

**Can the motivations of environmental volunteers from  
a successful marine conservation organisation be  
explained by existing models of research?**



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## **Abstract**

On the Isle of Arran in Scotland, the Community of Arran Seabed Trust (COAST), a marine conservation organisation, has succeeded in driving the Government to designate a No Take Zone and Marine Protected Area. The organisation and its success depend largely on the input from its volunteers who are fuelled by their motivation. The existing literature has described environmental volunteer motivations and subsequent pro-environmental behaviour spillover. Interviews were carried out with COAST's volunteers in order to determine their motivations for participating with the organisation. Their motivations were compared to those described in the literature in order to understand which motivations may have led to the success of COAST. Self-transcendent motivations were found to be more common among COAST volunteers. While over half of the volunteers' motivations matched up to those described in the literature, an admiration for the founders of the organisation, as well as for the organisation itself were identified as motivations specifically connected to COAST volunteers, and perhaps therefore to the success of COAST. A high level of community support, due to COAST's involvement of the community in their work, was also described. This perhaps motivated volunteers further. Pro-environmental behaviour spillover was identified as having occurred in most of the volunteers while two volunteers which had not noticed any pro-environmental behaviour change had been motivated to join COAST by friend or family members. This suggests that perhaps personal motivation for the preservation of the environment must exist for pro-environmental behaviour spillover to occur.

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## **Chapter 1: Introduction**

This introduction will outline what prompted the research on environmental volunteers' motivations and pro-environmental behaviour spillover, what the main aims of the research are, and where it was carried out.

The world's marine systems are facing a great many threats due to human activity. Not only is climate change leading to an increase in sea temperature, sea level and water acidity, disrupting communities of oceanic species and altering phenological events,<sup>1</sup> marine litter, and in particular durable plastic debris, is creating havoc on a great many species and habitats, both within ocean waters and along surrounding shores.<sup>2</sup> In addition, destructive fishing practices are also depleting stocks of marine populations to dangerously low levels and harming important marine ecosystems which are vital to the productivity and continuation of life in the seas.<sup>3</sup>

In a bid to help protect oceans and ensure the survival of the marine life found within their waters, more and more people are choosing to volunteer their time and effort to marine conservation organisations. Such organisations often also aim to raise awareness on the harmful impacts humans currently have on seas, and on the ways these can be reduced. On the Isle of Arran, a Scottish island that lies in the Firth of Clyde, the Community of Arran Seabed Trust (COAST) has been set up, in order to encourage life in its surrounding waters to regenerate. This marine organisation has succeeded in driving the Scottish Government to designate a No Take Zone (NTZ) and Marine Protected Area (MPA) in specific areas of sea around Arran,<sup>3</sup> and is the first Scottish community group to accomplish this. While COAST's achievements are the result of a combination of several

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<sup>1</sup> S. C. Doney, M. Ruckelshaus, J. E. Duffy, J. P. Barry, F. Chan, C. A. English, H. M. Galindo, J. M. Grebmeier, A. B. Hollowed, N. Knowlton, J. Polovina, N. N. Rabalais, W. J. Sydeman, and L. D. Talley, 'Climate change impacts on marine ecosystems', *Marine Science*, Volume 4 (2012), p.11

<sup>2</sup> S. B. Sheavley, and K. M. Register, 'Marine Debris and Plastics: Environmental Concerns, Sources, Impacts and Solutions', *Journal of Polymers and the Environment*, Volume 15 Issue 4 (2007), p.301

<sup>3</sup> S. N. Murray, R. F. Ambrose, J. A. Bohnsack, L. W. Botsford, M. H. Carr, G. E. Davis, P. K. Dayton, D. Gotshall, D. R. Gunderson, M. A. Hixon, J. Lubchenco, M. Mangel, A. MacCall, D. A. McArdle, J. C. Ogden, J. Roughgarden, R. M. Starr, M. J. Tegner, and M. M. Yoklavich, 'No-Take Reserve Networks: Sustaining Fishery Populations and Marine Ecosystems', *Fisheries*, Volume 24 Issue 11 (1999), p.11

factors, the organisation owes a large part of its success to its volunteers, many of whom have been involved with the organisation for a number of years.

### Main aims and research question

The main aims of this research are to determine COAST's volunteers' motivations for participating with the organisation and to compare these to existing models of research. This will help answer the principal research question: can the motivations of environmental volunteers from a successful marine conservation organisation be explained by existing models of research? Additional aims of the research are to determine if volunteers have noticed any additional pro-environmental behaviour since their involvement with the organisation began (pro-environmental behaviour spillover), and to examine whether there is a link between motivation theme and such behaviour spillover.

By determining these volunteers' personal motivations for taking part in COAST, and comparing them to the existing literature on environmental volunteers' motivations, light may be shed on which particular motivations have led to volunteers' sustained interest and commitment to the organisation, and ensured its success. Any changes to the COAST volunteers' pro-environmental behaviour will also be examined to assess whether participation has led to further positive impact on the environment through environmentally-friendly behaviour spillover, and to better understand whether there is a link between the volunteers' motivation theme and any pro-environmental behaviour spillover which may occur. Such environmentally-friendly behaviour adds to the preservation and conservation of the environment and therefore contributes to the success of the organisation as a whole. All in all, an understanding of some of the reasons behind COAST's continuing achievements may be reached. This could provide advice for other environmental organisations on recruitment, or on the continuation of motivation and enthusiasm for volunteer work. It may also act as a guide or template for other community led projects.

Interviews were carried out with volunteers in COAST's office on the Isle of Arran, in order to learn more about the volunteers' experiences with the organisation and gather enough information to fulfil the main aims of this research, and answer the principal research question.

## **Chapter 2: Literature review**

This review will begin with a short description of the current problems faced by the marine environment surrounding the Scottish island of Arran, and an outline of the ongoing efforts of the island's successful marine conservation organisation, COAST. A description of the main motivations of environmental volunteers identified from the literature will then be discussed as well as the different ways these have been categorised. This summary will include both the initial and ongoing motivations of volunteers. Following this, a brief outline of the various strengths and weaknesses of community-based environmental projects will be discussed. The review will end with an account of the concept and occurrence of pro-environmental behaviour spillover, as described in the literature, and the positive and negative effects this may lead to.

## **Part 1: Preservation of the marine environment around Arran**

In the waters near to the Scottish island of Arran, the harmful methods used in commercial fishing such as scallop dredging and bottom trawling have severely reduced the amount of live maerl beds.<sup>4</sup> These slow-growing and highly productive sites of mixed sediment and coralline algae which allow for the existence of a great many species are extremely vulnerable to destructive fishing and once damaged, are very difficult to recover. Such loss of ecosystem complexity has many negative effects on the productivity and biodiversity of the surrounding waters and it is therefore vital to protect and conserve these areas. By designating No Take Zones, where the removal of any marine life from the seabed is prevented, and Marine Protected Areas, where specific types of human activity are restricted, regeneration of such vulnerable habitats is allowed and seas can be restored to areas of high productivity.<sup>5</sup>

However, it is not enough to simply outline management measures. Murray *et al* argue that such projects and guidelines must be socially accepted by local communities, rules must be enforced and scientific monitoring is necessary in order to ensure these protection methods are put in place. Conservation and awareness-raising efforts outside these zones must be ongoing to ensure continued progress is made and sites are given every chance to regenerate.

### COAST

The Community of Arran Seabed Trust was set up in 1995 by two local divers, Howard Wood and Don MacNeish, who noticed the severe degradation of the marine environment around Arran due to such harmful fishing practices. Since then, a number of people, many of whom are inhabitants of the island, have become long-term volunteers, bringing together their diverse range of skills and backgrounds in order to help achieve COAST's aim of improving the state of marine habitats around Arran and the Clyde, for all types of users. After years of campaigning, COAST succeeded in driving the Scottish Government to

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<sup>4</sup> J. M. Hall-Spencer and P. G. Moore, 'Scallop dredging has profound, long-term impacts on maerl habitats', *ICES Journal of Marine Science*, Volume 57 (2000), p.1407

<sup>5</sup> C. M. Roberts, J. P. Hawkins, and F. R. Gell, 'The role of marine reserves in achieving sustainable fisheries', *Philosophical Transactions B of the Royal Society*, Volume 360 Issue 1453 (2005), p.123

designate Scotland's first No Take Zone in Lamlash Bay in 2008.<sup>6</sup> This means that the removal of any marine life from the area is now prohibited; a protective measure which, through the use of surveys carried out in 2013, has proved to increase the health and complexity of the seabed.<sup>7</sup>

With the help of scientist and government agencies, COAST became the first Scottish community group to successfully propose and develop a Marine Protected Area in the South of Arran. This was designated by the government in July 2014.<sup>8</sup> Marine Protected Areas are sections of sea dedicated to the conservation of biodiversity and habitats, as well as to the maintenance of productive fisheries.<sup>9</sup> Within these areas, certain fishing practices are often restricted while more sustainable behaviour may be enabled, to allow both marine life and the fishing community to benefit.<sup>10</sup> With management measures to be confirmed in summer 2015, COAST is campaigning for the use of purely sustainable fishing methods within the area, in order for the seabed to regenerate.

