied emissions; 4,009.2 kg CO<sub>2</sub>e from landfill emissions. With 858 kg CO<sub>2</sub>e created from composting food waste, over all saving of 4127.68 kg CO<sub>2</sub>e. It is

expected that alongside the environmental benefits, there will be economic benefits to household food bills and sustainability of Fyne Futures, and there will be social benefits related to learning and development as well as health and well-being.

## Our Community

The project community is the Isle of Bute. This island has circa 6,500 residents – around 60% reside in the main town of Rothesay, whilst the remaining 40% reside in the village of Ardbeg, remote rural villages Port Bannatyne, Kilchattan Bay or remote rural settlements on West Coast of the island and farmsteads. There are clear boundaries to be drawn round the community on Bute and its associated carbon emissions given its island location. The principal carbon emissions on the island are identified as energy use – both by business/organisations and by households, transport to and on the island, and waste management.

Fyne Futures, supported by Zero Waste Scotland, have carried out scoping exercise to identify current waste and resource efficiency practices, issues and approaches on Isle of Bute and Campbelltown. The focus of the exercise was to consider how social, environmental and economic benefits could be increased through improved resource efficiency with particular focus on waste management. During the scoping exercise a number of consultation methods were employed to understand the needs of the local community. These included interviews, service provider focus group, and householder survey. The scoping exercise led to publication of a Zero Waste Business Case which identified a number of projects that would lead to Zero Waste Towns. Key findings, from our consultation, which have informed the development of this project were that 80% of households put food waste into general refuse; 66% of households do not own a compost bin. 38% of respondents stated they didn't have a garden with a further 24% saying they had nowhere to use the compost. Fyne Futures in collaboration with Bute Advice have also undertaken a pilot Grow Your Own project, following community consultation regarding food poverty. The evaluation of the pilot demonstrated there were benefits in enabling people to access skills and knowledge development in horticulture. It is on the basis of this body of work that the current project is proposed. It is anticipated that a steering group will support implementation of the project, and that the community groups involved in the development of the project will continue to be involved should funding be realised.



Figure 4 Food Waste Collection Van

## Outcomes Sought

### Co2e Outcomes

- 4985.68 kg CO2e avoided
- 976.48kg CO2e from embodied emissions from reduced food supply chain
- 4,009.2 kg CO2e from landfill emissions from waste diverted to composting
- With 858 kg CO2e created from composting food waste
- 4127.68 kg CO2e in total saved

### Environmental Outcomes

- Increased awareness of local food production and waste as a resource contribution to a low carbon future
- New access to community growing space and enabling growing in small spaces
- New community composting space

### Economic Outcomes

- Up to 50 people will understand cost of food waste for their household and adjust buying, storage and cooking behaviours accordingly
- Up to 40 people will benefit from knowledge and skills development of horticulture, reducing their reliance on shop bought fresh produce
- Improved sustainability of Fyne Futures through development of composting training hub and potentially in-vessel composting facility

### Social Outcomes

- People will have increased their knowledge and skills of horticulture and composting
- People will have increased mental and physical health through participation in horticulture
- People will have enriched relationships through participation in communal growing



Figure 5 Green Box Ready for Delivery



## Headline Achievements

6776.71 kg CO<sub>2</sub>e Saved!

11,357.9 kg of food waste  
diverted

25,435.5 kg of bio-degradable waste  
converted to compost

**OVER 460 PEOPLE ACTIVELY  
ENGAGED IN GROWING  
FOOD, DIVERTING WASTE,  
CREATING A VALUABLE  
RESOURCE**

## Outputs

### Month by Month

April – Project inception meeting and internal launch to Board, staff, work-based trainees and volunteers. The project was launched externally using a variety of media. Presented at a variety of local network meetings: - Bute Health & Wellbeing Network; 16 + Employment & Training Group; and Drugs & Alcohol Forum. Work began in mapping out the access and egress from the site; booking in and weighing station; and composting area.

