



Comparison of Net Income for Selected Tropical Crops in Viet Nam, 2010



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Comparison of Net Income for Crops in Viet Nam

Farmers need to have information on the potential income for the crops they are considering. Start-up costs, on-going costs of labor and inputs and farm gate prices all need to be considered when making a decision to plant and cultivate crops. ROP has attempted here to present the financial information regarding the differing crops in the Province of Binh Phuoc. Your costs and sales prices will most likely vary from the data here. What is important are two main items. First, the farmer should focus on net income and the start-up costs. Second, the farmer should evaluate the crops he can grow and analyze the relative differences in net income. This is an on-going activity. Farmers with perennial crops cannot make changes every year. They must make the best decision, and then work with that crop for many years to come. Crops with high start-up costs, like pepper, require a longer commitment.

1. Analysis Methodology

ROP first gathered the costs to cultivate each crop, the farm gate prices and the yields. We prepared the table below with the summary of this information.

Binh Phuoc Crop Alternatives

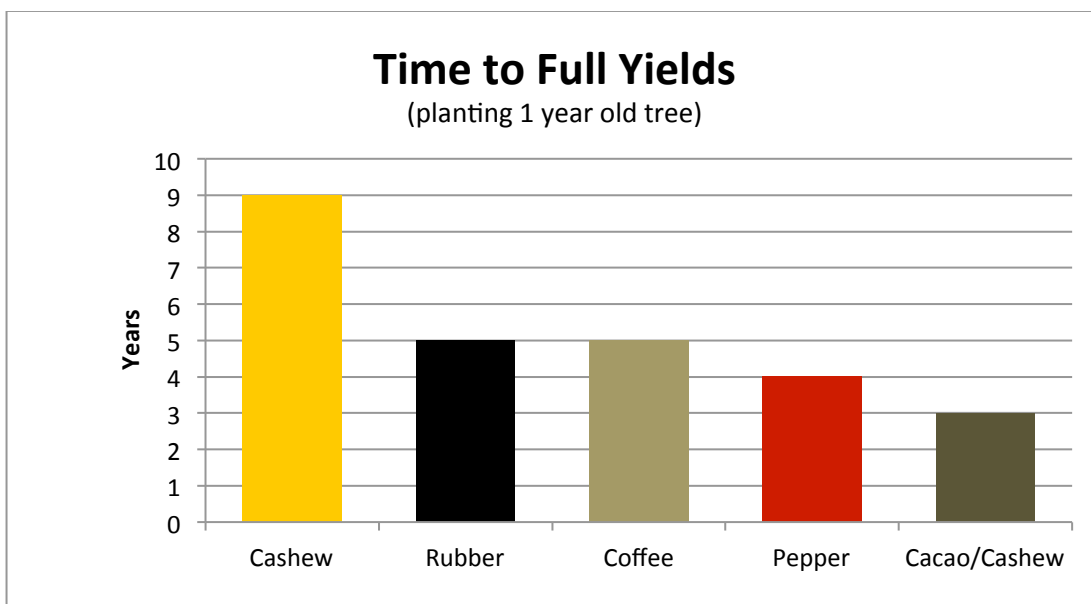
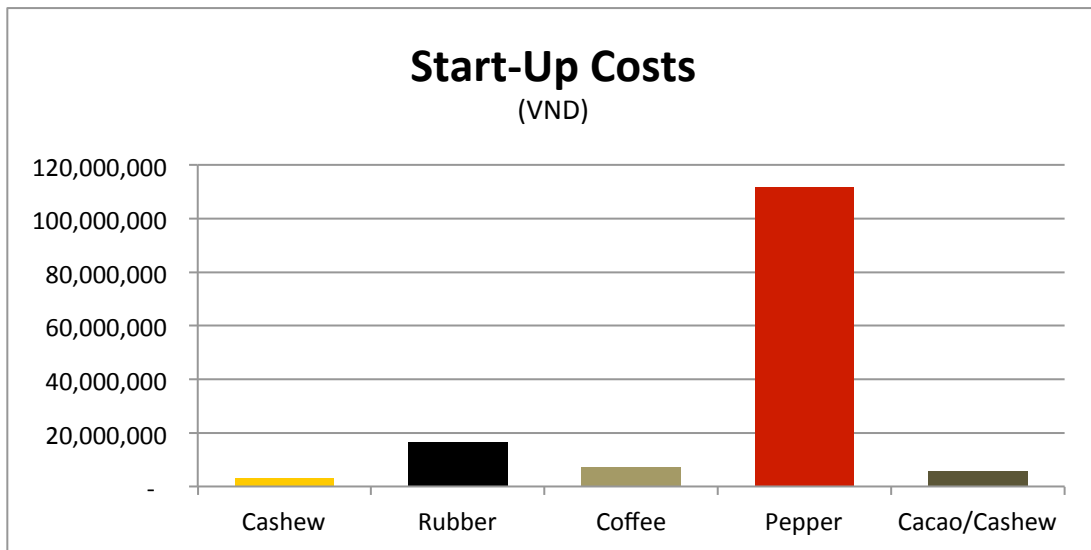
Start-up Costs														
Articles	Quantity	Unit price VND	Cacao		Cacao & Cashew (existing cashew orchard)		Cashew		Coffee		Rubber		Pepper	
			Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)	Amount (VND)		
Materials														
Seedling	tree		600	3,648,000	600	3,648,000	400	1,680,000	1000	3,300,000	500	12,000,000	1000	6,600,000
Death rate	%		5%	182,400	5%	182,400	5%	84,000	10%	330,000	20%	2,400,000	10%	660,000
Frame	tree	100,000	0	0	0	0	0	0	0	0	0	0	1000	100,000,000
Total Material Cost				3,830,400		3,830,400		1,764,000		3,630,000		14,400,000		107,260,000
Labor Costs														
Tree cutting	man day	70,000	6	420,000	6	420,000	6	420,000	10	700,000	6	420,000	10	700,000
Hole digging	man day	100,000	12	1,200,000	12	1,200,000	8	800,000	20	2,000,000	10	1,000,000	30	3,000,000
Tree planting	man day	70,000	6	420,000	6	420,000	4	280,000	10	700,000	5	350,000	10	700,000
re-planting	man day	70,000	1	70,000	1	70,000	1	70,000	2	140,000	4	280,000	2	140,000
Total Labor Cost				2,110,000		2,110,000		1,570,000		3,540,000		2,050,000		4,540,000
Total Start-Up Cost				5,940,400		5,940,400		3,334,000		7,170,000		16,450,000		111,800,000
Time until full yield				3 years		3 years		5 years		2 years		4 years		5 years

