

CHAPTER - 21

Ind AS 41: Agriculture

Question 1

On 1st November 20X1, C Agro Ltd. purchased 100 goats of special breed from a market for ₹ 10,00,000 with a transaction cost of 2%. Goats fair value decreased from ₹ 10,00,000 to ₹ 9,00,000 as on 31st March 20X2.

Determine the fair value on the date of purchase and as on financial year ended 31st March 20X2 under both the cases viz-

- (i) the transaction costs are borne by the seller and
- (ii) the transaction costs are incurred by the seller and purchaser both.

Also pass journal entries under both the situations on both dates.

Answer

As per para 12 of Ind AS 41, a biological asset shall be measured on initial recognition and at the end of each reporting period at its fair value less costs to sell. Therefore, the transaction costs of 2% are the costs to sell the goats on 1st November 20X1, and therefore, the goats should be measured at their fair value less costs to sell on initial recognition date, i.e., ₹ 9,80,000.

Journal Entry

As on 1st November 20X1:

- (i) Where transaction costs are borne by the seller:

Biological assets (Goats) A/c	Dr.	9,80,000	
Loss on purchase of biological assets (Goats) A/c	Dr.	20,000	
To Bank A/c			10,00,000

- (ii) Where transaction costs are incurred by the seller and purchaser both:

Biological assets (Goats) A/c	Dr.	9,80,000	
Loss on purchase of biological assets (Goats) A/c	Dr.	40,000	
To Bank A/c			10,20,000

As on 31st March 20X2 - under both the scenarios:

Loss on fair valuation of biological assets A/c	Dr.	98,000	
To Biological assets (Goats) A/c			98,000
[9,80,000 - (9,00,000 - 18,000)]			

Question 2

XYZ Ltd., on 1st December, 20X3, purchased 100 sheep from a market for ₹ 5,00,000. The transaction cost of 2% on the market price of the sheep was incurred which was paid by the seller. Sheep's fair value increased from ₹ 5,00,000 to ₹ 6,00,000 on 31st March, 20X4. Transaction cost of 2% would have to be incurred by the seller to get the sheep to the relevant market.

Determine the fair value on the date of purchase and the reporting date and pass necessary journal

entries thereon.

Answer

The fair value less cost to sell of sheep's on the date of purchase would be ₹ 4,90,000 (5,00,000 - 10,000). Expense of ₹ 10,000 would be recognised in profit and loss.

On date of Purchase

Biological Asset	Dr.	4,90,000	
Loss on initial recognition	Dr.	10,000	
To Bank			5,00,000
(Being biological asset purchased)			

On 31st March, 20X4 sheep would be measured at ₹ 5,88,000 as Biological Asset (6,00,000 - 12,000) and gain of ₹ 98,000 (5,88,000 - 4,90,000) would be recognised in profit or loss.

At the end of reporting period

Biological Asset	Dr.	98,000	
To Gain - Change in fair value			98,000
(Being change in fair value recognised at the end of reporting period)			

Question 3

Entity A purchased cattle at an auction on 30th June 20X1

Purchase price at 30 th June 20X1	₹ 1,00,000
Costs of transporting the cattle back to the entity's farm	₹ 1,000
Sales price of the cattle at 31 st March 20X2	₹ 1,10,000

The company would have to incur similar transportation costs if it were to sell the cattle at auction, in addition to an auctioneer's fee of 2% of sales price. The auctioneer charges 2% of the selling price, from both, the buyer as well as the seller.

Calculate the amount at which cattle is to be recognised in books on initial recognition and at year end 31st March 20X2.

Answer

Initial recognition of cattle

	₹
Fair value less costs to sell (₹ 1,00,000 - ₹ 1,000 - ₹ 2,000)	97,000
Cash outflow (₹ 1,00,000 + ₹ 1,000 + ₹ 2,000)	1,03,000
Loss on initial recognition	6,000
Cattle Measurement at year end	
Fair value less costs to sell [₹ 1,10,000 - 1,000 - (2% × 1,10,000)]	1,06,800

At 31st March 20X2, the cattle is measured at fair value of ₹ 1,09,000 less the estimated auctioneer's fee of ₹ 2,200. The estimated transportation costs of getting the cattle to the auction of ₹ 1,000 are deducted from the sales price in determining fair value.

Question 4

A farmer owned a dairy herd, of three years old cattle as at 1st April, 20X1 with a fair value of ₹ 13,750 and the number of cattle in the herd was 250.

The fair value of three year cattle as at 31st March, 20X2 was ₹ 60 per cattle. The fair value of four year cattle as at 31st March, 20X2 is ₹ 75 per cattle.

Calculate the measurement of group of cattle as at 31st March, 20X2 stating price and physical change separately.

