



CREATING WEALTH FROM KNOWLEDGE

**A Communication Strategy
for
BC Shellfish Aquaculture**

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Canada

EXECUTIVE SUMMARY

The continued decline of the traditional resource industries of forestry, fishing and mining has greatly impacted BC's rural coastal communities: nearly 9000 people have moved away from BC's rural coastal areas during the past decade. As a result, while BC enjoyed an overall population growth rate of 4.9% during this period, its rural coast suffered a population decline of 2.7%.

In addition to the declining population, the average unemployment rate in many of these communities is extremely high. For example, a study of 12 First Nation (FN) communities on BC's central and north coast reported an average unemployment rate of over 60% - with the percentage of the workforce employed in fisheries and forestry declining markedly over the past decade.

Many economic studies have declared that the expansion of the shellfish aquaculture industry could contribute significantly to the economic revitalization of these communities.

Like other emerging industries, shellfish aquaculture requires a clear vision and a collective strategy if it is to achieve the kind of potential these studies predict. A collective strategy includes an effective communications plan. The communications plan must be developed considering the needs of each different stakeholder group. The communication mechanism to address an issue that a new grower might face – is very different from the communication mechanism that would be appropriate for a new Mayor and council as they seek to understand how to support a growing shellfish aquaculture industry in their community.

From surveying key stakeholders in three BC coastal communities, this communication strategy defines actions that will help to remove barriers faced by industry members as they grow their shellfish aqua-businesses. The strategy also defines actions that, if implemented within the community, would serve to improve attitudes and strengthen community support – helping to move this industry forward to the next stage of development, bringing much needed employment and economic growth to coastal communities.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
TABLE OF CONTENTS	3
1. SHELLFISH AQUACULTURE	4
A. Global Perspective	4
B. BC Perspective	4
C. Role of First Nations in BC Aquaculture Industry.....	4
2. PROJECT OBJECTIVES	6
3. PROJECT ACTIVITIES	6
A. Project Steering Committee.....	6
B. Community Prioritization Process.....	6
C. Community Research	7
4. ISSUE/BARRIERS	7
A. General Introduction	7
B. Ladysmith/Chemainus	8
C. Nootka Sound	19
D. North/Central Coast	30
5. COMMUNICATION RESOURCES AND TOOLS	34
A. AquaPort.....	34
B. Other Communication Tools and Vehicles.....	35
6. COMMUNICATION STRATEGY FOR COASTAL COMMUNITIES	37
A. Strategy For Politicians, Coastal Community Members And Media	37
B. Communication Strategy For Industry Stakeholders.....	44
7. SUMMARY & INTERNAL PROJECT NOTES	48
A. Information Brochure vs. Website	48
B. Rationale for Subcontractors.....	48
C. Project Difficulties.....	48
D. Project Benefits.....	49
E. Implementation Plan/Next Steps	49
8. APPENDIX 1	50
A. LLMP Project: Industry Questionnaire	50
B. LLMP Project: Local Government Questionnaire.....	52
9. REFERENCES	54

1. SHELLFISH AQUACULTURE

A. Global Perspective

World demand for seafood is increasing dramatically. Population growth, demographic trends, growing affluence of seafood consumers and increased consumption due to the well-known health benefits of seafood are the main reasons for the increase. At the same time, capture fisheries are at, or beyond, sustainable harvest limits. Together, this will result in an expected shortfall in seafood production of 50-80 million metric tonnes by 2030 (FAO). As a result, aquaculture will dominate seafood production by 2030 and investment opportunities will abound.

By 2030, aquaculture products will supply over 50% of global seafood production.

FAO 2002

B. BC Perspective

Thanks to bountiful clean waters and proximity to major markets in the USA and Pacific Rim countries, shellfish aquaculture in BC is well positioned for future growth, producing jobs and economic benefits for BC coastal communities.

This potential was recognized in 1997 when Coopers and Lybrand predicted that the shellfish industry has the potential to grow from \$12-million to \$100-million annually and create 1,000 new jobs. Part of this prediction was based on the fact that BC has excellent biophysical capability to expand farmed shellfish production. A high percentage of coastline on the West Coast of Vancouver Island, north Vancouver Island/Broughton Archipelago, Central Coast and North Coast meet good aquaculture siting criteria for shellfish.

The strong growth potential of the BC shellfish aquaculture industry has been confirmed in a number of other studies, surveys and reports. For example, in 2002, the Vancouver Island Economic Developers Association commissioned a study, conducted by Kingzett Professional Services Ltd., which showed that a vision of a \$50 million shellfish aquaculture industry within 5 years was attainable.

In 2003, the BC shellfish industry grew to \$30.9-million wholesale value - and a blue wave of new activity, led predominantly by First Nations, is expected to propel further rapid growth.

C. Role of First Nations in BC Aquaculture Industry

It is widely recognized and expected that First Nations will take a lead position in the BC shellfish aquaculture industry. This expectation arises not only because of the potential economic development opportunities, but also because of the many compatibilities - both cultural and social - that exist between aboriginal communities and shellfish culture.

The Province has entered into memoranda-of-understanding (MOU) with a number of coastal First Nations through Land and Water BC. These MOU's reserve specific foreshore Crown land sites under section 17(1) of the Land Act for the exclusive use of First Nations for future shellfish development. The identified sites are reserved from all other uses for a period of ten years, during which time the First Nation must provide a shellfish development plan for the areas under reserve.

First Nations with completed agreements are now actively engaged in applying for tenures on sites identified. This involves the development of shellfish management plans and going through the process of required referrals to DFO and other agencies. If a tenure application is not successful, there is a provision in the MOU's for a substitute site to be added. As such, the MOU's provide First Nations along the coast with the assurance of securing areas within their own traditional territories for the development of shellfish aquaculture.

Of the 104 new tenures issued since 1998, most have gone to First Nations. The following table includes those tenures currently held by First Nations as identified on the BC Ministry of Agriculture and Lands website (this list changes frequently, so the following may not be a complete list).

FIRST NATION	HECTARES	TENURES	TENURED AREA
CHEMAINUS **	66.3	YES	39.7HA
COMOX	89.8	YES	50.2HA
EHATTESAHT ** (Zeballos)	59.2	YES	55.1HA
HALALT ** (Chemainus)	73.8	YES	80.8HA
HUU-AY-AHT (Bamfield)	35+-	YES	24.2HA
KA:'YU:'K'T'H/CHE:'K:TLES7ET'H (Kyuquot)	80	YES	44.7HA
KLAHOOSE (Cortes Island)	60.2	YES	14.7HA
MOWACHAHT/MUCHALAHT (Gold River)	80	YES	10.1HA (21HA OFFERED BUT NOT YET ACCEPTED)
NUCHALAHT (Zeballos)	57.3	NO SITES	0
QUATSINO (Quatsino)	30	YES	2.7HA
SLIAMMON (Powell River)	54.17	NO	(36.9HA OFFERED BUT NOT ACCEPTED YET)
SNUNEYMUX (Nanaimo)	49.7	YES	22.1HA
TLA-O-QUI-AHT (Meares Island)	49.1	YES	21.3HA
TOQUAHT (Ucluelet)	28	YES	10.0HA
TSESHAHT (Port Alberni)	67	YES	6.1HA(7.9HA OFFERED BUT NOT ACCEPTED YET)
T'SOUKE (Sooke)	32.3	YES	21.9HA
UCHUCKLESHAT (Ucluelet)	80.8	YES	9.8HA
UCLUELET	56	YES	9.7HA

2. PROJECT OBJECTIVES

The expanded physical, research and development, training and investment capacity of shellfish aquaculture is capable of stimulating a significant increase in employment opportunities in coastal communities: economic studies have predicted that an expanded industry could create approximately 1000 direct and 650 indirect jobs. However, many members of coastal communities lack an understanding of shellfish aquaculture and its capacity as a vehicle for job creation. Within many communities, concerns continue to exist regarding shellfish aquaculture's environmental sustainability, its impact upon existing fisheries and its possible impact upon the social fabric of the community itself. Until community members gain a clearer perspective of this industry, it will lack their endorsement – and without their endorsement, the expanded capacity of shellfish aquaculture will go underutilized as a vehicle for economic growth and job creation.

The overall objective of this project is, therefore, to develop a communication strategy for coastal communities that presents the overriding message that *shellfish aquaculture is the vehicle through which a community's assets (skills, institutions, cultural traditions, natural resources etc.) can be exploited to achieve economic expansion and job creation.*

3. PROJECT ACTIVITIES

A. Project Steering Committee

The following organizations/individuals comprised the Steering Committee for this project:

- Vancouver Island Economic Developers Association (Susan Plester)
- Federal Provincial Aboriginal Shellfish Aquaculture Committee (Wendy Trusler)
- Aquaculture Development Branch, BC Ministry of Agriculture and Lands (Barron Carswell)
- Land and Water BC (Sean Herbert)

While the BC Shellfish Growers supported the project with a letter of support, they did not feel they could be represented on the Steering Committee due to staffing difficulties.

B. Community Prioritization Process

In the original proposal, objectives were set to assist in determining the communities that would become part of this communication project.

First, coastal communities were ranked according to the realistic assessment of their potential for shellfish aquaculture. From there, the highest-ranking communities were identified as the final *target communities*.

To make an assessment of potential for shellfish aquaculture, the following information needs were reviewed and discussed with the Steering Committee:

Communication Strategy

- Name of Community
- Existing # of Tenures
- Major 'players' involved in the industry
- Current employment situation in the community
- Level of FN involvement in the existing industry and stage of business development
- Biophysical capability of the area for shellfish culture
- Obvious challenges faced by the industry members in moving forward with shellfish aquaculture in that community
- Level of community interest and awareness for shellfish aquaculture
- Status of current infrastructure
- Status of level of supply & services to support the industry

The Steering Committee was very useful in providing assistance in this process. Based upon the community assessments, the three communities targeted for this project were: Ladysmith/Chemainus, Nootka Sound and the Central/North Coast.

C. Community Research

In depth research was conducted in the three target communities to determine:

- issues and barriers to future industry development
- community values and goals
- level of shellfish aquaculture related training, knowledge and awareness of each of the important target audiences within the community
- possible communication solutions to industry development, including recommended tools and communication pathways

Two separate surveys were designed, tested and refined. The first was aimed at current and new growers and a second was designed for those holding positions in local government and/or economic development (Appendix I).

A total of 41 individuals were interviewed (26 industry stakeholders; 15 local government) – either in person or via phone. Highlights of those surveys will be dealt with in detail in this report.

4. ISSUE/BARRIERS

A. General Introduction

The next section of the report presents the issues identified by industry and local government stakeholders within each community surveyed. The report will address each community separately.

