

Asia-Pacific-NACA

Why and How does a “NACA” Work?

Pedro Bueno

Network of Aquaculture Centres in Asia-Pacific (NACA)

Bangkok, Thailand

pedro.bueno@enaca.org

Earlier reviews have provided evidence that the investments in the Network of Aquaculture Centres in the Asia-Pacific or NACA had returned significant benefits to its major stakeholders, the governments^{2,3}. Proofs cited ranged from the intangibles to the measurable.

The former comprises qualitative features, the most significant of which is the realization by governments that access to technology and innovations need not be difficult, time-consuming and expensive. This led to several linked responses from governments that included (a) raising the profile of aquaculture on a par with fisheries in policy and development plans, (b) establishing infrastructure for research and development and (c) training of manpower to absorb and adapt technology that had been introduced from other regions or borrowed from the more mature livestock and crop sciences. Other intangibles included the creation of a cohesive intergovernmental mechanism for expanding the development of aquaculture, a regional forum for formulation of regional policy, a regional mechanism for cooperation, a platform for a collective voice in international debates on various issues such as food safety and trade, a coordinating mechanism for research, training and information exchange, a multiplier

¹Editor's Note: This article on Aquaculture Networking consists of four parts:

- ▶ Why and How does a 'NACA' Work – an invited contribution from P Bueno, former Director-General of NACA (2002-2006);
- ▶ Network of Aquaculture Centers in Central and Eastern Europe (NACEE) by U Barg (FAO),
- ▶ Aquaculture Networking in the Americas by J Aguilar-Manjarrez and D Soto (FAO).
- ▶ Aquaculture Network for Africa (ANAF) by J Moehl (FAORAF), M Halwart (FAO) and BM Kalende (FAO)

effect to projects by disseminating the results of national-level activities to a wider regional sphere and the cost-effectiveness of pooling and sharing scarce resources.

The latter consists of readily recognized and measurable returns such as higher yields and economic returns from the application of better technology, which in the first place convinced governments to invest more in research and manpower training. Other indicators included the number of projects since NACA became autonomous, the revenues generated from projects, the ratio of project funding generated per dollar of government contribution, the measurable impacts as well as the visible outcomes of projects.

There have been reiterated acknowledgments from governments of the benefits from NACA, broad agreement among NACA's partners of the advantages of collaborating with NACA and an expectation from the other regions that a NACA-like arrangement is worth emulating. There is, in sum, a store of evidence and testimony to the value of a “NACA”. A recent publication by the Rural Development Division of the World Bank describes these in the context of the technology transfer and capacity building efforts in Asia-Pacific (IBRD/WB, 2007 – footnote 2).

During the Conference on Aquaculture in the Third Millennium in February 2000⁴, some delegates from another region asked me if there had been any exercise to understand why the network in Asia flourished (they tactfully left the other part of the question). I replied that there has not been any, and that if we had attempted to do so, it would have been self-serving; it would have been difficult to avoid comparisons with the other regional networks that had been established at the same time as NACA. And even if we tried to make comparative assessments, it would have been difficult to base them on any objective set of criteria or indicators of success, in view of the different geo-political contexts. In any case, I pointed out that there were end-of-project reports made

by the global FAO/UNDP Project on Aquaculture Development Coordinating Programme (ADCP) which provided assessments of the regional networking projects.

That said, recent efforts have been made to try to make some informal and experiential assessment of NACA. Versions or parts of the assessments have been provided as: (i) a resource paper for organizational meetings of the Network of Aquaculture Centres in Eastern Europe or NACEE (see succeeding section), (ii) as part of a review paper for the recently released IBRD/WB publication on Changing the Face of the Waters: The Promise and Challenge of Sustainable Aquaculture; (iii) articles in Aquaculture Asia, (iv) a presentation shared with the authorities involved in working at the establishment of a putative Aquaculture Network in the Americas (or ANA) during the COPESCAL Meeting in Panama in September 2005 and (v) as a resource and briefing paper for a study tour group of officers and farmers from a number of countries in Sub-Saharan Africa involved in the development of a NACA-like structure in Africa. The evidences have been pointed out and toted up in these assessments. These, as well as a number of historical records that can be easily accessed, give a broad sweep of NACA's genesis and its developmental period.