May – Further infrastructure work which was hampered by weather. Work on internal raised beds to support Grow Your Own Workshops. Working with Argyll & Bute Council to secure food waste collection kit (benefit in kind) and address issues of access/egress to site (still work in progress). Kibble site visit to our site to assess our rocket composter as a usable piece of kit, some knowledge exchange on composting and horticulture. Several skype calls with Community Composting Network regarding the training package. As legislation in Scotland is different from England & Wales, and is changing, the certificated course that was available needs to be re-written. It is likely that a new Scotland specific course will be developed through this project which we will then seek to be accredited. Promotion of Grow Your Own workshops for start in June.

June –

- Some ground preparation in readiness for new community growing space
- Start of Grow Your Own Workshops
- Project planning for Food Waste Collection pilot;
- Procurement of materials and weighing equipment to support composting area
- Booking in shed built
- Turning circle cleared
- Recycling Week promotion – focussed on food chain messages



Figure 6 Ground Preparation

July - Very busy month, full of activities and achievement.

2<sup>nd</sup> round of Grow Your Own workshops got underway. July was quieter than June, as a result of holidays however we already have bookings for August in take.

Food waste collection service and composting became operational. Great response from the community with 47 participants signed up. We are now diverting food waste from landfill. Zero Waste Scotland gifted us Love Food Hate Waste materials to support the messages and we have had good feedback from participants.

Fyne Homes are working with us to support vulnerable tenants, who will receive Green Boxes from the garden.

HELP project, which support homeless young people on Bute and across Cowal, have connected with us. They will identify clients to bring to the garden during August.

Community Composting Network training.

Coverage in local media of the project has been good, and online activity is attracting more people to follow the project.

August - Food waste collection – we started with 47 participants, this grew to 56 participants for first few collections. There has been 5 stopped presenting. We currently have 51 participants and a further 5 on Expression of Interest list. Our plan is to maintain the number around 50 for the duration of the project.

Presentation rate per week is averaging at 68.6%. Great to be able to start reporting tonnage diverted from landfill with subsequent impact on emissions. The numbers are very promising. We are tracking weekly presentation rates to add to the evaluation.

The signage has prompted phone calls to the office, so we now have an expression of interest list for the food waste collection service. There have been a couple of drop offs, so we have replaced these from the list of interested people. This will allow us to maintain the pilot number of 50 households.

The raised beds are now available for communal growing. We have 5 people confirmed who have responded to low key marketing. Next step is to raise the level of awareness. Work and knowledge exchange is starting on the soil and organic seed harvesting in anticipation of crops being sowed.

Composting area is now fully operational. The first batches of green waste to compost are in place and we expect to have first results in 12 weeks. The food waste rocket composter has been operational for a number of weeks during which there are have challenges to overcome however we are producing compost.



Figure 7 New Bucket to aid composting

Holiday time has seen a drop off on Grow Your Own Workshops however we have a couple of more volunteers joined the garden. Discussions have been opened with Rothesay Academy with the newly appointed head teacher so we are hopefully about developing the relationship following pupil participation in June workshops.

Knowledge exchange visits to Tipperth, Collinton and Royal Botanic Gardens Edinburgh were brilliant. Aside from Bute Produce personnel and me, we were accompanied by Head Gardener at Argyll & Bute

Council owned Ardenraig Garden. Full day of knowledge exchange on horticulture, lots of learning about green waste composting, and good exchange with RBGE about community engagement and edible gardens.

September - Tender for in-vessel composting feasibility and business plan – tender was launched 28<sup>th</sup> August 2015 with a deadline of 7<sup>th</sup> October 2015 for submissions. 8029 alerts were sent from Public Contract Scotland website. There were 12 expressions of interest during 1<sup>st</sup> week of posting. 2 parties had withdrawn by end of September.

No submission were received on closing date, this is an issue which needs to be addressed. Review of the tender process is underway and feedback is being sought from those who expressed an interest but did not make any submission. I am taking advice from Alison McKinnie, Project Manager Organics, and Zero Waste Scotland.

Recording of harvested weight is a new process for us; our first attempts during September have not been very successful. Consultation with the team will happen so that we can establish better methodology.



Figure 8 Knowledge Exchange with RBGE

October - Green waste in-take – word of mouth has spread and we are receiving enquiries from commercial gardeners about composting centre. This is great and will help us begin to move towards legacy of the project. We are working on what a reasonable gate fee would be and the do's and don'ts list for green waste in-take.

