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COMMITTEE FOR INLAND FISHERIES AND AQUACULTURE OF AFRICA

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THE SPECIAL PROGRAMME FOR AQUACULTURE DEVELOPMENT IN AFRICA (SPADA)

SUMMARY

This document introduces the FAO's Special Programme for Aquaculture Development in Africa (SPADA). It briefly describes the history of aquaculture development in Africa and outlines the reasons which have led to its recent launching. SPADA responds to the new political will to promote aquaculture in Africa for food security, poverty alleviation and economic development and focuses particularly on sub-Saharan African countries. The programme concentrates on stakeholders' priorities and needs as they endeavour to establish aquaculture as a significant food production sector in Africa. A closer look is taken at each of the individual thematic areas under the SPADA framework and exemplarily explored how the current FAO field programme addresses these issues.

INTRODUCTION

1. Aquaculture is considered by most as an innovation in the Africa Region. Whilst there have been traditional aquaculture systems including fish aggregating and concentrating methods, the raising of aquatic crops is most often seen as a new practice introduced some four to five decades ago for improved nutrition. This nutritional aim was targeting both the family and the worker; in the latter case, those in authority seeking cost-effective ways to improve nutrition to improve labour output.

2. The improved nutrition goal has been integral to the sub-sector since these early days. As the innovation became more widely spread and promoted by more diverse institutions, and as it was realized that this goal in itself was not sufficient to boost development, the goal expanded to

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include improved income as it was foreseen that part of the harvest would be sold; generally small quantities sold or bartered to neighbours on the pond bank.

3. These first systems were nearly universally earthen ponds, usually raising any of a variety of tilapias, but also culturing other local or introduced fishes. Suggested management practices varied, but most often were low-input involving seed and nutrients that were available on-farm, in the community or the general locale.

4. By the 1970s, nearly every country in sub-Saharan Africa had tried some form of aquaculture. These efforts were frequently donor-driven and supported, involving a medley of national agencies as the “institutional home” of aquaculture.

5. The aquaculture bubble vanished by the late 1990s when scepticism and disillusionment replaced over-enthusiastic and unrealistic expectations. In spite of millions of dollars spent in aquaculture, Africa remained the world’s lowest producing region.

6. The question was: What type of aquaculture was to be the object of development efforts? Should aquaculture be promoted as a pro-poor or as an economically promising industry? Should aquaculture be a public-dependant subsidised activity or a self-sustained private sector venture? What realistically could be expected from aquaculture and how could this potential be tapped? What was clear from the onset was that aquaculture, in whatever form, needed to have proven technical and economic viability. This demonstration has been a long time coming but has realistically not landed.

7. With the new millennium, the Africa Region found itself with tens of thousands of family or farm ponds scattered across the hinterland. These ponds, the results of decades of effort, did contribute to better resource use, risk reduction, diversification and even, in the best cases, improved nutrition. But they did little at all to contribute to overall food production, economic growth and employment. Nevertheless, they exist.

8. Thus, one of the new realities is that most national programmes will be bi-modal with a large number of farm ponds that make several valuable contributions to better resource use on farms and improved livelihoods but also have limitations since most operators of farm ponds will not metamorphose into entrepreneurs with aqua-businesses. Another of the new realities is that it is through a solid aqua-business establishment that the goals of increased food production, economic growth and employment can be reached.

9. As was recognized earlier, before the footings for aqua-businesses could be established, demonstrations of technical and economic viability were required. Although initially these demonstrations arose due to individual entrepreneurship in response to rising fish prices and improving technologies, and were not part of national programmes to promote aquaculture, the presence of profitable aqua-businesses in Zimbabwe, Uganda, Nigeria, Zambia, Ghana, Kenya, Madagascar and elsewhere served as real-life models of what could be done to make aquaculture a meaningful contributor to human well-being in Africa. Pioneering private investors diverted entrenched trends and showed that aquaculture can be a profitable enterprise at micro-, small-, medium-, and large-scales.

