|  |  |  |
| --- | --- | --- |
| Format-1 |  |  |
| Annexure 4.2.2.1 Basic State Livestock population statistics |

# Narwana

|  |  |  |
| --- | --- | --- |
|  | Census 2020 | Census 2012 |
| Cattle |  |  |
| Buffalo |  |  |
| Sheep |  |  |
| Goat |  |  |
| Pigs |  |  |
| Pigs |   |   |
| Mithun |   |   |
| Yak |   |  |
| Camel |   |  |
| Donkey/Horse/Mules |   |  |
| Others |   |  |

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| Format-2 |  |  |
| Annexure 4.2.2.2. District wise livestock population statistics |

# Distt. Jind

|  |  |  |
| --- | --- | --- |
|  | Census 2020 | Census 2012 |
| Cattle |  |  |
| Buffalo |  |  |
| Sheep |  |  |
| Goat |  |  |
| Pigs |  |  |
| Pigs |  |  |
| Mithun |  |  |
| Yak |  |  |
| Camel |  |  |
| Donkey/Horse/Mules |  |  |
| Others |  |  |

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| --- | --- | --- |
| Format-3 |  |  |
| Annexure 4.2.2.3 State dairy farm number statistics |

# Narwana

|  |  |
| --- | --- |
| Dairy type/Number of animals | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Cattle dairy farm |   |   |   |   |   |   |   |
| Buffalo dairy farm |   |   |   |   |   |   |   |
| Milch animals farm |   |   |   |   |   |   |   |
| Other animals farm |   |   |   |   |   |   |   |
| Total animals farm |   |   |   |   |   |   |   |

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| --- | --- | --- |
| Format-4 |  |  |
| Annexure 4.2.2.4. District wise dairy number statistics of Current Year 2019-20 |

# Jind

|  |  |
| --- | --- |
| Dairy type/Number of animals | Numbers |
|   | Only 2019-20 |  |  |  |  |  |  |
| Cattle dairy farm |   |   |   |   |   |   |   |
| Buffalo dairy farm |   |   |   |   |   |   |   |
| Milch animals farm |   |   |   |   |   |   |   |
| Other animals farm |   |   |   |   |   |   |   |
| Total animals farm |   |   |   |   |   |   |   |

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| --- | --- | --- |
| Format-5 |  |  |
| Annexure 4.2.2.5. Basic Poultry number Statistics v (As per livestock census) |

# Narwana

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| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |  |  |
| Species (No.) | Numbers in thousands |
|   |   | 1997 | 2003 | 2007 | 2012 | 2017 |
| Layers |   |   |   |   |   |   |
| Broilers |   |   |   |   |   |   |
| Backyard Poultry |   |   |   |   |   |   |
| Ducks |   |   |   |   |   |   |
| Turkey |   |   |   |   |   |   |
| Emu |   |   |   |   |   |   |
| Ginny Fowl |   |   |   |   |   |   |
| Other Birds |   |   |   |   |   |   |

# Jind

|  |  |  |
| --- | --- | --- |
| Format-6 |  |  |
| Annexure 4.2.2.6. District wise infrastructure and Birds Population |
|  |  |  |
| **Parameters** | Units | District. Jind |
| Poultry Farms |   |   |
| Capacity of farms |   |   |
| Farms which are fully mechanized for watering and |   |   |
| feeding |
| Total number of hatchery |   |   |
| Capacity of Hatchery |   |   |
| Number of feed plants |   |   |
| Number of poultry waste |   |   |
| recycling units |
| **Birds (No.)** |   |   |
| Layers |   |   |
| Broilers |   |   |
| Backyard Poultry |   |   |
| Ducks |   |   |
| Turkey |   |   |
| Other Birds |   |   |

|  |  |  |  |  |  |  |  |
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| Format-7 |  |  |  |  |  |  |  |
| Annexure 4.2.2.7 State poultry farm and birds number statistics |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Poultry farm/Poultry bird | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Number of Poultry Farmers |   |   |   |   |   |   |   |
| Poultry farms |   |   |   |   |   |   |   |
| Number of Poultry Birds |   |   |   |   |   |   |   |
| Layers |   |   |   |   |   |   |   |
| Broilers |   |   |   |   |   |   |   |

Format 8 District wise poultry farm and birds number statistics of Current Year

|  |  |
| --- | --- |
| Poultry farm/Poultry bird | Numbers |
|  | District. Jind |
|   |  |
| Number of Poultry Farmers |  |
| Number of Total Poultry Birds |  |
| Number of Poultry Layers |  |
| Number of Poultry Broilers |  |

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| Format 9 |  |  |  |  |  |  |  |
| Annexure 4.2.2.9. State milk plants number statistics HLDB |
|  |  |  |  |  |  |  |  |
| Milk plants | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Less than 1 Lakh/ Day |   |   |   |   |   |   |   |
| 1-5 Lakh / Day |   |   |   |   |   |   |   |
| > 5 lakh litres/ day |   |   |   |   |   |   |   |
| Total milk pants |   |   |   |   |   |   |   |

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| Format-10 |  |  |  |  |  |
| Annexure 4.2.2.10. District wise milk plant number statistics HLDB |  |  |  |
|  |  |  |  |  |  |
| Milk plants | Numbers |
|   | Jind |  |  |  |   |
| Less than 1 Lakh/ Day |   |   |   |   |   |
| 1-5 Lakh / Day |   |   |   |   |   |
| > 5 lakh litres/ day |   |   |   |   |   |
| Total milk pants |   |   |   |   |   |

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| Format-11 |  |  |  |  |  |  |  |
| Annexure 4.2.2.11. State Abattoir number statistics |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Number and type of abattoir | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Total number |   |   |   |   |   |   |   |
| Sheep/goat |   |   |   |   |   |   |   |
| Buffalo/cattle |   |   |   |   |   |   |   |

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| --- | --- | --- | --- | --- | --- |
| Format-12 |  |  |  |  |  |
| Annexure 4.2.2.12. District wise Abattoir number statistics |  |  |  |
|  |  |  |  |  |  |
| Number and type of abattoir | Numbers |
|   | District. Jind | District.2 | Dist.3 |   |   |
| Total number |  |   |   |   |   |
| Sheep/goat |  |   |   |   |   |
| Buffalo/cattle |  |   |   |   |   |

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| Format-13 |  |  |  |  |  |  |  |
| Annexure 4.2.2.13. State Meat processing units/plants number statistics |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Number and type of meat processing units | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Total number |   |   |   |   |   |   |   |
| Sheep/goat |   |   |   |   |   |   |   |
| Buffalo/cattle |   |   |   |   |   |   |   |

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| --- | --- | --- | --- | --- | --- |
| Format-14 |  |  |  |  |  |
| Annexure 4.2.2.14. District wise Meat processing units/plants number statistics |  |  |  |
|  |  |  |  |  |  |
| Number and type of Meat processing units | Numbers |
|   | District. Jind | District.2 | Dist.3 |   |   |
| Total number of meat processing units |  |   |   |   |   |
| Sheep/goat |  |   |   |   |   |
| Buffalo/cattle |  |   |   |   |   |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Format-15 |  |  |  |  |  |  |  |
| Annexure 4.2.2.15. State Abattoirs with meat processing units/plants number statistics |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Number and type of meat processing units | Numbers |
|   | 1982 | 1992 | 1997 | 2003 | 2007 | 2012 | 2017 |
| Total number |   |   |   |   |   |   |   |
| Sheep/goat |   |   |   |   |   |   |   |
| Buffalo/cattle |   |   |   |   |   |   |   |

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| --- | --- | --- | --- | --- | --- |
| Format-16 |  |  |  |  |  |
| Annexure 4.2.2.16. District Abattoirs with meat processing units/plants number statistics |
|
| Number and type of abattoir with meat | Numbers |
| processing units |
|   | District.1 Jind | District.2 | Dist.3 |   |   |
| Total number of Abattoirs with meat |  |   |   |   |   |
| processing units |
| Sheep/goat |  |   |   |   |   |
| Buffalo/cattle |  |   |   |   |   |

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| Format-17 |  |  |  |  |
| Annexure 4.2.2.17. Livestock water demand for drinking, washingand shed cleaning of Current Year  |
|
| **Districts/Species** | Livestock water requirements in Thousand Liters |   |
| ***District- Jind*** | Drinking | Washing | Shed cleaning | Total |
| Cattle |   |   |   |   |
| Buffalo |   |   |   |   |
| Sheep |   |   |   |   |
| Goat |   |   |   |   |
| Pigs |   |   |   |   |
| Mithun |   |   |   |   |
| Yak |   |   |   |   |
| Camel |   |   |   |   |
| Donkey/Horse/Mules |   |   |   |   |
| Others |   |   |   |   |

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| --- | --- | --- | --- | --- | --- |
| Format-18 |  |  |  |  |  |
| **Annexure 4.2.2.18. Water demand for drinking, washing and cleaning in dairies of Current Year** |
|  |  |  |  |  |  |
| Purpose/use | Thousand Litres |
|   | **District Jind** | **District 2** | **District 3** |   |   |
| Drinking |   |   |   |   |   |
| Washing |   |   |   |   |   |
| Cleaning shed |   |   |   |   |   |
| Total demand |   |   |   |   |   |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Format-19 |  |  |  |  |  |
| **Annexure 4.2.2.19. Water demand for drinking and cleaning of poultry farms of current Year** |
|  |  |  |  |  |  |
| Purpose/use | Thousand Litres |
|   | **District. Jind** | **District.2** | **Dist.3** |   |   |
| Drinking |   |   |   |   |   |
| Cleaning |   |   |   |   |   |
| Cooling/fogging in summer |   |   |   |   |   |
| Feed manufacturing |   |   |   |   |   |
| Carcass disposal |   |   |   |   |   |
| Total demand |   |   |   |   |   |

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| Format-20 |  |  |  |  |  |
| Annexure 4.2.2.20. Water demand for milk plants (Mainly for cleaning) |
|  |  |  |  |  |  |
| Purpose/use | Thousand Litres |
|   | Plant 1 | Plant 2 | Plant 3 | Plant-4 | Total |
| District- Jind |   |   |   |   |   |

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| --- | --- | --- | --- | --- | --- | --- |
| Format-21 |  |  |  |  |  |  |
| Annexure 4.2.2.21 Water demand at different stages of animal slaughter in abattoir |
|  |  |  |  |  |  |  |
| Different stages | Cattle | Buffalo | Sheep | Goat | Pig | Poultry |
| Drinking of animals at animal holding area and |   |   |   |   |   |   |
| lairage |
| Washing of animals |   |   |   |   |   |   |
| Scalding |  |  |  |  |  |   |
| Carcass washing |  |  |  |  |  |   |
| Washing of slaughterhouse premises, lairage etc |   |   |   |   |   |   |
| At Effluent treatment plant |   |   |   |   |   |   |

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| --- | --- | --- | --- | --- | --- | --- |
| Format-22 |  |  |  |  |  |  |
| Water demand at different stages in meat product processing plant |
|  |  |  |  |  |  |  |
| Different stages | Cattle | Buffalo | Sheep | Goat | Pig | Poultry |
| Water used for product preparation |   |   |   |   |   |   |
| Water used for cooking of meat products |   |   |   |   |   |   |
| Water used for washing of processing plant |   |   |   |   |   |   |
| premises |
| At Effluent treatment plant |   |   |   |   |   |   |

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| Format-23 |  |  |  |  |  |
| Annexure 4.2.2.23 Water demand for Abattoirs with meat processing unit/plant (plants having both Abattoir and meat processing unit) |
|  |  |  |  |  |  |
| Purpose/use | Thousand Litres |
| *Slaughter operation* | **Abattoir 1** | **Abattoir 2** | **Abattoir 3** |   |   |
| Drinking of animals at animal holding area and |   |   |   |   |   |
| lairage |
| Washing of animals |   |   |   |   |   |
| Scalding |   |   |   |   |   |
| Carcass washing (except pig, poultry) |   |   |   |   |   |
| Washing of slaughterhouse premises, lairage etc |   |   |   |   |   |
| At Effluent treatment plant |   |   |   |   |   |
| *Meat product processing* |   |   |   |   |   |
| Water used for product preparation |   |   |   |   |   |
| Water used for cooking of meat products |   |   |   |   |   |
| Water used for washing of processing plant |   |   |   |   |   |
| premises |
| At Effluent treatment |   |   |   |   |   |
| Total water demand |   |   |   |   |   |
|  |  |  |  |  |  |

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| Format-24 |  |  |  |  |  |  |
| Annexure 4.2.2.24. Water productivity for milk production (cattle and buffalo) |  |  |  |  |
|  |  |  |  |  |  |  |
| **Species** | Water for drinking & washing (a) | Water for shed cleaning (b) | Total water requirement/water consumed (c) | Milk yield (d) | Water Productivity Litre water /Litre milk | Economic water productivity (Rs./litre) |
|   | c/d |
| (a+b) |   |
| Milch cattle |   |   |   |   |   |   |
| Milch buffalo |   |   |   |   |   |   |
| Others |   |   |   |   |   |   |
| Total |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Format-25 |  |  |  |  |  |  |
| Annexure 4.2.2.25. Water productivity for poultry egg production (Layers) |  |  |  |  |
|  |  |  |  |  |  |  |
| Poultry | Water for drinking & cooling | Water for cleaning (b) | Total water requirement/water consumed (c) | Egg numbers (d) | Water Productivity Litre water /100 eggs | Economic water productivity (Rs./litre) |
| (a) |   | c/d |
|   | (a+b) |   |
| Layers |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| Format-26 |  |  |  |  |  |  |
| Annexure 4.2.2.26. Water productivity for poultry meat production (Broiler) |  |  |  |  |
|  |  |  |  |  |  |  |
| Poultry | Water for drinking & cooling | Water for cleaning (b) | Total water requirement/water consumed (c) | Broiler weight (d) | Water Productivity Litre water /kg wt gain | Economic water productivity (Rs./kg) |
| (a) |   | c/d |
|   | (a+b) |   |
| Broilers |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| Format-27 |  |  |  |  |  |  |
| Annexure 4.2.2.27. Water productivity for meat production (Sheep/goat) |  |  |  |  |
|  |  |  |  |  |  |  |
| Species | Water for drinking & washing | Water for cleaning (b) | Total water requirement/wat er consumed (c) | Animal weight (d) | Water Productivity Litre water /kg wt gain | Economic water productivity (Rs./kg meat) |
| (a) | (a+b) | c/d |
| Sheep |   |   |   |   |   |   |
| Goat |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| Format-28 |  |  |  |  |  |  |
| Annexure 4.2.2.28. Water productivity for meat production (buffalo/cattle) |
| Species | Water for drinking & cooling | Water for cleaning (b) | Total water requirement/water consumed (c) | Animal weight (d) | Water Productivity Litre water /kg wt gain | Economic water productivity (Rs./kg meat) |
| (a) |   | c/d |
|   | (a+b) |   |
| Buffalo |   |   |   |   |   |   |
| Cattle |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| Format-29 |  |  |  |  |  |  |  |
| Annexure 4.2.2.29. Water productivity for milk processing (Litre water per litre milk processing) |
|  |  |  |  |  |  |  |  |
| Milk plants | Water for steam generation (a) | Water for cleaning (b) | Water for other use in plant (c) | Total water requirement | Litre of milk processed (e) | Water Productivity Litre water /litre milk processed d/e | Economic water productivity (Rs./litre of pasteurized milk) |
|   |
| d = (a+b+c) |
| Plant1 |   |   |   |   |   |   |   |
| Plant2 |   |   |   |   |   |   |   |
| Plant 3 |   |   |   |   |   |   |   |
|  |  |  |  |  |  |  |  |

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| Format-30 |  |  |  |  |  |  |  |
| Annexure 4.2.2.30. Processed Milk Water Productivity- State level |
|  |  |  |  |  |  |  |  |
| Year | Total No. of Milk Processing Plants | Total Annual Capacity | Annual Av. Capacity for the last 5 Years | Inputs Qty | Output | Processed Milk Productivity Litres of Water/ |
| 1 Litre of Processed |
| Raw Milk | Water | Processed Milk | Milk |
|   |   |
| Kg/Yr |   |
| 2016 |   |   |   |   |   |   |   |
| 2017 |   |   |   |   |   |   |   |
|  |  |  |  |  |  |  |  |

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| Format-31 |  |  |  |  |  |  |
| Annexure 4.2.2.31. Water productivity for meat processing |
|  |  |  |  |  |  |  |
| Abattoirs | Slaughter operation (a) | Meat product processing operation | Total water requirement/water consumed (c) | Broiler weight (d) | Water Productivity Litre water /kg processed meat c/d | Economic water productivity (Rs./kg meat product) |
| (b) |   |
|   | (a+b) |
| Abattoir1 |   |   |   |   |   |   |
| Abattoir 2 |   |   |   |   |   |   |
| Abattoir 3 |   |   |   |   |   |   |
|  |  |  |  |  |  |  |

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| Format-32 |  |  |  |  |  |  |  |
| Annexure-4.2.2.32: Analysis of past trend of animal growth rate (numbers) |
|  |  |  |  |  |  |  |  |
| **Livestock species** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Buffalo |   |   |   |   |   |   |   |
| Cattle |   |   |   |   |   |   |   |
| Sheep |   |   |   |   |   |   |   |
| Goat |   |   |   |   |   |   |   |
| Yak |   |   |   |   |   |   |   |
| Mithun |   |   |   |   |   |   |   |
| Camel |   |   |   |   |   |   |   |
| Horse/mule |   |   |   |   |   |   |   |
| Donkey |   |   |   |   |   |   |   |
| Pig |   |   |   |   |   |   |   |
| Poultry |   |   |   |   |   |   |   |
| Others |   |   |   |   |   |   |   |
|  |  |  |  |  |  |  |  |

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| Format-33 |  |  |  |  |  |  |  |
| Annexure 4.2.2.33 Past trend of dairy farms |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Dairy farms |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
|  |  |  |  |  |  |  |  |

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| Format-34 |  |  |  |  |  |  |  |
| Annexure 4.2.2.34 Past trend of poultry farms |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Poultry farms |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
|  |  |  |  |  |  |  |  |

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| Format-35 |  |  |  |  |  |  |  |
| Annexure 4.2.2.35 Past trend of milk processing plants |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 ((3-2)/2)\*100 | 7  (4-3)/3)\*100 | 8  (5-4)/4)\*100 |
| Milk processing plants |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
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| Format-36 |  |  |  |  |  |  |  |
| Annexure 4.2.2.36a Past trend of Abattoir plants |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|   |   |   |   |   | ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Abattoir |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
| Annexure 4.2.2.36b Past trend of meat processing plants |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|   |   |   |   |   | ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Meat processing plants |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
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| Annexure 4.2.2.36c Past trend of abattoir with meat processing units/plants |
|  |  |  |  |  |  |  |  |
| **Livestock farm type** | **Cultivated Area (ha)** | **Five yearly growth rate in livestock numbers** |
| 2003 | 2007 | 2012 | 2017 | 2003-2007 | 2007-2012 | 2006-2015 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|   |   |   |   |   | ((3-2)/2)\*100 | ((4-3)/3)\*100 | ((5-4)/4)\*100 |
| Abattoir with meat |   |   |   |   |   |   |   |
| processing plants |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |
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| Format-37 |  |  |  |  |  |  |  |
| Annexure 4.2.2.39 Water measuring systems for dairy/poultry farm and milk/ meat processing plants |
| Water use | Water Measuring systems |  |  |  |  |  |  |
| Dairy farm |   |  |  |  |  |  |  |
| Poultry farm |   |  |  |  |  |  |  |
| Milk plant |   |  |  |  |  |  |  |
| Abattoir |   |  |  |  |  |  |  |
| Meat processing plant |   |  |  |  |  |  |  |
| Abattoir with meat |   |  |  |  |  |  |  |
| processing unit/plant |  |  |  |  |  |  |
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| Format-38 |  |  |  |  |  |  |  |
| **Annexure 4.2.2.40**Water monitoring systems for dairy/poultry farm and milk/ meat processing plants |
| Water use | Water monitoring – Quantity and Quality systems |
| Dairy farm |   |  |  |  |  |  |  |
| Poultry farm |   |  |  |  |  |  |  |
| Milk plant |   |  |  |  |  |  |  |
| Abattoir |   |  |  |  |  |  |  |
| Meat processing plant |   |  |  |  |  |  |  |
| Abattoir with meat |   |  |  |  |  |  |  |
| processing unit/plant |  |  |  |  |  |  |
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| Format-39 |  |  |  |  |  |  |  |
| **Annexure 4.2.2.41** Data constraint/ management for dairy/poultry farm and milk/ meat processing plants |
| Water use | Data Constraints/ Challenges |
| Dairy farm |   |  |  |  |  |  |  |
| Poultry farm |   |  |  |  |  |  |  |
| Milk plant |   |  |  |  |  |  |  |
| Abattoir |   |  |  |  |  |  |  |
| Meat processing plant |   |  |  |  |  |  |  |
| Abattoir with meat |   |  |  |  |  |  |  |
| processing unit/plant |  |  |  |  |  |  |
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| Format-40 |  |  |  |  |  |  |  |
| Annexure 4.2.2.42. Livestock drinking water requirments (Cattle and Buffalo) |
|  |  |  |  |  |  |  |  |
| Animal Type | Season | Water intake in 24 h (1)  |
| Calf  | Winter Summer |   |   |  |  |  |  |
| Heifer | Winter Summer |   |   |  |  |  |  |
| Adult | Winter-dry  |   |   |  |  |  |  |
|   | \_Lactating |   |   |  |  |  |  |
|   | Summer-dry |   |   |  |  |  |  |
|   | \_Lactating |   |   |  |  |  |  |
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| Format-41 |  |  |  |  |  |  |  |
| Annexure 4.2.2.43. Water requirment for livestock washing/cleaning (Cattle and Buffalo) |
|  |  |   |   |  |  |  |  |
| Animal Type | Season | Water for washing each buffalo (L) |
| Calf  | Winter Summer |   |   |  |  |  |  |
| Heifer | Winter Summer |   |   |  |  |  |  |
| Adult | Winter-dry  |   |   |  |  |  |  |
| \_Lactating |   |   |  |  |  |  |
| Summer-dry |   |   |  |  |  |  |
| \_Lactating |   |   |  |  |  |  |
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| Format-42 |  |  |  |  |  |  |  |
| Annexure 4.2.2.44a. Poultry drinking water requirment |
|  |  |  |  |  |  |  |  |
| Average daily water requirement per day (consumptions/water use in ml per day) |
| Types of Birds | Total (No.) | ml per day (mpd) |  |  |  |  |
| Broiler |   |   |  |  |  |  |
| Pullets |   |   |  |  |  |  |
| Layers |   |   |  |  |  |  |
| Breeders |   |   |  |  |  |  |
| Turkey |   |   |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Annexure 4.2.2.44b. Drinking water requirments for Poultry |  |  |  |  |
|  |  |  |  |  |  |  |  |
| SN | Type of birds | Water requirements in lit per 100 birds  |  |  |  |  |
| 1 | Layer pullets (growing birds) |   |  |  |  |  |
| 2 | Layer hens (mature) |   |  |  |  |  |
| 3 | Breeder pullets (growing) |   |  |  |  |  |
| 4 | Breeder Hens(Mature) |   |  |  |  |  |
| 5 | Broiler chickens |   |  |  |  |  |
| 6 | Turkey broilers |   |  |  |  |  |
| 7 | Turkey Breeders |   |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Annexure 4.2.2.44c. Drinking water requirments for Poultry |  |  |  |
|  |  |  |  |  |  |  |  |
| SN | Type of birds | Service water requirement (lit) per 100 birds per day | No. of birds |  |  |  |
| 1 | Broiler Chicks |   |   |  |  |  |
| 2 | Broiler Adults |   |   |  |  |  |
| 3 | Layer Chicks |   |   |  |  |  |
| 4 | Laying Birds |   |   |  |  |  |
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| Format-43 |  |  |  |  |  |  |  |
| Annexure 4.2.2.45. Service water requirments for Poultry |  |  |  |
|  |  |  |  |  |  |  |  |
| SN | Type of birds | Service water requirement (lit)/100 birds/day | No. of birds |  |  |  |
| 1 | Broiler Chicks |   |   |  |  |  |
| 2 | Broiler Adults |   |   |  |  |  |
| 3 | Layer Chicks |   |   |  |  |  |
| 4 | Laying Birds |   |   |  |  |  |
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| Format-44 |  |  |  |  |  |  |  |  |
| Annexure 4.2.2.46a. Water requirment for kg milk production |
|  |  |  |  |  |  |  |  |  |
| Water (L/Kg product) | East Asia | Latin America & Caribbean | North America & West Asia | North America & Oceania | South & Central Asia | Sub- Saharan Africa | Europe  |
| Milk |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Annexure 4.2.2.46b. Water requirment for kg milk production |
|  |  |  |  |  |  |  |  |  |
| Product | Water in Liter/Kg product |   |   |  |  |  |  |
| Milk | 1020 |   |   |  |  |  |  |
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| Format-45 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Annexure 4.2.2.47. Water requirment for Litre milk processing |  |  |  |  |  |  |
| Product | Water in Liter/Litre Milk Processed |  |  |  |  |  |  |  |
| Milk | 1-1.5 |  |  |  |  |  |  |  |
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| Format-46 |  |  |  |  |  |  |  |  |
| Annexure 4.2.2.48a. Water requirment kg livestock products in meat processig plant/abattoir |
| Processing of livestock products  |  |  |  |  |  |  |  |
| Product | Water in Liter/Kg product |   |   |  |  |  |  |
| Eggs |   |   |   |  |  |  |  |
| Chicken-meat |   |   |   |  |  |  |  |
| Pig meat |   |   |   |  |  |  |  |
| Sheep/Goat meat |   |   |   |  |  |  |  |
| Bovine meat (Cattle/Buffalo) |   |   |   |  |  |  |  |
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| Format-47 |  |  |  |  |  |  |  |  |
| Annexure 4.2.2.48b. Water requirment kg livestock products in meat processing plant/abattoir |
|  |  |  |  |  |  |  |  |  |
| Water (L/Kg product) | East Asia | Latin America & Caribbean | North America & West Asia | North America & Oceania | South & Central Asia | Sub- Saharan Africa | Europe  | Average |
| Egg | 3900 | 6300 | 6200 | 2300 | 7400 | 14700 | 2400 | 6200 |
| Beef | 83000 | 61900 | 11 | 27100 | 308900 | 186600 | 20100 | 114700 |
| Sheep/Goat | 87900 | 0 | 64300 | 36100 | 243500 | 0 | 14000 | 63700 |
| Poultry | 5800 | 7300 | 1900 | 3200 | 10200 | 16900 | 3400 | 7000 |
| Pork | 16300 | 12800 | 21000 | 4100 | 12100 | 40700 | 15900 | 17600 |
|  |  |  |  |  |  |  |  |  |

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| Format-48 |  |  |  |  |  |  |  |  |
| Performance indicators for Dairy Farms (Annexure 4.2.2.49) |  |  |  |
| **Category** | **Indicator** | **Unit**  | **Bench Mark** | **District-1** |
| Water quantity Measurement | % of dairy farms with water flow meters | % |  |   |
| % of water sources (ponds for animal drinking and wallowing) geotagged | % |   |   |
| % dairy farms undertaking intrenal water audit  | % |   |   |
| % dairy farms undertaking external water audit | % |   |   |
| Submitting monthly water balance to state pollution control board (SPCB) | Number |   |   |
| Water conservation | % of dairy farms with water harvesting structures. | % |  |   |
| % of dairy farm with pressurized pumps for cleaning sheds/Pressure foam systems for cleaning shed floors. | % |   |   |
| % of dairy farms with shower facility for washing animals.  | % |   |   |
| % dairy farms with fogging facility. | % |   |   |
| Water demand management | No animal washing in event of water scarcity  | Number |  |   |
| % of dairy farms following dry washing of animals | % |   |   |
| % of dairy farms with facility for dry washing and cleaning of animals sheds | % |   |   |
| % of dairy farms with using green fodder in animal diet | % |   |   |
| % of dairy farms repairing leaks from connections, valves and seals | % |   |   |
| Water productivity  | Water consumption per liter of milk production | Liters |   |   |
| Water quality | % dairy farms conducting the prescribed water quality tests | % |  |   |
| % of dairy farms with separate channels for disposal of animal waste (dung and urine) | % |   |   |
| % of dairy farms with waste storage pond  | % |   |   |
| % of dairy farms with waste lagoon | % |   |   |
| % of dairy units installed online water quality monitoring systems | % |   |   |
| % of dairy units complied with the waste water quality discharged norms. | % |   |   |
| % of dairy units received notices for the violation of statute from SPCB | % |   |   |
| Waste Water | Total waste water generated from dairy farm  | Liters |  |   |
| % waste water treated  | % |   |   |
| % treated water used in industrial activity  | % |   |   |
| % treated water used in green belt | % |   |   |
| % reduction in total quantum of wastewater disposed  | % |   |   |
| % of dairy plants with Zero liquid discharge (AZD) | % |   |   |
| % of dairy farms with waste water recycling  | % |   |   |
| % of dairy farms with waste water treatment plant/water putification system | % |   |   |
| Capacity building  | % of dairy plant conduction training of employees for minimizing water use. | % |   |   |
| Water Economics | Cost of 1 lt water | % |   |   |
| % of dairy farms paying water bills | % |   |   |
| Others |   |   |   |   |

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| Format-49 |  |  |  |  |  |  |  |  |
| Performance indicators for Poultry (Annexure 4.2.2.50) |  |  |  |
| **Category** | **Indicator** | **Unit**  | **Bench Mark** | **District-1** |
| Water quantity Measurement | % of Poultry farms with water meters | % |  |   |
| % Poultry farms undertaking intrenal water audit  | % |   |   |
| % Poultry farms undertaking external water audit | % |   |   |
| Submitting monthly water balance to state pollution control board (SPCB) |   |   |   |
| Water conservation | % of Poultry farms with working water harvesting structures. | % |  |   |
| % of poultry farm with water recycling system. | % |   |   |
| % of poultry farm with nipple system. | % |   |   |
| % of poultry farms with fogging facility for cooling of sheds in summer. | % |   |   |
| Water demand management | % of breeders/Layers farms having 0-6 weeks  | % |  |   |
|   | % of breeders/Layers farms having 0-6 weeks birds6-20 weeks | % |   |   |
| % of breeders/Layers farms having 20-72 weeks  | % |   |   |
| % of poultry farms following disinfection of the sheds to control external parasites of birds | % |   |   |
| % of poultry farms with Facilities for dry washing and cleaning of animal sheds | % |   |   |
| % of poultry farms having own feed units | % |   |   |
| % of poultry farms repairing leaks from connections, valves and seals | % |   |   |
| Water productivity  | Water consumption (in L) per 100 eggs production |   |   |   |
| Water consumption (in L) per 1kg live meat |   |   |   |
| Water quality | % poultry farms conducting the prescribed water quality tests | % |   |   |
| % of poultry farms with separate channels for disposal of animal waste (birds excreta) | % |   |   |
| % of poultry farms with waste storage pit  | % |   |   |
| % of poultry farms with poultry waste lagoon | % |   |   |
| % of poultry units installed online water quality monitoring systems | % |   |   |
| % of poultry units complied with the waste water quality discharged norms. | % |   |   |
| % of poultry units received notices for the violation of statute from SPCB | % |   |   |
| Waste Water | Total waste water generated  |   |  |   |
| % of poultry farms with waste water recycling  | % |   |   |
| % waste water treated  | % |   |   |
| % Treated water used in farm activity (gardening, cooling of sheds etc) | % |   |   |
| % reduction in total quantum of wastewater disposed  | % |   |   |
| % of poultry farms with Zero liquid discharge (AZD) | % |   |   |
| % of poultry farms with waste water treatment plant/water putification system | % |   |   |
| Capacity building  | % of plant conduction training of employees for minimizing water use. | % |   |   |
| Water Economics | Cost of 1 lt water |   |   |   |
| % of poultry farms paying water bills |   |   |   |
| Others | % of poultry farms having carcass disposable system | % |   |   |

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| Format-50 |  |  |  |  |  |  |  |  |
| **Performance indicators for Milk Processing Plants-** Separately for each category of plant-(i) Less than 1 Lakh /Day (ii) 1-5 Lakh/Day (iii)> 5 lakh liters/day (Annexure 4.2.2.51) |  |  |  |
|  |  |   |   |   |
| **Category** | **Indicator** | **Unit**  | **Bench Mark** | **District-1** |
| Water quantity Measurement | % of Milk plant using water measuring device at source. | % |  |   |
| % of plant using automatic water measuring system. | % |   |   |
| Milk plant annual total water consumption  | % |   |   |
| Average water treated in ETP annually. | % |   |   |
| % dairy plants undertaking internal water audit | % |   |   |
| % dairy plants undertaking external water audit | % |   |   |
| Submitting monthly water balance to state pollution control board ( SPCB) | % |   |   |
| Water conservation | % of Plant with working water harvesting structures. | % |  |   |
| % of dairy plants with condensate recovery system | % |   |   |
| % of dairy plants with automatic CIP cleaning system | % |   |   |
| Water demand management | % of plant conducting water audit | % |  |   |
| % of dairy plants conducting regular maintenance(repairing leaks from connections, valves and seals) | % |   |   |
| Water productivity  | Water consumption (in L) per 1 litre of processed milk |   |   |   |
| Water quality | % dairy plants conducting the prescribed water quality tests | % |   |   |
| % dairy plants installed online water quality monitoring systems. | % |   |   |
| % of dairy plants complied with the wastewater quality discharged norms. | % |   |   |
| % of dairy plants received notices for the violation of statute from SPCB | % |   |   |
| Waste Water | Total waste water generated  |   |  |   |
|   | % of dairy plants with 100% waste water recycling  | % |   |   |
|   | % waste water treated  | % |   |   |
|   | % Treated water used in Industrial activity. | % |   |   |
|   | %Treated water used in green belt | % |   |   |
|   | % Reduction in total quantum of waste water disposed | % |   |   |
|   | % of plants with Zero liquid discharge (ZLD) | % |   |   |
| Participatory water management |   |   |   |   |
| Capacity building  | % of plant conduction training of employees for minimizing water use. | % |   |   |
| Water Economics | Cost of 1 lt water |   |   |   |
| Others |   |   |   |   |
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| Format-51 |  |  |  |  |  |  |  |
| **Performance indicators - Abattoirs only** (Annexure 4.2.2.52) |  |  |
|  |  |  |  |  |  |  |  |
| **Category** | **Indicator** | **Type of abattoir** |
|  |  | **Cattle**  | **Bullalo**  | **Sheep**  | **Goat**  | **Pig**  | Poultry |
| Water quantity Measurement | % of abattoirs using water measuring device at source. | % |   |   |   |   |   |
| % of abattoir using automatic water measuring system. | % |   |   |   |   |   |
| % abattoirs undertaking internal water audit | % |   |   |   |   |   |
| % abattoirs undertaking external water audit | % |   |   |   |   |   |
| % abattoirs sending monthly water balance to state pollution control board ( SPCB) | % |   |   |   |   |   |
| Water conservation | % of abattoirs having rain water harvesting facility | % |   |   |   |   |   |
| % of abattoirs having shower facilities for animals | % |   |   |   |   |   |
| Water demand management | % of abattoirs having repairing leaks from connections, valves and seal at regular intervals | % |   |   |   |   |   |
| Water productivity  | Average Water consumption per kg of meat produced |   |   |   |   |   |   |
| Water quality | % of abattoirs conducting the prescribed water quality tests | % |   |   |   |   |   |
| % of abattoirs with separate channels for disposal of animal waste (dung and urine) | % |   |   |   |   |   |
| % of abattoirs with waste storage pond | % |   |   |   |   |   |
| % of abattoirs with waste lagoon | % |   |   |   |   |   |
| % of abattoirs installed online water quality monitoring systems. | % |   |   |   |   |   |
| % of abattoirs complied with the wastewater quality discharged norms. | % |   |   |   |   |   |
| % of abattoirs received notices for the violation of statute from SPCB | % |   |   |   |   |   |
| % abattoirs meeting Pollution Control Board guidelines on treated water quality | % |   |   |   |   |   |
| Waste Water | Total waste water generated  |   |   |   |   |   |   |
|   | % of abattoirs with waste water treatment plant  | % |   |   |   |   |   |
|   | % of abattoirs recycling treated water | % |   |   |   |   |   |
|   | % waste water treated  | % |   |   |   |   |   |
|   | % Treated water used in abattoir activities. | % |   |   |   |   |   |
|   | %Treated water used in green belt | % |   |   |   |   |   |
|   | % Reduction in total quantum of waste water disposed | % |   |   |   |   |   |
|   | % of abattoirs with Zero liquid discharge (ZLD) | % |   |   |   |   |   |
| Capacity building  | % of plant conduction training of employees for minimizing water use. | % |   |   |   |   |   |
| Water Economics | Cost of 1 litre water |   |   |   |   |   |   |
| Others issues | % number of abattoirs having meat product facility along with abattoir |   |   |   |   |   |   |
|   | % of abattoirs undertaking by product processing in their plant  |   |   |   |   |   |   |
|   | % of abattoirs using automated cleaning of animal by products |   |   |   |   |   |   |

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| Format-52 |  |  |  |  |  |
| **Performance indicators - Meat product processing plants only** (without attached abattoir)(Annexure 4.2.2.53) |
|  |  |  |  |  |  |
| **Category** | **Indicator** | **Units**  | **Bench Mark** | **Plant-1** | **Plant-2** |
|  |  |  |  |  |  |
| Water quantity Measurement | % of processing plants using water measuring device at source. | % |  |   |   |
| % of processing plants using automatic water measuring system. | % |   |   |   |
| Annual total water consumed |   |   |   |   |
| Average water treated annually in ETP annually. |   |   |   |   |
| % of plants undertaking internal water audit | % |   |   |   |
| % of plants undertaking external water audit | % |   |   |   |
| % plants sending monthly water balance to state pollution control board ( SPCB) | % |   |   |   |
| Water conservation | % of abattoirs having rain water harvesting facility | % |   |   |   |
| Water demand management | % of processing plants having repairing facility for leaks from connections, valves and seals  | % |   |   |   |
| Water productivity  | Average Water consumption per kg of meat product produced. |   |   |   |   |
| Water quality | % of processing plants conducting the prescribed water quality tests | % |   |   |   |
| % of units installed online water quality monitoring systems. | % |   |   |   |
| % of units complied with the wastewater quality discharge norms. | % |   |   |   |
| % plants meeting Pollution Control Board guidelines on treated water quality | % |   |   |   |
| Waste Water | Total waste water generated  |   |  |   |   |
| % of plants with waste water treatment plant  | % |   |   |   |
| % of units recycling treated water  | % |   |   |   |
| % Waste water treated  | % |   |   |   |
| % Treated water used in plant activities |   |   |   |   |
| %Treated water used in green belt | % |   |   |   |
| % of plants with Zero liquid water discharge | % |   |   |   |
| Capacity building  | % of plant conducting training of employees for minimizing water usage. | % |   |   |   |
| Water Economics | Cost of 1 lt water |   |   |   |   |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  | Sheep Goat | 18-20 Liter per Day per animal |  |  |  |
|  | Horse | 36 | 36 |  |  |
|  | Pig | 20-25 |  |  |  |
|  | Poultry | 200-250 ml | double to feed |  |  |