We have diverted 12,182.5 kg of bio-degradable waste from landfill with this project, resulting in 2,460.87 kg CO<sub>2</sub>e of carbon savings. See Collection Input Data v0.1 – attached.

All 13 raised beds have been taken, with a total of 15 people agreeing to work together in this area. A couple are sharing beds with others. The beds are fully ready, and work has already started on putting crops into place. Seed saving course is planned for October which will be open to trainees, volunteers, community growers and wider community. A more formal welcome event will be planned.

Composting area is fully operational. Steady supply of dry wood chips has been problematic; we have overcome that by making a bulk purchase from a nearby but off island supplier. To ensure this is not an

ongoing issue, we have sourced green wood, a wood chipper and had 2 people trained on safe use of the chipper. The wood chipper is from a previous CCF funded project Colintrave & Glendaruel Trust.



Figure 9 Bute Produce Trainees

November - We have diverted 18,111 kg of bio-degradable waste from landfill with this project, resulting in 3,643 kg CO<sub>2</sub>e of carbon savings. See Collection Input Data v0.1 – attached. Over 7 tonnes of food waste over the course of 5 months.

The household food waste collection service is performing well, with an average 32 households each week representing a presentation rate of 62.74%, average 78.47 kg of food waste from each weekly collection. That works out at 2.45kg of food waste per house pre week. The weekly collection volume is fairly static, after some investigation we have reached the conclusion that the reasons for this reflect the type of food waste which is peelings, egg shells, tea bags and coffee granules. For the final quarter of the project, we are going to take all food waste including plate scrapings. This will give us more data on food waste behaviour.

Business planning is underway to begin development of a longer term food waste collection system and composting solution which would mean that we could extend the service to the whole island. We are in talks with Argyll & Bute Council about this.

Our horticulturists have completed Train the Trainer for Master Composting, and a date for running the first workshop is proposed for February 2016. On successful completion of the first workshop, we will be an accredited site and able to offer Master Composting training to other community gardens, food projects and Councils.

We are increasing the number of people benefiting from the project. Currently there are 2 core staff, 7 work-based training placements, 5 volunteers and 15 members of the community engaged in gaining experience in food horticulture. In January a further 3 people will be offered work-based training opportunities.

Royal Botanic Garden of Edinburgh Certificate in Practical Horticulture is underway; Community Growers event is planned for January; Master Composting training is planned for February; and further Grow Your Own workshop will be advertised in the New Year for delivery in March.

Overall the project is progressing well.

December - We have diverted 19,323.5 kg of bio-degradable waste from landfill with this project, resulting in 3,903 kg CO<sub>2</sub>e of carbon savings. See Collection Input Data v0.1 – attached. Over 8 tonnes of food waste over the course of 6 months.

The household food waste collection service is performing well, however we have dropped some people from the pilot who had not presented for more than 8 weeks. The expression of interest list was into double figures, so have swapped people out for new participants. Presentation rates are on average above 65% per week, which is excellent. There has also been a slight decline in the volume presented which suggests people are becoming more conscious of the amount of waste they are creating. We will know more about this when we undertake the qualitative analysis.

Business planning is just about complete, with a first draft received and follow up amendments submitted.

Overall the project is progressing well, however December has been challenging due to weather conditions. A potential additional need is to create more under cover growing space.



**Figure 10** Fixing the storm torn poly

January & February - We have diverted 21,282 kg of bio-degradable waste from landfill with this project, resulting in 4,298.96 kg CO<sub>2</sub>e of carbon savings. See Collection Input Data v0.1 – attached. Almost 10 tonnes of food waste over the course of 8 months from an average of 50 participating households and 1 hotel.

Following review of the food waste collection service, we removed people who weren't participating and replaced from the expression of interest list. Weekly participation has increased from 65% presenting to 69%, which is good. We have sent out questionnaires to all participants to begin the process of gathering qualitative data for our end of project evaluation. We continue to receive enquiries about extending the pilot beyond the finish line.

Business planning is complete and has been presented to Fyne Futures board, who have given go ahead for next phase of development work. This will focus on understanding skills required, identify potential

capital funding to realise the plan and dialogue with Argyll & Bute Council, Highlands & Islands Enterprise and Zero Waste Scotland.

Overall the project is progressing well, and work connected to ensuring the project has a strong legacy is well underway.