This review, therefore, focuses solely on why and how does a NACA-like arrangement work. It attempts to identify and briefly discuss the essential requirements and the enabling conditions for a "NACA" to take root and flourish. For brevity, required by FAN, I will leave out the historical antecedents, the initial stages and the developmental period of NACA. These are available in the referenced footnotes and

NACA website at www.enaca.org/aboutNACA.

It is necessary, however, to reiterate that when NACA made the transition from a project to an autonomous organization, it had to: (a) become self-sustaining in order to finance core activities such as technical advice, information exchange and network coordination and administration, (b) generate revenues by provision of services against payments, (c) develop programs and projects for collaborative assistance and (d) forge partnerships with other institutions. These measures made it possible for NACA to continue as a focal point for the implementation of multi-laterally and bilaterally funded national and regional projects. This four-point strategy gives a preview of the essential requirements and the enabling conditions of a "NACA". It makes it clear that it is the institutional foundation of a functional inter-governmental network which alone makes the organization, but that it serves its members and the broader region (as well as its own sustainability) by carrying out collaborative projects under the guidance of a regional work programme (WP), which is owned by governments and formulated through multi-stakeholder participation.

ESSENTIAL REQUIREMENTS

These are the five core attributes of a NACA. It cannot continue to exist with one missing.

1. Collective commitment of members. This is the foremost core attribute of any organization, without which the organization becomes moribund. Its need is amplified in a network organization. A network is a flat entity, operates with no concept of hierarchy and makes decisions by consensus and

GCP/GLO/012/EC: Support to development of fisheries legislation (FISHLEG). The project is aimed to support the development of fisheries legislation for effective fisheries and aquaculture management and development. The outputs will be reviewed local management considerations (as a result of stakeholder consultations) and an overview of existing legal frameworks and existing local management traditions. The synthesized principle output of the consultancy and consultations will be an outline/draft fishery legislation covering the following: (i) improved governance; (ii) improved fishery management; (iii) improved aquaculture development and management. These will provide guidance on requirements for aquaculture legal and management regimes that will contribute to the development of aquaculture in a safe and sustainable manner. The project was approved in June 2007. The first activities (inception workshop and field missions by experts) were completed in September and a preliminary draft report had been received and reviewed. Extensive consultations will be undertaken at end of October to November. Second and final field missions will be undertaken in early December followed by a national workshop mid-December. A final report (containing draft legislation) will also be ready by December when the Project winds up. The Department of Livestock and Fisheries of the Ministry of Agriculture and Forestry is the collaborating government agency. [Responsible Officers: B Kuemlangan (LEGN) and S Funge-Smith (FAORAP)].



Participants of the FAO/NACA/Government of Thailand Expert Workshop on Aquaculture Certification, Bangkok, Thailand, February 2007

democratically (i.e. one member one vote). As such, it is not dictated to or imposed on by any one authority. The UNDP-advocated and FAO-promoted concept and practice of technical cooperation among developing countries (TCDC) provided the framework for collective commitment. NACA's Governing Council (GC) had extended this concept of TCDC with the principle "the stronger members shall commit to help the others".

2. Continuity of participation.

The reason one participates in anything is to benefit from doing so. And the reason one continues to participate is that the benefit continues to exceed the cost of participation. The initial WP of NACA had to be such that governments clearly saw and felt the benefit of taking part in it. A WP does not simply show what a government gains from it individually, but what the region benefits from collectively. More important, it outlines members' commitments – responsibilities and resources – needed of them to make the programme work. Continuity of participation is, thus, assured by each member seeing the benefits of its participation from the standpoint of the region, not alone from the country's perspective. NACA governments have accepted that individually, the distribution of benefits shall not be equitable, with the smaller and resource

poor countries standing to benefit more from pooled resources and results. But they have also realized that having the less aquaculturally-developed countries eventually closing the gap with the others, will serve everyone's interest better and ultimately accelerate the expansion of aquaculture development (and trade) in the region.

3. Common objectives. The principle of commonality of objectives is observed in the WP's embodying the common interests of all members rather than the overriding agenda of one or two, or hewing towards any vested interest, or worse, acquiescing to diktat. This is assured by the WP being a product of a three-stage exercise, two of which involve the Technical Advisory Committee (TAC) and the GC. The TAC has a core membership of technical personnel from member and other participating governments but joined by representatives of farmer groups, industry, civil society, partner organizations and development agencies. The TAC formulates, deliberates and endorses a programme of work (and translates the programme into two-year work plans) that the Secretariat has drafted. This is then brought to the GC for approval. The procedure involves looking at the WP from the policy standpoint so that the result is not simply a WP but a regional aquaculture development policy.

