

Demand for Grants 2018-19 Analysis

Agriculture and Farmers' Welfare

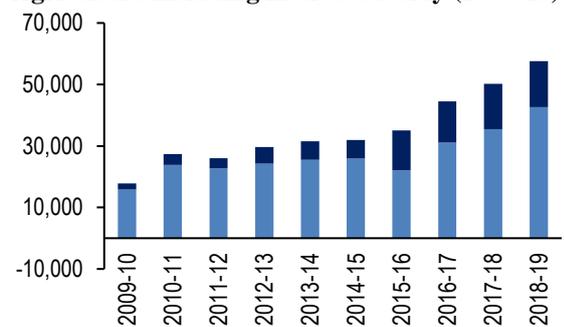
The Ministry of Agriculture and Farmers' Welfare is divided into three departments: (i) Agriculture, Cooperation and Farmers Welfare, which implements programmes and schemes relating to crop husbandry, and manages agriculture inputs, (ii) Agricultural Research and Education, which manages agriculture universities, and promotes research in the sector and (iii) Animal Husbandry, Dairying and Fisheries, which manages the production and development of livestock, dairy and fisheries. This note analyses issues in the agriculture sector, expenditure trends and budget proposals of these Departments.

Allocation to the Ministry in 2018-19

The Ministry has been allocated Rs 57,600 crore in 2018-19.¹ This is 14.6% more than the revised estimate in 2017-18 as shown in Figure 1. Agriculture is a state subject and the Union Budget allocation under the Ministry is largely focused on subsidies and transfers to states for centrally sponsored schemes.

Note that, in 2016-17, the allocation under the Ministry increases suddenly due to the Interest Subsidy Scheme. The scheme which is being accounted under the Ministry of Agriculture from 2016-17, was under the Ministry of Finance earlier.

Figure 1: Allocation to the Ministry of Agriculture including interest subsidy (2009-19)



■ Interest Subsidy ■ Expenditure excluding interest subsidy

Note: Data for 2018-19 is budgeted estimate, and data for 2017-18 is revised estimate. Rest are actual expenditure.

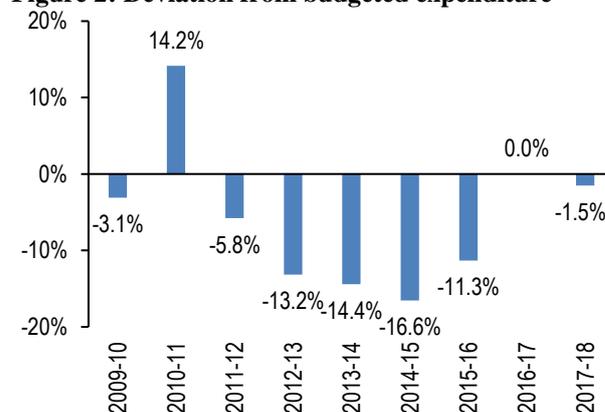
Source: Union Budget documents between 2013-14 and 2018-19; PRS.

Budgeted vs actual expenditure: In 2017-18, the allocation was revised down by 1.5% as shown in Figure 2. Between 2009-10 and 2015-16, the actual expenditure was less than the budgeted expenditure, except for years 2010-11 and 2016-17.

The Standing Committee on Agriculture (2016) has observed that reducing allocations at the later

stages may be a result of slow spending in the first two quarters of the financial year.²

Figure 2: Deviation from budgeted expenditure



Note: Data for 2017-18 is as per the revised estimate. Rest are actual expenditure.

Source: Union Budget documents between 2010-11 and 2018-19; PRS.

Departmental Expenditure

Expenditure across departments in 2018-19 is given in Table 1.

Table 1: Allocation across Departments (in Rs crore)

Department	AE 2016-17	RE 2017-18	BE 2018-19	% change
Agriculture & Co-operation	36,912	41,105	46,700	13.6%
Agricultural Research and Education	5,729	6,992	7,800	11.6%
Animal Husbandry, Dairying and Fisheries	1,858	2,167	3,100	43.1%
Total	44,500	50,264	57,600	14.6%

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budgeted estimate.

Sources: Expenditure Budget, Union Budget 2018-19; PRS.

