

VISION

Our vision is to be the Centre of Excellence in coconut research, technology development, and technology transfer in the region

MISSION

Our mission is to generate knowledge and technology through excellence in research towards increasing productivity and profitability of coconut

BUDGET SUMMARY

Capital Expenditure 2016

Budget Category	Total Estimate (Rs. Mln)
Research & Development expenses	58.0
Building & Structures	31.00
Office Furniture & Equipment	5.864
Field Equipment	1.545
Computer Equipment	3.155
Household Furniture & Equipment	5.864
Vehicle	3.0
Other capital expenses	1.0
TOTAL	100.00

Laboratory complex (CRI income)	24.0
Laboratory Equipment (Ministry funds)	29.96

Recurrent Expenditure 2016

Budget Category	Total Estimate (Rs. Million)
Personal Emoluments	194.133
Travelling expenses	2.247
Supplies expenses	12.821
Maintenance expenses	20.384
Contractual services expenses	24.384
Other recurrent expenses	16.405
TOTAL	270.00

ACTION PLAN 2016
COCONUT RESEARCH INSTITUTE

RESEARCH (R - Recurrent Expenditure, Others –Capital Expenditure)

Thrust	Proposed activity	Experiment	Allocation for 2016 Rs. Mn	Date of commencement	Date of completion	Financial Targets 2016 (Rs.) (Cumulative)				Physical targets 2016 (Cumulative %)				Output/indicator (Total)	Output/indicator (2016)	Responsible officer
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
1. Breeding and micro propagation of coconut	Project 1.1.1 Development of new cultivars and their evaluation under different climatic and management conditions	Experiment 1.1.1.1 Evaluation of hybrid vigor of brown dwarf crosses for yield and tolerance to moisture stress in different agro ecological zones	0.435	2004	2020	0.1	0.2	0.3	0.435	25	50	75	100	Release of new high yielding coconut hybrids for sustainable development of coconut plantation sector. Identification of drought tolerant coconut hybrids for drought stress areas	Collection of yield records 06 times Collection of fruit component data 03 times Collection of climatic data each month	GPBD Dr. L. Perera Mr. Ruwan Kumara
	Project 1.1.1 Development of new cultivars and their evaluation under different climatic and management conditions	Experiment 1.1.1.2 Evaluation of hybrid vigor of Sri Lanka Tall and Sri Lanka Dwarf crossed with exotic varieties	0.4	2008	2020	0.1	0.2	0.3	0.4	25	50	75	100	Release of new dwarf x tall and tall x tall coconut hybrids for sustainable development of coconut plantation sector	Collection of yield record 06 times Collection of fruit component data 03 times Collection of climatic data each month	GPBD Dr. L. Perera Mr. Ruwan Kumara Dr. S.A.C.N. Perera
		Experiment 1.1.1.3 Development and evaluation of intra-varietal dwarf coconut hybrids for home gardens and beverage purpose	0.2	2008	2020	0.05	0.1	0.15	0.2	25	50	75	100	Release of short stature high yielding coconut variety for urban home gardens and for beverage purpose	Collection of yield records 06 times Collection of fruit component data 03 times Collection of climatic data each month	GPBD Dr. L. Perera

	Experiment 1.1.1.4 Physiological evaluation of Brown dwarf and exotic crosses for drought and heat tolerance under different agro climatic conditions	0.30	2012	2015	0.05	0.15	0.23	0.30	20	50	80	100	Identification of potential crosses for higher yields and putative tolerance to abiotic stresses based on physiological traits	Study the pollen physiology of 7 crosses (4 varieties with exotic pollen)	PPD & GPBD Dr. A Nainanayake Dr. L Perera
	Experiment 1.1.1.6 Evaluation of drought tolerant Sri Lanka tall accession Ambakelle special in different agro climatic zones	0.48	2016	2031	0.12	0.24	0.36	0.48	25	50	75	100	Determination of the performance of drought tolerant Sri Lanka tall accession Ambakelle special in different agro climatic zones	Completion of planting 04 experimental sites Collection of 02 sets of growth measurements data	GPBD & PPD Mr. Ruwan Kumara Dr. L. Perera Dr. A. D. Nainanayake
Project 1.1.2 Development of new cultivars resistant to pests and diseases	Experiment 1.1.2.1 Development of coconut cultivars resistant/tolerant to coconut <i>Aceria</i> mite	0.48	2006	2018	0.12	0.24	0.36	0.48	25	50	75	100	Recommend novel coconut hybrid/hybrids tolerant or less susceptible to <i>Aceria</i> mite infestation	Collection of flowering data 12 times Collection of yield data 06 times at Sirigampola site Collection of growth data 02 times	GPBD Dr. S.A.C.N. Perera
	Experiment 1.1.2.2 Screening of coconut varieties/ hybrids tolerant to Weligama Coconut Leaf Wilt Disease	0.4 Mini stry funds	2009	2020					25	50	75	100	Identify tolerant/ resistant cultivars to WCLWD and recommend to WCLWD affected areas for planting.	Recording of disease incidence 03 times Collection of growth data 02 times	GPBD Dr. L. Perera Mr. Ruwn Kumara Dr. S.A.C.N. Perera
	Experiment 1.1.2.3 Development of new cultivars tolerant/ resistant to Weligama Coconut Leaf Wilt Disease	1.0 Mini stry funds	2011	2017					25	50	75	100	Identify and recommend WCLWD tolerant coconut cultivars/hybrids for WCLWD affected areas	Establish 04 more experiments at growers field Record disease incidence 03 times	GPBD Dr. S.A.C.N. Perera

Project 1.1.3 Use of molecular biological techniques to enhance breeding programme	Experiment 1.1.3.1 Construction of a coconut genome map	0.98	2008	2017	0.24 5	0.49	0.73 5	0.98	25	50	75	100	Availability of a genetic map of coconut for marker assisted selection and breeding for increased efficiency in the coconut breeding programme	Completion of genotyping of F1 with DarT markers Collection of yield data from F1 06 times Collection of fruit component data from F2 03 times	GPBD Dr. S.A.C.N. Perera
Project 1.2 Conserving and enriching coconut germplasm	Experiment 1.2.1 Collection and conservation of local and exotic germplasm and utilization in breeding programmes	1.44	1990	Cont.	0.36	0.72	1.08	1533	25	50	75	100	Availability of fully characterized local and exotic genetic materials for future breeding programme Arrest genetic erosion of coconut	Continuous Pollination of 25 exotic coconut palms Button nut counting and other growth data collection 06 times	GPBD Dr. L. Perera Dr. S.A.C.N. Perera
Project 1.3.1 Improve protocols for embryo rescue and safe exchange of germplasm	Experiment 1.3.1.4 Improvement of acclimatization of in vitro raised plants by CO2 enrichment	0.11 (R)	2013	2016	0.01	0.04	0.09	0.11	10	40	80	100	Improved acclimatization protocol of in vitro raised plants through CO ₂ enrichment	10 month data recording under elevated CO ₂ and 2 levels of reduced sucrose	TCD Dr. V. Vidhanaarachchi Dr. D Bandupriya
	Experiment 1.3.1.5 Investigations on cryopreservation of callus and somatic embryos	0.12 (R) + 0.56 (NSF grant)	2014	2016	0.02	0.05	0.1	0.12	30	60	80	100	Development of a protocol for long term storage of somatic embryos	Eight month data record on survival and recovery after cryopreservation. (Two sucrose concentrations, three pretreatment durations and four dehydration durations will be tested). Determination of genetic stability of 15 recovered samples using SSR	TCD Dr. D Bandupriya Dr. V. Vidhanaarachchi
	Experiment 1.3.1.6 Field performance and molecular evaluation of coconut palms regenerated from somatic embryogenic cultures	0.03 (NR C grant)	2015	2016	0.01	0.02	0.03	0	25	60	90	100		Collection of data on fruit components, physiological parameters, morphological parameters and agronomical parameters from 12 clonal palms and 12 control palms. Analysis of 12 clonal palms with 13 SSR markers.	TCD Dr.H D D Bandupriya Dr.C S Ranasinghe Dr.S A C N Perera Dr.C Yalagama