Answer

Particulars	Amount (₹)
Fair value as at 1 st April, 20X1	13,750
Increase due to Price change [250 x {60 - (13,750/250)}]	1,250
Increase due to Physical change [250 x (75 - 60)]	3,750
Fair value as at 31 st March, 20X2	18,750

Question 5

A herd of 15, 4 year old cows valued at ₹ 500 thousands per cow were held in 'M Dairy Farm' as at 1st April 20X1. The following transactions took place on 1st October, 20X1:

(A) One cow aged 4.5 years was purchased for ₹ 520 thousands.

(B) One calf was born.

No cow was sold or disposed off during the year.

The per cow/calf fair value less cost to sell was as follows:

₹ in thousands

4 year old cow on 1 st April 20X1	500
New born calf on 1 st October 20X1	400
4.5 year old cow on 1 st October 20X1	520
New born calf on 31 st March, 20X2	410
0.5 year old calf on 31 st March, 20X2	440
4 year old cow on 31 st March, 20X2	516
4.5 year old cow on 31 st March, 20X2	540
5 year old cow on 31 st March, 20X2	560

You are required to:

(i) Calculate change in fair value less costs to sell showing:

- (a) The portion attributable to physical changes.
 (b) The portion attributable to price changes.
- (ii) Calculate the carrying cost of the herd as on 31st March, 20X2.
 (iii) Prepare an extract of the livestock account for the year ended 31st March, 20X2.

Note: Present all amounts in thousand

Answer

- (i) **Change in fair value less costs to sell due to physical change & price change: ₹ in thousand**

Fair value less costs to sell of herd at 1 st April 20X1 (15 × 500)		7,500
Purchase on 1 st October 20X1 (1 × 520)		520
(a) Increase in fair value less costs to sell due to price change:		
15 cows x (516 - 500)	240	
1 cows x (540 - 520)	20	
1 calf x (410 - 400)	<u>10</u>	270
(b) Increase in fair value less costs to sell due to physical change:		
15 cows x (560 - 516)	660	
1 cows x (560 - 540)	20	
1 calf x (440 - 410)	30	
1 calf x 400 (Gain on initial recognition)	<u>400</u>	1,110
		<u>9,400</u>

- (ii) **Calculation of carrying cost of herd as on 31st March 20X2 i.e.**

Fair value less costs to sell of herd at 31st March 20X2

16 x 560	8,960	
1 x 440	<u>440</u>	<u>9,400</u>

- (iii) **Extract of Livestock Account for the year 31st March 20X2**

Particulars	Amount (₹ in 000)	Particulars	Amount (₹ in 000)
To Opening Stock	7500	By Closing Balance	9,400
To Purchases (1 x 520)	520		
To Increase in fair value (Price Changes)	270		
To Increase in fair value (Physical Changes)	1,110		
Total	<u>9,400</u>	Total	<u>9,400</u>

Question 6

Company X purchased 100 goats at an auction for ₹ 1,00,000 on 30th September 20X1. Subsequent transportation costs were ₹ 1,000 that is similar to the cost X would have to incur to sell the goat at the auction. Additionally, there would be a 2% selling fee on the market price of the goat to be incurred by the seller.

On 31st March 20X2, the market value of the goat in the most relevant market increases to ₹ 1,10,000. Transportation costs of ₹ 1,000 would have to be incurred by the seller to get the goat to the relevant market. An auctioneer's fee of 2% on the market price of the goat would be payable by the seller.

On 1st June 20X2, X sold 18 goats for ₹ 20,000 and incurred transportation charges of ₹ 150. In addition, there was a 2% auctioneer's fee on the market price of the goat paid by the seller.

On 15th September 20X2, the fair value of the remaining goat was ₹ 82,820. 42 goats were slaughtered on that day, with a total slaughter cost of ₹ 4,200. The total market price of the carcasses on that day was ₹ 48,300, and the expected transportation cost to sell the carcasses is ₹ 420. No other costs are expected.

On 30th September 20X2, the market price of the remaining 40 goat was ₹ 44,800. The expected transportation cost is ₹ 400. Also, there would be a 2% auctioneer's fee on the market price of the goat payable by the seller.

Pass Journal entries so as to provide the initial and subsequent measurement for all above transactions. Interim reporting periods are of 30th September and 31st March and the company determines the fair values on these dates for reporting.

