

**Analysis of the Research Action Plans
of the
National Agricultural Research System (NARS)
2017**

SLCARP linked Ministries

- 1. Ministry of Agriculture**
- 2. Ministry of Plantation Industries**
- 3. Ministry of Rural Economy**
- 4. Ministry of Mahaweli Development and Environment**
- 5. Ministry of Fisheries and Aquatic Resource Development**
- 6. Ministry of Primary Industries**
- 7. Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs**
- 8. Ministry of Sustainable Development and Wildlife**
- 9. Ministry of Science and Technology**
- 10. Ministry of Public Enterprise Development**

- 11. Ministry of Higher Education & Highways**

NARS Institutions

- 1. RRDI – Rice Research and Development Institute
- 2. FCRDI – Field Crop Research and Development Institute
- 3. HORDI– Horticultural crops Research and Development Institute
- 4. FRDI – Fruit Research and Development Institute
- 5. PGRC – Plant Genetic Resources Centre
- 6. NPQC – National Plant Quarantine Centre
- 7. NRMC– Natural Resource Management Centre
- 8. SEPC – Socio Economic Planning Centre
- 9. FMRC – Farm Mechanization Research Centre

- 10. IPHT – Institute of Post-Harvest Technology
- 11. HARTI– Hector Kobbekaduwa Agrarian Research & Training Institute

- 12. TRI – Tea Research Institute
- 13. RRI – Rubber Research Institute
- 14. CRI – Coconut Research Institute
- 15. SRI – Sugarcane Research Institute

- 16. DEA – Department of Export Agriculture
- 17. DNBG– Department of National Botanic Gardens
- 18. FD – Forest Department

- 19. SLCC – Sri Lanka Cashew Corporation
- 20. PDB – Palmyra Development Board

- 21. VRI – Veterinary Research Institute
- 22. NARA– National Aquatic Resource Research and Development Agency

- 23. NSF – National Science Foundation
- 24. ITI – Industrial Training Institute
- 25. Universities – All Related Faculties of Universities

Ministries and NARS Institutions

Ministry	Institute
1. Ministry of Agriculture	DOA (HORDI, FCRDI, RRD, FRDI, SCPPC, NRMC, FMRC, SEPC), HARTI, IPHT, CARP
2. Ministry of Plantation Industries	TRI, RRI, CRI , SRI
3. Ministry of Sustainable Development and Wildlife	DNBG
4. Ministry of Primary Industries	DEA
5. Ministry of Mahaweli Development and Environment	DF
6. Ministry of Public Enterprise Development	SLCC
7. Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs	PDB
8. Ministry of Rural Economy	VRI
9. Ministry of Fisheries and Aquatic Resource Development	NARA
10. Ministry of Higher Education & Highways	All Agricultural Faculties
11. Ministry of Science and Technology	ITI, NSF

SLCARP

National Committees

1. National Committee on Agricultural Biotechnology (NCAB)
2. National Committee on Crop Improvement & Agronomy (NCCIA)
3. National Committee on Livestock & Poultry (NCLP)
4. National Committee on Aquatic Resources (NCAR)
5. National Committee of Socio Economic and Policy Analysis
(NCSEPA)
6. National Committee on Plant Protection (NCPP)

National Committees (Cont.)

7. National Committee on Post Harvest Technology and Human Nutrition
8. National Committee on Floriculture Research and Development(NCFRD)
9. National Committee on Natural Resources Management, Sustainable Agriculture & Climate Change (NCNRMSACC)
10. National Committee on Organic Agriculture (NCOA)
11. National Committee on Forestry (NCOF)
12. National Committee on Agricultural Mechanization(NCAM)

Crop Improvement

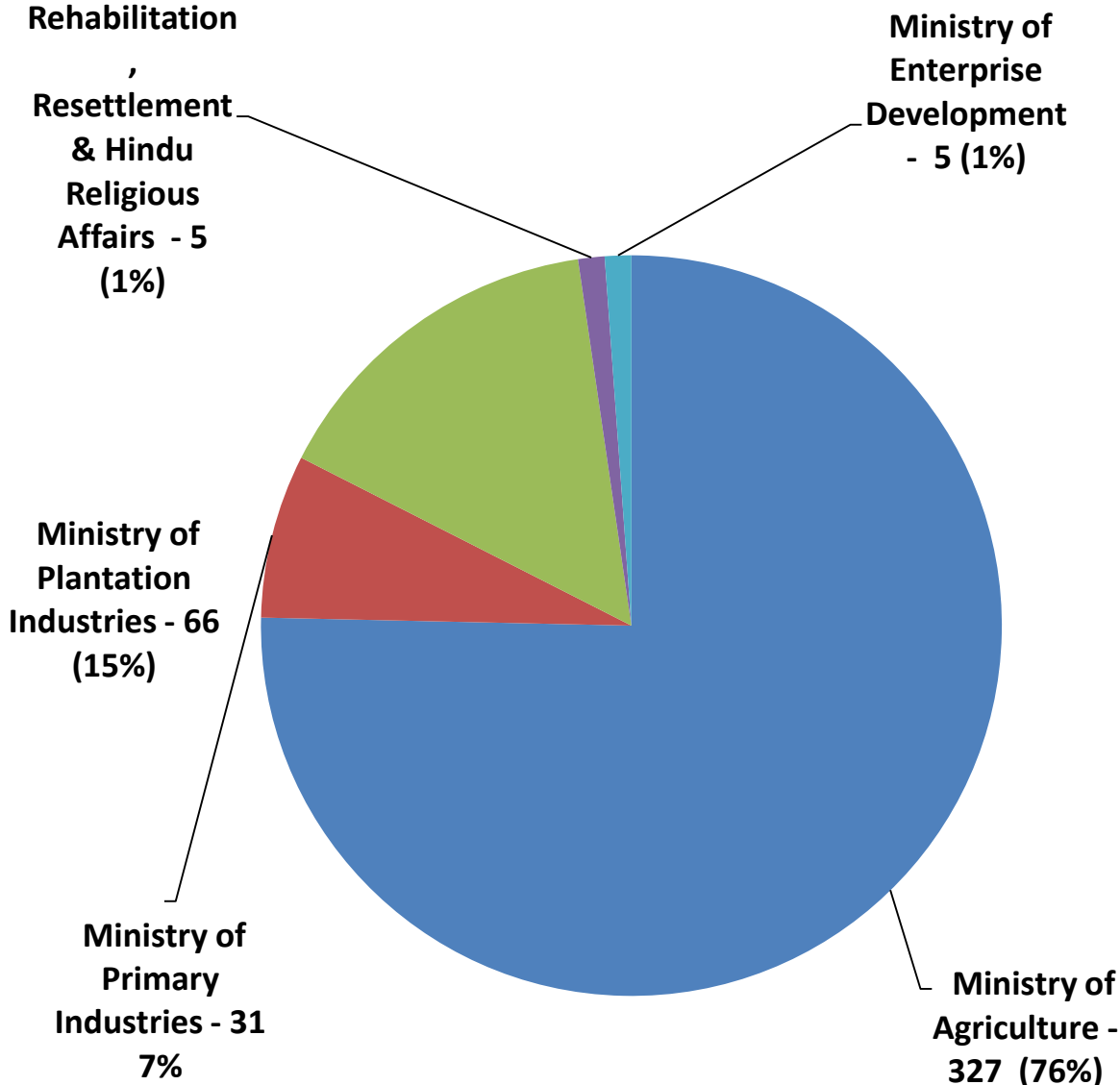
National Agricultural Research System 2017

Total Number of Research projects on
Crop Improvement = **434**

All Research Projects are within
Research Priorities

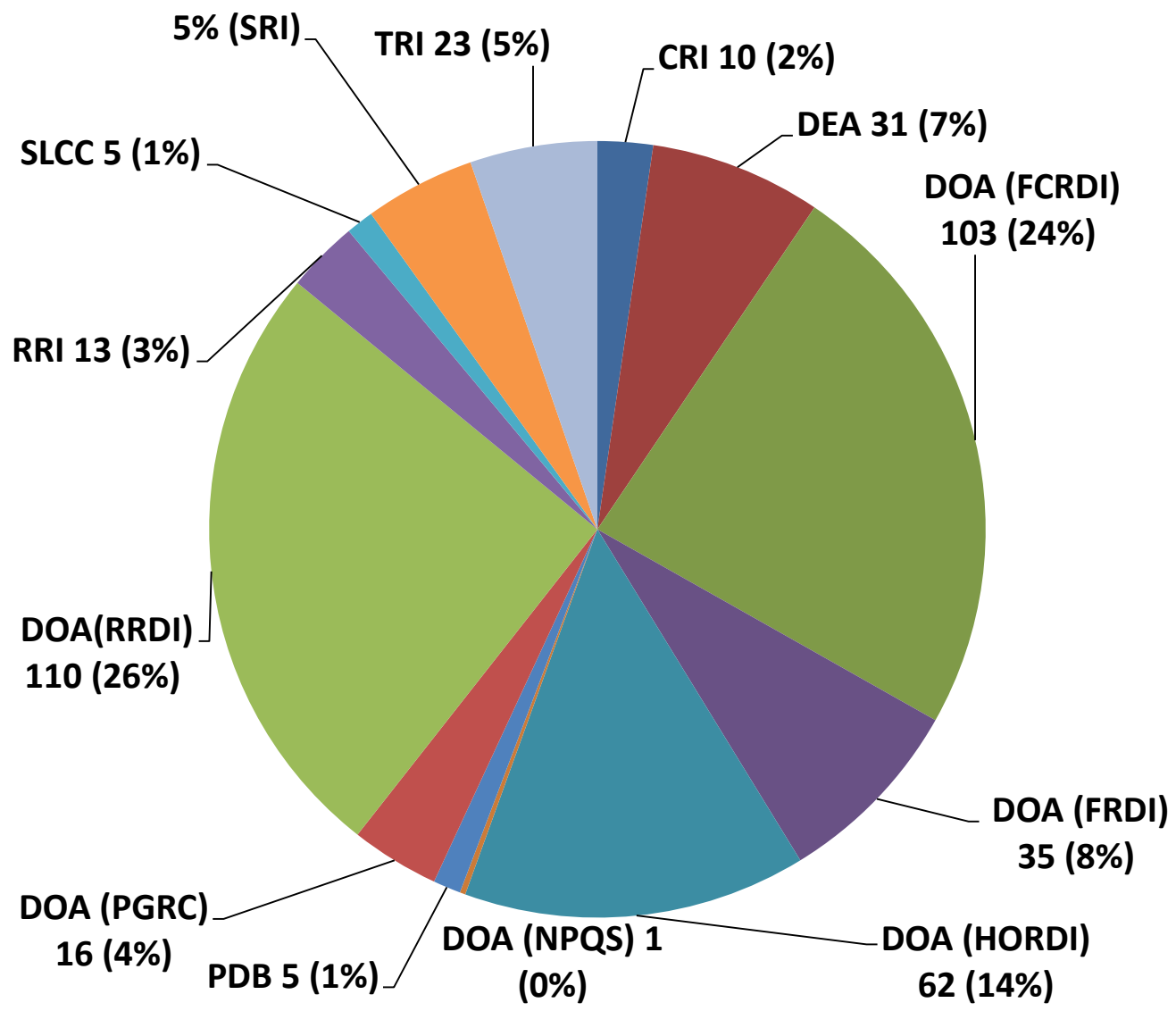
Total Budget Allocation (Rs. mn.) = 263.97

Crop Improvement Research Projects by Ministry 2017



Ministry	No. of Research Projects
Ministry of Agriculture	327
Ministry of Plantation Industries	66
Ministry of Primary Industries	31
Ministry of Public Enterprise Development	5
Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs	5
Total	434

Crop Improvement Research Projects by Institution 2017

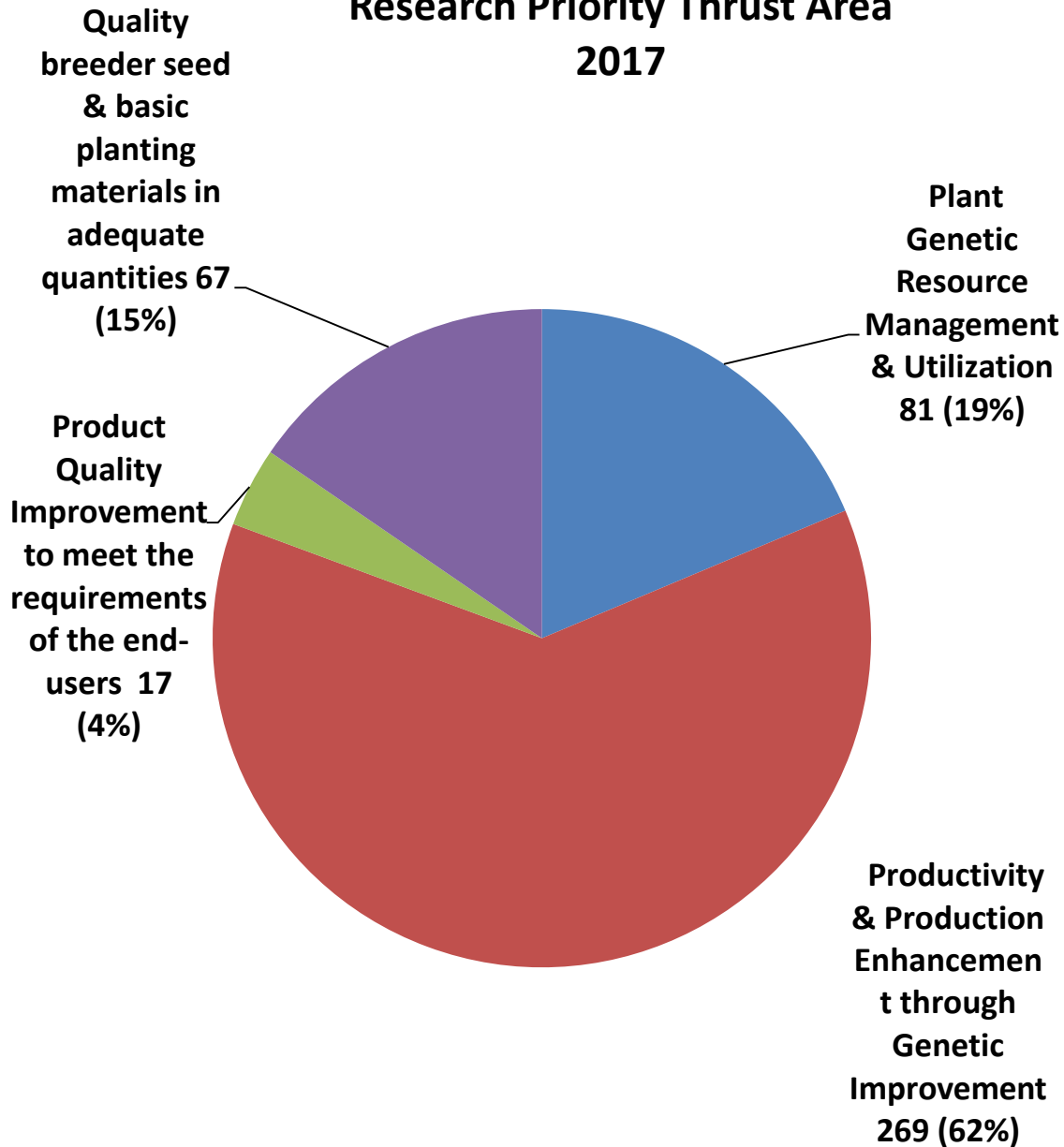


Institutes	No. of Research Projects
DOA (RRDI)	110
DOA (FCRDI)	103
DOA (HORDI)	62
DOA (FRDI)	35
DOA (PGRC)	16
DOA (NPQS)	1
DEA	31
TRI	23
SRI	20
RRI	13
CRI	10
SLCC	5
PDB	5
Total	434