10. By 2004, the potential of a private sector-led aquaculture became apparent and decision-makers began to realize the need to revise their development agenda and define strategies for their national aquaculture programmes (Box 1). It was clear that the commercial producers, especially the small- and medium-scale investors, would be the motors for the expansion of the sub-sector and the contributors to the national good.

Box 1

Aquaculture development in sub-Saharan Africa is at a crossroads. The challenge today is to [develop] a new strategy for aquaculture development. While appreciating the need to address the three major constraints identified (seed, feed, extension), the meeting called upon the governments and cooperating partners as well as research agencies to focus on the likely development impact of investment in these areas. Furthermore, participants propose that SSA governments should seek to develop public/private partnerships within the growing number of aquaculture enterprises, by creating cost-effective financial and institutional arrangements that can compliment government and donor resources to deliver a limited number of critical research, advisory and technological services to high potential farmers. The meeting envisages that aquaculture ... will be able to provide high quality food for rural and urban consumers, generate employment and general commercial activities in otherwise impoverished local economies, and contribute to national wealth through increased revenue from markets and trade. In order to achieve this vision, the countries in the region need to work together to increase their knowledge base, exchange best practice experiences and speak with one voice in the global marketplace. (Limbé Declaration: A consensus statement by delegates to the FAO/WorldFish Workshop on Small-scale Aquaculture, 23-26 March 2004, Limbé, Cameroon). FAO 2005.

11. In the aggregate, the lessons from this evolution have been encapsulated in SPADA – the Special Programme for Aquaculture Development in Africa with the goal *to assist African countries to reduce poverty and increase food security by enhancing the supply of and access to fish through the sustainable development of aquaculture, while contributing to overall national and regional economic and rural development.*

WHAT IS SPADA?

12. The SPADA is a follow-up to the recommendation by the Third Session of the COFI Sub-Committee on Aquaculture in 2006 in India, and the 27th Session of the FAO Committee on Fisheries which requested FAO to develop a special programme to accelerate aquaculture development in Africa. This request was also underscored at the 2007 High-Level Event on Aquaculture during the 32nd FAO Conference. SPADA has been endorsed and launched by the FAO Fisheries and Aquaculture Department in 2008, and is implemented by the Department with multidisciplinary staff inputs, particularly through the FAO's Regional Office for Africa. It has been developed in collaboration with NEPAD and is in line with the NEPAD Action Plan for the Development of African Fisheries and Aquaculture as well as the Millennium Development Goals.

13. SPADA responds to the new political will to promote aquaculture in Africa for food security, poverty alleviation and economic development and focuses particularly on sub-Saharan African countries. The programme concentrates on stakeholders' priorities and needs as they endeavour to establish aquaculture as a significant food production sector in Africa. Most recently, SPADA has been presented during a Special Event at the Fourth Session of the COFI Sub-Committee on Aquaculture in Chile, 6-10 October 2008. The Sub-Committee, in particular all the African countries and NEPAD, expressed its appreciation to FAO for the SPADA initiative, urged FAO to further promote and use SPADA as the coherent framework for aquaculture development in Africa, and called for participation and support of development partners.

SPADA thematic areas and selected highlights

14. Given the aim of SPADA to build momentum for investment in aquaculture in Africa, this document takes a closer look at each of the individual thematic areas and explores how the current FAO field programme (FAO's Technical Cooperation Projects (TCP)), Unilateral Trust

Funds (UTF) and extra-budgetary funded projects) addresses these issues. The list is not meant to be exhaustive but rather aims at providing insight into working examples and approaches in the field.

(i) Strengthening institutions and enabling frameworks

15. SPADA will support national fora and stakeholder consultations that will lead to national aquaculture development strategies, plans and adjusted legal frameworks that enable increased investment and trade within the aquaculture sub-sector. Further, the programme will provide capacity building and advice as to how to efficiently structure aquaculture institutions at all levels including training on a broad spectrum of issues such as aqua-business management, production, aquaculture facilities siting and development, risk assessment and communication.

