National Aquaculture Council

Communications Plan

for

Inland Saline Aquaculture (ISA)

Submitted to: Department of Agriculture Fisheries and Forestry;
ISA Steering Committee network; and
Members of the National Aquaculture Council.

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CONTRIBUTIONS

The steering committee for the development of the Inland Saline Aquaculture (ISA) Communications Plan consists of:

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CONTENTS

1. SITUATION ANALYSIS

Proposal

Recommendations from the Fisheries Research and Development Corporation (FRDC) research and development plan on Inland Saline Aquaculture (ISA) have led to joint funding approvals for the National Aquaculture Council (NAC) and NSW Department of Fisheries (NSWF).

The focus of this communication plan, a milestone component of the joint NAC/NSWF application, is on coordination and communication of ISA projects.

Most of the projects funded under the joint application have commenced and are proving excellent results. The projects will end 30 June 2007. A key objective of the communications plan is to provide information on the progress and results of projects to stakeholders and the wider public.

Current Positioning

Demand for seafood throughout the world is increasing while landings from capture fisheries are static. In Australia, the growing seafood consumption is being increasingly met by importation (imports of fisheries products have increased by 52%, over the period 19919/92 to 2001/02: ABARE 2002). In Australia, the value of aquaculture production has trebled since 1991/92 representing an annual growth of 14% in nominal terms and 11% in real terms.

Over the last three years the Australian Government and industry have been developing an Aquaculture Industry Action Agenda, a national initiative to help the aquaculture industry successfully meet the challenges and capitalise on its competitive advantages and growth opportunities.

The Australian Government and aquaculture industry have agreed to implement 10 key initiatives to drive the industry's future growth, realise its vision of sales of $2.5 billion a year by 2010 and lay the foundation for an extended program of cooperation between industry and government.

The 10 strategic initiatives are:

- Making a National Aquaculture Policy Statement
- Promoting a regulatory and business environment that supports aquaculture
- Implementing an industry-driven action agenda
- Growing the industry within an ecologically sustainable framework
- Enhancing aquatic animal health and biosecurity
- Investing for growth
- Promoting aquaculture products in Australia and globally
- Tackling the research and innovation challenges
- Making the most of education, training and workplace opportunities
- Creating an industry for all Australians

Expansion of coastal aquaculture is limited by a shortage of suitable sites with the necessary water quality, depth and proximity to land-based infrastructure that are not either being used or considered for urban and tourist related development or judged to be of too high environmental value for aquaculture. Investigating inland saline aquaculture is a specific priority in the action agenda.

Rising saline groundwater is the biggest environmental problem in Australia and currently affects over 2.5 million ha of land. It is estimated that within the next 30-40 years, the affected area will grow more than fourfold. One of the key methods to ameliorate the effects of salinisation is to pump the saline groundwater into large ponds for disposal by evaporation.

Inland saline aquaculture may offer a partial solution to the shortage of coastal sites for aquaculture while incorporating aquaculture into saline groundwater interception and evaporation schemes may provide an economic return to the costly business of building and operating these schemes.

Preliminary research had indicated that provided potassium is added to saline groundwater it is suitable for farming marine fish. In order to generate enough accurate data to allow the economics of inland saline aquaculture to be evaluated, the Inland Saline Aquaculture Research Centre (ISARC) at Wakool-Tullakool sub-surface drainage scheme was constructed. The ISARC at Wakool is the only research centre mainly focused on proving the commercial validity of inland saline aquaculture.

Project Background

The fragmented nature of inland saline research in Australia has made it difficult for those interested in the field to easily access the collective information available. This stimulated a project to coordinate inland saline aquaculture in Australia. This project "Development of industrial-scale inland saline aquaculture: coordination and communication of R&D in Australia" is being funded through the Fisheries Research and Development Corporation with significant contributions from the Australian Government, Department of Agriculture, Fisheries and Forestry through the Aquaculture Action Agenda. The Applicant is the National Aquaculture Council with Dr Geoff Allan (NSW Fisheries contracted as Principal Investigator).

There are several other projects in other States including WA, SA & Qld & Victoria aimed at developing inland saline aquaculture. A national network between various State Departments in Australia is needed to improve the quality of research, prevent unnecessary repetition of the research programs, help ensure efficient technology transfer and finally, if the commercial validity is proven, develop an aquaculture industry based on saline water in inland Australia. ACIAR has committed to a project at ISARC. The ISARC can act as a focal point for this R&D and communicate progress to stakeholders. This view has been supported by the Aquaculture Committee of the Australian Fisheries Management Forum.

International research developments must also be considered and communicated to stakeholders.