National Committee on Crop Improvement

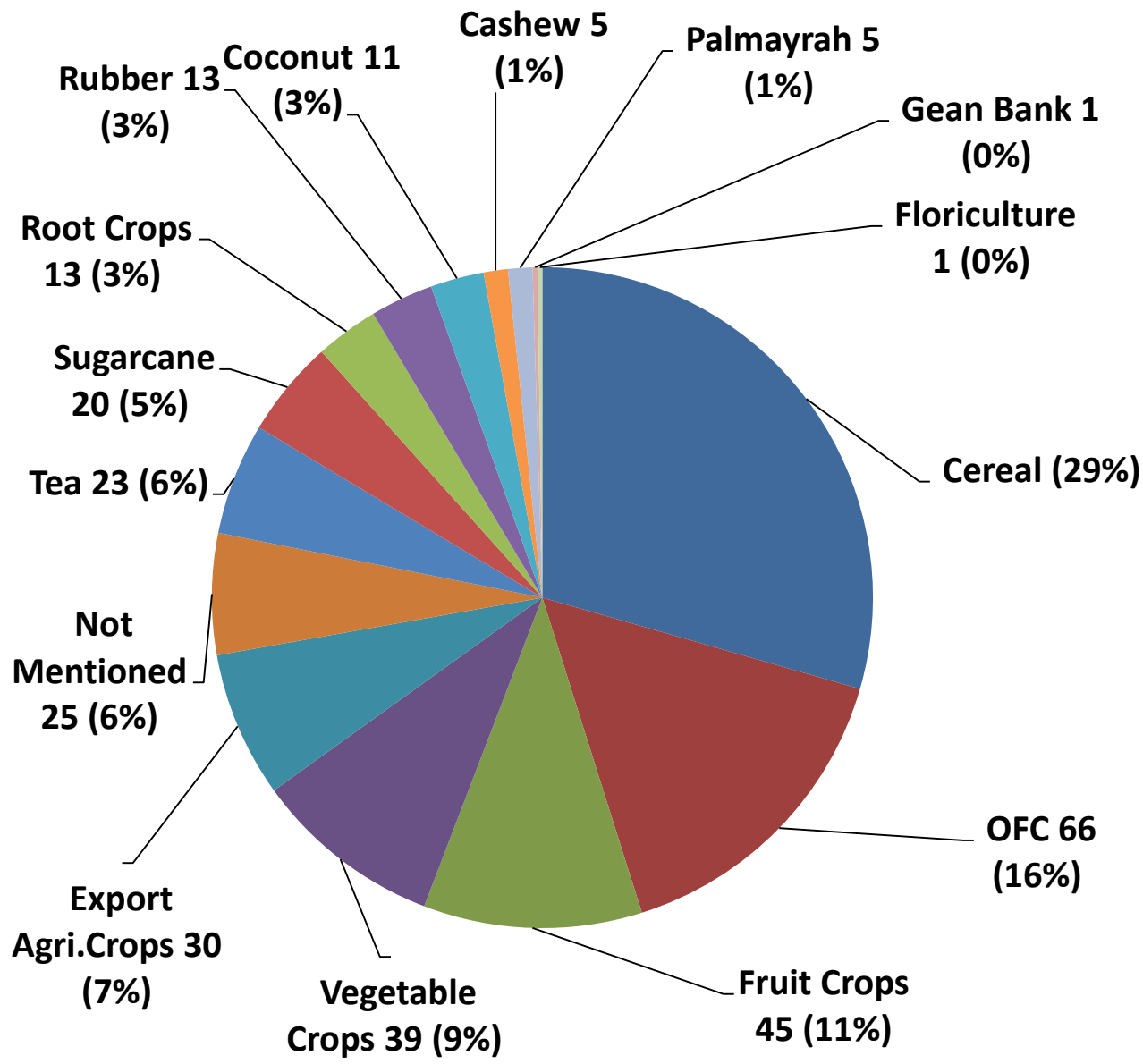
Research Thrust Areas
Plant genetic resource management and utilization (PGRM&U)
Productivity and production enhancement through genetic improvement (PPE)
Product quality improvement to meet the requirements of the end- users (QI)
Quality breeder seed and basic planting materials in adequate quantities (BS&BPM)

Number of Research Projects by Research Priority Thrust Area 2017



Research Priority Thrust Area	No. of Research Projects
Productivity and production enhancement through genetic improvement (PPE)	269
Plant genetic resource management and utilization (PGRM&U)	81
Quality breeder seed and basic planting materials in adequate quantities (BS&BPM)	67
Product quality improvement to meet the requirements of the end- users (QI)	17
Total	434

Crop Improvement Research Projects by Crops - 2017



Name of crops	No. of Crops
Cereal	124
OFC	66
Fruit Crops	45
Vegetable Crops	39
Export Agri.Crops	30
Not mentioned	25
Tea	23
Sugarcane	20
Root Crops	13
Rubber	13
Coconut	11
Cashew	5
Palmayrah	5
Gean Bank	1
Floriculture	1
Total	421

Ministry	Research Institute	No. of Research Institutes	No. of Research projects	Budget in 2017 (Rs.mn)	Name of crop	No. of Crops
MOA	RRDI	110	110	24.16	Rice	110
	HORDI	62	62	26.83		
	FRDI	35	35	10.48		
	FCRDI	103	103	39.33	Chillie	20
					Mungbean	5
					Blackgram	2
					Cowpea	5
					Groundnut	5
					Finger millet	7
					Maize	14
				Okra	2	
					Soyabean	6
					Onion	11
	PGRC	16	16	10.73	Not mentioned	15
					Dioscorea	1
	NPQS	1	1	1.45		
MOPI	DEA	31	31	34.37		
MO(PI)	TRI	23	23	14.99	Tea	23
	RRI	13	13	13.44		
	CRI	10	10	4.89	Coconut	10
	SRI	20	20	40.3	Sgar cane	20
MPED	SLCC	5	5	1	Cashew	5
MPRRRHRA	PDB	5	5	42		
Total		434	434	263.97		

Agricultural Biotechnology

National Agricultural Research System 2017

Agricultural Biotechnology

Total Number of Research Projects on
Agricultural Biotechnology = 57

All are within Research Priorities

Total Budget Allocation (Rs. mn.) = 35.02

Percent of Agric. GDP in 2016 =

National Research Priorities on Agricultural Biotechnology for 2017-2021

Six Research Thrust Areas

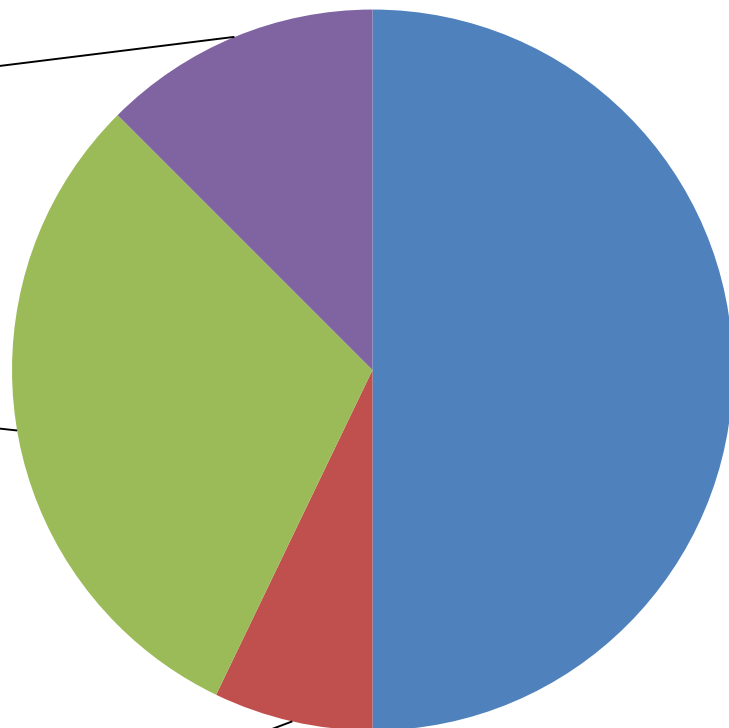
1. Germplasm Conservation and Characterization
2. Genetic Improvement
3. Tissue Culture & Mass Propagation
4. Detection and Identification of Pathogens and Pests
5. Biotechnological Industrial Application
6. Genetic Engineering

Agricultural Biotechnology Research Projects by Ministry 2017

Ministry of
Public
Enterprise
Developmen
t - 7 (12%)

Ministry of
Plantation
Industries -
17
(30%)

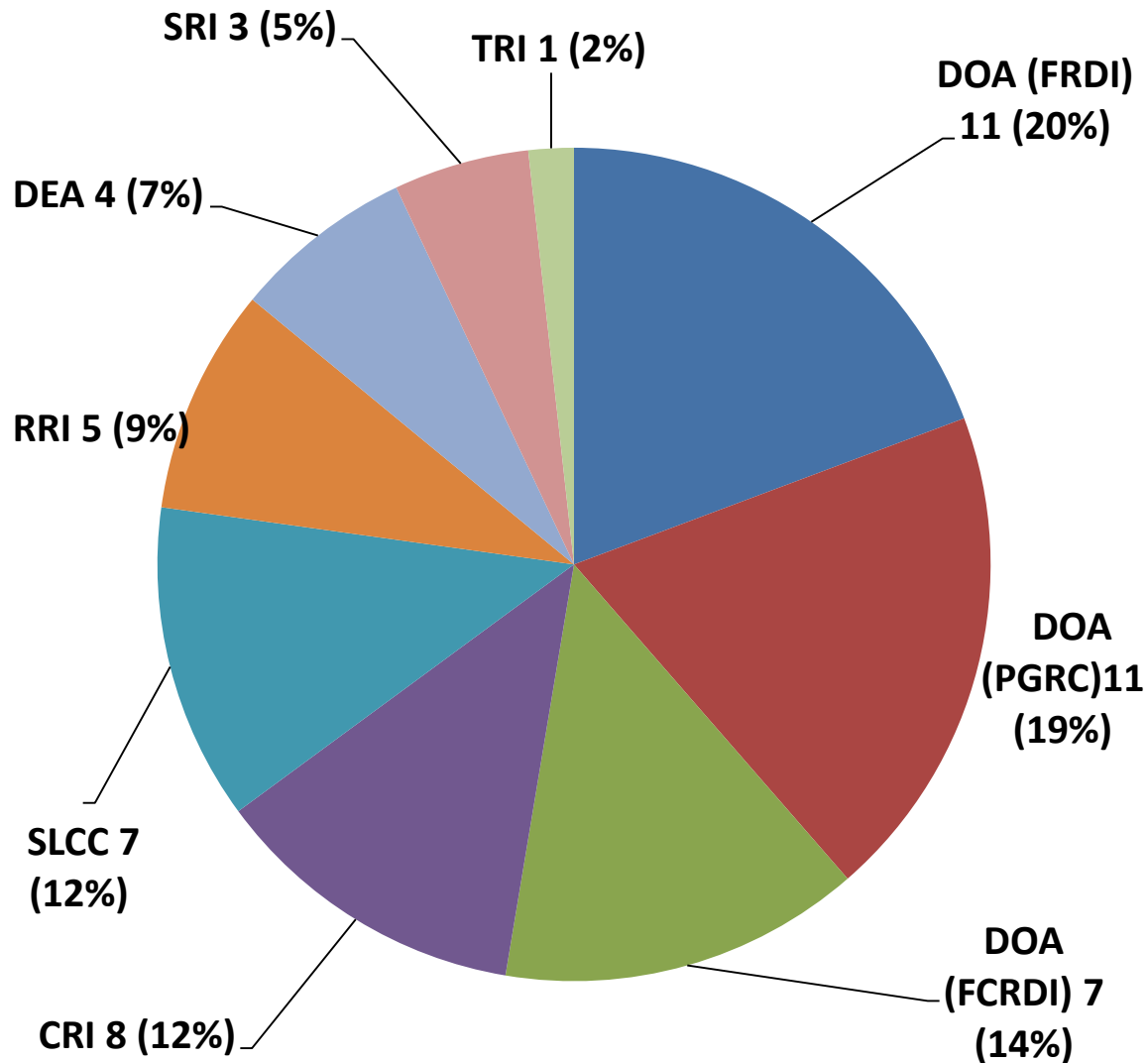
Ministry of
Primary
Industries - 4
(9%)



Ministry of
Agriculture
28 - (49%)

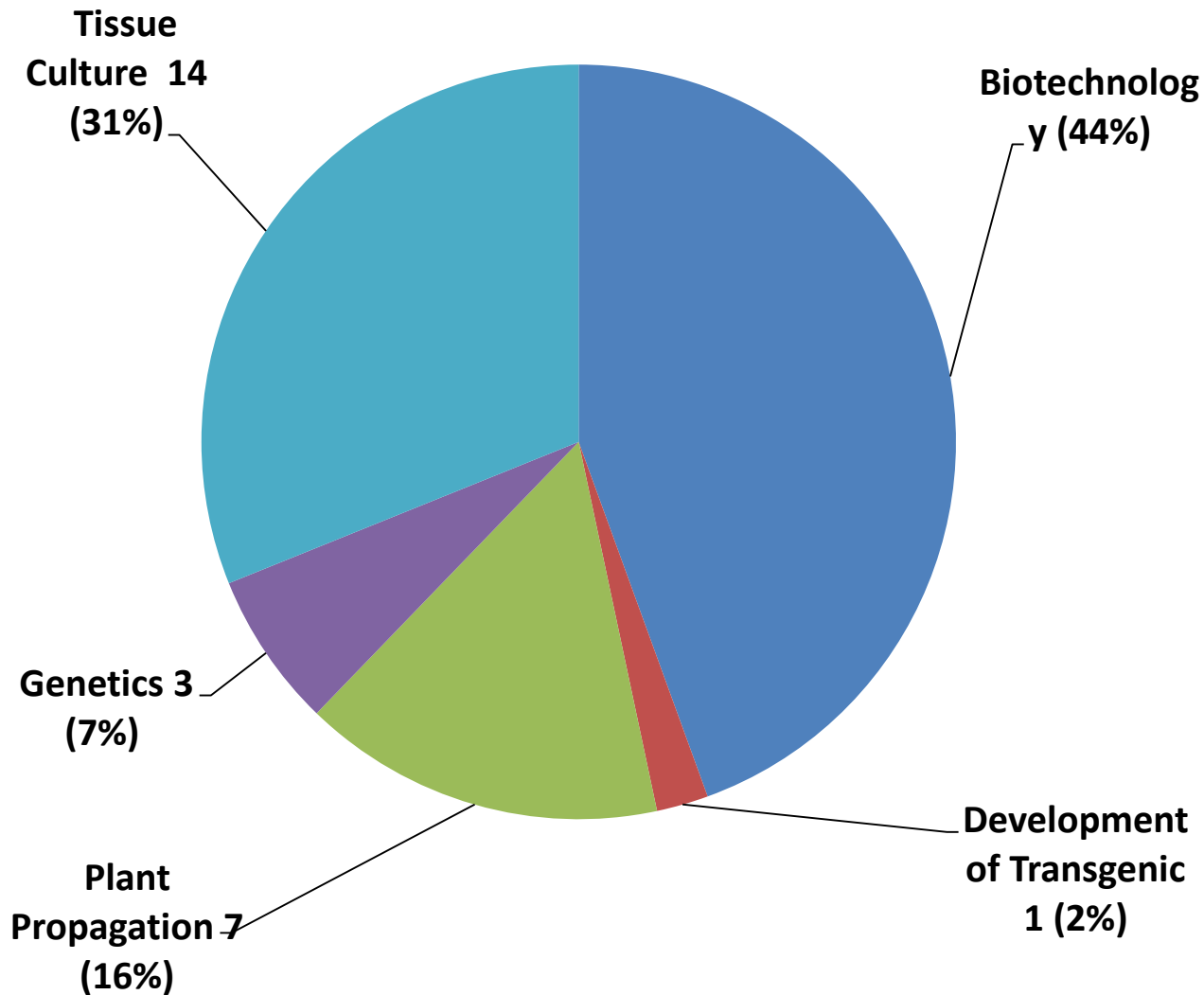
MINISTRY	No. of research Projects
Ministry of Agriculture	28
Ministry of Primary Industries	4
Ministry of Plantation Industries	17
Ministry of Public Enterprise Development	7
TOTAL	57