March – We started the process of collating data and evaluating the project, whilst continuing with final collection service. Planning for year ahead was completed some weeks ago which included a new project for the garden. A working wood! The trees arrived a little earlier than expected so we finished the project year off with a great big community tree planting week.



Figure 11 Volunteers

## Output Grid

<b>Output Grid</b>	
Training Session	42 separate training sessions
Events	4
Qualifications <ul style="list-style-type: none"> <li>• Royal Botanic Garden Edinburgh Accredited - Certificate in Practical Horticulture</li> <li>• Community Composting Network Accredited – Certificate in Composting</li> <li>• LANTRA ITA Brushwood Chipper Course</li> <li>• Organic Garden Accredited – Master Composter</li> <li>• Organic Garden Accredited – Master Composter Trainer Certificate</li> </ul>	<ul style="list-style-type: none"> <li>• 6</li> <li>• 7</li> <li>• 2</li> <li>• 10</li> <li>• 2</li> </ul>
Employed	11.8 FTE 3 core staff – received CCF support direct as % of total costs 13 funded placements – supported through employability funds
Long-term jobs	2 FTE
People Actively Involved	Over 460 people
Volunteers	40 volunteers 13 volunteers engaged in horticulture and composting work at Bute Produce during the project 15 volunteers engaged in community growing area 12 volunteer board members
Schools	2 playgroups 3 primary school 1 secondary school
Community Growing Space created	108.68 sq m of raised beds
Tonnes of bio-degradable waste diverted from landfill	25.8 tonnes



## Outcomes

### What we hoped to achieve

#### Co2e Outcomes

- 4985.68 kg CO2e avoided
- 4,009.2 kg CO2e from landfill emissions from waste diverted to composting
- With 858 kg CO2e created from composting food waste
- 976.48kg CO2e from embodied emissions from reduced food supply chain
- 4127.68 kg CO2e in total saved

#### Environmental Outcomes

- Increased awareness of local food production and waste as a resource contribution to a low carbon future
- New access to community growing space and enabling growing in small spaces
- New community composting space

#### Economic Outcomes

- Up to 50 people will understand cost of food waste for their household and adjust buying, storage and cooking behaviours accordingly
- Up to 40 people will benefit from knowledge and skills development of horticulture, reducing their reliance on shop bought fresh produce
- Improved sustainability of Fyne Futures through development of composting training hub and potentially in-vessel composting facility

#### Social Outcomes

- People will have increased their knowledge and skills of horticulture and composting
- People will have increased mental and physical health through participation in horticulture
- People will have enriched relationships through participation in communal growing

### What we achieved

#### Co2e Outcomes - Exceeded

- 5137.97 kg CO2e avoided
- 1638.74 kg CO2e from embodied emissions from reduced food supply chain
- 6536.92 kg CO2e from landfill emissions from waste diverted to composting
- With 1398.95 kg CO2e created from composting bio-degradable waste
- 6776.71 kg CO2e in total saved

Reduction in embedded emissions was achieved by growing and selling 456.44 kgs of fresh vegetables which displace supermarket bought produce.

Landfill emissions were reduced by composting 25,435.5 kgs of bio-degradable waste!

- 11,357.8 kgs of food waste
- 14,077.7 kgs of green waste

### *Check out our video*

<https://youtu.be/6s9ynoUOATs>

## **Environmental Outcomes – Met**

### *Increased awareness of local food production and waste as a resource*

Raising awareness through social media:

- from 842 followers across our 3 facebook pages to 1068 followers at end of project – an increase of 226 people checking out our carbon busting pages: Towards Zero Carbon Bute, Bute Produce and Bute Reduce Reuse Recycle
- from 176 followers on Twitter to 268 followers at end of project – an increase of 92 people @tzcb
- 123 view of Bute 360 Food Chain video on YouTube

Raising awareness through main stream media:

- 2 radio shows
- 6 Buteman articles
- 4 Fyne Homes newsletters

Raising awareness through events & talks

- Project launch at garden with tours
- Presentations to:
  - Bute Health & Wellbeing Network
  - Bute 16+ Employment & Training Group
  - Rothesay Joint Campus Skills for Work staff
  - Zero Waste Bute launch event
  - Environmental, Infrastructure & Development Committee Argyll & Bute Council
  - Volunteer Group meeting Zero Waste Scotland