Project 1.3.2 Develop a vegetative propagation protocol using unfertilized ovary culture	Experiment 1.3.2.2 Induction of somatic embryogenesis and plant regeneration in ovary-derived callus	1.06 (R)	1997	2017	0.1	0.4	0.9	1.06	20	50	90	100	Development of a protocol to induce somatic embryogenesis and plant regeneration in ovary-derived callus.	Production of 250 tissue cultured plants and acclimatization of 50 plants	TCD Dr. V. Vidhanaarachchi Dr. D Bandupriya
	Experiment 1.3.2.4 Selection of elite mother palms with high in vitro regeneration potential	0.5 (R)	2010	2017	0.05	0.2	0.4	0.5	20	50	90	100	Identification of elite palms responding to tissue culture for future explants collection for mass propagation	Screening of 12 mother palms from cultivars DT, TSR and WCLWD tolerant palms	TCD Dr. V. Vidhanaarachchi Dr. D Bandupriya
	Experiment 1.3.2.6 Investigations of gene expression on somatic embryogenesis	0.2 (R)	2014	2017	0.01	0.08	0.18	0.2	20	50	90	100	Identification of molecular markers to identify highly responsive explants and cultures	Detection of relative expression of two genes in a time course (10 samples at different phases) during coconut somatic embryogenesis	TCD Dr. D Bandupriya Dr. V. Vidhanaarachchi
Project 1.3.3 Improvement of protocols for production of dihaploid plants using anther and microspore culture	Experiment 1.3.3.2 Development of a protocol for anther culture in haploid plant production	0.2 (R)	1997	2015	0.05	0.1	0.18	0.2	15	40	75	100	Development of a protocol for androgenizes of coconut and field establishment of dihaploid coconut palms	Production of 50 haploid plants. Acclimatization of at least 20 plants.	TCD Dr. D Bandupriya Dr. V. Vidhanaarachchi
	Experiment 1.3.3.4 Selection of elite mother palms with high androgenic potential	0.12 (R)	2013	2015	0.01	0.02	0.09	0.13	10	45	85	100	Identification of mother palms responding to androgenesis for future explants collection	Screening of 15 mother palms for androgenic potential (Sri Lanka Tall cultivar and San Ramon Tall cultivar)	TCD Dr. D Bandupriya Dr. V. Vidhanaarachchi
	Experiment 1.3.3.5 Development of a protocol for microspore culture	0.08 (R)	2014	2017	0.01	0.05	0.07	0.08	20	40	60	100	Development of a protocol for microspore culture	Ten month data record of embryo formation; testing of four inflorescence maturity stages and four hormonal combinations	TCD Dr. D Bandupriya Dr. V. Vidhanaarachchi

2. Managing plant and soil nutrients for maintaining soil fertility	Programme 2.1 <i>Formulating new fertilizer mixtures</i>	Experiment 2.1.1.4 Determination of the response of coconut palms to application of ERP with organic manure in dry zone	0.140	2011	2016	0.035	0.07	0.08	0.140	23	48	75	100	Recommend locally available low cost ERP for coconut lands in Dry zone instead of TSP.	Collect 90 leaf samples and 200 soil samples and analyse soil samples for chemical properties and different fractions of P and leaf samples for total P to collect further information about P status in manure and center of square of coconut to support the revision of P fertilizer recommendation.	SPND Dr. D.M.D.I. Wijebandara & Dr. N.A. Tennakoon
		Project 2.1.1 Evaluation of low cost local substitutes for phosphorus and Potassium	Experiment 2.1.1.5 Use of king coconut husk to produce an organic potassium source for agricultural use	0.067	2016	2018	0.014	0.03	0.05	0.067	25	50	70	100	Identification of an organic K source	Preparation of about 100kg of nutrient supplementary material from immature king coconut husks. Analysis of 20 representative samples for nutrient content.
	Project 2.1.2 Development of specific fertilizer mixtures for young coconut palms in Sri Lanka	Experiment 2.1.2.3 Use of nano fertilizer to improve the efficiency of fertilizer use in coconut	0.156	2014	2017	0.22	0.68	0.12	0.156	20	50	80	100	Comparison of effectiveness of the use of nano fertilizer with the conventional fertilizer. Determine potential of using nanofertilizer (N & K) for efficient utilization of fertilizer by coconut.	Collection of 12 harvest records at monthly intervals. Collection of 56 soil samples and analyzing them for six elements in each sample. Collection of 21 leaf samples from index leaf and chemical analysis samples for major six elements. Application of fertilizer for seven treatments	SPND Dr. H.M.I.K. Herath Ms. P.G. Scynthya & Dr. N.A. Tennakoon
	Project 2.1.3 Studies on interactions among different nutrients	Experiment 2.1.3.2 Evaluation of the effect of applying high doses of dolomite to improve Mg levels of coconut palms	0.315	2011	2018	0.031	0.062	0.188	0.315	15	50	75	100	Introduction of cheap Mg source (high doses) to prevent Mg deficiency instead of kieserite.	Collection of yield data in 08 picks. Collection of composite 21 leaf samples 21 soil samples from 63 coconut palms. Application of 09 treatments once in two sites	SPND Ms. M.K.F. Nadheesha & Dr. N.A. Tennakoon

															Analysis of 21 leaf samples and 21 soil samples for N, P, K and Mg. Analysis of 21 soil samples for pH, Organic carbon, N, P, K and Mg,	
Project 2.1.4 Assessment of the role and requirement of micronutrients in coconut plantations	Experiment 2.1.4.5 Evaluation of frequency of spraying of Cu and Zn fertilizer to increase Cu and Zn levels in seedlings	0.165	2013	2017	0.005	0.026	0.088	0.165	25	45	70	100	Correction of Cu and Zn deficiency in young and adult coconut palms by application of Cu and Zn	Establish the pot experiment with 60 coconut seedlings. Monthly spraying of Cu and Zn treatments. Monthly recording of growth parameters of the 60 seedlings. Monthly testing of Cu and Zn concentrations in leaves of the 60 seedlings.	SPND Dr. D.M.D.I. Wijebandara	
	Experiment 2.1.4.6 Response of coconut palms to NaCl application	0.245 (from SPND) + 0.050 (from PPD) 0.295	2015	2018	0.060	0.105	0.200	0.295	20	40	65	100	Determine short term effect of NaCl application on the nutritional behavior and the performance of coconut palms	Collection of 192 soil samples and analyzing them for chemical parameters. Collection of 192 soil samples and analyzing them for physical parameters. Collection of 96 leaf samples and analyzing them for six nutrients. Collection of 72 mature nut and analyzing for fruit components. Collection of physiological data in 48 palms monthly intervals. Collection of 16 pick records in two sites at 45 day intervals. Fertilizer application for two sites with four treatments.	SPND, PPD & CPRD Ms. D M P D Dissanayake Dr.N.A.Tenakoon, Dr.C.S. Ranasinghe, Dr.D.M.D.I. Wijebandara Ms.M.K.F. Nadheesha, Ms.J.A.K.M. Fernando & Ms.H.P.D.T. Hewapathirana	

Experiment 2.1.4.7 Compare boron levels in coconut palms grown on well managed and poorly managed coconut estates	0.930	2016	2017	0.025	0.155	0.650	0.930	23	47	71	100	Understand the relationship between Boron deficient and sufficient condition and management practices in coconut estates.	Selection of 30 well managed and 30 poorly managed coconut estates and collect and analyze 100 soil samples and 100 leaf samples for Boron	SPND Dr. D.M.D.I. Wijebandara & Ms. D M P D Dissanayake
Experiment 2.1.4.8 Compare nut yield in Cu and Zn deficient palms and Cu and Zn sufficient palms.	0.232	2016	2017	0.025	0.055	0.185	0.232	20	44	75	100	Understand the relationship between Cu and Zn deficient and sufficient coconut palms and nut yield	Collect 100 soil samples and 100 leaf samples from individual palms and analyse for Cu and Zn and identify Cu and Zn deficient and sufficient palms. Record nut count in individual palms	SPND Dr. D.M.D.I. Wijebandara & Ms. D M P D Dissanayake
Experiment 2.1.4.9 Identification of visual deficiency symptoms of micronutrients	0.070	2016	2017	0.005	0.010	0.055	0.070	24	48	73	100	Identify visual deficiency symptoms of Fe, Mn, Cu, Zn, Mo and B in coconut to prepare guide lines to identify micronutrient deficiencies to apply corrective measures.	Establish the sand culture pot experiment using 48 embryo cultured coconut plants. Record growth parameters in 48 embryo cultured coconut plants Once in every two days apply treatments until visual deficiency symptoms appear. After appear the deficiency symptoms, dismantle 24 plants and record the dry weight. After appear the deficiency symptoms, apply recovery treatments for 24 palms	SPND Dr. D.M.D.I. Wijebandara
Experiment 2.1.4.10 Determine status of Sulphur in palms of the coconut triangle	0.160	2016	2017	0.040	0.082	0.125	0.160	20	45	70	100	Understand status of Sulphur in coconut triangle.	Collection of 240 soil samples and analyzing them for chemical parameters. Collection of 120 leaf	SPND Ms. D.M.P.D. Dissanayake Dr. D. M. D.

