

## World in a Watershed: Ridge to Reef Island Excursions for Small Community Heritage and Food Security

U.S. Virgin Islands



Nate Olive

**Organization type:**

nonprofit/ngo/citizen sector

**Budget:**

\$100,000 - \$250,000

**Website:**<http://www.visfi.org>

- [Citizen participation](#)
- [Cultural preservation](#)
- [Conservation](#)
- [Sustainable agriculture](#)
- [Sustainability](#)
- [Volunteerism](#)
- [Travel and tourism](#)

### Project Summary

#### Elevator Pitch

**Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.**

Ridge to Reef Excursions are designed to convert the energetic inputs from tourism into calories of sustainably grown food for the benefit of host vegetative, marine, and human communities across a local watershed scale. Visitors learn organic permaculture farming skills and then use them at local sustainable farms and community gardens. Excursions for locals and visitors alike range from guided farm watershed hikes to immersion weeks like Beneficial Farmer Training, Permaculture, Bush Skills, Art of Mentoring, and volunteer retreats from clients such as the Sierra Club and Overland Summers. Ridge to Reef Farm is the base of activities, from where 3 mile bio-hikes are led down historic riparian sanctuaries past the shoreline into coral reef habitat and through a rich heritage of agricultural lore, both ancient and modern, along the way. An expanding open source web-based local marketplace supports 12 sustainable growers and craft producers to serve the territory's only local source of certified organic produce and innovative value-added tourism products.

#### About Project

**Problem: What problem is this project trying to address?**

The primary problems here are 1) Lack of natural resources on a small island (84 square miles) to sustain local economic production 2) Economic leakage, where money from tourism immediately leaves the destination community because the products depend on external inputs and imports. 3) Permanent land changes that destroy the natural and cultural heritage of the area and only benefit a select few. E.g., Construction of the massive Hovensa oil refinery destroyed the largest freshwater lagoon in the territory and continues to poison the waters in an ongoing well-known seeping oil leak. 4) Once known as the "Breadbasket of the Caribbean," St. Croix's farming industry has faltered while tourism increased and a recent study shows that >90% of food consumed on the island is imported. 5) Global problems (like those mentioned above) on small islands are magnified due to lack of land, and both local and visiting populations find it difficult to take the reverse points of view (local to global and vice versa) until they feel it deep in their gut. 6) Import-dependent islands are vulnerable to sudden food shortages and global price increases. We want more food, but only by sustainable practices.

**Solution: What is the proposed solution? Please be specific!**

This idea has several important distinctions. Primarily, it fuses local and global perspectives simultaneously into memorable experiences; Its activities speak of the ongoing human story through the pages of a naturally defined watershed at a digestible local scale. During excursions, which include hiking tours, student programs, and group retreats, visitors are engaged in activities that instill a dual responsibility to 1) provide and protect food to the larger community (for benefit of other watersheds) and 2) stewardship of natural and cultural heritage resources that make the extended watershed special and viable. So many ecotourism and heritage tourism programs offer wonderful experiences but lack a visible bottom line by which to measure the promise of the experiences, especially for tourists to witness. Ridge to Reef Island Excursions include terrestrially complete small scale models which extend out into the benthic marine areas below the watershed pour points. They say on land that water never lies. This is also true to the life in the sea, where we see our affects in the health of coral communities, particularly in threatened species such as *Acropora palmata* (Elkhorn), a major Caribbean reef-builder with a sensitivity to human and livestock-borne pathogens. This species provides a critical habitat to fisheries, estimated to feed 25% of the fish in the Caribbean. Caledonia is one of St. Croix's 22 watersheds and Ridge to Reef Farm (R2R) is located at the ridge line headwaters in a keystone stewardship position. Through USDA

certified Organic farming practices and Permaculture design systems that build soil quality and sink water into the ground water table, visitors take part in a model system that enhances the entire watershed and provides commodities for the island community. In addition, community gardens inside other watersheds are planted and maintained by visitors who engage in workshops for the public with visiting farmers and culture bearers.

