

## Aquaculture - fish ponds - high level cash flow analysis

<b>Pond size</b>	
Investment costs	Upgrade / build pond Purchase farm gear Processing equipment
Recurrent costs	Fingerlings (tilapia) Feed (500 g fish, FCR 1.5) Maintenance Depreciation
Production	Produced tilapia (10% mortality Y1-Y3, 5% thereafter) Produced fish (weight equivalent - 500 g fish)
Production	Fresh fish
Investment costs	Upgrade / build pond Purchase farm gear Processing equipment Total Investments costs
Recurrent costs	Fingerlings (3 tilapia/m2) Feed (500 g fish, FCR 1.5) Maintenance
	Profit cashflow
	IRR (%)
	NPV @ 9% (US\$)

### 100% Loan scenario

Loan tenor, years  
Loan interest rate  
Commercial loan, 80% of costs  
Loan repayment  
Interest  
Principal

**Costs**  
Investment  
Operational costs

Loan repayment

Total costs with commercial loan

Income                      Income from sale of fresh fish

Total income with commercial loans

Net revenue after repayments

Cumulative net revenue

Paid back

IRR with commercial loan, %
NPV with commercial loan, USD
Paypack period, years

Unless otherwise

specified all data comes from: FAO-GCF readiness project, 2022, "An Economic Evaluation Report of The Fisheries Se

	Y1	Y2	Y3	Y4	Y5
<b>cycles/year</b>	2	2	2	2	2
m2	2300				
unit	1				
set	1				
set	1				
unit	13,800	13,800	13,800	13,800	13,800
kg	20,700	20,700	20,700	20,700	20,700
%	3%	3%	3%	3%	3%
%	10%	10%	10%	10%	10%
fish	12,420	12,420	12,420	13,110	13,110
kg	6,210	6,210	6,210	6,555	6,555
Price/unit (US\$)					
\$ 5	\$ 32,168	\$ 32,168	\$ 32,168	\$ 33,955	\$ 33,955
32,190	32,190	0	0	0	0
3,330	3,330	0	0	0	0
20,350	20,350	0	0	0	0

**55,870**

0.25	3,450	3,450	3,450	3,450	3,450
0.55	11,385	11,385	11,385	11,385	11,385
55,870	1,397	1,397	1,397	1,397	1,397
(US\$)	-95,804	15,936	15,936	17,723	17,723

10.8%
(3,920)

6

12%	Y1	Y2	Y3	Y4	Y5
	44,696	39,188	33,020	26,111	18,373
	10,871	10,871	10,871	10,871	10,871
	5,364	4,703	3,962	3,133	2,205
	5,508	6,169	6,909	7,738	8,666

(US\$)	Y1	Y2	Y3	Y4	Y5
	55,870	-	-	-	-
	16,232	16,232	16,232	16,232	16,232

	10,871	10,871	10,871	10,871	10,871
	82,973	27,103	27,103	27,103	27,103
	32,168	32,168	32,168	33,955	33,955
	32,168	32,168	32,168	33,955	33,955
-	50,805	5,065	5,065	6,852	6,852
-	50,805 -	45,740 -	40,676 -	33,824 -	26,972
	1	1	1	1	1

13%
1,268
7

ector (Inclusive of Seamoss and Aquaculture)", Mathurin L

Y6	Y7	Y8	Y9	Y10
2	2	2	2	2
13,800	13,800	13,800	13,800	13,800
20,700	20,700	20,700	20,700	20,700
3%	3%	3%	3%	3%
10%	10%	10%	10%	10%
13,110	13,110	13,110	13,110	13,110
6,555	6,555	6,555	6,555	6,555
\$ 33,955	\$ 33,955	\$ 33,955	\$ 33,955	\$ 33,955
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Profit excl.

Y1  
15,936

XCD - USD

3,450	3,450	3,450	3,450	3,450
11,385	11,385	11,385	11,385	11,385
1,397	1,397	1,397	1,397	1,397
17,723	17,723	17,723	17,723	17,723

Y6	Y7	Y8	Y9	Y10
9,706				
10,871				
1,165				
9,706				

Y6	Y7	Y8	Y9	Y10
-	-	-	-	-
16,232	16,232	16,232	16,232	16,232

	10,871	-	-	-	-
	27,103	16,232	16,232	16,232	16,232
	33,955	33,955	33,955	33,955	33,955
	33,955	33,955	33,955	33,955	33,955
	6,852	17,723	17,723	17,723	17,723
-	20,120	- 2,397	15,327	33,050	50,773
	1	1	0	0	0

investment

Y2	Y3	Y4	Y5	Y6	
15,936	15,936	17,723	17,723	17,723	100,978

0.37

Google Currency February 2025