Number of Research Projects by Institutions 2017



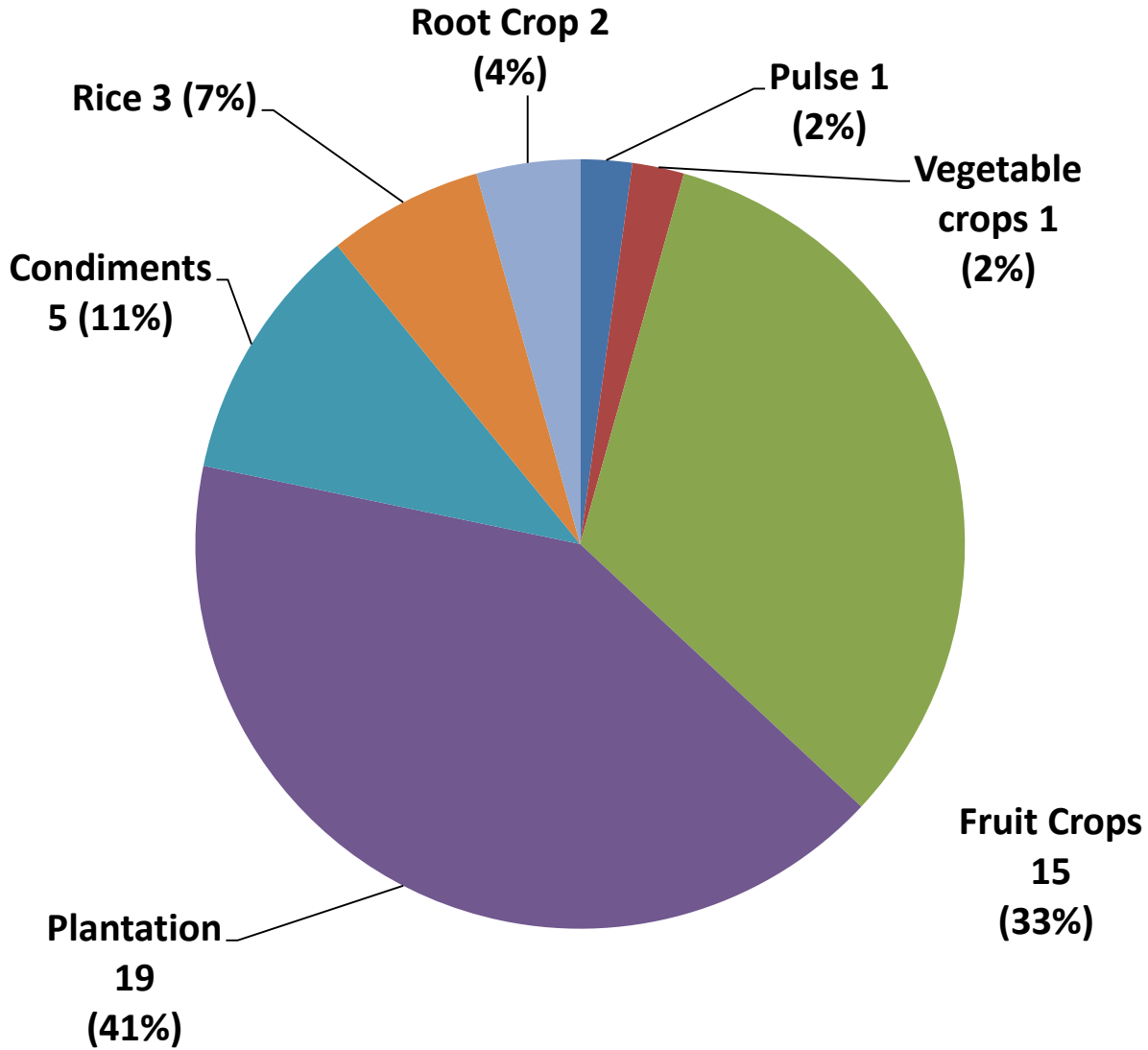
Institutes	No. of Research Projects
DOA (FRDI)	11
DOA (PGRC)	11
DOA (FCRDI)	7
CRI	8
SLCC	7
RRI	5
DEA	4
SRI	3
TRI	1
Total	57

Agricultural Biotechnology Research Projects by Research Thrust Area - 2017



Subject Area	Number of Research Projects
Biotechnology	20
Tissue Culture	14
Plant Propagation	7
Genetics	3
Dev. Of Transgenic	1
Total	45

Agricultural Biotechnology Research Projects by Crops - 2017



Name	Number of Crops
Plantation	19
Fruit Crops	15
Condiments	5
Rice	3
Root Crop	2
Pulse	1
Vegetable Crops	1
Total	46

Plant Protection

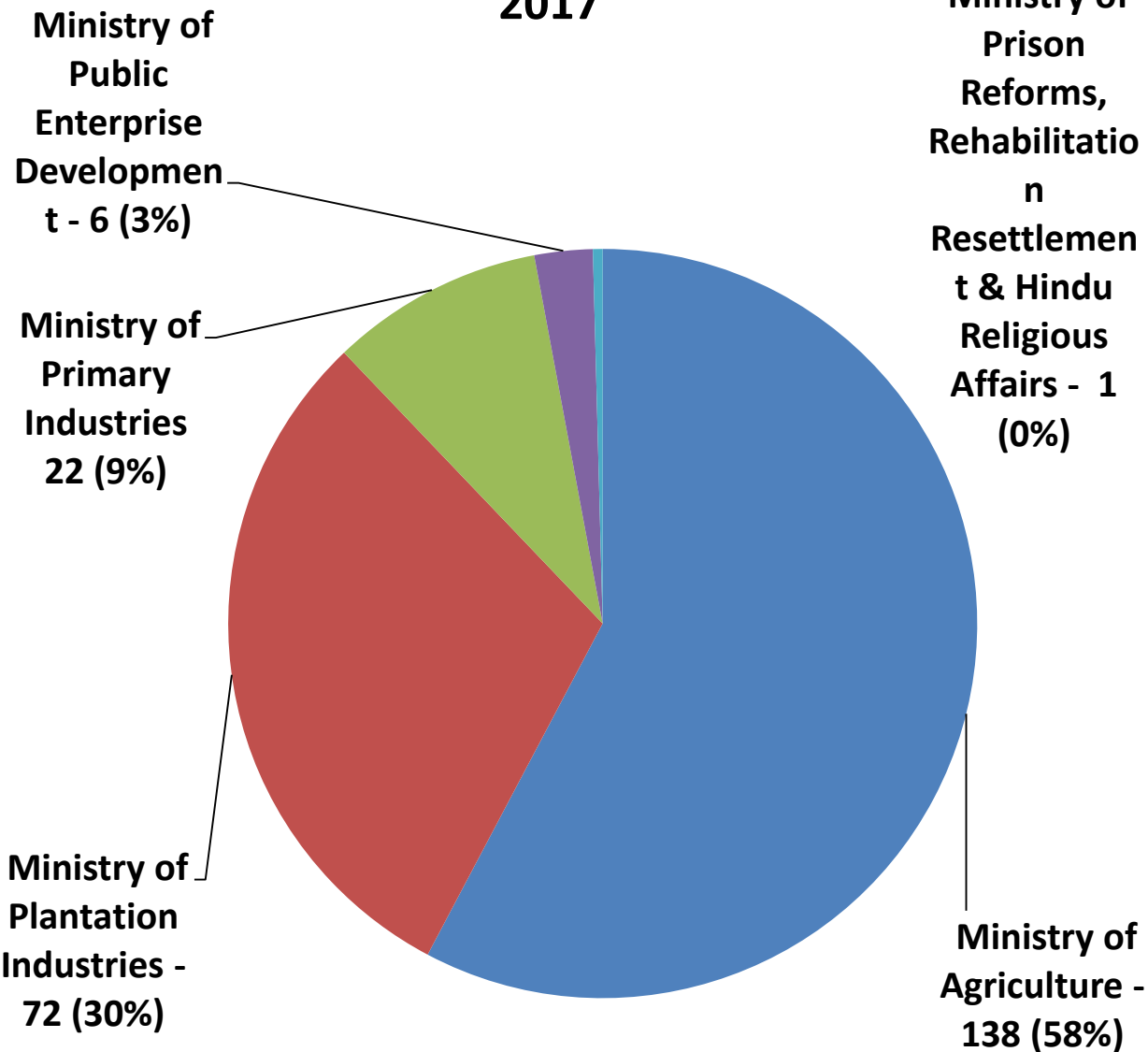
Plant Protection Research 2017

Total Number of Research projects on
Plant Protection = 239

All are within Research Priorities

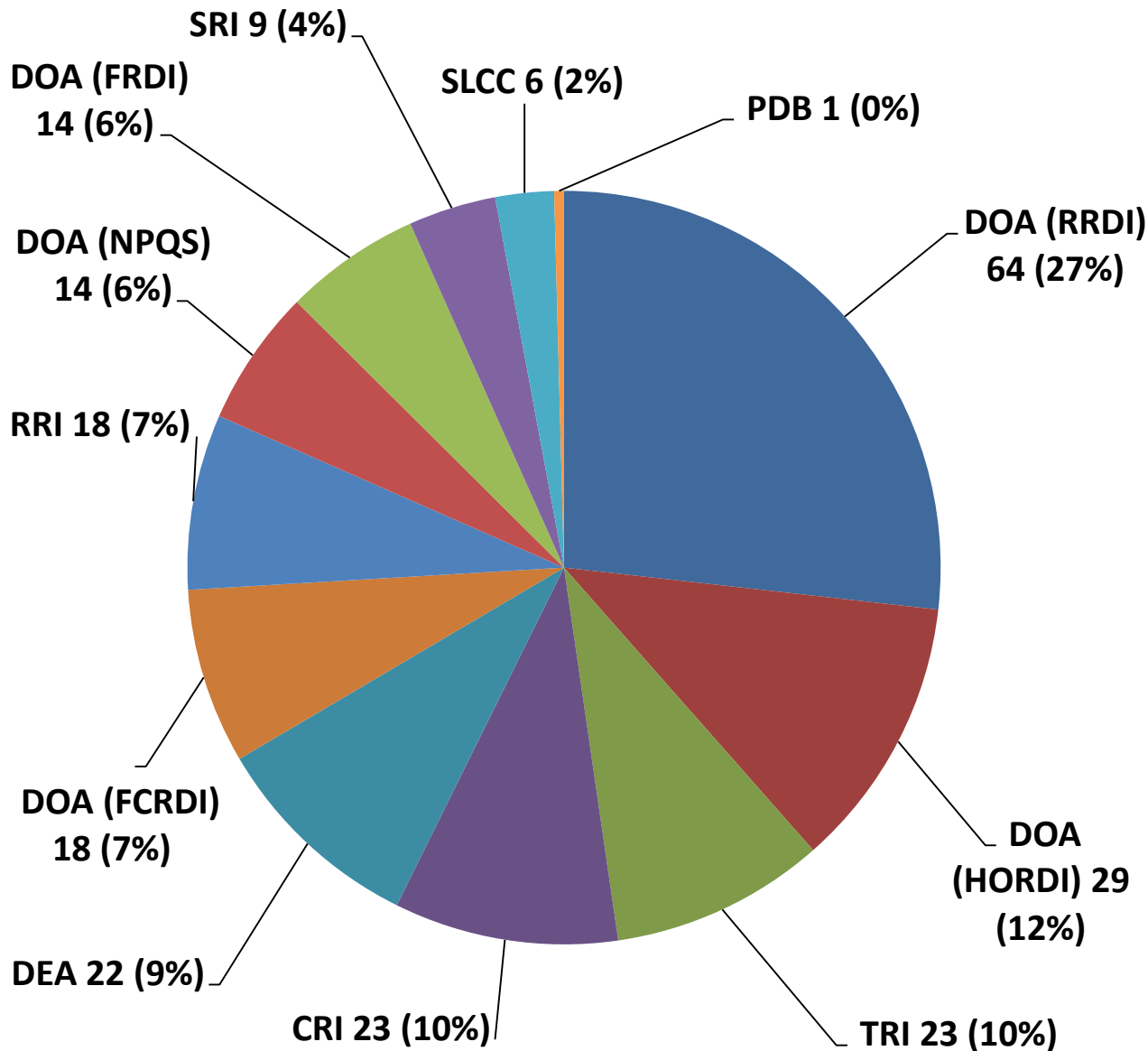
Total Budget Allocation (Rs. mn.) = 118.07

Plant Protection Research Projects by Ministry- 2017



Ministries	No. of Research Projects
Ministry of Agriculture	138
Ministry of Plantation Industries	72
Ministry of Primary Industries	22
Ministry of Public Enterprise Development	6
Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs	1
Total	239

Plant Protection Research Projects by Institution - 2017

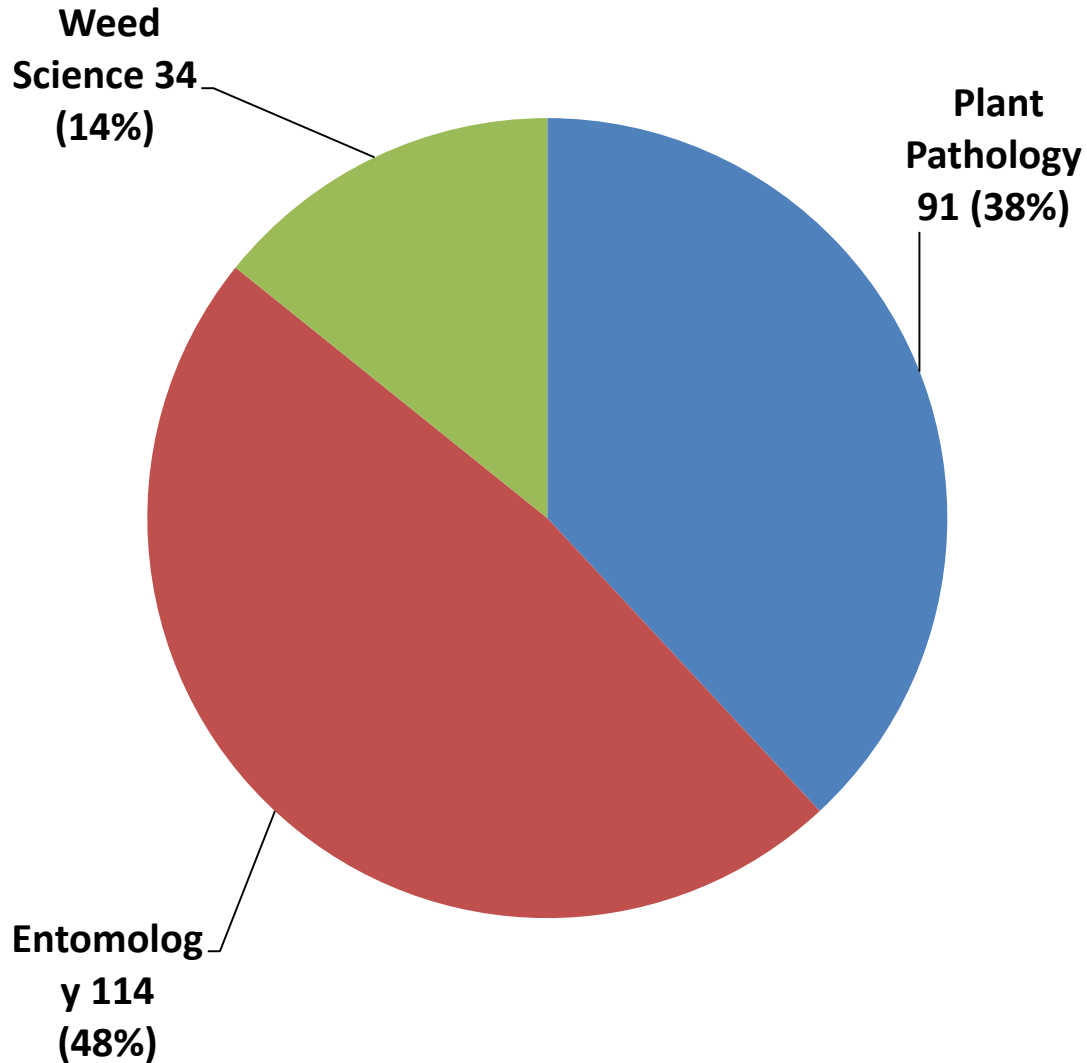


Institutes	No. of Institutes
DOA (RRDI)	64
DOA (HORDI)	28
DOA (FCRDI)	18
DOA (NPQS)	14
DOA (FRDI)	14
TRI	22
RRI	18
CRI	23
DEA	22
SRI	9
SLCC	6
PDB	1
Total	239

