Final Report

"SINK OR SWIM" ROUNDTABLE ON AQUATIC GENETIC RESOURCES

Victoria, B.C.
September 26/27, 2006

Background

The loss of aquatic biodiversity is a serious global problem that threatens ecosystem stability and food security. However, the issue is still largely viewed as a technical one, and has made little impression on policy makers or the public.

Since the mid-1980s, World Fisheries Trust, IDRC and FAO have worked to raise the profile of aquatic biodiversity in natural resource management through consultations, workshops, books and research. There have been several FAO Expert Consultations on the subject.

In 1995, the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) expanded its mandate to cover aquatic species. However, concrete action on this major step took more than a decade. In May 2006, the CGRFA convened an expert workshop in Victoria, BC to identify key issues in aquatic biodiversity. The workshop was co-organized by FAO Fisheries Department and World Fisheries Trust. Its findings may be summarized as follows (see ***Annex 1*** for a more complete summary of the workshop conclusions):

> *Aquatic Species are highly diverse, as are their habitats. They are still hunted, often as common property in open access areas, but there aren't many new species or areas left for capture fisheries. The resulting topping out and over-exploitation of wild stocks means aquaculture will continue to increase. Luckily, there are still many wild relatives of farmed species. Unfortunately, their importance is ignored, and so-called "wild" fisheries are often hatchery-based. Genetic impacts of fish culture are ignored or unknown, as are the interactions between wild and hatchery stocks. This is not surprising, because there is almost no awareness of value and importance of aquatic genetic*

resources, which means that fisheries managers ignore genetic diversity or don't use existing information, and they don't appreciate the urgency. To make matters worse, consumers don't know where their food comes from, and there are few fish icons or champions.

With the new CGRFA mandate and the results of the Victoria Workshop now being prepared for publication, the main technical issues are credibly identified. It is now imperative to translate results of this groundbreaking meeting into practical strategies for policy change. What's needed is action beyond the technical arena. The roundtable *Sink or Swim* began this process by matching issues and messages with political and geographic targets, then identifying the steps toward a campaign aimed at policy change. The aim of the roundtable, which was limited to ten people, was to consider:

- *which* issues to concentrate on;
- *who* has the power to effect change on these issues;
- *what* "success" with these issues will look like, and
- *how* to present and market the issues so that change occurs.

The roundtable was organized by World Fisheries Trust, funded by IDRC and held in Victoria September 26 and 27, 2006. Its terms of reference were based on a recommendation made by the previous FAO-sponsored meeting, namely to explore new avenues for raising the global profile of aquatic biodiversity. While the list of participants included some technical experts it also included people familiar with political power structures, with funding of global scale conservation concepts, and with modern marketing and opinion research.

A note on terminology

The FAO Commission on Genetic Resources recognizes the term "Fish Genetic Resources" (FiGR) as including fish, mollusks, crustaceans, aquatic plants and microorganisms. "FiGR" has the advantage of following convention for genetic resources of plants (PGR) and farmed animals (FanGR) but is not user-friendly beyond the Commission and is unlikely to capture public or policy-maker interest. This report uses the broader term "aquatic biodiversity" while recognizing that it too is unsuited to public communications and will need to be replaced.

Participants

Hon. David Anderson, President, World Fisheries Trust, Victoria. *Expertise*: former Canadian Minister of Fisheries and Minister of Environment; strong record on aquatic policy change.
Dr. Devin Bartley, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome. *Expertise:* responsible for aquatic biodiversity issues in FAO Fisheries Department; liaison with FAO Commission on Genetic Resources.

Dr. Joachim Carolsfeld, Executive Director, World Fisheries Trust. *Expertise*: represents host institution with extensive experience in Latin American inland fisheries and livelihoods.
Dr. Brian Davy, International Development Research Centre, Ottawa. *Expertise*: longtime supporter of aquatic biodiversity and livelihood issues.
Dr. Brian Harvey, Board member, World Fisheries Trust, Victoria. *Expertise*: career involvement in conservation and sustainable use of aquatic biodiversity; NGO and awareness experience.
Suzanne Hawkes, Institute for Media, Policy and Civil Society, Vancouver. *Expertise*: specialist in effective communication and policy change.
Dr. Dierk Peters, International Marketing Manager, Sustainability Projects, Unilever Corporation, Hamburg. *Expertise*: industry liaison with global NGOs; member of Marine Stewardship Council governing council.
Dr. Carmen Revenga, Senior Scientist, Freshwater Global Priorities Group, The Nature Conservancy, Arlington VA. *Expertise*: Marine and freshwater technical specialist representing large conservation NGO with programs in thirty countries.
Dr. Sena S. De Silva, Director General, Network of Aquaculture Centres in Asia, Bangkok. *Expertise*: represents 17-member intergovernmental network with stated biodiversity program.

Unable to attend:

Dr. Dennis Kelso, Marine Fisheries Program Officer, David and Lucille Packard Foundation, Los Altos, CA. *Expertise*: foundation investment in global aquatic issues.
Hon. John Fraser, Chairman, Pacific Salmon Forum. *Expertise*: former Canadian Minister of Fisheries; Chairman, World Fisheries Trust; longtime dedication to regional, national and international policy change.

Format

There was only one formal presentation scheduled, leaving most of the two days open for discussion. This presentation was by Suzanne Hawkes of IMPACS, a Vancouver-based communications organization. Her presentation was commissioned in order to provide participants with an overview of current theory and practice in communicating technical issues to achieve social change. As hoped, subsequent discussion of the "key issues in aquatic biodiversity" already identified by the FAO consultation was deeply coloured by these communication concepts.