Demonstration Facilities

To adequately evaluate the success of ISA programs, demonstration facilities have been funded. Projects have been set up by the following;

- **NSW – Inland Saline Aquaculture Research Centre (ISARC).** The need for an evaluation of the potential for using saline groundwater in aquaculture culminated in the construction of the Inland Saline Aquaculture Research Centre (ISARC) near Wakool in the southern edge of the Murray Darling Basin. In the two years since research at the new ISARC commenced, survival and growth trials have been conducted with silver perch (a salt-tolerant, native freshwater fish), mulloway (an estuarine fish), black tiger prawns (a marine prawn tolerant of a wide range of salt concentrations) and rainbow trout. Silver perch survive and grow in water of salinity at or below 10 mg/L without potassium adjustment, trout grow at salinities up to those equivalent to full strength sea water and provided potassium is added for mulloway and prawns, survival and growth in tanks is similar to that in water with salinity adjusted using ocean salts. Trout survival and growth over the period April to November was excellent and equivalent to that recorded in freshwater raceway systems.

- **Queensland Department of Primary Industries and Fisheries.** Commencing with a series of laboratory based survival trials, the saline water delivered by this site's aquifer was observed to be highly suitable for the production of black tiger prawns. With the construction of a 0.26 hectare recirculating prawn production facility in 2002, this pilot site replicated the success of the laboratory trials through the exceptional production performance of the black tiger prawns stocked within it. In 2003-04 this performance was further improved with growth rates as high as 28.2 grams within 87 days, and commanding higher than standard market prices, the suitability for prawn production at this site appears absolute.

- **South Australia Research and Development Institute (SARDI).** For the past five years research has been conducted at the Cooke Plains Inland Saline Aquaculture Research Centre (CPISARC). The results from experiments conducted at the centre resulted in an up-grade of the facility in 2002. In 2003, a six month growth trial was also conducted at CPISARC to examine the aquaculture potential of saline groundwater. SARDI is currently keen to assist the Coorong District Council to transfer operation of CPISARC to a commercial user, which would be greatly facilitated by the development of extension material targeted at summarising the research results to date in a form suitable for investment attraction. A new aquaculture R&D facility aligned to the Woolpunda/Qualco Salt Interception Scheme (SIS). This SIS discharges 30 million litres per day of intercepted water into the stockyard plains disposal basin (SPDB) that would otherwise enter the River Murray. Activities will concentrate on finding a commercially viable use for this water by maximising the advantages provided by the flow and water temperature of this otherwise wasted resource.

- **Western Australia – Technical and Further Education (TAFE).** A collaborative project between Murdoch University and the Aquaculture Development Unit of Challenger TAFE utilised Springfield Waters Aquaculture as the R&D field site for a project focusing on black bream in inland water bodies. A series of replicated, pond-based research trials were carried out between 1997 and 1999. The end result of this work was the development of guidelines for farmers to assist in maximising the survival and growth of black bream cultured in inland saline water bodies. A series of field trials at the site were also conducted to evaluate the aquaculture potential of several marine/estuarine species in inland saline groundwater. This work has identified that barramundi and trout possess the required survival and growth characteristics to be viable wheat belt aquaculture species. Current research is now focused on the development and evaluation of production technologies to enable cost-effective, commercial aquaculture production using saline groundwater.

SWOT Analysis

Strengths

- Environmental sustainability
- Scientific, education and training resources
- Aquaculture production in a more controlled environment
- Complements existing land use
- Availability of research and development support
- Business assistance schemes and incentives

Weaknesses

- Geographic distribution of stakeholders
- Lack of centralised information base
- Capital outlay required for operation
- Lack of business planning precedents
- Environmental approvals and regulatory requirements

Opportunities

- Saline groundwater solution
- Increasing seafood demand
- Declining wild-catch supply
- Agribusiness diversification
- Regional employment
- Triple bottom line (social, environmental and economic)

Threats

- Fluctuating market demand trends
- New and emerging industries, may not be seen as economically viable
- Animal cruelty activism
- Business management risks
- Lack of national regulation

2. TARGET MARKETS

Target Markets

The target market consists of 4 main groups:

- Target Group A – Industry
- Target Group B – Research Community
- Target Group C – Government
- Target Group D –Community

This strategy acknowledges the overlap potential for target markets.

