

Report of the Egypt Aquaculture Value Chain
Theory of Change Meeting
Sharkia, Egypt,
24-25 June 2013

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www.livestockfish.cgiar.org

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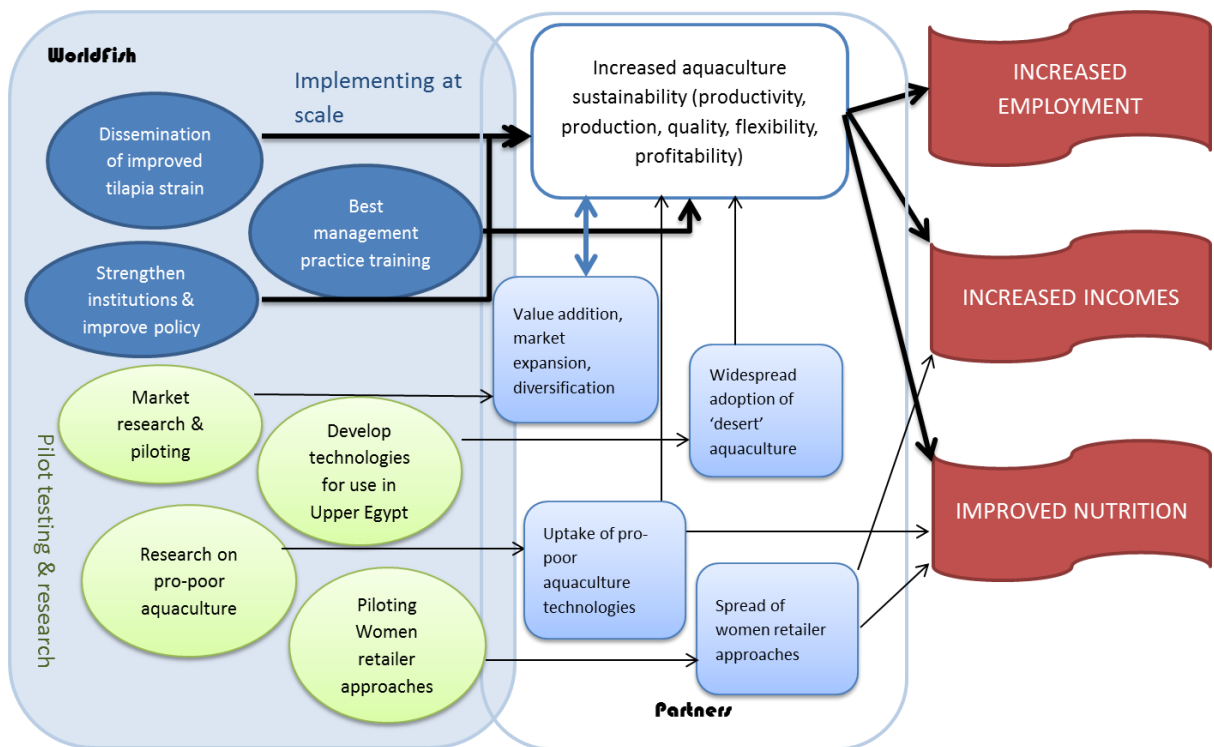
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Results chain/impact pathway



Assumptions/theory of change

The impact pathway links the results chains, making a clear division between the activities that are being implemented at scale (dissemination of improved strain, best management practice training and strengthening institutions and improving the policy environment) and the pilot-scale activities (support for women retailers, research on pro-poor aquaculture and developing technologies for Upper Egypt). The activities being implemented at scale will result directly in increased production, productivity, quality, flexibility in harvesting strategies, while the pilot-scale activities will require to be scaled up before they will result in significant development impacts; increased employment, increased incomes and improved nutrition.

IDs proposed at Addis Ababa meeting (20-23 May)

IDO	Addis Ababa target
1. Increased productivity	Fish productivity increased by 40% in 10 years
2. Increased quantity and quality	75% increase in total fish production in 10 years
3. Increased employment and income, esp for women	40% increase in employment for youth and women, 30% of which is attributed to women
4. Increased nutrition, esp among women and young children	5% reduction of the micro-nutrient gap among target groups
5. Lower environmental impacts	Reduction of global warming potential (GWP) per tonne of fish production by 20%
6. Supportive policies and investments and increased participation of women in the value chains	Capital investment in the aquaculture value chain increased by 100% (ex: feed manufacturing, intensification)