The regional programme is informed by several significant forums and exercises, the results of which are sifted by the Secretariat and worked into the draft. For instance, the WP for the period 2001-2005 drew heavily on the recommendations of the Conference on Aquaculture in the Third Millennium, the results of a preceding regional conference that surveyed and synthesized the medium- and long-term plans of governments and the report of a NACA Task Force composed of an independent group of experts that conducted an analysis of the strengths, weaknesses or vulnerabilities, opportunities and threats to the organization through an extensive consultation with member and participating governments. To add to this example, the current WP (2006-2010) was guided in its direction and content by the results of the preceding Five-Year WP and the FAO/NACA-organized Regional Review of Status and Trends in Aquaculture Development in Asia-Pacific. Needless to say, each WP draws lessons and directions from the preceding one. A programme in fact is not a discrete 5-year chunk of activities, rather, it is one "rolling" programme.

The procedures and the parties involved in its formulation insulate the programme from the infusion of vested interests or opportunistic agenda. On the other hand, the programme is not a rigid, cut-in-

stone document. It has enough flexibility to allow mid-stream redirections or incorporation of important issues, such as “trade and food safety” in the previous programme. This is enabled by its being translated into two-year work plans, the most recent one for instance elaborating the genetic and biodiversity component. The work plan specifies measurable outputs within time-bound periods. It also serves as a monitoring and evaluation mechanism, the responsibility for which is TAC’s with the assistance of the Secretariat.

The membership of FAO in the GC and the TAC aligns the programme and the activities of NACA with the global priorities but also gives further assurance to their regional relevance.

4. Coordinating mechanism. The coordination of the network is vested in the Secretariat. The Secretariat is composed of a small but dedicated, self-actualizing (i.e. one needs no shove to act or initiate something or beat a deadline) and strategic thinking professionals. Each one is a specialist in an area or discipline and coordinates or manages an activity or one component of the WP, which normally comprises a number of projects and activities. These are invariably subregional or regional in scope and almost always regionally relevant, i.e. results apply to all or almost all members. The website (www.enaca.org/aboutNACA) as well as the previous and current WPs describe the coordinating mechanism, including the role of the Regional Lead Centres (RLCs), the NACA Collaborating Centres, the associated institutions and the various partner organizations.

Two important messages to underscore are the fact that NACA is not a research organization, a point that the NACA Task Force 2000⁵ highlighted by citing the statement

of a member government’s Director General for Fisheries, to quote: “The value of NACA is in its networking, acting on behalf of members in addressing common problems of countries, providing a forum for a common stand, advice on policy and technology and promoting collaboration on common issues of regional interests. NACA should assist countries to address national issues with regional relevance. Conducting on-station research *per se* is not the primary responsibility of the Secretariat, but coordinating a regional research program is.”

The other point, also stressed by the Task Force, is the professionalism of the NACA staff. Their terms of reference clearly say they are a staff of a regional organization thus a regional civil servant, rather than a representative of their country in the Secretariat.

5. Cost effectiveness. The cost-effectiveness of the NACA arrangement comes from its being set up as a functional inter-governmental network, which enables two things: firstly, it avoids investing large capital and operating costs to set up a new institution or sets of institutions and secondly, it utilizes effectively national resources and donor funds. Another level of cost effectiveness is neatly embodied in the oft-quoted, now trite but nevertheless appropriate “countries need not re-invent the wheel.” This makes for a positive cost-benefit ratio for each member and for the region.

ENABLING CONDITIONS

The essential requirements make a network exist; the enabling conditions make it possible for it to pursue its mandate. These are the four enablers:

UTF/MEX/071/MEX: Apoyo a la Secretaria de Desarrollo Rural de Puebla en el desarrollo de cadenas acuícolas y elaboración del plan rector para la acuicultura y la pesca del Estado de Puebla 2007-2011. Commenced in late August 2007 and will be completed at the end of 2008. The main goal of the project is to promote the sustainable development of aquaculture and fisheries in the state of Puebla in Mexico through institutional support to the SDR (Secretary of Rural Development of the State of Puebla, Mexico) and its General Coordination for Aquaculture. The immediate objectives of the project are: (a) develop a master development plan for aquaculture and inland fisheries for the State of Puebla in Mexico; (b) prepare a workplan for the master development plan and (c) conduct training workshops on: (i) socio-economics, processing, marketing, management capabilities, self-sustainability and gender equity and (ii) environmental management, good management practices and principles of the FAO Code of Conduct for Responsible Fisheries. The Secretary of Rural Development of the State of Puebla, Mexico is the responsible government institution for project execution. [Responsible Officers: A Mena (FAO), J. Aguilar-Manjarrez and D Soto (FIMA)].