Target Group A – Industry

Primary

- Industry groups (national, state and regional) such as Australian Prawn Farmers Association, Tasmanian Salmonid Growers Association, Gippsland Aquaculture Industry Network)
- Aquaculture councils, state aquaculture associations
- Industry Communications networks (such as Fish e-news, Intrafish, Fish Farming)
- Aquaculturists
- Environmental standards officers

Secondary

- Farmers seeking diversification opportunities
- Industry supply chain members (post harvest, retail)
- Small Business Assistance Offices – AusIndustry Network

Target Group B – Research Community

Primary

- Inland Saline Aquaculture Research Centres (NSW, QLD, SA, WA)
- ISA Project managers
- Communications personnel in research provider organisations
- Fisheries Research and Development Corporation
- NSW Fisheries project manager

Secondary

- CSIRO
- Aquafin CRCs
- AIMS
- Universities and TAFEs academics such as University of Tasmania, TAFE WA
- Aquaculture students (university, TAFEs)

Target Group C – Government

These include federal, state and local government and political representatives with an interest in aquaculture and salinity issues:

Primary

- Minister for Agriculture, Fisheries and Forestry
- Minister for Fisheries, Forestry and Conservation
- Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry.
- Other members of Federal Parliament - in particular members whose roles are related to, or who have an interest in aquaculture or salinity issues.
- Department of Environment and Heritage.
- Murray Darling Basin Commission.
- Department of Agriculture, Fisheries and Forestry.
- State departments of primary industry and fisheries
- State departments of environment and regional services (including water authorities and chambers of commerce).
- Regulators
- Funding providers
- National Action Plan for Salinity and Water

Target Group D – Community

Primary

- Schools (primary and high school)
- Media (environmental, fishing, farming, general)
- Indigenous communities
- Local communities in areas affected by salinity
- Members of the community who have an interest in ISA and environmental sustainability

3. STRATEGY

Industry has been considered as a target audience with the purpose of communicating project benefits to encourage investment in and uptake of ISA. Existing aquaculturists can be informed of current technology and practices, and potential aquaculturists can better understand the process and requirements for investment in ISA.

The research community has been targeted to facilitate information exchange regarding projects and the broader educational community. This will ensure project leaders are aware of developments of other projects and encourage further study and interest in the field. The research community will be a main source of information from which to base communication materials.

Government stakeholders include politicians and leaders of responsible portfolios, to ensure they are aware of progress with the projects. This group includes regulatory bodies and funding agencies to which communication on program outcomes is crucial.

The community stakeholder group includes a series of networks with whom the NAC wants to communicate. Environmental sustainability in aquaculture practices can be communicated to educational institutions such as primary schools and high schools. The media is also a sub-group and is integral in communicating benefits of ISA programs, strengthening the positioning of ISA.

Key Messages

- Inland Saline Aquaculture is environmentally sustainable
- Inland Saline Aquaculture does not contribute to increased salinity
- Inland Saline Aquaculture presents an opportunity to turn problems into solutions
- There are potential benefits to social and economic circumstances
- If you invest wisely, there are lucrative benefits
- The demonstration projects are proving the viability of Inland Saline Aquaculture
- Practices are compatible with native title plans and are respectful of natural resources
- Ocean stocks can be replenished
- There are good opportunities for agribusiness diversification
- There is a solution to salinity problems
- Social gains to the community can be had
- There is a very supportive policy framework and assistance schemes & incentives There is a high availability of R&D support & services
- Sites location & access to natural resources are plentiful
- Business owners have increased capacity to understand whole supply chain

Goals

- Manage communication, information and technology transfer among Stakeholders including:
    - Research providers,
    - Funding agencies,
    - Salinity managers (Federal, State and Local Government, MDBC),
    - Industry, and
    - The National Action Plan for Salinity and Water Quality
- Increase general awareness of benefits and projects associated with ISA initiatives:
    - Communication media (eg: fact sheets, media releases, newsletters, website forums),
    - Investment directory
    - Research & development priorities (including technological developments, best-practice initiatives)
    - Demonstration facilities progress
- Present status of project at Australasian Aquaculture Conference 2004
- Continue communications activities to facilitate continued interest in and uptake of ISA.

Objectives

Objectives will continue to evolve with project development and as opportunities arise and the communications plan is evaluated.

- Manage communication of stakeholder network to achieve recognition of NAC as the key information exchange body for ISA information and resources
- Increase awareness of ISA projects in 20% of primary target audience stakeholders within 6 months of campaign operation
- Increase website participation (calculated by hits and length of visit to ISA pages) by over 50% within a year

5. IMPLEMENTATION

Communication Schedule

Along with the projects outlined below, regular communication activities will be undertaken on a daily basis to assist with development of materials

Daily:

- Scan media for articles relating to aquaculture and related projects. Circulate to stakeholders where necessary, or keep for review if pertinent.

Weekly:

- Update ISA segment of the aquaculture portal

Monthly:

- Obtain website statistics
- Prepare progress report for NAC CEO
- Update website action agenda sections

Quarterly:

- Circulate progress and outcomes of ISA projects through NAC newsletter
- Provide steering committee with communications plan update

Annually:

- Advertise in aquaculture and related industry publications
- Participate in annual conference

Sporadically:

- Issue media releases relating to ISA projects where relevant.
- Prepare briefs for executive and board
- Write articles on ISA for publications aimed at secondary target audiences.