Discussion on IDO targets

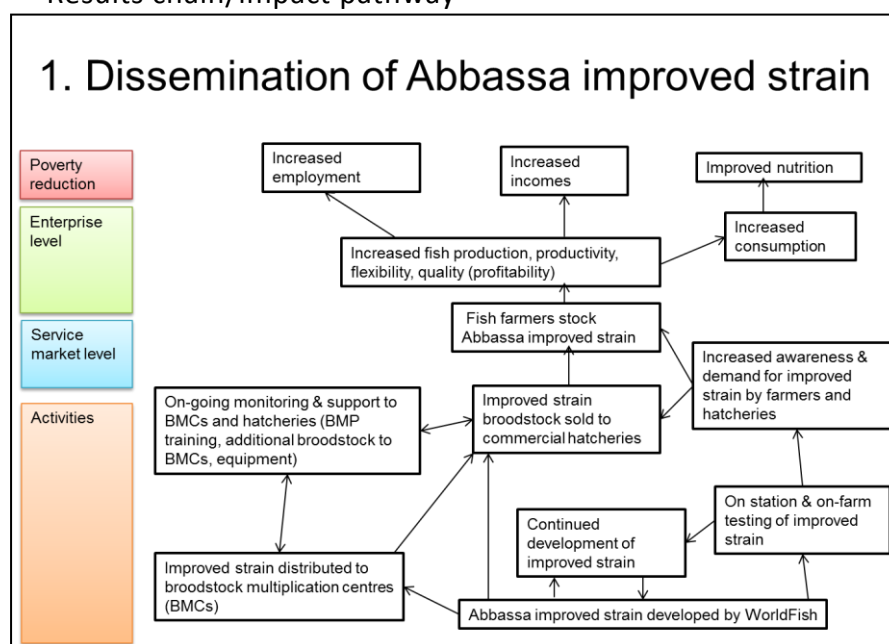
- There is a contradiction between targets for IDO 1 and IDO 2 (a 75% increase in fish production will require a similar level of increased productivity as the area under culture is unlikely to increase); need to be consistent.
- IDO 3 – quality of employment needs to be measured in addition to increased employment. IDO language includes women’s control over income; retailer survey will provide a first estimate of share of male and female respondents reporting having a say in how their income is used. Can we establish an increase in employment for women in the value chain – do we have a baseline?
- IDO 4 – should this refer to micro-nutrients or nutrients? Need to identify which (micro-) nutrients are in the gap, based on existing info from WFP & UNICEF
- IDO 5 – is there a more appropriate indicator for environmental impact?
- IDO 6 – need to talk about actual policy change (and policy implementation?) which should be achievable in a 10 year time-frame, not just investment. It’s possible to highlight the areas where policy change is needed (see below), and this should be reflected in the target.

Results chains and ToC assumptions

The results chains and associated theory of change assumptions as refined at the June 2013 Abbassa workshop are detailed below.

Abbassa strain dissemination

Results chain/impact pathway



Assumptions/theory of change

The main assumption is that large numbers of farmers are willing to stock the Abbassa strain. This seems likely as there are no other 'improved strains' available to Egyptian fish farmers and the reaction from farmers has been very positive; they would like to have a faster growing fish. However, it is important to manage expectations regarding the ability to deliver sufficient Abbassa strain seed at the right time. Large quantities of improved strain fry and fingerlings will not be available from hatcheries until 2014 (who will be supplied with broodstock from BMCs in 2013) so awareness raising activities need to be timed appropriately. The revised logframe targets assume that 2000 fish farms will be stocked with the improved strain by the end of project (Dec 2014).

In relation to on-farm trials, it is assumed that farmers will stock the improved strain in addition to the existing commercial strains (but not in the same pond) to allow for comparisons to be measured. If demand for the improved strain seed is very high there is a risk that BMCs and hatcheries will cheat by selling commercial strain seed as Abbassa strain. This highlights the need to develop genetic markers.

Continued development of the improved strain will depend on continued funding support for genetic research.