National Priorities in Plant Protection 2017

Research Thrust Area
Entomology, Acarology & Neonatology
Plant Pathology
Weed science

Plant Protection Research Projects by Research Thrust Area - 2017



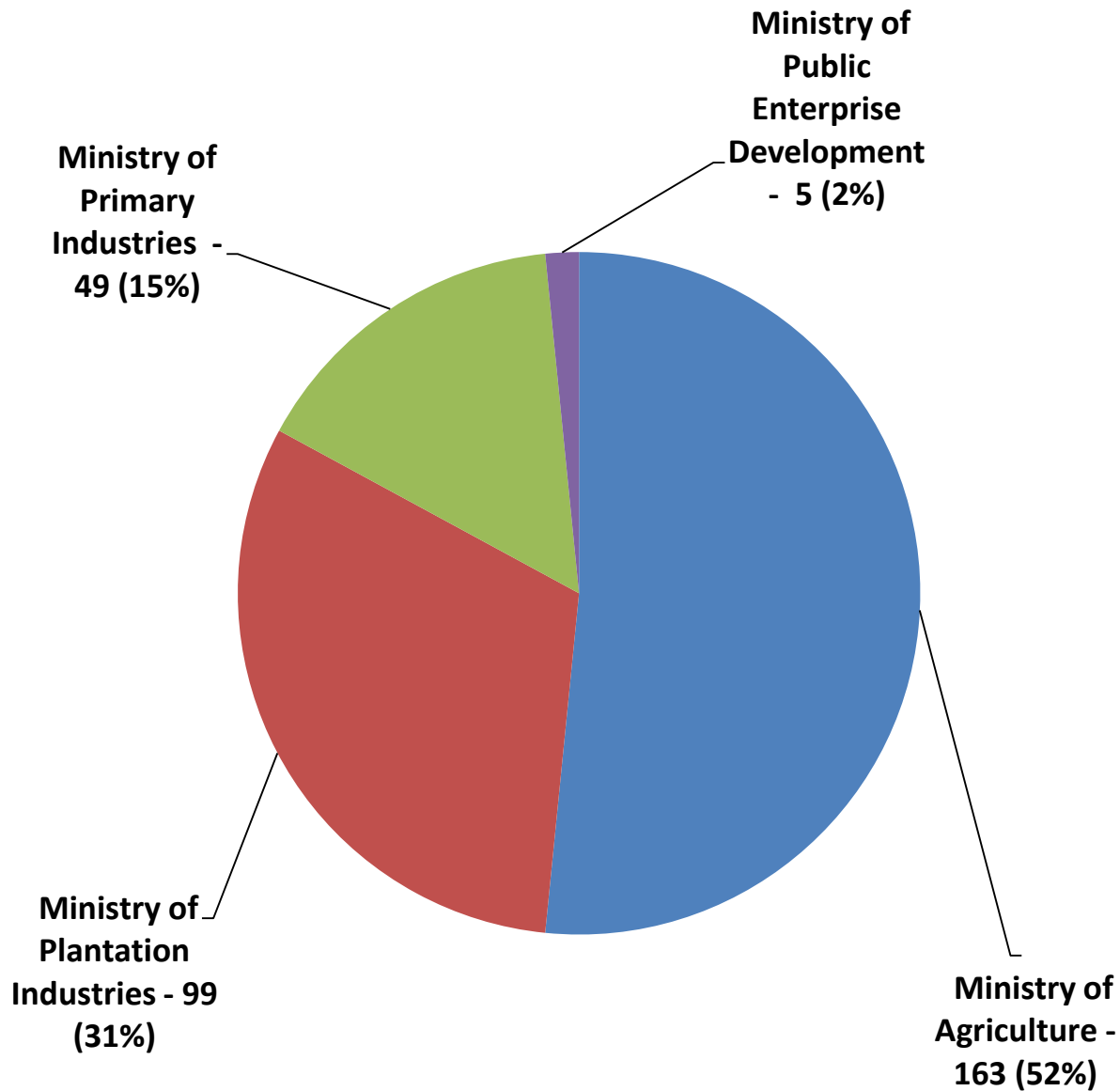
Research Thrust Area	No. of Research Projects
Plant Pathology	91
Entomology	114
Weed Science	34
Total	239

Natural Resources Management, Sustainable Agriculture and Climate Change

No. of Research Projects= 316

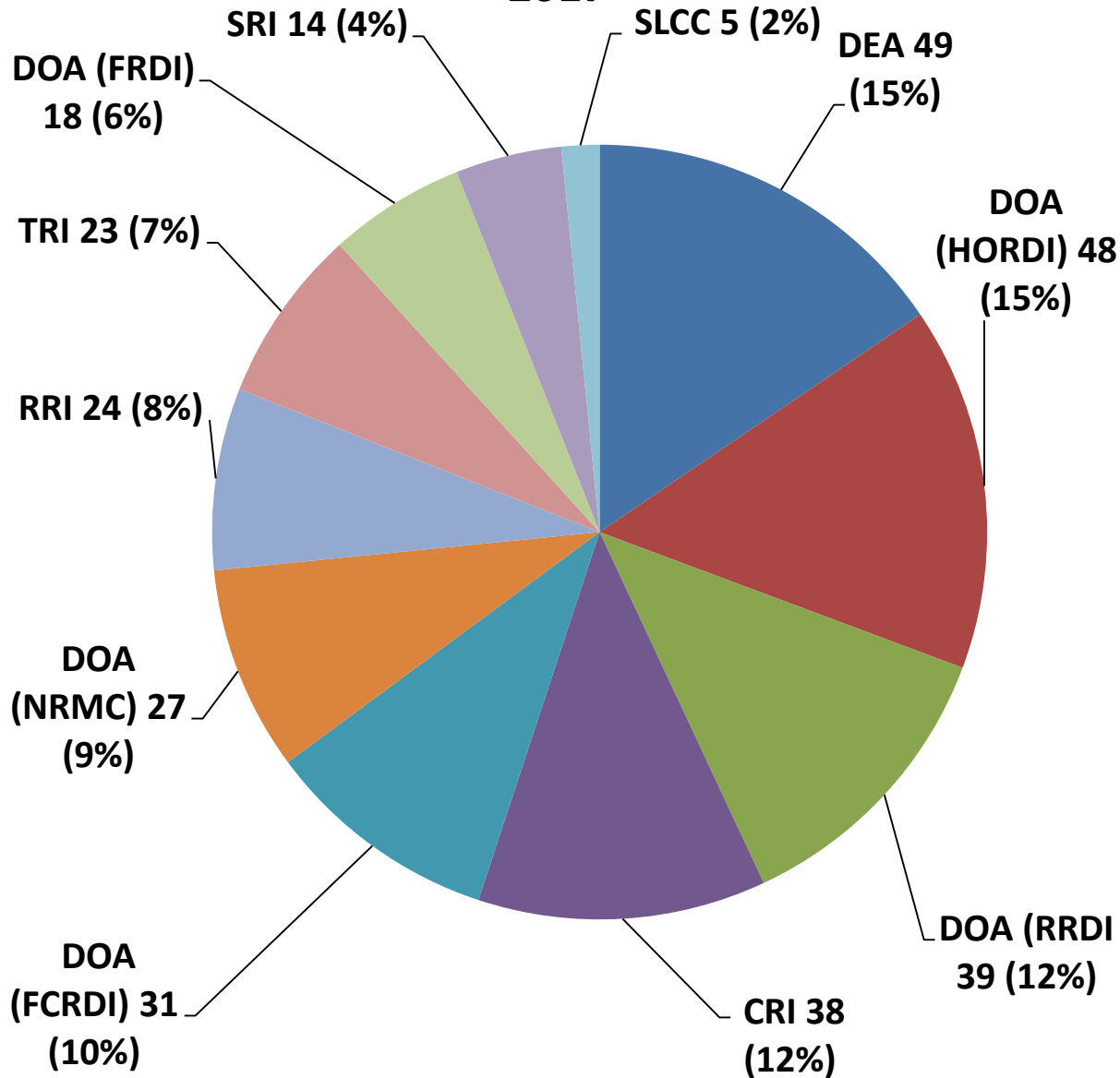
Almost all Projects are within
Priorities

NRMSA& CC Research Projects by Ministry - 2017



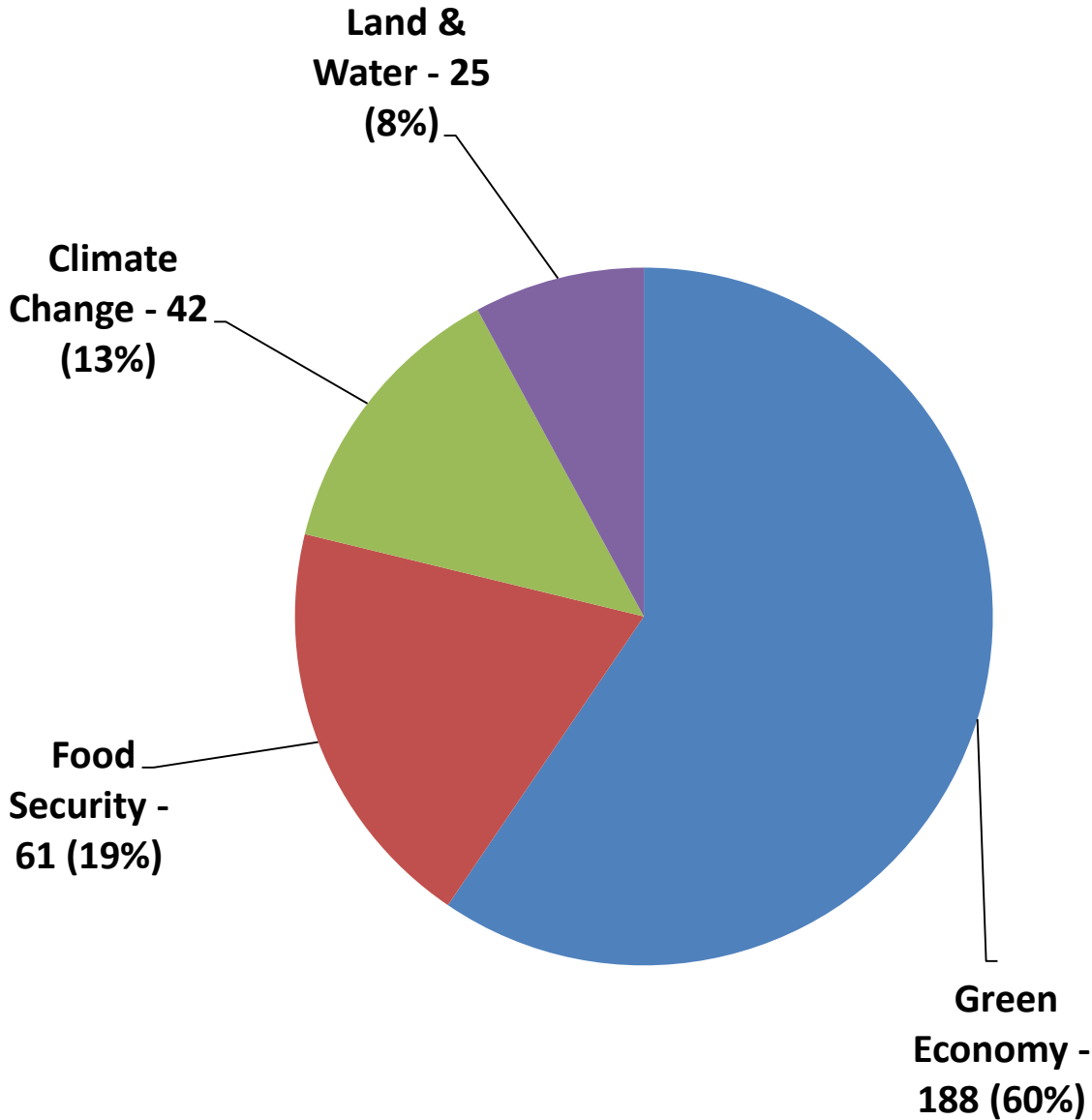
Ministry	No. of Research Projects
Ministry of Agriculture	163
Ministry of Plantation Industries	99
Ministry of Primary Industries	49
Ministry of Public Enterprise Development	5
Total	316

NRMSA& CC Research Projects by Institution - 2017



Institution	No. of Research Projects
DOA (HORDI)	48
DOA (RRDI)	39
DOA (FCRDI)	31
DOA (NRMC)	27
DOA (FRDI)	18
DEA	49
RRI	24
TRI	23
CRI	38
SRI	14
SLCC	5
Total	316

NRMSA& CC Research Projects by Research Priority Areas - 2017



Priority Area	No. of Research Projects
Green Economy	188
Food Security	61
Climate Change	42
Land & Water	25
Total	316

Agricultural Mechanization

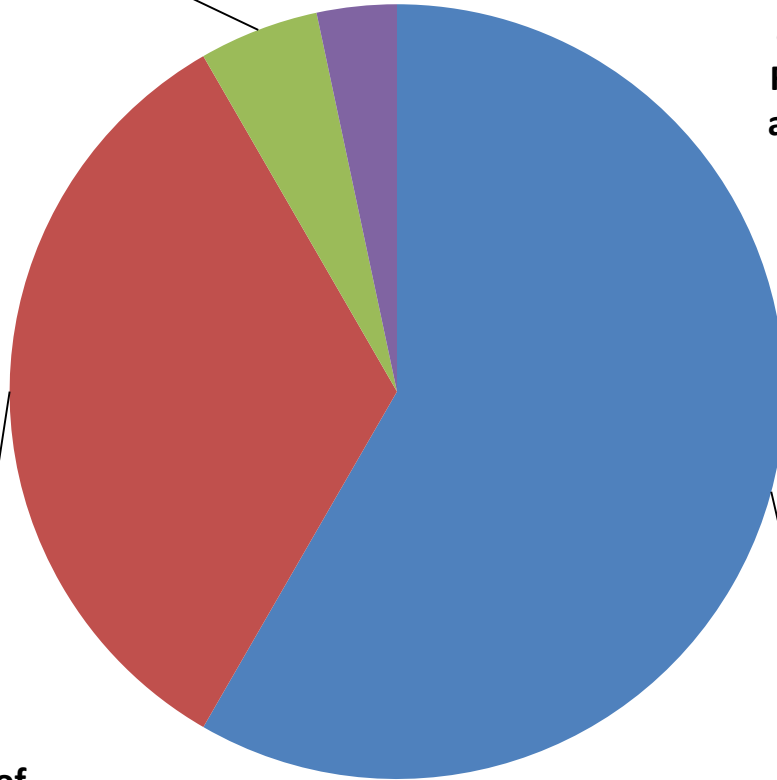
Research Projects = 60

All most all Projects are within
Research Priorities

Agricultural Mechanization Research Projects by Ministry - 2017

Ministry of
Plantation
Industries -
3 (5%)

Ministry of
Prison
Reforms,
Rehabilitatio
n,
Resettlement
& Hindu
Religious
affairs - 2
(3%)