1. Partnership and collaboration in the programme.

Over the years, NACA has forged close and active partnerships with a range of institutions and organizations. These have included donor agencies, development organizations and other like-minded organizations. Lately, through a number of its programs and projects, the private industry, farmer groups, industry alliances and NGOs have become active partners. Emphasis is made that these partnerships are enabled by a mechanism to “buy” into a programme. One such mechanism is a consortium, as with the consortium on shrimp farming and the environment⁶. There are many ways other than a consortium mode to enable partaking in the regional programme. All are based on the principles of joint ownership and equality. This is further strengthened by building the project on the ones that each partner has already accomplished rather than trying to duplicate what has been done. As well, it engenders trust among partners. And it does not waste resources.

2. Relevance. There are two levels of relevance: that at the level of the WP and that at the level of projects. The first is illustrated by the responses of NACA to the broad development concerns, the time scale of which is usually several years. Between 1976 - when the idea of a network organization was hatched during the 1976 Kyoto Global Conference on Aquaculture organized by FAO/ UNDP - and today, there have been four discernible, but not mutually exclusive, areas of emphasis in Asian aquaculture, namely: (i) higher productivity and better returns; (ii) better environmental performance; (iii) enhanced livelihood opportunities and socially responsible farming and (iv) market access and trade ((IBRD/ WB, 2007). NACA addressed

these four development concerns with appropriate orientations to its regional WP that matched the expanding and evolving needs of the members in particular and the region in general. The GC adopted WPs that responded to these sectoral and in fact global priorities. And it has been the ready assistance of FAO, through its presence in the GC and TAC, that has infused relevance of programmes to global and regional thematic issues.

3. Adaptability to changes.

Aquaculture development has seen rapid and often complex transitions. The complexity is a result of many influences, not all of which are easy to understand. A network should, thus, have the flexibility to adapt to changing conditions and address new sets of issues and development concerns. This is built into the NACA procedure for formulating the WP and developing the work plan. The work is informed by the many national, regional and global activities that NACA is involved in either organizing or collaborating. Signals are provided by these forums and events, which the Secretariat, the TAC and the GC have been quick to pick up, synthesize, incorporate the relevant elements into the WP and develop collaborative projects to carry them out.

4. Rapid response to needs. There is no better mechanism to assure members and show to partners and donors that the organization is relevant than rapidly responding to the members’ needs, collectively or individually. The new information and communication technology (ICT) has made it quicker to respond in three ways: (1) by enabling a quick way of gathering intelligence or point-of-source feedback, (2) rapid processing of the information and (3) if information is all that is needed, disseminating it. But response to a need is not only

through information. It sometimes needs staging and fielding a rapid response team. This is exemplified by two events I could cite: response to the Epizootic Ulcerative Syndrome (EUS) which was a multi-country concern and response to the Koi Herpes Virus (KHV) epizootic that broke out in Indonesia⁷, which posed a region-wide threat. It is also notable to point out that the rapid and immediate responses were joined by other organizations and that the specific and focused problem-solving exercise subsequently escalated into a programme that is regional in scope and multi-organizational in participation. One sobering note though is that Information and Communications Technology or ICT especially the web-based communication technology and strategy has done wonders to facilitate information development and exchange, reduce costs of information management and improve the efficiency of network and project coordination. However, it does not guarantee cooperation and commitment.

PITFALLS

“Regional goodwill” sums up the NACA spirit. It is expressed through collaboration, various modes of cooperation and sustained participation in the organization. This goodwill has been built and is being sustained by the governments’ adherence and commitment to the organization’s ideals. Such commitment have yielded the substantive results that in turn confirms the pragmatism of upholding the organization. What would destroy the goodwill and indeed kill the organization? There are many but the fatal one would be the politicization of the organization. The Task Force put its fingers on this when they stressed the importance of staff acting not on behalf of his or her government,

which implies among others not having to obtain clearance for their action or decision from their government. A bigger hazard is when a professional staff comes into the Secretariat on the wings of vested interest. The mechanisms to try to prevent this situation from happening have been set up and institutionalized, which include no one government being able to exert control over the organization, the presence of FAO in the GC to serve, in this context, as a neutral and disinterested adviser and the system of objective search and screening that has been instituted.