#### About You

**Organization:**

Ridge to Reef Farm

[Visit website](#)

#### Section 1: About You

**First Name**

Nate

**Last Name**

Olive

**Website**

<http://www.visfi.org>

**Organization**

VIrgin Islands Sustainable Farm Institute/ Ridge to Reef Farm

**Country**

#### Section 2: About Your Organization

**Organization Name**

Ridge to Reef Farm

**Organization Phone**

340-220-0466

**Organization Address**

PO Box 1007 Frederiksted USVI 00841

**Organization Country**

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#### Your idea

**Country your work focuses on**

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**Website URL**

<http://www.visfi.org>

**Would you like to participate in the MIF Opportunity 2010?**

Yes

#### Innovation

**Do you have a patent for this idea?**

#### Impact

**What impact have you had on your clients and the tourism sector?**

Clients in the programs include local school groups of all ages (in the previously entered Natural Mentors program), visiting students, interns, and group retreats. Yet the impacts expand from the experiences to the products of the programs, that include the only local certified organic produce supply in the Virgin Islands. In other words the entire visitation program keeps the organic farm alive to then feed the island and to continue conserving its tour sites for ecological and cultural heritage purposes. This, in turn, produces more wild game and seafood.

Individually, clients can easily digest a sometimes huge and complicated ecological picture of how human actions on land influence our water supply, and then ultimately our food supply on both land and in water. Many clients are inspired to export these concepts to their home areas and have written us about their progress. Some have gone on to become industry leaders (one at Sustainable Travel International), similar project visionaries, and have changed degree paths. In particular, one client told us after her agroforestry course with us she changed her major from Agricultural GMO engineering to Organic farming. Another young farmer from a Mississippi cotton legacy is transforming his family farm into an organic farm education center. A local island resident/client now studies slow food at a major culinary arts school. Local chefs are excited about

our unique agricultural production and are featuring more items in their menus. Since we have a 100% solar carbon-negative home facility, many clients say they reevaluated their use of power and water after staying with us. If guests choose to do so, they can use our composting toilets—sure to always blow some minds.

We are major catalyst of a local island food movement, and success in the tourism market has inspired others here to grow sustainable. We now have 12 other growers in our on-line network market, at [www.vi.locallygrown.net](http://www.vi.locallygrown.net), for our clients.

### **Actions**

We have discovered that in order to reach the minds and hearts of others about it is most effective to talk to their stomachs. The greatest actions we have taken are all efforts to connect people to their food supply, and the heritage of natural ecology and food production that has sustained us thus far.

We host community appreciation, guest chef, bush chef, and "slow down" dinners. These dinners are opportunities to gather community members and visitors to share and discuss local foods are how important they are for island prosperity, land & marine conservation, and community development. They range from free pot-lucks to 6-course, white plate dinner feasts. All dinners feature at least 90% local ingredients and local cuisine choices that tell the local story.

We run an on-line community supported marketplace ([www.vi.locallygrown.net](http://www.vi.locallygrown.net)) that features organic and naturally grown produce, food, and crafts. In the past year, over 12 growers have joined and we plan on spreading this market to all three major US Virgin Islands. Clients take educational and volunteer excursions to these farms, diversifying the marketplace and adding to production.

We teach permaculture farming.

### **Results**

We will turn the tide of local sustainable food security for the USVI and other islands who see this as a model to use. Already, the British Virgin Islands and Nevis both have watershed projects wanting to replicate our community development and food production tourism programs.

We will bring together island populations who have been traditionally polarized by land and marine conservation battles. Fishermen, in particular, are important players in sustainable food production but have been largely alienated by preservation initiatives to keep them out of their native waters and the fishing way of life (heritage). By supporting their sustainable actions and educating about the ecology of our food supply, fisherman can lower their guard and find greater profits by selling sustainably harvested fish to the growing niche market. This is the same for many farmers, who have to ask their aging grandparents how to grow without synthetic chemicals. We offer scholarships and reduced rates, in addition to membership in our web-market to farmers and local chefs. Those who have been trained also are building our pool of potential employees. More than anywhere, small islands need cooperation.