															samples and analyzing them for six nutrients.	I. Wijebandara Dr. H. M. K. Herath
Programme 2.2 <i>Development/improvement of fertilizer application methods</i>	Experiment 2.2.1.1 Evaluation of different fertilizer placement techniques	0.255	2011	2018	0.01 2	0.02 4	0.14 1	0.255	10	20	50	100	Recommend an efficient and effective method for fertilizer application	Collect yield data in 06 picks Collect 27 composite leaf samples from 81 coconut palms. Apply 09 treatments in the year. Analyze 27 leaf samples for N, P,K and Mg.	SPND Ms. M.K.F. Nadheesha & Dr. N.A. Tennakoon	
Project 2.2.1 Evaluation of fertilizer application and placement techniques																
Project 2.2.2 Assessment of fertilizer use efficiency	Experiment 2.2.2.1 Quantifying and reducing nutrient losses under coconut cultivation	0.170	2014	2017	0.01 8	0.09 5	0.16 5	0.170	20	50	80	100	Quantify nutrient losses under conventional fertilizer application. Identify ways of the nutrient losses and formulate techniques to reduce these losses.	Analysis of 48 drainage samples and 48 soil samples for nutrient levels in conventional fertilizer application vs. nano fertilizer	SPND & PPD Dr. H.M.I.K. Herath & Dr. C.S. Ranasinghe	
Project 2.3.1 Assessment of soil quality	Experiment 2.3.1.2 Assessment of different leguminous cover cropping systems and agronomic practices on soil erosion	1.055	2013	2017	0.20	0.50	0.90	1.055	15	55	80	100	Recommend preventing erosion in coconut lands	Soil sampling and Cs analysis twice a year, maintenance experiment, report status of soil improvement	Agronomy Dr. S.H.S. Senarathne	
Project 2.3.2 Improvement of soil quality and fertility	Experiment 2.3.2.3 Assessment of the impact of Biochar amendment on agronomic performances and soil fertility in Coconut	0.140 (SPND) + 0.025 (PPD)	2014	2017	0.03 0	0.06 5	0.12 5	0.165	25	45	70	100	Identify beneficial traits of Biochar. Introduce an effective soil conditioner to improve soil fertility status of coconut lands. Reduce carbon turnover rate by application of more recalcitrant carbon rich organic amendment.	Collection of 144 soil samples and analyzing them for chemical parameters. Collection of 72 soil samples and analyzing them for microbiological parameters. Collection of 144 soil samples and analyzing	SPND & PPD Ms. G.S. Nirukshan, Dr. N.A Tennakoon, Dr. H.M.I.K. Herath, Dr. C.S.	

														them for physical parameters. Collection of 36 leaf samples and analyzing them for macro and micronutrients. Collection of physiological parameters in 54 palms. Six fertilizer treatment application in twice a year.	Ranasinghe & Dr. J.C.Krishnar atne
	Experiment 2.3.2.5 Comparison of biochar properties from plant materials and crop residues at different production technologies	0.135	2015	2016	0.025	0.05	0.10	0.135	25	50	75	100	Recommend sustainable moisture conservation system		Agronomy Mr. A. Atapattu
	Experiment 2.3.2.6 Risk assessment and removal of polycyclic aromatic Hydrocarbons (PAHs) and behavior of trace metals in biochar incorporated soil.	0.470	2015	2017	0.030	0.060	0.265	0.470	20	50	70	100	Determine the effect/risk of biochar in coconut growing soils. Potential use of <i>Panicum maximum</i> to remove contaminated PAHs from biochar. Assess metallic micronutrient behavior with and without biochar. Determine the amount of maximum biochar addition for coconut growing soils.	Establish a pot experiment with <i>Panicum maximum</i> grass planted in 75 pots. Analyse two types of Polycyclic Aromatic Hydrocarbons (PAHs) in 75 grass samples. Analyze a total of 1440 samples to optimize pH, weight of soil, settling time for each element; Cu, Fe, Zn, Mn and Cd for two soil series. Analysis of 240 biochar + Madampe samples for trace metal sorption.	SPND Ms. M.K.F. Nadheesha Prof. H.M.D.N. Priyantha/ UoP Dr. D.M.D.I. Wijebandara , & Dr. A.J. Mohotti/ UoP
Project 2.3.3 Microbiological studies	Experiment 2.3.3.1 The application of organic, inorganic and organic-inorganic combination of fertilizer on microbiological	0.060	2015	2016	0.015	0.020	0.045	0.060	22	48	75	100	Determine short term effect of fertilizer application (Inorganic, Organic and inorganic - organic combinations) on soil microbial properties. Explore the unseen, less studied microbial property	Collection of 99 soil samples and analyzing them for chemical parameters. Collection of 99 soil samples and analyzing them for microbiological parameters.	SPND Ms. G.S. Nirukshan, Dr. H.M.I.K. Herath & Dr. D.M.D.I. Wijebandara

		properties of coconut growing soils												changes with respect to CRI recommended inorganic and organic and integrated application of both fertilizers in coconut soils.		
		Experiment 2.3.3.2 Manipulation of beneficial plant-microbe interactions in soil for improving soil fertility and plant health of coconut cultivation	0.340	2015	2017	0.080	0.165	0.210	0.340	25	50	72	100	Isolation of effective microbial isolates with plant beneficial traits. Beneficial microbial culture collection. Develop an effective microbial consortium for coconut which could be used as bio fertilizer / bio protectant / bio stimulant / all in one mixture and identification of their role on seedling growth.	Collection of 40 soil samples and analyzing them for chemical parameters. Collection of 20 soil samples and analyzing them for microbiological parameters.	SPND & PPD Nirukshan, Ms. D.M.P.D. Dissanayake Dr. H.M.I.K. Herath, Dr. S.A.C.N. Perera & Dr. C. S. Ranasinghe
		Experiment 2.3.3.3 Isolation and identification of Arbuscular mycorrhizae from coconut lands	0.300	2016	2019	0.050	0.120	0.240	0.300	20	45	70	100	Isolate and identify beneficial mycorrhizal strains in coconut estates	Collection of root samples and culturing.	SPND Miss. D.M.P.D. Dissanayake, Mrs. G.S.Nirukshan, Dr. H.M.I.K. Herath, Dr. D.M.D.I. Wijebandara
3. Developing appropriate cultivation practices	Project 3.1.2 Development/improvement of soil moisture conservation	Experiment 3.1.2.1 Evaluation of a drought management package in Middeniya representing soil and climatic conditions in the coconut mini triangle	0.45	2006	2016	0.10	0.20	0.35	0.45	25	50	75	100	A model drought management system to induce growers for adopting such systems in the mini coconut triangle	Collection of bi-monthly yield data Calculate economic benefits (Net profit, benefit cost ratio, Pay-back period) Recommend a drought management system for the mini coconut triangle	PPD & SPND Dr. A. D. Nainanayake & Dr. H. M. I. K. Herath
	Project 3.1.2 Development/improvement of soil moisture conservation	Experiment 3.1.2.2 Effect of surface application of non-retted coir pith to conserve soil moisture in coconut plantations	0.225	2013	2017	0.05	0.10	0.15	0.225	20	50	75	100	Improve the input package for moisture conservation to increase coconut yield	Treatment application and soil samples analysis twice a year. Yield data recorded at monthly intervals.	Agronomy Mr. A. Atapattu Dr. S.H.S. Senarathne

		Experiment 3.1.2.3 Development of sustainable moisture conservation method by using carbonized plant materials for coconut	0.200	2015	2019	0.025	0.075	0.125	0.20	20	50	80	100	Recommend a sustainable moisture conservation system	Establishment of experiment, Yield data recorded at monthly intervals and soil samples analyzed twice a year	Agronomy Dr. S.H.S. Senarathne Mr. A. Atapattu
	Project 3.2.1 Evaluation of organic manures and their application methods	Experiment 3.2.1.3 Evaluation of <i>Tithonia diversifolia</i> as a green manure	0.510	2012	2017	0.10	0.20	0.30	0.510	20	45	70	100	Recommend a sustainable moisture conservation system	Establishment and maintenance of experiment. Yield data recorded at monthly interval and soil samples analyzed twice a year.	Agronomy Dr. S.H.S. Senarathne
	Project 3.2.2 Evaluation of weed control methods	Experiment 3.2.2.1 Evaluation of new herbicides	0.220	2015	2016	0.05	0.10	0.15	0.220	25	50	75	100	Recommend suitable new weedicides for weed control in coconut lands	Maintenance of experiment. Treatment application and soil analysis at six months interval. Yield data recorded at monthly interval.	Agronomy Dr. S.H.S. Senarathne
4. Expanding coconut cultivation into non traditional areas	Programme 4.1 <i>Assessing land use suitability classifications for coconut</i> Project 4.1.1 Assessment of soil suitability	Experiment 4.1.1.1 Assessment of suitable lands for coconut in the Moneragala, Ampara, Trincomalee, Batticaloa, Polonnaruwa and Anuradapura Districts	0.800	2016	2017	0.025	0.2	0.71	0.800	35	45	72	100	Produce soil and land suitability maps of Moneragala district and Eastern coastal area.	Print 1: 25,000 scale 06 soil maps and 06 land suitability maps covering Moneragla, Ampara, Trincomalee, baticolo, Polonnaruwa and Anuradapura districts. Print 1:50,000 scale 53 soil and land suitability maps covering Moneragla, Ampara, Trincomalee, Baticollo, Polonnaruwa and Anuradapura districts. Submit 02 final reports covering Moneragla and Eastern coastal area.	SPND Dr. D.M.D.I. Wijebandara

