



Pistachio Production

Business Plan

Hamed Esteki | Jan 2012

WS11/12 Business Administration

Production Description



Male and Female pistachio trees are planted in one area and Insemination of female blooms is done with the help of wind.



Pistachio tree needs a lot of fertilizer

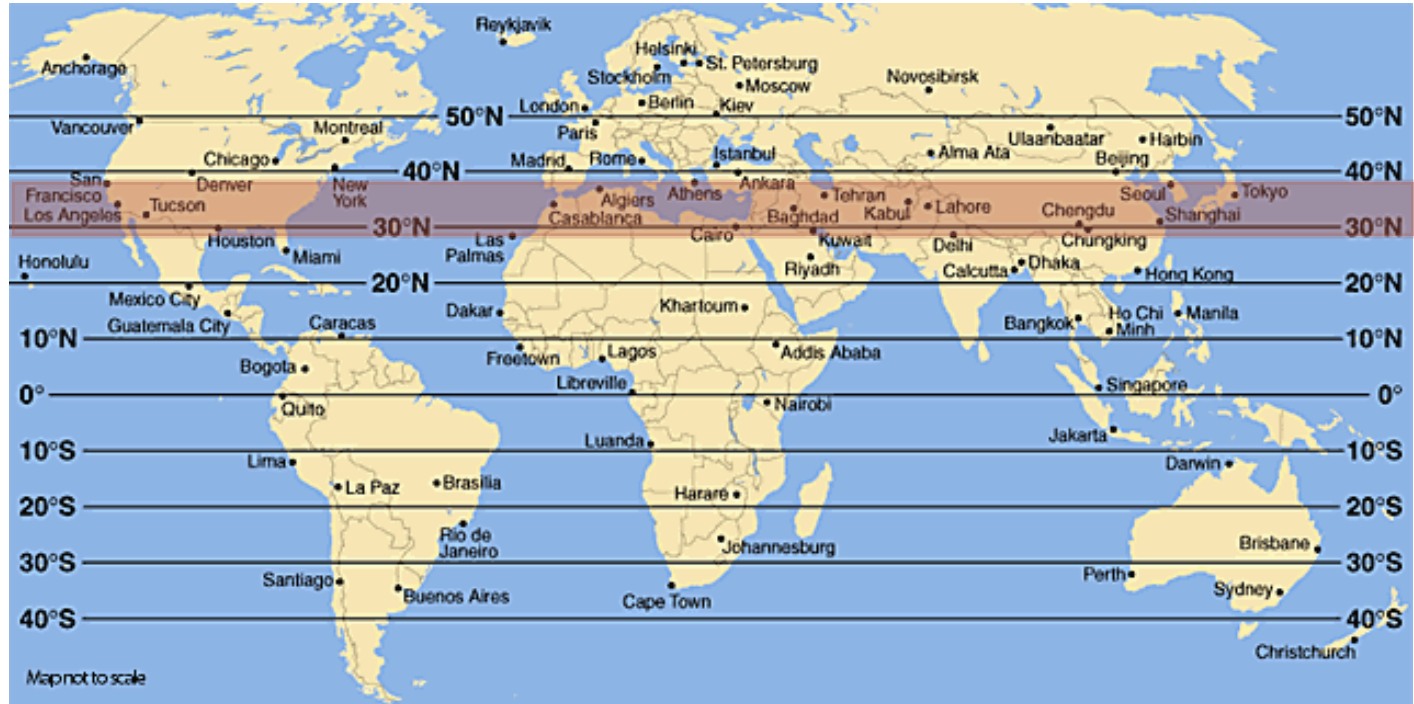


In the first three years of growing, It should be irrigated every week.



Market Analysis

Capacity



Latitude	27-37 ° North
Altitude from sea level	900-1800 m
Cold weather requirements	1000 hours in 0-7 °C
Temperature in growing season	25-35 °C
Temperature in Pollination season	16-22 °C
Humidity in growing season	25-35 %
Humidity in Pollination season	35-50 %