In the long term, COAST hopes to help increase the productivity and health of the greater Clyde area, and is currently distributing a marine education resource pack to schools in Ayrshire and posting this information online. COAST also informs on the importance of conservation by organising various events and workshops with Arran's residents, visitors and local businesses. It values all kinds of users, and hopes to restore the complexity of Arran's waters in order to be of benefit to fishermen, divers, tourists and scientists alike, both socially and economically. COAST also hopes to encourage other communities to gain hope from their results and take responsibility for the management of their own marine environments.<sup>11</sup>

The success of COAST, reflected in the promising increase in health and complexity of the seabed within the No Take Zone, the designation of the Marine Protected Area and its far-reaching and ongoing effort to raise awareness on marine issues can be put down to the hard work of its co-founders, staff, and notably, its team of volunteers. The next section of

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<sup>6</sup> COAST, Lamlash Bay No Take Zone, <http://www.arrancoast.com/campaigns/lamlash-bay-no-take-zone>, accessed 04/06/2015

<sup>7</sup> COAST, Community of Arran Seabed Trust, <http://www.arrancoast.com>, accessed 04/06/2015

<sup>8</sup> COAST, South Arran Marine Protected Area, <http://www.arrancoast.com/campaigns/south-arran-marine-protected-area>, accessed 04/06/2015

<sup>9</sup> G.Kelleher, *Guidelines for Marine Protected Areas*, ed. Adrian Phillips (Gland, Switzerland and Cambridge, UK: IUCN, 1999) p.xvii

<sup>10</sup> Roberts, Hawkins, and Gell, 'The role of marine reserves in achieving sustainable fisheries', p.123

<sup>11</sup> COAST, Community of Arran Seabed Trust, <http://www.arrancoast.com>, accessed 04/06/2015

this review will examine the various models of research found in the current literature which are used to categorise and understand the motivations of environmental volunteers.

## **Part 2: Motivations of environmental volunteers**

Understanding the motivations of environmental volunteers plays an important role in their recruitment, and in sustaining their interest and commitment to conservation projects. Since a large proportion of environmental programmes depend on the help they receive from volunteers, understanding their motivations for choosing to lend their help and time to such programmes will help in attracting and maintaining their interest and gaining their valuable assistance. In turn, this allows conservation organisations to maximise their success, leading to a greater positive impact on the environment. This section of the review is dedicated to examining the various motivations environmental volunteers may have. These motivations will be presented in several categories, according to the various models or themes outlined in the existing literature.

### **Categories of environmental volunteers' motivations**

Firstly, before describing the various themes of environmental volunteers' motivations, it is important to note the ways these have been categorised within the literature. While different accounts and models of environmental volunteers' motivations have been presented, one very common theme is the division of volunteers' motives into two broad categories: altruistic motivations, and egoistic, or self-enhancing, motivations.<sup>12,13,14</sup> According to McDougle *et al*, altruistic motives, where the volunteer is genuinely concerned about the environment and feels the urge to contribute to actions which will aid in its conservation may be driven by the volunteer's sense of responsibility towards

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<sup>12</sup> P. C. Stern, 'Toward a Coherent Theory of Environmentally Significant Behaviour', *Journal of Social Issues*, Volume 56 Issue 3, (2000), p.414

<sup>13</sup> L. M. McDougle, I. Greenspan, and F. Handy, 'Generation green: understanding the motivations and mechanisms influencing young adults' environmental volunteering', *International Journal of Nonprofit and Voluntary Sector Marketing*, Volume 16 Issue 4 (2011), p.327

<sup>14</sup> A. A. Stukas, R. Hoye, M. Nicholson, K. M. Brown and L. Aisbett, 'Motivations to volunteer and their associations with volunteers' well-being', *Nonprofit and Voluntary Sector Quarterly* (2014), p.3

nature.<sup>15</sup> Egoistic motives, where volunteers hope to gain personally from their involvement with environmental programmes, are less likely to be primarily aimed at preserving the environment and more likely to be linked to enhancing personal well-being, by gaining skills and experience which will further their careers and increasing their number of social interactions, for example.<sup>16</sup> McDougle *et al* also suggest however that motivations can change over time, and while they may be primarily more altruistic initially, it is the egoistic motives which may help to keep volunteers engaged throughout the duration of their involvement with environmental programmes.

While Schultz also believes that environmental volunteers' motives can be altruistic or egoistic, he goes on to link these to the ideas of self-enhancement and self-transcendence.<sup>17</sup> Motives guided by self-enhancement, where an individual is more concerned with improving life for themselves, are similar to egoistic motives, where personal gain in areas such as health or lifestyle is the goal.<sup>18</sup> Self-transcendence, the act or condition of overcoming the individual self's limits and identifying with everything which makes up a unified whole, is based on humility and linked with spiritual contemplation.<sup>19</sup> Schultz believes that altruistic motivations are connected to this concept of self-transcendence and that people who value the needs and welfare of others as well as their own are likely to take part in altruistic behaviour. However, he argues that such altruistic or self-transcendent motivations can be further divided into two types of motivation: one which is due to a concern for other people, including the community and future generations, and another which stems from a concern for the biosphere, with all its animals, plants, birds and marine life. Therefore, according to Schultz, environmental volunteer's motivations can be divided into three categories: motivations to acquire personal gain for the self, motivations to improve the lives of other people, and motivations to protect and improve the state of the biosphere.<sup>20</sup>

#### General themes of environmental volunteers' motivations

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<sup>15</sup> McDougle, Greenspan, and Handy, 'Generation green', p.328

<sup>16</sup> Ibid. p.327

<sup>17</sup> P. W. Schultz, 'The Structure of Environmental Concern: Concern for Self, Other People, and the Biosphere', *Journal of Environmental Psychology*, Volume 21 (2001), p.336

<sup>18</sup> Schultz, 'The Structure of Environmental Concern', p.336

<sup>19</sup> Oxford Dictionaries, <http://www.oxforddictionaries.com/definition/english/self-transcendence>, accessed 10/07/2015

<sup>20</sup> Ibid. p.336

Various main themes have been used to describe the motivations of environmental volunteers throughout the literature. For example, Measham and Barnett believe that six main motivations for offering to volunteer on an environmental programme exist: a contribution to the community, an increase in social contact, personal development, an increase in knowledge of the environment, an ethic of care for the environment in general and attachment to a local place.<sup>21</sup> By contributing to the community, a volunteer can become actively involved within the community and provide assistance where necessary, while gaining a new set of friends, meeting like-minded people and increasing social capital. The volunteer may grow as a person as they build on their current skills and develop new ones, increase levels of self-esteem and confidence and gather additional experience not only in environmental work, but also in social and life skills. By actively taking part in environmental work, and being in direct contact with the environment, the volunteer can also greatly increase their awareness of nature that surrounds them and of management and conservation practices which aid in its conservation. Volunteers may be greatly concerned with caring for the environment as a whole and seek to contribute to its preservation in any way possible or may be interested in conserving one particular area with which they feel a connection to.<sup>22</sup>

While Clary and Snyder largely agree with the six motivation themes outlined by Measham and Barnett, they argue that another reason why people may be driven to volunteer is that they feel guilty, ashamed and responsible for the harmful impacts humans have had on nature and wish to offer their time and help in order to make up for these feelings.<sup>23</sup>

#### Themes of long-term environmental volunteers' motivations

According to Ryan *et al*, similar motivations apply to those volunteers who choose to offer their time and help on a long-term basis, including continued learning, ongoing protection of the environment, and long-lasting social connections.<sup>24</sup> By spending more time surrounded by a particular physical environment, volunteers are more likely to continue

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<sup>21</sup> T. G. Measham and G. B. Barnett, 'Environmental Volunteering: motivations, modes and outcomes', *Australian Geographer*, Volume 39 Issue 4, (2009), p.540