5. Mitigating/ adapting to climate effects	Programme 5.1 <i>Impact of climate change on coconut</i>	Experiment 5.1.1.3 Determination of the effects of heat and water stress on fertility of female and male reproductive organs of coconut (<i>Cocos nucifera</i> L.)	1.0 (NR C grant)	2014	2016	0.25	0.60	0.80	1.0	30	60	90	100	Maximize the number and quality of hybrid seed coconuts produced in seed gardens by controlled pollination	Data collection on fruit set and seed germination of hybrids of differently treated pollen at quarterly intervals, submit M Phil research thesis, give recommendations on pollen use for artificial pollination programme, publish 2 papers	PPD & GPBD Dr. C.S. Ranasinghe & Dr. L. Perera
	Project 5.1.1 Impact of climate change	Experiment 5.1.1.4 Drought risk assessment in major coconut growing districts of Sri Lanka	0.25	2015	2016	0.05	0.15	0.20	0.25	25	65	80	100	Identify potential areas for successful coconut cultivation and vulnerable areas to climate change and to support the early preparedness to droughts, support policy makers, minimize impacts of droughts on national coconut production and GDP	Develop drought risk maps for Kurunegala, Puttalam and Gampaha districts by integrating drought hazard and vulnerability maps	PPD Mr. D. Kumarathunge, Dr. C.S. Ranasinghe & Dr. A.D. Nainanayake
	Project 5.1.2 Monitoring climate change in main coconut growing areas	Experiment 5.1.2.1 Monitoring climate change in main coconut growing areas	0.15	2012	Cont.	0.04	0.08	0.12	0.15	25	50	75	100	Make researchers and growers aware of the climate change trends in coconut growing areas	Maintenance of 06 CRI met stations, daily data collection and reporting, submit data to national data base, analyse trends in climate variability in the coconut growing districts	PPD Dr. A. D. Nainanayake Mr. D. Kumaratunge & Dr. C. S. Ranasinghe
	Programme 5.2 <i>Adapting to climate change effects</i>	Experiment 5.2.1.1 Screening coconut varieties for tolerance to heat and drought stress by reproductive performance	0.20	2010	2016	0.05	0.10	0.18	0.20	15	30	75	100	Identify forms of coconut that can adapt to climate change with respect to fruit set related parameters	Analyse quality of female flowers and pollen in February, April and June (stressed and non-stressed), collect physiological data in Jan, Feb, March and April in Raddegoda (IL1a) and Wanathavilluwa (DL3), publish one paper	PPD Dr. C. S. Ranasinghe & Dr. L. Perera
Project 5.2.1 Screening of cultivars for																

heat/drought tolerance	Experiment 5.2.1.2 Screening coconut varieties for high temperature tolerance by <i>in vitro</i> pollen germination and pollen tube growth	0.10	2011	2017	-	0.03	0.06	0.10	10	40	80	100	Identify forms of coconut that can adapt to heat stress with respect to pollen germination	Determine the cardinal temperatures (Maximum, optimum and minimum) for <i>in vitro</i> pollen germination of new hybrids	PPD Dr. C. S. Ranasinghe & Mr. D. Kumaratunge
Programme 5.2 <i>Adapting to climate change effects</i> Project 5.2.2 Improvement of micro climatic conditions	Experiment 5.2.2.2 Development of mix crop models to increase coconut production in dry zone by changing microclimatic conditions	0.405	2012	2022	0.10	0.20	0.30	0.405	25	50	75	100	Develop a recommendation of suitable agro-forestry base coconut farming system to improve the productivity of coconut plantations in dry zone areas.	Continue the establishment and maintenance of the experiment. Plant species growth data collected two times. Soil analysis done at 06 month intervals.	Agronomy Dr. S.H.S. Senarathne
	Experiment 5.2.2.3 Evaluation of coconut-based cropping systems for changing microclimatic conditions and reducing vulnerability of coconut plantations to projected climate change	0.100	2016	2018	0.025	0.05	0.075	0.100	25	50	75	100	Recommend mixed cropping systems that can improve the microclimatic conditions and yield of coconut plantations in the dry zone	Record the micro-climate data at bimonthly interval	Agronomy Dr. S.H.S. Senarathne Dr. S.Ranasinghe
	Experiment 5.2.2.4 Realization of the maximum benefits of coconut- Gliricidia bioenergy system	0.40	2016	2019	0.05	0.15	0.30	0.40	15	40	75	100	Identify the effect of growing Gliricidia in coconut plantations for dendro power generation (wood) and as a green manure (loppings) on the water and nutrient dynamics, improvement of micro-climate, soil C sequestration and reproductive and vegetative physiology of coconut palms	Monthly, bimonthly or quarterly data collection) on water and nutrient dynamics, improvement of micro-climate, soil C sequestration and reproductive and vegetative physiology of coconut palms to identify the effect of growing Gliricidia in coconut plantations for dendro power generation	PPD, Agronomy, Agric. Economics Dr. S.Ranasinghe, Dr. A.D. Nainanayake Dr. I Herath, P. Dissanayake, S. Idirisinghe, A. Atapattu

	<p>Programme 5.3 <i>Mitigating climate effects</i></p> <p>Project 5.3.1 Potential use of coconut plantations for climate change mitigation and carbon trading</p>	<p>Experiment 5.3.1.1 Potential use of coconut plantations for climate change mitigation and carbon trading</p>	0.15	2009	2018	0.03	0.07	0.11	0.15	20	50	75	100	Determine Carbon sequestration and carbon trading potential of coconut based-ecosystems	Estimate C Sequestration potential of coconut-glicidia, mixed cropping on S2 and S4 in Intermediate Zone, commence data collection to estimate C seq potential of cocoa, cinnamon mixed cropping systems with coconut in the wet zone	PPD & Agronomy Dr. S.Ranasinghe, Dr. S. Senarathne & Mr. Ravindra
6 Forecasting coconut production	<p>Programme 6.1 <i>Developing a yield forecasting model</i></p> <p>Project 6.1.1 Development of a process-based and climate driven yield prediction model</p>	<p>Experiment 6.1.1.1 Study on yield fluctuation in coconut in relation to climatic factors, source/sink balance and pollen quality</p>	0.70	2009	Cont.	0.15	0.35	0.50	0.70	25	50	75	100	A climate-driven process-based dynamic model for predicting coconut yield	Forecast monthly coconut yield 08 months in advance using fruit set and climate data, publish two issues of Yield Forecast Brochure in January and June, disseminate this information to scientists, growers, entrepreneurs and policy makers.	PPD & Economics Dr. C. S. Ranasinghe, Dr. A.D. Nainanayaka Mr. D. Kumarathunge & Dr. I.M.S.K. Idirisinghe
	<p>Project 6.1.2 Development of coconut yield forecasting model</p>	<p>Experiment 6.1.2.2 National yield capturing survey</p>	0.70	contin uous	conti nuous	0.15	0.30	0.50	0.70	25	50	75	100	Estimate annual National coconut production	Yield data collection from sample estates island wide, estimate National coconut production bimonthly (for six picks)	PPD & Economics Mr. D. Kumaratunge, Dr. C.S. Ranasinghe, Dr. A.D. Nainanayaka & Dr. I.M.S.K. Idirisinghe