### *New access to community growing space and enabling growing in small spaces*

- 13 raised beds
- 1 shed
- Learning library
- 17 separate learning opportunities on Grow Your Own Workshop – specifically designed for container growing



**Figure 12 New Community Growing Space**

### *New community composting space*

- Food waste in-vessel composting shed x 1
- Green waste composting bays x 4
- Wood chip drying shed x 1
- Compost maturation bay x 10



Figure 13 Trainees on Master Composter

### **Economic Outcomes – Met**

*Up to 50 people will understand cost of food waste for their household and adjust buying, storage and cooking behaviours accordingly*

- 62 people participated in food waste collection pilot during the period
- A further 4 were on waiting list to replace any drop offs

At the end of the food waste collection pilot we conducted a survey. In response to:

Q8. Did the amount of food waste produced reduce during the trial?

Answer Choices	Responses
Yes	28.13%
No	65.63%
Don't know	6.25%

Comments included:

*“My waste was all food peelings & flowers”*

*“As the pilot only covered peelings, egg shells, tea bags and coffee granules, I didn’t notice any change”*

*“Would have liked to use bin for all types of food not just vegetables”*

However, in response to:

Q9. Did you make any of the following changes to reduce the amount of food waste?

Answer Choices	Responses
Buy only what is needed	42.86%
Buying less	21.43%
Reduced portion sizes	10.71%
Plan meals better	39.29%
Use up leftovers	42.86%
More aware of sell by date	17.86%
Shop more frequently	25.00%
Home cook meals	32.14%
Store food better	14.29%

Comments included:

*“During the trial, I signed up for green box delivery, so food waste increased with veggie peelings but rubbish decreased of food packaging”*

***Up to 40 people will benefit from knowledge and skills development of horticulture, reducing their reliance on shop bought fresh produce***

We delivered 26 separate learning opportunities connected to developing knowledge and skills of horticulture.

Grow Your Own was aimed specifically for people with limited space for growing and was open to children and adults. 17 X 2 hour workshop was run from June 2015 to March 2016.

There were 47 registered participants. 36 under age 25 and 11 aged between 25 – 64. Male/female split of 57%/43%

Certificate in Practical Horticulture was delivered to 7 delegates. We delivered a total 9 full days of horticultural training.

15 community growers were supported with setting up raised beds, and access to a learning library of gardening and horticulture books.

### *Improved sustainability of Fyne Futures through development of composting training hub and potentially in-vessel composting facility*

Fyne Futures personnel have gained new knowledge and skills in composting, and achieved Trainer status for Master Composter training. We will take this forward and offer composting training courses to our community and the wider market of community gardens and local authorities. This will add a new income stream to Bute Produce.

With the new green composting bay, we have already secured a gate fee contract with one commercial gardener. This contractor services public spaces such as NHS and Historic Scotland properties. They normally take the green waste back off island to an amenity site in Ayrshire where it is used for landfill topping. A gate fee proposal has been put to local social housing association who took part in the trial, we are awaiting response. We hope to build on this over the coming year.

The completion of a business plan to roll food waste collection service out across the island with an on island in-vessel composting facility will be presented to Argyll & Bute Council, Shanks and Zero Waste Scotland. We hope to gain support to make this happen well ahead of 2021 landfill ban of bio-degradable materials.

#### **Social Outcomes - met**

#### *People will have increased their knowledge and skills of horticulture and composting*



Figure 14 Grow Your Own Workshop

*People will have increased mental and physical health through participation in horticulture*



Figure 15 Composting to Grow Local Food

*People will have enriched relationships through participation in communal growing*



Figure 16 Tree Planting



Figure 17 Worms beneath our feet



Figure 18 Joy of Growing

## Learning & Reflection

We encountered some barriers to delivering some outputs in a timely manner. There were some activities that didn't just go to plan. However, none of these resulted in major project changes or prevented achievement of the outcomes that we sought.

- The extreme wet weather Spring 2015 delayed setting up of composting area
- Pending legislative change connected to food waste and composting impacted on the content of training
- Community composting network trainers availability delayed booking of training
- Availability of Kibble personnel and internal holidays delayed knowledge exchange trip

We worked with Argyll & Bute Council to address the issue of needing further drainage work and strengthen on section of access track to composting area. In the meantime, we created a turning circle to allow operations to start.

