



Ministry of Agriculture & Rural Development



Australian Government

AusAID

Collaboration for Agriculture & Rural Development

PROJECT COMPLETION EVALUATION REPORT

002/004VIE

Better Breeds of Common Carp (*Cyprinus carpio* L.) for Small-scale Fish Farmers

Evaluation team:

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1. Institute Information:

Project Name	(002/004VIE) Better Breeds of Common carp (<i>Cyprinus carpio</i> L.) for Small-scale Fish Farmers	
Vietnamese Institution	Research Institute for Aquaculture No.1	
Vietnamese Project Team Leader	Dr Pham Anh Tuan	
Australian Organisation	Charles Darwin University	
Australian Personnel	Prof. Chris Austin	
Date commenced	8 March, 2005	
Completion date (original)	8 March, 2007	
Completion date (revised)	8 June, 2007	
Project Budget (A\$)	Total: 355,752	From: AusAID: 207,832 Australian Institution: 87,000 Vietnamese Institution: 60,920

2. Objectives:

Evaluation and comparison the result of project with target, contents about efficiency, effectiveness, relevance, sustainability, project impacts.

3. Evaluation contents:

- Reducing poverty and ensuring food security, increasing agricultural efficiency (through the greater productivity of improved fish breeds),
- Increase stakeholder participation (by active participation of farmers in fish breed evaluation and workshops on brood-stock management and selection),
- Improved natural resource management (identifying domesticated and wild fish breeds requiring conservation through genetic and phenotypic evaluations) and
- Rural education (training for small scale fish farmers and provincial and private fish hatchery operators).
- The availability of more and better equipment and the enhancement of skills and knowledge at the institute and provincial hatchery levels will also increase capacity for the development of improved fish breeds and ultimately export value of aquaculture.

4. Evaluation method:

- Use secondary documents by proposal, milestone report, complete report and presentation of Leader project.
- Use primary documents by direct interview hatchery personnel, farmers by questionnaire.
- Analyse, evaluation the information.

5. Key Evaluation Questions :

- What quality of the common carp is in Viet Nam (domestic, mixed blood)?
- How are quantity and quality of seed (fry and fingerling) production enough for produced
- Who got the benefits?
- Does project have efficiency to social, livelihood?
- What opinions are in near future (manage, technique)?

6. Evaluation of project:

6.1 Result

Result 1 : To document current fish breeding and brood-stock management practices in relation to the selection and maintenance of genetically improved common carp breeds at the institutional, hatchery (provincial and private) and small-scale farm levels; to assess knowledge levels relating to fish breeds and selection of seed stock by small scale farmers :

- Questionnaire constructed [1] [6].
- A total of 133 farmers, managers growing and/or breeding Common carp were interviewed on 21 province [2].
- Report on status of common carp culture and breeding in Vietnam completed [1].

Result 2: To determine genotypic and phenotypic diversity among common carp genetic resources (breeds), both wild and domesticated, available for aquaculture within Vietnam and examine the success of dissemination of genetically improved breeds to small scale farmers :

- Over 2,000 fish sampled from 60 populations in province hatcheries, natural ponds and farmer's ponds. Total of fish sample were over plan. The collected populations of common carp have been analysed [3].
- The results reveal interesting insights into the effects of inbreeding and dissemination of genetically improved strains and have been public in Aquaculture journal (Aquaculture 2006. 258, 228-240). It is apparent that experimental lines have suffered from in breeding and the dissemination of genetically improved carp to hatcheries has not been consistent or has been subject to subsequent stock mixing with indigenous strains[2].

Result 3 : To increase success and efficiency of common carp breeding, broodstock management and seed stock production by small scale farmers and hatchery personnel:

Two workshops on common carp breeding and broodstock management were organised in Thai Nguyen and at NBC in HaiDuong, for 70 hatchery personnel and farmers. Discussions among farmers generated many useful comments and suggestions regarding current practices in fish breeding and the value and availability of genetically improved carp to small scale farmers[7].