Summary

Participants agreed to consider themselves founding members of an informal consortium dedicated to raising the profile of aquatic biodiversity with policy makers, fisheries managers and (later) the general public. Additional potential members could include the foundation sector and public aquaria. World Fisheries Trust agreed to act as the provisional coordinating institution.

While participants recognized that their small number precluded any definitive prioritizing of the FAO “key issues” listed in Annex 1, the group identified the following as presenting the best opportunities to demonstrate the value of aquatic biodiversity, raise awareness of the issues and provide needed technical information on the subject:

- Migratory fishes
- Interactions between hatchery-bred and wild fish stocks.

Detailed summary of the roundtable

Introductions around the table made it clear that conservation of aquatic biodiversity has always been a “hard sell”, and now seems most feasible in a people context – that is, when biodiversity is associated with livelihoods. These opening observations set the scene for Suzanne Hawkes’ presentation on communication (see ***Annex 2*** for the complete presentation).

Communication concepts and methods

The presentation is attached in a text summary version. It began with a description of communications models and their strengths and weaknesses; the need to concentrate on winnable portions of issues (framing); the trajectory of engagement in issues and how to judge the right time to enter. A practical series of steps in effective communication followed, including goal definition (“what does success look like?”); power mapping (who can actually change things?); knowing the target audience; developing effective messages and choosing the messengers who will spread them; and choosing tactics or tools (such as media, conferences, targeted meetings).

Knowing audience values – what a particular segment “believes in” – was continually underscored. In the case of aquatic biodiversity, attitudes to environment and conservation vary across sectors and can often only be captured by re-framing an issue after researching what motivates the target group (for example, greed is not solvable, but irresponsible management is). Finally, several case studies of effective environmental campaigns were presented, illustrating the importance of power mapping in identifying target audience and its motivation (litter control in Texas) and choosing the right messengers (chefs as advocates for swordfish conservation). Highlights of the presentation included:

- Importance of strong images: icon species and people
- Choosing issues where some people are already engaged
- Power mapping: who do we know and what’s in it for them? Looking for inside champions and early adopters
- Crucial difference between strategies (where to act) and tactics (what to do)
- Finding and using the results of social polling (free sources include the Roper Institute, Seaweb, Globescan)

- Using focus groups (to avoid riding the wrong hunch), especially in developing countries
- Importance of framing an issue (concentrating on one aspect), with the local example of successfully re-framing salmon farming as a health issue rather than an environmental one.

The communication approach thus requires background research on social, cultural, political, behavioral and economic aspects of target audiences and key players. Although research has been done on technical issues of aquatic biodiversity, very little has been done on these human-related issues.

Many of the concepts in Hawkes' presentation were new to participants, although several people were familiar with them (for example Peters, through his experience with Unilever; Harvey, through production of awareness vehicles for World Fisheries Trust; Carolsfeld through environmental education; and Revenga, through work with a large conservation NGO). Some refinements were suggested– for example, adding to the four stages of engagement the important fifth one of "maintenance" – which for aquatic biodiversity may be synonymous with "policy implementation."

Goals and reality

The original goal of the roundtable was to prioritize the list of "key issues in aquatic biodiversity" already identified by FAO. Each issue would then be attacked using the concepts outlined by Hawkes, in the following sequence:

- Define success
- Identify the target decision-maker through power-mapping
- Profile the target
- Develop specific tactics for the issue and target.

The low awareness of the value and importance of aquatic genetic resources was seen by many as fundamental to most other issues, which were viewed as symptoms. Icons and champions were agreed to be critical to success in communication on many levels.
It was agreed that the group should not immediately attempt to go beyond the strategic level in the present meeting, and should leave selection of actual tactics to later. Due to time constraints of a two day initial meeting and the obvious criticism that the group was not all-inclusive, we decided not to prioritize issues beyond an initial stage, and instead to concentrate on two do-able steps:

- choosing criteria for prioritizing issues; and
- creating a group of committed partners able to sustain action on chosen issues.

Criteria for prioritizing issues

Some principles emerged during discussion. First, while "aquatic biodiversity" as understood by the FAO Commission includes the genetic resources not only of fishes but also of aquatic invertebrates, plants and microorganisms, there is an obvious communications advantage to concentrating initially on fish as indicators of aquatic ecosystems. Moreover, fish that are at the top of a food chain are larger and can potentially capture more attention as icons.

A second principle was to link with issues already on the target's radar. For the general public, climate change offers a special opportunity, and "health/ naturalness" is a good example of a successful frame to put around an issue. For policy makers, the huge body of research and agreements on crop genetic resources is another train to get on. In addition to obvious international agreements like the Convention on Biological Diversity, the Convention on Migratory Species (CMS or Bonn Convention), may offer opportunities for raising the profile of migratory fishes.

A third principle was to maintain the connection between aquatic biodiversity and people (another way of saying this is that aquatic biodiversity needs to be seen as having value that is not just intrinsic, a notoriously difficult sell). An approach based on quotation of numbers of threatened species will have little effect; instead, aquatic biodiversity "needs to be conserved so it can be eaten."

The criteria eventually arrived at were:

- Must be concrete
- Must be consumer relevant
- Able to yield results within two years
- Applies globally including Canada
- Relates to livelihoods
- Attracts multiple partners
- Politically opportunistic re other initiatives and agreements
- Solutions transferable to other places.