- The Department of Agriculture, Co-operation and Farmers Welfare accounts for 81% of the Ministry's allocation, in 2018-19.¹ The Department is allocated Rs 46,700 crore, an increase of 13.6% (Rs 5,595 crore) over the revised estimate of 2017-18.³
- About 82% of this allocation is proposed to be spent on five schemes. These are the Interest Subsidy Scheme (32%), Pradhan Mantri Fasal

Bima Yojana (28%), Pradhan Mantri Krishi Sinchayi Yojana (9%), Rashtriya Krishi Vikas Yojana (8%), and National Mission of Horticulture (5%). Table 4 of the Annexure provides details on expenditure on major heads under the Department.

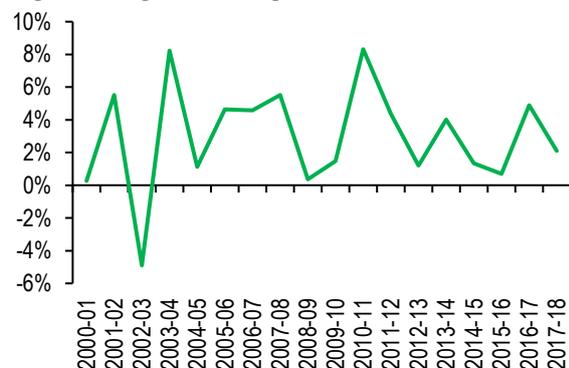
- In 2018-19, the Department of Agricultural Research and Education is allocated Rs 7,800 crore.⁴ This is an increase of 11.6% (Rs 808 crore) over the revised estimates of 2017-18.⁴ This is due to increase in provisions for research under crop sciences (77%), and animal sciences (47%). Expenditure under the Indian Council of Agricultural Research (ICAR) accounts for 59% of the expenditure under the Department.⁴ Table 5 of the Annexure provides details on expenditure on major heads under the Department.
- The Department of Animal Husbandry, Dairying and Fisheries accounts for 5% (Rs 3,100 crore) of the allocation under the Ministry in 2018-19. This is an increase of 43.1% (Rs 933 crore) over the revised estimate of 2016-17.⁵ This is due to increase in the allocation for schemes such as the Livestock Health and Disease Control (70%), and Integrated Development and Management of Fisheries (110%). Table 6 of the Annexure provides details on expenditure on major heads under the Department.

Analysis

Growth in the agriculture sector

The contribution of agriculture and allied sectors in the economy declined from 18.2% in 2012-13 to 16.4 % in 2017-18.⁶ Further, the growth in the agriculture sector has been volatile over the past few years as shown in Figure 3. In 2017-18, the growth rate of the agriculture sector is estimated to be 2.1%, as compared to 4.9% in 2016-17.⁶

Figure 3: Agricultural growth (in %)

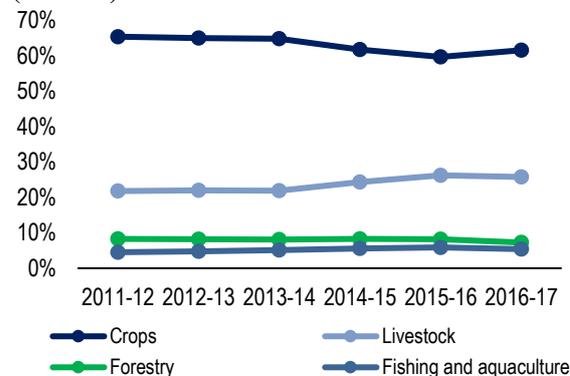


Sources: Economic Survey 2018; PRS.

Composition of agriculture growth: Within the agriculture sector, the share of the crop sector declined from 65% in 2011-12 to 60% in 2015-16.⁶ On the other hand, the contribution of the livestock

and fisheries sectors has been increasing as shown in Figure 4.³² For instance, the share of livestock sector increased from 22.6% in 2013-14 to 25.7% in 2015-16.⁷

Figure 4: Composition of agriculture sector (2011-17)



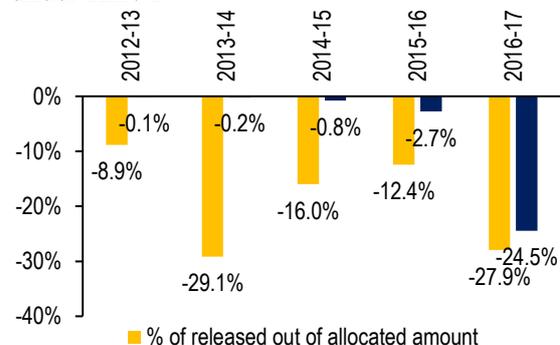
Source: Central Statistics Office 2018; PRS.