In BC today, shellfish aquaculture operations operate in a sophisticated and complex milieu (business, environmental and social) - and are subject to significant regulatory

Communication Strategy

and licensing requirements. Developing successful businesses presents real challenges - shellfish aquaculture operations themselves are no longer sustainable as small hobby farms and require significant operating and capital investments. From the survey conducted with industry stakeholders, a variety of issues and barriers to business development were identified.

Many of the issues listed for industry affect all shellfish aquaculture businesses – whether they are longstanding members of the industry, just getting established and/or whether the business is primarily managed by natives or non-natives. However, some issues are unique to aboriginal businesses and as a result, those have been identified separately.

A communication solution has been added following the description of the issue. However, it is important to note that not all issues and barriers can be resolved through communication mechanisms alone.

A separate communication strategy for each community has not been developed – as this was not the objective of the project. Rather, the common issues from all three communities have been combined and addressed in two final communication strategies – one for communities and the other for industry.

B. Ladysmith/Chemainus

i. Industry Issues/Barriers

Current Situation

The Chemainus/Ladysmith area is comprised of a number of longstanding producer/processors (e.g. Limberis Seafoods, Timothy Oyster Co. Ltd.) as well as a large number of FN bands. The FN bands include: Halalt, Naut'sa mawt, Penelakut, Snuneymuxw and Chemainus. Most of the bands have well established wild fisheries and have access to both intertidal beaches and deep-water sites with high capability and suitability for shellfish aquaculture (Brian Kingzett, personal communication).

For example, collectively Naut'sa mawt nations are already a significant player in the BC shellfish industry, with one in every five manila clams in BC coming from their member nations clam farms or fisheries

(http://www.nautsamawt.com/images/klahowya_0405.pdf)

At the end of March 2006, the Hul'qumi'num Treaty Group, which represents 6 bands in the area, launched a shared seafood company called the Qum'ul Seafoods Company, (meaning "the tide is coming up").

Barriers

Current growers and processors in the Chemainus/Ladysmith area indicated that the main barriers they face are:

1. Government Regulation
2. Lack of support for industry within community

3. Human Resource issues

Government Regulation

The tenure process is extremely slow, expensive and frustrating for applicants. The coordination of the application process, particularly securing approvals from the Coast Guard, DFO etc., continues to be time consuming and difficult for all growers. While work has been undertaken to facilitate the application processing and minimize duplication of effort, considerable delays still exist that have put operational plans at risk.

A particular issue that was raised during the interviews is the requirement for review of aquaculture proposals under the Canadian Environmental Assessment Act (CEAA). This review is triggered by any plan within an application to place structures on proposed tenures in areas with less than 60 feet of water. Requiring the applicant to conduct a CEAA imposes extensive and costly information requirements. In many cases, tenure approval is issued conditional on securing approvals under CEAA.

“The tenure application process currently is overwhelming”

FN grower

Significant concerns were also raised over the new geoduck policy outlined by BC Ministry of Ag and Lands in June, 2005. Unresolved issues with regards to broodstock, pre-seed harvesting, habitat requirements and access to sites were identified as examples of restrictive government regulation that favor the existing wild industry over aquaculture.

Government Regulation - Communication Solution

Growers need assistance in proceeding through the Crown land application process. This could take the form of an easy to understand, step by step workbook inclusive of checklists, explanations of the various steps and requirements, up to date contact information and visual flow charts.

Lack of Support for Industry

Given they are conducted on Crown Land and often visible to the public, shellfish aquaculture enterprises often receive a great deal of scrutiny and involvement from the community.

All industry stakeholders trying to expand their operations (native and non-native) expressed frustration regarding the lack of support for their expansion initiatives from the surrounding community members.

Communication Strategy

One FN organization that was interviewed stated they required support from Islands Trust to obtain tenures not fronting reserves. As Islands Trust¹ has a mandate to “protect and preserve” their legislated area, support for aquaculture operations can often be problematic.

As well, in the Ladysmith/Chemainus area, direct upland owners often express opposition to either new tenure or expansion applications. The most common complaints are either related to environmental sustainability issues and/or viewshed issues.

Most industry stakeholders agreed that lack of community support is caused by several factors – often it is a lack of basic knowledge about the industry and the relationship between shellfish farming and the coastal marine ecosystem. The general population doesn’t understand the value of the industry to the environment, the value of the industry to the economic sustainability of their community – or how the industry has value to them personally. They don’t make the link between shellfish and BC the way they do with wine and BC, wild salmon and BC or apples and BC. The shellfish aquaculture industry lacks an excitement or ‘buzz’ around it that other BC industries have been able to achieve, and as a result, there is a lack of pride and support for the industry as an important component of BC’s farming community.

Lack of Support for Industry - Communication Solution

Maintaining and enhancing public confidence in shellfish aquaculture is imperative for the future success of the BC shellfish aquaculture industry. Until community members gain a clearer perspective of this industry, it will lack their endorsement – and without their buy-in, the expanded capacity of shellfish aquaculture will go underutilized as a vehicle for economic growth and job creation.

It will be critical to disseminate information regarding the Centre for Shellfish Research (CSR) results. However, the key to effective knowledge transfer is communication that has meaning for the audience. In other words, research results need to be set in **context** of their significance to either economic &/or environmental implications. Information must be presented in clear straightforward language and should, where possible, communicate how issues will affect people in their daily lives.

“For many, everyday/common sense judgments about science appear to be naively empiricist – they are likely to judge research as irrelevant or unconvincing if they do not understand the research methods and/or the meaning of evidence is not immediately apparent.”²

¹ Islands Trust area covers the islands and waters between the BC mainland and southern Vancouver Island, including Howe Sound and as far north as Comox. See website www.islandstrust.bc.ca for more information.

² Ministry of Research, Science and Technology (2002) Commonsense, Trust and Science, How patterns of beliefs and attitudes towards science pose challenges for effective communication, pp 137

Communication Strategy

Human Resource Issues

While technology advances are being made, shellfish aquaculture is still a relatively low-tech industry with a high demand for labor (30-50% of production costs can be attributed to labor). Currently, established non-native industry businesses are having difficulty attracting and retaining laborers to the industry. Unfortunately, shellfish aquaculture doesn't have the employment appeal of other industries and as a result, has difficulty competing for laborers. The wages in shellfish aquaculture are modest, particularly when compared to the high wages in the construction trades.

Human Resource Issues - Communication Solution

While the industry may not be able to compete with other industries in the area of wages, there may be an opportunity to fill laborer positions on Vancouver Island if the opportunities were well communicated. Information about the industry - and the range of job opportunities available in the industry - needs to be communicated to local human resource agencies.

ii. FN-specific Issues/Barriers (Ladysmith/Chemainus)

Two out of the three top barriers for non-native businesses (Government regulations and Lack of Support) were also significant barriers for those FN trying to launch successful aquaculture businesses in the Ladysmith/Chemainus area.

Given the large pool of unemployed individuals within the band itself, human resources are not the same challenge in FN communities as they are in non-native businesses. However, there are other pressing issues facing coastal First Nations in the Ladysmith/Chemainus area. They are:

Barriers

1. Access to capital and affordable financing
2. Organizational Capacity Development
3. Water Quality
4. Training and Education
5. Marketing

Access to Capital

One of the most pressing issues identified by those trying to get aboriginal shellfish operations up and running is the lack of available funding. The nature of the shellfish aquaculture industry is that it requires upfront and ongoing investment, with no cash flow for a minimum of two years. Businesses will require significant capital for physical development (seed, netting, vessels, and grow-out equipment) as well as operating capital until such time as projects can stand on their own.

To date, the majority of the shellfish industry in BC has been largely financed privately, usually through private equity. Commercial loans through banks and other financial institutions are not readily available – particularly for FN communities.

Communication Strategy

Specific information on obtaining capital investment for equity and being able to access financing for development is beyond the scope of this project. However, it is important to note that there are significant issues around accessing long term resources to create and sustain FN shellfish aquaculture businesses. Typically, a non-First Nation aquaculture venture would use the value of its licenses as one form of equity in obtaining financing. First Nations projects are less likely to allow this to happen as the tenures may be on traditional sites (i.e. fronting reserves) which cannot be transferred and therefore are unavailable to be mortgaged.

Access to Capital - Communication Solution

During a FN Shellfish Aquaculture workshop in February 2005, one of the guest speakers (Brian Titus, Osoyoos band) make a strong recommendation to all bands involved in economic development initiatives. He stressed the importance of developing a good working relationship with the financial institutions – in particular, he suggested educating bankers on the benefits of the BC shellfish aquaculture industry.

In addition, ongoing contact with the Vancouver Island Economic Developers Association (VIEDA) – New Marine Frontier Program³ - may be useful in exploring the possibility of joint venture partnerships (www.shellfishwest.com)

Given that the following objective is part of VIEDA's marketing strategy, it seems appropriate that stronger linkages need to be made between this organization and FN communities:

- To become known among First Nations and other partners within BC as a lead economic development agency in identifying corporate partners to help expand the industry.

Organizational Capacity Development

The need for strong internal band capacity was identified as the most critical issue facing those FN interviewed. Internal capacity means having strong leadership within the band, good business governance and the right corporate structure to facilitate successful, long term business operations. For FN shellfish aquaculture projects to succeed, the driving force behind any development needs to come from within communities, not government or other groups.

According to Koren Bear, Project Coordinator with Naut'sa mawt, most coastal FN have, to date, concentrated more on the operational side of the aquaculture business (e.g. obtaining aquaculture tenures, seed and equipment). They have not, however, focused on the foundations of governance, capacity development and strategic planning – which are all critical components to the creation of any successful FN business.

To be successful, those interviewed said that shellfish operations must receive strong support from the Chief and council. Often a lack of communication and/or frequent

³ 'The New Marine Frontier' is a VIEDA led program that brands and markets the shellfish industry to potential shellfish partners and investors from around the world. It can provide introductions to companies to discuss partnerships and tour prospective investors in potential communities

Communication Strategy

changes to the makeup of Band council prevents this from happening. To gain internal band support, it was suggested that all members of the band be educated about shellfish aquaculture. While shellfish harvesting is a familiar cultural activity for all FN on Vancouver Island – aquaculture is a farming enterprise – and therefore many of the husbandry practices are different from the practices of the wild fishery. Band members need to be fully aware of what is involved in shellfish aquaculture including realistic expectations of the rewards and returns available.

Other issues around capacity development include the need for FN businesses to develop a strategic plan. A well supported plan will assist the shellfish business in carrying out the economic development goals of the community.

Organizational Capacity Development - Communication Solution

For FN communities, the lack of capacity development and proper governance was one of the most significant barriers to industry advancement. To address the issue and brainstorm solutions for FN communities, a workshop was organized as part of this project. Key industry players currently working with FN communities in this regard were invited to participate. Brian Kingzett, Blue Revolution Consulting, led the discussion and reported on a recent document he wrote for Naut'sa mawt titled: "Developing a Sustainable First Nation Shellfish Culture Industry, Overcoming Capacity and Governance Issues". The workshop was very useful in clarifying the issues and providing much needed solutions – some of which have been included in this report.