	Programme 6.2 <i>Statistical Studies to aid coconut research and the industry</i>	Experiment 6.2.1.1 Modelling Coconut sector of Sri Lanka with a systems approach	0.680	2016	2018	0	0.6	0.65	0.68	10	50	75	100	Develop policy scenarios for industrial planning	Literature Review Planning and designing the structure of the model Planning data structure and start data collection	PPD Dr. P. Waiyaratne
	Project 6.2.1 Developing statistical tools for coconut research	Experiment 6.2.1.2 Optimizing experimental designs for coconut research	0.125	2016	2017	0.025	0.05	0.10	0.125	25	50	75	100	Enhance the precision of coconut field experiments to deliver more precise recommendations	Collection of existing data from research divisions Visit field trials as needed	PPD Dr. P. Waiyaratne
		Experiment 6.2.1.3 Assessing the stability and degree of influence of weather fluctuations on hybrid seed nut production in coconut	0.025	2016	2020	0.005	0.015	0.02	0.025	25	50	75	100	Determine the degree of influence of weather fluctuations on hybrid seed nut production in coconut	Preparation of data from GPB trials Initiation of data analysis	PPD Dr. P. Waiyaratne
7. Introducing improved farming systems	Project 7.1.3 Effect of pasture under coconut	Experiment 7.1.3.1 Evaluation of growth performance of CO3 fodder grass under different management conditions in coconut plantations	0.445	2013	2018	0.10	0.2	0.30	0.445	20	50	80	100	Develop a recommendation to grow CO-3 fodder grass under coconut without affecting coconut yield	Continue establishment and maintenance of the experiment. Biomass production data e collected 06 times per year. Nut yield data collected at monthly intervals.	Agronomy Dr. S.H.S. Senaratne & Mr. S.A.S.T. Raveendra
		Experiment 7.1.3.2 Effect of buffalo grazing on soil physical and chemical properties on a silvo pastoral system under the coconut	0.630	2013	2017	0.10	0.30	0.50	0.630	20	50	80	100	Minimizing the ill effects of buffalo grazing on soil properties on a silvo pastoral system and enhances the profit margins in coconut estates	Continue establishment and maintenance of the experiment. Biomass production data collected 06 times per year. Nut yield data will be collected at monthly intervals. Soil analysis done twice a year.	Agronomy Dr. S.H.S. Senaratne & Mr. S.A.S.T. Raveendra
		Experiment 7.1.3.3 Growth performance evaluation of fodder Sorghum under different management conditions in coconut plantation	0.235	2015	2017	0.05	0.1	0.15	0.235	30	60	80	100	Determine performance of fodder sorghum in coconut plantations and recommend herbage to increase milk production in cattle	Develop a recommendation for growing fodder sorghum under coconut	Agronomy Mr. S.A.S.T. Raveendra, Dr.S.H.S. Senaratne & Dr. S.C.Somasiri

		Experiment 7.1.3.4 Sustainable coconut sheep integrated farming system under coconut	2.00	2016	2018	0.50	1.00	1.50	2.00	40	80	90	100	Develop a sustainable coconut sheep integrated farming system under coconut	Establish treatments, purchase sheep, commence grazing trial one and sample collection	Agronomy Dr. S.Somasiri
	Project 7.1.4 Intercropping under mature coconut plantation	Experiment 7.1.4.1 Performance evaluation of dragon fruit as an intercrop under mature coconut plantations	0.215	2015	2023	0.05	0.1	0.15	0.215	25	50	75	100	Develop a recommendation to grow dragon fruit under coconut without affecting coconut yield	Continue establishment and maintenance of the experiment. Plant growth data collected twice a year.	Agronomy Mr. A.A.A.J. Atapattu
		Experiment 7.1.4.2 Growth performance evaluation of high value resin crops under coconut	0.200	2015	2023	0.05	0.1	0.15	0.20	25	50	75	100	Determine feasibility of growing resin plants as intercrops in coconut plantations	Continue maintenance of the experiment. Plant growth data collected twice a year.	Agronomy Mr. A. Atapattu
8. Organic coconut production	Project 8.1.1 Evaluating requirements for organic coconut production	Experiment 8.1.1.1 Assessment of organic coconut farming with mixtures with emphasis on yield, soil, food qualities estimation and certifying compost	0.210 (SPND) + 0.1 (Econ) + 0.125 (PPD)	2014	2017	0.05 0 + 0.03 + 0.03	0.1 + 0.06 + 0.06	0.15 5 + 0.08 + 0.09	0.210 + 0.1 + 0.125	22	45	72	100	Differentiation of existing organic and inorganic coconut lands for yield, soil and fruit quality	Collection of 46 soil samples and analyzing them for chemical parameters. Collection of 46 soil samples and analyzing them for physical parameters. Collection of 26 soil samples and analyzing them for microbiological parameters. Collection of 40 leaf samples and analyzing them for six nutrients. Collection of 40 mature nuts and analyzing for fruit components. Collection of physiological data in 20 palms monthly intervals. Inspection of pest and disease incidence in 20 palms. Macrophona indexing in 06 locations.	PPD, CPD, Econ, SPND, CPRD & Agronomy Dr. N.A. Tennakoon , Dr. C.S. Ranasinghe, Dr. N.S. Aratchige, Dr. I.M.S.K. Idirisinghe, Dr. H.M.I.K.Herath, Ms.H.A.E. Samaranayake, Mr. D. Kumarathunge, Mr. A.A.A.J. Atapattu & Ms. G.S. Nirukshan

9. Manage pests and diseases	Project 9.1.1 Development of management methods for black beetle.	Experiment 9.1.1.3 Evaluation of the efficacy pheromone in IPM	0.25	2016	2017	0.05	0.1	0.15	0.25	25	50	75	100	Development of IPM method based on pheromone trapping to manage black beetle	Initiation of 04 experiments	CPD Mrs. N.I. Suwandhrathne
	Project 9.1.2 Development of biological control methods for plesispa beetle	Experiment 9.1.2.7 Determination of level of parasitism of <i>T. brontispae</i> in the field	0.210	2014	2016	0.050	0.11	0.16	0.21	25	50	75	100	Determination of the effectiveness of <i>T. brontispae</i> in the field	5000 parasitoids /year released.	CPD Mrs. N.I. Suwandaratne
		Experiment 9.1.2.8 Determine the population dynamics of Plesispa beetle in coconut triangle	0.250	2015	2017	0.05	0.125	0.2	0.250	25	50	75	100	Determine population fluctuation patterns (temporal and spatial) of plesispa beetle and thereby schedule the time of release of parasitoids	Data collection 06 times/yr,	CPD Mrs. N.I. Suwandaratne
	Project 9.1.3 Improvement of biological control methods for coconut mite and development of integrated control methods	Experiment 9.1.3.1 Development of an integrated method using predatory mites and palm oil and Sulphur mixture to manage coconut mite	0.08	2014	2016	0.02	0.04	0.06	0.08	25	50	75	100	Develop IPM package for coconut mite	Collection of 06 sets of data.	CPD Dr. N.S. Aratchige
		Experiment 9.1.3.2 Assessment of micro morphological and biochemical characteristics of nuts & population dynamics of coconut mites and its predators in relation to varietal resistance against coconut mite.	0.12	2012	2016	0.03	0.06	0.09	0.12	25	50	75	100	Identify resistant coconut varieties based on morphological and chemical analysis	Submission of 4 quarterly progress reports	CPD Dr. N.S. Aratchige
		Experiment 9.1.3.3 Behavioural and reproductive responses of coconut mites to coconut varieties	0.085	2016	2017	-	-	0.045	0.085	-	-	60	100	Determine effect of variety on behavioural and reproductive responses of coconut mites	Conduct 04 replicated experiments.	CPD Dr. N.S. Aratchige

Project 9.1.4 Development of semio-chemical based management strategies for pests of coconut	Experiment 9.1.4.1 Field evaluation of different semio-chemical formulations to trap coconut black headed caterpillar	0.250	2016	2018	0.05	0.1	0.15	0.25	10	40	75	100	Development of a sex pheromone trapping method for coconut caterpillar	Install 150 traps, observations made 08 times	CPD Dr. A.D.N.T. Kumara
	Experiment 9.1.4.2 Study behavioral responses of Plesispa to on leaf volatiles	0.2	2016	2018	0	0.05	0.1	0.015	0.2	50	75	100	Identify coconut volatiles that responded by plesispa beetle	Volatiles identified using 02 varieties/forms of coconut	CPD Dr. A.D.N.T. Kumara
	Experiment 9.1.4.3 Identification and use of pheromone synergist/ kairomones for red palm weevil	0.275	2016	2019	0.05	0.15	0.2	0.275	10	40	70	100	Determination of coconut plant materials to trap red palm weevil	Three different host materials and two different ratios analyzed	CPD Dr. A.D.N.T. Kumara
	Experiment 9.1.4.4 Development of pheromone dispenser for red palm weevil								10	40	70	100	Development of an effective dispenser for dispensing red weevil pheromone	Three different dispenser materials tested	CPD Dr. A.D.N.T. Kumara
	Experiment 9.1.4.5 Determination of suitable formulation and dispenser for black beetle	0.1	2016	2018	0	0.075	0.075	0.1	0	10	50	100	Develop an effective formulation and dispenser for trapping black beetle	Three different formulations and 02 dispenser materials tested	CPD Dr. A.D.N.T. Kumara
Project 9.1.5 Evaluation of new pesticides against pest and diseases of coconut.	Experiment 9.1.5.1 Evaluation of Clothianidin 16% SC to control red palm weevil.	0.1	2015	2016	0.025	0.05	0.075	0.1	25	50	75	100	Make a recommendation to control red weevil.	Performance of the experiment is subjected to availability of the chemicals. Make a recommendation to control red weevil.	CPD Dr.N.S. Aratchige
	Experiment 9.1.5.3 Screening new chemicals control black beetle.	0.1	2014	2016	0.025	0.05	0.075	0.1	25	50	75	100	Determine new chemicals to manage black beetle	Palms will be treated 08 times and make one recommendation	CPD Mrs.N.I. Suwandarathne
	Experiment 9.1.5.4 Evaluation of botanicals for the management of coconut pests.	0.215	2014	2016	0.040	0.09	0.15	0.215	15	30	65	100	Identify botanicals for the control of termite, plesispa beetle and black beetle in organic coconut farming	Submission of 4 quarterly progress reports	CPD Dr.N.S. Aratchige