16. FAO has supported, and continues to support, the processes to develop national aquaculture development strategies and plans in many African countries including but not limited to Cameroon, the Democratic Republic of Congo, The Gambia, the Islamic Republic of Mauritania, Madagascar, Namibia, Nigeria, Senegal, Tanzania, Uganda and Zambia. Efforts are continuing to reach as many countries as possible and feasible with existing resources, and this will continue under SPADA. A key activity in the capacity building process is the Japanese-funded *GCP/INT/053/JPN Intra African Training and Dissemination of Technical Know-How for Sustainable Agriculture and Rural development with Africa-ASEAN Cooperation within the Framework of South-South Cooperation* which has capacity building for African aquaculture development under the framework of SPADA as one of its four main focal areas. Through the regional Technical Cooperation Project *Emergency assistance to combat epizootic ulcerative syndrome in the Chobe-Zambesi River* (involving Angola, Botswana, Malawi, Mozambique, Namibia, Zambia, and Zimbabwe) and the PCA Norway-funded project on aquatic animal health and aquatic biosecurity, FAO continues to provide capacity building aimed at enhancing aquatic biosecurity (e.g. risk analysis, basic aquatic health management, disease surveillance and reporting, etc.).

(ii) Networking and outreach

17. SPADA will strengthen the nascent Aquaculture Network for Africa (ANAF) building effective links between extension/outreach and producer organizations including local farmer “clusters”. These activities will include publicizing information concerning opportunities in aqua-business to encourage investment in the sub-sector, as well as successful examples of the impact chain from national policies to access to financial and production inputs, farm production, processing and marketing. Websites, discussion fora and use of the latest information and communications technology will facilitate much needed networking and information exchange.

18. Significantly improved information flow has long been identified as one of the major needs for the sub-sector’s development. In order to achieve this, efficient information channels are necessary at all levels (national, sub-regional and regional). Recent efforts by FAO have been aimed at facilitating the establishment of ANAF on the basis of a decision by the fourteenth session of CIFAA (FAO, 2007). An *ad hoc* Working Group (WG) met in Kribi, Cameroon, in 2007 to establish a workplan incorporating the necessary tasks leading to a formal and legal panAfrican institution: ANAF. Further stakeholder consultations on the network have taken place in July and August 2008 with the generous assistance of the German Agency for Technical Cooperation (GTZ), and the *ad hoc* WG will report back to CIFAA in December 2008. Meanwhile, FAO has facilitated an online ANAF stakeholder forum accessible at <http://www.fao.org/fi/fima/anaf-forum/forum.html> and is in the process of establishing an internet-based network similar to the Regional Aquaculture Information System in the Gulf Region (RAIS) where members can share and access information from the region which is crucial for the development of aquaculture in their own country. These tools assist with improved access to current information. Fractionation of aquaculture programmes at national and regional levels has been a barrier to effective sub-sectoral programming; improved information channels potentially enhancing needed co-ordination. Inherent in the SPADA approach is the improved co-ordination

also facilitated by national task forces and steering committees with wide stakeholder representation to guide the development of national programmes.

(iii) Capital and input supply

19. SPADA will assist in creating an enabling environment for access by investors to critical inputs including, among others, capital, seed and feed. This also includes certification programmes for the suppliers of such inputs as feed and seed to ensure quality and traceability.

20. An ongoing TCP/SIL/3104 *Assistance to fish farmers* and pipeline TCP/KEN *Strengthening fish production through adoption of improved aquaculture* provide the necessary technical advice and backstopping on the use and application of resource and planning tools in order to establish sustainable, private-sector driven fish farming through pilot sustainable production units that will ensure reliable supply of quality seed and farmer-friendly aquaculture technologies.