Annual Net Income														
Articles	Quantity	Unit price VND	Cacao		Cacao & Cashew (existing cashew orchard)		Cashew nut		Coffee		Rubber		Pepper	
				Amount (VND)		Amount (VND)		Amount (VND)		Amount (VND)		Amount (VND)		Amount (VND)
Income														
Income	Kg		2500	150,000,000		195,000,000	4000	60,000,000	4000	100,000,000	5000	100,000,000	2500	200,000,000
Material Costs														
Organic fertilizer	Kg	600	3000	1,800,000		3,600,000	3000	1,800,000	5000	3,000,000	2500	1,500,000	5000	3,000,000
NPK fertilizer	Kg	12,000	600	7,200,000		10,800,000	300	3,600,000	600	7,200,000	250	3,000,000	1000	12,000,000
Leave nutritive	bottle	150,000	8	1,200,000		1,500,000	2	300,000	10	1,500,000	2	300,000	8	1,200,000
Pesticide	VND	1,000	100	100,000		200,000	100	100,000	100	100,000	150	150,000	100	100,000
Petroleum	liter	16,000	144	2,304,000		2,944,000	40	640,000	240	3,840,000	0	0	240	3,840,000
Total Material Cost				12,604,000		19,044,000		6,440,000		15,640,000		4,950,000		20,140,000
Labor Costs														
Weeding	man day	60,000	10	600,000		1,080,000	8	480,000	10	600,000	5	300,000	10	600,000
Fertilizing	man day	70,000	12	840,000		1,190,000	5	350,000	20	1,400,000	5	350,000	20	1,400,000
Pruning	man day	100,000	12	1,200,000		1,600,000	4	400,000	4	400,000	2	200,000	4	400,000
Watering	man day	70,000	20	1,400,000		1,400,000	5.5	385,000	33	2,310,000	0	0	33	2,310,000
Harvesting	man day	100,000	12	1,200,000		2,000,000	8	800,000	20	2,000,000	180	18,000,000	20	2,000,000
Post harvesting	man day	100,000	6	600,000		1,000,000	4	400,000	6	600,000	0	0	6	600,000
Total Labor Cost				5,840,000		8,270,000		2,815,000		7,310,000		18,850,000		7,310,000
Other Costs														
Tax	VND	1,000	0	0		0	0	0	0	0	0	0	0	0
Total Other Costs				0		0		0		0		0		0
Total expense				18,444,000		27,314,000		9,255,000		22,950,000		23,800,000		27,450,000
Gross profit				131,556,000		167,686,000		50,745,000		77,050,000		76,200,000		172,550,000