To encourage the Chief and council – and ultimately all the members of the band - to fully support the shellfish aquaculture business, the following communication activities may be useful:

i. Information Program

Develop an information and awareness building program aimed at all levels of the band – in schools and within the band council itself. There not only needs to be an understanding of what shellfish aquaculture is and what it requires, but there also needs to be a collective desire to support the business venture in the long term. To be successful, the shellfish aquaculture enterprise needs to be community driven, not just run by a few.

Information on how shellfish businesses can be organized would prove extremely useful prior to business start-ups. A diversity of effective structures is available to organize shellfish businesses and their relationship to band councils.

ii. Engagement

To help build strong support for the shellfish aquaculture business, it will be important to find a way to engage each and every community member, so the shellfish aquaculture business becomes relevant to everyone, not just relevant to those operating the farm. During the workshop, one participant suggested that to help build interest and buy-in, all band members should become shareholders of the shellfish aquaculture business, and annually receive a dividend payment – regardless of how small.

Communication Strategy

iii. Role Models

Role models can often be effective tools for education and inspiration. Consideration should therefore be given to providing examples of FN economic development success stories (e.g. Ngai Tahu Seafood in New Zealand). Role models can be particularly helpful when the band is developing their vision and strategic plan. A resource list of case studies and role models could be developed for distribution to FN bands. Included in this kit of information would be how the successful FN business organization was developed and what governance model was used.

During the implementation of the Centre for Shellfish Research *First Nations Shellfish Aquaculture Training (FNSAT) Program* (see page 15), those individuals who show strong interest and aptitude for the industry should be identified, nurtured and encouraged. Encouraging and mentoring the 'best and the brightest' students is an excellent way of developing local experts and future champions within the FN community.

Water Quality

The quality of marine growing waters is directly related to the food safety of farmed shellfish. As a result, the shellfish industry in BC depends upon unpolluted growing waters to produce high quality and safe shellfish products.

Water quality, from rural development and agriculture in the upland watershed, impacts many of the tenures held by FN in the Ladysmith/Chemainus area. Many First Nation clam fisheries and aquaculture beaches are already under harvesting closures resulting in the need to undergo expensive purification processes (depuration) before shellfish can be sold in the marketplace.

The effects of log booming in Ladysmith and discharge from the Norse Canada outfall (which impacts tenures held by Halalt FN) were also mentioned as additional water quality issues.

While considerable effort has been made to monitor, identify problems and promote remediation efforts in these areas – particularly in local salmon bearing creeks - continued effort is required.

Water Quality - Communication Solution

Healthy watersheds require a long-term commitment from businesses, government agencies, and especially local citizens. Some excellent progress has already been made in preserving and rehabilitating the Bonsall Creek watershed. Communication and information dissemination, as well as initiatives to engage the local community members in stewardship activities, needs to continue with upland owners as well as the District of North Cowichan.

Many environmental organizations and foundations (e.g. Vancouver Foundation) will fund these types of activities, but the first step is to find a 'champion' to spearhead the organizational process. After an organizing body/person is established, contact should be made with the Comox Valley Project Watershed Society (<http://www.projectwatershed.bc.ca/>). This is an organization that has had over 10 years experience doing exactly the same kind of community work that is required in the

Ladysmith/Chemainus area. Their mission is to promote community stewardship of Comox Valley watersheds through education, information and action.

Training and Education

Most First Nations individuals who were interviewed indicated that band members have a critical need for training in shellfish aquaculture. Traditionally, the primary First Nations experience with shellfish has been harvesting the wild fishery. Although there are some individuals from a number of bands that have extensive knowledge of the industry, to date, much of the business planning and development work on aquaculture has been undertaken by consultants on behalf of First Nations. Now, band members require strong technical skills and in-depth knowledge on how to develop a shellfish operation that is viable. These include the development of expertise in culture practices, production planning, technology, products and equipment, reliable suppliers and shellfish markets.

One individual added that it wasn't just the standard training course that was required. Practical experience in shellfish aquaculture – as well as mentoring – was considered to be critical in order to facilitate the assimilation of information.

“Effective training is more than just a 3 or 5 day course. There needs to be follow-up afterwards - to make sure the information has been understood and implemented.”

FN Band Member, Penelukat.

Training and Education - Communication Solution

Malaspina's Centre for Shellfish Research has completed development of the First Nations Shellfish Aquaculture Training (FNSAT) Program. This comprehensive program, with 16 courses ranging from beach management to business management will support the necessary transition from “consultant based” to “First Nation based” capacity for shellfish aqua-business development.

The provincial government invested \$650,000 in funding from the Economic Measures Fund in the development of the FNSAT program. The CSR has recently obtained additional funding to develop and implement a coordinated coast-wide program management and delivery system for FNSAT. A Program Manager will be hired in May, 2006 who will be responsible for designing and developing the program management capacity to support this important training initiative.

Marketing

There were a number of marketing related issues and needs expressed by FN who were interviewed. It was identified that access to up to date market information is seriously lacking – in particular, FN businesses need to know what market opportunities exist for FN product. The cost and opportunity for developing value added products, with a FN brand, is information that would also be very beneficial.

Communication Strategy

Assurance of access to processing is a critical issue and some FN expressed frustration that they didn't have a positive working relationship with their current processor. They felt decisions regarding payment were being made without a good understanding of why.

One band also expressed difficulty in making their joint venture partnership work.

Marketing - Communication Solution

There are a number of critical communication/marketing projects that are needed as FN shellfish aquaculture businesses begin to develop:

i. Market Intelligence

There is a clear need for up to date market intelligence on shellfish markets and marketing. Some information can be obtained in the seafood trade reports available at AgriFood Canada's website (<http://atn-riae.agr.ca/seafood/reports-e.htm>)

As the mandate for shellfish market analysis does not fall under any BC ministry, it would be useful to undertake a global competitive analysis of the shellfish aquaculture industry. This marketing analysis would allow industry members to predict marketing trends (i.e. future supply and demand), thereby enhancing their ability to plan and make more informed business decisions.

Project Components would include the following areas:

- Customers (where are they, who are they, what do they want, what will they pay)
- Competition
- Trade Barriers (tariff and non-tariff)
- Production Trends (historical, actual, anticipated, potential)
- External Environment (social, political, cultural, regulatory)

ii. Marketing Cooperatives

Examples of how effective agri-food marketing cooperatives can work would also be a useful project for FN bands involved in shellfish aquaculture. An example is the BC Hothouse Foods Inc. (<http://www.bchothouse.com/company-home.html>)

iii. Brand Development

There needs to be a comprehensive study done to make recommendations on the development of a FN Brand. FN shellfish aquaculture businesses need to know the value of a FN brand, what it would mean to buyers and what the key elements are that are required for a successful branding strategy (traceability, food safety, harvesting and transport standards, product standards & guidelines etc.) In addition, work needs to be done to assess how a new FN brand would fit with existing certification programs and other seafood brands.

iv. Marketing Training

All growers – particularly those interested in marketing - should be encouraged to take the Shellfish Products and Marketing course offered by the CSR as part of the FNSAT program.

The overall goal of this course is to provide sufficient comprehensive shellfish market information to allow each student to develop a 'real life' marketing plan for BC shellfish. The course material is presented in a manner that will give the students an accurate experience of the process that a shellfish marketer completes during market plan development: extensive research of trends in the shellfish market environment is followed by a detailed consideration of strategies that may be undertaken to exploit the trends and overcome the challenges. The student is then encouraged to utilize this information to create a practical market development plan.

iii. Local Government Issues/Barriers (Ladysmith/Chemainus)

Current Situation

Most local government and economic development officers that were interviewed from this area do not see shellfish aquaculture as a huge economic driver for their community. Having said that, those interviewed are not opposed to learning more about the industry and its possible benefits.

One interviewee suggested that if there was a local expert interested in spearheading initiatives in the area of shellfish aquaculture – someone who knew about the industry and was committed to advancing it – then some forward action would be much more likely.

*“What we need is a ‘champion’ in the community
that can help take the cause forward.”*

Community Futures representative

There is a newly established marine sector initiative in the Cowichan/Ladysmith area called the Cowichan Marine Tourism Authority. Created by the provincial government in 2004, the Authority has a mandate to encourage and support the development of marine tourist facilities and activities. To date, the potential linkage between shellfish aquaculture and tourism has not been made.

One of the aspects of the Authority's work is to develop a strategic plan for expansion of the various marine tourism sectors. The strategic plan will examine the potential linkages to upland tourism amenities such as FN cultural tourism, and viticulture – but FN shellfish aquaculture has never been mentioned.

However, when it was raised that shellfish aquaculture has a strong tourism component in other counties (e.g. Spain, France), representatives of the Authority expressed interest to learn more about this.

Barriers

1. Water Quality
2. Visual and Environmental Issues

Water Quality

There are several reasons why shellfish aquaculture is not a priority for political representatives and economic development officers from this area. One of the reasons is water quality. South of Chemainus, there are few opportunities for native and non-natives to establish a viable shellfish aquaculture business due to access to clean growing water.

Water Quality – Communication Solutions

Education and information is often followed by action. As discussed earlier, communication and information dissemination, as well as initiatives to engage the local community members in stewardship activities, needs to continue with upland owners as well as the District of North Cowichan.

Visual and Environmental Issues

Local leaders believe that the visual aspects of shellfish aquaculture will create a concern for local residents.

Also many who were interviewed raised the question about environmental sustainability and shellfish aquaculture. While they admitted they didn't know anything about the subject - and as a result, suspected their concerns may be unfounded - they anticipated the general public to raise these questions if the industry were to expand. The limited awareness local politicians do have of the industry comes through the media. While shellfish aquaculture doesn't often get on the front page, salmon aquaculture does - and unfortunately shellfish aquaculture gets implicated by association.

Visual and Environmental Issues - Communication Solutions

Research showing the positive benefits of shellfish aquaculture and the environment is critical for all publics – but particularly in this area, where shellfish aquaculture sites are close to residential developments. If there are any environmental risks associated with shellfish aquaculture they must be put into context and perspective. The Ladysmith/Chemainus area is a strong supporter of other agri-businesses, so it would be necessary to compare any risks from shellfish aquaculture with other ways of producing food.

Results from the research being undertaken by the Ecological Interactions Program at the CSR will be of great interest to this community, and others.

Also, since marine tourism is a high priority in this area, examples of how linkages can be made between shellfish aquaculture and tourism would be of great interest to this area. Possibly the CSR's Deep Bay Field Site could be used as the site for a pilot project linking tourism and shellfish aquaculture.