Answer**Value of goat at initial recognition (30th September 20X1)****(All figures are in ₹)**

Biological asset (Goats)	Dr.	97,000*	
Loss on initial recognition	Dr.	4,000	
To Bank (Purchase and cost of transportation)			1,01,000
(Initial recognition of goat at fair value less costs to sell)			

*Fair value of goat = 1,00,000 - 1,000 - 2,000 (2% of 1,00,000) = 97,000

Subsequent measurement at 31st March 20X2**(All figures are in ₹)**

Biological Assets (Goats)	Dr.	9,800	
To Gain on remeasurement (Profit & Loss)			9,800
(Subsequent measurement of Goat at fair value less costs to sell (1,06,800** - 97,000))			

**Fair value of goat = 1,10,000 - 1,000 - 2,200 (2% of 1,10,000) = 1,06,800

Sale of goat on 1st June 20X2**(All figures are in ₹)**

Biological Assets (Goats)	Dr.	226	
To Gain on Sale (Profit & Loss)			226
(Subsequent re-measurement of 18 goats at fair value less costs to sell just prior to the point at which they are sold [19,450 - {(1,06,800/100) x 18}])			

Cost to Sales To Biological Assets (Goats) (Recording a cost of sales figure separately with a corresponding reduction in the value of the biological assets)	Dr.	19,450	19,450
Bank Selling expenses (150 + 400) To Revenue (Recognition of revenue from sale of goat)	Dr. Dr.	19,450 550	20,000

Alternatively, in place of above entries, one consolidated entry may be passed as follows:

Bank To Biological Assets (Goats) [(1,06,800/100) x 18] To Gain on Sale (Profit & Loss) (Gain booked on sale of 18 goats)	Dr.	19,450	19,224 226
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Transfer of Goat to Inventory on 15th September 20X2

(All figures are in ₹)

Inventory (48,300 - 420) Loss on remeasurement To Biological Asset (Goats) To Bank (Slaughtering cost) (Transfer of goat to inventory)	Dr. Dr.	47,880 1,176	44,856# 4,200
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#Note: 44,856 is calculated as the proportion of goat sold using the fair value [(1,06,800 + 226 - 19,450) x 42/82]

Subsequent measurement of goat at 30th September 20X2

(All figures are in ₹)

Biological Asset (Goats) To Gain on remeasurement (Subsequent measurement of Goat at fair value less costs to sell [43,504## - {(1,06,800 + 226 - 19,450) - 44,856}])	Dr.	784	784
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##Fair value of goat = 44,800 - 400 - 896 (2% of 44,800) = 43,504

Question 7

XY Ltd. is a farming entity where cows are milked on a daily basis. Milk is kept in cold storage immediately after milking and sold to retail distributors on a weekly basis. On 1st April 20X1, XY Ltd. had a herd of 500 cows which were all three years old.

During the year, some of the cows became sick and on 30th September 20X1, 20 cows died. On 1 October 20X1, XY Ltd. purchased 20 replacement cows at the market for ₹ 21,000 each. These 20 cows were all one year old when they were purchased.

On 31st March 20X2, XY Ltd. had 1,000 litres of milk in cold storage which had not been sold to retail distributors. The market price of milk at 31st March 20X2 was ₹ 20 per litre. When selling the milk to

distributors, XY Ltd. incurs selling costs of ₹ 1 per litre. These amounts did not change during March 20X2 and are not expected to change during April 20X2.

Information relating to fair value and costs to sell is given below:

Date	Fair value of a dairy cow (aged)				Costs to sell a cow
	1 year	1.5 years	3 years	4 years	
1 st April 20X1	20,000	22,000	27,000	25,000	1,000
1 st October 20X1	21,000	23,000	28,000	26,000	1,000
31 st March 20X2	21,500	23,500	29,000	26,500	1,100

Pass necessary journal entries of above transactions with respect to cows in the financial statements of XY Ltd. for the year ended 31st March 20X2? Also show the amount lying in inventory, if any.

Answer

Journal Entries on 1st October 20X1

(All figures in ₹)

Loss (on death of 20 cows) (Refer W.N.) To Biological asset (Loss booked on death of 20 cows)	Dr.	5,20,000	5,20,000
Biological Asset (purchase of 20 new cows) (Refer W.N.) Loss on initial recognition (of 20 new cows) To Bank (Initial recognition of 20 new purchased cows at fair value less costs to sell)	Dr. Dr.	4,00,000 20,000	4,20,000

Journal Entries on 31st March 20X2

Loss on remeasurement of old cows To Biological asset [(1,30,00,000 - 5,20,000) - 1,21,92,000] (Subsequent measurement of cows at fair value less costs to sell)	Dr.	2,88,000	2,88,000
Biological Asset (4,48,000 - 4,00,000) To Gain on remeasurement of new cows (Subsequent measurement of cows at fair value less costs to sell)	Dr.	48,000	48,000

Inventory (Milk) as at 31st March 20X2 = ₹ 19,000 [1,000 x (20 - 1)]

Working Note:

Calculation of Biological asset at various dates

Date	Number	Age	Fair Value (₹)	Cost to Sell (₹)	Net (₹)	Biological asset (₹)
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1 st April 20X1	500	3 years	27,000	1,000	26,000	1,30,00,000
1 st October 20X1	(20)	3.5 years	27,000	1,000	26,000	(5,20,000)
1 st October 20X1	20	1 year	21,000	1,000	20,000	4,00,000
						1,28,80,000
31 st March 20X2	480	4 years	26,500	1,100	25,400	1,21,92,000
	20	1.5 years	23,500	1,100	22,400	4,48,000
						1,26,40,000

Question 8

Moon Ltd prepares financial statements to 31st March each year. On 1st April 20X1 the company carried out the following transactions:

- Purchased a land for ₹ 50 Lakhs.
- Purchased 200 dairy cows (average age at 1st April 20X1 is 2 years) for ₹ 10 Lakhs.
- Received a grant of ₹ 1 million towards the acquisition of the cows. This grant was non-refundable.

For the year ending 31st March 20X2, the company has incurred following costs:

- ₹ 6 Lakh to maintain the condition of the animals (food and protection).
- ₹ 4 Lakh as breeding fee to a local farmer.

On 1st October 20X1, 100 calves were born. There were no other changes in the number of animals during the year ended 31st March 20X2. As of 31st March 20X2, Moon Ltd had 3,000 litres of unsold milk in inventory. The milk was sold shortly after the year end at market prices.

Information regarding fair values is as follows:

Item	Fair Value less cost to sell		
	1 st April, 20X1	1 st October, 20X1	31 st March, 20X2
	₹	₹	₹
Land	50 Lakhs	60 Lakhs	70 Lakhs
New born calves (per calf)	1,000	1,100	1,200
Six month old calves (per calf)	1,100	1,200	1,300
Two year old cows (per cow)	5,000	5,100	5,200
Three year old cows (per cow)	5,200	5,300	5,500
Milk (per litre)	20	22	24

Prepare extracts from the Balance Sheet and Statement of Profit & Loss that would be reflected in the financial statements of the entity for the year ended 31st March, 20X2.

Answer**Extract from the Statement of Profit & Loss**

	WN	Amount
Income		
Change in fair value of purchased dairy cow	WN 2	1,00,000
Government Grant	WN 3	10,00,000
Change in the fair value of newly born calves	WN 4	1,30,000
Fair Value of Milk	WN 5	<u>72,000</u>
Total Income		<u>13,02,000</u>
Expenses		
Maintenance Costs	WN 2	6,00,000
Breeding Fees	WN 2	<u>4,00,000</u>
Total Expense		<u>(10,00,000)</u>
Net Income		<u>3,02,000</u>

Extracts from Balance Sheet

Property, Plant and Equipment:		
Land	WN 1	50,00,000
Biological assets other than bearer plants:		
Dairy Cow	WN 2	11,00,000
Calves	WN 4	<u>1,30,000</u>
		<u>62,30,000</u>
Inventory:		
Milk	WN 5	<u>72,000</u>
		<u>72,000</u>

Working Notes:

- Land:** The purchase of the land is not covered by Ind AS 41. The relevant standard which would apply to this transaction is Ind AS 16. Under this standard the land would initially be recorded at cost and depreciated over its useful economic life. This would usually be considered to be infinite in the case of land and so no depreciation would be appropriate. Under Cost Model no recognition would be made for post-acquisition changes in the value of land. The allowed alternative treatment under Revaluation Model would permit the land to be revalued to market value with the revaluation surplus taken to the other comprehensive income. We have followed the Cost Model.
- Dairy Cows:** Under the 'fair value model' laid down in Ind AS 41 the mature cows would be recognised in the Balance Sheet at 31st March, 20X2 at the fair value of $200 \times ₹ 5,500 = ₹ 11,00,000$.

Increase in price change $200 \times (5,200 - 5,000) = 40,000$

Increase in physical change $200 \times (5,500 - 5,200) = 60,000$

The total difference between the fair value of matured herd and its initial cost (₹ 11,00,000 – ₹ 10,00,000 = a gain of ₹ 1,00,000) would be recognised in the profit and loss along with the maintenance costs and breeding fee of ₹ 6,00,000 and ₹ 4,00,000 respectively.

3. **Grant:** Grant relating to agricultural activity is not subject to the normal requirement of Ind AS 20. Under Ind AS 41 such grants are credited to income as soon as they are unconditionally receivable rather than being recognised over the useful economic life of the herd. Therefore, ₹ 10,00,000 would be credited to income of the company.
4. **Calves:** They are a biological asset and the fair value model is applied. The breeding fees are charged to income and an asset of $100 \times ₹ 1,300 = ₹ 1,30,000$ recognised in the Balance sheet and credited to Profit and loss.
5. **Milk:** This is agricultural produce and initially recognised on the same basis as biological assets. Thus the milk would be valued at $3,000 \times ₹ 24 = ₹ 72,000$. This is regarded as 'cost' for the future application of Ind AS 2 to the unsold milk.