Favorable regions for growing Pistachio

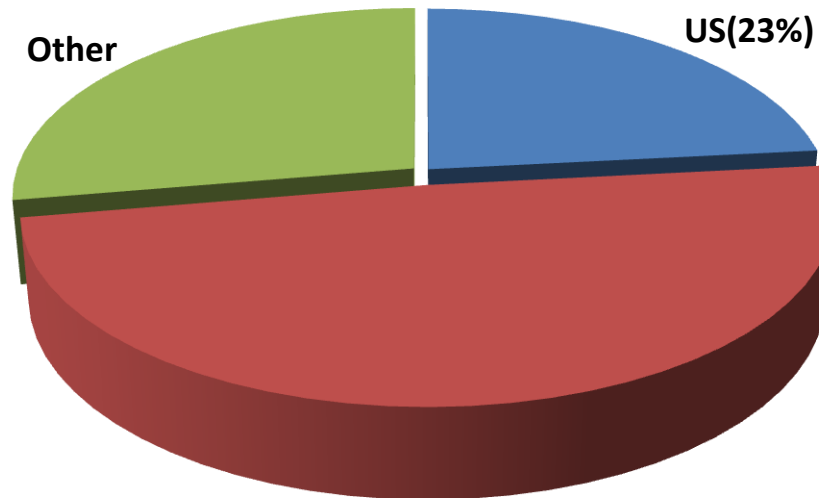
Source: <http://www.iranpistachio.org>

Market Analysis

Capacity

Production (tonnes)

		year		
country		item	2010	
	World + (Total)	Pistachios	912179	A



country		item	2010
	Iran (Islamic Republic of)	Pistachios	446647

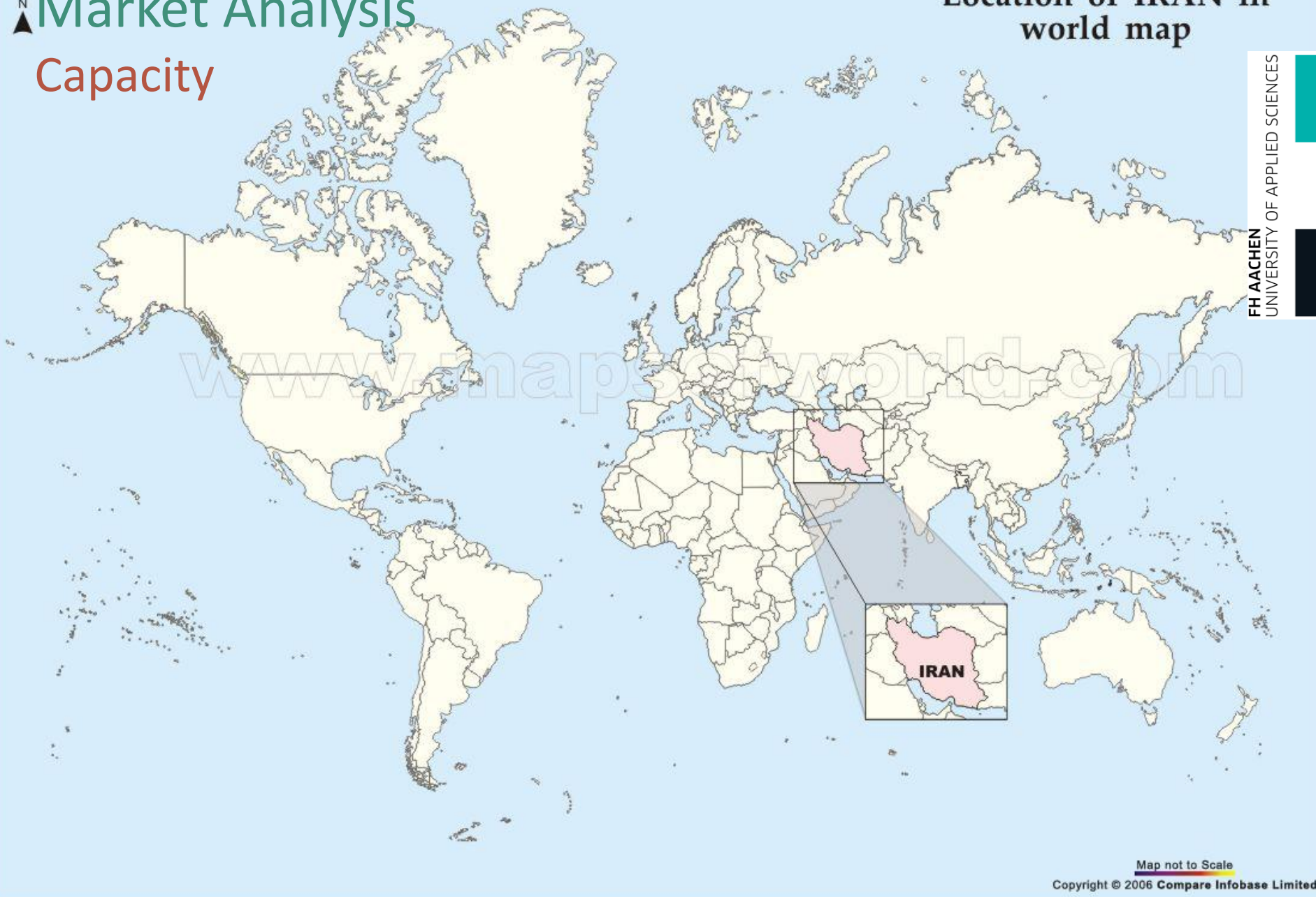
Iran 44647 Ton
(49%)