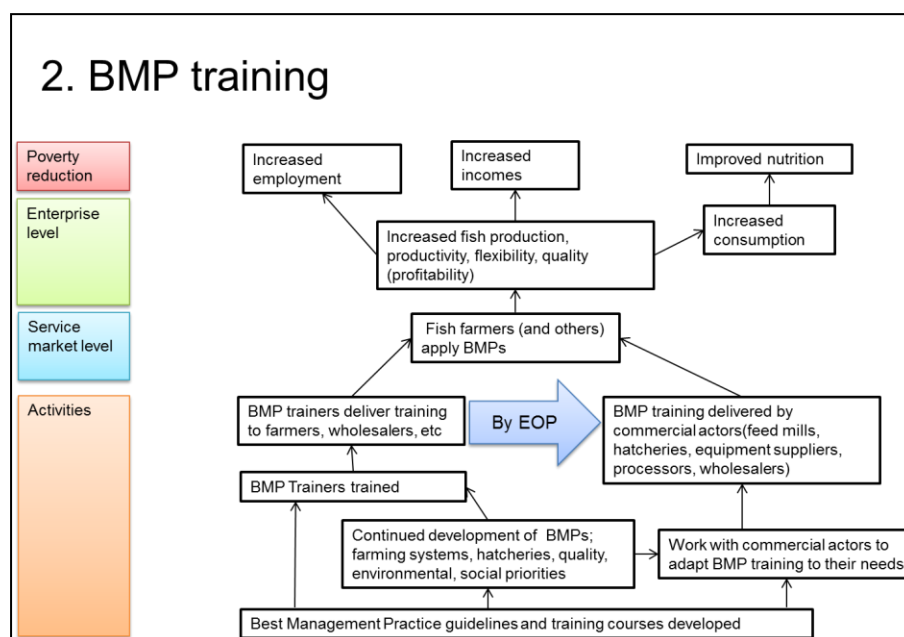
We do not know how wholesalers and consumers will react to the improved strain; this could be positive (if fish are more even sized, for example) or could be negative (if people think improved strain = genetically modified). The size of fish at harvest could also influence markets; farmers may tend to grow larger fish, assuming that this results in greater profit, however poor consumers tend to buy small fish, so less fish could be available for poor consumers. These issues need to be researched.

For fish farmers the use of the improved strain will lead to greater flexibility in production options as the grow-out time should be shorter. This means it will be easier to spread production through-out the year. There is a risk that production intensification will result in increased disease risks.

At the 'poverty reduction' level in the results chain it is assumed that faster growing fish will result in more fish being traded and sold by other actors in the VC which will result in more employment, increased incomes and increased consumption leading to improved nutrition of consumers. However, the results of these higher level goals will not become apparent on a 'macro scale' for some time and will not be apparent during the current phase of IEIDEAS project. Nevertheless it should be possible to identify trends from the first farms supplied with the improved strain in 2013.

BMP training

Results chain/impact pathway



Assumption/theory of change

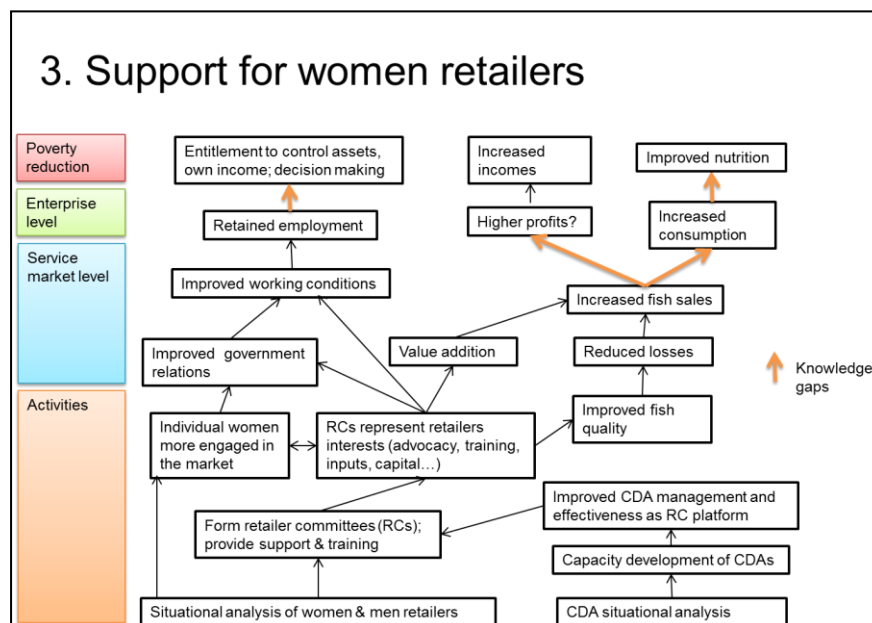
While the delivery of BMP training by 'farmer trainers' is progressing well, the results chain assumes that it will be possible to deliver training by private sector actors, such as feed companies after the project has finished. This assumes that the private sector will be willing to fund the delivery of quality BMP training if, for example, it results in greater market share for feed companies. Obviously not all commercial actors will be able / willing to do BMP training.