### **What will it take for your project to be successful over the next three years? Please address each year separately, if possible.**

- 1) We need more local trained employees this year to learn here and then take the work to other like projects in the USVI and Caribbean region.
- 2) We need more wide-spread marketing to niche sectors around the world. As a farm tourism destination, marketing and farming are two activities that directly oppose each other in that they are endless time vacuums. As this project grows, I would like to establish a geographic support network that markets for Ridge to Reef farms in the region and world-wide so that tourists can identify the next place they can go to learn and be on the forefront of action-based food production projects.
- 3) Our Heritage tourism survey must be completed in 2 years. Started by the University of Georgia, the USVI Department of Tourism, Crucian Heritage and Nature Tourism, and other USVI partners to further the understanding of tourists who are motivated to seek natural and cultural heritage experiences. This scientific community participatory planning study led to the creation of Natural Mentors and now Ridge to Reef Farm Excursions. Further progress will have broad impacts and be compared to the national Geotourism Survey. We need ~\$74K to finish the survey.
- 4) Scholarships are needed for USVI, Puerto Rico, BVI, and other neighboring islands to take part in the excursions and courses offered within. Many locals live in depressed economies and find it difficult to take part in these programs, which are just as much for them as for the educational and volunteer tourists from abroad. The Virgin Islands Sustainable Farm Institute already provides some funding for scholarships: two per excursion, but we have a great demand for much more. Over 40% of the USVI lives in poverty. Puerto Rico has one of the highest unemployment rates in the USA. These problems are widespread across the Caribbean.
- 5) The US Virgin Islands must no longer be marginalized by international funding agencies who neglect to support the territory because it is a territory of the US. The people of the USVI were sold along with the land to the US in 1917 against their will by the then ruling Danish. Not until 1970 were the people allowed to elect their governor, and they cannot vote in national elections. Agencies should recognize the uniqueness of the USVI and St. Croix in particular as a small island developing state and open up funding resources accordingly.

### **What would prevent your project from being a success?**

Ways we could be challenged are:

- 1) Loss of our watershed farmland due to owner's pressure to develop according to status quo. However, we could set up in other sites wanting to do this same type of work.
- 2) Product is not articulated clearly or widely enough to the niche markets it serves.
- 3) Liability risk associated with farming and visitor programs, and rising costs of insurance (\$15,000 per year).
- 4) New development damages our watershed area so that our affects are no longer significant.
- 5) Global warming and related coral bleaching finishes off the reefs before we can make significant gains on a local level to increase their resilience.
- 6) Competition from Cuba opening to the US for tourism could drain our niche market in these next critical years. That is why the Heritage Tourism Survey is critical to base our tourism on aspects that cannot be substituted elsewhere. The small scale of our island and watershed tourism is one advantage that we must race to identify ourselves with before the millions are deflected to massive Cuba.
- 7) We lose local participation in our programs. This is highly unlikely, but the importance of meaningful and fair community integration with our program is critical. We have to remember to share our resources fairly and stay true to the mission of increasing local food security.

**How many people will your project serve annually?**

101-1000

**What is the average monthly household income in your target community, in US Dollars?**

\$100 - 1000

**Does your project seek to have an impact on public policy or introduce models and tools that benefit the tourism sector in general?**

Yes

**Sustainability**

**What stage is your project in?**

Operating for 1-5 years

**In what country?**

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**Is your initiative connected to an established organization?**

Yes

**If yes, provide organization name.**

Virgin Islands Sustianable Farm Institute

**How long has this organization been operating?**

More than 5 years

**Does your organization have a Board of Directors or an Advisory Board?**

**Does your organization have any non-monetary partnerships with NGOs?**

Yes

**Does your organization have any non-monetary partnerships with businesses?**

Yes

**Does your organization have any non-monetary partnerships with government?**

Yes

**Please tell us more about how these partnerships are critical to the success of your innovation.**

We would be lost without our partners! Since small islands are lacking in resources, resource sharing is paramount. Crucian Heritage and Nature Tourism is a non-profit that helps us receive local government grant funding and in-kind support from the VI Waste Management Authority and Department of Agriculture by cooperatively conducting projects like the latest Ridge to Reef Rural Community Garden in downtown Frederiksted on St. Croix. The landowner is leasing us 3 acres at no charge to make this project viable and renew downtown beauty with permaculture and gardening that will be locally run and receive our R2R visitors as volunteer helpers.

MyJive.net, Inc., is providing pro bono creative consulting to help position R2R's marketing through social networking and web media outlets.

We also partner with local schools for our school gardens that we maintain and offer free field trips to public schools. The VI Department of Tourism helps us coordinate these school trips so they are not a burden on our small staff and they set up other local group field trips and retreats. I speak at their events to highlight the positive developments in heritage and agricultural tourism.

**What are the three most important actions needed to grow your initiative or organization?**

- 1) We need additional administrative support to manage the various groups and individuals in our market. This could come from grants or in-kind human resource sharing by partner institutions.
- 2) We need land conservation models that enable local landholders to get a return on their investments while maintaining their sites for increased agricultural production, recreational tourism, and ecological conservation.
- 3) We need to partner with scientific researchers who can develop watershed monitoring programs in our area that look at our social, environmental, and economic bottom line indicators to evaluate the efficacy of our sustainable tourism development programs.

**The Story**

**What was the defining moment that led you to this innovation?**

During the early stages of my ongoing PhD program in 2004, I reported my vision of watershed based tourism to one of my faculty advisors at the University of Georgia, Fisheries expert and Virgin Island native Dr. Cecil Jennings. As I told him about the unique properties still undeveloped in the northwest quarter of St. Croix that needed protection and how I wanted to approach experiential sustainable tourism development to tell this story, he said, "What you have to your advantage is scale." He then told me of a book published on the island's watersheds and ecological communities which he incorrectly named the "Ridge to Reef book." It is actually called "Island Peak to Coral Reef," but the name -and the concept- stuck. I instantly saw how the same concepts in environmental ecology applied to the interconnectedness with people and their food supply. Farms are so often thought of as bordered where if everything was sustainable on the site then it must be good. But this approach could articulate the interconnectedness between natural and cultural systems, with food being the authentic, unifying factor -and the appeal to the tourist sector. Later I

found out that this concept was also used by another name in Hawaii by indigenous people who held great reverence for their watershed homelands and the sea below it. Through research here in the USVI, it appears that the same held true here, and still does today with R2R and is spreading through grass-roots development to other watersheds in the USVI and beyond. With the support of fellow directors Ben Jones, Dan Glenn, and others at VISFI, we launched the first small R2R program as a Farmer Training and now it has expanded to the full annual suite of R2R excursions and immersion programs.

**Tell us about the social innovator behind this idea.**

Nate Olive is both a farm tourism management professional and academic dedicated to peacemaking through empowerment. He is a PhD candidate and research assistant with the University of Georgia's Natural Resource Recreation and Tourism Program. His research focus is sustainable heritage tourism development for insular areas, with an emphasis on St. Croix, US Virgin Islands. Olive also holds a baccalaureate degree in psychology and a master's degree in tourism ecology. He has authored studies on recreation and tourism in small islands with the US federal government and Mexico (Gulf of California). Since being inspired by Candy Dyer of Rust Op Twist, St. Croix, in 2001, Nate has been studying coastal ecotourism and heritage preservation. Nate provides community planning and monitoring frameworks for group decision-making as a researcher and facilitator. He is also the program director for the Virgin Island Sustainable Farm Institute, and a Geotourism Ambassador for the National Geographic Society, who named him a top 10 global innovator in his field in 2010 in the Geotourism Challenge for his Natural Mentors innovation.