Community Composting Network Trainers re-write the course, with legislative sections that can be adjusted following any forthcoming changes once they are known.

The composting training was excellent and combined with knowledge exchange trips greatly aided set up and operations for that part of the project. Ronnie and the team worked through challenges that arose as a result of the mix of food waste and wood chips to produce quality compost.

Partnership with Community Composting Network was less successful. They decided not to progress with the Train the Trainer part of the project and are unwilling to sell us the licence to deliver the course on Bute. We needed to source alternative to ensure we achieve this output and get the outcome needed. Organic Garden does a Master Composting course and we were further delayed as we waited on quotes and availability.

Garden Organic confirmed they were able to offer us Master Composter Training and Programme, unfortunately it was over the allocated budget. We worked on sourcing the additional funding to take advantage of the training available. Training was scheduled for 16<sup>th</sup> to 20<sup>th</sup> October 2015.

The Master Composter Programme sounded very comprehensive and more robust than Community Composting Network course. This added greatly to the CCF project and will be very beneficial for the legacy outcomes sought.

Operation of the food waste rocket composter continued to be a very big learning curve. We weren't able to source a steady supply of dry wood chips, which is an essential ingredient, so we are talked to Colintrave and Glendaruel Development Trust. CGDT were previously funded by CCF, and bought a wood chipper. We were able to access the equipment to support our project, and this presented a new learning opportunity which we took advantage of.

Tender for in-vessel composting feasibility and business plan – tender was launched 28<sup>th</sup> August 2015 with a deadline of 7<sup>th</sup> October 2015 for submissions. 8029 alerts were sent from Public Contract Scotland website. There were 12 expressions of interest during 1<sup>st</sup> week of posting. 2 parties had withdrawn by end of September.

No submission were received on closing date, this was an issue which needed to be addressed urgently. Review of the tender process was conducted with feedback gained from those who expressed an interest but did not make any submission. Advice was gained from Alison McKinnie, Project Manager Organics, and Zero Waste Scotland.

Following on from this we were able to secure the services of Enscape, which proved to be a very useful relationship.

Recording of harvested weight was a new process for us, our first attempts during September were not successful. Consultation with the team took place and we established better methodology. However, we should have started this process earlier on in the project, as much of the summer harvest was not



captured. We would have been able to evidence a far greater yield of produce, with subsequent impact on reduction of embodied emissions. We know we achieved more, we just can't evidence it! Lesson learned.

The food waste collection pilot end survey caused some confusion for the folk that returned. We should have made it clearer that some questions related to all their food waste and not just what we were collecting. We could have undertaken a bit of testing of the questions before issuing the survey. We will build this into the next survey we undertake.

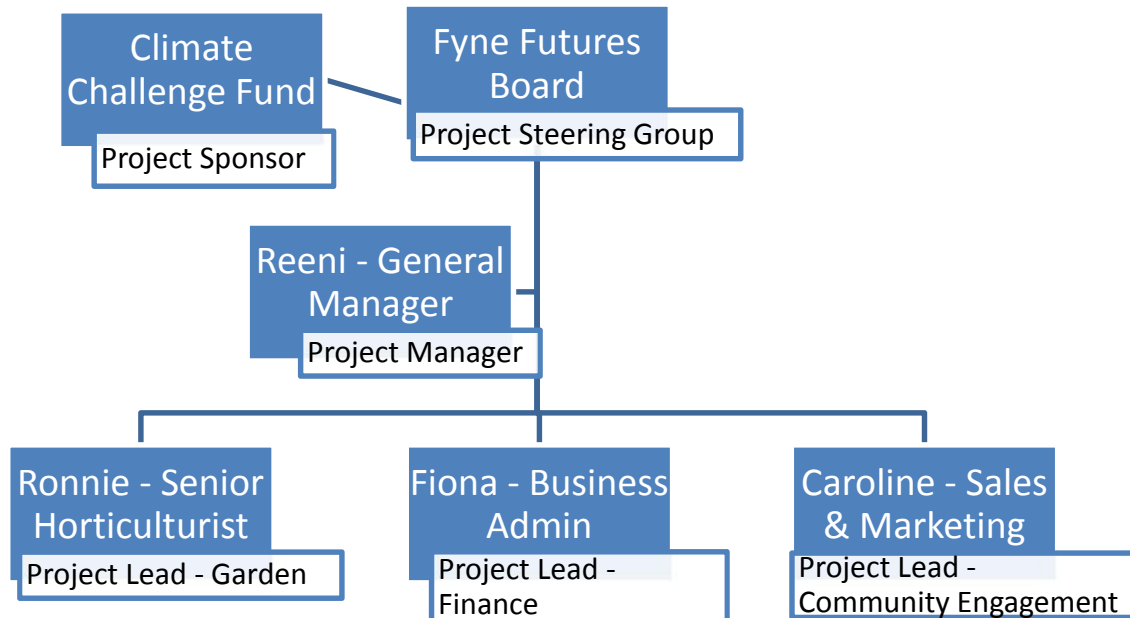
Overall, we are very pleased with delivery of the project from project development to implementation. The team worked very well internally and we received very positive feedback from partners.