It is likely that poorer farmers will benefit more from BMP training (as their existing practices are worse, or they have received less training in the past) than richer, better-resourced farmers. BMP trainers have already been asked to target poorer fish farmers for training.

BMP training should result in rapid production increases (more rapid than dissemination of the improved strain) that will result in progress on 'poverty reduction' goals during the project period. The target is to have 2000 fish farmers trained in the complete farmer BMP training by end of project. If the trained farmers achieve a 30% increase in production as a result of the training it should be possible to achieve the 10% rise in production, employment and incomes envisaged for overall project objectives.

Support for women retailers

Results chain/impact pathway



Assumptions/theory of change

Support for women retailers is a pilot-scale activity, testing out methodologies for enhancing their livelihoods which will only result in significant contributions towards poverty reduction goals if it is scaled up after the current 3-year phase of the IEIDEAS project. The project targets are modest; to have sustainable retailer groups operating in all 5 project governorates. Afterwards these approaches could be extended to other parts of the country and to other markets in the 5 governorates covered by the project.

Initial project activities have worked through community development associations (CDAs) who have expressed interest in the project. Obviously there is an assumption that the interests of the CDAs coincide with those of the project and the retailers.

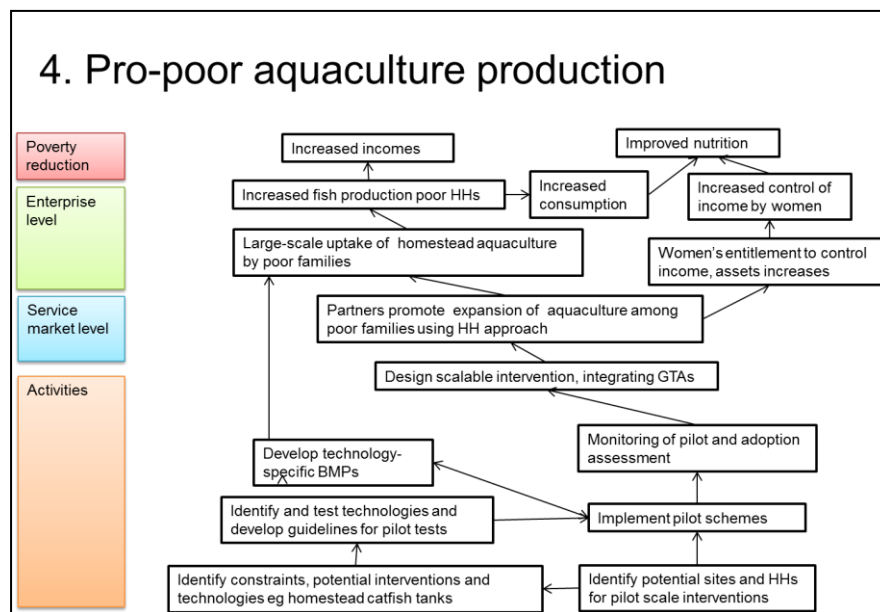
The main interventions that have been requested by the retailers so far are improvements in storage and handling of fish through using ice boxes, better transport and dedicated spaces to be used as markets. These should result in improved fish quality however this can only be guaranteed if the fish is delivered to retailers in good condition (clean, chilled or live), which is only possible in areas close to the main supply routes.

Improved quality should result in reduced losses and increased sales however links between this and higher profits, increased incomes, increased consumption and improved nutrition have yet to be demonstrated.

The left hand side of the results chain concentrates on improved working conditions, leading to improved entitlement to control assets; again these links are as yet unproven.

Pro-poor aquaculture production

Results chain/impact pathway



Assumptions/theory of change

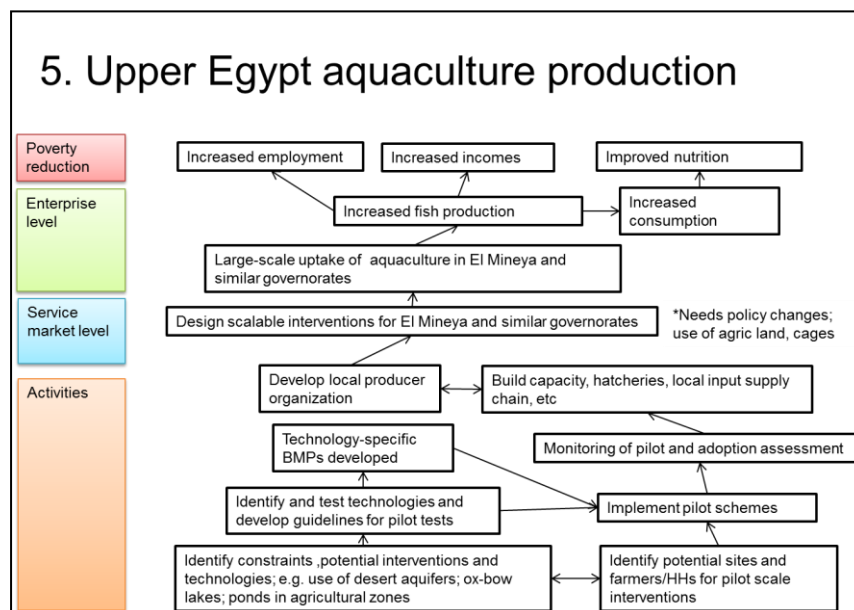
Pro-poor aquaculture production is another pilot-scale activity. The approaches developed would need to be scaled up to result in achievement of higher level goals.