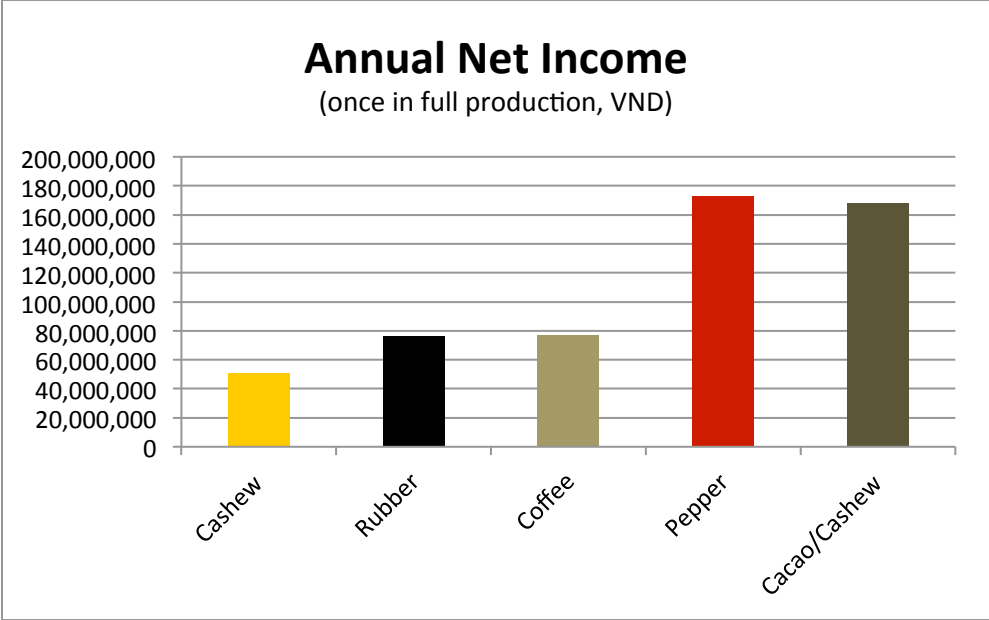
2. Comparison

With the rough estimates on start-up costs, production costs and potential income, we are able to provide the following summary chart comparing the different crops. The challenge now is how to compare differing crops that have different start-up costs and different times to full production. Some crops start relatively fast, while others take time to mature and reach full production.

The following charts depict start-up costs and time until full production. This shows how much investment of time and money are required prior to earning positive returns.