Figure 19 Garden Organic

## Finance & Administration

### Project Management



We apply strong project management principles within Fyne Futures. By having a focused, disciplined methodology, we hope to mitigate any risks and quickly deal with issues as they arise. Ensuring that the project team have clarity about their roles and responsibilities, is key, along with clear understanding how they link together. Of course, the “best laid plans...” when this happens we apply PDCA - a methodology that aids continuous learning and improvement.

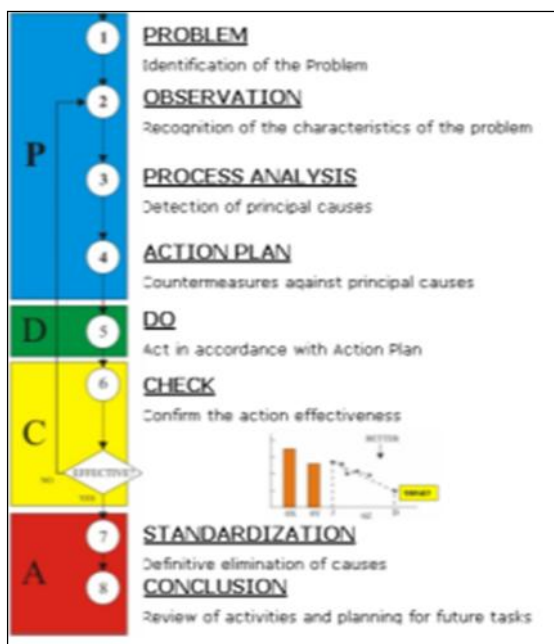


Figure 20 Problem solving technique

Although we encountered a few issues, set out in learning and reflection section, there were no major issues that resulted in re-profile requests or prevented outcomes from being achieved, although there was some impact on the overall project cash flow and budget.

## Building Capability and Capacity

The project enabled our team to work across-functions, and gain greater understanding into each other's respective roles. There was an emphasis within the project plan on knowledge exchange with other organisations engaged in similar activities. We visited four organisations:

- Kibble, Paisley – objective of visit: to understand rocket food waste composter operation and understand process
- Anniesland College Kitchen Garden, Glasgow – objective of visit: to understand rocket food waste composter operation and link to training
- Tippereth, Collington – objective of visit: to understand green waste composting operation and process
- Royal Botanic Garden Edinburgh – objective of visit: to understand set up of edible garden and learning & development methodologies

Of course, we gained much more from each visit. Dialogues ranged from sustainability and funding to community engagement and training.

The project has increased the depth and breadth of horticultural knowledge and skills. We can now move confidently forward in the field of composting, which proved to be much more of a science than we anticipated. This has completed the 360 loop of food supply chain, and Bute Produce is able to demonstrate that completely within our site.



## Financial Management

Climate Challenge Fund Award was for £37,150. We applied a full costs recovery method to budget headings that would be considered core costs. We established who within the team would be involved in the project, this was then split into:

- Those whose role would be little impacted by the project and were able to support
- Those who would have added responsibilities as a result of the project

For those with added responsibilities we evaluated how much staff time would be needed to deliver a successful project and applied that % to costs. The other budget headings were specific to this project. Using this method we could be very clear on what expenditure related to the project and what was connected to normal enterprise activities.