The first activity has been to develop small-scale catfish rearing systems to be used by women. There is a major assumption that appropriate technologies can be developed that are sufficiently attractive to be implemented by women. The first household tanks are currently being tested and the women seem to be enthusiastic. However, in the early stages of technology development, equipment and operating costs are subsidized so the real test will be at the scaling-up stage when they are facing real costs.

Scaling up of these approaches will require close cooperation with development partners such as NGOs.

Upper Egypt aquaculture production

Results chain/impact pathway



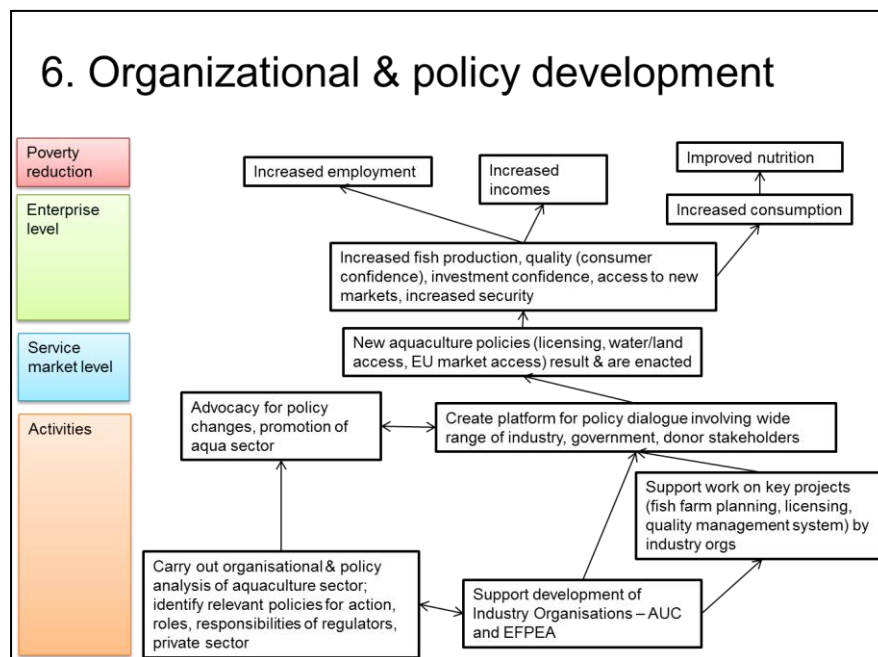
Assumptions/theory of change

Developing aquaculture production in Upper Egypt is also a pilot-scale activity testing approaches that could be applied more widely in other 'non-aquaculture' governorates.

The main challenge is to identify realistic approaches that can be implemented at scale at present. Limitations on water use (only from drainage canals and lakes) and where aquaculture can be conducted (not in agriculture zones and limited use of cage farming) mean that (legal) aquaculture expansion is limited to the use of water storage reservoirs and these will always be limited in size and number.

Organizational & policy development

Results chain/impact pathway



Assumptions/theory of change

The central activity in this results chain is the creation of a platform for policy dialogue, however political instability means that this is very difficult to achieve at present.

This has to be viewed as a long-term program rather than something that must be achieved and result in policy progress during the project period. It will also require a flexible approach.

If policy changes can be achieved, this could result in policies that provide a more secure operating environment for VC actors, allowing them to invest in better equipment and market development which will feed through to increased fish production and policy level goals such as increased employment, increased incomes, increased consumption and improved nutrition.

Key policies required (10 year time frame) are as follows:

- Access to water
- Land tenure
- Access to EU markets
- Establishing fish quality and disease testing protocols
- Licensing of fish farms
- Relaxation of taxation on imports
- Ability to transport seed between governorates