C. Nootka Sound

i. Industry Issues/Barriers

Current Situation

Nootka Sound is a sparsely populated region which includes Nootka and Esperanza Sounds. The area is home to three FN Bands - Mowachaht/Muchalaht, Ehattessaht and the Nuchatlaht Band - and incorporates the villages of Gold River, Tahsis and Zeballos.

The shellfish aquaculture industry in Nootka Sound is currently very small, but given the excellent biophysical capacity of the growing waters, the potential for growth and expansion is very good. Currently, there are less than ten non-native farmers in the area. The Mowachaht/Muchalaht band has six shellfish aquaculture tenures, although only one is actively farmed. The Ehattessaht have a large 60 hectare tenure, although only a small percentage is being farmed. There are 5 community owned tenures in the village of Tahsis – these have been impacted by water quality closures and a lack of funding to elevate them from the wild fishery into viable aquaculture operations.

Barriers

Existing growers in the Nootka Sound area indicated that the main barriers they face are:

1. Remoteness of Location
2. Water Quality
3. Lack of political support within the community
4. Marketing
5. Regulatory Complexity
6. Access to Seed

Remoteness of Location

For the existing growers, the remoteness of their sites creates isolation – and for several reasons, this is the biggest barrier to their growth and expansion. In fact, one grower is moving his operation to Tofino simply because there will be additional services available there and other growers will be within close proximity.

Logistical issues created by these isolated sites include:

1. Higher labor and transportation costs results in a level of ongoing cost disadvantage for shellfish aquaculture businesses in this area. Either growers need to ship large volumes of product to capture the necessary economies of scale, or they need to find a high value market niche to make their operations viable.
2. Lack of and Access to Infrastructure. Due to the high cost, growers indicated it was not viable to use the dock in Gold River.⁴ One of the growers is using a

⁴ The wharf in Gold River has recently changed ownership. It is now a municipal wharf, not federal, and is being operated by the Village of Gold River. This change may be reflected in a new cost structure.

wharf in a provincial campground, while another has established a user agreement with Western Forest Products - neither of which is a suitable, long term solution for a growing industry. Accommodation at or near the farmsite is also a major issue for this remote area.

3. Lack of Communication. Due to large distances between farms, and no formal communication linkage, communication is infrequent between growers in the area. One grower makes an attempt to email the other growers in the area with news - but this is only partially successful, as not all growers use the internet on a regular basis. This sporadic contact is particularly problematic for organizing water quality sampling and ensuring timely information exchange regarding biotoxin issues.

Due to long distances from major centers on Vancouver Island (Nanaimo, Courtenay etc.), growers also have difficulty attending industry workshops and seminars on a regular basis. As a result, growers feel they have little access to new research, technology or market information.

Some of the growers reported that they felt the BCSGA has not maintained its effectiveness as a networking/information vehicle due to internal staffing issues. This only serves to increase their sense of isolation and the need to 'go it alone'.

Some growers expressed they have ineffective relationships with processors. Processors are not forthcoming with information – resulting in a lack of knowledge about shellfish marketing or what products the market wants.

Growers working on isolated sites in remote areas have limited communication and networking at all levels. Growers feel disconnected - resulting in a general lack of confidence in their own abilities. This in turn spills over to impact their view of the overall industry.

Remoteness of Location - Communication Solutions

Dock Issues

When interviewed, the Mayor of Tahsis indicated interest in working with the growers in Nootka Sound to promote their government dock. As a result, this communication linkage between the Mayor and the growers needs to be encouraged.

As well, the Gold River wharf is now being managed by the Village of Gold River, rather than the federal government. This may allow some flexibility in negotiating rates and terms. Ongoing discussion between growers and local government needs to be encouraged.

Growers Organization

Some suggested there would be benefits to establishing a grower's organization for Nootka Sound. Having some structure and formality to how communication is going to take place would be beneficial. However, ultimately, an organization's effectiveness is only as good as the interest and involvement of its members - so buy-in from all the farmers would be necessary.

Communication Strategy

Alternative Communication Ideas for Remote Communities

Since attending workshops and meetings in Nanaimo or Campbell River is difficult for industry members from remote communities, the CSR may want to consider alternative ways of engaging industry members. Growers indicated a strong preference for one-on-one communication. Therefore - where possible - this method is the recommended first choice. Where face to face meetings are not economically possible, alternative options of communication should be considered.

Water Quality

The shellfish industry in BC depends upon unpolluted growing waters to produce high quality and safe product necessary for human consumption.

Environment Canada is the primary federal government department that is responsible for growing water classification activities through the Canadian Shellfish Sanitation Program. During sanitary growing water surveys conducted in Nootka Sound, Environment Canada continues to detect elevated levels of fecal coliforms in the samples. As a result, significant harvesting closures could be anticipated in the near future.

Unlike the Ladysmith/Chemainus area, where agricultural runoff and rural development are thought to be the main sources of pollution, it is believed that rainfall is the primary trigger of fecal coliform contamination in Nootka Sound. However, no research has been done to determine the actual cause of the high counts.

Environment Canada's classification decisions are currently based on infrequent water sampling usually taken during adverse conditions, which may not accurately reflect water quality at other times of the year.

It has been shown that rather than sampling infrequently in adverse conditions, a form of sampling called Systematic Random Sampling (SRS) may be more appropriate for remote sites. This methodology spreads water sampling throughout the year – and, as a result, has been found to be more effective in modeling temporal changes in water quality as well as determining environmental factors that cause changes in water quality.⁵

Water Quality - Communication Solutions

In order to dialogue with Environment Canada about water quality issues, and discuss classification changes prior to implementation, it will be important for the Nootka Sound growers to establish a formal linkage with the Pacific Shellfish Classification Committee. This linkage may be achieved through close communication with the BCSGA, as they hold a non-voting seat on the Committee.

A Nootka Sound grower association may want to initiate a research project to confirm Nootka Sound water quality issues. This would be a similar kind of project to the one

⁵ Results of Shellfish Growing Water Sampling Programs in Barkley and Clayoquot Sounds, Blue Revolution Consulting Group, February 2003.

Communication Strategy

completed by Blue Revolution Consulting Group in Barkley Sound; project design and organization would, therefore, be relatively easy once research funds were available.

While the SRS may be the best sampling program for this remote area, it does require stakeholders, in conjunction with the regulatory authority, to work together to manage and implement the program. Without commitment to establishment of a local grower association, it is doubtful whether the growers in Nootka Sound could currently organize themselves to arrange this.

Lack of political support within the community.

Traditionally, the forestry industry has provided the economic base for the villages in Nootka Sound - not aquaculture. As a result, awareness and knowledge about the industry is limited within local government circles and the community in general.

However, in the past few years, Tahsis has seen shellfish aquaculture as a potential economic driver for the community and as a result, there are now 5 shellfish aquaculture tenures that are held by the Village. Unfortunately, the local 'champion' is no longer in public office, so new relationships need to be nurtured with the new Mayor and council.

“We toil in obscurity. We aren’t even on their radar screen”

Nootka Sound grower

Lack of Political Support - Communication Solution

There is a clear need to develop stronger communication linkages between industry and local government. However, in order to do this, local government first needs to be engaged – they need to become excited about the potential of the industry to create jobs for their community – and/or they need to see how the industry may benefit their community in some other way (e.g. expanding utilization of local infrastructure or expanding local tourism possibilities).

While supporting documentation and information will be useful, the key to establishing positive linkages and ongoing dialogue will be face to face dialogue between industry and local government representatives. Interactive dialogue, rather than simply the distribution of written material, is what is required in this situation.

“People are motivated by different things and become engaged in subjects for different reasons. You have to find out what captivates them and you do that by being more interactive, more conversational.”

Elin Kelsey, Science Educator, Monterey Bay Aquarium

Communication Strategy

Markets and Market Development

Several growers identified a need for access to greater market intelligence and information on how to grow shellfish markets. One relatively new grower indicated he had a very 'loose' business plan due to the fact that good market information just wasn't available to him when he was preparing his plan.

The lack of processing capacity in the area is also an issue. As well, many growers interviewed did not have a strong relationship or formal agreement with a BC processor, leaving them in a vulnerable situation.

Markets and Market Development - Communication Solution

As the issues are similar, some of the following recommendations also appear in the Ladysmith/Chemainus section.

Market Intelligence

As the mandate for shellfish market analysis does not fall under any BC ministry, it would be useful to undertake a global competitive analysis of the shellfish aquaculture industry. This marketing analysis would allow industry members to predict marketing trends (i.e. future supply and demand), increasing their ability to plan and make more informed business decisions.

Project Components would include the following areas:

- Customers (where are they, who are they, what do they want, what will they pay)
- Competition
- Trade Barriers (tariff and non-tariff)
- Production Trends (historical, actual, anticipated, potential)
- External Environment (social, political, cultural, regulatory)

Marketing Training

All growers – particularly those interested in marketing - should be encouraged to enroll in the Shellfish Products and Marketing course offered by the CSR as part of the FNSAT program.

The overall goal of this course is to provide sufficient comprehensive shellfish market information to allow each student to develop a 'real life' marketing plan for BC shellfish. The course material is presented in a manner that will give the students an accurate experience of the process that a shellfish marketer completes during market plan development: extensive research of trends in the shellfish market environment is followed by a detailed consideration of strategies that may be undertaken to exploit the trends and overcome the challenges. The student is then encouraged to utilize this information to create a practical market development plan.

Processor Relationships

Growers may want to consider the establishment of a formal grower-processor agreement. This agreement should specify terms such as:

- The volume of product that the processor will purchase from the grower
- The quality of product required by the processor

Communication Strategy

- The frequency of purchases that the processor will make
- The price the processor will pay the grower

Such an agreement offers security to the grower and allows business decisions to be made based upon a known revenue flow. However, the grower must recognize that the agreement will be a 'two way street' – the reason that the processor would sign such an agreement would be to enable processing plant marketing/business decisions to be based upon an assured supply of product. Therefore, the agreement could also specify terms such as:

- The volume of product that the grower will supply
- The quality standards of the product that the grower will supply
- The frequency of deliveries that the grower will make

Regulatory Complexity of Securing Tenures

As with growers in the Ladysmith/Chemainus area, growers in Nootka Sound find the coordination of the shellfish aquaculture application process (particularly securing approvals from the various levels of government) to be time consuming and difficult.

Regulatory Complexity of Securing Tenures - Communication Solution

As the issues are similar, the following recommendations also appear in the Ladysmith/Chemainus section.

Growers need assistance in proceeding through the Crown land application process. This could take the form of an easy to understand, step by step workbook inclusive of checklists, explanations of the various steps and requirements, up to date contact information for government employees and industry consultants and visual flow charts.

Access to Seed

BC has been unable to develop a large-scale hatchery that would supply local farms with quality and consistent product. Only a few shellfish hatcheries in BC produce oyster seed; these hatcheries do not produce sufficient quantities for current or increased production. BC is, therefore, still reliant on the US for their source of seed. Those growers interviewed felt that the BC industry needs its own hatchery to allow a substantial increase in productivity to take place.