In 2017-18, the agriculture growth rate was targeted at 4% under the Rashtriya Krishi Vikas Yojana (RKVY). Under the scheme, financial assistance is provided to states to implement sub-schemes such as production growth, infrastructure and assets, Crop Diversification Program and Bringing Green Revolution to Eastern India, and innovation and agri-entrepreneur development.^{8,9}

In 2018-19, Rs 3,600 crore has been allocated to this scheme, an 18% increase over the revised estimate in 2017-18.³

Underutilisation of funds: In 2017-18, the expenditure under the scheme has been revised down by 36%. The Standing Committee on Agriculture (2017) observed that funds under the scheme reduced drastically and continuously between 2012 and 2017.¹⁰ For instance, out of around Rs 5,400 crore allocated in 2016-17, Rs 3,892 crore were released. This is shortfall of around 28% as shown in Figure 5.¹¹ Further, out of this released amount, only around Rs 3,400 crore was utilised. This is a further shortfall of 24.5%.

Figure 5: Funds allocated, released and utilised under RKVY



Source: Rajya Sabha Unstarred Question No 31, February 2, 2018; PRS.

State agriculture plans: Under the scheme, district and state agriculture plans must be prepared for development of various aspects under agriculture.¹⁰ The Standing Committee on Agriculture (2017) noted that only 12 states have prepared state agriculture plans as of February 2017. Further, only 38% of the district agriculture plans have been prepared.¹⁰ The Committee recommended that such plans need to be prepared and approved without delay to avoid reduction of funds at later stages.

Agriculture Credit

Agriculture credit is provided to farmers under the Interest Subsidy Scheme under the Ministry.¹² Under the scheme, interest subvention of 2% will be provided to farmers on short term crop loans up to Rs three lakh. Further, an additional interest subvention of 3% is provided to farmers repaying the loan on time (maximum one year).

In 2018-19, the interest subsidy scheme has been allocated Rs 15,000 crore, accounting for 32% of the estimated expenditure of the Department.³ Issues related to the scheme are:

Inadequate allocation for unsettled claims: The Standing Committee on Agriculture (2017) noted that budget allocation under the scheme has been inadequate.¹³ It observed that, in 2017-18, against an estimated requirement of Rs 41,748 crore for unsettled claims, only Rs 15,000 crore was allocated. Note that this is further revised down by 1.7% to Rs 14,750 crore. This is following a shortfall of 10.7% in 2016-17.

Short-term vs long term loans: In 2015, the Committee on Medium-Term Path on Financial Inclusion under the Reserve Bank of India (RBI) observed that as the scheme is for short-term crop loans, it discriminates against long-term loans.¹⁴ Short term crop loans are used for pre-harvest activities such as weeding, harvesting, sorting and transporting. Long-term loans are taken to invest in agricultural machinery and equipment, or irrigation. Hence, the Committee stated that the scheme does not incentivise long-term capital formation in agriculture, which is essential to boost productivity in the sector.

Over the past few decades, the trend of short term and long term agricultural credit in the country has reversed. From 1990-91 to 2010-11, the share of long term credit decreased from about 66% to 42% (see Figure 7).^{15,16} This implies that farmers are taking loans for recurring expenditures rather than to fund long term investments.

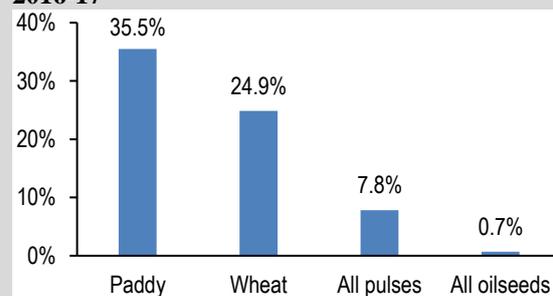
Minimum Support Prices (MSPs)

MSPs are the prices at which the central government purchases agriculture commodities from farmers.