Source: <http://faostat.fao.org>

Market Analysis

Capacity

Location of IRAN in world map



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Map not to Scale

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Market Analysis

Capacity



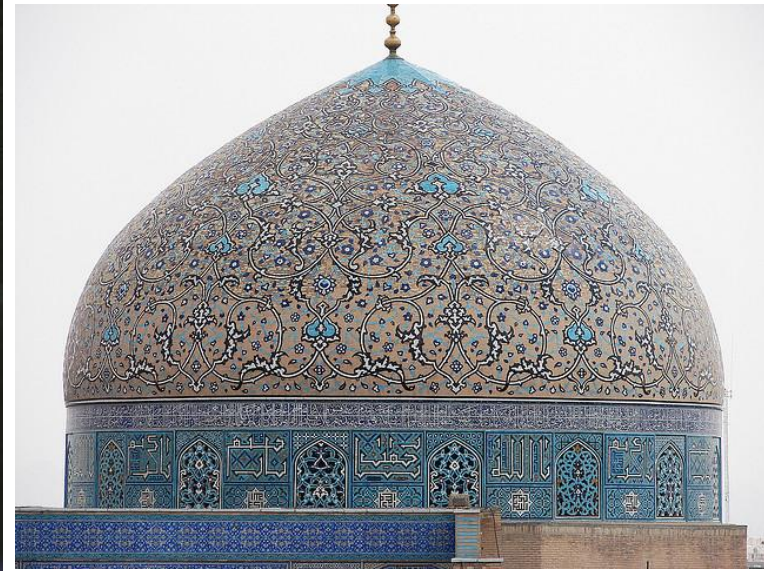
Market Analysis

Place

 Our garden is located in **Isfahan** suburbs



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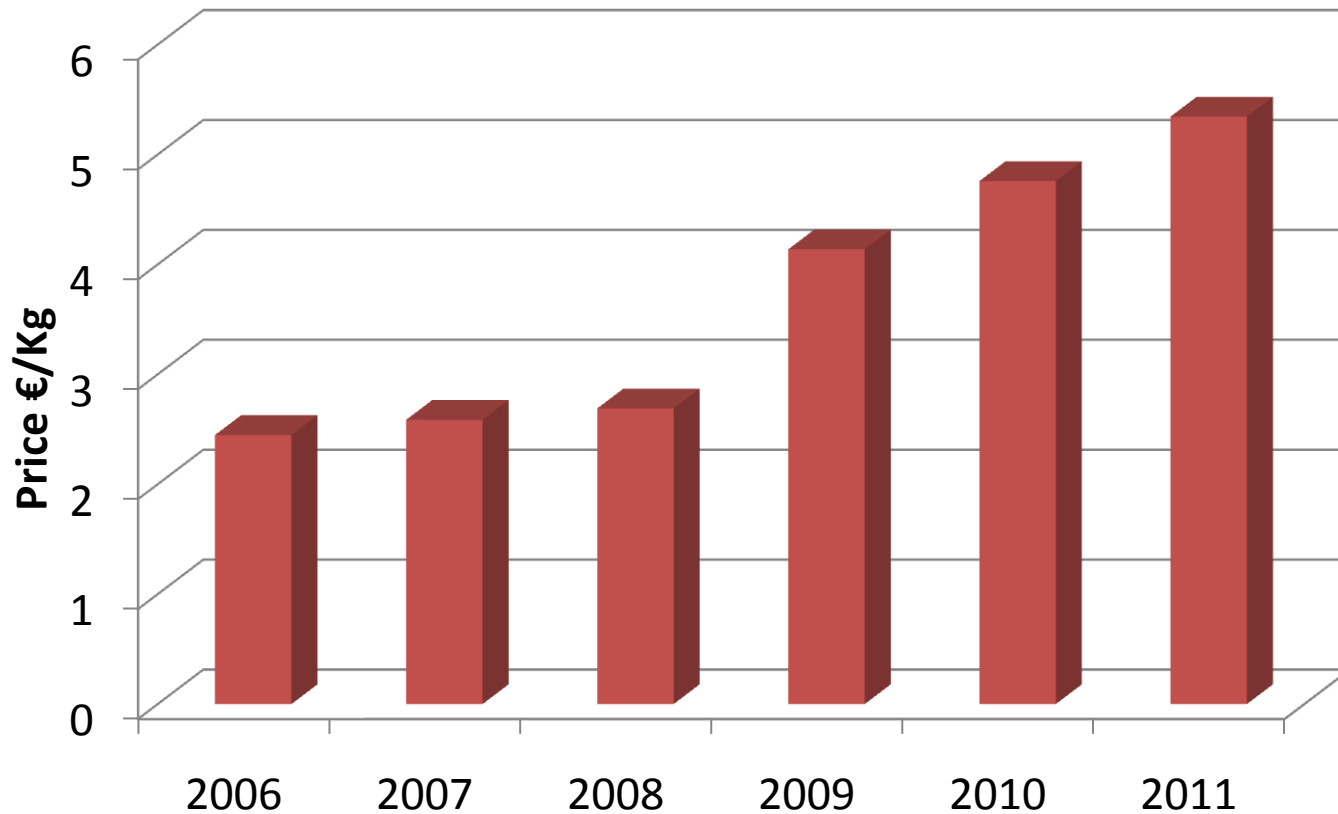


Total Production

 We want to reach the total production of **750** ton/year in **200** Hectare land

Market Analysis

Price



The price determined by the market: 5.34 €/Kg



The price that we can sell: **3.8** €/Kg

Calculation of the investments and depreciation

Property

Description	Investment €	Depreciation rate in years	Depreciation €/year
Property 2000000 m2	0	0	0
Grading work	30000	0	0
Roads&Landscaping	100000	10	10000
TOTAL	130000		10000

Buildings

Description	Investment €	Depreciation rate in years	Depreciation €/year
Storages-1000m2	100000	20	5000
Administrative-100	140000	20	7000
Machinery hangar-300	30000	20	1500
Residential-500	70000	20	3500
Motor Room-150	14000	20	700
SUM of BUILDING	354000		17700

Calculation of the investments and depreciation

Utility