Growers also expressed frustration that, other than via word of mouth, there is no mechanism in place to determine seed availability and cost. Also, once seed was purchased, there seems to be no criteria for determining its quality.

Access to Seed - Communication Solution

Discussion regarding a hatchery for the BC shellfish industry is well beyond the scope of this project.

However, it is important to note that - within the CSR's new Shellfish Health and Husbandry Research Program - plans are underway to develop a 'Health Assessment Tool' for growers. As the viability of shellfish aquaculture is currently limited by an inability to properly evaluate seed quality and the effects of different stresses imposed by husbandry practices, the health assessment tool will lead to the establishment of seed

Communication Strategy

quality standards – as well as ‘real-time’ evaluations of the stress induced by various husbandry practices.

ii. FN-specific Issues/Barriers (Nootka Sound)

Like FN bands in the Chemainus/Ladysmith area, the primary issue is access to capital.

Access to capital

“We have a number of approved sites that Mowachaht/Muchalaht (M&M) can’t develop ~ they need either capital or operating partners.”

FN representative

Access to capital – Communication Solution

As the issues are similar, the following recommendations also appear in the Ladysmith/Chemainus section.

While it is very difficult for FN to access capital, FN bands must be encouraged to develop a good working relationship with the financial institutions – in particular, there is a need to educate bankers as to the benefits of the BC shellfish aquaculture industry.

A working relationship between the FN bands and VIEDA must be established. One of VIEDA’s marketing strategies is:

- To become known among First Nations and other partners within BC as a lead economic development agency in identifying corporate partners to help expand the industry.

iii. Local Government Issues/Barriers (Nootka Sound)

Current Situation - Tahsis

As mentioned earlier, Nootka Sound is comprised of three villages: Tahsis, Zeballos and Gold River.

Tahsis currently suffers from high unemployment due to the shutdown of the local mill. While there isn’t a strong work force, the Village is actively seeking new economic development activities.

“We don’t have a strong work force, as many left town, but there are some that have stayed around hoping for new opportunities.”

Mayor of Tahsis

The economic development priorities for Tahsis used to be tourism, but now the village is concentrating on commercial marine activities. Their focus is on developing primary fish processing and associated activities such as: fish unloading/loading/shipping and ice making etc. Tahsis has a good deep sea port and the Government dock has been turned over to the village to operate. The Mayor indicated that the village is interested to work with local oyster growers to make them aware of what facilities and supplies are now available.

Tahsis is generally positive about shellfish aquaculture and agrees that it is a good ‘fit’ for their community. The previous Mayor was a local ‘champion’ of the industry and did a great deal to promote it. This resulted in the village of Tahsis acquiring 5 community owned tenures. Unfortunately, these have been impacted by water quality closures and a lack of funding to elevate them from the wild fishery into viable aquaculture operations.

On the other hand, growers who were interviewed did not feel that local government in Tahsis was knowledgeable or overly supportive of the industry. Growers also reported that shellfish aquaculture was not a significant part of their local government’s focus or attention.

Barriers - Tahsis

Access to Capital

According to local government in Tahsis, the biggest barrier they face in getting their five shellfish aquaculture sites operational is access to capital. The village would like to encourage local community members to buy the tenures - and while there is interest in doing so - the cost of getting a shellfish aquaculture operation established (estimated at \$30,000/tenure) is felt to be prohibitive.

Local government also agrees that there is a lot more they could do to promote shellfish aquaculture - but given the high cost of entry, they have made a decision not to.

This creates a ‘Catch 22’ situation. Without promotion of the industry to community members (which may result in momentum towards the seeking of joint venture partners) then community members stay uninformed and the community tenures remain undeveloped.

A likely result of this ‘no action’ policy is that the sites will have difficulty meeting the due diligence criteria set out by the BC Ministry of Agriculture and Lands. This, in turn, will eventually result in the sites being withdrawn by the provincial government.

Communication Strategy

Access to Capital - Communication Solution

The Village needs to get the five sites they already have operational. To do this, the Mayor would welcome any awareness building or communication activities to attract joint venture partners.

The results of work done by the New Marine Frontier Project of VIEDA suggest that attracting foreign investment is expensive, competitive and needs to have a long-term focus. According to VIEDA, “most communities on Vancouver Island cannot afford such efforts on a stand-alone basis. Nor do they presently have the full complement of skills to pursue such initiatives.” The new Mayor of Tahsis needs to establish contact with those working in the New Marine Frontier Project to see if – together - they could develop a focused, well researched, and targeted approach to investment attraction for Tahsis.

If tenures could get established, then training, mentorship and ongoing industry information would be a natural follow-up.

Solving this issue in Tahsis may be easier than in other areas, simply because there are at least 10 available tenures in the area, just waiting to be developed. Expansion or re-location of an existing shellfish company would be less risky than a start-up by a new operator with little industry knowledge or training. However, this isn't what the village of Tahsis would ideally like – they would rather have their community members gain access to capital (e.g. low interest loans) so the tenures would be maintained as a 'community' project. The main objective for Tahsis is to provide community members who have been displaced from the mills (rather than 'outsiders') with an opportunity for employment.

Current Situation – Zeballos

Zeballos is also a logging town - Western Forest Products Ltd. is the main employer. However, as the camp is shut for long periods of time, this clearly has a detrimental affect on employment. In addition to job losses, Zeballos, along with other communities on Vancouver Island, has been further negatively affected by US tariffs and countervailing duties resulting in additional economic hardship.

The village doesn't have a clear strategy for economic revitalization; however, the newly elected Council and Economic Development Committee will initiate this project in the near future.

Barriers - Zeballos

1. Lack of Knowledge about Shellfish Aquaculture
2. Access to Capital

Lack of Knowledge about Shellfish Aquaculture

In discussions among members of the Council, they have not considered shellfish aquaculture as an alternative economic activity to logging – citing a 'lack of time' to get fully informed on economic development opportunities (due to recent municipal elections) and a lack of available information on shellfish aquaculture.

Having said this, Council members and village staff are well informed of the established shellfish aquaculture businesses that are currently in operation around Zeballos. However, this didn't seem to translate to putting shellfish aquaculture on their 'radar' screen for future economic opportunities for their community. When it was suggested that shellfish aquaculture could be an economic driver for Zeballos, they were not, however, opposed to the idea and in fact, felt that shellfish aquaculture was a much better choice than finfish aquaculture.

“I personally feel that shellfish aquaculture has possibilities – it is much less intrusive than finfish aquaculture.”

Village Council member

Lack of Knowledge - Communication Solutions

Meetings

Face to face meetings with the Village Council to discuss shellfish aquaculture was the recommended first approach by all the local government representatives interviewed. Given the response at an introductory meeting, Council might then suggest the organization of a public meeting to inform and showcase shellfish aquaculture to the broader community. If this was the case, attendance at those public meetings would probably be greater having first had Council's 'ear' and ultimately their support.

Informal public meetings are seen to be good ways of interacting with the public on many subjects – especially those that are science related.

According to Elin Kelsey, who works as a science educator at Monterey Bay Aquarium in Monterey, California, informal gatherings and what she calls “conversation cafés” where experts can interact with the public and share information are extremely effective ways of learning.⁶

After contact was established at a meeting/gathering, email contact, website and other communication tools identified in the communication strategy could be used as methods of maintaining ongoing contact and industry updates.

Networking through AVICC

The Association of Vancouver Island and Coastal Communities (AVICC) is an organization formed for the purpose of representing the various municipalities, regional districts and other local governments of Vancouver Island, Sunshine Coast, Powell River and the Central Coast. It was suggested that this group would be an excellent avenue to raise awareness of shellfish aquaculture in all Vancouver Island coastal communities. They have regular conferences and are open to industry participation.

⁶ Grania Litwin (2006) Times Colonist Editorial “Interactive learning key to involvement”

Access to Capital

“There appears to be very few individuals or small businesses in the Nootka Sound area with a passion to enter the business of shellfish aquaculture. “

Zeballos Council member

Local politicians interviewed feel that the ‘lack of passion’ for shellfish aquaculture may in part be due to the difficulty in accessing capital for business development. The industry was seen to require high start up costs, with no cash flow for at least two years. Those interviewed didn’t know a lot about the business of shellfish aquaculture, but they did know that even after the business is up and running, returns are known to be modest. Many interviewed suggested that a shellfish aquaculture investment results in no more than ‘buying oneself a job’.

Many suggested that the overall lack of awareness and ‘buy-in’ for shellfish aquaculture development in Zeballos, together with lack of government advocacy and support for industry development, has hampered access to capital. Strong support for industry development and constructive government policies and regulations can greatly influence the attractiveness of the industry to investors and financiers. By helping to create an environment where shellfish aquaculture industry is encouraged, interest in the industry - and also in the raising of equity capital - would be less of a significant challenge.

Access to Capital – Communication Solution

In addition to what has already been suggested to attract increased investment and joint venture partners, comments from discussions in Zeballos suggest that creating awareness and enthusiasm for shellfish aquaculture within the community – and in other coastal communities – would have positive spin off benefits towards attracting investment and potential joint venture partners.

Current Situation – Gold River

Very similar to the other communities of Nootka Sound, the forest industry (Western Forest Products) was the main industry in the local economy. However, the community is looking to rebuild and diversify its economy - currently the focus of this diversification is to promote and develop their deep sea port/municipal wharf for the shipping of raw materials, as well as manufactured products.

The current unemployment estimate for Gold River is only 8%, as many community workers moved away after the pulp mill closed in 1999.

Barriers – Gold River

1. Other Economic Development Priorities

Other Economic Development Priorities

The Mayor of Gold River indicated that while the local government in Gold River is not against shellfish aquaculture, they have other community priorities for economic development. Rather than develop shellfish aquaculture, the Mayor cited two reasons for giving priority to other economic development initiatives.

1. Unlike Tahsis, the Village of Gold River would only accommodate deep water shellfish tenures
2. It would be easier to gain a stronger tax base by focusing on expanding their deep sea port than it would promote the development of shellfish aquaculture to community members.

Communication Solution

The solution to this issue is not a simple one. For the community to embrace shellfish aquaculture as a high priority for economic development would involve much more than simply a one-way exchange of information about the industry and its benefits. An ongoing dialogue and community engagement process would be required to discuss the issues and find creative solutions to community challenges.

Getting the right stakeholders to the table would be another key aspect to the 'engagement' process. Including representatives from the provincial government (e.g. BC Ag and Lands, BC Land and Water) would be helpful in the initial process of informing and educating community members about opportunities in the industry.