The Finance Minister in the budget speech announced that MSPs for certain Rabi and Kharif crops will be provided at least at one and a half times the production cost.¹⁷ This production cost, A2+FL, includes costs of inputs such as seeds, fertiliser, and implied cost of family labour.

While MSPs are announced for 23 crops every year, public procurement is limited to a few such as paddy, wheat and, to a limited extent, pulses.¹⁸ The procurement is also largely from a few states. Three states (Punjab, Haryana, and Madhya Pradesh) which produce 49% of the national wheat output account for 93% of procurement. For paddy, six states (including Punjab, Chhattisgarh and Andhra Pradesh) with 40% production share have 77% share of the procurement.

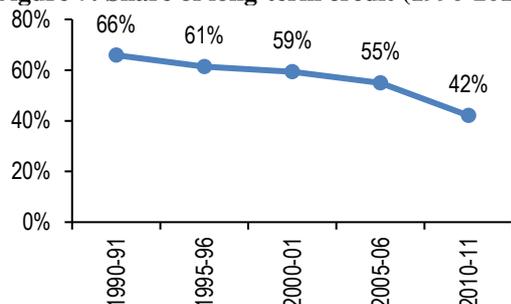
Figure 6: Share of crop produce procured in 2016-17



Source: Committee on Doubling Farmers' Income 2017; Ministry of Agriculture and Farmers Welfare; PRS.

Other issues with the implementation of the MSP regime include (i) low awareness among farmers before the sowing season (according to NITI Aayog, 62% of the farmers were informed of MSPs after the sowing season), (ii) long distances to the procurement centres, (iii) increasing cost of transportation for farmers, and (iv) inadequate storage capacity.¹⁹

The NITI Aayog noted that the agricultural pricing policy needs to be reviewed to ensure that farmers are receiving remunerative prices for their produce. Farmers are often forced to engage in distress sales, i.e., selling below the MSPs. One of the measures it recommends to assure remunerative prices is a price deficiency system.¹⁹ Under such a system, farmers would be compensated for certain commodities if their prices fall under a specified threshold. This would reduce stock-holding by farmers who store commodities until prices increase, and also incentivise farmers to produce different crops. Farmers would be paid by using the direct benefit transfer system, through bank accounts linked to their Aadhaar numbers.

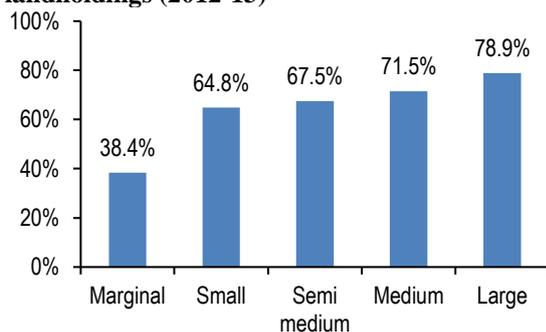
Figure 7: Share of long-term credit (1990-2011)

Source: Handbook of Statistics on Indian Economy 2017, Reserve Bank of India; PRS.

An Internal Working Group under the RBI observed that the Interest Subsidy Scheme has distorted the agricultural credit system.²⁰ Further, it stated the scheme led to banks granting loans under the scheme without establishing that the loans are for agriculture, and claiming interest subvention as well as priority sector benefit.

Small and marginal farmers: The RBI Committee observed that the owner of the land is often not the cultivator even in the case of small and marginal holdings. For example, a landowner may get the benefit of subsidised credit at times, and may be the moneylender to his cultivator.¹⁴

Farmers with land holdings of less than a hectare primarily borrow from informal sources of credit such as moneylenders (41%), whereas those with land holdings of two or more hectares primarily borrow from banks (60% or more) as shown in Figure 8.¹⁴ Informal sources of credit are typically offered at higher rates of interests, and may not have proper documentation.

Figure 8: Share of institutional sources across landholdings (2012-13)

Note: Marginal: less than 1 hectare, Small-1-2 hectares, Semi-medium: 2-4 hectares, Medium: 4-10 hectares, and Large: more than 10 hectares.