The workshops on common carp breeding and broodstock management



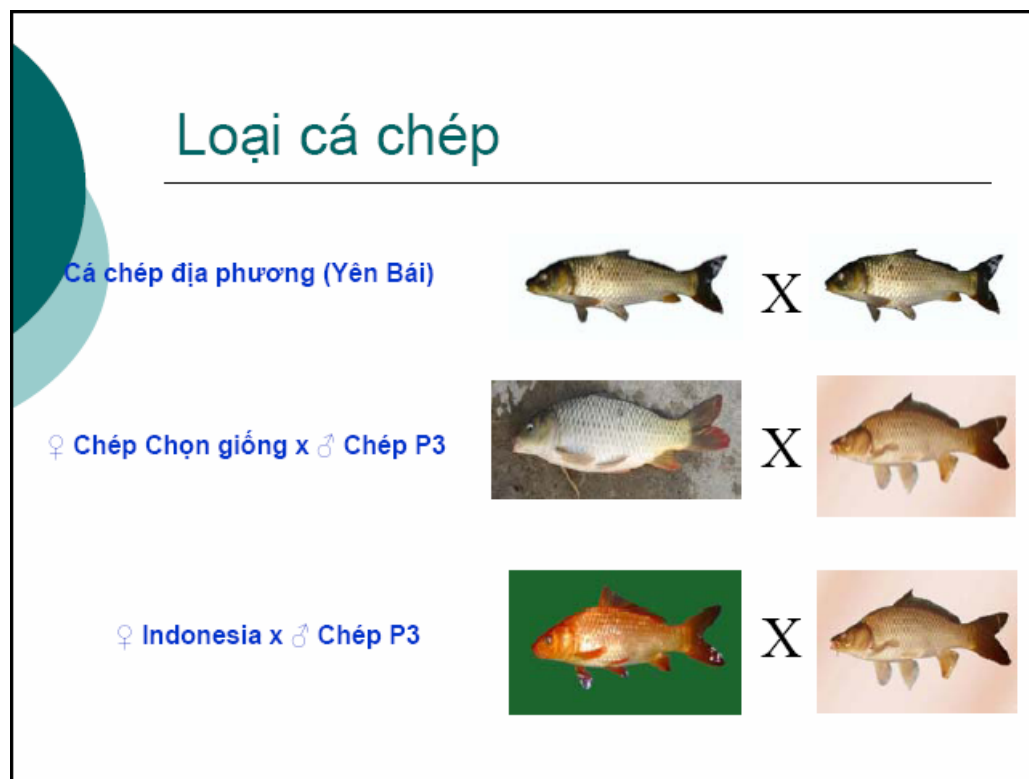
Study tour in National hatchery

Result 4 : To increase capacity of young researchers and technicians to contribute to research and development in the fields of genetics of broodstock management, molecular genetics and fish genetic improvement:

- Technical training on fish breeding principles and molecular analysis application in genetic improvement of fish for 23 Vietnamese young scientists from research institutes and universities conducted at RIA-I (Vietnam) [7].
- Four young researchers from Research Institute for Aquaculture NoI & III (RIA-1, RIA3) and University of Fisheries (UoF) Nha Trang visited Deakin University and Charles Darwin University and received advance training in molecular genetic methods, genetic principals and statistical methods [5].

Result 5 : To demonstrate to farmers, on farm, the advantages of using genetically improved breeds of carp:

- Three new strains of common carp have been stocked in 40 fish farmers' ponds and rice fields in Yen Bai and Thai Nguyen provinces for evaluation growth performance and survival rates[4].
- A total of 10,000 fingerling were stocked [4]. .



Three new strains of common carp have been stocked for experiment in Yen Bai and Thai Nguyen provinces

Another results [3] :

- A young Vietnamese scientists was trained for doctor
- A article was issued in forein scientists magazine
- Equipment & materials::
 - 1 Digital Camera
 - 1 Microsatellite gel rig
 - 1 laptop HP, 1 PC-HP

6.2 Efficiency

- The outcomes of the project are felt to exceed the expectations given the budget. All indicators are met, even with higher achievements, e.g.
 - the collected carp sample was large (2,000 samples from 60 populations);
 - the number of interviewees at all levels was high (133 interviewees);
 - the interview area is large (21 provinces) providing an overview of the carp breed quality in Vietnam;
 - the number of trainees is high (23 staff and 70 farmers); their awareness in breed management and production was increased; they learnt new technology and techniques;
 - it approved that the selected breeds are better than the indigenous breeds in the same culturing environment;
- The management of the project is good. The project team leader had a good overall management. The main project team members were researchers and lecturers at the institute and universities, other project participants were local staff and breed production managers, thus there was a good connection from the project management board to the farmers.
- The project budget, human resources and equipment were fully and appropriately utilised.
- The project budget were released in accordance with the proposal.
- Project organisation and implementation were proper.