	Experiment 9.1.5.5 Laboratory screening of potential essential oils against black beetle, red palm weevil and plasispa beetle	0.2	2016	2018	0	0.1	0.15	0.2	0	15	65	100	Identify essential oils to manage black beetle, red palm weevil and plasispa beetle	Two essential oils will be tested on black beetle, red palm weevil and plasispa beetle	CPD Mrs. N.I. Suwandhrathne
Project 9.2.1. Development of management methods for diseases	Experiment 9.2.1.2 (3.2) Production of monoclonal antibodies for the specific detection of WCLWD phytoplasma and improving the detection method	0.1	2014	2016	0.025	0.05	0.075	0.1	20	55	80	100	Develop a monoclonal antibody system to reliably detect WCLWD phytoplasma	Completion of monoclonal production, testing of 200 symptomatic palm and 75 healthy palm samples, production of one publication.	CPD Dr. H.T.R. Wijesekara & Prof. P Randeniya (UOC)
	Experiment 9.2.1.2 (3.3) Validation of current RT PCR protocol and identifying the stability of phytoplasma detection under various storage periods.	1.4	2015	2016	0.11	0.6	1.3	1.4	30	60	80	100	Improvement of RT PCR protocol for reliable detection WCLWD phytoplasma	Testing of 200 symptomatic & 75 healthy samples, sequencing of 03 PCR products, publishing of 03 representative sequences in NCBI database, Production of 2 publications	OPRD, CPD & TCD Mr. N. Jeyadharshan, Dr R Wijesekara, Dr D Bandupriya
	Experiment 9.2.1.2 (3.4) Improving the nested PCR methods for detection of WCLWD phytoplasma	0.65	2015	2016	100	0.23	0.45	0.65	25	50	75	100	Identification of Universal Primer's and designing specific primers for reliable detection of WCLWD phytoplasma	Identification of Universal Primer's detection percentage, Sequencing, designing specific primers for WCLWD	OPRD & GPBD Mr. N. Jeyadharshan and Dr. C Perera
	Experiment 9.2.1.2 (3.5) Identification of alternate host palm species of WCLWD phytoplasma.	0.2	2015	2016	0.02	0.05	0.15	0.2	30	70	90	100	Removal of other palm species affected by WCLWD to prevent spread of WCLWD.	Testing of 150 samples by RT PCR and by nested PCR; sequencing of 10 PCR products; publishing of sequences in NCBI database; production of one publication on alternate host palms.	CPD Dr. H.T.R. Wijesekara

		Experiment 9.2.1.3 Determination of vectors transmitting WCLWD	0.105	2010	2016	0.02	0.04	0.075	0.105	25	50	75	100	Confirm the vectors of WCLWD	Release of 240 insects per month, 12 PCR analysis, Sequencing of PCR products Submission of 4 quarterly progress reports	CPD Dr. N.S. Aratchige
	Project 9.2.2 Identification of causative agents for disorders of coconut	Experiment 9.2.2.1 Identification of causative agent of the tapering disease and related syndromes and development of disease diagnosis technique using molecular tools	15.0 (NR C grant)	2014	2016					25	50	75	100	Causal agent of the tapering disorders identified and control /management measures formulated	Conduct new generation sequencing and check for virus. Continuous RT-PCR with tapering palms Continuous data analysis on NCBI sequence data base	GPBD Dr. L Perera
	Project 9.2.3 Use of pathogens to control soil borne pests	Experiment 9.2.3.1 Effect of application of <i>Trichoderma</i> spp. on growth parameters of coconut seedlings	0.2	2016	2018	0.025	0.1	0.17	0.2	25	50	75	100	Identification of <i>Trichoderma</i> spp.to improve seedling growth	Isolation of 10 isolates from 10 locations, complete lab studies on 10 isolates, complete identification of cheap growth medium	CPD Dr. H.T.R. Wijesekara
10 Develop/improve product and process	Programme 10.1 Improving existing products	Experiment 10.1.1.3 Comparison of copra drying methods	0	2013	2016	0	0	0	0	50	50	0	0	Recommend storage time of copra before oil extraction	Recommendation of storage time of copra before oil milling, publication	CPRD Dr. C. Yalegama
		Experiment 10.1.1.4 Improvement of extra VCO production and quality evaluation	0.325	2015	2017	0.075	0.15	0.25	0.325	25	50	75	100	Introduce an improved technology to produce extra VCO in small scale	Five experiments will be carried out for modified kitchen method.	CPRD Mrs. E.Samaranayake Dr. C Yalegama, Mrs.D. Hewapathirana
	Project 10.1.1 Improvement of kernel based products	Experiment 10.1.1.5 Effects of varietal differences, maturity level and extraction method on the quality of virgin and white coconut oil	0.520	2016	2018	0.1	0.22	0.4	0.52	20	40	75	100	Determine varietal difference on oil quality. Recommend improvement of the virgin and white coconut oil	03 experiments with 03 treatments; triplicate each experiment	CPRD Dr. C. Yalegama
	Project 10.1.2 Improvement of coconut water based	Experiment 10.1.2.2 Improvements to preservation technique of DC effluent coconut	0.166	2013	2017	0.04	0.09	0.12	0.166	25	50	80	100	Produce value added mature coconut beverage.	Five trials with different flavors will be carried out. Two sensory evaluations will be carried out and one	CPRD Ms. H.P.D.T. Hewapathirana

products	water																recommendation will be given.	na, Dr. Yalegama and Ms. E.Samaranayake
	Experiment 10.1.2.3 Development and improvement to value added products from coconut water	0.250	2013	2017	0.075	0.14	0.2	0.25	25	50	75	100	Technology improvement for nata de coco production	Two recommendations (a method for nata de coco production and culture preparation). Four experiments will be conducted with different composition for media.	CPRD Dr. C. Yalegama and Ms. H.P.D.T. Hewapathirana, E. Eranga Samaranayake			
Project 10.1.3 Improvement of sap based products	Experiment 10.1.3.2 Nutritional studies of coconut sap based sugar	0.450	2013	2017	0.05	0.3	0.4	0.45	25	50	80	100	Determine nutritional and GI value of coconut jiggery and promotion of coconut jaggery as a natural sweetener	Application ethical clearance, Recruitment of 30 number of subjects and carry out the in vivo study.Recommendation (coconut sap based products for low GI foods).	CPRD Ms. H.P.D.T. Hewapathirana, Dr. C. Yalegama and E. Samaranayake			
	Experiment 10.1.3.3 Improvement to the quality of coconut sap and its products	0.325	2015	2016	0.100	0.20	0.28	0.325	25	50	80	100	Develop an efficient method to collect unfermented coconut sap (sweet toddy) and (b) production of high quality sap products and beverages	Recommend equipment for sap collection. Obtaining Patent rights Carry out 03 field trials	CPRD Ms. H.P.D.T. Hewapathirana, Dr. Chandi Yalegama and E. Eranga Samaranayake			
Programme 10.3 Identifying nutritional and medicinal properties of	Experiment 10.3.1.1 Determination of the composition of coconut oil and health benefits of coconut products	0.7	2012	2016	0.200	0.40	0.6	0.7	25	55	75	100	Awareness of the health benefits of coconut oil to the public	Complete animal experiments. Produce 02 publications, carry out 01 awareness program through a National work shop.	CPRD & UOK Ms. H.A. E. Samaranayake			