Source: Report on Medium-Term Path Financial Inclusion, Reserve Bank of India, 2015; PRS.

The Committee recommended that agricultural credit must flow to the actual cultivator for which substantial reform is necessary.¹⁴ Further it stated that the subsidised credit increases the probability of misuse. The Committee on Comprehensive Financial Services for Small Businesses and Low-

Income Households has also suggested the benefits must be transferred farmers directly and instead of subvention and waivers.²¹

Land reforms: Considering that access to agricultural credit is linked to formal land titles, the RBI Committee recommended that credit eligibility certificates, which would act as tenancy/lease certificates should be issued to tenant farmers.¹⁴ These certificates would also enable landless tenant cultivators to obtain agricultural credit.

Crop Insurance

Crop insurance is provided to farmers under the Pradhan Mantri Fasal Bima Yojana (PMFBY).²² The scheme covers all farmers, including tenant farmers and sharecroppers, who are growing notified crops in notified areas.²³ In 2018-19, the scheme has been allocated Rs 13,000 crore, a 22% increase over its revised estimate in 2017-18.³ It accounts for 28% of the expenditure under the Department. Issues related crop insurance have been raised by expert committees include:

Awareness about crop insurance: The Economic Survey 2018 noted that the share of agricultural households insuring their crops was low.⁶ Less than 5% of the agricultural households cultivating major crops such as rice and wheat insured crops.⁶ Lack of awareness among farmers about crop insurance was the major factor for not insuring their crops.⁶ Further, lack of awareness about availability of crop insurance was the other prominent reason.

The Standing Committee on Finance (2016) has recommended that the government should create awareness about what crops should be grown based on factors such as the quality of soil and incidence of rainfall in different regions.²⁴

Coverage of insurance schemes: It is targeted to provide crop insurance coverage to 30%, 40% and 50% of total cropped area in the country during 2016-17, 2017-18, and 2018-19 respectively.¹³

As per the Agricultural Statistics at a Glance 2016, out of the 2,009 lakh hectares of area sown in 2013-14, 427 lakh hectares (21%) of area was insured.²⁶ As per the Economic Survey 2018, in 2016-17, 554 lakh hectares of land was insured meeting the 30% target in 2016-17.⁶ This implies that the total cropped area in 2016-17 was lower as compared to 2013-14, resulting in meeting the target of 30%.

Coverage of farmers: In 2016-17, 571 lakh farmers were insured under the scheme.⁶ Note that PMFBY is mandatory for farmers with loans and optional for those without loans similar to previous crop insurance schemes such as National Agricultural Insurance Scheme.²² Majority (76%) of the farmers insured had loans. Further, coverage of farmers without loans is low in most states

where six states (such as Maharashtra and Karnataka) account for 95% of the farmers without loans insured.

The Comptroller and Auditor General of India observed that coverage of farmers without loans was low under previous crop insurance schemes. It recommended that the Department should ensure coverage of more farmers including farmers without loans.²⁵

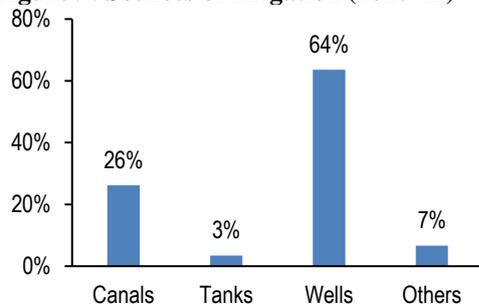
Assessment of losses: The Standing Committee on Agriculture (2017) observed that the state governments are not readily accepting and adopting use of technology for assessing yield loss.¹³ It also observed that crop cutting experiments are not being carried out diligently. The Committee recommended that the Ministry should pursue state governments to adopt technology aids and satellite imagery for crop cutting experiments.

Timely settlement of claims: Claims under the insurance scheme must be settled within two months from the crop harvest.¹³ The Standing Committee on Agriculture recommended that an institutional mechanism must be put in place to monitor faster settlement of pending claims.¹³

Irrigation

As of 2013-14, about 48% of the net sown area was under irrigation. This implies that the remaining area depends on rainfall.²⁶ Major sources of irrigation include wells (including tube-wells) (64%), and canals (26%) as shown in Figure 9.²⁷

Figure 9: Sources of irrigation (2010-11)



Source: Agriculture Census 2011; PRS.