<sup>22</sup> Ibid. p.541

<sup>23</sup> E. G. Clary, and M. Snyder, 'The Motivations to Volunteer: Theoretical and Practical Considerations', *Current Directions in Psychological Science*, Volume 8 Issue 5 (1999), p.157

<sup>24</sup> R. L. Ryan, R. Kaplan, and R. E. Grese, 'Predicting Volunteer Commitment in Environmental Stewardship Programmes', *Journal of Environmental Planning and Management*, Volume 44 Issue 5 (2001), p.632

learning about it, through the variety of tasks and activities they are involved with during their participation with the organisation. By dealing with ongoing harmful human activities over a long period of time, volunteers are more likely to seek to help it and protect it from further degradation. They also have more chance of seeing the direct impact their work has had on the environment, and continue working to ensure improvements continue and evolve further. Thirdly, social factors are considered important motives for long-term volunteers, according to Ryan *et al*, as the continued benefits of connecting with like-minded people, and lasting friendships, are likely to promote participation within an environmental organisation.<sup>25</sup>

However, Ryan *et al* argue that reflection and project organisation are additional motivations which long-term volunteers in particular may be driven by. Reflection, where volunteers may feel more at ease in nature or explore more due to the activities they carry out, may lead them to reflect on the bigger issues in life, or to notice the patterns and seasons that nature follows. According to Ryan *et al*, they may also become more drawn to particular aspects of the environment, or feel fascinated by its beauty, as a result of being involved over a longer period of time. Additionally, the way the organisation is run may impact on a volunteer's engagement with a project, and while a disorganised project may discourage continued participation, a well-organised project with clear aims, structure and a fair division of workload may encourage long-term volunteering.<sup>26</sup> Ryan *et al* believe that greater satisfaction may be felt from working within such a well-run organisation and there may be chances to take part in decision-making, to organise tasks or to become more aware of available work opportunities.

Such long-term volunteers' ongoing motivations are likely to differ from their initial motivations which, according to Measham and Barnett, depend on several factors including their individual personality and character traits, their social circumstances prior to involvement with an environmental project, and the aims and objectives of the project of interest.<sup>27</sup>

As well as a change in their main type of motivation, long-term volunteers may also notice some benefits to their own health and well-being. According to Koss and Kingsley, some of the reported benefits of volunteering for marine conservation groups in particular include

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<sup>25</sup> Ryan, Kaplan, and Grese, 'Predicting Volunteer Commitment in Environmental Stewardship Programmes', p.632

<sup>26</sup> Ibid. p.633

<sup>27</sup> Measham and Barnett, 'Environmental Volunteering', p.539

an increase in emotional and mental health, due to feelings of pride, enjoyment and personal satisfaction from carrying out meaningful work.<sup>28</sup> Koss and Kingsley also believe that connecting to the marine environment on a personal level can increase levels of involvement as volunteers can form their own understanding of it and develop a sense of meaning and pride in their work. It is both this personal connection with nature and the sense of well-being it brings that encourages an ecological identity to be created and developed in the environmental volunteer, according to Koss and Kingsley. This in turn motivates further volunteering to take place.

#### Additional observations

Therefore, returning to the previous categorisations of motivations into altruistic and egotistic ones, or self-transcending and self-enhancing ones, it may be difficult to label individual motivations as either one or the other. This is because the action of volunteering is likely to bring with it some benefits, and while volunteers may initially be motivated by altruistic reasons, they may continue to help due to the increased well-being they feel. Moreover, personal well-being may not be as egoistical as it can first appear. In order to preserve the environment and offer valuable contributions towards its conservation, individuals must first be in good health themselves to be able to offer their help. An increase in social capital through living in a community and interacting with its members is associated with an increase in the health of individuals.<sup>29</sup> The health of the community is also enhanced by an increase in contact with nature, with oceans being associated with well-being practices.<sup>30</sup>

However, according to Stukas *et al*, those volunteers who are motivated to volunteer for reasons of personal gain are less likely to feel satisfied throughout their participation with the environmental project and are therefore less likely to continue volunteering, compared to those who are primarily interested in the health of both the environment and its community.<sup>31</sup> The volunteers who are more orientated towards conserving nature and helping others are the ones who are more likely to feel an increased sense of personal well-

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<sup>28</sup> R. S. Koss, and J. Y. Kingsley, 'Volunteer health and emotional wellbeing in marine protected areas', *Ocean and Coastal Management*, Volume 53 (2010), p.447

<sup>29</sup> Koss and Kingsley, 'Volunteer health and emotional wellbeing in marine protected areas', p.447

<sup>30</sup> *Ibid.* p.449

<sup>31</sup> Stukas, Hoye, Nicholson, Brown and Aisbett, 'Motivations to volunteer and their associations with volunteers' well-being', p.3

being and health through gaining feelings of trust and social connectedness within the community associated with the environmental project.<sup>32</sup>

Such benefits of environmental volunteering are similar to those reported for community involvement, where improvements in the welfare and health of the community group as a whole have been noted.<sup>33</sup> By increasing social capital, community members may feel additional levels of support and trust, leading to heightened feelings of personal satisfaction and well-being.<sup>34</sup> While environmental volunteers and those involved in community-based environmental projects may gain similar benefits from participation, community-based projects have a distinct set of advantages and disadvantages which account for their levels of success. These factors will be discussed in the next part of this review.

### **Part 3: Community-based environmental projects**

Community-based environmental projects have the potential to be very successful, due to the number of people involved and the range of expertise, skills and experience they can bring to the project. However there are several factors which must be taken into account in order to ensure their success. The next part of this review will describe the various strengths, as well as the weaknesses, of such projects, in order to understand ways in which their achievements can be maximised.

#### **Strengths of community-based environmental projects**

Community-based environmental projects have several advantages. Firstly, since they lie between individual actions and governmental policies, Bandura argues that they have the chance to build a sense of collective efficacy. Just as an individual is believed to think, act and behave in ways which match their personal sense of efficacy, a group or community is thought to behave in ways which are in line with their shared beliefs in their collective

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<sup>32</sup> Ibid. p.4

<sup>33</sup> C. D. Batson, and N. Ahmad, 'Four Motives for Community Involvement', *Journal of Social Issues*, Volume 58 Issue 3 (2002), p.439

<sup>34</sup> J. F. Helliwell, 'Well-being, Social Capital and Public Policy: What's new?', *The Economic Journal*, Volume 116 (2006), p.C34

ability.<sup>35</sup> This, Bandura believes, is not a sum of their individual talents and skills; rather, it is the product of their coordinated and dynamic interactions. Therefore, if those taking part in a community initiative perceive their collective efficacy to be high, then as a group, they will invest more in their work, remain strong in the face of adversity and achieve more than if they perceived their collective efficacy to be low.<sup>36</sup>

Secondly, according to Todhunter, a sense of satisfaction is derived from community involvement which encourages participants to continue engaging with the project at hand. This arises as taking part in tasks as a member of the community builds a sense of deep fulfilment, purpose, belonging and involvement.<sup>37</sup> Members bond over shared activities and develop feelings of trust while achieving more together than they could have individually. Additionally, according to Todhunter, if community projects are able to achieve a positive public profile, they can demonstrate to the wider public that it is possible, and even normal, to take responsibility for environmental issues and really make a change. This has symbolic value, even if it causes minimal impact. Another advantage of a community-based project described by Rogers *et al* is that behavioural spillover may occur as a result of taking part in the project.<sup>38</sup> Due to engaging with a particular environmental issue as part of the community project, Rogers *et al* argue that individuals are more likely to understand the problems surrounding the issue and are therefore more likely to engage in environmentally-friendly behaviour outside of the project, in order to reduce the scale of the problem in the local area.

#### Weaknesses of community-based environmental projects

However, such community-based initiatives have several limitations. Firstly, according to Walker and Devine-Wright, an identifiable community may be lacking in the first place or there may be several and these groups may change over time as circumstances evolve.<sup>39</sup> For example, relationships may form or break as events occur over a period of time which

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<sup>35</sup> A. Bandura, 'Exercise of Human Agency Through Collective Efficacy', *Current Directions in Psychological Science*, Volume 9 Issue 3 (2000), p.75

<sup>36</sup> *Ibid.* p.78

<sup>37</sup> T. Todhunter, 'Low-carbon Communities: A Grassroots Perspective on Public Engagement', *Engaging the Public with Climate Change: Behaviour Change and Communication* (Routledge, 2012) p.260

<sup>38</sup> J. C. Rogers, E. A. Simmons, I. Convery, and A. Weatherall, 'Public perceptions of opportunities for community-based renewable energy projects', *Energy Policy*, Volume 36 (2008), p.4218

<sup>39</sup> G. Walker, and P. Devine-Wright, 'Community renewable energy: What should it mean?' *Energy Policy*, Volume 36 (2008), p.499

add to the dynamic nature of communities. This can make it difficult to keep a consistent and organised structure to the work and focus may not be strong enough to achieve real change and results.