Two topics clearly captured a number of these criteria simultaneously:

1. *Migratory fishes* is a potential broad issue that touches on many of the important principles of communication. Many migratory species are large and potentially iconic (Mekong giant catfish, large *surubim* and other South American catfishes, Pacific and Atlantic salmon); there is an easy link to livelihoods through their value in fisheries; there is a link to ecosystems as top predators; the term "migratory species" is plain language; there already exists an international convention on migratory species; many are already cultured or about to be (thus bridging wild fisheries and aquaculture); urgency includes present threats from more dam construction.

2. The *interaction between wild and cultured stocks* generates many issues (ecosystem approach, alien species, genetic swamping, broodstock development, livelihoods, investment) and fills many of the proposed criteria.

Another topic could be international zoning for new aquaculture enterprises to stay away from *biodiversity hotspots* as presently done for plant crops by the International Food Policy Research Institute (IFPRI). An example might be determining where tilapia farming should not be allowed if there are threatened endemic species present. A cross-cutting issues relevant to any topic is the training of fishery managers and extension officers in biodiversity concepts.

Creating a consortium

Informal agreement to start a consortium was unanimous, on the understanding that World Fisheries Trust would take the next step of preparing the present summary of the roundtable. The present group is a good starting point, with complementary profiles and experience. For example, the commonly held view of FAO as pro-aquaculture, fisheries and development is balanced by The Nature Conservancy's record of science-based conservation; Unilever is a corporation that has invested heavily in stewardship of aquatic resources; WFT has a low profile but good credibility as a science-based, neutral organization; NACA is clearly pro-aquaculture but in the context of livelihoods and genetic conservation. IDRC, the funder of this roundtable, is committed to finding livelihood-based approaches that use biodiversity sustainably. Still missing from the present lineup is the foundation sector, which represents an important repository of team-building skills and strategic thinking, and suggestions were also made to consider additional partners including WWF, World Fish Center and public aquaria.

The group felt it was premature to formally identify a "lead organization" – certain funds, for example, would be more easily tapped through FAO, and the FAO Commission needs to consider the position it will take if a consortium is to be formalized. For now, WFT agreed to act as a temporary facilitator.

Institutional partnering – the example of NACA

One important criterion for selecting issues was the ability to take advantage of existing networks, infrastructure and agreements – the idea of hitching a ride on an issue that has already left the station. While there is a definite "chicken or the egg" quality to this reasoning (which comes first, the issue or the institution?), the group had a chance to consider its advantages with the presentation made by Dr. de Silva on the Network of Aquaculture Centres in Asia (NACA). In this organization, seventeen member countries provide core funding for a number of programs, the newest of which is Genetics and Biodiversity – whose stated if difficult mission is to reduce negative environmental impacts of cultured strains while making sure farmers continue to have a supply of wild and domesticated genetic resources. By attempting both to conserve and sustainably use aquatic genetic resources, this program of NACA captures the spirit of several comments made during the meeting regarding the need to relate aquatic genetic resources to livelihoods – albeit from the point of view of aquaculture.

The ability of NACA to combine partnerships with a London NGO on conservation of the giant Mekong catfish with sponsorship of technical tours to China for basic aquaculture training suggests that the two faces of conservation and sustainable use can coexist. NACA also illustrates successful strategies that could work in other parts of the world (for example, training of fisheries managers and extension officers in basic biodiversity concepts, something that would have profound effects in North America). If the role of aquatic genetic diversity in broodstock development is to be stressed as a focal point, NACA's concentration on this issue in one region of the world would appear to be a good starting point, especially as marine finfish culture and stocking continue to grow.

Annex 1

KEY ISSUES IN AQUATIC BIODIVERSITY

SUMMARY OF FAO-CGRFA WORKSHOP

Status and Trends in Aquatic Genetic Resources: A Basis for International Policy

Victoria, May 2006

1. How are fish genetic resources different from those of plants?

The species

- high diversity
- extremely diverse life histories from short- to long-lived species
- short history of domestication for many farmed fish, but reproductive biology facilitates rapid genetic improvement
- still many wild relatives of farmed species
- some farmed species readily go feral

Their production or harvest

- *ex situ* conservation is difficult, so conservation in natural ecosystems is important
- still hunted and trapped as wildlife, often as common property in open access environment or on high seas
- "wild" fisheries are often hatchery-based
- aquaculture is often capture-based (young fish are taken from nature and grown to market size in farms)
- aquatic species that are harvested or farmed are also used in sport and ornamental fisheries
- threatened and endangered species are being targeted for harvest or taken as by-catch

Their habitat

- extremely diverse from deep sea to mountain rivers
- difficult to monitor, inter-connected, trans-boundary
- freshwater is a scarce commodity with uses other than fishing and fish farming
- wide range of non-fisheries threats

2. What's driving the need for better management of fish genetic resources?

- human population growth, increased affluence and health benefits of fish

- increased public demand for sustainable fishery products
- globalization and competition for markets with other food production sectors
- competition for inputs, resources and space
- few new species or areas available for capture fisheries
- overexploitation of wild stocks and increased reliance on aquaculture
- negative consumer attitude to some aquaculture practices
- culture of alien species and genotypes can affect wild stocks
- technical advances (genomics, intensification) require new breeds and management
- ownership and patent issues (access and benefit sharing)

3. What are the key issues?

Many issues are common to both aquaculture and capture fisheries. However, there are also significant issues unique to a given sector.