coconut oil	Experiment 10.3.1.2 Investigate chemical and physical changes of coconut oil by repeated frying	0.41	2016	-	0.1	0.25	0.35	0.41	25	50	75	100	Recommend proper use of coconut oil	Complete the study. New paper articles and produce a journal publication	CPRD Dr. C. Yalegama Ms. Eranga Samaranayake Ms. Dilani Hewa Pathirana
Project 10.3.2. Studies on health effects of VCO	Experiment 10.3.2.1 Randomized control trial of virgin coconut oil in the treatment of Alzheimers's Dementia	2.0	2016	2016	0.50 0	1.0	1.50	2.0	25	50	75	100	Determine effect of VCO on Alzheimer's Dementia and promotion of virgin coconut oil consumption	Completion of the study with the recruitment of 120 patients, 120 test reports, 120 CT scans 120 sets of investigations	CPRD & University of Kelaniya Dr. C. Yalegama
	Experiment 10.3.2.2 Feasibility study of virgin coconut oil in ameliorating Type 2 diabetes in human (a) Study the use of fresh coconut kernel, coconut oil and other edible products by patients with diabetes mellitus and impaired glucose tolerance (b) Analyze the chromium and other micro minerals in the blood serum of coconut consuming and non consuming diabetic patients (c) Analyze the chromium and other micro minerals in the blood serum of	2.0	2015	2016	1.0	2.0	2.0	2.0	25	50	75	100	Determine effect of VCO on Type 2 diabetes and promotion of virgin coconut oil consumption	a. Around 1000 subjects analyzed by a questionnaire b. 100 samples analyzed c. Concentrations of several coconut oil samples in patients	CPRD & UOP Dr. C. Yalegama

	coconut consuming and non-consuming diabetic patients (d) Study the effect of coconut oil on the glucose tolerance of diabetic rats															
	Experiment 10.3.2.3 Determination of the efficacy of adjunctive extra virgin coconut oil / coconut products use in people with mild cognitive impairment and mild to serve Alzheimers disease; community based randomized, double blind placebo controlled pragmatic study	2.0	2016	2017	0.50	1.0	1.5	2.0	25	50	75	100	Determine effect of VCO on Alzheimer's Dementia and promotion of virgin coconut oil consumption	Recruitment of staff for data collection and training, Preparation and Standardization of a capsule for the experiment. Completion of pilot study	CPRD Kothalawala Defence Academy and Dr. C. Yalegama	
Project 10.1.5 Improvements of husks based products	Experiment 10.1.5.1 Performance evaluation of a flash dryer to dry coir pith	0.092	2012	2017	0.02 0	0.04	0.07	0.092	20	45	60	100	Production of quality coir pith similar to sun dried coir pith in rainy season	03 experiments will be conducted. Completion of M.Phil Degree. Recommendation of flash dryer for pith drying and 01 publication	CPRD Ms. K Fernando	
	Experiment 10.1.5.4 Improvement of Ceylon drum system for extraction of bristle coir fibre	0.14	2015	2017	0.05	0.10	0.12	0.14	30	50	80	100	Improve the performance of Ceylon drum by minimizing risk and efficient production of bristle coir fiber	Carry out 05 trials. Recommendation of a low risk machine for coir sector	CPRD Ms. K. Fernando	
	Experiment 10.1.5.5 Development of a technology for coconut coir retting using consortium of micro organisms	0.143	2015	2019	0.04	0.08	0.11	0.143	20	45	70	100	Identifying an effective bacterial consortium for reducing the coir retting process	06 trials will be carried out. Identification of microbial consortium.	CPRD Ms. K. Fernando	

		Experiment 10.1.5.6 Improvement of cushion / mattress using coir fibre	0.08	2015	2017	0.03	0.05	0.07	0.08	30	45	70	100	Develop a low cost technology for mattress production as a cottage industry	10 experiments will be carried out with different combinations of short fibre, long fibre and latex	CPRD Ms. K. Fernando
11. Investigating socio-economic status of local and global coconut industry	Programme 11.1 <i>Improving resource use and profitability in coconut industry</i>	Experiment 11.1.1.1 Land use intensification in coconut triangle through intercropping: Potential, constraints, possibilities and strategies for improvement	0.1	2013	2017	0.03	0.08	0.1	0.2	15	30	60	70	Identify feasible coconut based intercropping systems and recommend for the growers. Mainly in the 2015 semi-perennial intercropping systems of Pineapple, Banana, ginger will be analyzed and report will be presented. Based on the results policy guidelines will be presented through policy brief.		Economics Dr. S. Idirisinghe, Mrs. N. Jayalath
		Experiment 11.1.1.2 Dairy farming in coconut triangle: Potential, constraints, possibilities and strategies for improvement	0.13	2013	2017	0.03	0.08	0.1	0.18	10	25	45	60	Identify feasible coconut based dairy farming systems in coconut triangle. Based on the results policy guidelines will be presented through policy brief.		Economics Dr. S. Idirisinghe, Mrs. N. Jayalath
	Project 11.1.2 Improving profitability	Experiment 11.1.2.1 Costs, returns and profitability in coconut farming in coconut growing areas	0.3	Continuous		0.05	0.1	0.15	0.25	10	20	50	70	Calculate cost of production for all coconut related products, process and interventions and published yearly basis.		Economics Dr. S. Idirisinghe, Mrs. N. Jayalath
	Project 11.1.3 Value chain analysis of organic coconut industry in Sri Lanka	Experiment 11.1.3.1 Analyze the value chain of organic farming system	0.2	2015	2016	0.01	0.15	0.2	0.4	10	15	30	100	Inform the stakeholders about the organic coconut industry and present the strengths and weaknesses of the value chain of organic coconut and provide knowledge for further actions.		Economics Dr. S. Idirisinghe and Mrs. K V N N Jayalath.

	Project 11.1.4 Macroeconom ic studies	Experiment 11.1.4.1 Review of overall sector performances of kernel, fiber and other products	0.3	2014	2017	0.03	0.08	0.25	0.319	10	15	30	100	Preparation of sub sector report for oil industry Preparation of sub sector report for DC industry		Economics Dr. S. Idirisinghe, Mrs. N. Jayalath
		Experiment 11.1.4.2 Identification of relationships between world edible oil prices and crude oil prices	0.12	2015	2016	0.02			0.02	10 0				Propose policy guideline to regulate the kernel based product market. Policy brief will be prepared (final report will be submitted in this year)		Economics Ms. K V N N Jayalath
	Project 12.1.3 Assessment of field management levels, technology needs, constraints and production problems in coconut cultivation	Experiment 12.1.3.1 Assess the possibility of reducing fertilizer subsidy by enhancing other influential factors.	0.05 (NR C Grant)	2015	2016	0.02	0.04	0.05	0.05	35	70	10 0		Identify the influential variables of fertilizer application	Rank the contribution of identified factors to the fertilizer application behaviour of the growers	TTD Dr.C S Herath, Mr.K M R T Wijekoon
13. Developing/ Improving Oil Palm Cultivation	Programme 13.1 <i>Land and field management & genetic improvement</i>	Experiment 13.1.1.a Assessment of yield data from newly planted oil palms in BE, MOSG, PRS and Balangoda PLC	30	2013	2024	5	15	25	30	25	55	80	100	Determine yield of 20,000 ha of Oil Palm Forecast yield and guide millers on market		OPRD Dr. H.A.J. Gunathilake
	Project 13.1.1 Land Suitability Assessment	Experiment 13.1.1.b Assessment of yield data in mature oil palm plantation in WL2, WL3 and IL1 and DL1														
	Project 13.1.2 Land and Field Management	Experiment 13.1.2.1 Study annual yield pattern of adult oil palm cultivation in different AER		2013	2015										Achieve 80,000 MT of oil/annum	

	13.1.2.2 Study yield of FFB development with the age improvement of oil palm		2013	2018					20	50	70	100	Assist 08 plantations of 5000 ha		OPRD Dr. H.A.J. Gunathilake
Project 13.1.3 Genetic Improvement	Experiment 13.1.3.1 Evaluation of different of oil palm industries from Thailand and PNG	0.75	2016	2022	0.2	0.4	0.6	0.75	10	50	80	100	Increase FFB yield by 20% from the existing lands		OPRD Dr. H.A.J. Gunathilake
Project 13.2.1 Revision of fertilizer mixtures	Experiment 3.2.1.2 Determination of response of oil palm seedlings to different rates of nursery fertilizer mixture	0.250	2016	2017	0.05 5	0.12 5	0.20 0	0.250	20	50	75	100	Recommend most effective fertilizer to oil palm seedlings in nursery		SPND Dr. D.M.D.I. Wijebandara
Project 13.4 Water Use	Experiment 13.4.1 Evaluation of physiological performance of oil palm seedlings in wet, intermediate and dry zones	0.04	2014	2016	0.01	0.02	0.03	0.04	10	40	75	100	Determine water requirement, water use efficiency and yield performance of oil palm under different agro-ecological conditions based on physiological traits	Collect three sets of leaf area development and physiological measurements of oil palm seedlings in the three zones	PPD Dr. C.S. Ranasinghe
Project 13.6 Impact analysis and feasibility analysis	Experiment 13.6.1. Socio-economic impact assessment of the oil palm cultivation in Sri Lanka	0.10	2013	2016	0	0.02	0.04	0.10	5	20	40	100	Identification of social and economic impact of oil palm cultivation	Socio-economic impact report will be released	Economics Dr. I M S K Idirisinghe and Ms. K V N N Jayalath
	Experiment 13.6.2. Financial analysis of oil palm cultivation, cost of production calculation and success stories	0.025	2013	2016	0.00 5	0.01	0.02	0.025	20	35	40	100	Regularly update of cost of production data and calculation of cost of establishment and production data	Establishment cost and cost of production data will be published Publish one success story	Economics Dr. I M S K Idirisinghe and Ms. K V N N Jayalath