Additionally, Rogers *et al* argue that it can be challenging to set up such a project in the first instance, and to appeal to people's interests and encourage them to engage with the project.<sup>40</sup> Rogers *et al* also believe that confidence in the community's ability to truly engage with the project, manage it and commit to it may be lacking in each participant, and this type of collective self-doubt would likely lead to disengagement and low participation rates. Other limitations described by Rogers *et al* include the absence of relevant skills and experience needed to contribute to the project within members of the community, and a lack of institutional support or funding. An important aspect of a community-based project is the feeling of empowerment that members should feel as they take matters into their own hands and make decisions themselves. However, Rogers *et al* state that some members may be reluctant to have such power and control, and can look to professionals outside of the community for management and guidance, therefore reducing the strength of their beliefs in their own community and decreasing collective efficacy.<sup>41</sup>

#### Success of community-based environmental projects

A few factors must be in place to ensure the success of a community-based environmental project. Firstly, according to Walker *et al*, feelings of trust must be present, between members of the project, between project members and the local community, and between project members and those who will provide the means for it to develop.<sup>42</sup> This is because people are more likely to work efficiently together, towards a collective goal, if they know that they are cooperating with others who have proven themselves to be consistent, reliable and committed. Walker *et al* also argue that communication will flow much easier if trust exists in working relationships, and progress will be in a consensual way, with end goals more likely to benefit all parties involved. Without trust, feelings of resentment and exclusion can occur, isolating the project from those who would be able to add to it and

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<sup>40</sup> Rogers, Simmons, Convery, and Weatherall, 'Public perceptions of opportunities for community-based renewable energy projects', p.4224

<sup>41</sup> Ibid.

<sup>42</sup> G. Walker, P. Devine-Wright, S. Hunter, H. High, and B. Evans, 'Trust and community: Exploring the meanings, contexts and dynamics of community renewable energy', *Energy Policy*, Volume 38 (2010), p.2657

gain from it. A smaller community group is also more likely to be successful as its members will be more tightly knit and able to withstand setbacks more readily, according to Walker *et al.*

Walker and Devine-Wright argue that another factor which should be present in order for a community project to be successful is the fair distribution of benefits and costs between all those involved in the work. Such benefits may include the provision of employment and of educational resources, as well as the regeneration of local areas, while costs may relate to money, time, manual labour and the use of resources. If equal sharing of such things does not occur, a community project is likely to become divisive, controversial and counterproductive, as levels of cooperation will drop and the feelings of trust previously mentioned may be lost.<sup>43</sup>

Leadership is very important to community projects and according to Haslam *et al.*, the person who becomes the leader of such a project must be an 'in group' prototype.<sup>44</sup> That is to say that this person must share the same values as those within the project and be seen as really belonging to the community, and truly working for the group, if he or she is to properly represent and speak for the project.

Also, while it is important that all relevant stakeholders, including funders, business partners and political supporters, remain actively involved with the community project, the involvement of local people is also of great importance according to Walker and Devine-Wright.<sup>45</sup> Not only does direct participation of local residents result in higher levels of support and acceptance for the project, it also leads to greater understanding of the projects' goals, and has wider effects on the community's values and beliefs about the environmental issue in question. This can have an impact on the behaviour of local people, and may motivate them to act in environmentally-friendly ways. The next section of this review will describe such pro-environmental behaviour spillover.

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<sup>43</sup> Walker, and Devine-Wright, 'Community renewable energy', p.499

<sup>44</sup> S. A. Haslam, S. D. Reicher, and M. J. Platow, *The New Psychology of Leadership: Identity, Influence and Power*, (Psychology Press, 2010), p.85

<sup>45</sup> Walker, and Devine-Wright, 'Community renewable energy', p.499

#### **Part 4: Pro-environmental behaviour spillover**

As mentioned, one of the possible impacts conservation projects may have on volunteers is that environmentally-friendly behaviour and attitudes learned from this work can ‘spillover’ into other areas of everyday life, making individuals more environmentally friendly in additional ways.<sup>46</sup> The more pro-environmental behaviour volunteers take part in, the more positive impact the organisation has on the environment, and the more successful it can be described as being. However, negative spillover, where the participation in pro-environmental behaviour leads to a decrease in the contribution of other environmentally friendly behaviours, may also be seen in individuals.<sup>47</sup> By now examining pro-environmental behaviour spillover with use of the literature, a better understanding of the way this arises may increase the possibility for emphasis to be placed on actions which will drive its more beneficial consequences, in order to reinforce positive environmental behaviour.

According to Truelove *et al*, while participating in pro-environmental behaviour may lead to positive spillover and increased beneficial environmental actions, it can also make individuals feel less morally obliged to carry out these actions, since they perceive themselves as already having carried out a good deed. Moreover, the initial feelings of concern and worry associated with an environmental problem are reduced when an individual perceives themselves as successfully working on the solution which in turn can lead to a decrease in ongoing engagement levels with the problem. An exhibition of highly moral behaviour is also more likely to be in a person’s self-interest when the image of their own morality has been threatened, and they feel like they must redeem themselves in order to appear ‘good’ to others. On the other hand, a person who consistently acts in environmentally friendly ways may feel less compelled to consistently prove themselves and carry out fewer positive environmental actions.<sup>48</sup>

A conservation organisation may be described as being more successful if it leads its volunteers to behave in pro-environmental ways outside of its work. It is therefore of value to examine which factors are more likely to lead to such spillover. Truelove *et al* believe

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<sup>46</sup> Walker, Devine-Wright, Hunter, High, and Evans, ‘Trust and community’, p.2657

<sup>47</sup> H. B. Truelove, A. R. Carrico, E. U. Weber, K. T. Raimi, M. P. Vandenberg, ‘Positive and negative spillover of pro-environmental behaviour: An integrative review and theoretical framework’, *Global Environmental Change*, Volume 29 (2014), p.127

<sup>48</sup> *Ibid.* p.129

that participation in certain types of environmental behaviours has been linked to positive spillover. For example, those who recycle are more likely to prefer reduced packaging, energy and water conservation, and composting. One explanation for pro-environmental behaviour spillover is that participation leads to greater understanding of the natural world and the issues surrounding it which in turn develops greater interest in these topics and creates a shift in attitude towards one of care and compassion. Additionally, if individuals prefer to act in environmentally friendly ways as they feel a greater sense of well-being for doing so, it is more likely that they will engage in more behaviour of that kind. This links to the concept of alternative hedonism, where people gain enjoyment from activities which are not associated with consumption, but rather, the simple pleasures in life. By feeling more satisfied and grateful with less consumption, individuals may feel more encouraged to continue following a minimalistic way of life.

Many people also like to act and think in consistent ways, according to the values and virtues they may have. This can therefore result in consistent acts of environmentally-friendly behaviour, according to Truelove *et al.* If individuals see themselves as having an environmental identity, they are likely to engage in behaviour which reinforces this identity and allows them to carry out the role they see themselves as having. Similarly, Whitmarsh and O'Neill believe that self-identity in general (the way a person perceives themselves according to their own motivations and social interactions) is the key to determining the way someone will act. The consumption of certain products, for example, is linked to self-identity, and additionally, people are likely to behave in ways which might not link to their attitudes and feelings at the time, but are consistent with the way they perceive themselves to be.<sup>49</sup>

However, Whitmarsh and O'Neill believe that there are many barriers to participating in environmental behaviour that aligns with personal values, such as physical, social and economic difficulties. They also argue that people behave inconsistently when it comes to environmental behaviour. For example, some might be more motivated to conserve energy due to health or financial reasons rather than out of concern for the environment, and might therefore show less concern for issues such as climate change.<sup>50</sup>

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<sup>49</sup> L. Whitmarsh, and S. O'Neill, 'Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours', *Journal of Environmental Psychology*, Volume 30 (2010), p.306

<sup>50</sup> *Ibid.*

Leading on from this, Evans *et al*, believe that the primary reason for participating in such behaviour can determine which type of spillover, positive or negative, may result.<sup>51</sup> For example, if an individual chooses to be engaged in one type of pro-environmental behaviour for the self-transcendent reason of protecting the environment, carrying out this behaviour is more likely to lead on to other kinds of environmentally-friendly behaviour. However, according to Evans *et al*, if an individual is more engaged with the behaviour for reasons of self-interest, such as financial security or self-image, they are less likely to take part in further pro-environmental behaviour.