Description	Investment €	Depreciation rate in years	Depreciation €/year
Electricity Network	5000	20	250
Water Network	30000	10	3000
Water Pump	40000	10	4000
Well drilling/400m	30000	20	1500
Gasoline Reservoir	2000	10	200
Oil heater	300	10	30
Oil water heater	500	10	50
SUM of Utility	107800		9030

Transportation Vehicle

Description/Qty	Investment €	Depreciation rate in years	Depreciation €/year
Pickup Truck/3	30000	5	6000

Calculation of the investments and depreciation

Machinery

Description/Qty	Investment €	Depreciation rate in years	Depreciation €/year
Tractors/4	30000	10	3000
Plow/4	1500	10	150
Shaft&Pod/4	2500	10	250
Trailer/4	5000	10	500
Tractor Sprayer/4	4000	10	400
Back Sprayer/4	1200	10	120
Gardening Tools	1000	10	100
SUM of Machinery	45200		4520

Administrative & Workshop Tools

Description	Investment €	Depreciation rate in years	Depreciation €/year
Administrative Tools	2000	5	400
Workshop Tools	2000	5	400
SUM of Tools	4000		800

Calculation of the investments and depreciation

Expenditure

Description	Investment €	Depreciation rate in years	Depreciation €/year
Licenses	1000		
Topography	2500		
Guard Salary	2000		
6×8 m Planting: 41600 Sapling(young tree)			
Pistachio Sapling	50000		
Digging&Planting	4000		
Expenditure	59500		