D. North/Central Coast

i. Industry Issues/Barriers

Current Situation

The FN of the Central Coast, North Coast and Haida Gwaii are collaborating to develop a FN driven regional shellfish industry. This initiative has been coordinated by the Tsimshian Stewardship Committee and the Turning Point Initiative and includes the following communities: Wuikinuxv, Heiltsuk, Kitasoo, Haisla, Skidegate, Old Massett, Lax Kw'alaams, Metlakatla, Gitxaala, Gitga'at, Kitselas, and Kitsumkalum.

Collectively encompassing over half the BC coastline located north of Vancouver Island, the potential for shellfish aquaculture in this large, remote area is great. Currently, unemployment averages 60% in FN communities in the North Coast, so the shellfish aquaculture initiative is being viewed as a potential economic driver for these northern communities.

Communication Strategy

Outside of this project, there are only a few non-native growers working in the Central/North Coast area. This, in part, is due to the fact that until recently, biotoxin and water quality testing has been either sporadic or non-existent on the North Coast.

Barriers

Industry members in the Central/North Coast area indicated that the main barriers they face are:

1. Lack of Industry Information
2. Lack of Skilled Individuals/Lack of Training
3. Lack of Research

After interviewing the small number of existing growers - as well as the members of the Steering Committee that is heading up the Central/North Coast Initiative - it was evident that the following issues impact both groups:

Lack of Industry Information

Given that the Central/North Coast is the most recent area targeted for shellfish aquaculture development, growers and potential growers all reported a strong need for increased information on a variety of industry subjects. Existing growers expressed frustration that education outreach has happened on the south coast, while the north has been excluded.

Specifically, growers requested information on **how to establish and set up an effective cooperative entity**. The communities involved in the North Coast Shellfish Initiative realize that they will need to work cooperatively together to allow for the necessary economies of scale that working in this remote area will demand. Participants realize that the infrastructure to launch this industry can only be borne by a collective effort. As a result, there is a critical need to provide those involved in the project with the necessary intelligence on how a cooperative entity would function effectively.

Another example is a need for information/education in **marketing**. Marketing the large volume of product that the North Coast is anticipating will require a sound, strategic marketing plan, using up to date market trend information as well as production/demand forecasting. As there is no government department that collects and maintains price trend information, this was identified as a clear need by interviewees.

Lack of Skilled Individuals – Lack of Training

The primary challenge for the development of the community based shellfish aquaculture businesses is a lack of experienced and technically skilled individuals who are capable of starting and operating large scale shellfish businesses in the north. This reflects the lack of overall capacity of the shellfish aquaculture industry in BC.

One of the main objectives of the Central/North Coast shellfish initiative is to create as many jobs in the First Nation communities as possible. When interviewed, the Turning Point Advisory Committee (advisory committee to the project) reported that the greatest training success rate in past initiatives in northern communities seems to be related to training delivered on the job and in the community. As a result, training FN band members in their community – followed by some kind of mentoring program where

Communication Strategy

information is assimilated and put into practice - will be a critical component of the success of the shellfish aquaculture project. The suggestion of mentoring was also made by a FN interviewed in the Ladysmith/Chemainus area.

One of the existing growers in the north also suggested that training needs to go beyond the potential farm workers in the communities. While the community shellfish project is well understood by a few band members in each community, the broad awareness of shellfish aquaculture hasn't reached the majority. Therefore, a form of training, or awareness building, is necessary for village members - particularly the youth.

Lack of Information & Training – Communication Solution

One of the first steps in solving the training issue will be for growers and potential growers to enroll in some or all of the courses developed through the FNSAT program.

As indicated in other sections of this report, Malaspina's Centre for Shellfish Research has completed development of the First Nations Shellfish Aquaculture Training (FNSAT) Program. This comprehensive program contains 16 courses ranging from beach management to business management and will greatly enhance the capacity for shellfish aqua-business development in the Central/North Coast.

The provincial government invested \$650,000 in funding from the Economic Measures Fund in the development of the FNSAT program. The CSR has recently obtained additional funding to develop and implement a coordinated coast-wide program management and delivery system for FNSAT. A Program Manager will be hired in May, 2006 who will be responsible for designing and developing the program management capacity to support this important training initiative. This, in large part, will address the training and mentoring needs of the North and Central Coast.

With the necessary funding, an **elementary school program** to build awareness of shellfish aquaculture with parents, teachers and ultimately the youth would be an excellent way to build strong support for the industry in the communities.

Lack of Research

According to existing growers, lack of research on the primary species that the North Coast is interested in producing (scallops, cockles) was seen as a major issue. There are two components to the research issue:

1. Both existing and new growers would like to be made aware of the research results at the CSR, particularly in the area of Ecological Interactions. The existing growers, in particular, feel they have been left 'out of the loop' – they feel that communication linkages have been established between the CSR and southern growers, but little has been done to communicate with the growers on the north coast.
2. While industry members are interested in the results of current research done at the CSR, they ultimately want basic research to be conducted on the North Coast – and indicated an interest in collaborating with the CSR to initiate and conduct research trials on their farms.

Communication Strategy

Lack of Research - Communication Solution

In the near future, the CSR will staff the position of “Regional Aboriginal Training Coordinator” located in Prince Rupert. This position will assist in bridging the gap between the CSR facilities in the south and the industry in the north. As well, Central and North coast industry members can easily be added to the CSR email distribution/listserv for updates on research results as well as notices for upcoming events.

ii. Local Government Issues/Barriers

Current Situation

The key economic development contact in the Prince Rupert area is the Manager of the Prince Rupert & Port Edward Economic Development Corporation.

The economy of Prince Rupert, and also much of northwestern BC, was dramatically affected by the closure of the Skeena pulp mill. Nearly one third of the 18,000 people who once lived in Prince Rupert have moved away to find other employment. In terms of new economic development, there is reported investment interest in fishmeal production; as well, plans are underway for a new container port terminal for the city.

Barriers

1. Opposing View on Industry Strategy

Opposing View on Industry Strategy

The Prince Rupert Economic Development Association was not positive regarding the current community approach to shellfish aquaculture. The Association feels the current model of running pilot projects in coastal communities won't be appropriate for the North coast – and believes that a large scale, industrial strategy is required. A joint venture initiative, which would bring a market partner that needs supply, together with the North coast's ability to grow product, is the recommended approach of the Association.

Opposing View on Industry Strategy - Communication Solution

The suggestion of engaging a market partner during the early stages of the North Coast project is a valid and sensible approach. Given the North Coast project will be greatly assisted by the existence of the new container port, an ongoing dialogue between the Prince Rupert Economic Development Association and the North Coast Steering Committee should be encouraged.

5. COMMUNICATION RESOURCES AND TOOLS

This section of the report reviews upcoming initiatives and innovative communication tools that will be useful in implementing the communication strategies:

A. AquaPort

There is an important initiative underway that will greatly enhance knowledge mobilization and innovation in the Canadian Aquaculture Sector. The project is called the “AquaPort” and promises to be a comprehensive database and online knowledge exchange of aquaculture related information for a wide variety of audiences.

The AquaPort project is currently in the planning and design phase. A needs assessment was conducted in the summer of 2005. It consisted of a survey, focus groups, and an analysis of existing on-line service provision in the aquaculture sector. On the basis of the findings and recommendations made in the needs assessment report, a decision was made in November 2005 to proceed to the next stage of the project.

AquaPort Goals and Objectives

As the national “go-to place” in Canada for aquaculture knowledge exchange, the portal will be important for the entire Canadian aquaculture and seafood sector, embracing government agencies, private industry, academic research and education institutions, communities involved in aquaculture, and non-government organizations. In addition, the portal will encourage and enable open societal learning with respect to Canadian and global aquaculture.

The goals of AquaPort are to:

- Provide “just in time” and open access to relevant aquaculture knowledge.
- Enhance innovation processes and outcomes.
- Aid decision making (government, community, industry, research planning, etc).
- Facilitate consultative and participatory processes necessary for sector development.
- Support community and consumer education.
- Remove redundancy and avoid duplication of effort in service provision to the sector.

The Portal will achieve these goals by creating a system of online knowledge exchange with features and functionality that will:

- be client- and user-focused,
- be based on the highest standards of quality, and
- foster public trust and confidence in the knowledge foundation of Canadian aquaculture

It will be important to stay current with the progress of this important project, as it will serve to achieve some of the objectives of this LMP project. Once stakeholders are engaged in the discussion of shellfish aquaculture, then the AquaPort will serve as a user friendly source of accurate aquaculture information for both industry and community members.

B. Other Communication Tools and Vehicles

Below is some basic information on the merits/disadvantages of some new and innovative communication tools:

Webcasting or web video conferencing is a new communication system that farmers are beginning to embrace. According to Cory Galbraith from Galbraith Communications, a recent study in Iowa of 1,000 beginning farmers found that most would rather receive information verbally rather than in printed form.

Webcasting is an ideal tool for growers to communicate with each other and share best practices, research, technology transfer ideas etc. The CSR could host all of these and record them for 24/7 access. For farmers in remote areas, the ability to communicate with other people in real time helps remove the sense of isolation. Not only that, but it also allows them to save money otherwise spent on travel and accommodation to attend workshops.

However, many people are not web savvy or computer literate, so an alternative to individuals viewing webcasts on their private computer would be to arrange for webcasts to be shown at a central location (e.g. Gold River or Tahsis). While still requiring some travel time off their farm site, an additional benefit would be that the gathering would provide growers a much needed opportunity to network in person.

Podcasting is a 'hot' new technology. In simple terms, podcasts are like radio transmissions which are broadcast over the internet. Listeners subscribe and listen via their computer or listen anywhere on hand-held devices such as iPods. Podcasting presents a new and very powerful method of communicating directly with industry stakeholders.

For example, the CSR could tape monthly interviews on a variety of topics. Some could feature CSR scientists talking about their research projects – some might talk about a new innovation – or others could be a recording of a presentation at a conference. Another idea is to produce 'good news stories' about the industry which could serve to build morale and encourage growers with their own businesses. The question and answer format could be used to make it more interesting to listen to than a one person dialogue. Growers could participate in choosing the monthly topics - then they would download the interviews and the transcripts that address those topics of interest. Over time, the monthly interviews would form a knowledge library, complete with a search engine that allows stakeholders to locate the specific podcast that includes the information they require.

The clear benefit is that the CSR would be providing information that growers have asked for - without driving to a workshop in Nanaimo to get it. As well, it makes the information tangible and personable. Rather than just reading research results on the website, the podcast allows stakeholders to relate to the scientist and better understand the material.

As the most popular and familiar internet application is still e-mail, Galbraith Communications is studying ways of connecting webcasting, podcasting and other advanced applications with simple and basic e-mail. (For example, a button in the e-mail

Communication Strategy

program would be all that was required to launch the webcast or the podcast). It's important that people find using these new technologies to communicate as simple, easy and familiar to use as possible.

6. COMMUNICATION STRATEGY FOR COASTAL COMMUNITIES

There are two obvious components to the communication strategy: 1) the strategy aimed at politicians, community members and media and 2) the strategy aimed at industry stakeholders. They will be developed and presented separately in this report.