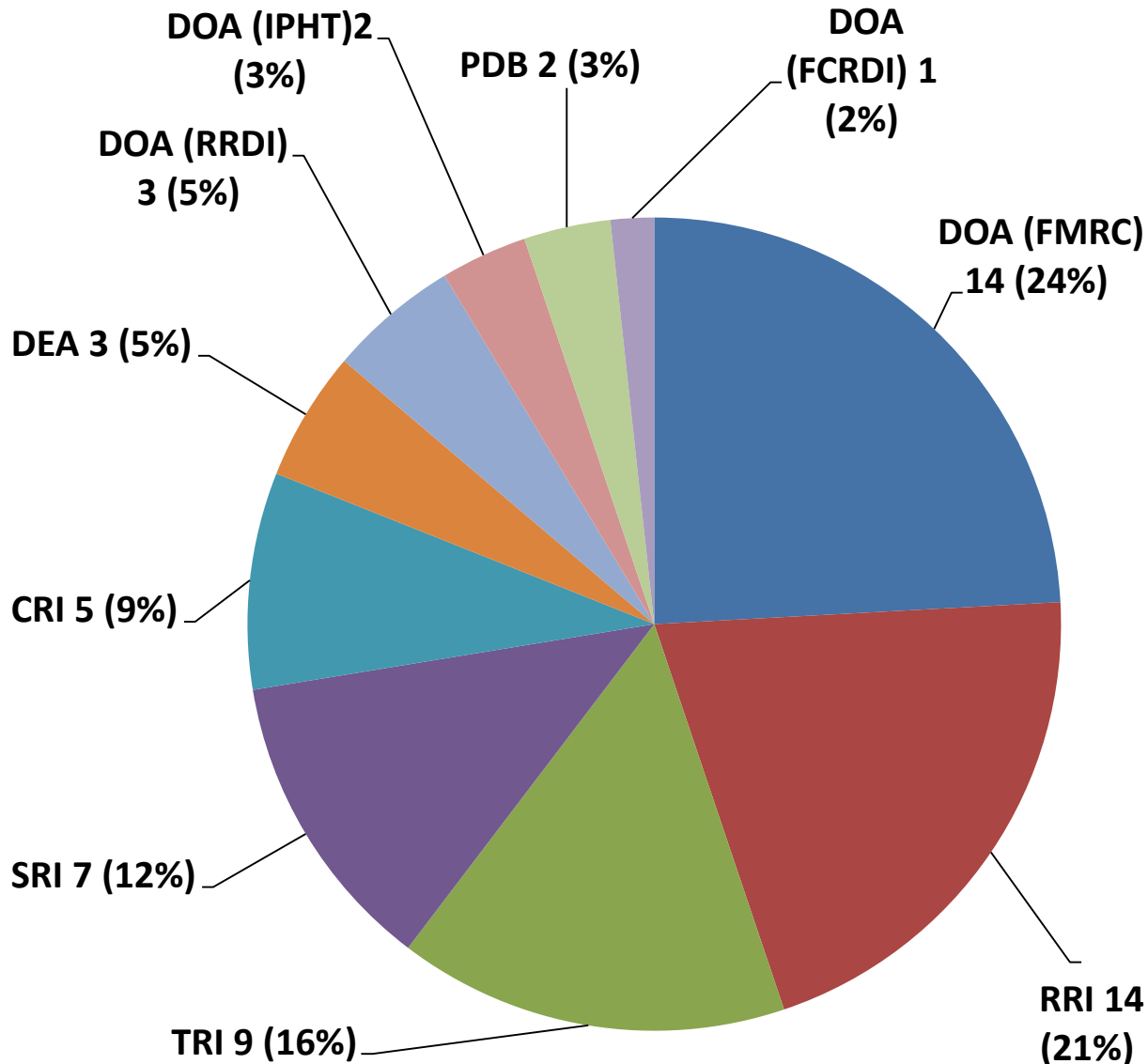


Ministry of
Agriculture -
20 (35%)

Ministry of
Plantation
Industries -
35 (57%)

Ministry	No. of Research Projects
Ministry of Plantation Industries	35
Ministry of Agriculture	20
Ministry of Primary Industries	3
Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs	2
Total	60

Agricultural Mechanization Research Projects by Institutions 2017

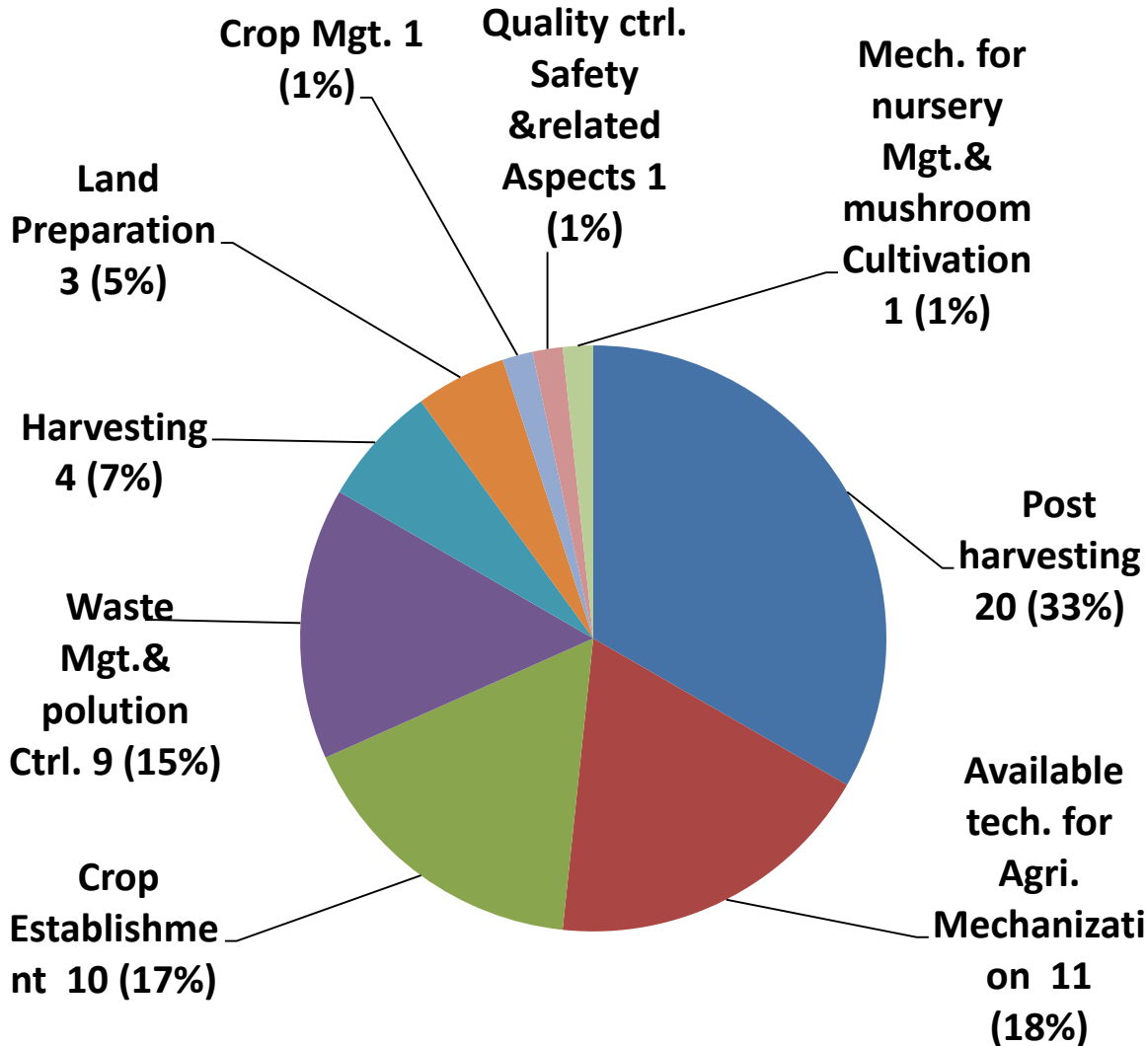


Institution	No. of Research Projects
DOA (FMRC)	14
DOA (RRDI)	3
DOA (IPHT)	2
DOA (FCRDI)	1
CRI	5
DEA	3
RRI	14
TRI	9
PDB	2
SRI	7
Total	60

National Priorities in Agricultural Mechanization 2017

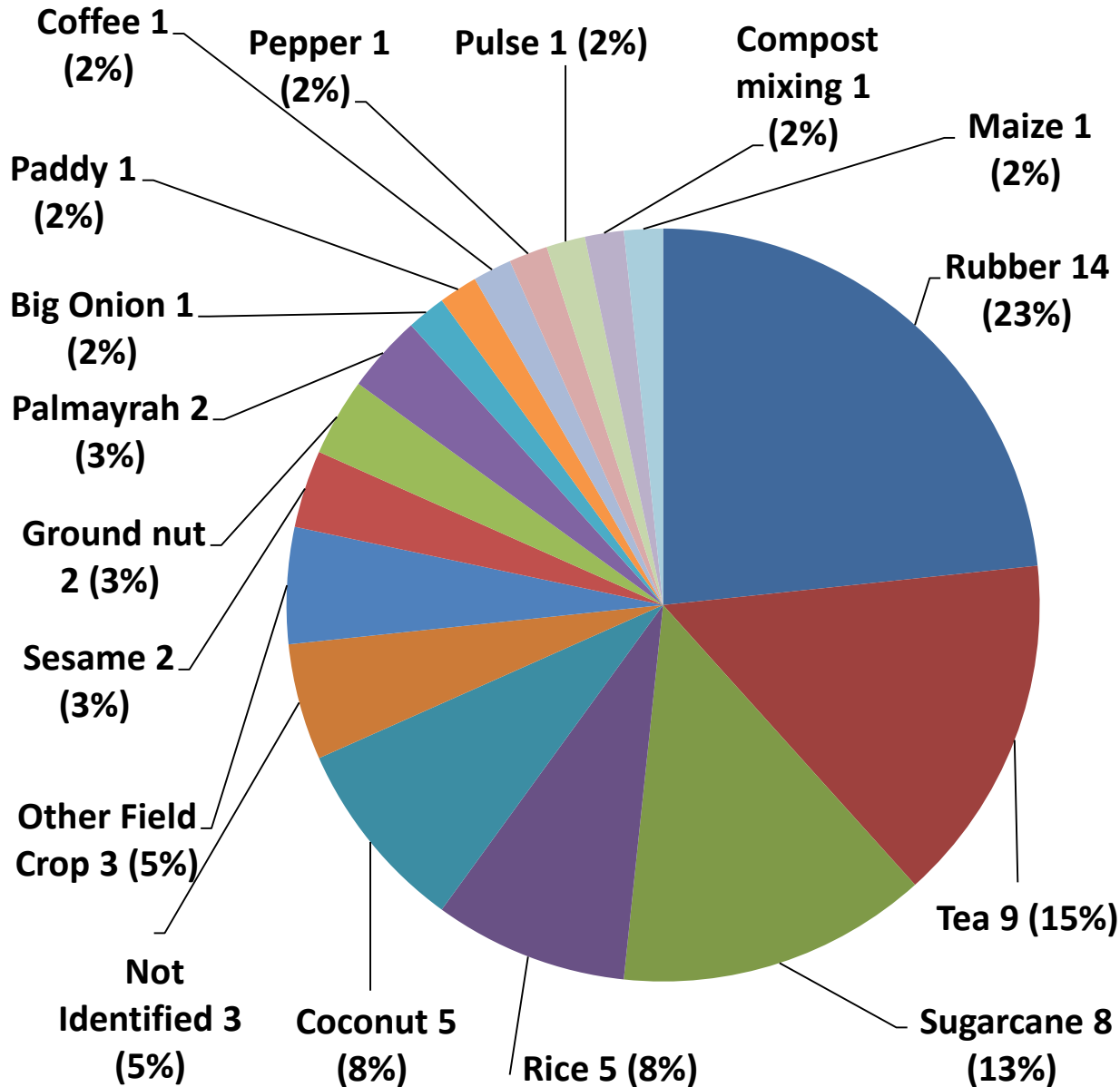
Land Preparation
Crop Establishment
Crop Management
Harvesting
Post-harvesting
By-products, Residue and Waste Management and Pollution Control
Adoption of available technologies for agricultural mechanization
Mechanization in Livestock, Aquaculture and Fisheries
Mechanization for nursery management and mushroom cultivation
Quality Control Safety and Related Aspects of Agricultural Mechanization
Recommendations for Policy changes/Improvements
Recommendations for policy changes in Human Resource and Research and Development

Research Projects by National Priorities in Agricultural Mechanization 2017



Priority Area	No. of Research projects
Post-harvesting	20
Available tech. for Agri. Mechanization	11
Crop Establishment	10
Waste mgt. and Polution ctrl.	9
Harvesting	4
Land preparation	3
Crop Mgt.	1
Quality ctrl Safety & Related Aspects	1
Mech. For nursery mgt. & mushroom cultivation	1
Total	60

Agricultural Mechanization Research Projects by Crops - 2017



Name of Crop	Number of Research Projects
Rubber	14
Tea	9
Sugarcane	8
Rice	5
Coconut	5
Not identified	3
Other Field Crops	3
Sesame	2
Ground nut	2
Palmayrah	2
Big Onion	1
Paddy	1
coffee	1
pepper	1
Pulse	1
Compost Mixing	1
Maize	1
Total	60

Socio-Economics & Policy Analysis

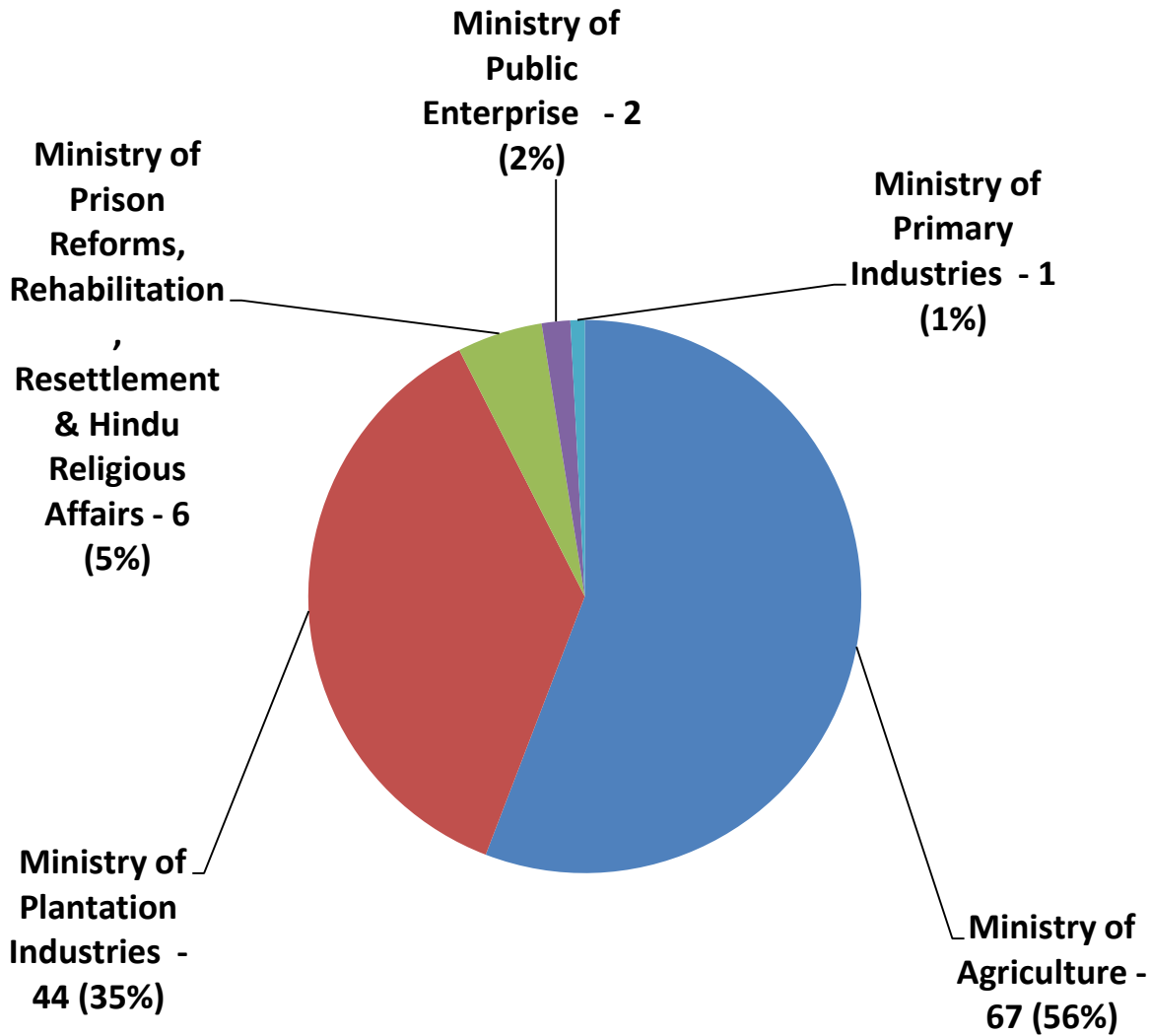
National Agricultural Research System 2017