Further, area under irrigation consumes about 84% of the total available water in the country.²⁸ Sources such as canals and tube-wells use the technique of flood irrigation, where water is allowed flow in the field and seep into the soil.²⁹ This results in the wastage of water since excess water seeps into the soil or flows off the surface without being utilised. It has been recommended that farmers should move from flood irrigation to the drip or sprinkler irrigation systems (micro irrigation) to conserve water.³⁰

The Pradhan Mantri Krishi Sinchai Yojana was launched in 2015 to increase the coverage of irrigated area.³¹ The Department implements the 'Per Drop More Crop' component under the

scheme to increase water efficiency through micro irrigation and other interventions. In 2018-19, the Department has been allocated Rs 4,000 crore for the scheme, a 33% increase over the revised estimates of 2017-18.³

Shortfall in funds: Budgeted allocation under the scheme has been increasing over the years.¹⁰ However, the allocation is revised down at later stages as shown in Table 2. For example, in 2017-18, allocation under the scheme was revised down by 12% from Rs 3,400 crore to Rs 3,000 crore.

Table 2: Budgeted vs actual expenditure under PMKSY under the Ministry

	Budgeted	Actual/Revised	% shortfall
2015-16	1,800	1,556	-14%
2016-17	2,340	1,991	-15%
2017-18	3,400	3,000	-12%
2018-19	4,000		

Note: Data for 2017-18 is a revised estimate.

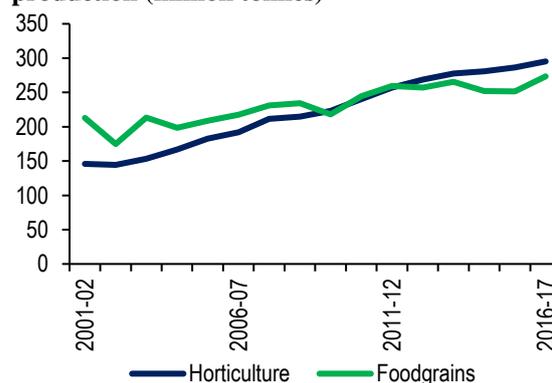
Source: Union Budgets 2015-19; PRS.

Physical progress: In 2017-18, it is targeted that 12 lakh hectares of land will be brought under micro-irrigation. In 2016-17, 8.4 lakh hectares was brought under micro-irrigation, followed by 5.7 lakh hectares in 2015-16.

Horticulture

Between 2001-02 and 2016-17, production of horticulture crops increased from 145 million tonnes to 295 million tonnes as shown in Figure 10.³² This implies that the horticulture production grew at an average growth rate of 4.8%. In comparison, production of foodgrains grew at 1.7% during the same period.

Figure 10: Trend in horticulture and foodgrain production (million tonnes)



Source: Horticulture Statistics at a Glance 2017, Union Budget 2018-19; PRS.

In 2013-14, fruits and vegetables contributed to 23% of the total value of agriculture crops while other horticulture crops contributed to a further 7%. The National Mission on Horticulture seeks to promote the horticulture sector by providing availability of quality inputs such as planting material, and post-harvest interventions such as

access to market.³ Note that the Mission also includes provisions for Coconut Development Board, Horticulture Development Board and Development of Commercial Horticulture through production and post-harvest management, capital investment subsidy for construction, expansion, modernisation of cold storages.³

Expenditure: In 2018-19, the scheme has been allocated Rs 2,536 crore.³ This is 15.8% more than the revised estimate in 2017-18.³ Over the past few years, the actual expenditure under horticulture has been lower than the budgeted allocation (except 2013-14) as shown in Table 3.¹⁰

Table 3: Budgeted and actual expenditure on horticulture under the Department

Year	Budgeted	Actual	% shortfall
2012-13	2,212	1,860	-15.9%
2013-14	2,556	2,857	11.8%
2014-15	2,263	1,959	-13.4%
2015-16	2,000	1,699	-15.0%
2016-17	1,620	1,496	-7.7%
2017-18	2,320	2,190	-5.6%
2018-19	2,536	-	-

Note: 'Actual' amount for 2017-18 is a revised estimate.

Source: Horticulture Statistics at a Glance 2017, Union Budget 2018-19; PRS.

Agricultural Marketing

The Integrated Scheme on Agriculture Marketing includes sub-schemes such as: (i) agriculture marketing infrastructure, to create storage capacity and farmer consumer markets, (ii) a market research and information network, (iii) strengthening Agmark grading facilities, (iv) agro-business development to provide market linkages to farmers, (v) National Institute of Agriculture Marketing, and (vi) e-NAM (National Agriculture Market), which is a national electronic platform on which farmers can sell their produce.³³

The scheme was allocated Rs 1,050 crore in 2018-19. This is 40% higher than the revised estimate in 2017-18. However, in 2017-18, the allocation was revised down by 37%, from Rs 1,190 crore to Rs 750 crore. As of October 2017, 470 mandis and 14 states have been integrated with e-NAM.³⁴

Agricultural Mechanisation

Under the Sub-Mission on Agricultural Mechanisation, financial assistance is provided to farm training and testing institutes to train farmer technicians, nominees from state governments and agro-industries corporations, entrepreneurs.³

In 2018-19, Rs 1,165 crore is allocated under the scheme.³ This is 50% more than the revised estimate under the scheme in 2017-18.

Outcome Target: Farm power availability to increase to 2.2kW/ha by 2020.

Current status: Between 1971-72 and 2012-13, farm power availability increased from 0.29kW/ha to 1.84 kW/ha, with an average annual growth of 4.6%. To achieve the outcome target, farm power availability should increase by 2.6%, less than the average growth rate observed as of 2012-13.

To increase productivity, farm equipment which is durable, light-weight, low cost, and also specific to different crops and regions should be made available for small and marginal farmers.³⁵ The Economic Survey 2015-16 recommended that there is a need for a rental market for agricultural machinery to make it more cost-effective.

Agricultural Research

The Indian Council of Agricultural Research (ICAR) is allocated Rs 4,599 crore for the year 2018-19.⁴ This is 0.6% greater than the revised estimate in 2017-18. In 2017-18, the allocation under ICAR increased from the actual expenditure of Rs 319 crore in 2016-17. This is due to regrouping of salaries, pensions, and office expenditure from all schemes under ICAR.⁴

Research under crop sciences (including horticulture science), and animal sciences (including fisheries science) is allocated Rs 1,051 crore and Rs 571 crore.⁴ Observing that vegetable oils, pulses, cashew are among the major commodities which were imported between 2011 and 2016, the Standing Committee on Agriculture (2017) stated that there is need for enhancing production of these commodities.³⁶ It also recommended that the central government must allocate additional funds to ICAR for this purpose.

The Committee noted that the production of animal vaccine is inadequate in the country.³⁶ It recommended that adequate resources and manpower must be devoted to ICAR for the development of animal vaccines.

Generation of internal revenue: Between 2012-16, the Standing Committee on Agriculture (2017) noted that ICAR has generated a revenue of Rs 734 crore. This revenue is generated through the sale of products, seeds, technology, and consultancy.³⁶ The Committee stating that there is a huge market for hybrid seeds, crop varieties, and agricultural machineries, recommended that internal revenue generation from ICAR institutes should be enhanced. In 2015-16, against a revenue target of Rs 125.5 crore, Rs 60.6 (48.3%) crore was achieved.³⁶ The target is set at Rs 154.7 crore for 2016-17. Divisions of animal science, crop science, and horticulture science are major contributors to the revenue receipts.³⁶

Annexure

Table 4: Expenditure on major schemes under the Department of Agriculture, Cooperation and Farmers Welfare (in Rs crore)

Major schemes	AE 2016-17	BE 2017-18	RE 2017-18	% change of RE 2017-18 over BE 2017-18	BE 2018-19	% change of BE 2018-19 over RE 2017-18
Interest Subsidy for Short Term Credit to Farmers	13,397	15,000	14,750	-1.7%	15,000	1.7%
Pradhan Mantri Fasal Bima Yojana	11,052	9,000	10,698	18.9%	13,000	21.5%
Pradhan Mantri Krishi Sinchai Yojana (Per Drop More Crop)	1,991	3,400	3,000	-11.8%	4,000	33.3%
Rashtriya Krishi Vikas Yojna	3,892	4,750	3,050	-35.8%	3,600	18.0%
National Mission on Horticulture	1,493	2,320	2,190	-5.6%	2,536	15.8%
National Food Security Mission	1,286	1,720	1,400	-18.6%	1,691	20.8%
Sub-Mission on Agriculture Mechanisation	367	550	777	41.2%	1,165	50.0%

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budgeted estimate.
Sources: Union Budget 2018-19; PRS.