Management

- Access and benefit sharing (local and country rights)
- Need for ecosystem approach
- Management currently ignores genetic diversity
- Importance of wild relatives of cultured species is ignored
- Need to balance use and conservation
- Many species are vulnerable as bycatch
- Fishing affects habitat for non-target species
- Fisheries has genetic impacts e.g. on slow growing species

Genetic risks and benefits

- Little info on genetic stock structure
- Genetic impacts of aquaculture ignored or unknown
- Alien species and genotypes
- Interactions between wild and hatchery stocks (genetic swamping)
- Climate change means genetic adaptive ability of aquatic species must be maintained

Investment

- Aquaculture relies on FiGR but no comparable investment
- How do poor people get access to FiGR?

Awareness and information gaps

- Very low awareness of value and importance of FiGR

- Managers don't use genetic information even if they have it
- No icons or champions
- Managers don't appreciate urgency (e.g. extinction)
- Consumer ignorance on where food comes from
- Science often disconnected from industry needs
- Very little knowledge of aquatic genetic diversity including genetic data, status, trends, importance of genetic resources

Policy

- Lack of policy capacity in developing countries
- Advances outstripping policy for use of discoveries
- No policies for deep sea genetic resources

Annex 2

Sink or Swim: Mobilizing Key Audiences through Strategic Communications

By Suzanne Hawkes and Liz Scanlon, IMPACS (September 2006)

Overview

This briefing paper was prepared for the September 2006th *Sink or Swim* roundtable discussions in Victoria, British Columbia. It is aimed at outlining models, key principles, and research findings that can form the foundation of effective aquatic conservation communication initiatives – that is, initiatives that will lead to meaningful engagement among key audiences. The ideas outlined here are based on a combination of research and IMPACS'decades of combined observation, experience, and engagement in effective social and environmental communication campaigns.

Part I of this paper offers a brief overview of some of the most relevant models guiding social and environmental communications today. Part II outlines the key steps to developing an effective communication campaign – whether it is aimed at a single policy-maker or a group of key audiences. Part III reviews some of the major recent opinion research findings in effective, strategic communications and outreach regarding sustainability in general, and conservation (including marine conservation) issues in particular, with an emphasis on available Canadian and U.S. data. In Part IV, we outline two brief case studies in on effective conservation communication initiatives, addressing behaviour change and policy change.

Introduction: Social Marketing vs. Advocacy Campaigns

Broadly speaking, there are two kinds of communication campaigns: social marketing focuses on behaviour change; advocacy campaigns focus on policy change. Social marketing or behaviour change campaigns typically target "public audiences". These audiences can be as broadly defined as Canada's healthy lifestyle-oriented "*ParticipAction*" campaigns in the 1970s, or more narrowly focused public education campaigns focused on, for example, teen pregnancy prevention or increasing charitable donations.

Advocacy campaigns can be targeted at both public or smaller, elite policy-making audiences. They can amount to a series of strategic briefings between scientists and policy advocates with industry or political leaders, or a broader public outreach effort aimed at generating "public will" among persuadable, attentive citizens in support of a specific policy initiative.

Many of the ideas and principles in this paper are common to both behaviour change and policy change approaches. We also outline some specific approaches for policy-making audiences, including “power-mapping” to inform strategy, and the role of lobbying or government relations.

Part I: Communication Models that Lead to Engagement and Behavior Change

Many social change communicators develop their outreach approaches and messages without a clear understanding of the framework, or ‘theory of change’. This section lays out several broad models of particular relevance to our own discussions at the “Sink or Swim” session.

The “K-A-B” Communications Model
Many environmental and health promotion educators continue to subcribe to what is known as the “K-A-B” (Knowledge-Attitude-Behavior”) model of social change communications. This relatively traditional model of public education is based on the notion that, if people are simply given information about the consequences of their actions (or inactions), their attitudes will shift and their behaviours will change as a result.

Two assumptions underlie this model. In our view, both are flawed. The first assumes that people are rational, linear decision-makers. To a large extent, this may be true of scientists and many environmental educators. But, as corporate marketers have known for decades, most people do NOT make decisions solely on the basis of facts or data. If they did, then teenaged smoking would not be increasing at near-exponential rates in many communities. While we may not want to admit it; or even be aware of it, most of us make decisions based on deeply-held values, beliefs, and assumptions, all wrapped up in the frames that shape the way we see the world.

The second assumption is that attitudinal change leads to behaviour change. However, as numerous studies have shown (particularly in the health promotion field), even where our values and attitudes correspond to “doing the right thing”, other factors such as convenience, time, money, infrastructure and social norms may all pose barriers to actual behavior change. In short, the K-A-B model is largely ineffective at achieving real, lasting behaviour change.

Social Diffusion Theory and “The Tipping Point”
Researcher Everett Rogers developed the seminal “Social Diffusion Theory” to explain how new trends, behaviours and ideas spread across a social system over time. The theory outlines a predictable trajectory for innovation, starting with innovators or opinion leaders, followed by “early adopters”, followed by “early majority” (sometimes called “pragmatists”), then “late majorities” (sometimes referred to as “conservatives”), and finally by “laggards”.

In some ways, social diffusion builds on K-A-B, with a richer analysis of the drivers, barriers and contexts in which people consider new ideas, conduct their own “cost-benefit analyses”, make decisions, and then finally, implement and evaluate those decisions.