A. Strategy For Politicians, Coastal Community Members And Media

i. Purpose

To achieve economic expansion and job creation, this strategy will:

Support the acceptance/approval of the BC shellfish aquaculture industry, through facilitating knowledge transfer to a variety of target audiences within BC's coastal communities. This acceptance will result in growth and expansion of the industry, and increased employment for communities.

ii. Background

By conducting a series of interviews with key stakeholders in three shellfish growing areas of BC, this LMP project has identified key issues/barriers to the future expansion of the BC shellfish aquaculture industry, as well as its acceptance within the community. The following is a brief synopsis of those issues raised by local politicians, economic development officers and community members:

- Water Quality
- Visual and Environmental Issues
- Lack of Knowledge about Shellfish Aquaculture
- Access to Capital
- Other Economic Development Priorities
- Opposing View on Current Industry Strategy

iii. Implementation

Given an appropriate level of funding and a 'champion' for the strategy, the plan has been written with a focus on implementation by the Centre for Shellfish Research.

While coordination of this strategy may rest with the CSR, where possible, the use of partners and third-party spokespeople will be encouraged (e.g. industry members, private sector benefactors etc.)

iv. Objectives

The following objectives are the priorities for this plan.

- To gain buy-in and support for shellfish aquaculture as an economic driver for coastal communities

Communication Strategy

- To engage local government and community members in knowledge transfer activities in order to find solutions to shared challenges around shellfish aquaculture
- Support the development of sound aquaculture policy
- Enhance public awareness of shellfish aquaculture

v. Audiences

This communication strategy is to gain awareness, acceptance and ultimately support for the shellfish aquaculture industry in the communities it operates in. This support will require communication with a variety of audiences including politicians, economic development officers, community members and media. It is important to remember that the message must be precisely tailored to the needs of the target group.

“To know what to say, know first who you are talking to.”

Peter Drucker, renowned
Management/Communication Consultant

The following groups of people are the key communication audiences or stakeholders for both aspects of this communication strategy:

Elected Officials

- Local
- Regional
- Provincial
- Federal

Government Organizations

- Local
- Regional
- Provincial
- Federal

- Universities/Colleges
- Financial Institutions
- Community Leaders
- Industry Leaders

Community Organizations

- Chambers of Commerce
- Community Futures
- Islands Trust
- Tourism
 - Local

Communication Strategy

Regional

- VIEDA & its members

Port Authorities

Environmental Organizations

Media

- Business & Science

vi. Approach

During the stakeholder interviews, it became apparent that knowledge transfer was required on a variety of different levels with a number of different audiences. No one type of communication, nor single communication pathway, was going to be appropriate in achieving the stated communication objectives.

Regarding the type of communication, this strategy will address a range of approaches. While written information (hard copy or electronic) on various subjects is an important part of knowledge transfer, it became apparent during the course of this project, that face to face stakeholder engagement was critical, particularly in the initial stages of implementing the strategy. Relationship building is an essential component. Once an audience feels engaged in the subject, then a variety of information tools can be useful as follow-up. But simply offering information is not enough. Without the opportunity for interactive dialogue – interactive learning – stakeholders will not be motivated to learn or 'buy into' the process.

“While information needs to be available on the internet, face to face meetings are the best - they help in relationship building. Video conferencing also has possibilities.”

Cowichan Community Futures

vii. Key Messages

Coastal Community Strategy

The following key messages will be used repeatedly when communicating:

- Shellfish aquaculture can create sustainable, economic opportunities for BC coastal communities
- Shellfish aquaculture is an ecologically responsible method of food production
- Shellfish farmers are reliable producers of a broad range of safe, high-quality food products

viii. Strategies & Actions & Tools

The following strategies and actions are recommended to achieve the objectives outlined above.

To ensure that information effectively reaches all of these target audiences, a range of communication tools should be developed – each with a unique message presentation, medium and tone.

As indicated earlier in the report, the solution to achieving community acceptance and support is not a simple one. For the community to embrace shellfish aquaculture as a high priority for economic development, much more than simply a one-way exchange of information about the industry and its benefits would be required. An ongoing dialogue and community engagement process will be required to discuss the issues and find creative solutions to community challenges.

In addition, presentations and materials need to be developed carefully. Community members will not appreciate being ‘told’ that they should reconsider their economic priorities, or that they ‘should’ embrace shellfish aquaculture. Rather the appearing ‘preachy’, it will be important to design the materials so they appear intriguing, informative, entertaining and of value to the participants.

*“People don’t remember
facts, dates, amounts or names.
To communicate memorably,
human beings tell each other stories.”*

Peter Drucker, renowned Management/Communication
Consultant

Communications with the media form an important part of this strategy, as all target audiences (local government, economic development officers and the general public) learn and are influenced by the media. As a result, effective communication with the media is vital to gaining public support and confidence.

ix. Preliminary Actions: Networking And Partnership Building

To maximize efficiency and take advantage of any possible synergies that may exist, it will be important to establish a high level of co-operation and communication with a wide range of organizations and partners. As a result, prior to actual implementation of the strategy, the following networking and partnership building is recommended:

1. Find a champion to fund the implementation of the community/media strategy
2. Build awareness & support for implementation of the strategy with government and industry partners (e.g. BC Shellfish Growers Association (BCSGA), the Canadian Aquaculture Industry Alliance (CAIA), industry members, VIEDA etc.)

Communication Strategy

3. Build support for implementation within key Malaspina departments (Recreation and Tourism, Business, Fisheries and Aquaculture etc.)
4. Develop a database of key contacts (local government, media etc.) in each BC coastal community. This will require expanding the level of contacts well beyond the three communities targeted in this project. Contact VIEDA President for assistance with this.
5. Develop a brand – a statement and a slogan - for the strategy
6. Meet/work with local Economic Development Officers (EDOs) to determine the best communication strategy within their own communities.
7. Brief MLAs, MPs and their constituency assistants on the initiative and the need for their support by mailing them the synopsis of it with a covering letter. The letter will request a meeting with them to discuss the strategy and its benefits, and ask for their continued support.
8. Brief federal and provincial government organizations on the strategy to create awareness and define the working relationship.

x. Actions

The Coastal Community strategy will include the following actions:

1. Produce and distribute a one-page synopsis/handout on the strategy. Encourage use in partner organization newsletters
2. Making presentations to Mayor and Council in the various communities

Note: While a variety of communication tools and pathways were recommended by local government and economic development officers, everyone interviewed agreed that initially, face to face contact was critical for engagement in the subject matter.

3. From these meetings, establish a local champion to work with in implementing the strategy
4. Host local forums for community leaders, local government reps, industry reps, local education and financial institutions, Port Authorities and media reps. Invite keynote speakers on the issues addressed in this strategy and encourage interactive dialogue
5. Clearly define regional/local benefits and statistics for use in implementation of the strategy. A handbook including pertinent benefits and statistics will be required prior to implementation.
6. Develop a series of non-technical factsheets that provide the results of the CSR research in a plain-language style that encourages comprehension by less scientifically sophisticated readers. The factsheets will present the key objectives, results and conclusions/implications in an easy to understand manner.

Communication Strategy

7. Develop a series of stories that weave together the research results and implications of related research projects with 'real-life' scenarios and people. These stories can be provided to a variety of media including magazines.
8. Begin building the Communication Page of the CSR website as 'home' for this communication initiative
9. Develop 'canned' presentations on the key issues (environmental sustainability, economic benefits) and the strategy itself
10. Make a presentation on the strategy to the Association of Vancouver Island Coastal Communities (AVICC). Display and offer to speak at their next conference.
11. After engaging the community, produce and distribute a variety of communication tools addressing local community issues (factsheets, PDF's on website, DVD, streaming video, webcasts, podcasts etc.)
12. Garner publicity from local, regional and national media (e.g. Business Examiner, Times Colonist, Vancouver Sun, Globe & Mail, National Post)

It is recommended to move forward with an organized campaign of press releases and articles/stories with a consumer-focus – not an industry focus. The releases need to be tied in with current topics that will elicit interest. It will also be important to identify industry spokespeople who are articulate and arrange broadcast interviews with these individuals.

It is important to note that all economic development officers included in this project strongly recommended the Business Examiner and Business BC as the most widely read vehicle for information dissemination.

13. Organize local shellfish events/BBQ and tours of local farms. There are already successful annual events like this in Tofino, Cortes Island and Powell River – these are excellent examples of what other communities could do. As well, these existing events could be used as a vehicle for communicating the strategy in those communities. Also, as a pilot, the CSR could organize its own event at the CSR Deep Bay field site.
14. Target elementary and secondary school students by including them in projects associated with the strategy

xi. Collateral Materials

For stakeholder engagement to be effective, it needs to be built on honest, transparent, accurate and timely information - as today's stakeholders are quick to identify superficial communications efforts or significant gaps in information.⁷

⁷ Stakeholder Research Associates Canada Inc., the Stakeholder Engagement Manual, Volume 1: The Guide to Practitioners' Perspectives on Stakeholder Engagement.

Communication Strategy

The following materials should be produced to support the implementation of the strategy and actions outlined above:

- Strategy synopsis (one-page handout)
- Letter to MLAs/MPs and other potential partners
- Power point presentations
- Local communication strategies/plans
- Newsletter articles, press releases, factsheets, research stories
- Binder of statistics and benefits
- Interactive materials such as webcasts (e.g. interviews with scientists) and streaming web cam projects that bring real time viewing of underwater marine communities to the public
- Maintenance of communication page on CSR website

xii. Budget

To be determined

xiii. Evaluation

The following measures will be used to gauge success in achieving the objectives of this plan:

1. Strategy attracts interest, a 'champion' and funding results
2. Community stakeholders and media participate by attending meetings and engaging in the discussion/information exchange
3. Support for industry increases as a result of the strategy and its implementation. This can be determined by community initiatives to move forward with shellfish aquaculture.

B. Communication Strategy For Industry Stakeholders

i. Purpose

To achieve economic expansion and job creation, this strategy will:

Support the growth and development of the BC shellfish aquaculture industry, through facilitating knowledge transfer to a variety of target audiences within the industry (Industry Stakeholder Strategy)

ii. Background

By conducting a series of interviews with key industry stakeholders in three shellfish growing areas of BC, this project has identified a series of issues/barriers that are preventing industry members from growing and expanding their businesses. Not every issue, however, is easily addressed by a communication strategy alone. The following is a selection of those barriers/issues - that with the proper support - can be addressed by the CSR.