Also, Olive is a farmer and photographer, following the footsteps of his grandparents and parents. He is the owner and director of the only USDA certified Organic farm in the USVI, Ridge to Reef Farm and its VI LocallyGrown market that hosts 12 other sustainable growers. Olive specializes in helping the self empowerment of island residents to start their own businesses around heritage tourism and development. He also consults for other farm tourism, education, and production projects in the Caribbean region.

Much of his work in the past few years has been influenced by study partner mentors such as Frandelle Gerard and Olasee Davis, VISFI founder and Executive Director Ben Jones, and Olive's business partner/Fiancee Shelli Brin, a USVI native. All of these mentors have helped sculpt his work, as well the supporters of his tourism dissertation research.

Olive loves long distance hiking, cooking, and playing his banjo on the farmhouse porch.

**How did you first hear about Changemakers?**

Friend or family member

**If through another, please provide the name of the organization or company**

I originally heard about it through someone telling me to submit an entry in the 2008 Geotourism Challenge

MIF Opportunity 2010

**Has your organization been legally constituted or registered in your country or one of your target countries for at least three years?**

Yes

**Does the applicant organization have sufficient financial resources to guarantee the co-financing required by MIF during the execution period of the project? (This amounts to at least 50% of the project's total budget with 25% in cash and 25% in-kind.)**

Yes

**Does the applicant organization have experience managing projects co-financed by international organizations? Please describe below**

No

**Please classify the applicant organization according to the options below**

Enterprise/Profit corporation

**What problem-area does your project address?**

Access to knowledge and training, Access to markets.

**How will your project address this problem?**

Since we already provide training and access to markets, we need more resources to amplify our work. We conduct beneficial farmer training programs, permaculture programs, youth camp training programs, and community service volunteer retreats, all of which address these persistent problems in the small island depressed economy of St. Croix. If we had resources for more personnel management, we could easily ramp up our activities here on St. Croix and enter the other more lucrative markets in the Virgin Islands and beyond to other islands.

**Who is benefited by the initiative? (Please highlight the type and number of beneficiaries, and their role in the tourism value-chain.)**

Direct benefits are received by R2R employees, who receive income for services in R2R. They are also received by our 12 and growing base of farmers taking part in the initiative, who get both labor help and income from their resulting sales in the R2R VI Locally Grown marketplace. Only 15% goes to the market, so farmers keep a far higher percent of retail sales than from going through traditional sales venues. Local students (farmers and non-farmers alike) benefit from education about the story behind the food, its heritage, and how they can use it to provide tourism experiences in their own projects and watershed communities. Visitors are benefitted by increased education and by being given a chance to offset their negative travel impacts with organic farming practices that trap carbon and then result in helping the economic development of local businesses, thus supporting an entire new crossover sector of economic growth. Local student programs and other visiting residents see a model of sustainable development and often go home with new ideas or rehashed memories of how descendants met their needs without as much dependence on imports. Other Virgin Islands are requesting our assistance, but we are forced to work mostly on St. Croix because of a lack of staff.

**How will the project's results assist the region's tourism sector and micro, small and medium-sized enterprises?**

The project will produce a self-seeding crop of students and impacted visitors who are motivated to partake in tourism activities that increase small

island heritage and food security. In our more in depth programs such as the Ridge to Reef Beneficial Farmer Training we don't just train new farmers, we train new farmer instructors. Individual or micro farm businesses are critical to approach the collective critical mass that is required for a thriving island, territorial, and regional agricultural market and thereby improve the current inconsistencies that continually hamper development projects for agricultural industries. Even existing non-farm properties can retro-fit their facilities to be more sustainable in their watersheds. It would be wise to select target watersheds for projects that are in threatening positions to reefs and cultural resources.

**A. Total Budget (100%)**

400,000

**B. MIF Contribution (up to 50% of total budget and US\$. 500.000 max)**

200,000

**C. Cash co-financing (at least 25% of total budget)**

100,000

**D. In kind co-financing (at least 25% of total budget)**

100,000

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