Table 5: Expenditure of major heads under the Department of Agricultural Research and Education (in Rs crore)

	AE 2016-17	BE 2017-18	RE 2017-18	% change of RE 2017-18 over BE 2017-18	BE 2018-19	% change of BE 2018-19 over RE 2017-18
ICAR Headquarters	319	4,383	4,574	4.4%	4,599	0.6%
Crop Sciences	1,905	591	591	0.0%	1,051	77.8%
Agricultural Education	726	695	695	0.0%	725	4.4%
Animal Sciences	1,206	388	388	0.0%	571	47.2%

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budgeted estimate.

Provision for ICAR headquarters suddenly increases in 2017-18 due to regrouping of salaries, pensions and office expenditure from all schemes (such as crop science and animal science).

Sources: Union Budget 2018-19; PRS.

Table 6: Allocation under major schemes under the Department of Animal Husbandry, Dairying and Fisheries (in Rs crore)

	AE 2016-17	BE 2017-18	RE 2017-18	% change of RE 2017-18 over BE 2017-18	BE 2018-19	% change of BE 2018-19 over RE 2017-18
Rashtriya Gokul Mission	-	190.00	190.00	0%	301.50	58.7%
Livestock Health and Disease Control	246.23	298.77	298.77	0%	508.77	70.3%
National Livestock Mission	249.18	310.00	309.00	0%	380.00	23.0%
Blue Revolution (including Integrated Development and Management of Fisheries)	387.81	400.73	301.73	-24.7%	632.61	109.7%

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budgeted estimate.

Sources: Union Budget 2018-19; PRS.

¹ Ministry-wise summary of budget provisions, Union Budget 2018-19, Ministry of Finance, February 1, 2018, <http://www.indiabudget.gov.in/ub2018-19/eb/sumsbe.pdf>.

² 25th Report of the Standing Committee on Agriculture: Demand for Grants 2016-17 of the Department of Agriculture, Co-operation and Farmers Welfare, May 2016, http://164.100.47.193/lssccommittee/Agriculture/16_Agriculture_25.pdf.

³ Demand No. 1, Expenditure Budget, Union Budget 2018-19, Ministry of Finance, February 1, 2018, <http://www.indiabudget.gov.in/ub2018-19/eb/sbe1.pdf>.

⁴ Demand No. 2, Expenditure Budget, Union Budget 2018-19, Ministry of Finance, February 1, 2018, <http://www.indiabudget.gov.in/ub2018-19/eb/sbe2.pdf>.

⁵ Demand No. 3, Expenditure Budget, Union Budget 2018-19, Ministry of Finance, February 1, 2018, <http://www.indiabudget.gov.in/ub2018-19/eb/sbe3.pdf>.

⁶ Economic Survey 2018, Ministry of Finance, http://mofapp.nic.in:8080/economicsurvey/pdf/001-027_Chapter_01_Economic_Survey_2017-18.pdf.

- ⁷ “First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation for the financial year 2016-17”, Press Release, Ministry of Statistics and Programme Implementation, January 31, 2018, http://www.mospi.gov.in/sites/default/files/press_release/nad_pr_31jan18_0.pdf.
- ⁸ Operational Guidelines, XII Five Year Plan, Rashtriya Krishi Vikas Yojana Department of Agriculture and Cooperation, Ministry of Agriculture, <http://rkvy.nic.in/>.
- ⁹ “Cabinet approves ongoing Centrally Sponsored Scheme State Plans) - Rashtriya Krishi Vikas Yojana (RKVY) as Rashtriya Krishi Vikas Yojana- Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVYRAFTAAR) for three years i.e. 2017-18 to 2019-20”, Press Information Bureau, Ministry of Agriculture, November 1, 2017.
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