Calculation of total investment and depreciation costs

Description/Qty	Investment €	Depreciation rate in years	Depreciation €/year
Property	130000	0-10	10000
Buildings	354000	20	17700
Utility	107800	10-20	9030
Transportation Vehicle	30000	5	6000
Machinery	45200	10	4520
Tools	4000	5	800
Expenditure	59500		
Total investment	730500		48050



Calculation of consumption costs

Description	Unit	Consumption per year	Unit Price €	Price €
Gasoline	Lit	60000	0.1	6000
Petrol	Lit	10000	0.5	5000
Electricity	KW	20000	0.01	200
Fertilizer	Ton	1400	20	28000
SUM of Consumption Costs per Year				39200

Calculation of labor costs

Description	No	Salary per Month	Salary per Year
Manager	1	500	6000
Tractors Driver	4	250	12000
Guard	4	250	12000
Worker	10	220	26400
Gardener	4	330	15840
Pickup Driver	3	250	9000
Total	26		81240
Insurance(23%)+reward+...≈35% ×Salary			28430
SUM of labor Costs			109670

Total of Investment and Financing



Because we don't have any product in the first 5 years we are negotiating for a loan that is refunded from the 4. year of plan.

Total Investment	730500 €	
30% Own Capital Fund	216150 €	
70% Bank Loan	511350 €	11% Interest 12 years refunding Starts From the 4. Year

Calculation of financing costs: Interest paid on debt

Year	Balance of debt €	Interest rate(%)	Interest Costs Paid p.a.	Repayment loan p.a.
4. Year	511350	11	56248.5	42612.5
5. Year	468737.5	11	51561.13	42612.5
6. Year	426125	11	46873.75	42612.5
7. Year	383512.5	11	42186.38	42612.5
8. Year	340900	11	37499	42612.5
9. Year	298287.5	11	32811.63	42612.5
10. Year	255675	11	28124.25	42612.5
11. Year	213062.5	11	23436.88	42612.5
12. Year	170450	11	18749.5	42612.5
13. Year	127837.5	11	14062.13	42612.5
14. Year	85225	11	9374.75	42612.5
15. Year	42612.5	11	4687.375	42612.5
Total Interest Cost Paid p.a.			365615.3	

Calculation of turnover/revenue

Year	Mean Production per a tree in Kg	Total Production Kg	Price per Kg	Turnover/revenue €
1. Year	0	0	-	0
2. Year	0	0	-	0
3. Year	0	0	-	0
4. Year	0	0	-	0
5. Year	0	0	-	0
6. Year	0.8	30080	3.8	114304
7. Year	1.1	41360	3.8	157168
8. Year	2.5	94000	3.8	357200
9. Year	3.5	131600	3.8	500080
10. Year	8	300800	3.8	1143040
11. Year	14	526400	3.8	2000320
12. Year	18.5	695600	3.8	2643280
13. Year	20	752000	3.8	2857600
14. Year	20	752000	3.8	2857600
15. Year	20	752000	3.8	2857600



10% of trees are neglected because they are either male or inferior female

No of Trees :41600-10%: 37600

Cash Flow Calculation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Turnover/ Revenue	0	0	0	0	0	114304	157168	357200	500080	1143040	2000320	2643280	2857600	2857600	2857600
Depreciation costs	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050	48050
Labour costs	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670	109670
Raw material and utilities costs	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200	39200
Financing costs	0	0	0	56248.5	51561.1	46873.7	42186.3	37499	32811.6	28124.2	23436.8	18749.5	14062.1	9374.75	4687.37
Loss carried forward		-196920	0	-196920	-56248.5	-192233		-81938.4							
Profit before tax	-196920	0	-196920	-56248.5	-192233	62742.8	-81938.4	204719.	270348.	917995	1779963	2427611	2646618	2651305	2655993
Taxes (0%)	<i>Taxes on Agricultural Products is zero in Iran</i>														
Cash-flow	-148870	48050	-148870	-8198.5	-144183	110792	-33888.4	252769	318398	966045	1828013	2475661	2694668	2699355	2704043
Repayment	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5	42612.5
Dividend	-191483	5437.5	-191483	-50811	-186795	68180.3	-76500.9	210156	275785	923433	1785401	2433048	2652055	2656743	2661430



Total dividend cumulated over 15 years: **12,974,599 €**

Thank You