The project had its own cash flow project for the year and separate finance monitor. We were then able to track performance to plan. We fully utilised the award.

	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	TOTAL
Budget	£1,925.00	£3,425.00	£6,162.50	£4,875.00	£1,875.00	£6,962.50	£1,625.00	£1,625.00	£2,712.50	£1,625.00	£1,625.00	£2,712.50	£37,150.00
Actual	£1,623.29	£1,976.99	£2,873.85	£4,675.31	£4,199.80	£3,083.95	£3,664.42	£2,488.77	£2,465.92	£5,871.04	£2,394.47	£1,832.19	£37,150.00
Monthly Variation	£301.71	£1,448.01	£3,288.65	£199.69	£2,324.80	£3,878.55	£2,039.42	£863.77	£246.58	£4,246.04	£769.47	£880.31	£0.00
Cummulative Variation	£301.71	£1,749.72	£5,038.37	£5,238.06	£2,913.26	£6,791.81	£4,752.39	£3,888.62	£4,135.20	£110.84	£880.31	£0.00	

There were some minor challenges throughout the year and 2 major concerns:

- Composter Train the Trainer
- Feasibility and Business Planning for In-vessel Composting

Composter Train the Trainer – we needed to secure a replacement supplier. The solution cost more than the CCF budget allowed. This meant that we had to secure additional funding which included using own funds. The overspend amounted to £4,839.47. However, this was an extremely important part of the learning outcomes and offered a strong legacy for the project and it was felt worth the investment. There was an impact on the project cash flow due to delay in securing the replacement supplier.

Feasibility and Business Planning for In-vessel Composting – using Public Contracts Scotland for tender process failed to net a suitable consultant. The impact on cash flow was that we carried an underspend from September 2015 to January 2016. The “use or lose it” penalty weighed heavily with us, as we tackled the issue.

There was an additional overspend of £592 which related to staff costs, however this came from a board decision to increase salaries from October 2015 by 1%, and introduction of auto-enrolment of pensions from January 2016. These additional costs were bore by Fyne Futures, rightly so.

In conclusion, this project was a very welcome investment in Fyne Futures that delivered a project which fitted exactly with our charitable aims connected to the environment and people. Bute Produce can be viewed as a successful enterprise in terms of environmental sustainability and social outcomes. However, through this project Bute Produce is in a better place to achieve financial sustainability as a result of the capability and capacity building activities.

## Supporting Information

Throughout the project year we have supplied supporting information and evidence of delivery. Included with this report:

### Qualitative evidence

- Photos taken throughout the year, which can be viewed at [https://www.facebook.com/ButeProduce/photos\\_stream?tab=photos\\_albums](https://www.facebook.com/ButeProduce/photos_stream?tab=photos_albums)
- Video diary, which can be viewed at [https://www.youtube.com/channel/UC6hYybx-qtF0\\_xfL6ScyjiQ](https://www.youtube.com/channel/UC6hYybx-qtF0_xfL6ScyjiQ)
- Social media statistics
  - Appendix 1 – contains statistics for March 2016
- Food Waste Participants End Survey
  - Appendix 2
- External Organisations PR
  - Appendix 3

### Quantitative evidence

- 360 Food Chain Participants v0.3 – Appendix 4  

An excel workbook for analysis of participants and participation - with register of participants; record of presentation of food waste for collection; time and mileage record of collection service; expressions of interest received after initial launch; % presentation rates graph; participation graph; and summary data
- Collection Input Data v0.1 – Appendix 5  

An excel workbook for analysis of materials collected, recovery methods and carbon impact – with base collection data; monthly summary of recovery method graph; monthly summary by recovery data; collection date summary data; carbon counter. The workbook also contains more in depth data from a sample of 10% of participating households.
- Bute Produce Harvest Data v0.1 – Appendix 6  

An excel workbook for capturing weight of produce harvested from the garden
- Workshops and Events v0.1 – Appendix 7  

An excel workbook for capturing participation numbers attending learning workshops and events
- 360 Project Finance Monitor – Appendix 8  

An excel workbook for to monitor financial management of the project; progress against cash flow and claim information.