Total Number of Socio-Economic Research
Projects = 120

All are within Research Priorities

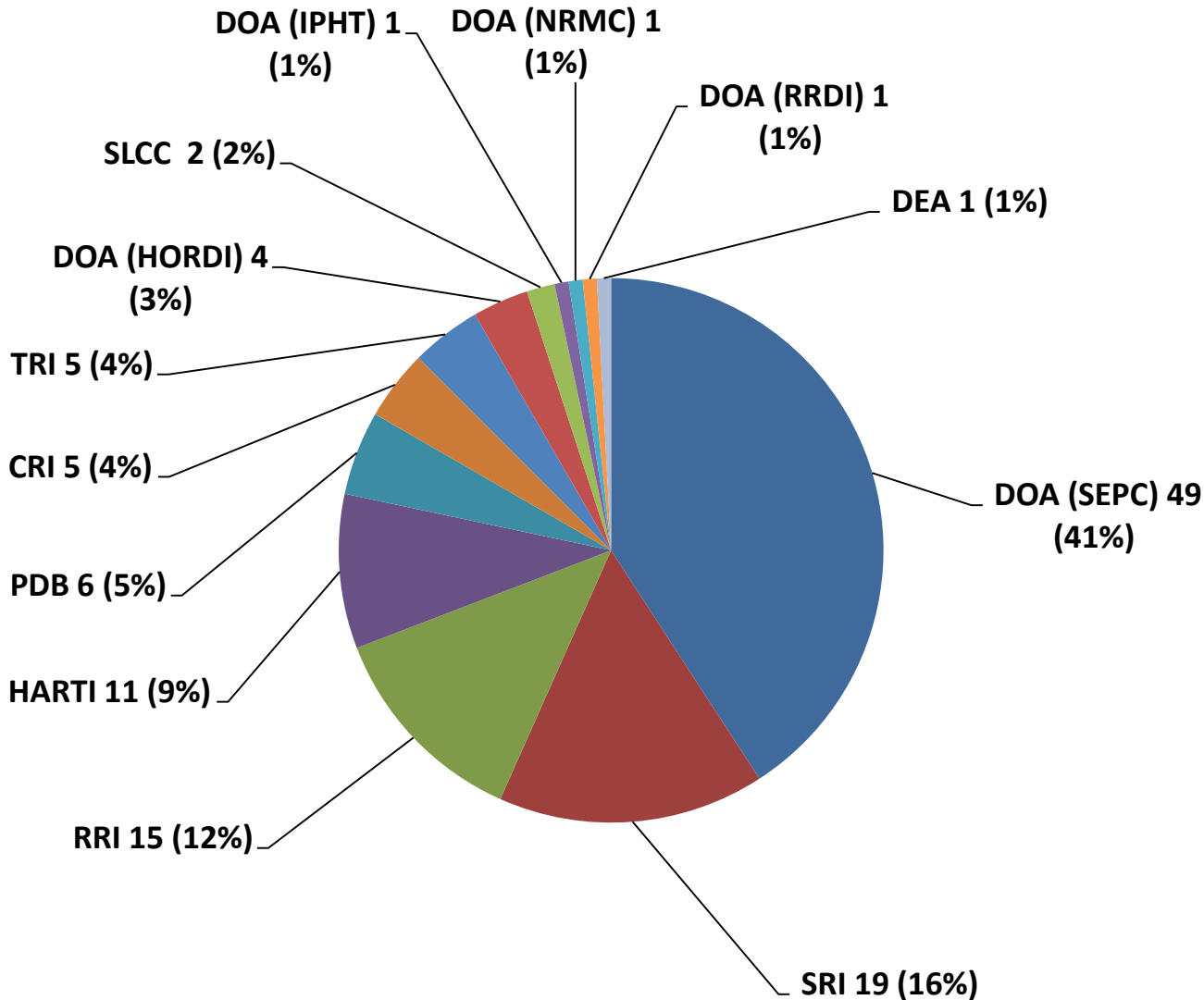
Total Budget Allocation (Rs. mn.) = 116.8931

Socio Economics Research Projects by Ministry - 2017



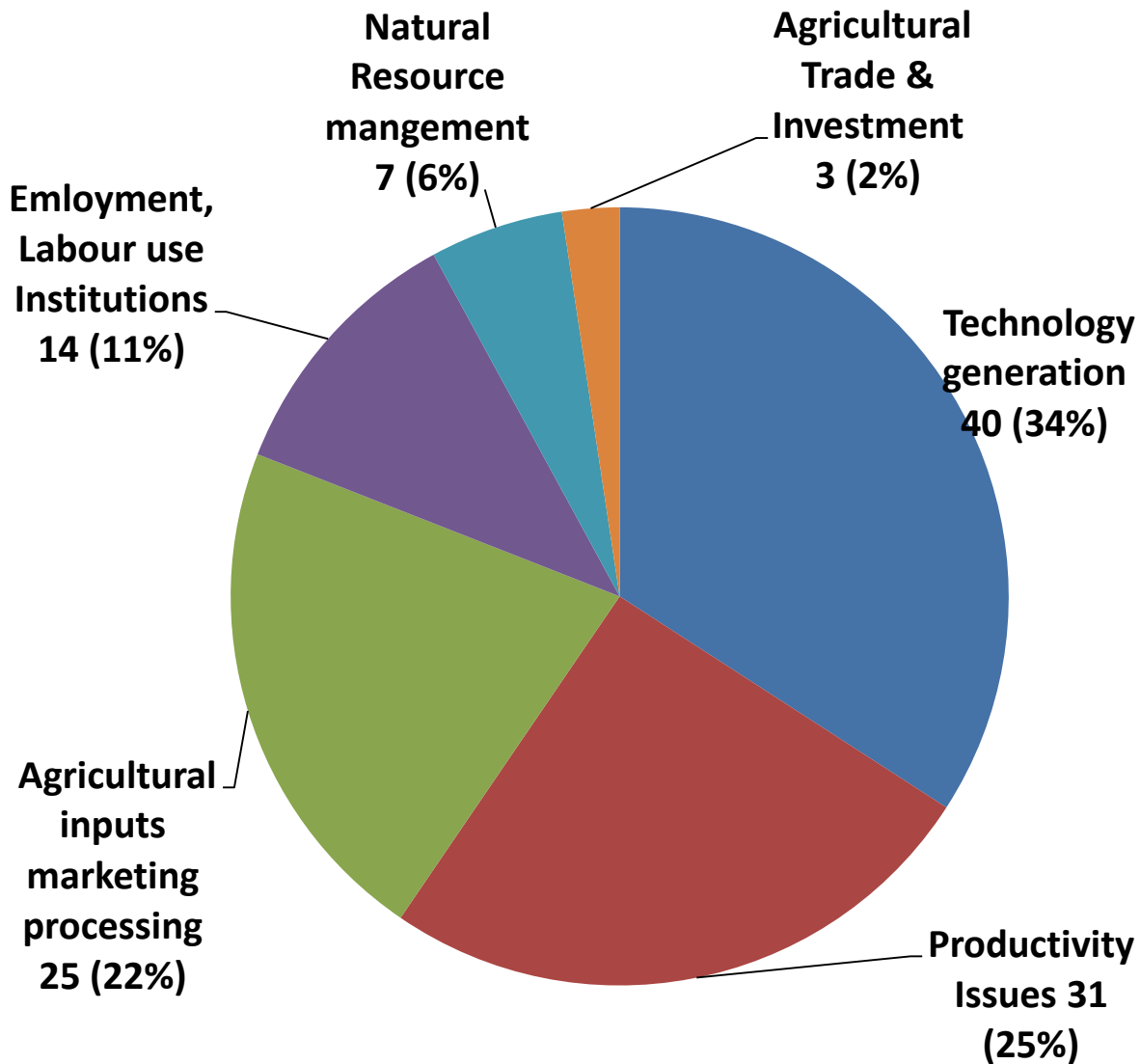
Ministry	No. of Research Projects
Ministry of Agriculture	67
Ministry of Plantation Industries	44
Ministry of Prison Reforms, Rehabilitation, Resettlement and Hindu Religious Affairs	6
Ministry of Public Enterprise Development	2
Ministry of Primary Industries	1
Total	120

Socio Economics Research Projects by Institution - 2017



Institution	No. of Research Projects
DOA (SEPC)	49
DOA(HORDI)	4
DOA (IPHT)	1
DOA (NRMC)	1
DOA (RRDI)	1
CRI	5
TRI	5
RRI	15
SLCC	2
HARTI	11
PDB	6
SRI	19
DEA	1
Total	120

**Socio Economics Research Projects by Priority
Research Area
2017**



Priority Area	No. of Research Projects
Technology generation & transfer	40
Productivity issues relayed to competitiveness	31
Agricultural inputs Marketing processing & value addition	25
Employment, Labor use, Institutions & rural development	14
Natural Resource Management & environmental sustainability	7
Agricultural Trade & investment	3
Total	120

Status of Socio Economics Research Projects being undertaken in the National Agricultural Research System- 2017

Ministry	Research Institute	No. of Resaerch Projects	Budget in 2017(Rs.mn)
MOA	RRDI	1	9.0531
MOA	HORDI	4	5.06
MOA	NRMC	1	1.06
MOA	SEPC	49	5.056
MO(PI)	SRI	19	12.73
MO(PI)	RRI	15	1.148
MOA	HARTI	11	49.714
MPRRRHRA	PDB	6	4.354
MO(PI)	TRI	5	4.2
MOA	IPHT	1	3.31
MOA	DEA	1	0.9
MPED	SLCC	2	18.188
MO(PI)	CRI	5	2.12
TOTAL		120	116.8931

Status of Socio Economics Research Projects being undertaken in the National Agricultural Research System by Crops/Disciplines- 2017

Name of Crop	Number of Research Projects
Agricultural Information	2
Big Onion	1
Bojunhala	1
Cashew	2
Chilie	2
Coconut	5
Farm	2
Floriculture and Fruits	6

Status of Socio Economics Research Projects being undertaken in the National Agricultural Research System by Crops/Disciplines- 2017 cont..

Groundnut	2
Green gram	2
Maize	5
Mushroom	1
Not mentioned	19
Pepper	1
Rice	1
Rubber	19
seeds	2
Sesame	2
Soya bean	1
sugarcane	19
Vegetable	5
Tea	5
Potato	1
Paddy	12
Palmayrah	6

Comments

- Not examine the;
 - Quality of the research projects
 - Research Duplication over the years
- Number of Research Projects on Trade & Investment is comparatively less
- This could be matched with the number of socio-economists at present & how it match with future capacity building

Pre budget Tax Policy

Tax Removal			
Removal of Price Ceiling for Rice			
Removal of Internet Tax	10%		
Loan Scheme			
Loan Scheme	Loan (Rs)	Interest (Yr)	Pay back Time
Farmer Insurance scheme (Navoda)	0.5 Mn	3.27%	5years
Chicken Production Promotion Scheme (Dirisaviya) - Purchasing of Refrigerators	0.05 Mn	0%	5years
Small and Medium Scale Entrepreneurs Promotion Scheme- (Jayaisuru) - Agriculture/Fisheries/Garments/Floriculture/Home Gardening/Printing -	50 Mn	6.54%	
Home Loan (Sonduru Piyasa)	0.2 Mn	6.50%	
Journalist Loan (Madya Aruna)	0.3 Mn	0%	4 Years
Price Reduction			
Item	ê Price		
Motor Bicycle			
Less than 50cc	0.05 Mn		
Between 50cc - 150 cc	0.1 Mn		
Mini Truck			
Single Cab	0.3 Mn		
Mini Truck (Batta)	0.3 Mn		

Livestock & Poultry

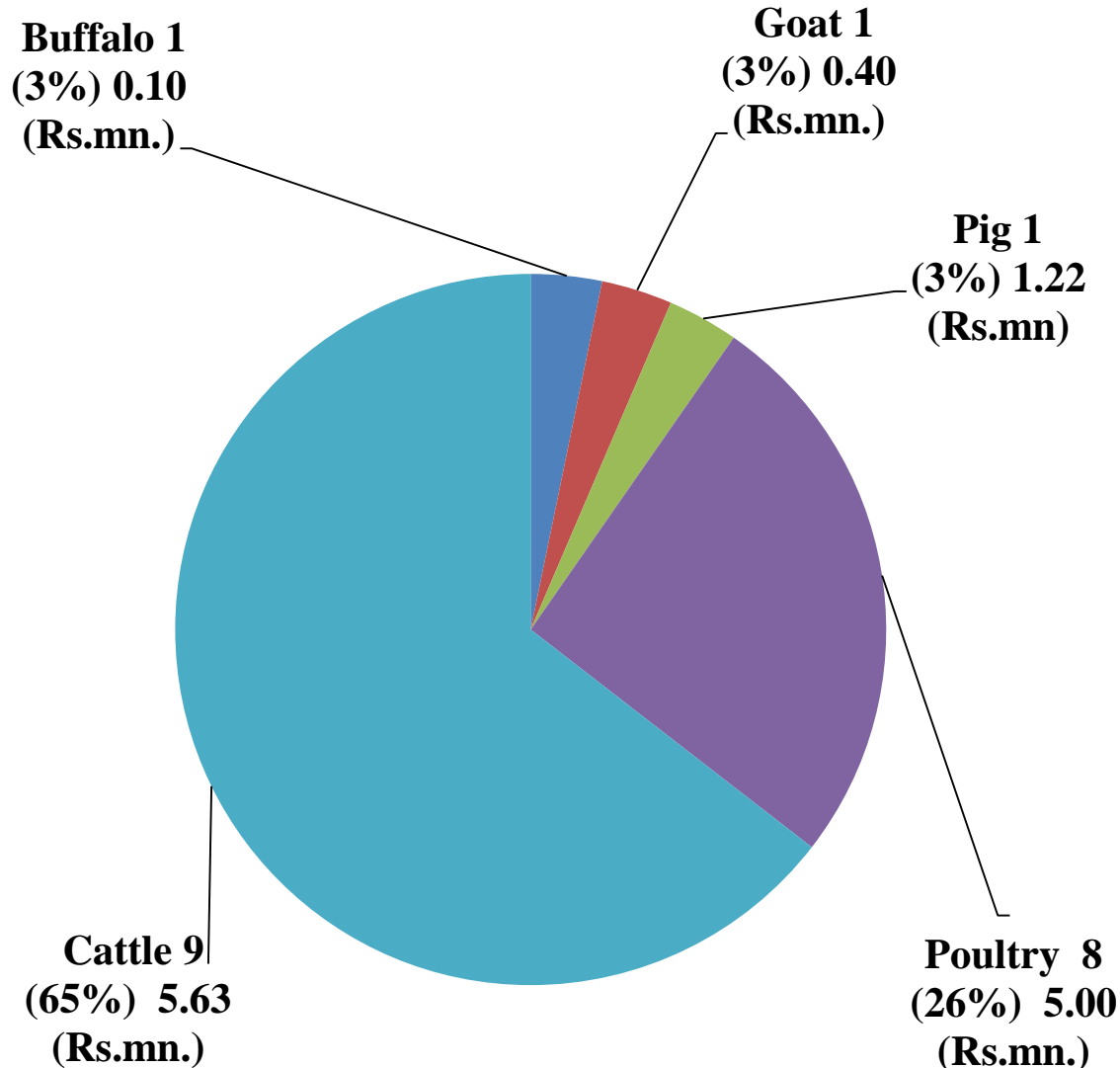
Livestock & Poultry Research Projects – 2017