Overall, Truelove *et al* believe that while examining spillover effects can be very useful in identifying ways of increasing environmentally-friendly behaviour, it is important to take note of the net effect of environmental behaviour and not just that which results from the spillover effect.<sup>52</sup> While this may be true, it is encouraging to know that conservation organisations have the possibility of offering more help to the environment than they are aware of.

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<sup>51</sup> S. Evans, G. R. Maio, A. Corner, C. J. Hodgetts, S. Ahmed, and U. Hahn, 'Self-interest and pro-environmental behaviour', *Nature Climate Change*, Volume 3 (2013), p.122

<sup>52</sup> Truelove, Carrico, Weber, Raimi, and Vandenberg, 'Positive and negative spillover of pro-environmental behaviour', p.135

### **Chapter 3: Methods**

The methods undertaken to collect data on COAST's volunteers' motivations for participating in the organisation, as well as on pro-environmental behaviour spillover, will be outlined in this chapter. The resources and instruments used will also be described, as well as ethical considerations and the method of evidence selection.

In order to collect data on the motivations of COAST's volunteers, and on their environmentally-friendly behaviour spillover, interviews were carried out in the COAST office on the Isle of Arran. The interviews were carried out face to face with three of the volunteers in the office while the remaining seven were home telephoned. The interviews took place over a period of a few days in July 2015. The ten individuals that took part in the study were long-term volunteers, having participated in COAST's work for at least two years. Volunteers were interviewed individually to ensure that they were not influenced by the presence of other volunteers, or by others' answers. Each interview was recorded with the use of a dictation machine (along with the loudspeaker function on the telephone for home telephoned interviews), so that volunteers' answers could be listened back to and accurately transcribed. This was to ensure that the motivations and pro-environmental behaviour spillover identified and outlined in the results chapter of this study were as reliable as possible.

Short notes were also taken during the course of the interviews, in order for emerging key themes to be highlighted. Open-ended questions were asked in order to allow volunteers to develop their answers. Prompts were also used as a way of directing the interview around certain aspects of their motivations and environmental behaviour spillover, in as unobtrusive a way as possible. A wide range of topics related to environmental volunteers' motivations was covered and those interviewed were provided with the opportunity to add any comments which they believed could be of value. The volunteers were also given the possibility of expanding on their remarks about their environmental behaviour spillover. Out of ethical concern, volunteers were made aware that they were free to withdraw from the interviews at any time, without the need to give a reason. They were also briefed on the purpose of the interviews.

Specific questions were not revealed until the interviews were carried out, in order to get honest and spontaneous answers. The answers included in quotation marks in the results of this study are direct quotations from the volunteers interviewed.

In order to identify the key themes of the volunteers' motivations and their pro-environmental behaviour spillover, a general inductive approach was employed.<sup>53</sup> This allowed COAST's volunteers' motivations to be compared to those outlined in the research. Firstly, key phrases that summarised their answers were written out. From these, volunteers' motivations and behaviour spillover were identified and given a label. The labels for motivations were then compared to those provided in the research, in order to determine whether COAST's volunteers' motivations could be explained by the literature outlined. The motivations described by COAST's volunteers were also compared to any environmental behaviour spillover they reported, in order to examine if a link existed between motivation type and pro-environmental behaviour spillover.

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<sup>53</sup> D. Thomas, 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation*, Volume 27 Issue 2 (2006), p.237

## **Chapter 4: Results**

This chapter will present the data collected in Arran in order to clearly identify COAST's volunteers' motivations which will then be compared to the existing literature. This will allow for the particular motivations which have led to the success of the organisation to be highlighted. The data will also be presented to determine whether pro-environmental behaviour spillover has occurred and will then be interpreted to examine if a link exists between such behaviour spillover and the theme of volunteers' motivations. Additional results will be described.

### **Volunteer demographics**

Ten of COAST's long-term volunteers participated in the interviews, 5 of whom were male, and 5 of whom were female. While the length of time they had volunteered for COAST ranged from 2 years to 9 years, half of the volunteers interviewed had been volunteering for COAST for the last 5 years. Every volunteer interviewed was a resident on Arran, with over half of the volunteers having lived on the island for the last seventeen years or more.

### **Part 1: Volunteers' motivations for taking part in COAST**

#### **Initial motivations**

During the interviews, volunteers were asked what their initial motivations for joining COAST were. From their answers, seven main motivations were identified. The first of these was reflection, where a fascination of the beauty of the sea and an awareness of marine life, and what issues it faces, sparked an interest in its conservation. This motivation was stated by four volunteers. One stated that after watching a documentary on the sea, she felt that "what lay under the surface of the water looked amazing. I was in awe of what I was seeing that I didn't know existed. It all looks gray from above...there are so many beautiful things there". Another's immediate response was "I just love the sea".

A third volunteer described her awareness of the degradation that has taken place. She recalled going out with fishermen when she was a child and said “The sea was teeming with fish and fishermen were getting a huge, weird variety of fish, just from this local net going out with a wee boat. There was a lot, a big catch, and now when you snorkel, you are just seeing wee tiddlers if you are lucky. You used to not be able to walk out, you’d be standing on them all the time and they’d be shooting out from under your feet, and now you’re just not getting that...I went diving quite a while ago, and they’d already started raking the bottom at that point, and there was nothing there at all. I just felt like crying under the water.”

Another initial motivation mentioned by four volunteers was belief in COAST’s cause, to protect and regenerate the marine environment around Arran and the Clyde. One volunteer stated “I just fully believe in what they are trying to do,” while another said her initial motivation was “the issue they have chosen to fight for”. A third volunteer echoed COAST’s aims and said “It wasn’t so much me doing something, it’s the fact that something’s out there that needs to be done. It’s becoming aware of the damage that has happened over many years, to bring that to the public’s attention and to persuade those with the power to change things for the better.” Therefore, an ethic of care for the marine environment was identified as the second initial motivation. A third initial motivation was that of the community spirit which encompasses COAST, while a fourth was the benefit it would bring to the volunteers’ business. The volunteer... stated “Having healthy seas would be a great benefit to everyone, particularly to the business I’m in now”.

The fifth initial motivation identified was the organisation’s founders, Howard Wood and Don MacNeish. One volunteer said “I have a real admiration for the organisation’s two founders, Howard and Don. They have devoted a lot of their lives to this cause and I really admire people who have an idea and put it into practice and make it work”. Another volunteer said “I’ve known Howard and Don ever since I’ve been here...I met Don in the street one day and they were looking for some help. He asked if I could help, so I said alright, I’d do it...for friendship.” The sixth initial motivation identified was concern for future generations, with a volunteer saying “I want to see clean seas for our children”. The seventh initial motivation was the influence of a friend or member of family who was either already volunteering, or interested in doing so. One volunteer said “It happened accidentally. I was actually living with someone who is very interested in what COAST does and I joined her at one of her committee meetings and that was it.”

### **On-going motivations**

Volunteers were asked which motivations had helped sustain their interest and kept them engaged with COAST over time. From their answers, eight on-going motivations were identified, four of which were similar to initial motivations. These four included reflection and continued interest in the marine world, admiration for COAST's founders, an ethic of care for the marine environment, and a benefit to business. While around half of the volunteers had the same initial and on-going motivations, it was noted that two volunteers felt their motivation changed from their initial motive to respect and admiration for COAST's founders, Howard and Don. One said "They are so committed," while another mentioned "...and the fact that Howard has kept at it and fighting for it too, it is such a good thing".

Four on-going motivations which had not been identified as initial motivations were described. The first of these was the COAST team members, mentioned by five volunteers. When questioned on her on-going motivation, one volunteer said "The people. Ever since I joined, there have been very nice people, they've changed but I just enjoy the buzz". Another mentioned "I just enjoy the company of the people I'm with" while another said "The people are just so nice".

The second additional on-going motivation was the positive results observed due to COAST's efforts. Such results refer to the regeneration of the seabed and the increase in marine life within the No Take Zone, both of which have been proven by surveys.<sup>54</sup> One volunteer said "I've seen the benefits the No Take Zone has had on the sea...students have completed surveys there and proved regeneration has begun. I have felt more motivated by that, to make sure it continues." Another said "I've noticed from swimming in Lamlash, the flat fish are coming back, the tiny ones. It's good to see that but it is an ongoing battle."