21. GCP/RAF/417/SPA *Aquaculture Investments for Poverty Reduction in the Volta Basin: Creating Opportunities for Low-Income African Fish Farmers through Improved Management of Tilapia Genetic Resources* supports the countries of the Volta Basin in developing responsible policies and practices for using genetically improved strains of Nile tilapia in small- and medium-size enterprises in the area. This sub-regional project serves as an umbrella for co-ordination to facilitate the establishment of national task forces and other field programmes as well as bringing on board new development partners. One of the efforts is to develop links with the feed industries in an attempt to ensure that, as higher quality seed is available, the corresponding high quality feed will also be accessible.

(iv) Processing and marketing

22. SPADA will provide guidance as to options, methods and methodologies for processing and marketing including establishing quality control programmes. Adoption of standards and labels along the value chain will improve access to domestic, regional and export markets.

23. There are many activities undertaken in this regard as it ultimately concerns the consumption of aquatic products from both capture fisheries and aquaculture. A major focus, as underscored in the NEPAD Action Plan, will be intra-regional marketing and trade in aquaculture products including inputs. One example of widely applicable methods for improved fish processing is smoking in specialized ovens (e.g. the Chorkor system) which have been promoted in UTF/NIR/047/NIR *The National Special Food Security Programme, Nigeria*. Another example is the application of a Technological Platform Approach which has been successful in the Republic of Chad where better handling, storage and processing of fish resulted in improved hygiene and sanitation, improving fish quality and value and thus access to urban markets.

(v) Research and education

24. SPADA will focus on proven technologies, co-ordinating and harmonizing research and education programmes across the region to identify comparative advantages for different research and education institutions. The programme will support regional research and education programmes, match needs with providers and generally increase the overall efficacy of these operations.

25. This is an arena that requires special efforts and targeted resources and is likely to be picked up only when ANAF becomes operational. Collaboration is envisaged *inter alia* with the Sustainable Aquaculture Research Networks in Sub-Saharan Africa (SARNISSA). On the education side, it will include capacity building on application of resource and planning tools such as the African Water Resource Database (Jeness *et al.*, 2007).

(vi) Social, economic and environmental soundness

26. The programme will establish baselines and targets that are conducive for sustainable aqua-businesses as well as determining elements to be considered for pre-investment impact assessments and post-investment monitoring.

27. In conjunction with TCP projects in Malawi and the East African Community (LVFO), a standard user-friendly model is currently being developed to assist farmers in both pre- and post-investment aspects. On the environmental side, FAO has embarked on “Environmental Impact Assessment and Monitoring in Aquaculture” a component of GCP/INT/936/JPN *Towards sustainable aquaculture: Selected issues and guidelines* being implemented by the Aquaculture Management and Conservation Service (FIMA) under Japanese Government support. The Africa case study covers eight countries across the Region. The project is aimed at addressing key issues of environmental assessment and monitoring in aquaculture with a view to generate strategic advice and technical guidance information for use in policy making, capacity building and training in the sector.

(vii) Monitoring, evaluation and planning

28. SPADA will implement regional and national monitoring and evaluation activities including improved and more precise statistical reporting mechanisms. Partners will be supported to access appropriate tools for planning, priority-setting, monitoring and impact assessment.

29. Current work done by FIMA focuses on the provision of timely and accurate information concerning the use of cultured species (FAO Cultured Aquatic Species), legislation (FAO National Aquaculture Legislation Overviews - NALOs) and overviews on the national aquaculture sector (FAO National Aquaculture Sector Overviews - NASOs). For Africa, information on NASOs and NALOs is currently available for 14 and four countries, respectively, and is expected to be consistently maintained and updated in close collaboration with ANAF.

30. Identification of high potential areas for aquaculture development and the planning and scaling of investments are facilitated through the application of planning tools such as the African Water Resource Database and the Aquaculture Recommendation Domains decision support tool.

SUGGESTED ACTION BY THE COMMITTEE

31. The Committee is requested to:

- (1) Comment, advise upon and endorse SPADA as the coherent framework for aquaculture development in Africa;
- (2) Make recommendations as to how to support the implementation of SPADA in financial and human resource terms at regional, sub-regional and national levels.