Timeline

June – September 2004

- ISA issues will be raised internally at board meetings and the communications plan will be discussed.
- A stakeholder database is being developed and will be maintained to include members of each of the target audiences. Contact officer, position, organisation, addresses, phone fax and email data will be obtained for members of each sections of the target audiences identified.
- Market research pretesting will be conducted to gauge levels of stakeholder awareness and participation.
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- The website is being updated to include information on the various ISA projects. The forum on ISA has also been instigated.
- A media release will be distributed, focusing on the development of the demonstration facilities and consultancies, and issued in conjunction with the website completion.
- The Australasian Aquaculture Conference 2004 is to be held in September. The NAC will have a prominent stand at this event and will utilise the opportunity to

showcase products (fact sheets, frequently asked questions, case studies, DVDs) to strengthen the level of awareness in stakeholder groups.

- Banners and display material with a focus on environmental sustainability and ISA will be developed.
- Opportunities for cross promotion will also be sought. Publications (both scientific, and industry) are avenues for reaching target audiences.
- The first edition of the NAC newsletter will contain an insert on ISA.
- Stakeholders will be notified of the specific ISA forum to be held at the conference in September.
- Content for fact sheets and background material developed and published.

October – December

- Preparation of the ISA special in the NAC newsletter and exclusive offering to an industry publication will be underway.
- Development of materials for school projects (primary and secondary) will commence.
- Planning of community visits commences
- Communiqué on project progress and outcomes circulated to primary target audiences.

January – June 05

- Further market testing will be conducted to evaluate campaign effectiveness and alter communication plan.
- Community / Industry visits will be conducted. Visits to townships identified as struggling with current agricultural practices, that could benefit with investment in ISA practices, will be made.
- Specific milestones for communications strategy for next financial year finalised.

Promotional Mix

Direct marketing:

- NAC Newsletter features / inserts
- Project communiqués
- Case studies / ISA Business profiles
- Video case study
- Fact sheets
- Database management

Public relations and display materials

- Media releases
- Conferences
- Website
- Interactive web forum
- School project kits
- Community visits

Advertising

- Specific section in the aquaculture yearbook on ISA
- Advertising in selected aquaculture and related industry publications

6. BUDGET AND EVALUATION

Budget

The marketing communications budget for 2003/04 has been mostly consumed with operational equipment. A communications officer has been appointed, graphic design, web-publishing and photographic equipment and software has been purchased, and design for publication, display and video production quotes are being sought with the intention of purchase by the end of this financial year.

Estimates for continuing years follow.

ISA Communications Operating Budget

Item	Projected Expenditure 2003/04 Financial Year	Projected Expenditure 2004/05 Financial Year	Projected Expenditure 2005/06 Financial Year
IT Hardware (Desktop PC & accessories)	4,000.00	2,000.00	
Comms Software (Software and upgrades)	1,500.00	1,000.00	1,000.00
Events and launches		2,000.00	5,000.00
Materials design (banners, investment directory etc)	5,000.00	2,000.00	
Digital Camera, Compact Flash Cards & Tripod	2,000.00		
Website Maintenance		3,000.00	
TOTAL	12,500.00	10,000.00	22,000.00

Based on project ending December 2005

Evaluation

The communication plan will continue to be amended. The tools that work along side the plan, such as stakeholder databases, key messages and publication opportunities, will continue to shape the content and implementation of the strategies outlined.

Survey Research

Survey research will be used on commencement, mid way and on completion of the campaign. Questions on ISA will be included in the surveys that will be conducted as part of the NAC questionnaire. The surveys will require candidates to provide opinions on their understanding of ISA.

Candidates will be from a cross section of target audience and will be willing to be involved. Candidates will be approached via post communications, and will be a mix of both potential and existing members of the Australian Aquaculture Portal and other ISA communication vehicles.

Media Monitoring

A media evaluation service will be engaged to ascertain whether the media objectives were reached.

Qualitative: Media monitoring will continue under Rehame. Content will be analysed to ascertain favourable Vs negative coverage regarding ISA initiatives.

Quantitative: Media monitoring (including industry publications, references through third party or stakeholder communications) to gauge the overall uptake of ISA communications. Media monitoring services provided by Rehame.

Media selection will be evaluated to assist in determining which type of media (ie, hard-copy industry publications, electronic newsletters and discussion forums, generated the most effective results)

Website Participation

Capabilities already exist within the NAC to monitor and record:

a) Visits to the website comparing to previous months (Visits equal the total number of times that people have visited the website
b) Time spent per page (ISA page times will be evaluated as the campaign progresses. It is expected that the time spent on ISA pages will increase)
c) Pages viewed (this tool will be particularly helpful in gauging the popularity of ISA pages compared to the overall site use)

The correlation between communications and ISA page visits will be analysed.