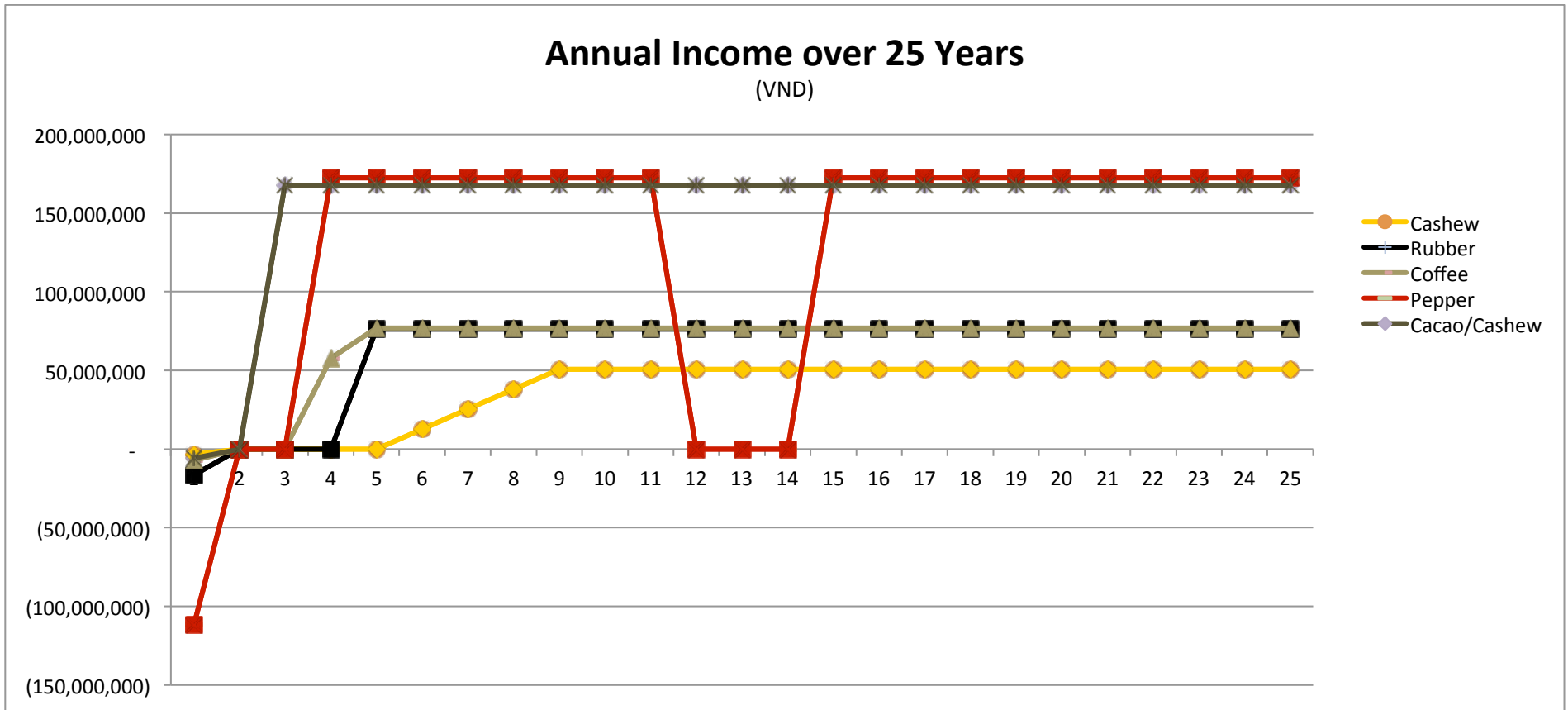


Annual incomes of the crops are shown below. These reflect the net income once the orchards are in full production.

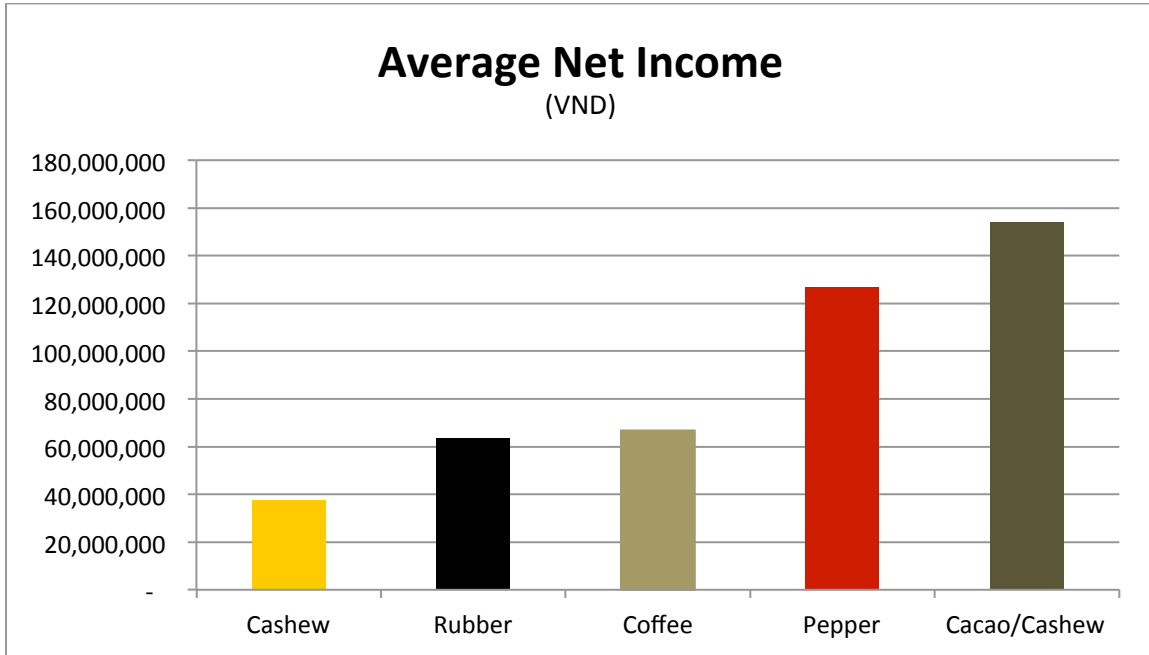


This chart is useful in comparing the net incomes, but it does not include the cost of start-up, or the cost of replanting the field. For instance, pepper looks very good in this comparison, but pepper is the most to start-up and must be re-planted after 11 years.

The following chart follows the net income by year over a twenty-five year time frame. Note the slow start-up for cashew trees. Cacao and pepper reach the highest annual incomes, but cacao does so one year earlier than pepper and does not have to be replanted in year 12.



If you take the total earnings over the 25 year period, as represented in the chart above, the divide it by 25, you will determine the average annual income for each crop. This amount takes into consideration the start-up costs, time until full harvest and annual incomes during the production years. This is the best comparison for the farmer to consider.



These are all good crops, but the cashew/cacao combination and pepper are superior to the other crops. Price fluctuations can change the net income of these crops. A drop in price for any of these crops would change the net income. Farmers should consider this when making their decision. The price history for each of these crops is shown below: