METHODOLOGY FOR COMPILATION OF THE GROSS STATE VALUE ADDED (GSVA) IN THE NEW BASE (2011-12)



CENTRAL STATISTICS OFFICE MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION GOVERNMENT OF INDIA

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भारत सरकार / Government of India सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय Ministry of Statistics & Programme Implementation केंद्रीय सांख्यिकी कार्यालय Central Statistics Office एस.पी. भवन, संसद मार्ग, नई दिल्ली-110001 S.P. Bhawan, Sansad Marg, New Delhi-110001

Foreword

The Central Statistics Office (CSO) brought out a new series of National Accounts in January, 2015 with the base 2011-12, using new data sets and incorporating some of the recommendations of the System of National Accounts, 2008. This is done periodically to capture the structural changes in the economy, which have taken place in the intervening years. In accordance to the changes brought in the All India Estimates, there have been subsequent changes in the compilation procedure of the State level estimates as well.

CSO has the mandate of providing technical assistance to the States for compilation of the State level estimates. The standard methodology for compilation of the state level estimates has been documented in tabular format. The table is being placed in the website of Ministry for the use of all.

I would like to place on record my deep regards and thanks to Shri Pravin Srivastava, Chief Statistician and Secretary of this ministry whose invaluable guidance and support has been all through, in the preparation of this book. I would also like to highlight and appreciate the dedicated efforts and hard work put in by the entire team of National Accounts Division for consolidating the entire Gross State Value Added (GSVA) methodology. I hope this would prove to be useful to the State officers in incorporating the changes and bringing out the new series accordingly.

(Mamta Saxena)

New Delhi January, 2019

GROSS VALUE ADDED AT BASIC PRICES

Item	Data: Source	Method of estimation		Remarks
	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
1. Agriculture (Crop Sector)				
(a) Value of output				
(1) Major and minor crops				
(i) Major crops	 Production: Directorate of Economics and Statistics, M/o Agriculture (DESAg) Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(ii) Minor Crops	 Production: Horticulture Statistics Division (DAC, M/o Agriculture) & State DESs Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(iii) Small Millets	Production: DESAgPrices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	Price = 75% of weighted average price of jowar, bajra, barley, maize and ragi in the reference year
(iv) Other Pulses	◆ Production: DESAg and State DESs	Value of output = current year production * current year price	Value of output = current year production *base year price	Price = 85% of weighted average price of arhar, urad, moong, masur and horsegram in reference year
(2) Commercial Crops				
(i) Tea	Production of processed tea: Tea BoardPrices: State DESs	Value of output = current year production of Raw tea * current year price	Value of output = current year production of Raw tea * base year price	Production of Raw tea = processed tea / 0.225
(ii) Coffee	Production: Coffee BoardState DESs (prices)	Value of output = current year production * current year price	Value of output = current year production * base year price	

Item	Data: Source	Method of estimation		Remarks
	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(iii) Rubber	Production: Rubber BoardPrices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	
(iv) Cashew Nuts And Cocoa	 Production: Directorate of Cashewnut and Cocoa Development Board Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(v) Horticulture Crops:	 ◆ Production: Horticulture Statistics Division (DAC, M/o Agriculture) ◆ Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(vi) Opium	 Production and Prices: Central Bureau of Narcotics 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(vii) Arecanut	 Production: Directorate of Arecanut and Spices Development Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(viii) Flowers (separately for cut flowers and spike)	 Production: Horticulture Statistics Division (DAC, M/o Agriculture) Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(3) Miscellaneous Crops				
(i) Other Cereals	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare (VPH)	Value of output = area * base year value per hectare	Value per hectare = weighted average of value per hectare of the crops: jowar, bajra, barley, maize and ragi in reference year
(ii) Other Sugars (excluding Palmyra)	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare	Value of output = area * base year value per hectare	Value per hectare = 0.90* VPH of the crop sugarcane in reference year

Item	Data: Source	Method of estimation		Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(iii) Other Oilseeds (excluding Taramira)	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare	Value of output = area * base year value per hectare	Value per hectare = 0.85 * weighted average of value per hectare of linseed, sesamum, castorseed, nigerseed and safflower in reference year
(iv) Other Fibres	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare	Value of output = area * base year value per hectare	Value per hectare = 0.90* weighted average of value per hectare of sanhemp and mesta in reference year
(v) Other Drugs and Narcotics	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare	Value of output = area * base year value per hectare	Value per hectare = 0.90* weighted average of value per hectare of opium (Madhya Pradesh & Rajasthan) and tobacco & tobacco stem (other states) in reference year
(vi) Other Condiments and Spices	◆ Area: LUS from DES Ag / State DESs	Value of output = area * current year value per hectare	Value of output = area * base year value per hectare	Value per hectare = 0.90* weighted average of value per hectare of dry chillies, dry ginger, cardamom and black pepper in reference year.
(vii) Other Fruits	 Production: Horticulture Statistics Division (DAC, M/o Agriculture) 	Value of output = current year production * current year price	Value of output = current year production * base year price	Price = weighted average price of all fruits for which separate data is available in reference year.
(viii) Other Vegetables	 Production: Horticulture Statistics Division (DAC, M/o Agriculture) 	Value of output = current year production * current year price	Value of output = current year production * base year price	Price = weighted average price of all vegetable for

Item	Data: Source	Method of esti	mation	Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
				which separate data is available in reference year.
(ix) Tobacco stem	 Production of tobacco leaves: DES Ag / State DESs Prices of tobacco leaves: State DESs 		Value of output = current year production * base year price	Production= 86.63% of production of tobacco leaves and Price=50% of the price of tobacco leaves
(x) Toddy	 MPCE of Toddy: NSS 68th Round CES, 2011-12 Rural and urban population: Population Census 2011 WPI: M/o Commerce and Industry 	Value of output= estimate at constant	Value of output= value of consumption of toddy per annum per person in the base year * population in the current year	Value of consumption of toddy per annum per person in the base year = Monthly Per Capita expenditure of toddy in the base year (year of survey) *(365/30)
(xi) Fodder	 Total and irrigated area under fodder crops: DES Ag and State DESs Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	Production =irrigated area under fodder crops (in ha)* (50MT/ha) + un-irrigated area under fodder crops (in ha) *(25MT/ha) (Yield rates based on a study conducted by Socio-Economic Research Centre)
(xii) Grass	 ◆ Area: LUS from DES Ag / State DESs ◆ Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	Production = total area (4* area under permanent pastures +1* miscellaneous tree crops + 2* culturable waste + 2* fallow lands + 1* net area sown) * state-wise yield rates (based on NSS results)

Item	Data: Source	Method of estimation		Remarks
Item		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(xiii) Mulberry	Production and prices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	
(xiv) Miscellaneous food And non-food Crops	 Area: LUS from State DESs Value per hectare: State DESs 	Value of output = area * Value per hectare in current year	Value of output = area * Value per hectare in the base year	
(4) By products	 Area: LUS from DES Ag / State DESs Value per hectare: CCS from DES Ag/State DESs (except for poppy husk and poppy seed). Value of poppy husk and poppy seed are made available by State DESs WPI: M/o Commerce and Industry 	Value of output = area * Value per hectare in current year In case CCS is not available for the current year, Value per hectare of current year = Value per hectare of reported year from CCS * (WPI current/WPI reported year) of respective crop.	Value of output = area * Value per hectare in base year as per CCS 2011-12	
(5) Other products				
(i) Gur	 Production and Seed Rates: DESAg Quantity of sugar cane crushed by factories: Dte. of Sugar, M/o Consumer Affairs, Food and Public Distribution Quantity of sugarcane used in manufacture of khandsari in manufacturing sector: ASI & NSS Survey of 		Value of output = current year production of Gur *base year price	Rates assumed - State-wise percentage (9-10%) of quantity of sugar cane retained for gur making State-wise percentage of sugar cane used for chewing State-wise quantity of sugar cane used for seed based on latest CCS

Item	Data: Source	Method of esti	mation	Remarks
Item	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
	manufacturing enterprises (non-ASI) ◆ Prices: State DESs			◆ State-wise percentage of sugarcane used for manufacture of khandsari. Quantity of sugarcane retained for gur making =total sugarcane production — sugarcane used for chewing, seed, crushed by factories and Khandsari
(ii) Palmyra	 Production and prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(iii) Bagasse	◆ Prices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	Based on a study conducted by Socio- Economic Research Centre, production of bagasse = 3.5% * sugar cane used for gur making
(iv) Foreyard and Backyard farming (kitchen garden i.e. Homestead land raising for crop and having area less than 0.01 H)	◆ Net sown area: LUS from DES Ag / State DESs	Value of output = Area under Foreyard and Backyard farming (kitchen garden) * value of output per hectare of fruits and vegetables in current year	Value of output = Area under Foreyard and Backyard farming (kitchen garden) * value of output per hectare of fruits and vegetable, in the base year	Based on NSS Survey on Land & Livestock Holdings, Area under Foreyard and Backyard farming (kitchen garden)= 0.21% of net sown area

Item	Data: Source	Method of estimation		
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(b) Inputs (Crop Sector)				
(1) Seed				
(i) Wheat, Jowar, Bajra, Barley, Maize, Ragi, Small Millets, Gram, Arhar, Urad, Moong, Masoor, Linseed, Sesamum, Groundnut, Rapeseed & Mustard, Castor, Black Pepper and Turmeric	 ◆ Seed rate, seed replacement rate, area: CCS from DESAg ◆ Area under the crop, prices: State DESs ◆ WPI: M/o Commerce and Industry 	Value of Seed = Value of improved variety of Seed at current year prices + Value of harvested Grains retained for Seed at current year prices	Value of Seed inputs= Value of improved variety of Seed at base year prices + Value of harvested Grains retained for Seed at base year prices	Value of improved variety of Seed=Seed Rate*(Irrigated Area*Seed Replacement Rate)*CCS Seed Price for current/base year; WPI is used for extrapolation till CCS becomes available Value of harvested Grains retained for Seed= Seed Rate*{Irrigated Area*(100-Seed Replacement Rate) + Un-irrigated area}*Farm Harvest Price of respective crop for current/base year
(ii) Paddy, Sugarcane and Potato	 ◆ Seed Rate, Seed Price: CCS from DESAg ◆ WPI: M/o Commerce and Industry 	Value of Seed = Area * VPH (Seed Rate*CCS Seed Price) for current year; In case CCS is not available for the current year, Value per hectare of current year = Value per hectare of reported year from CCS * (WPI current/WPI reported year) of respective crop.	Value of Seed inputs= Area * VPH (Seed Rate*CCS Seed Price) for base year.	

Item	Data: Source	Method of estimation		Remarks
110	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(iii) Other cereals, other condiments & spices, coconut, miscellaneous food crops	 ◆ VPH of seed: Study conducted by Directorate of Marketing Inspection (DMI), M/o Agriculture ◆ Area: State DESs ◆ WPI: M/o Commerce and Industry 	Value of seed = Estimate in col. (4) * relevant WPI current/ WPI base	Value of seed = area under the crop in the current year* value of seed per hectare in the base year	
(iv) Misc. Non-Food Crops, Tapioca, Fodder, Guar Seed, Cotton, Dry Chillies, Other Vegetables & Dry-ginger	 Value per Hectare (VPH): Benchmark study conducted by State DESs Area: State DESs WPI: M/o Commerce and Industry 	Value of inputs = Estimate in col. (4) * relevant WPI current/ WPI base	Value of inputs = (area * Value per Hectare as per Bench mark study)* relevant Wholesale Price Index (WPI) for 2011-12	
(2) Pesticides	 Consumption and prices: Dte. of Quarantine & Plant Protection WPI: M/o Commerce and Industry 	Value of input = State-wise consumption * current year price; WPI used for extrapolation till current year prices are received	Value of input = State-wise consumption * base year price	
(3) Repair & Maintenance for Crop Sector	◆ Average cost of Repair and Maintenance on (i) Orchards & Plantation Resources, (ii) Wells & Irrigation, (iii) Agricultural Machinery & Implement and (iv) Transport Equipment: All India Debt and Investment Survey (AIDIS), 2013	derived from AIDIS, 2013) moved with the estimates of capital stock of farm business	Benchmark/ Base year estimates (as derived from AIDIS, 2013) moved with the estimates of capital stock of farm business at constant prices	

Item	Data: Source	Method of estimation		Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(4) Electricity	 ◆ Consumption of electricity for agricultural purposes and prices: Central Electricity Authority 	Value of electricity inputs = electricity consumption in the current year * current year price	Value of electricity inputs = electricity consumption in the current year * base year price	
(5) Chemical Fertilisers	◆ Consumption and Prices: Fertiliser Association of India	Value of inputs = quantity consumed in the current year * current year price	Value of inputs = quantity consumed in the current year * base year price	
(6) Diesel oil	 Number of tractors: Agriculture Research Data Book, ICAR Number of diesel engines: ILC, 1997 and ILC, 2003 Consumption of diesel oil per diesel engine and per tractor: CCS from DESAg 	Value of inputs = no. of diesel engines/tractors in the current year* consumption in value terms per diesel engine/tractor in the current year	Value of inputs = no. of diesel engines/tractors in the current year * consumption in value terms per diesel engine/tractor in the base year	Number of diesel engines/tractors for the years beyond the survey year has been calculated using inter-survey/intercensal growth rate.
(7) Irrigation charges	 Receipts of Government from sale of water: State Government Budget Gross irrigated area: State DESs 	Total receipts in the relevant head from sale of water	Gross Irrigated Area through government canals (ha) * Per Hectare receipt from sale of water in base year	
(8) Market charges for crops		Market charges = 3.22% of value of output of crops at current prices	Market charges = 3.22% of value of output of crops at base year prices	An estimated proportion of 3.22% of market charges to value of output has been derived using a survey on market margins conducted by the DESAg during 2004-05

Item	Data: Source	Method of estimation		Remarks
Item	da. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(9) Feed of livestock for Crop Sector	 ◆ Age-wise Species-wise Population: ILC, 2003, 2007 and 2012 from DADF ◆ Prices of Dry Fodder, Green Fodder and Concentrates: CCS from DESAg ◆ WPI: M/o Commerce and Industry 	Value of Feed = Per animal annual Consumption rates of Adult Male Cattle & Adult Male Buffalo * Current Year price * population of these categories Current Year price = Base Year Prices of Roughages and Concentrates inflated with growth rate of WPI of Fodder and food grains respectively	Value of Feed = Per animal annual Consumption rates of Adult Male Cattle & Adult Male Buffalo * Base Year price * population of these categories Price: Average price for Dry Fodder, Green Fodder and Concentrates by CCS	Per animal annual Consumption rates of Adult Male Cattle & Adult Male Buffalo have been derived using the study on "India's Livestock Feed Demand: Estimates and Projection" by Centre of Economics and Social Research, New Delhi and National Centre for Agricultural Economics and Policy Research, New Delhi
2. Irrigation System				
Operation of Govt. Irrigation system	 ◆ Budget documents of state governments ◆ Annual Reports of NDEs 	Estimates of GVA at current prices estimated using production approach.	Base year estimates are moved with the index of area irrigated through government canals	
3. Livestock Products				
(a)Value of Output				
(i) Milk (Cattle, Buffalo and Goat), Eggs and Wool	◆ Production: DADF (Integrated Sample Survey (ISS) for MLP) ◆ Prices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	
(ii) Camel milk	Production: State DESsPrices: State DESs	Value of output = current year production * current year price	Value of output = current year production * base year price	

Item	Data: Source	Method of esti	Remarks	
Item	Juliu Jouree	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(iii) Duck eggs	 Production: ISS from DADF, in cases where ISS covers duck eggs Prices: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	States where ISS does not cover hen eggs – Production= 3.5% of hen eggs in case of Gujarat; Production = 3% of hen eggs in case of Goa, Madhya Pradesh, Mizoram, Daman & Diu, Dadra & Nagar Haveli, Delhi
(iv) Meat (Registered + Unregistered)	 Production: ISS from DADF and State DESs Prices: State DESs 	Value of output = production (after adjusting the quantity produced in manufacturing sector)* current year price	Value of output = production (after adjusting the quantity produced in manufacturing sector)* base year price	
(v) Meat (Products and by- products) (includes fats, edible offals & glands, hides & skins, heads & legs of slaughtered animals)		Animal-wise Meat (Product and by- product) estimated as % of Value of Meat at current price	Animal-wise Meat (Product and by-product) estimated as % of Value of Meat at base year price	Proportion of meat taken as meat product and by-product - Cattle (16.0%), Buffalo (14.49%), Goat (21.59%) Sheep (23.05%) and Pig (9.4%) (Based on a study by NRCM on Meat Products and Meat by-products, 2013-14)
(vi) Poultry Meat	 Poultry population: ILC, 2003 and ILC, 2012 from DADF Production of eggs: ISS from DADF Prices: State DESs 	Value of output is estimated separately for four components (a) chicken and ducklings killed, (b) adult fowls killed, (c) adult ducks killed and (d) other poultry killed multiplied by the respective price per bird.	Same procedure as adopted for the current price estimates, but the prices used are the respective base year prices	(a)chickens & ducklings killed = total poultry of current year (chicks survived + 50% of hens & cock population + 50 % of ducks & drakes population + population of chickens &

Item	Data: Source	Method of esti	mation	Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
				ducklings+ 62.5 % of other poultry) - total poultry of next year (population of hens +cocks + ducks + drakes + chickens + other poultry), where chicks survived = 1/3rd of eggs kept for hatching (eggs kept for hatching = fixed ratio * total egg production) (b) adult fowls killed = 50% of population of hens & cocks (c) adult ducks killed = 50% of population of ducks & drakes (d) other poultry = 37.5 % of other poultry
(vii) Fats from Fallen Animals (only for cattle and buffalo)	 Mortality rates: DMI reports Population: ILC, 2003, 2007 and 2012 from DADF 	Value of output = Number of Fallen animal * yield rate *current year price	Value of output =Number of Fallen animal * yield rate * base year price	
(viii) Cattle hides, Buffalo hides, Goat skin and Sheep skin (fallen animals)	 Mortality rates: DMI Reports Population: ILC, 2003, 2007 and 2012 from DADF 	Value of output = Number of Fallen animal * current value of hides/ skin per animal	Value of output = Number of Fallen animal * base year value of hides/ skin per animal	

Item	Data: Source	Method of estimation		Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(ix) Camel hair/Goat hair /Pig bristles	 Population: ILC, 2003, 2007 and 2012 from DADF Yield rates for goat hair: DMI Reports Prices: State DESs 	Value of output = yield rate * population of camel/goat/pig * current year price	Value of output = yield rate * population of camel/goat/pig * base year price	Yield rate of hair Camel – 800 gm. per animal per year (as available for single-humped camel) Pig Bristles: For pig bristles 155gm per pig per year.
(x) Dung and Droplet (a) Dung Fuel (b) Dung Manure	 Population: ILC, 2003, 2007 and 2012 from DADF Prices, evacuation rate for dung, utilization rate for dung cake & dung manure: State DESs 	Production of dung = population of cattle, buffalo, sheep and goat * evacuation rate (a) dung fuel value of output = 0.4 * utilisation rate for estimating dung used for making cakes * dung production * current year price (b) dung manure value of output = utilisation rate for estimating dung used for manure purpose * dung production * current year price	Same procedure as adopted for the current price estimates, but the prices used are the respective base year prices	Evacuation rate for sheep and goat have been derived from a study conducted by Central Institute for Research on Goats and National Centre for Agricultural Economics and Policy Research, New Delhi, during 2013, on "Positive Environmental Externalities of Livestock in Mixed Farming Systems of India"
(xi) Other Products – Silk – Ere, Tasar, Muga, Honey and Bee Wax	 Production and prices of silk: Central Silk Board Production and prices of honey: KVIC Production and prices of bee wax: State DESs 	Value of output = current year production * current year price	Value of output = current year production * base year price	
(xii) Increment in livestock	 ◆ Population: ILC, 2003, 2007 and 2012 from DADF ◆ Prices: State DESs 	Value of output = additions to livestock population during the year * current year price	Value of output = additions to livestock population during the year * base year price	

Item	Data: Source	Method of estimation		Remarks
rem	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(b) Inputs -Livestock				
(1) Repair and maintenance for livestock and operational costs	 ◆ Average cost of Repair and Maintenance on (i) Barns; (ii) Animal Sheds and (iii) other miscellaneous costs: All India Debt and Investment Survey (AIDIS), 2013 	Benchmark estimates (as derived from AIDIS, 2013) moved with the estimates of capital stock of farm business at current prices + Value of Operational Cost at current prices	Benchmark estimates (as derived from AIDIS, 2013) moved with the estimates of capital stock of farm business at constant prices + Value of Operational Cost at constant prices	Value of Operational Cost = 0.25 % of value of output at current/constant prices of (poultry meat, silk, wool, hides and increment in livestock)
(2) Market charges for Live stock	 Number of slaughtered animals: ISS from DADF Municipal charges per slaughtered animal: State DESs 	Market charges = rates in Rupees per animal in current year * no. of slaughtered animals	Market charges = rates in Rupees per animal in base year * no. of slaughtered animals	Assumed to be fixed till revised by state governments.
(3) Feed of livestock for Livestock Sector	 ◆ Age-wise Species-wise Population: ILC, 2003, 2007 and 2012 from DADF ◆ State-wise average price for Dry Fodder, Green Fodder and Concentrates: CCS from DESAg 	Value of Feed = Species-wise and Category-wise per animal annual feed Consumption value for base year (except Adult Male Cattle & Adult Male Buffalo) *(relevant indicator based on WPI of Fodder and food grains)* Species-wise and Category-wise population	Value of Feed = Species-wise and Category-wise per animal annual feed Consumption value for base year (except Adult Male Cattle & Adult Male Buffalo) * Specieswise and Category-wise population	Per animal annual Consumption rates have been derived using the study on "India's Livestock Feed Demand: Estimates and Projection" by Centre of Economics and Social Research, New Delhi and National Centre for Agricultural Economics and Policy Research, New Delhi

Item	Data: Source	Method of estimation		Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
4. Forestry				
(a) value of output				
(1) Industrial wood from Forests	◆ Production and Prices: State DESs	Recorded: Value of output = production * current year price Total = 1.1*Value of output of recorded production	Recorded: Value of output = production * base year price Total = 1.1*Value of output of recorded production	Value of output of unrecorded production= 0.1 * value of output of recorded production
(2) Industrial Wood from Trees outside forest	◆ Growing Stock: India State of Forest Report (ISFR), 2011 and 2013 from Forest Survey of India	Value = Estimated production (Projection using potential production from TOF in the year of survey and Growth Rate of Growing Stock of TOF) * base year price* (Current year price of Industrial Wood from Forests/Base Year Price of Industrial Wood from Forests)	Value = Estimated production (Projection using potential production from TOF in the year of survey and Growth Rate of Growing Stock of TOF) * base year price	Growth rate in price of industrial wood from TOF is the same as that of industrial wood from recorded forests
(3) Firewood	 Monthly Per Capita Quantity of Firewood consumed: NSS 68th Round CES, 2011-12 Population: Projections based on Population Census-2011 Firewood used for industrial purposes: ASI - 2011-12 Prices: State DESs 	Value of Output: (Total Value of Firewood at Current Price – Value of agricultural by products used as firewood at Current Price)*1.0764	Value of Output: (Total Value of Firewood at Base Year Price – Value of agricultural by products used as firewood at Base Year Price)*1.0764	Total Value of Firewood= Monthly Per Capita quantity of firewood consumed * Population*(365/30)* Price in the reference year ii) 1.0764= Factor of adjustment for contribution of firewood for Industrial and Religious purposes
(4) Non Timber Forest Products	S			
(i) Minor forest products	◆ Value of Output: State DESs	Value of output estimates are directly furnished by the State DESs	Value of output at current prices deflated by the relevant WPI	

Item	Data: Source	Method of esti	mation	Remarks
Item	Butui Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
	WPI: M/o Commerce and Industry			
(ii) Fodder from forest	 Percentage of Livestock dependent on forest for fodder: India State of Forest Report (ISFR), 2013 from FSI 	Value of Roughages (as estimated for the input - feed of livestock in crops & livestock sectors) at current year price*Percentage of Livestock dependent on forest for fodder	Value of Roughages at base year price*Percentage of Livestock dependent on forest for fodder	
(b)Inputs of forestry	Budget documents of state governments	16.2% of total value of output at current price	16.2% of total value of output at base year price	Calculated using the information available for 2010-11, 2011-12 & 2012-13
5. Fishing				
(a) value of output				
(1) Marine fish, inland fish and prawns	 Production: DADF Production, disposals and prices: State DESs 	Value of output = Quantity of fish sold in raw form *current price + quantity of salted fish sold * current price + quantity of sun-dried fish * current price + quantity of fish let-in for freezing * current price	Value of output = Quantity of fish sold in raw form *Base year price + quantity of salted fish sold * Base year price + quantity of sundried fish * Base year price + quantity of fish let-in for freezing * Base year price	
(2) Subsistence fish	◆ Production, disposals and prices: State DESs	Value of output = Production of subsistence fish * Current price	Value of output = Production of subsistence fish * Base year price	Production of subsistence fish= 0.125*production of Inland fish, for the states where production of subsistence fish is not available

Item	Data: Source	Method of esti	Remarks	
110111	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(b) inputs				
(1) Marine fish and prawns		Value of inputs = 0.225 * value of catch at current prices of marine fish and prawns	Value of inputs = 0.225 * value of catch of marine fish and prawns at base year prices	Fixed input rates
(2) Inland fish		Value of inputs = $0.1 *$ value of catch of inland fish at current prices	Value of inputs = 0.1 * value of catch of inland fish at base year prices	Fixed input rates
(3) Fish salting/sun dried/subsistence		Value of inputs = 0.01 * value of output of (Let out of salted fish and subsistence fish) at current prices	Value of inputs = 0.01 * value of output of (Let out of salted fish and subsistence fish) at base year prices	Fixed input rates
6. Mining & Quarrying				
(1) coal	 Annual Reports of Public Sector Companies State-wise number of employees & value of assets: Public Enterprises Survey of DPE WPI: M/o Commerce and Industry 	estimates of GVA at current prices are estimated by the production approach and allocated to States. Compensation of Employees (CE) is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while Operating Surplus (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current year estimates are deflated using WPI	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
	 MCA21 database for the annual reports of Private Sector Companies State-wise production of coal in private sector: O/o Coal Controller WPI: M/o Commerce and Industry 	Estimates of GVA at current prices are estimated by the production approach and allocated to States on the basis of the state-wise production of coal in private sector		

Item	Data: Source	Method of esti	Remarks	
Ttelli	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(2) crude petroleum and natural gas	 Annual Reports of Public Sector Companies State-wise number of employees & value of assets: Public Enterprises Survey of DPE WPI: M/o Commerce and Industry MCA21 database for the annual reports of Private Sector Companies State-wise production of crude oil in the private corporate sector: MoPNG WPI: M/o Commerce and 	Estimates of GVA at current prices are estimated by the production approach and allocated to States. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while Operating Surplus (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE. Estimates of GVA at current prices are estimated by the production approach and allocated to States on the basis of State-wise production of crude oil in the private corporate sector	Current year estimates are deflated using WPI	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
(2)	Industry			
(3) other major minerals				
Major minerals other than salt	 Annual Reports of Public Sector Companies MCA21 database for the annual reports of Private Sector Companies State-wise mineral-wise data on production: IBM Prices and input of major minerals: IBM 	Estimates of GVA at current prices are estimated by the production approach allocated to the States using Statewise mineral-wise production	Constant price estimates are derived using deflators compiled from the IBM data on production, prices and input rates.	Deflators of metallic and non-metallic minerals can be derived from the IBM publication at the State level also.

Item	Data: Source	Method of esti	Remarks	
20011		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Salt	 Output: Salt Commissioner's Office Input rates: Hindustan Salt Limited 	 Estimate of state-wise value of output in the case of salt production is obtained from Salt Commissioner's Office. For estimating value added, input rates as observed in the case of Hindustan Salt Limited are used. 	Constant price estimates are derived using deflators of non-metallic minerals compiled from the IBM data on production, prices and input rates.	Deflators of non-metallic minerals can be derived from the IBM publication at the State level also.
(4) minor minerals except sand	 State Geological Departments for value of output IBM for input rates 	 Value of output estimates are directly available at current year price Input rates of non-metallic minerals as available from IBM are used. 	Constant price estimates are derived using deflators of non-metallic minerals compiled from the IBM data on production, prices and input rates.	Deflators of non-metallic minerals can be derived from the IBM publication at the State level also.
(5) Sand	◆ Results of CBRI Study◆ Input rates: IBM	 Value of output = 7.21% of value of material inputs in construction, adjusted for TTM Intermediate consumption and Value Added derived using the input rate obtained from IBM GVA allocated to States on the basis of value of production of sand received from the States 	Constant price estimates are derived using deflators of non-metallic minerals compiled from the IBM data on production, prices and input rates.	 Growth of GVA-Construction can be used as an indicator to move the previous year's estimates. Deflators of non-metallic minerals can be derived from the IBM publication at the State level also.
7. Manufacturing				
Public corporations: Railway Workshops & Production Units	 Railway Budget Documents WPI: M/o Commerce and Industry 	◆ Estimates of GVA compiled using production approach and allocated to the States on the basis of sanctioned strength of employees in the case of Railway Workshops & state-wise salaries in the case of production units.	Current price estimates are deflated with the relevant WPI.	

Item	Data: Source	Method of estimation		Remarks
Teem	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Public corporations: Other Departmental Enterprises (DEs)	 Budget Documents of central & state governments WPI: M/o Commerce and Industry 	 Estimates of GVA compiled using production approach. GVA of central DEs are allocated to the States on the basis of the location of the DE. 	Current price estimates are deflated with the relevant WPI.	GVA of State DEs are allocated to the respective States.
Public corporations: Non- Departmental Enterprises (NDEs)	 Annual Reports of NDEs State-wise number of employees & value of assets: Public Enterprises Survey of DPE WPI: M/o Commerce and Industry 	• Estimates of GVA at current prices are estimated by the production approach and allocated to States in the case of multi-state NDEs. CE is distributed on the basis of the number of employees in each State in proportion to Statewise employment in that NDE, while OS is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current price estimates are deflated with the relevant WPI.	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
Private Corporations				
Private Companies	 MCA21 database for the annual reports of Private Sector Companies Annual Survey of Industries (ASI) WPI: M/o Commerce and Industry 	• Estimates of GVA are compiled using production for the Private Sector Companies using MCA21 database and allocated to States (by compilation category) on the basis of state-wise value added in manufacturing (total, not institution-wise) as per last available ASI.	Current price estimates are deflated with the relevant WPI.	

Item	Data: Source	Method of estimation		Remarks
	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Quasi- corporations	 ◆ ASI ◆ Index of Industrial Production (IIP) ◆ WPI: M/o Commerce and Industry 	 ◆ State-wise estimates of GVA, by compilation category, obtained from ASI for the quasi-corporations (Factories covered under ASI but not registered under Companies Act). ◆ Till ASI becomes available, estimates of the preceding year are extrapolated using IIP and WPI. 	Current price estimates are deflated with the relevant WPI.	
Private Unincorporated Enterprises	 NSS 67th Round ES, 2010- 11 and 68th Round EUS, 2011-12 IIP WPI: M/o Commerce and Industry 		Current price estimates are deflated with the relevant WPI.	

Item	Data: Source	Method of estimation R		
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
	pply and other utility service	es		
(1) electricity				
Public corporations: Departmental Enterprises (DEs)	 ◆ Budget Documents of central & state governments ◆ Quantity of electricity sold: CEA 	GVA of central DEs are allocated to the	Base year estimate moved with the index of quantum sales of electricity	GVA of State DEs are allocated to the respective States. For the State-level data, Generation Overview Report (a monthly report) of Central Electricity Authority giving monthly electricity generated can be used to form the index.
Public corporations: Central Non- Departmental Enterprises Electricity generating companies (DVC, NEEPCL, NHPC,NLC,NPCIL, NTPC)	 ◆ Annual Reports of Public Sector electricity generating companies ◆ State-wise quantity of electricity generated and sold: CEA/concerned NDE 	production approach of these multi- state companies is allocated on the basis of state-wise electricity	Base year estimate moved with the index of quantum sales of electricity	
Public corporations: Central Non- Departmental Enterprises Power Grid Companies	 ◆ Annual Reports of Public Sector power grid companies ◆ State-wise number of employees & value of assets: Public Enterprises Survey of DPE ◆ State-wise quantity of electricity sold: CEA 	and allocated to States in the case of multi-state NDEs. CE is distributed on the basis of the number of employees in each State in proportion to Statewise employment in that NDE, while OS is distributed in proportion to the	Base year estimate moved with the index of quantum sales of electricity	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.

Item Data: Source	Data: Source	Method of estimation		Remarks
	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Corporations	 MCA21 database for the annual reports of Private Sector Companies State-wise quantity of electricity generated and sold by private companies: CEA 	Estimates of GVA compiled using production approach and allocated on the basis of sum of number of units of electricity generated and number of units of electricity sold by private companies	Base year estimate moved with the index of quantum sales of electricity	The sum of number of units generated and number of units sold is taken assuming that the companies either generating electricity or involved in distribution.
(2) Gas				
Public Corporations: Central Non- Departmental Enterprises (NDEs) Gas generating companies (GAIL India Ltd.)	 Annual Reports of Public Sector electricity generating companies State-wise quantity of gas sold: concerned NDE 	 Estimates of GVA compiled using production approach NDE-wise GVA is allocated among States based on state-wise gas sold by the NDE 	Base year estimate moved with the index of quantum sales of electricity	Index of quantum sales of gas is based on the information available from GAIL. In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
Public Corporations: Other Non-Departmental Enterprises (NDEs)	 Annual Reports of Public Sector Companies State-wise number of employees & value of assets: Public Enterprises Survey of DPE 	◆ Estimates of GVA at current prices are estimated by the production approach and allocated to States. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Base year estimate moved with the index of quantum sales of gas.	Index of quantum sales of gas is based on the information available from GAIL. In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
Private Corporations	 MCA21 database for the annual reports of Private Sector Companies 	Estimates of GVA compiled using production approach and allocated on the basis of state-wise revenue of the Companies	Base year estimate moved with the index of quantum sales of gas.	Index of quantum sales as used for Public Sector is assumed to be relevant for Private Corporations also

Item	Data: Source	Method of estimation Remark		Remarks
Item		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Unincorporated Enterprises: gobar gas	◆ State-wise Value of production: Khadi & Village Industries Commission (KVIC) ◆ No. of bio gas plants: M/o Non-Conventional Energy	State-wise GVA is calculated as the value of production at current prices. This is duly adjusted for share of KVIC in total biogas plants installed up to current year.	Base year estimate moved with the index of no. of bio gas plants	Value of inputs is assumed to the same as the value of by-product, i.e. manure.
(3) water supply				
General Government: State Administrative Departments	Budget documents of state governments CPI from MOSPI	Estimates of GVA compiled using production approach	Current price estimates are deflated with the CPI (General)	
Public corporations: Non- Departmental Enterprises	 Annual Reports of Public Sector Companies (exists only in Kerala - Kerala Water Authority) CPI from MOSPI 	 Estimates of GVA compiled using production approach 	Current price estimates are deflated with the CPI (General)	Kerala Water Authority being a single-state NDE, the entire GVA is allocated to Kerala.
Private Corporations	 MCA21 database for the annual reports of Private Sector Companies CPI from MOSPI 	Pestimates of GVA compiled using production approach and allocated to the States on the basis of State-wise annual wages of workers in the industry as per NSS 68 th Round.	Current price estimates are deflated with the CPI (General)	

Item	Data: Source	Method of esti	mation	Remarks
	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Unincorporated Enterprises	 NSS 68th Round EUS, 2011-12 ◆ CPI from MOSPI 	 For the base year, the estimate of GVA is calculated as Wage per day * Number of working days and allocated to the States on the basis of State-wise annual wages in the activity as per NSS 68th Round For the subsequent years, the growth rate of GVA at current prices of Private Corporate Sector at the national level in this category is used and allocated according to the base year proportions. 	Current price estimates are deflated with the CPI (General)	
(4) remediation (recycling)				
Public & Private Corporations	 ASI IIP WPI: M/o Commerce and Industry 	 State-wise GVA are obtained from the results of ASI. For the year when ASI is not available, the previous year's estimates are moved using IIP and WPI. 	Current price estimates are deflated with the relevant WPI.	
Private Unincorporated Enterprises	 NSS 67th Round ES, 2010- 11 and 68th Round EUS, 2011-12 (for the unorganised portion of recycling) IIP WPI: M/o Commerce and Industry 	state-wise GVA as per NSS 67 th Round	Current price estimates are deflated with the relevant WPI.	IIP and WPI of 'Basic Iron and Steel + Casting of iron and steel' are used for this category.

Item	Data: Source	Method of estimation Re		
20011	Jutai Jource	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(5) remediation (sewerage	& sanitation)			
General Government: State Administrative Departments	◆ Budget documents of state governments ◆ CPI from MOSPI	Estimates of GVA compiled using production approach	Current price estimates are deflated with the CPI (General)	
Private Corporations	 MCA21 database for the annual reports of Private Sector Companies CPI from MOSPI 	◆ Estimates of GVA compiled using production approach in the case of Private Sector Companies and allocated on the basis of base GVA obtained from NSS 68 th Round	Current price estimates are deflated with the CPI (General)	
Private Unincorporated Enterprises	 NSS 67th Round ES, 2010- 11 and 68th Round EUS, 2011-12 ◆ CPI from MOSPI 	 National estimates of GVA have been allocated to the States on the basis of state-wise GVA as per NSS 67th Round For the subsequent years, the growth rate of GVA at current prices of Private Corporate Sector at the national level in this category is used and allocated according to the base year proportions. 	Current price estimates are deflated with the CPI (General)	
9. Construction				
General Government: Administrative Departments	Budget documents for central & state governments Annual accounts of local bodies	(i) NVA of State Government in Construction is taken from State Government budget documents (ii) NVA of Central Government in Construction is allocated to States based on the information in the "works annexure" of the budget documents.	Deflated by General Pucca Construction Index	General Pucca Construction Index is a weighted index of prices of building materials (i.e. Cement, Iron & Steel Bricks and Timber), labour and fixtures & fittings.

Item	Data: Source	Method of esti	mation	Remarks
Item	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
		(iii) CFC of GG is allocated on the basis of NVA as derived above and GVA is calculated as sum of NVA and CFC.		
Public Corporations: Departmental Enterprises	Budget documents for central & state governments	Estimates of GVA are compiled using production approach in the industry. Estimates of central DEs are allocated to the States using state-wise outlay on construction.	Deflated by General Pucca Construction Index	GVA of State DEs are allocated to the respective States. General Pucca Construction Index as in the case of General Government.
Public Corporations: Non- Departmental Enterprises	 Annual reports of non-departmental commercial undertakings State-wise number of employees & value of assets: Public Enterprises Survey of DPE Length of highway awarded (Number of kilometres) in PPP and EPC projects: website of NHAI 	Estimates of GVA at current prices are estimated by the production approach and allocated to States in the case of multistate NDEs. In the case of NHAI, GVA is allocated using state-wise length of highways awarded under PPP and EPC projects in the year. In the case of other NDEs, CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Deflated by General Pucca Construction Index	In the case of single-state NDEs, the entire GVA is allocated to that State/UT. General Pucca Construction Index as in the case of General Government.
Household sector				
Rural/Urban residential buildings (RRB) - new construction outlays plus repair & maintenance	AIDIS 2013 for capital expenditure in rural & urban residential buildings and Census 2011 for number of dwellings	The state wise estimates of new construction and repairs & maintenance in respect of rural and urban residential buildings of AIDIS are moved to later years with the help of inter-censal growth rate in the number of dwellings. Price changes	Deflated by Cost of Construction Index for Rural/Urban Housing	Cost of Construction Index (CCI) for Rural/Urban Housing is a weighted index of prices of building materials (i.e. Cement, Iron & Steel Bricks and Timber),

Item	Data: Source	Method of esti	mation	Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
	NBO/States for prices of cement, I&S, bricks & timber and wages of urban labour	are imposed with the help of Rural/Urban Cost of Construction Index (CCI).		labour. Additionally for the urban CCI, fixtures & fittings and 'other materials' are also considered. For labour, (CPI-R) is taken in the case of rural CCI and index of wage of urban labour for urban CCI.
Rural / Urban - non- residential buildings and other construction works (new construction plus repairs & maintenance)	◆ AIDIS 2013 for capital expenditure in R/U non-residential buildings and other construction works	The state wise estimates of new construction and repairs & maintenance in respect of rural and urban non-residential buildings of AIDIS are moved to later years with the help of combined index of value of output from Agriculture sector and manufacturing sector.	Deflated by General Pucca Construction Index	In the Combined Index of output of Agriculture and manufacturing, indices of output at current prices of agriculture and manufacturing are combined using their share in sum of output of agriculture and output of manufacturing.
Plantations in the household sector	State-wise area under cultivation for plantation crops: NHB and Commodity Boards	All India estimates of GVO of construction in plantations in the household sector are distributed to the States using State-wise information on increment in area under cultivation of the plantation crops.	Deflated by CPI(R)	18 plantation crops namely, Coconut, Tea, Coffee, Rubber, Citrus fruits, pineapple, Cashew Nut, areca nut, banana, mango, grapes, papaya, apple, litchi, sapota, guava, pomegranate and cardamom considered

Item	Data: Source	Method of esti	mation	Remarks
Item	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Other households	◆ Includes NPISH and unincorporated enterprises not covered in AIDIS	Obtained as residual through the commodity flow method of the household sector and allocated on the basis of a composite indicator using State-wise consumption of cement and iron & steel. (same as residual sector)	Deflated by General Pucca Construction Index	General Pucca Construction Index as in the case of General Government.
Residual Sector	 Includes data on Private Corporate Sector and other un-allocated portion of GVA construction at the national level 	Estimate allocated on the basis of a composite indicator using State-wise consumption of cement (weight: 19.66%) and iron & steel (weight: 80.34%).	Same as above	Combined growth of Cement (with weight: 19.66%) and iron & steel (with weight: 80.34%) can be used to extrapolate till allocation is available.
10. Trade & repair services				
Public Corporations: Departmental Enterprises	Budget documents of central & state governments CPI from MOSPI	Estimates of GVA compiled using production approach. GVA of central DEs are allocated to the States on the basis of the location of the DE.	Current price estimates are deflated using CPI (General)	GVA of State DEs are allocated to the respective States.
Public Corporations: Non- Departmental Enterprises	 Annual reports of NDEs State-wise number of employees & value of assets: Public Enterprises Survey of DPE CPI from MOSPI 	Estimates of GVA at current prices are estimated by the production approach and allocated to States in the case of multistate NDEs. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current price estimates are deflated using CPI (General)	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.

Item	Data: Source	Method of estimation Remai		Remarks
Item	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Corporations				
Private Companies	 MCA21 database for the annual reports of Private Sector Companies WPI: M/o Commerce and Industry 		Current price estimates are deflated using CPI (General)	
Co-operatives	♦ NABARD publication, "Statistical Statements Relating to Cooperative Movement in India, 2004- 05"	Estimates of GVA at current prices allocated on the basis of LI in the sector from NSS 68 th Round. For subsequent years, GVA at current prices are obtained by extrapolation using index of sales tax.	Current price estimates are deflated using CPI (General)	
Private Unincorporated Enterprises	 NSS 68th Round EUS, 2011-12 and population Census 2011 NSS 67th Round ES, 2010- 11 CPI from MOSPI 	GVAPW from NSS 67 th Round and labour input from NSS 68 th Round.	Current price estimates are deflated by CPI (General)	
11. Hotels and Restaurants	1			
Public Corporations: Non- Departmental Enterprises (NDEs)	 ◆ Annual reports of NDEs ◆ State-wise number of employees & value of assets: Public Enterprises Survey of DPE ◆ CPI from MOSPI 	Estimates of GVA at current prices are estimated by the production approach and allocated to States in the case of multistate NDEs. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current price estimates are deflated using CPI (General)	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.

Item	Data: Source	Method of esti	mation	Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Corporations	 MCA21 database for the annual reports of Private Sector Companies CPI from MOSPI 	•	Current price estimates are deflated using CPI (General)	
Private Unincorporated Enterprises	 NSS 68th Round EUS, 2011-12 and population Census 2011 NSS 67th Round ES, 2010- 11 CPI from MOSPI 	,	Current price estimates are deflated by CPI (General)	
12. Railways				
Railways	 Annual Railway Budget Annual reports of the NDEs MCA21 database for the annual reports of Private Sector Companies 	Estimates of GVA are allocated on the basis of indicators like section-wise passenger and freight earnings, state-wise number of employees and the capital-at-charge in each zone.	Constant price estimates at the national level are estimated using the Implicit Price Deflator at the national level.	
13. Transport other than Ra	ailways and storage			
Public Corporations (Depar	tmental & Non-Departmenta	l Enterprises – DEs & NDEs)		
(i) Land Transport	Budget documents of	Estimates of GVA compiled using production approach.	Base year estimates are moved using index of registered vehicles	
(ii) Water Transport	central & state governments • Annual reports of the NDEs	GVA of central DEs are allocated to the	Current price estimates are deflated by CPI(transport & communication)	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
(iii) Services incidental to transport	State-wise number of employees & value of	case of air transport, estimates of GVA at current prices are estimated by the	Previous year's estimate extrapolated with the combined	

Item	Data: Source	Method of esti	mation	Remarks
Item		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
	assets: Public Enterprises Survey of DPE Number of registered	production approach and allocated to States. CE is distributed on the basis of the number of employees in each State in	growth of GVA of water+air+land transport at constant prices	
(iv) Storage & warehousing	vehicles from M/o Road Transport CPI from MOSPI	proportion to State-wise employment in that NDE, while OS (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current price estimates are deflated by CPI(misc)	
Private Corporations				
All categories given below	 MCA21 database for the annual reports of Private Sector Companies NSS 63rd Round ES, 2006-07 for Cooperatives (for land and water transport) 	Estimates of GVA compiled using production approach and allocated on the basis of GVA estimated using GVAPW from NSS 67 th Round and labour input from NSS 68 th Round.		
(i) Land Transport	 Number of registered vehicles from M/o Road Transport 	Constant price estimates of GVA are inflated using CPI(transport & communication)	Base year estimates are moved using index of registered vehicles	
(ii) Water Transport	 ◆ Cargo handled at ports from M/o Shipping ◆ CPI from MOSPI 	GVA at the national level is allocated using share of cargo handled and length of navigable rivers.	Current price estimates are deflated by CPI(transport & communication)	
(iii) Services incidental to transport	◆ CPI from MOSPI	Previous year's estimate extrapolated using combined growth of (water+air+ land transport) at current prices	Previous year's estimate extrapolated using combined growth of (water+air+land transport) at constant prices	
(iv) Storage & warehousing		GVA at the national level is allocated using base year proportions as given above	Current price estimates are deflated by CPI(Miscellaneous)	

Item	Data: Source	Method of esti	imation	Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Air transport (Public and Private Corporations)	 Annual reports of the NDEs MCA21 database for the annual reports of Private Sector Companies M/o Civil Aviation for passenger traffic. CPI from MOSPI 	Estimates of GVA compiled using production approach. GVA at the national level is allocated to states on the basis of passengers handled by the airports in the state during the year.	, , ,	
Private Unincorporated Ent	rerprises			
(i) Land Transport	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11 M/o Transport for registered vehicles CPI from MOSPI 	Constant price estimates are inflated using CPI (Transport & communication).	Base year state-wise GVA estimates are compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, these are moved using growth in registered vehicles.	
(ii) Water Transport	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11. CPI from MOSPI 	compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round. For	GVA at current prices deflated using CPI (transport & communication).	
(iii) Air Transport	No household enterprises in thi	s industry		
(iv) Storage & warehousing	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11. CPI from MOSPI 	,	Current price estimates are deflated using CPI(Miscellaneous).	

Item	Data: Source	Method of esti	Remarks	
Teem	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
(v) Services incidental to transport	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11. 	Base year state-wise GVA estimates are compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, combined growth of (water+land transport) at current prices used to extrapolate the base year estimates.	Base year state-wise GVA estimates are compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, combined growth of (water+land transport) at constant prices used to extrapolate the base year estimates.	
14. Communication & Servi	ces related to broadcasting			
Public corporations	 Budget document of Department of Posts Annual reports of NDEs CPI from MOSPI 	Estimates of GVA compiled using production approach. Estimates of GVA allocated in the case of Deptt of Posts and Central NDEs of communication on the basis of indicators like receipts, rent, interest, etc. In case of broadcasting (Prasar Bharati), it has been allocated on the basis of sanctioned strength.	Current prices estimates are deflated using CPI (transport and communication)	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.
Private Corporations				
Courier activities, Cable operators, Telecommunication and Recording, publishing & Broadcasting services	 MCA21 database for the annual reports of Private Sector Companies NSS 63rd Round ES, 2006-07 for Cooperatives (for telecommunication) CPI from MOSPI 	Estimates of GVA compiled using production approach. GVA from courier activities has been allocated on the basis of GVA of Posts. GVA of Cable operators, Recording, publishing & Broadcasting services has been allocated on the basis of population having television in Census 2011.	Current prices estimates are deflated using CPI (transport and communication)	

Item	Data: Source	Method of esti	Method of estimation Remark		
1 com	Data: Source	At current prices	At constant (2011-12) prices		
(1)	(2)	(3)	(4)	(5)	
		GVA of Telecommunication in the base year has been allocated on the basis of average number of subscribers in the base year. This has been extrapolated using growth in subscribers and CPI(transport & communication) for the subsequent years.			
Private Unincorporated Ent	terprises				
Courier activities, Cable operators, Telecommunication, Recording, publishing & Broadcasting services	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11 CPI from MOSPI 	Base year GVA as compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round has been allocated on the same criteria as used in the Private Corporate Sector.	Current prices estimates are deflated using CPI (transport and communication)		
15. Real estate, Ownership	of Dwellings and Profession	al Services			
Public Corporations: Non- Departmental Enterprises Real estate and Professional Services	 ◆ Annual accounts of NDEs ◆ State-wise number of employees & value of assets: Public Enterprises Survey of DPE ◆ CPI from MOSPI 	Estimates of GVA at current prices are estimated by the production approach. In the case of multi-state NDEs, it is allocated to the States. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current year estimates are deflated using CPI(Miscellaneous)	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.	

Item	Data: Source	Method of esti	mation	Remarks
	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Corporations				
Real Estate and Professional Services	 MCA21 database for the annual reports of Private Sector Companies CPI from MOSPI 	Estimates of GVA compiled using production approach has been allocated on the basis of Base year GVA as compiled using GVA from NSS 67 th Round and LI from NSS 68 th Round.	Estimates at current prices are deflated using CPI (Miscellaneous)	
Computer and Information related Services	 MCA21 database for the annual reports of Private Sector Companies State-wise software exports made by units registered under Software Technology Parks of India (STPI): STPI ◆ CPI from MOSPI 	on the basis of information on State-wise software exports made by units registered	Estimates at current prices are deflated using CPI (Miscellaneous)	
Private Unincorporated Ent	terprises			
Real Estate, Professional Services and Computer and Information related Services	 NSS 68th Round EUS, 2011-12 and Population Census 2011 NSS 67th Round ES, 2010- 11 ← CPI from MOSPI 	basis of GVA as compiled using enterprise information from NSS 67 th Round and LI	Estimates at current prices are deflated using CPI (Miscellaneous)	
Ownership of dwellings	The GVA for the ownership of dwellings is equivalent to gross rental of the residential census houses less the cost of repairs and maintenance. Details for rural & urban dwellings are given below:			

Item	Data: Source	Method of estimation		Remarks
		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Urban dwellings	 Population Census 2011 for number of residential houses CPI (R) & CPI (U) from MOSPI NSS 68th Round CES, 2011-12 for rent per household 	* rent per household as obtained from CES for the base year. For years subsequent to the base year, Rent per household as in the base year is extrapolated using the index of house rent	Estimates of Urban GVA are obtained by moving the base year estimate with inter censal growth rate of dwellings.	In the absence of updated information on the number of dwellings, the intercensal growth rate is assumed to be valid till the next Population Census.
Rural dwellings	 ◆ Capital Stock at current and constant prices of rural residential buildings as estimated using perpetual inventory method ◆ CPI (R) from MOSPI 	Gross rental at the national level is estimated through user cost approach, using the capital stock of rural residential buildings. The national level estimates are allocated to States using state-wise stock of rural dwellings as estimated from AIDIS, duly extrapolated for the reference year using growth in the number of dwellings and CPI(R).	Estimates of Rural GVA are obtained by deflating the current price estimates using CPI(R)	In the user cost measure, the net operating surplus is imputed using the opportunity cost principle; i.e. the net operating surplus is estimated on the basis of what owner occupiers could have earned on alternative investments (if they had not bought the dwelling). Then, the dwelling costs (intermediate consumption and consumption of fixed capital) are added to the imputed net operating surplus to obtain the imputed rent.

Item	Data: Source	Method of estimation		Remarks
		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
16. Financial Services				
Financial Services	Number of employees, deposits, credits, life insurance premiums, etc. from various financial institutions	Profit, etc. and are allocated by CSO at the enterprise level using the information like	Current price estimates are deflated by the implicit price deflator for financial services as derived at the national level.	
17. Public administration a	nd defence			
Central Government	Budget document of central government	Estimates of GVA at current prices are allocated on the basis of number of central government employees across States	Current price estimates deflated by the CPI (General)	
State Governments & Local Bodies	Budget documents from state governments and annual accounts of local bodies	•	Current price estimates deflated by the CPI (General)	
Autonomous Institutions	◆ Annual Accounts of sampled Central Autonomous Institutions and State Autonomous Institutions	Estimates of GVA are compiled using production approach for the sample autonomous institutions for the base year and these benchmark estimates have been projected at the national level with the help of total grants given to all autonomous institutions. These are allocated to the States on the basis of indicators like location of these institutions and state wise public sector LI proportions as per NSS 68 th Round. Estimates of GVA are compiled using production approach for the State autonomous institutions and allocated to the respective states.	Current price estimates deflated by the CPI (General)	

Item	Data: Source	Method of estimation		Remarks	
		At current prices	At constant (2011-12) prices		
(1)	(2)	(3)	(4)	(5)	
18. Other Services					
Public Sector (General Gov	ernment and Public Corporat	ions, i.e., DEs & NDEs)			
General Government: Administrative Departments and Public Corporations in Education, Health and Recreation	 Budget documents of state governments Annual reports of NDEs State-wise number of employees & value of assets: Public Enterprises Survey of DPE CPI from MOSPI 	Estimates of GVA at current prices are estimated by the production approach. In the case of Central NDEs, GVA is allocated to States. CE is distributed on the basis of the number of employees in each State in proportion to State-wise employment in that NDE, while OS (OS = GVA - CE) is distributed in proportion to the State-wise gross block (Value of Assets) of that NDE.	Current price estimates are deflated using CPI for Education and Health in the case of GVA of Education & Health Services and CPI (Miscellaneous) in the case of GVA of Recreation	In the case of single-state NDEs, the entire GVA is allocated to that State/UT.	
General Government: Autonomous Institutions in Education & health	 ◆ Annual Financial Accounts of sampled Central Autonomous Institutions and State Autonomous Institutions ◆ CPI from MOSPI 	Estimates of GVA are compiled using production approach for the sample autonomous institutions for the base year and these benchmark estimates have been projected at the national level with the help of total grants given to all autonomous institutions. These are allocated to the States on the basis of indicators like location of these institutions and state wise public sector LI proportions as per NSS 68 th Round. Estimates of GVA are compiled using production approach for the State autonomous institutions.	Current price estimates deflated by the CPI (General)		

Item	Data: Source	Method of estimation		Remarks
Item	Data. Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Corporations				
Coaching centres + Activities of the individuals providing tuition + Education excluding Coaching	 MCA21 database for the annual reports of Private Sector Companies NSS 63rd Round ES, 2006-07 for Co-operatives CPI from MOSPI 	Estimates of GVA compiled using production approach and allocated for the base year on the basis of LI from NSS 68 th Round. For subsequent years, previous year's estimate moved using state-wise intersurvey growth, between NSS 64 th and NSS 71 st Rounds, in the expenditure on education.	Current price estimates deflated using CPI(education)	
Human health activities+ care services	 MCA21 database for the annual reports of Private Sector Companies NSS 63rd Round ES, 2006-07 for Co-operatives CPI from MOSPI 	,	Current price estimates deflated using CPI(health)	
Remaining social & personal services	 MCA21 database for the annual reports of Private Sector Companies NSS 63rd Round ES, 2006-07 for Co-operatives CPI from MOSPI 	Estimates of GVA compiled using production approach and allocated on the basis of LI from NSS 68 th Round.	Current price estimates deflated using CPI (Miscellaneous)	

Item	Data: Source	Method of estimation		Remarks
Item	Data: Source	At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Unincorporated Ent	rerprises			
Coaching centres + Activities of the individuals providing tuition + Education excluding Coaching	 NSS 68th Round EUS, 2011-12 NSS 64th and 71th Rounds on Expenditure on Education, 2007-08 & 2014, respectively NSS 67th Round ES, 2010-11 CPI from MOSPI 	Base year GVA has been allocated on the basis of GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, previous year's estimate moved using state-wise intersurvey growth, between NSS 64 th and NSS 71 st Rounds, in the expenditure on education.	Current price estimates deflated using CPI(education)	
Human health activities+ care services	 NSS 68th Round EUS, 2011-12 NSS 61st and 68th Rounds CES, 2004-05 & 2011-12, respectively NSS 67th Round ES, 2010-11 CPI from MOSPI 	basis of GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, previous year's estimate moved using state-wise inter-	Current price estimates deflated using CPI(health)	
Remaining social & personal services	 NSS 68th Round EUS, 2011-12 NSS 67th Round ES, 2010-11 NSS 61st and 68th Rounds CES, 2004-05 & 2011-12, respectively CPI from MOSPI 	Base year GVA has been allocated on the basis of GVA from NSS 67 th Round and LI from NSS 68 th Round. For subsequent years, previous year's estimate moved using inter-survey growth in consumer expenditure in non-food items(excluding education and health)	Current price estimates deflated using CPI (misc. services)	

Item	Data: Source	Method of estimation		Remarks
Item Data. Source		At current prices	At constant (2011-12) prices	
(1)	(2)	(3)	(4)	(5)
Private Households with employed persons	2004-05	Base year GVA has been allocated on the basis of LI from NSS 68 th Round. For subsequent years, previous year's estimate moved using inter-survey growth of LI (between NSS 61 st Round and NSS 68 th Round) and CPI (General).	Previous year's estimate moved using inter-survey LI growth.	

ACRONYMS/ ABBREVIATIONS

AIDIS	All India Debt and Investment Survey	ILC	Indian Livestock Census
ASI	Annual Survey of Industries	ISS	Integrated Sample Survey
CBRI	Central Building Research Institute	KVIC	Khadi and Village Industries Commission
CCI	Cost of Construction Index	LI	Labour Input
CCS	Cost of Cultivation Studies	LUS	Land Use Survey
CE	Compensation of Employees	MCA	Ministry of Corporate Affairs, GOI
CEA	Central Electricity Authority	MLP	Major Livestock Products
CES	Consumer Expenditure Survey	MoPNG	Ministry of Petroleum & Natural Gas, GOI
CFC	Consumption of Fixed Capital	MOSPI	Ministry of Statistics and Programme Implementation, GOI
CPI	Consumer Price Index; (R) for Rural & (U) for Urban	MPCE	Monthly Per Capita Expenditure
DAC	Department of Agriculture, Cooperation & Farmers Welfare, GOI	NDE	Non-Departmental Enterprises; also referred to as
DADF	Department of Animal Husbandry, Dairying & Fisheries, GOI		Non-Departmental Commercial Undertakings (NDCUs) or
DE	Departmental Enterprises; also referred to as	NEEDCI	Public Sector Undertakings (PSUs)
5-0	Departmental Commercial Undertakings (DCUs)	NEEPCL	North Eastern Electric Power Corporation Limited
DES	Directorate of Economic & Statistics	NHAI	National Highway Authority of India
DES Ag	Directorate of Economic & Statistics, Ministry of Agriculture,	NHB	National Horticulture Board
5.47	Cooperation & Farmers Welfare	NHPC	National Hydroelectric Power Corporation
DMI	Directorate of Marketing Inspection, M/o Agriculture	NLC	Neyveli Lignite Corporation Limited
DPE	Department of Public Enterprises, GOI	NPCIL	Nuclear Power Corporation of India Ltd.
DVC	Damodar Valley Corporation	NPISH	Non-Profit Institutions Serving Households
EPC	Engineering, Procurement and Construction	NRCM	National Research Centre on Meat, Hyderabad
ES	Enterprise Survey or NSS Survey of Unincorporated Enterprises	NSS	National Sample Survey
EUS	Employment-Unemployment Survey	NTPC	National Thermal Power Corporation Limited
FSI	Forest Survey of India	NVA	Net Value Added
GG	General Government	OS	Operating Surplus
GVA	Gross Value Added	PPP	Public Private Partnership
GVAPW	Gross Value Added per Worker	STPI	Software Technology Parks of India
GVO	Gross Value of Output	TTM	Trade and Transport Margin
IBM	Indian Bureau of Mines	VPH	Value per Hectare
ICAR	Indian Council of Agricultural Research	WPI	Wholesale Price Index
IIP	Index of Industrial Production		