CONCLUSION

An apt conclusion to this review is the assessment of the Task Force 2000 that NACA draws its innate strength from the following attributes:

- a network of diversified expertise and facilities found in the various research, development, education and related institutions in member and participating governments which can be utilized for implementation of regional and national activities;
- a sustainable intergovernmental organization, with mandatory financial contribution to the core program by member governments under the Agreement of the Organization;
- representatives of member governments in the GC are directly involved in the planning and management of aquaculture development at the national level;
- the NACA concept of regional self-reliance in achieving aquaculture development goals through its networking and TCDC mechanisms; and
- the functional inter-governmental network avoids investing large capital and

operating costs for setting up a new or new institutions and utilizes effectively scarce national resources and donor funds.

A monkey-wrench question to end this review and perhaps provoke a useful debate is whether it was necessary for UNDP/FAO to spend more than US\$7 million and for governments to chip in almost a million US dollars, not counting in-kind contributions (over a 10-year development period from 1980 to 1989), to establish and bring to a functional and self-sustaining stage a regional mechanism for aquaculture development, the core function of which was coordinating research, training and information exchange. Governments subsequently took over and, over the past 17 years since autonomy, had invested more than US\$5 million or a recurring cost of around US\$350 000 a year.

Other viewpoints at that time looked at a number of alternative arrangements, all with the absence of a NACA-like structure. *What if there was no NACA? What are the alternatives?* One alternative is a regional geo-political organization that depends very much on the resources of a single donor and therefore tied up to this single umbilical cord with little independence; another is one that is dominated by one entity that provides much of the organization's resource but which then extracts its due by using the organization to advance its own agenda.

The NACA-arrangement or model, if you will, has had enough positive points to convince governments that it is worth staying with it. The unwavering commitment and support of NACA's member governments to its operation and the continuing collaboration and trust of numerous partner organizations

are ample evidence that a NACA, as has been described, and especially one that operates on the principle of technical cooperation among members serves its members and society in general very well.

²NACA. 2006. The investment that is NACA. *Aquaculture Asia* 11 (1); NACA.2006; Investing into NACA – the bottom line for farmers and governments, *Aquaculture Asia* 11 (2), NACA 2006.

³IBRD/WB. 2007. Changing the Face of the Waters: The Promise and Challenge of Sustainable Aquaculture. Report No. 36622 – GLB. Washington, DC. USA. 148 pp. (also available at http://siteresources.worldbank.org/INTARD/Resources/Aquaculture_ESW_vGDP.pdf).

⁴NACA/FAO. 2001. Aquaculture in the Third Millennium. Subasinghe, R.P., Bueno, P.B., Phillips, M.J., Hough, C., McGladery, S.E., & Arthur, J.R. (eds). Technical Proceedings of the Conference on Aquaculture in the Third Millennium, Bangkok, Thailand. 20-25 February 2000. Naca, Bangkok and FAO, Rome. 471 pp.

⁵NACA. 2000. Report of the Task Force. Bangkok, NACA. (unpublished report by the NACA Secretariat). 29 pp.

⁶The Consortium on Shrimp Farming and the Environment was formed in 1999, through a partnership of the World Bank, NACA, the World Wildlife Fund (WWF), Food and Agriculture Organization of the United Nations (FAO) and joined more recently by the United Nations Environment Programme (UNEP). More details about the consortium can be found at <http://www.enaca.org/modules/tinyd2/index.php?id=1>.

⁷NACA/ACIAR. 2002. Report of the emergency disease control task force on a serious disease of koi and common carps in Indonesia. NACA, Bangkok; Bondad-Reantaso, M.G., Sunarto, A. and Subasinghe, R.P. 2007. Managing the koi herpes virus disease in Indonesia and the lessons learned. In Dodet, B, the OIE Scientific and Technical Department (eds). The OIE Global Conference on Aquatic Animal Health. *Dev Biol (Basel)*. Basel. Karger, 2007. Vol. 129: 21-28.