The third on-going motivation which hadn't been identified as an initial motive was the admiration volunteers had for COAST, due to the success and recognition it has had, as well as the determination and commitment its team have displayed. This led to volunteers feeling proud to be connected to such an organisation. One said "The fact that COAST

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<sup>54</sup> COAST, Lamlash Bay No Take Zone, <http://www.arrancoast.com/campaigns/lamlash-bay-no-take-zone>, accessed 04/06/2015

seem to be so successful, they keep plugging away, no matter what is thrown at them, they keep on back because they know they are advocating for the right thing. What seemed to impress me most was that they seemed to become like a magnet for attracting researchers and young students. It has provided a hub for scientific study.” Another mentioned “I am more motivated when I see the success COAST have had and the recognition they have gained. People value and admire them all over the world, and it just makes you think you are involved in something really good... I am proud to be a part of COAST”.

The fourth on-going motivation described, which was not identified as an initial motivation, was the personal satisfaction gained from working with COAST. One volunteer said “I’ve grown into the position and enjoy working on a variety of things that COAST do”. Another mentioned “Now that I’m retired, it’s nice to have something to do and to be able to use my brain”.

#### **Comparison of motivations identified in literature review with those of COAST’s volunteers**

Firstly, when categorising COAST volunteers’ initial motivations according to the research mentioned in the literature review, three of the seven motivations were described as being self-transcendent or altruistic. These included reflection, an ethic of care for the marine environment and concern for future generations. Benefit to the volunteers’ business was described as a self-enhancing or egotistic motivation. The remaining three initial motivations identified could not be categorised as such. Four of COAST’s volunteers’ initial motivations were similar to those outlined in Measham and Barnett’s research and that of Ryan *et al.* Three of their motivations had not been outlined in the research described. These three included the benefit volunteering would bring to the volunteer’s business, admiration for the organisation’s founders and the influence of a friend or family member who was interested in COAST.

When categorising COAST’s volunteers’ ongoing motivations according to the research mentioned in the literature review, three out of the eight ongoing motivations were described as self-transcendent or altruistic while two were described as self-enhancing or egoistic. Three could not be categorised as such. Four of COAST’s volunteers’ ongoing motivations were similar to those outlined in Measham and Barnett’s research and that of Ryan *et al.*, two of which were described as long-term motivations by Ryan *et al.*; reflection

and ongoing protection of the environment. A fifth motivation which described personal satisfaction from participation with COAST was linked to the benefits of volunteering described by Koss and Kingsley. Three of their ongoing motivations had not been outlined in the research described. These included the benefit to the volunteers' business, an admiration for COAST's founders, as mentioned in their initial motivations, and their admiration of the organisation, due to its success and recognition. The last two of these motivations, admiration for COAST's founders and for the organisation, were mentioned by several volunteers and seemed to be major motives for continuing participation with COAST.

Overall, motivations appeared to be more self-transcendent or altruistic, rather than self-enhancing or egotistic. Additionally, while over half of the motivations described by COAST's volunteers could be explained by the research, three of the organisation's volunteers' motivations emerged from their answers which had not been described in the research. These were an admiration for the founders of the organisation, a benefit for the volunteers' business and an admiration for the organisation itself. While Ryan *et al* described the way an environmental project operated as a long-term motivation, COAST's volunteers indicated that it was the recognition it had gained, its commitment and the positive impacts it had had on the marine environment which motivated them to contribute to its efforts. This, along with admiration for COAST's founders, could be the key to the organisation's success.

### **Impacts on motivation**

Volunteers were asked which factors, if any, had had a negative impact on their motivation to continue giving their time and help to COAST. From their answers, four such factors were identified. The availability of free time was the main factor limiting their ability to volunteer as much as they would like to. This was mentioned by four volunteers. A second factor mentioned was the attitude of the fishing industry. Since fishermen's livelihoods depend on the amount of marine life they catch, they continue to fish in waters which have undergone great degradation. One volunteer said "The depressing side of things is the attitude of others who should know better-the fishing industry. They have

little regard to the consequences of their actions. They don't have the ability to see into the future. There won't be anything left for them to catch if they keep fishing the way they are".

A third factor identified as having a negative impact on motivation was disappointment in the lack of help from the government. A volunteer said "I have been disheartened by Marine Scotland. We saw a boat diving in the middle of the No Take Zone, and compliance officers were sent, but they did nothing. They should have made a token effort to prosecute them." Another said "It is pretty annoying how many times you have to send the same letter to the government. They have consultation after consultation...that gets a bit dull."

A fourth de-motivating factor which was identified was the magnitude of environmental problems, where the number of issues impacting negatively on the environment felt like too many to work on. One volunteer said "If I'm out on the beach, I'll pick up plastic if I can, when I'm seeing it, and it is easy to get de-motivated and feel it's too big an issue." However, she was quick to add "But on a small scale, if everybody does a little bit of something, then that can actually make a difference."

Four of the volunteers stated that nothing had a negative impact on their motivation for working with COAST. All in all, the negative impacts stated on the volunteers' motivations were related to factors out with their control, and were not related to the organisation itself.

Volunteers were asked which types of changes could be made to COAST in order to increase their motivation further. Two changes were identified. Firstly, one volunteer mentioned the creation of a marine interpretation centre which COAST is planning to develop for Arran in the near future. Since the creation of the No Take Zone, marine scientists and visitors alike have been attracted to the island and volunteers said they felt a centre such as this would be able to educate others on marine conservation issues and hopefully inspire them to help. The volunteer, who works in Arran's tourist office, said "In the tourist office, people ask for one place that they can go and visit. A marine interpretation centre would be fantastic. It would be educational, hands on... it would be a great thing and would motivate me further. But premises are expensive...it might happen eventually. It is an amazing organisation-anything is possible."

Secondly, ensuring COAST had a greater presence on the sea to monitor fishing activities was mentioned by one volunteer as a change he would like to see. He said “Every now and then when we see someone contemplating fishing where they shouldn’t be, we pop over... they usually say ‘Sorry about that, we didn’t know anything about it’”. Such monitoring would ensure management methods were enforced and further damage prevented.

The remaining volunteers stated that there was nothing that could increase their motivation further. Their responses, including the one suggesting a change with the marine centre, highlighted their belief in the team’s own motivation, and the direction of the organisation. One volunteer said “Everyone is so focused. That’s why COAST works so well.” A second volunteer said “The organisation creates its own motivation. Its profile is increasing and growing all the time”, while another said “COAST is still very much a campaigning organisation and I feel like it is going in the right direction.” A volunteer who has been involved with COAST for the last nine years described her enduring motivation and said “I am enthusiastic. Even though I’ve been there for years, I’m still very keen to carry on.”

### **Additional factors affecting motivation**

The volunteers were probed on several additional factors which the existing models of research mentioned in the literature review have identified as motivations or benefits environmental volunteers may have. Their thoughts on these factors will now be detailed and then compared to the research models, in order to help assess the extent to which the literature explains the motivations of COAST’s volunteers, and therefore, its success.

#### **-Social connections**

Firstly, when asked to describe their relationship with the other volunteers, it was noted that initial responses were linked with the others’ skills, and the type of people they were, rather than the relationship that existed between them. Many volunteers admired the others in the team and believed them to be kind people. One said “All those involved with COAST are great. I find them very motivational. They are just a nice bunch of people.” Another said “I think they all give their time and talent in their own way”. A third said “They are just very, very good people.” Most volunteers said that taking part in COAST had

widened their social circle and made them feel like part of a group. The atmosphere was also described as being very friendly, with social gatherings and “meals and drinks...and we organise a Christmas meal each year”.

#### -Personal development

When asked to describe any personal skills they may have developed, most of the volunteers mentioned that their confidence had increased greatly as a result of taking part in COAST, as well as their public speaking and presentation skills. One volunteer said “I never used to have to give presentations. But I have done it to small groups, and large groups, and I’ve discovered I thoroughly enjoy doing it. It’s a subject I’ve got a hold of, learned a bit about, having to share the little I know with people... taking people out to sea and explaining about the wildlife, geology, geography... you’ve got to know about it. And learning about it, having the confidence to know that what you are saying is right, that really helps... Something good should arise from it at the end of the day.” Another immediately replied saying “My confidence has definitely grown. I’ve always been a little more reserved and I’d say the biggest advantage I’ve had with my connection with COAST has been learning how to deal with the public. With COAST, that skill has certainly developed. I now take it in my stride and get on with it.”