- Ministry of Rural Economy
- Research Organization = VRI
- Total Number of Research Projects = 20
- Total Budget for Research Projects =
Rs.mn. 12.35

**Livestock & Poultry Research
Projects by Number & Budget- 2017**

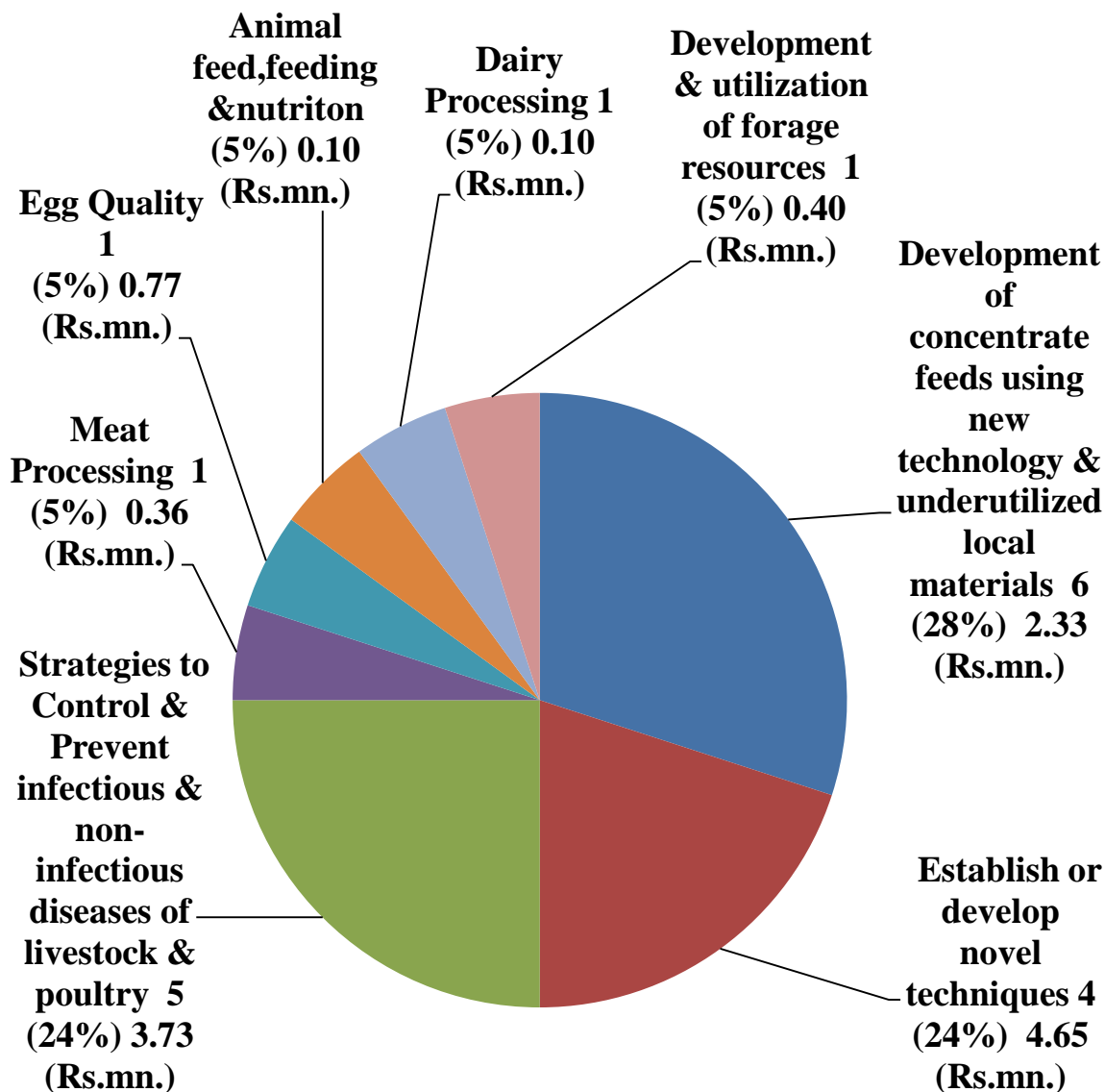
Animal Category	Animal	No. of Research Projects	Budget (Rs.mn.)
Livestock	Cattle	9	5.63
	Pig	1	1.22
	Buffalo	1	0.10
	Goat	1	0.40
Poultry	Poultry	8	5.00
Total		20	12.35

Livestock & Poultry Research Projects by Number & Budget



Animal Category	Animal	No. of Research Projects	Budget (Rs.mn)
Livestock	Cattle	9	5.63
	Pig	1	1.22
	Buffalo	1	0.10
	Goat	1	0.40
Poultry	Poultry	8	5.00
Total		20	12.35

Livestock & Poultry Research Projects by Research Sub Theme -2017

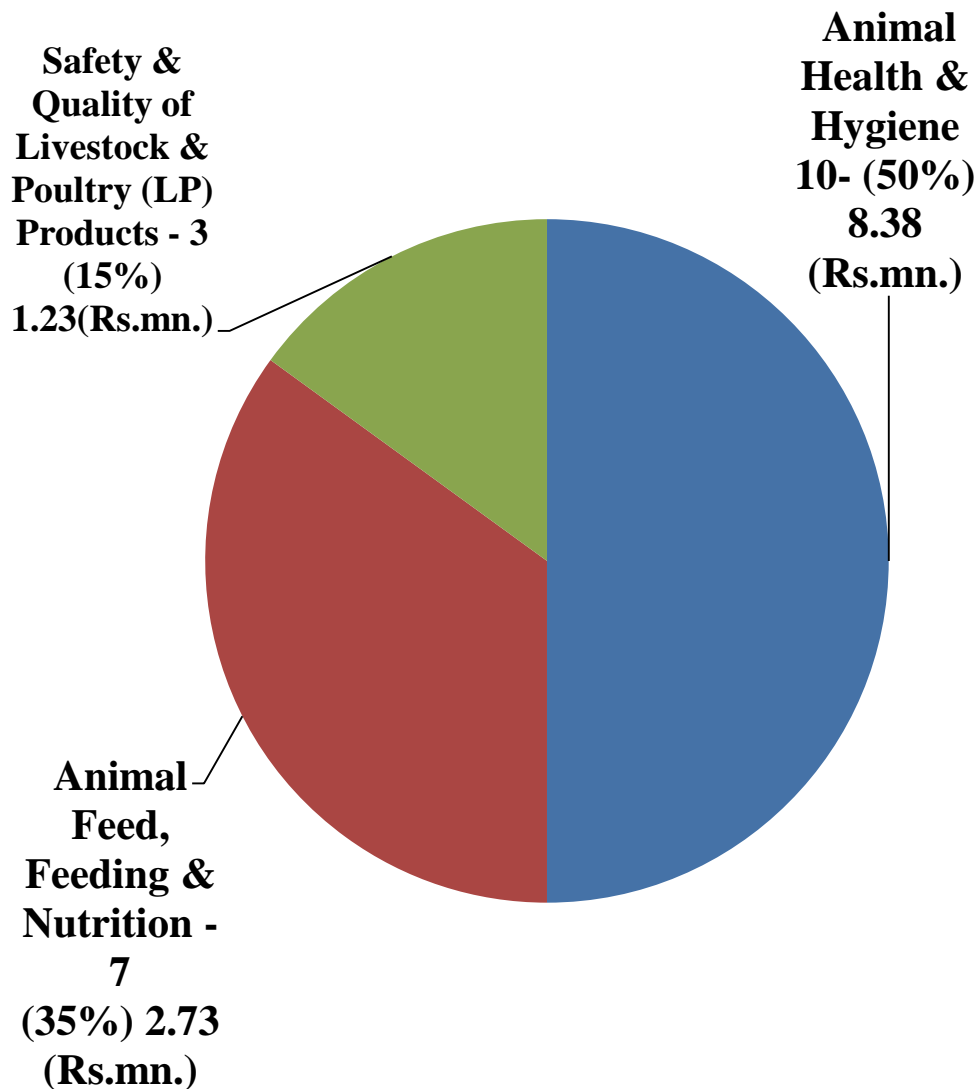


Research Sub Theme Area	No. of Research Projects	Budget (Rs.mn.)
Development of concentrate feeds using new technologies & underutilized local materials	6	2.33
Establish or develop novel techniques to facilitate rapid & early detection of Pathogens	5	4.65
Strategies to control & prevent infectious & non-infectious diseases of livestock & poultry	5	3.73
Meat Processing	1	0.36
Egg Quality	1	0.77
Dairy Processing	1	0.10
Development & utilization of forage resources	1	0.40
Total	20	12.35

Livestock & Poultry Research Projects by Research Thrust Area - 2017

Research Thrust Area	No. of Research Projects	Budget (Rs.mn.)
Animal Health & Hygiene	10	8.38
Animal Feed, Feeding & Nutrition	7	2.73
Safety & Quality of Livestock & Poultry (LP) Products	3	1.23
Animal Breeding & Reproduction	0	0.00
Production Systems, Economics & Marketing	0	0.00
Livestock Waste, Environment & Society	0	0.00
Animal (Livestock) Welfare	0	0.00
Total	20	12.35

Livestock & Poultry Research Projects & Budgets by Research Thrust Area



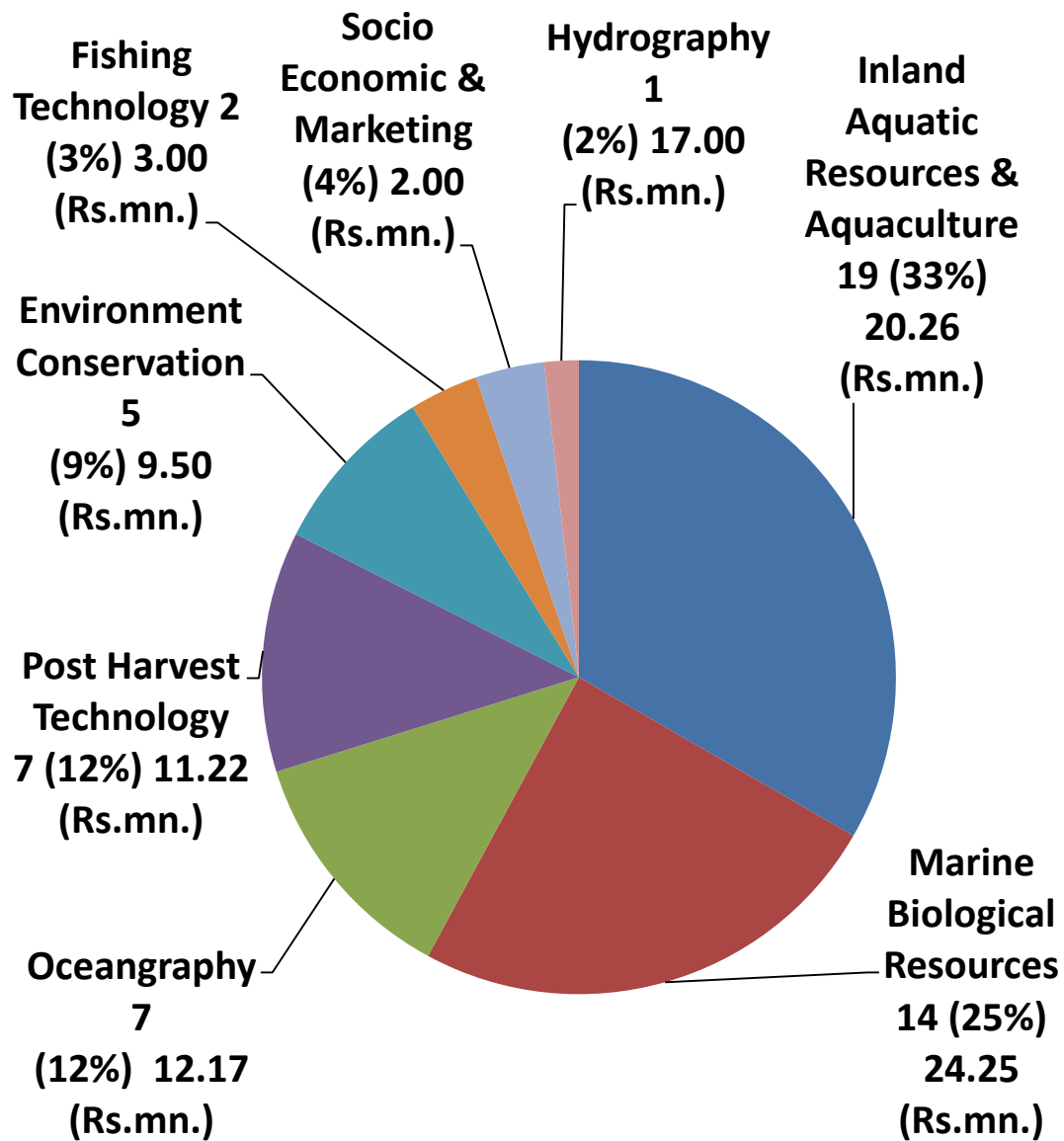
Research Thrust Area	No. of Research Projects	Budget (Rs.mn.)
Animal Health & Hygiene	10	8.38
Animal Feed, Feeding & Nutrition	7	2.73
Safety & Quality of Livestock & Poultry (LP) Products	3	1.23
Animal Breeding & Reproduction	0	0.00
Production Systems, Economics & Marketing	0	0.00
Livestock Waste, Environment & Society	0	0.00
Animal (Livestock) Welfare	0	0.00
Total	20	12.35

Aquatic Resources

Aquatic Resources Research Projects - 2017

- Ministry of Fisheries
- Research Organization – NARA
- Total Number of Research Projects = 57
- Total Budget for Research Projects = Rs.
mn. 99.412

Aquatic Resources Research Projects & Budgets by Research Thrust Area - 2017



Research Thrust Area	No. of Research Projects	Budget (Rs.mn.)
Inland Aquatic Resources & Aquaculture	19	20.26
Marine Biological Resources	14	24.25
Oceangraphy	7	12.17
Post Harvest Technology	7	11.22
Environmental Conservation	5	9.50
Fishing Technology	2	3.00
Socio Economic & Marketing	2	2.00
Hydrography	1	17.00
Total	57	99.41

Forestry

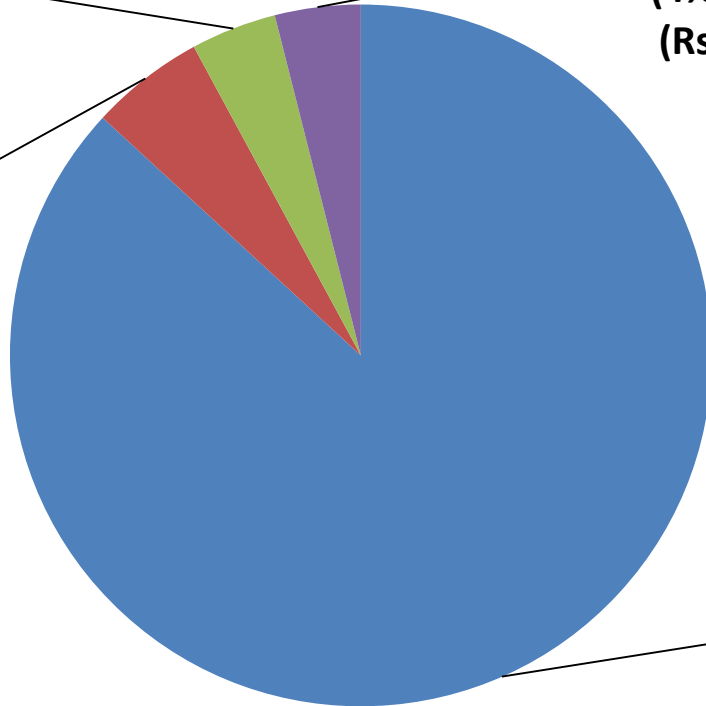
Forestry Research Projects – 2017

- Ministry of Mahaweli Development & Environment
- Research Organization = FD
- Total Number of Research Projects = 76
- Total Budget Of Research Projects = 5.174 (Rs.mn.)