Industry Issues

- Government Regulation
- Lack of support for industry within community
- Human Resource issues
- Organizational Capacity Development (FN issue)
- Water Quality
- Training and Education
- Marketing
- Remoteness of Location
- Seed Quality Issues
- Lack of Industry Information
- Lack of Research

iii. Implementation

Given an appropriate level of funding and a 'champion' for the strategy, the plan has been written with a focus on implementation by the Centre for Shellfish Research.

iv. Objectives

The priority objective for this plan is:

- To support the growth and development of a sustainable & technologically progressive industry

v. Audiences

As the objective of this strategy is to achieve economic expansion and job creation through shellfish aquaculture industry, you first need a strong and healthy industry. This strategy will address those issues that industry members identified as barriers to their business expansion.

Communication Strategy

The following groups of people are the key communication audiences or stakeholders of this communication strategy:

- Growers – both existing and new
- Processors
- Industry Organizations (BCSGA, CAIA, AAA etc.)
- FN Organizations, Bands and Tribal Councils

vi. Approach

During the stakeholder interviews, it became apparent that knowledge transfer was required on a number of different levels with a number of different audiences. No one type of communication, nor one communication pathway, was going to be appropriate in achieving the stated communication objectives.

Regarding the type of communication, this strategy will address a range of approaches. While written information (hard copy or electronic) on various subjects is an important part of knowledge transfer, it became apparent during the course of this project, that particularly in remote communities, face to face meetings and individual contact is critical.

vii. Key Messages

For this strategy aimed at industry stakeholders, the information requirements are extensive and multi-dimensional and cannot be summarized into only a few messages.

viii. Strategies, Actions & Tools

The following strategies and actions are recommended to assist in the growth and development of a sustainable & technologically progressive shellfish aquaculture industry. While the issues and barriers to industry growth and expansion are varied, the identified actions will help to support industry stakeholders in moving forward.

To ensure that information effectively reaches all of these target audiences, a range of communication tools should be developed – each with a unique message presentation, medium and tone.

Actions

Database

- Prior to implementing the industry strategy, a **comprehensive database** of all stakeholders needs to be developed. This will require expanding the level of industry contacts well beyond the three communities targeted in this project.

Government Regulation

- Develop an easy to understand, step by step **guidebook for growers** with the licensing and tenure approval process, inclusive of checklists, explanations of the various steps and requirements, up to date contact information and visual flow charts.

Communication Strategy

Lack of community support

- Implementation of the **Communication Strategy for Coastal communities** outlined in this report will serve to garner support for shellfish aquaculture

Human Resource issues

- Information about the industry and the range of job opportunities available in the industry need to be communicated to local human resource agencies.

Organizational Capacity Development (FN issue)

- Develop an information and awareness building program aimed at all levels of the band – in schools and within the band council itself.
- During the implementation of the FNSAT program, those individuals who show strong interest and a keen aptitude for the industry need to be identified, nurtured and encouraged. This kind of encouragement and mentoring is critical for developing local experts and champions within the community.

Water Quality

- Communication and information dissemination, as well as initiatives to engage the local community members in stewardship activities, needs to continue with upland owners and local government. Some of this awareness building will be achieved through the **Communication Strategy for Coastal Communities**.

Training and Education

- The CSR has recently obtained additional funding to develop and implement a coordinated coast-wide program management and delivery system for **FNSAT**. A Program Manager will be hired in May, 2006 who will be responsible for designing and developing the program management capacity to support this important training initiative.

Marketing

- Undertake a **global competitive analysis** of the shellfish aquaculture industry. This marketing analysis would allow industry members to predict marketing trends (i.e. future supply and demand), increasing their ability to plan and make more informed business decisions.

Project Components would include the following areas:

- Customers (where are they, who are they, what do they want, what will they pay)
- Competition
- Trade Barriers (tariff and non-tariff)
- Production Trends (historical, actual, anticipated, potential)
- External Environment (social, political, cultural, regulatory)

All growers interested in marketing - should be encouraged to enroll in the Shellfish Products and Marketing course offered by the CSR as part of the FNSAT program.

Communication Strategy

Remoteness of Location

- Clearly, as growers indicated a strong preference for one-on-one communication, this method will be undertaken where possible. Where face to face meetings are not economically possible, alternative options of communication will be considered. Examples are: CSR Website, Industry listserves and member-only email discussion groups as well as webcasts and podcasts
- Support the development of local grower associations and networking
- In the near future, the CSR will staff the positions of “Regional Aboriginal Training Coordinators”. These positions will assist in bridging the gap between the CSR and industry members – particularly those in remote communities

x. Budget

To be determined.

xi. Evaluation

The following measures will be used to gauge success in achieving the objectives of this plan:

1. The CSR engages with a wider network of industry stakeholders that the CSR is engaging
2. The list of identified industry barriers is minimized
3. The BC shellfish aquaculture industry becomes more profitable

7. SUMMARY & INTERNAL PROJECT NOTES

A. Information Brochure vs. Website

Originally, the development of a brochure outlining the objectives of the project & what had been learned through the community surveys was an agreed on deliverable as per the agreement with Service Canada. However, during interviews with local government and economic development officers, it became very clear that they viewed a printed brochure as an outdated form of communication – it was static and something most said they would ‘maybe’ read once and then throw away. Information posted on a website was suggested as a much more useful and preferred form of communication. For this reason, the development of a Community Page on the CSR website was substituted for the brochure.

The development of the page is complete and launching of the website will take place mid-April 2006. At that time, all those interviewed will be notified by email that the site is available – the email will directly link them to the Community Page. Once approved, a copy of this final report will be added as a PDF link to the Community Page.

The long term goal is to continue to update the page with activities and initiatives that will be of direct interest to those involved in economic development and job creation in BC’s coastal communities.

B. Rationale for Subcontractors

After completion of a fair and competitive process, **Madhouse Media** was the company selected by the CSR to design and develop the new CSR website. In selecting a subcontractor to design the Community Projects page (including image selection, image formatting, construction and formatting of page elements, page layout design, architecture development) it was jointly agreed by Service Canada and the CSR that an additional procurement process would not be necessary – and that greater efficiencies would be obtained by contracting Madhouse Media to design the Community Projects page.

Blue Revolution Consulting Group (BRC) was contracted to lead a one day workshop with industry experts on the topic of “Communication Strategies for Building Capacity in FN Communities”. As this issue was identified as a major barrier for FN communities in moving forward with shellfish aquaculture, the CSR felt that it would be very useful to host a workshop to brainstorm potential solutions. Brian Kingzett was selected to facilitate the meeting, based on his direct experience working with FN bands. As well, BRC recently authored a discussion document entitled: “Developing a Sustainable First Nation Shellfish Culture Industry, Overcoming Capacity and Governance Issues”.

C. Project Difficulties

Overall, the project ran quite smoothly. However, one of the issues experienced in the project was the timing of the municipal elections – they took place in November, 2005 – and as a result, time had already been taken to interview some of the local government representatives who did not retain their positions. Following the election, it was more

Communication Strategy

difficult to capture the attention of some of the newly elected officials – there were so many competing issues/initiatives waiting for their attention.

D. Project Benefits

The benefits of this project have been significant. In addition to clarifying barriers and issues to industry expansion, the project provided strong direction and guidance for the development of two communication strategies – one for the communities and one for industry.

The project has provided a wide variety of contacts that will be useful as the CSR moves forward with next steps. The CSR has extended its reach, first to growers and processors that were previously not engaged in the discussion of research or industry development. As well, the CSR has extended its reach to local government representatives, economic development officers, Chambers of Commerce as well as key media.

E. Implementation Plan/Next Steps

This report – and the value of implementing the “Communication Strategy for Coastal Communities” - will be discussed with a wide range of provincial and federal departments for potential funding. It will be important not to lose the interest and momentum already established in the targeted communities and within the CSR.

8. APPENDIX 1

A. LLMP Project: Industry Questionnaire

Barriers to Business Development

What are the issues that are barriers to you moving forward in your current business?

- Business Planning
- Remote nature of site – resulting in transportation/processing/marketing issues
- Access/availability of new sites
- Difficulty in getting tenure and regulatory approvals (government, public, wild fishery etc.)
- Lack of public support
- Other Regulatory issues
- Environmental concerns
- User conflicts
- Access to capital/financing
- Water quality
- Access to seed
- Access to new species
- Markets & market development
- Prices
- Training and education

What do you consider will be the single most significant barrier to the development of your business?

Could any of these be solved in any way by increased up-to-date information/communication? If so, which ones?

Information Needs

What *information* would assist you in being more profitable/successful in your operation?

- Accounting and financial management
- Business planning
- Markets & marketing
- Info to help building community/public support
- Tenuring Process – what's required - including CEAA & habitat requirements
- Production/Husbandry Information
- Quality Assurance
- Human Resources
- Transportation
- Environmental Interactions
- Water Quality
- Science & Research
- New Technology
- Other

Communication Strategy

Communication Tools

What would be the best method of obtaining this information?

- Shellfish Growers Newsletter;
- Shellfish Extension Worker
- Shellfish Workshops
- Training Courses – at MUC or in community?
- Farm-Site Visits and tours (Focus would be on themes relevant to growers interests - informal farmer-to-farmer learning opportunities and not classroom lecture/theory focused.)
- Internet
- DVD
- Other

Do you have any ideas or recommendations that can enhance communication and collaboration?

APPENDIX 1 cont'd.

B. LLMP Project: Local Government Questionnaire

1. What kinds of economic development activities are priorities for your community?
2. What is the level of unemployment in your community? What is the skill/education level of those who are unemployed?
3. Are you aware of shellfish aquaculture enterprises in your surrounding area?
4. Are you aware of the economic studies that indicate that shellfish aquaculture could revitalize communities?
5. Do you agree/disagree that shellfish aquaculture is compatible with your community's economic and employment goals?
6. Do you agree/disagree that shellfish aquaculture is compatible with the social and environmental values of your community?
7. Are you aware that shellfish aquaculture is recognized by important environmental organizations as being an environmentally sustainable industry? (e.g. Monterey Bay Aquarium Seafood Watch program)
8. If it isn't already, do you think shellfish aquaculture could become a priority for your community?
9. In your opinion, what role can/should local government play in support of economic development opportunities (such as shellfish aquaculture)?
10. What issues/barriers do you see to expansion of shellfish aquaculture in your area?
11. What do you consider will be the single most significant barrier to the development of shellfish aquaculture in your area?
12. Could any of these issues be solved (in any way) by increased up-to-date information/communication? If so, which ones?
13. What information would assist **you** in supporting the sustainable expansion of shellfish aquaculture in your area?
 - Research showing positive benefit of shellfish aquaculture and the environment
 - Information linking industry with economic development and jobs
 - Information on training, careers in shellfish aquaculture, mentorship programs etc.
 - Potential linkage between shellfish aquaculture industry and tourism
 - Other

Communication Strategy

14. What would be the best method of communicating this information?
 - Meetings/workshops
 - Internet
 - DVD
 - Other

15. If written information is developed, where in the community should it be made available?

16. Do you have any ideas or recommendations that can enhance communication and collaboration?

9. REFERENCES

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