Additionally, volunteers mentioned that their knowledge on marine conservation issues had increased, and one stated that this had given her the confidence to speak to others about such issues and help raise awareness. The volunteer, who works as a skipper, said “I’m more confident in speaking to other people about the problems the marine world is facing because I have the background knowledge from being involved in COAST. I’m aware of environmental issues, past and present, and know all about COAST’s aims, and I’m able to pass that information onto other people.” This is an example of pro-environmental behaviour spillover, which will be discussed in the next part of this chapter.

Volunteers also mentioned that they were able to develop transferable skills that they have since used in their work and free time. For example, one volunteer who helps with another organisation was able to use COAST’s structure and set up to help shape the organisation and make it run efficiently. She said “So I can use this in my life outside COAST, and this other group can benefit in the future.” Another volunteer mentioned that his political skills have improved as he has learned from COAST’s director how to frame

certain issues and how to cooperate and communicate with other parties effectively. He said “Andrew Binnie is really good at communicating. He never falls out with the ministers of Marine Scotland but he puts pressure on them... there’s a diplomacy about that that’s helped me with my political stuff... there are always different sides to be thought of.” This is another example of pro-environmental behaviour spillover which will be examined in the next section. Another volunteer’s son had been involved with COAST for his school’s work experience module and leading on from this, he took part in surveys, gained a powerboat qualification and became a fully trained member of the lifeboat crew which, his father said “could be put down due to his involvement with COAST”. When volunteers were probed about personal skills they may have developed or gained due to being part of COAST, most of them were thoughtful and slow with their answers, suggesting that while they had gained confidence or gained some skills, this was not the reason they were volunteering with the organisation.

#### -Well-being

When asked to describe any changes in satisfaction or well-being they may have felt since beginning volunteering with COAST, volunteers stated that they felt good knowing that their help has made a difference, however small this impact may be. One volunteer said “I suppose it does give you a little glow when something goes right” while another stated “It is a minor contribution but I do feel better for having done that”. One volunteer mentioned that she felt good being around the team, and another said that it felt good to share his knowledge on marine issues with others. However, all of the volunteers took some time before answering, with a few returning to the question at the end of the interview. This could indicate that well-being was not a primary reason for their continued engagement with COAST.

#### -Attachment to local place

When volunteers were asked if they would participate in a similar organisation elsewhere, over half of the volunteers stated that they would, if the organisation was associated with marine conservation. This suggests that their attraction to COAST is linked to it being a marine conservation organisation and not a general organisation. However, it implied that their motivations for volunteering for COAST were not due to attachment to the local area. Others mentioned that they were not likely to move, or that they would prefer to be

involved with specific areas of marine conservation if they were to move elsewhere, such as marine education. One volunteer did mention that he would not like to volunteer for another similar organisation.

#### -Relationship between COAST and the surrounding community

When volunteers were asked to describe the relationship between COAST and the surrounding community, all of the volunteers stated without hesitation that the community was extremely supportive of COAST. When describing this relationship, one volunteer said “There is only one word to describe it and that is excellent” while another said “It is a community sustained organisation, I think”. A third volunteer remarked “we always get good support from local people when events are held. Lots of holidaymakers go along, but locals say ‘well done, keep going’, so I think there is a good community feeling about it.” The local community’s feelings about COAST were also described as very positive and one volunteer said “COAST is very well respected, admired and well supported by the local community. The local people are proud to have this organisation on the island.” Most of the volunteers felt that this positive relationship existed with 95% of the local community, and that there were one or two who, as one volunteer phrased it “ask ‘why bother?’” The volunteer went on to say, “But you are always going to get people like that.”

Several of the volunteers remarked that the relationship was so positive because of the effort COAST have made to involve the locals in their work and make their progress known. One volunteer said “They make every effort to inform the community, and to let them know what’s going on. Any issues, they do put in the local press.” Another stated “I think COAST has worked at that, they’ve never done anything without consulting people.” Volunteers mentioned that the community have participated in COAST’s efforts, with a great number responding in favour of the Marine Protected Area during the Government MPA public consultations, and with regular coverage of COAST’s work in the local press.

Overall, volunteers agreed that community support was extremely high. This may be linked to their continuing motivation and could be another part of the reason for COAST’s success.

## **Part 2: Pro-environmental behaviour spillover**

### **Volunteers' pro-environmental behaviour spillover**

When volunteers were asked if they had noticed any changes in their environmental behaviour since starting with COAST, no negative behaviour spillover was reported. Two volunteers stated that they had not noticed any difference in the environmental behaviour since participating in COAST and mentioned that they were already environmentally aware before joining COAST. The remaining volunteers noticed a positive change in environmentally-friendly behaviour which indicated that pro-environmental behaviour spillover had occurred in 80% of the volunteers interviewed.

One volunteer stated that his awareness of general environmental issues had greatly increased. He said "It has made me think about fracking, and climate change issues...there aren't any fish anyway but the next big thing is that global warming is increasing acidity which will really put pressure on shellfish, so we have major issues all round... I suppose COAST has made me think really carefully about a lot of issues, not just the marine environment but the whole environment."

The seven other volunteers mentioned that their awareness on marine conservation issues had increased and that participation in COAST had led them to read a lot on the current environmental problems the seas are facing. One volunteer said "Being part of COAST definitely motivates you to keep your interest up". Another mentioned "I read a lot of marine books when I first started. I learned so much that I didn't know before." A third said "I'm much more aware. There are so many weird things that you don't know about. I've been totally shocked... with things like plastic content of the prawns in the Clyde, it's like 60% and we are eating the whole prawn, so we're digesting lots of plastic..." Such awareness has led to an increase in pro-environmental behaviour for many of the volunteers. The same volunteer went on to say "so when I pick plastic up from the beach, I'm not just helping marine life, I'm helping myself, I'm not going to eat that bit if I pick it up." Relating to the categories of motivation mentioned in the literature review, this indicates both an altruistic and egotistic motivation for such behaviour.

Removal of plastic and rubbish from the sea and beach was mentioned by six of the volunteers as behaviour they started to take part in due to their involvement with COAST. One said "Just picking up a few large pieces of the plastic and putting it in the dustbin can remove a huge number of micro particles of plastic for the future." Another said "I'm much

more in tune with removing plastic from the beach, knowing the harm it can do to marine life.”

Other examples of pro-environmental behaviour spillover included the purchasing of different cleaning products, and of sustainable products, recycling, eating less fish, and political work. One volunteer said “I’m trying to put a permanent ban on fracking through the SNP. I’ve submitted a motion for the SNP conference coming up.” As previously mentioned, three of the volunteers also mentioned that they spoke to members of the public about marine environmental issues due to their increase in confidence in such issues, which they had gained from their involvement in COAST. One said “I take part in spreading the word and encouraging people to do their own little bit. If as a collective group of individuals, we all pick a little bit up, then that becomes a lot.”

Most of the volunteers had noticed two types of pro-environmental behaviour spillover in their actions while one volunteer, the person who had noticed an increase in awareness for general environmental issues, mentioned taking part in four types of such behaviour. Two volunteers also mentioned that feelings of guilt would arise if they did not do their best to help conserve the environment, due to their increased awareness since joining COAST. One said “I suppose it motivates me to keep my interest up and to recycle stuff whereas I might have taken it easy”. Another said “I would feel guilty walking past rubbish on the beach so I’m more likely to make the effort to pick some up.”

### **Motivation type and pro-environmental behaviour spillover**

The theme of volunteers’ motivations was compared with whether they had noticed environmental behaviour spillover, in order to examine a potential correlation between motivation theme and positive spillover.

The volunteer who had noticed an increase in awareness on a wide range of environmental topics and mentioned being involved in four types of spillover behaviour had stated that COAST’s cause was his initial motivation and that the admiration he had for COAST due to its success and determination was his ongoing motivation. Two of the volunteers who mentioned that they had begun speaking to the public about environmental issues since participating with COAST had stated their motivations to be related to their jobs as commercial skippers. Being on boats regularly with people may have provided the opportunity for such awareness to be passed on, and the potential gain

in business may have motivated the volunteers to do so, linking this spillover to self-enhancement, if this was the case.