Other researchers have built on the social diffusion model, outlining the ways that innovation is most readily "transmitted". These include observation, personal influence (especially from well-liked, credible innovators and early adopters), and the sense that the new behaviour will bring about direct personal benefits – answering the fundamental question, "what's in it for me?". The spread of innovations through a community are greatly facilitated by the existence of well-developed social networks or 'communities of interest', as well.[1]

According to Rogers' theory, once 15% of a community's population has adopted a new behaviour or idea, it has reached the "tipping point" – the point at which a trend catches fire and moves forward on its own momentum. This theory continues to gain credence among communicators, leading to popular books such as Malcolm Gladwell's "*The Tipping Point*" (2000), and the viral and word-of-mouth marketing approaches described in Emanuel Rosen's "*The Anatomy of Buzz*" (2000).

Unconscious Drivers: User-imagery and End-Use Emotional Benefits
Marketers have long known that many unconscious factors influence how most of us view and make decisions about products or ideas. One such factor is the notion of "user-imagery". How will a particular decision-maker, for example, imagine (perhaps unconsciously) he or she will be perceived by peers or voters if he pursues a strong course of action on protecting aquatic biodiversity? Visionary? Flakey? Practical? Naive? Smart? In focus groups (a form of qualitative research), researchers often use projective techniques, such as asking participants to drawing their conception of the kind of person that would be most likely to use a product or believe in a particular cause. This helps uncover otherwise unconscious beliefs or perceptions about the idea – and the kind of person that would act on it.

Projective techniques can also help uncover the perceived end-use emotional benefits of using a product or pursuing an idea. For example, whether they know (or admit) the fact, many audiences may be drawn to certain conservation issues for deeply emotional reasons – fear for their children, anger at authority, a desire to belong, the need to be seen by peers in a particular way, spirituality, duty, or rebellion, to name a few. Understanding these unconscious drivers can greatly inform the approaches used by communicators in selecting their messengers, messages, and allies.

For example, in 1998, in a project in which IMPACS was involved, a series of focus groups conducted throughout British Columbia revealed that many people perceived environmentalists as shrill, negative, uncaring about jobs and out of touch with others. Few people would themselves want to be described that way – and therefore, only a

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[1] *For original research, see:*

- Bandura, A. 1986. *Social foundations of thought and action: A social cognitive theory.*
- Englewood Cliffs, NJ: Prentice-Hall.
- Parcell, G.S., Perry, C.L., & Taylor, W. 1990. Beyond demonstration: Diffusion of health promotion innovations. In N. Bracht (Ed.), *Health promotion at the community level*. Newbury Park, CA: Sage.
- Rogers, Everett. 1983, 1995. *Diffusion of Innovations*. New York: Free Press.

relatively small number of B.C. residents were joining environmental groups at that time. This is changing now, as the credibility of many environmental groups continues to rise across Canada.

Framing: What's *in* and *out* of the picture?
The broad concept of framing, made recently more popular by the work of Frank Luntz and George Lakeoff in the United States, ties together many of the elements described above. Framing is the deliberate selection of certain aspects of an issue in order to cue a specific response from the audience. It explains the problem, who is responsible and potential solutions – all conveyed by carefully selected messages, images, stereotypes, messengers, and metaphors.

As a communications approach, framing recognizes the reality that people sift through and de-code mountains of new ideas and information by referring to their own pre-existing assumptions and worldviews. As social change communicators, we are often working uphill, seeking to displace our audience's dominant frame of a particular issue. Environmental and social change communications often means reframing from a focus on *individual* problems and solutions to one of *systemic* problems and collective responsibility. For policy-maker audiences in particular, many social change communicators are challenged to shift from needs-based to solutions-based frames.

In the United States, the issue of poverty is one well-researched example of this. Research by the *Frameworks Institute*[2] shows that, in order for anti-poverty policy solutions to receive greater support with broader groups of American publics, the frame of both the poverty and solution must shift from an individual, to a systemic, focus: "When adults think about poverty in general, they tend to think of it as the product of a deficit in character rather than as the product of social forces. They personalize poverty and, in this sense, they over-estimate free will and under-estimate social constraints."

Thus, their research indicates that successful re-framing of poverty will include the following elements:

FROM:	TO:
1. Poverty	1. Economics
2. Individuals	2. Places, conditions, systems
3. Moral health/disease	3. A healthy economy
4. Fixing people	4. Fixing things so people can benefit
5. Punishing laziness	5. Rewarding/'incentivising' work
6. Making people equal	6. Making opportunities equal
7. Causes	7. Solutions
8. Failures of people and policies	8. Successes of policies and people

Images, messages and messengers can all be selected to convey this new frame. The implication for messengers and stories is clear: profiles of valiant "working poor"

[2] Frameworks Institute, *Kids Count*, Issue 5: Child Poverty (2006)

individuals triumphing over economic barriers will engender sympathy – but they will also feed the dominant, individually-focused frame – and undermine the broader policy goals of anti-poverty advocates.

In the case of the *Sink or Swim* discussions, presumably, participants will not find a focus on broad systems particularly challenging. However, In the process of focusing upon one or more particular issues related to the loss of global aquatic genetic diversity, participants may find the shift from a more conventionally negative, problem-based frame, to a solutions or investment-based frame, both challenging and creatively stimulating,

Coming to Judgment: Stages of Engagement

Audience engagement on social and environmental issues can change dramatically over time – and, like social diffusion, typically follows a predicable trajectory. Understanding that trajectory is vital for developing long-term social marketing or "public will" campaigns. An important framework for this understanding is outlined in Daniel Yankelovich's influential book, *Coming to Public Judgment: Making Democracy Work in a Complex World.* Yankelovich is widely considered to be the 'dean' of American public opinion research. He has synthesized three decades of experience in the field to develop a clear theory outlining seven distinct stages of public opinion-formation with respect to policy change. At IMPACS, we use an abbreviated model adapted by international opinion researcher Angus McAllister, and outlined in our publication *Smart Talk: A Guide for Communicating about B.C.'s Natural Environment*. Briefly, those stages are:

1. <u>Awareness</u>: the audience is basically unaware of the issue. The key: cut through the clutter and get their attention
2. <u>Attentiveness</u>: the audience has heard about the issue (usually several times) and is beginning to pay attention. The key: hold their attention with new information and establishing credibility
3. <u>Judgment</u>: the issue is penetrating in terms of public debate. Having heard various arguments, and having considered costs and benefits of a particular position, the audience is beginning to come to judgment. The key: persuasion
4. <u>Action</u>: The audience has decided – and possibly will act. The key: ensure the call to action is easy and convenient

The upshot is that any initiative requiring broader public will or the buy-in of relatively large, inaccessible audiences, will take time. Messages will need to be delivered over time, repeatedly, and to take into account the shifting attitudes of key audiences as the debate evolves and awareness of the issues deepens.

Part II: Steps to Action-Oriented Communications

There are clear, definable steps to good communications planning. While the following section outlines these steps in a linear fashion, in reality, the process of communications planning tends to be iterative. For example, as research yields a deeper understanding of audience drivers and barriers, communicators might choose to adjust their initial strategic objectives.

Step1: Define SMART goals.
The first step is to clearly define the overall outcomes to be achieved through strategic communications. This goal will drive all other elements of the campaign. In the case of the *Sink or Swim* discussions for which this paper has been prepared, there are no less than 20 critical issues outlined in the FAO background document (provided separately). Selecting one or two goals on which to focus discussions will be no small feat.

To be successful, the goal must be SMART; that is, specific, measurable, achievable, realistic and time-delineated. For example, a goal defined as "educate the general public about the need to protect aquatic genetic biodiversity" is singularly unhelpful. Practically speaking, this goal is impossible to measure. It is also wholly unachievable. It speaks to a diversity of audiences that are, for the most part, unreachable - because in reality, there is no such thing as a "general public". Instead, there are many publics, in many different places, with vastly differing values and attitudes, reached through thousands of different means and with widely varying abilities to have any impact whatsoever on aquatic conservation issues.

A more actionable goal might be "to maintain genetic diversity (with appropriate specific benchmarks by which to gauge progress) among species X and Y, in region Z, by January 2020". A specific policy instrument may be the major objective to achieve this goal. The communications and outreach strategies would be aimed at its eventual implementation.

Step 2: Understand the context: situation analyses, power mapping and government relations.
Ensuring you understand the communications landscape in which the communications campaign will take place is critical for success. Much of it involves research. What is the media saying about your issue? Where is it on the government's agenda? Who else is active in your field? What is the dominant frame in terms of the public and policy discourse on the issue at this point? Who are your allies and who are your opponents? How is your organization or agency perceived? Answering these questions will help your communications team develop the smartest, most effective outreach and communication strategies.

For policy initiatives, *power-mapping* is a vital component of this kind of situation analysis. In other words, who are the actors with actual power to make decisions? Who influences them? What constraints or benefits might the policy present to them? How much will it cost – and who will bear those costs? What are the specific processes and timelines involved in making such policy decisions?

In order to answer these questions, government relations is a vital component of any policy communications campaign. In fact, as the *Sink or Swim* participants are well aware, many of the most effective policy outreach initiatives involve no media or public campaign elements whatsoever. Through a process of careful decision-making research and analysis, understanding the frames and "cost-benefit" analyses faced by decision-makers on a given issue, solid relationship-building, and smart, strategic use of messengers and allies, effective advocates can work government officials to effectively frame both problems and solutions early on.

Step 3: Know your audience
Next, it is vital to both identify and then profile the target audience as specifically as possible. Effective, strategic communications focus on "narrowcasting"(vs. broadcasting) their messages to the specific audiences that can have the greatest impact on the issue. Without the advertising budgets of corporations such as McDonald's or Coca Cola, it is impossible to reach the "general public". Even within smaller subsets of audiences, there is what could be called "strategic taxonomy" of potential targets. These include *opponents* (there is no sense trying to convert them), *supporters* (who may need minimal resources to maintain) and the critically important, undecided "*persuadables*", or "swing voters". The latter are the primary targets of most strategic outreach initiatives.

Profiling the target audience(s) is the next step. To be effective, communicators need to understand their audience's frames – their attitudes, beliefs, values and motivators and barriers. We also need to understand the most effective pathways for reaching our audiences, and their most influential peers. Research – whether public opinion research or more targeted government and corporate relations research – is vital for this phase of work. The fact is, our target audiences often hold vastly different values and attitudes than our own. Messages that persuade a sixty-year-old, highly educated male scientist are likely to be very different from those that compel a 35-year-old woman seeking re-election in a multicultural urban riding.

Step 4: Develop your message
Good messages share some key criteria; they are brief, pointed, clear and jargon-free. This is equally true for busy elected officials and corporate leaders, no matter how high their level of education. Messages should be designed with the dominant frame of our audiences in mind, as well. In the case of marine resources, for example, if the dominant paradigm is that our oceans are endless, invisible, and bountiful, our assertions to the contrary may fall on deaf ears – other metaphors or approaches may be needed for our particular audiences.

In many cases, particularly for female and younger audiences, effective messages are also highly visual, using graphics, charts, tables, photographs and illustrations to help tell the story. Effective messages must also include a clear call to action – audiences need to clearly understand what it is they are being asked to do, and why. In all cases, messages need to be repeated several times – most people need to hear the same message at least three times before it is retained. Finally, effective messages generally answer three implicit questions (again, being mindful of the audience's current frame):

- Why should I care?
- What's in it for me?
- Says who?