6.3 Effectiveness

- The project objectives were achieved, as presented above.

- The project outputs contributed to the achievement of the objectives: increase knowledge and awareness of farmers and produce more and better carp breeds for farmers; improve the knowledge and skill of researchers.
- The change of partners, the short project life cycle given many activities and long experiments were the major constraints.
- In order to prove the achievements, extension and multiplication of the models is needed.

6.4 Relevance

- The objective of the project is relevant to MARD's policy (Fishery Breed Development Program by 2010 under Decision 112/2004/QĐ-TTg dated 23/6/2004 by the Prime Minister);
- The project objective remains relevant to smallholder farmers, managers, and researchers.
- The project objective is relevant to the CARD Program goal.

6.5 Sustainability:

- The project activities are still going on. There is preliminary evidence of effectiveness. This model could be extended to remote areas.
- The trained personnel are still utilised and prove useful when the project completed.
- Government's policies support and encourage the project concept even when it finished (Fishery Breed Development Program by 2010 under Decision 112/2004/QĐ-TTg dated 23/6/2004 by the Prime Minister; Aquaculture Development Program 1999-2010 under Decision 224/1999/QĐ-TTg dated 08/12/1999 by the Prime Minister);
- Funding sources can be sought from international projects for the next phase.

6.6 Project Impacts

- The project has disseminated the research results to farmers;
- The project lays the base for policy making in management and planning ;
- Farmers are the beneficiaries because they are provided with good carp breeds, equipped with better techniques so they now have higher productivity. Their incomes are thus increased.
- Researchers' and managers' knowledge is now improved and they have opportunities to higher education and better jobs;
- This project contributed to the government's policy on poverty reduction in remote areas.

6.7 Main issues in the implementation

6.7.1. The completeness in achievement of project objectives:

The project was fully implemented and achieved what it was set out to achieve.

6.7.2. Potential to extend and adopt project results

The project was highly feasible, and potentially adopted and extended nationwide. The primary information from farmers and project implementers at provincial level confirms this statement.

6.8. General comments

6.8.1. Fulfillment of project objectives

The project objectives were fulfilled quantitatively and qualitatively.

6.8.2. Comments

- Project reports were sufficient in numbers however they are very brief, some results are not quantified
- Data related to the impacts and results of demonstrations on beneficiaries was not collected;
- The project progress was not in accordance with the plan for subjective and objective reasons;
- Environment, social and gender issues were not addressed sufficiently.
- The project should propose a plan for the development of the common carp.
- The proposals for a phase 2 is relevant;.

7. Conclusion and recommendations

- The project objectives, outcomes and outputs were achieved ;
- It is recommended that the project is extended in a phase 2.
- The suggestion by the project team leader that partners could have been non-Australian should be noted for future funding.

LIST OF INTERVIEWEES

TT	Name	Content working for project/ Office	Interview schedule
1.	Dr Phạm Anh Tuấn	Vietnamese Project Team Leader	8.00-11.30 August 15, 2008
2.	Mr Nguyễn Hữu Ninh	Researcher, Teacher / RIA 1	13.30-14.30 August 15, 2008
3.	Mr Nguyễn Thanh Hải	Researcher/ RIA 1	14.30-15.30 August 15, 2008
4.	Mr Ngô Sỹ Vân	Researcher/ RIA 1	15.30-16.30 August 15, 2008
5.	Mr Nguyễn Văn Giới	Member of project / Director of Department of Agriculture & Rural Development in Thai Nguyen province	8.00-9.30 August 16, 2008
6.	Mr Dương Văn Thanh	Member of project / Director of Cu Van hatchery, Thai Nguyen province	10.00-11.30 August 16, 2008
7.	Mr Ngô Thái Hùng	Farmer aquaculture common carp in Cu Van district- Thai Nguyen province	13.30-15.00 August 16, 2008
8.	Some farmers	No 11 Village, Cu Van district, Thai Nguyen province	15.30-17.00 August 16, 2008