A connection was made between the motivations of the two volunteers who stated that they had not seen any impact on their behaviour since starting with COAST, and their initial motivations. Both of these volunteers had stated that the influence of a friend or family member who was interested in COAST had motivated them to begin volunteering initially. This could suggest that personal motivation must be present in order for pro-environmental behaviour spillover to occur. Additionally, all of the volunteers who stated that their initial motivation was an ethic of care for the marine environment mentioned that they had begun picking up plastic and rubbish from the beaches and sea since participating with COAST. Relating to the research mentioned in the literature review, this could be due to their personal self-identity as a protector of the marine environment, and the increased awareness gained from taking part in COAST which has led to their values spilling over into other behaviour.

## **Chapter 5: Conclusion**

From the results outlined in the previous chapter, over half of COAST's volunteers' motivations were able to be explained by existing models of research. However, admiration for its founders, as well as for the organisation itself, was identified as motivations which had not been described in the research. Additionally, a high level of support from the community, due to COAST's effort to include it in its work, was reported, which may have further motivated volunteer participation. This has implications for volunteer organisations which may be able to benefit from including the surrounding communities in its work to gain support and feelings of positivity and encouragement. Overall, admiration for COAST, for its founders, and a high level of community support, as well as principally self-transcendent motivations for volunteering, may have played an important role in ensuring COAST's success.

Pro-environmental behaviour spillover was noted to have occurred in most of the volunteers, principally in ways which benefitted the marine environment such as the removal of rubbish from the seas and beaches and the raising of awareness on marine conservation issues. The two volunteers who had not noticed any pro-environmental behaviour spillover had been motivated to join COAST by friends and family members. This suggests that perhaps personal motivation to conserve the environment has to exist in order for pro-environmental behaviour spillover to occur.

#### Suggestions for future research

Future studies could examine the motivations and pro-environmental behaviour spillover of volunteers from other successful conservation organisations in order to compare findings to those of this study, and determine which motivations and types of behaviour spillover are likely to lead to the most positive impact on the environment. Additionally, the same COAST volunteers could be interviewed in the future, to examine whether they have noticed any additional changes in motivation and behaviour spillover. Also, people who are interested in becoming volunteers but who have not fully signed up to a conservation organisation could be interviewed to understand where their interest is originating from. Volunteers from a terrestrial conservation organisation could also be interviewed, and their answers could be compared to those described in this study, in order to examine the differences and similarities which may exist in volunteers' motivations and behavioural spillover.

## **Bibliography**

- Bandura, A. 'Exercise of Human Agency Through Collective Efficacy', *Current Directions in Psychological Science*, Volume 9 Issue 3 (2000)
- Batson, C. D., and Ahmad, N., 'Four Motives for Community Involvement', *Journal of Social Issues*, Volume 58 Issue 3 (2002)
- Clary, E. G, and Snyder, M., 'The Motivations to Volunteer: Theoretical and Practical Considerations', *Current Directions in Psychological Science*, Volume 8 Issue 5 (1999)
- COAST, Community of Arran Seabed Trust, <http://www.arrancoast.com>, accessed 4 June 2015
- COAST, Lamlash Bay No Take Zone, <http://www.arrancoast.com/campaigns/lamlash-bay-no-take-zone>, accessed 4 June 2015
- COAST, South Arran Marine Protected Area, <http://www.arrancoast.com/campaigns/south-arran-marine-protected-area>, accessed 04/06/2015
- Doney, S. C., Ruckelshaus M, Duffy J. E., Barry J. P., Chan F, English C. A., Galindo H. M., Grebmeier J. M., Hollowed A. B., Knowlton N, Polovina J, Rabalais N. N., Sydeman W. J., and Talley L. D., 'Climate change impacts on marine ecosystems', *Marine Science*, Volume 4 (2012)
- Evans, S., Maio, G. R., Corner, A., Hodgetts, C. J., Ahmed, S., Hahn, U., 'Self-interest and pro-environmental behaviour', *Nature Climate Change*, Volume 3 (2013)
- Hall-Spencer, J. M. and Moore, P. G., 'Scallop dredging has profound, long-term impacts on maerl habitats', *ICES Journal of Marine Science*, Volume 57 (2000)
- Hanscomb, S., 'Community Initiatives' class material, Environmental Communication Postgraduate Course, University of Glasgow (2014-2015)
- Haslam, S. A., Reicher, S. D., Platow, M. J., *The New Psychology of Leadership: Identity, Influence and Power*, (Psychology Press, 2010)
- Helliwell, J. F., 'Well-being, Social Capital and Public Policy: What's new?', *The Economic Journal*, Volume 116 (2006)
- Kelleher, G., *Guidelines for Marine Protected Areas*, ed. Adrian Phillips (Gland, Switzerland and Cambridge, UK: IUCN, 1999)
- Koss, R. S., and Kingsley, J. Y., 'Volunteer health and emotional wellbeing in marine protected areas', *Ocean and Coastal Management*, Volume 53 (2010)
- McDougle, L. M., Greenspan, I., and Handy, F., 'Generation green: understanding the motivations and mechanisms influencing young adults' environmental volunteering', *International Journal of Nonprofit and Voluntary Sector Marketing*, Volume 16 Issue 4 (2011)

- Measham, T. G., and Barnett, G. B., 'Environmental Volunteering: motivations, modes and outcomes', *Australian Geographer*, Volume 39 Issue 4, (2009)
- Murray, S. N., Ambrose, R. F., Bohnsack, J. A., Botsford, L. W., Carr, M. H., Davis, G. E., Dayton, P. K., Gotshall, D., Gunderson, D. R., Hixon, M. A., Lubchenco, J., Mangel, M., MacCall, A., McArdle D. A., Ogden, J. C., Roughgarden, J., Starr, R. M., Tegner, M. J., Yoklavich, M. M., 'No-Take Reserve Networks: Sustaining Fishery Populations and Marine Ecosystems', *Fisheries*, Volume 24 Issue 11 (1999)
- Oppenheim, A. N., *Questionnaire Design, Interviewing and Attitude Measurement*, New Edition (London and New York: Continuum, 1992)
- Oxford Dictionaries, <http://www.oxforddictionaries.com/definition/english/self-transcendence>, accessed 10 July 2015
- Roberts, C. M., Hawkins, J. P., and Gell, F. R., 'The role of marine reserves in achieving sustainable fisheries', *Philosophical Transactions B of the Royal Society*, Volume 360 Issue 1453 (2005)
- Rogers, J. C., Simmons, E. A., Convery, I., and Weatherall, A., 'Public perceptions of opportunities for community-based renewable energy projects', *Energy Policy*, Volume 36 (2008)
- Ryan, R. L., Kaplan, R., Grese, R. E., 'Predicting Volunteer Commitment in Environmental Stewardship Programmes', *Journal of Environmental Planning and Management*, Volume 44 Issue 5 (2001)
- Schultz, P. W. 'The Structure of Environmental Concern: Concern for Self, Other People, and the Biosphere', *Journal of Environmental Psychology*, Volume 21 (2001)
- Sheavley, S. B., and Register, K. M., 'Marine Debris and Plastics: Environmental Concerns, Sources, Impacts and Solutions', *Journal of Polymers and the Environment*, Volume 15 Issue 4 (2007)
- Stern, P.C., 'Toward a Coherent Theory of Environmentally Significant Behaviour', *Journal of Social Issues*, Volume 56 Issue 3 (2000)
- Stukas, A. A., Hoye, R., Nicholson, M., Brown, K. M., and Aisbett, L., 'Motivations to volunteer and their associations with volunteers' well-being', *Nonprofit and Voluntary Sector Quarterly* (2014)
- Thomas, D., 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation*, Volume 27 Issue 2 (2006)
- Todhunter, T., 'Low-carbon Communities: A Grassroots Perspective on Public Engagement', *Engaging the Public with Climate Change: Behaviour Change and Communication* (Routledge, 2012)

Truelove, H. B., Carrico, A. R., Weber, E. U., Raimi, K. T., Vandenberg, M. P., 'Positive and negative spillover of pro-environmental behaviour: An integrative review and theoretical framework', *Global Environmental Change*, Volume 29 (2014)

Walker, G., and Devine-Wright, P., 'Community renewable energy: What should it mean?' *Energy Policy*, Volume 36 (2008)

Walker, G., Devine-Wright, P., Hunter, S., High, H., and Evans, B., 'Trust and community: Exploring the meanings, contexts and dynamics of community renewable energy', *Energy Policy*, Volume 38 (2010)

Whitmarsh, L. and O'Neill, S., 'Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours', *Journal of Environmental Psychology*, Volume 30 (2010)