Step 5: Choose appropriate messengers
There are many different types of messengers that may be able to deliver the message, but they must all be considered knowledgeable and credible. Knowledge isn't simply measured by credentials; personal experience with an issue goes a long way. Similarly, credibility isn't only conferred by the job title; character and personality also have a big part to play. Like the messages they deliver, messengers must be carefully selected with the audience in mind. Who will influence this group? Whom do they respect? Peers can be excellent messengers, as can opinion-leaders and, sometimes, celebrities.

In some cases, a messenger who has no benefit to gain from delivering the message can often deliver it most credibly. This is the 'strange bedfellows' principle at work; if a bank economist advocates for conservation, it may carry more weight with some audiences than an environmentalist. In the case of many aquatic conservation issues on which *Sink or Swim* participants choose to focus, industry leaders could serve as surprising – and highly credible – messengers for many policy makers.

Step 6: Select your strategies and tactics
Strategies generally refer to broad, creative approaches, whereas tactics are the specific tools and activities used to implement those approaches. Often, communicators gravitate toward the tactics with which they are most personally comfortable or familiar. For example, there is currently an enormous focus on the cultivation of on-line communities, using tools such as email lists, blogs, syndicating articles through RSS feeds and so on. However, these tactics are often most useful for audiences that are already 'converted', or already share a common set of interests. Strategic communications are tailored to the pathways and approaches most likely to engage specific target audiences. If several specific policy-makers are the intended targets, will a media campaign reach them? If so, which outlets do they follow? Do they go to specific types of events, such as academic conferences? Who influences them most in terms of their personal views? Can you meet with them directly? What particular challenges are they facing in their own work at this time to which your strategies can be linked? These questions and others will guide the kinds of strategies most likely to engage those audiences with the most direct influence over aquatic diversity issues.

Step 7: Evaluate
Ideally, effective outreach initiatives build evaluation into every step. Evaluation can be as simple as counting the number of visitors to a web site or noting the number of policy briefings to which an expert is invited to participate, or as comprehensive as tracking public opinion over time within a specific population. The strategic goals identified at *Sink or Swim* will, ideally, point to specific, measurable incomes, that can be tracked over time.

Part III: Audience Values: Summary Research Findings

As we have outlined in the steps above, successful communication efforts are based on an accurate understanding of the audience's attitudes and values. This approach of starting where the audience starts typically represents a 'paradigm shift' for many scientists and policy-makers, in our experience. The following data has been selected to inform this, with respect to sustainability and conservation in general and aquatic issues in particular. These select findings have been drawn from several Canadian and U.S. sources.

Environmental concern is high – and rising

- Many conservationists lament that people don't seem to care about the natural environment, or the oceans. However, this is belied by years of opinion research. Concern about the natural environment is not top-of-mind for most North Americans – but it is chronically high, and is, in fact, rising.
- Water quality, air pollution and global warming are seen as enormous and growing environmental challenges across Canada. Concern about environmental protection doubled in B.C. between 2001 and 2004

Attitudes toward the ocean vary

While less tracking data on views toward the oceans is available, some findings are of interest.

- Most Americans (59%) believe the oceans are in fair to poor health
- Oceans are seen by many Americans (41%) as habitat for marine life, fish and plants, more than sources of food (15%) or recreation (17%) or oil (6%) for people
- Pollution and dumping are seen as the top concerns for 50% of Americans, followed by coastal run-off (39%),marine habitat protection (36%), and overfishing (33%)
- Similarly, industrial pollution (37%) is seen as a far larger threat than overfishing (18%) or global warming (18%) in Canada

Speak to solutions and benefits

When it comes to sustainability issues, academics respond well to negative messages and images that convey a sense of doom. But – and this is enormously important - most other groups do *not*. Research shows that support from audiences that are older, female, university-educated professionals, rural residents and young low-income men drops by as much as 50% when they are presented with negative environmental images. While it is important to describe the devastating threats posed by the loss of aquatic genetic diversity, , it is vital that solutions and benefits are also described as part of the story. Audiences need to believe that positive change is, in fact, possible, before they will be motivated to act. Then they need to be convinced that they will experience benefits – not just sacrifice – when the change takes place.

Put people in the picture

Conservationists often use spectacular images of large, natural landscapes to convey their messages. For most Canadians, however, these images are seen as empty, devoid of human life, and therefore less likely to engender feelings of sympathy and emotional connection. The more specific the image is, especially in terms of people, the more likely it is to generate engagement. Issues of aquatic genetic diversity will be most salient to virtually all audiences – including industrial and political leaders – when they are conveyed with explicit references to people.

Choice, breach of trust and involuntary risks
People are highly motivated by each of these three angles. Campaigns focused on second-hand smoke speak very much to both choice and involuntary risk – which is why they have been particularly successful. Breach of trust is highly motivating for most audiences – angles which were particularly salient following the *Nestucca* and *Exxon Valdez* oil spills off the West Coast of North America, for example.

Re-frame from greed to mismanagement
When problems are framed as being caused by human nature, such as greed, laziness or selfishness, they are seen as unsolvable by many North Americans. This framing leads to disengagement. Instead, research in a number of studies shows that audiences are much more likely to engage when sustainability problems are framed as being caused by mismanagement or irresponsible leadership.