Forestry Research Projects by Research Thrust Area - 2017

Wood Products Trade & Energy 3 (4%) 0.12 (Rs.mn.)

Climate Change & Forestry 4 (5%) 0.98 (Rs.mn.)



Agro forestry & Non-wood Forest Products 3 (4%) 0.23 (Rs.mn.)

Conservation & Sustainable Management 66 (87%) 4.12 (Rs.mn.)

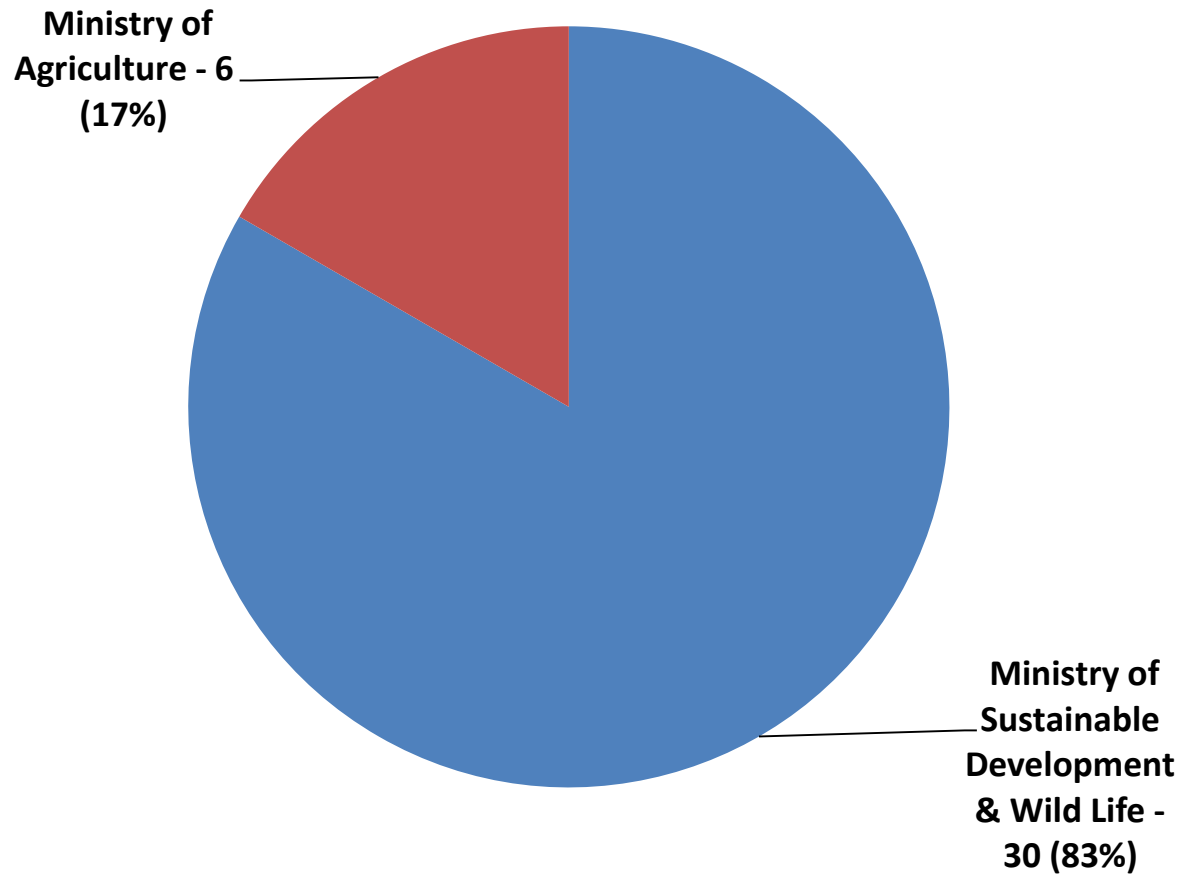
Research Thrust Area	No. of Research Projects	Budget (Rs.mn.)
Conservation & Sustainable Management	66	4.12
Climate Change & Forestry	4	0.98
Wood Products Trade & Energy	3	0.12
Agro forestry & Non-wood Forest Products	3	0.23
Total	76	5.174

Forestry Research Projects by Crops & Budget – 2017

Name of Crop	No. of Research Projects	Budget (Rs.mn.)
Teak	16	1.98
Eucalyptus	12	0.40
Forest Trees	11	0.91
Local Species	8	0.70
Khaya	4	0.11
Jatropha	3	0.07
Fuel wood Species	2	0.10
Hora	2	0.04
Invasive Species	2	0.09
Wallapatta	2	0.14
Community Forestry	1	0.15
Fire Belt	1	0.07
Hulanhik	1	0.01
Mahogany	1	0.01
Nedun	1	0.007
NTFP	1	0.01
Ochlandra stridula (Waga)	1	0.09
Palu	1	0.002
Para Mara	1	0.009
Pines	1	0.006
Rattan	1	0.01
Sandal Wood	1	0.01
Tectona Grandis	1	0.21
Valuable Timber Species	1	0.04
Total	76	5.174

Floriculture Research & Development

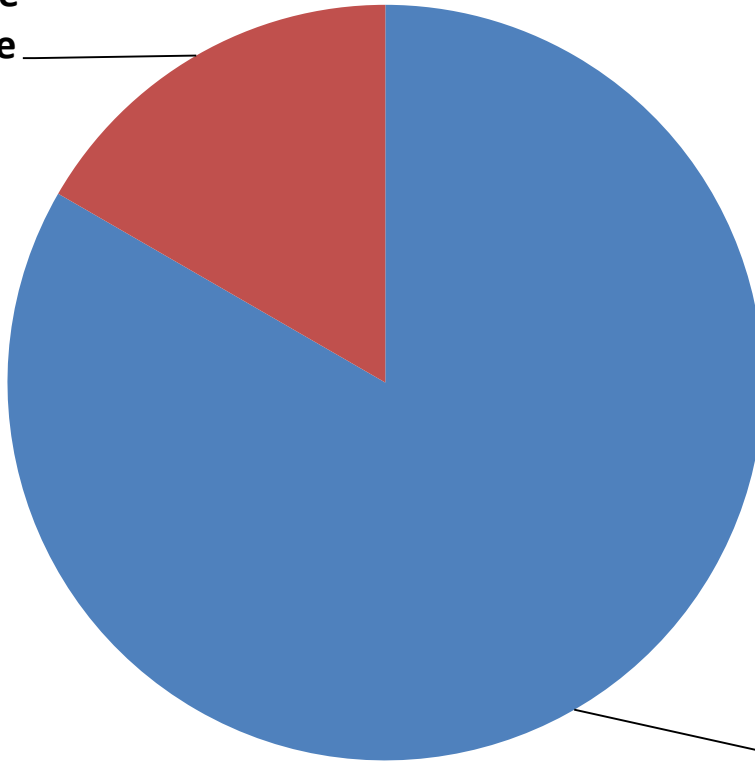
Floriculture Research & Development Research Projects by Ministry - 2017



Ministry	No. of Research Projects
Ministry of Sustainable Development & Wild Life (MSD & WL)	30
Ministry of Agriculture	6
Total	36

Floriculture Research & Development Research Projects by Institution - 2017

Horticulture
Crops
Research
Development
Institute
(DOA) 6
(17%)

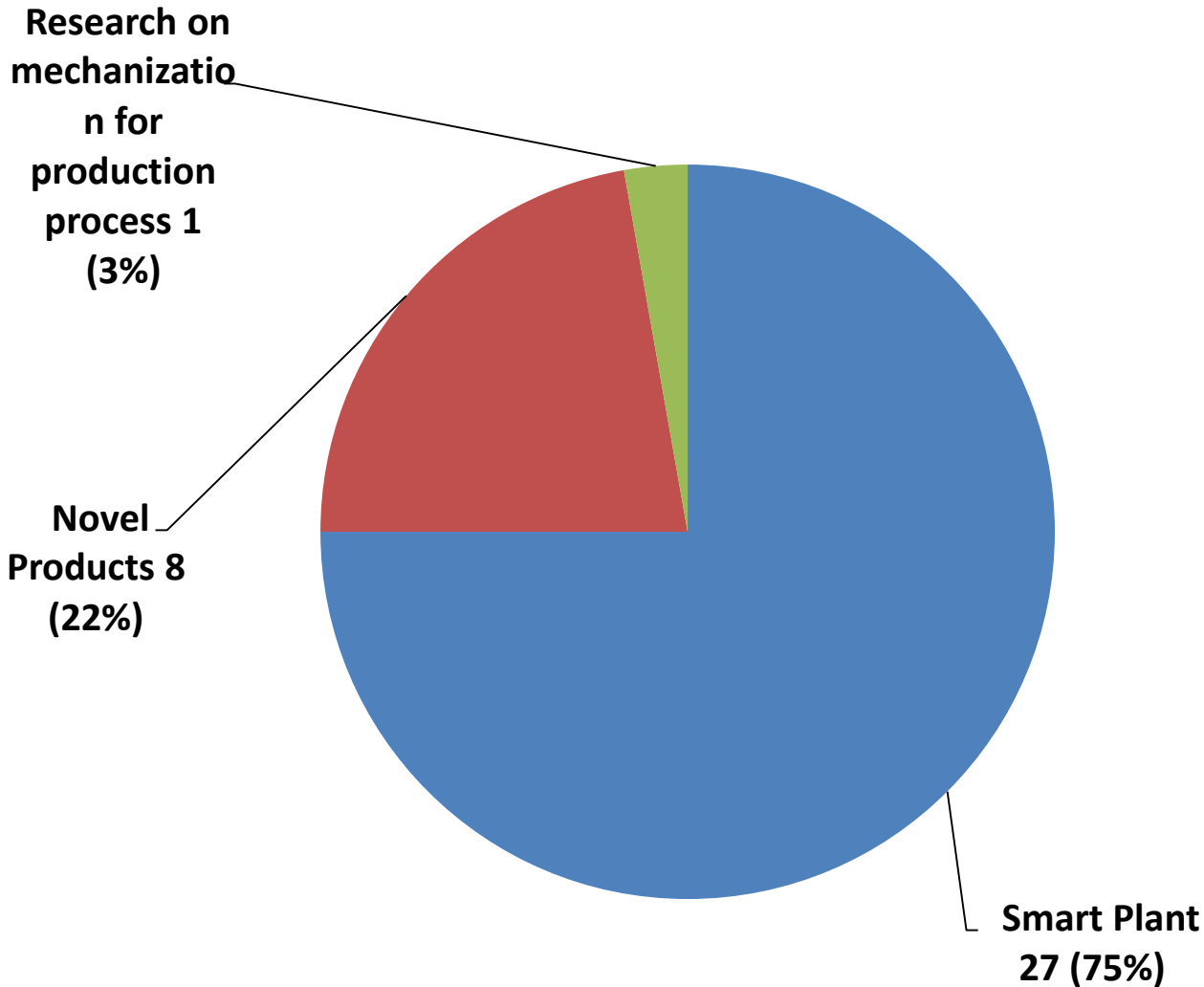


National
Botanical
Garden 30
(83%)

Institution	No. of Research Projects
Horticulture Crops Research Development Institute (DOA)	6
National Botanical Garden	30
Total	36

Floriculture Research & Development

Research Projects by Research Thrust Area - 2017

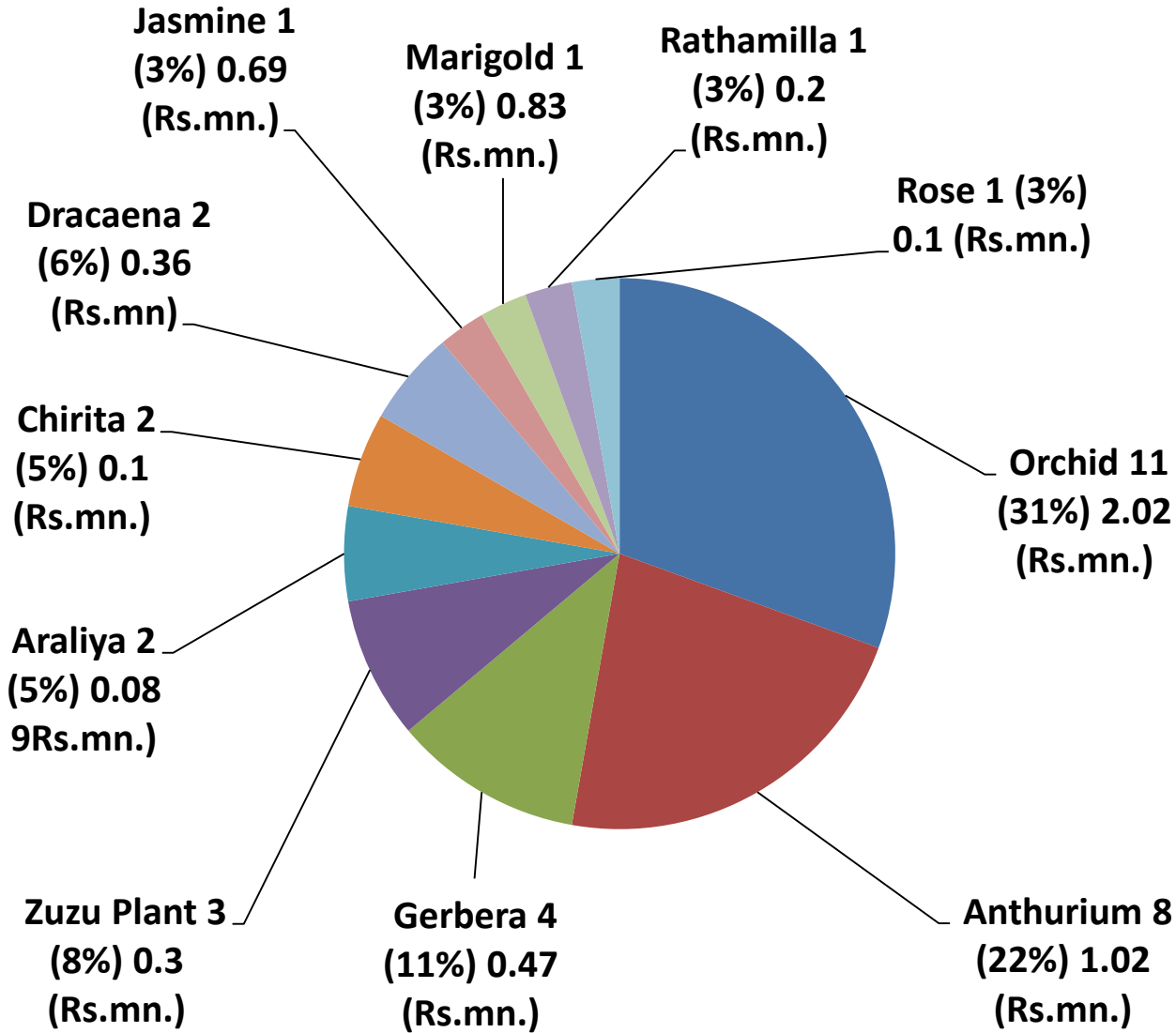


Research Thrust Area	No. of Research Projects
Smart Plant	27
Novel Products	8
Research on mechanization for Production Process	1
Total	36

Floriculture Research & Development Research Projects by Crops & Budget - 2017

Name of Crop	No. of Research Projects	Budget (Rs.mn.)
Orchid	11	2.02
Anthurium	8	1.02
Gerbera	4	0.47
Zuzu Plant	3	0.3
Araliya	2	0.08
Chirita	2	0.1
Dracaeana	2	0.36
Jasmine	1	0.69
Marigold	1	0.83
Rathamilla	1	0.2
Rose	1	0.1
Total	36	6.17

Floriculture Research & Development Research Projects by Crops & Budget - 2017



Name of Crop	No. of Research Projects	Budget (Rs.mn.)
Orchid	11	2.02
Anthurium	8	1.02
Gerbera	4	0.47
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Chirita	2	0.1
Dracaena	2	0.36
Jasmine	1	0.69
Marigold	1	0.83
Rathamilla	1	0.2
Rose	1	0.1
Total	36	6.17