Focus on health for those aged 35+
Messages about conservation need to focus on direct, personal benefits as much as possible for most audiences. Health is one of the most salient reasons Canadians give for wanting to protect the environment (among British Columbians, health is the most compelling argument against farmed salmon, for example). However, health arguments are far less compelling for those aged 18-34.

Profile the Early Adopters - Show audiences that others are engaged
Research shows that many Canadians feel that, while they are personally concerned about the environment, others are not. This is not true, but clearly contributes to a sense of helplessness and isolation among potential advocates of sustainability. The greater their sense that others do not care, the more likely it is that they themselves will not pay more for sustainable products or to see sustainability as a priority. Conversely, research shows that Canadians – including youth – are highly motivated by learning of on-the ground successes and leadership from other countries and communities. In other words, case studies in successful restoration or maintenance of aquatic genetic diversity, engaging a range of community, industrial and policy leaders from around the world, will be salient and compelling.

Part IV: Case Studies

As we noted earlier, there are countless examples of successful, policy-oriented campaigns that have never been waged publicly. Credible, relationship-based approaches to decision-makers, combined with smart, effective solutions, can and do lead to budget increases, policy changes, legislative changes and voluntary behaviour shifts in both corporate and government arenas all over the world – with little or no public exposure. However, to illustrate many of the points outlined in this paper, we have provided two case studies of public communication campaigns. The first is focused on behaviour change among a subset of the public. The second is focused on policy change using a targeted gatekeeper approach.

“Don’t Mess with Texas”
In 1987, Texas had a garbage problem. And it was significant. That year, the state spent $2 million in tax revenues to pick up litter - and the cost was growing by 15 – 20 percent annually. The state’s Department of Transportation embarked on a campaign to reduce littering and an advertising agency, GSD&M, was hired to lead the charge.

The agency conducted research which indicated that the public, and particularly the target audience (primarily by men between the ages of 15 and 24), was not concerned about the impacts of littering. It was not simply an issue of people needing to be told why littering is bad – in this case, the K-A-B model of communication had failed utterly. It was clear that 15 to 24 year old males were not going to be swayed by messages about protecting the environment, preserving natural beauty or reducing the expense of picking up litter. Reaching this group would be a unique challenge.

The message that GSD&M hit upon was “Don’t mess with Texas!” Country music heroes such as Stevie Ray Vaughn and Willie Nelson delivered this message. Nelson’s 1989 public service announcement performance of “Mama, Tell all Your Babies Don’t Mess with Texas” was a campaign classic. By 1997, littering was down 76 percent. In 2000, the campaign was revitalized with a new logo and spokespersons such as actor Matthew McConaughey, to ensure the campaign continued to have relevance for the 15 to 24 male demographic. The campaign has gone on-line as well; many young men are active Internet users.

The campaign was wildly successful from the outset because its creators understood the motivations of the audience; it delivered a message of Texas (and masculine) pride through a clear, direct statement delivered by appropriate, believable messengers who connected with the values of the audience.

In 2006, the 20th anniversary “Don’t Mess with Texas” campaign was launched, indicating that if the message is right from the start, it can continue to be successful for a long time.

“Give Swordfish a Break”
Fisheries management is not a high priority for most people. Environmental conservation organizations SeaWeb and the Natural Resources Defense Council knew this when they decided to lobby the National Marine Fisheries Service (NMFS), the US federal agency that overseas fisheries planning, for a stronger plan to protect Atlantic swordfish. They knew that the wheels of policy change turn very slowly. But they also knew that quick action was necessary; two-thirds of swordfish stocks being brought to market in the late 1990s were too young to breed. To see their goals realized before it was too late, they needed a strong support from influential publics to put sufficient pressure on the government.

The “Give Swordfish a Break” campaign, launched in 1998, is an example of how selectively targeting key influencers can be far more effective than launching a broad public campaign. Rather than trying to change the behaviour of individual consumers – a task that would be virtually impossible in a short time-frame - the organizations adapted a 'gatekeeper' strategy. They considered what groups of individual had the greatest influence over, and access to, the end-use consumers of swordfish. They decided to target chefs of high-end restaurants – style-setters and key influencers for the entire seafood industry.

The campaign began by bringing celebrity chefs, as opinion leaders among their peers, onside. Twenty-seven high-profile chefs, such as Nora Pouillon, a famous Washington DC chef, restaurant-owner and cookbook author, were involved at the launch of the campaign. These "gatekeeper" chefs committed publicly to taking swordfish off their menus.

The campaign quickly snowballed; hotel chains, cruise lines and grocery stores all agreed to stop offering swordfish to their customers. Only six months after the campaign launched, President Clinton called for a ban on the sale of swordfish under 33 pounds, one of the campaign's positions. Six months after that, over 500 chefs nationwide were supporting the campaign – clearly, the opinion leaders selected at the outset of the campaign had the intended influence.

The NMFS, the true target of the campaign, had begun to respond with policy changes within a year – a tremendous result given the long timelines of government. However, these policies were not adequate to protect the swordfish stocks, and the campaign continued. By 2000, only two years after the campaign began, the NMFS made the policy changes required to protect swordfish, and the campaign ended with a declaration of victory. By 2002, research indicated that the swordfish have reached 94% of full recovery.

The pace of direct lobbying of the government by conservationists would have been far too slow to protect the Atlantic swordfish. However, an attempt to saturate a much broader audience with a message that would not be very relevant to them would have been equally slow and prohibitively expensive. By targeting key opinion-leaders, who had the capacity both to affect the consumption habits of the general public as well as have influence on their peers and others, the government was forced to respond quickly.