TECHNOLOGY TRANSFER (R- Recurrent Expenditure, Others –Capital Expenditure)

Thrust	Proposed programme	Experiment/ activity	Allocation for 2016 (Rs. Mln)	Date of commencement	Date of completion	Financial targets (Rs.) (Cumulative)				Physical targets (Cumulative %)				Output/ indicator (2016)	Responsible Officer/s
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Technology Transfer	1. Awareness and training programmes to growers and general public	ii. Conduct eight educational programs for coconut growers on different technical areas to enhance the production and productivity of coconut lands	0.8 + 0.4000 (R)	2016	2016	0.0	0.38	0.76	1.15	0	33	66	100	Eight educational programs for coconut growers on different technical areas	TTD Dr. C S Herath, Mr.KMRT Wijekoon
		iii. Conduct twenty five educational programmes for students and teachers at CRI	0	2016	2016	0.0	0.0	0.0	0.0	25	50	75	100	25 educational programmes for students and teachers at CRI	TTD Mrs. H. Fonseka
		iv. Twenty five School student Projects	0.0	2016	2016	0.0	0.0	0.0	0.0	25	50	75	100	25 school students projects	TTD Mrs. H. Fonseka
		v. School Teachers' educational programmes on new technologies at zonal educational levels.	0.050	2016	2016	0.01	0.02	0.03	0.05	25	50	75	100	Five Teacher training program	TTD Mrs. H. Fonseka
		vi. Training programmes for higher educational institutions and universities	0.0	2016	2016	0.0	0.0	0.0	0.0	25	50	75	100	12 training programmes for higher educational institutions and universities	TTD Mrs. W G R Subhathma
		2. Provide advisory services to growers and other stakeholders	i. Provide advisory services to about 1000 growers who visit the institute, telephone calls and advisory correspondence seeking assistance to the field problems	0	2016	2016	0	0	0	0	25	50	75	100	Provide advisory services to 1000 growers
	ii. Twenty advisory field visits		0.050	2016	2016	0.01	0.02	0.04	0.05	25	50	75	100	Twenty Field Visits	TTD Dr. C.S Herath and Technology Transfer Officers

3. Technology Transfer Activities	i. Three research and extension dialogues to update the technical knowledge of CDOs attached to all CCB regions	0.1500	2016	2016	0	0.05	0.10	0.15	0	33	66	100	Three Research and extension dialogues	TTD Dr.C S Herath, Mr.KMRT Wijekoon
	ii. Conduct six educational and awareness programs for trainers of state and private sector organizations.[Training of trainers (TOT)]	0.050	2016	2016	0.01	0.02	0.03	0.05	20	45	70	100	Six TOT programmes	TTD Mr.KMRT Wijekoon,
	ii. Participate in agricultural exhibitions on request in different parts of the island	0.2 + 0.7 (R)	2016	2016	0.22	0.44	0.66	0.90	25	50	75	100	Six exhibitions	TTD Mr. T Bandaranaya ke Dr. C S Herath
	iii. Produce and distribute research, extension and advisory print materials	3.0	2016	2016	0.75	1.5	2.25	3.0	25	50	75	100	On request	TTD Dr. C S Herath, Mrs. W G R Subhathma, Mrs. H. Fonseka, Mr. KMRT. Wijekoon, Mr T. Bandaranaya ke
	iv. Use of ICT (Information and Communications Technology) to transfer technology	0.10 + 0.1 (R)	2016	2016	0.05	0.10	0.15	0.20	25	50	75	100	Develop 1000 SMS recipients	TTD Dr. C S Herath. Mr. Prasad Sanjeewa
	a. Kapruka SMS Project b. Develop a web based application to clarify and diagnose pest and disease problems according to the visual symptoms made by growers and upload video clips on coconut based								5	20	60	100	Writing and preparation of required text materials. Preparation of necessary video clips. Develop a required data base and link to our CRI web site for upload.	TTD Mrs. W G R Subhathma, Mr. Prasad SanjeewaS

		products.													
		v. Mass media programmes a. Six News Paper articles b. Two Radio or TV programmes	0.3	2016	2016	0.0	0.15	0.15	0.3	0	50	50	100	Publish 6 newspaper articles Two Radio or TV Programmes	TTD Mr. KMRT. Wijekoon Mrs. W G R Subhathma, Dr. C S Herath
		vi. Develop infrastructure at CRI to transfer technology a. Maintain CRI Auditorium to conduct trainings and seminars b. Improve the exhibits at CRI museum to educate visitors	0.1 + 0.3 (R)	2016	2016	0.10	0.20	0.30	0.40	Continuously attended			Improve the training and educational facilities of the Institute.	TTD Mrs. W G R Subhathma, Mr. Prasad Sanjeewa Dr. C S Herath Mr. Aruna Viraj	
		vii. Development and maintain of Coconut Technology Park (CTP) as a one stop educational and information center for the benefit a large number of growers, produces and entrepreneurs	3.0 (R)	2016	2016	0.75	1.5	2.25	3.0	Continuously attended			Create one stop educational centre for coconut growers and the general public	TTD Dr. C S Herath, Mr. KMRT. Wijekoon	

DEVELOPMENT ACTIVITIES (R- Recurrent Expenditure, Others –Capital Expenditure)

Proposed activity	Experiment	Allocation for 2016 Rs. Mn	Date of commencement	Date of completion	Financial Targets (Rs.)				Physical targets (%)				Output indicator (Total)	Output indicator 2016	Responsible officer/s
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
1. Production of seed nuts and seedlings	Supply of seed coconut to National Replanting Programme and monitoring seed and seedling production	5.27	Cont.	Cont.	1.85	3.16	4.22	5.27	35	60	80	100	<p>Production of improved and hybrid seed nuts from 03 Genetic Resource Centres of CRI and Kinyama seed garden (Joint project with CPL) for the national requirement</p> <p>Establish 02 new seed gardens to increase dwarf x tall hybrid seed production by 0.5 million seeds</p> <p>Improve PSG seed garden to produce 01 million tall x san ramon hybrid seeds</p> <p>Under-plant ISG with drought tolerant plants to boost seed nut production</p> <p>Revitalization of Plus Palm selection programme jointly with CCB</p> <p>Certification and monitoring of seedlings to assure issue of quality seedlings.</p>	<p>Completion of replanting of field 8 of ISG. (Assistance providing to Estate Management Division of CRI)</p> <p>Completion of vacancy filling in Field 4 of ISG and field 1 & 4 of PSG(Assistance providing to Estate Management Division of CRI)</p> <p>Establishment of one new seed garden for dwarf x tall hybrids (Joint project with CCB).</p> <p>Satisfactory maintenance of Kinmiyama seed garden (Joint project with CPL)</p> <p>Satisfactory maintenance of Kehelhena block planted with tall x tall and dwarf brown (Assistance providing to Estate Management Division of CRI)</p> <p>Revitalization of Plus Palm selection programme completed (Jointly with CCB)</p> <p>Printing of 0.8M seedling certification tags and certification of 0.8 M improved polybag seedlings</p> <p>Completion of seed and seedling production monitoring.</p> <p>Several training</p>	GPBD Dr. L. Perera Mr. R Jayathilake

																programmes on seed palm selection and nursery management completed on request from CCB.	
2. Management of Weligama Coconut Leaf Wilt Disease	a. Maintain buffer zone free of disease b. Maintain a field station	7.8 (Ministry funds)	2008	Cont.	1.0	3.5	5.25	7.80	25	50	75	100	Continuously maintain buffer zone to prevent spread of disease to other parts Coordinate activities of WCLWD management	Check 50,000 lands, remove all diseased palms & pay compensation Maintain 2 field experiments, test 100 samples from dispute lands, collect 200 leaf samples for research work	Additional Director & CPD Dr. R Wijesekara		
	c. Establish mini seed garden in Welipitiya to produce tolerant seedlings	15.0 (Ministry funds)	2016	2036	5.0	10.0	12.0	15.0	20	60	85	100	Produce 30,000 WCLWD tolerant seedlings per year from 2019	Lease land from Namunukula Plantations, land preparation, planting of seedlings, preparation of nursery, construction of buildings	Additional Director & GPBD		
3. Supply predatory mites to manage coconut mite	Maintain 03 laboratories, production & supply of predatory mites and impact assessment	1.17	2012	Cont.	0.3	0.7	1.0	1.17	25	50	75	100	Reduction in coconut mite damage in the country	Production and supply of 30,000 predatory mite sachets to growers	CPD Dr R Wijesekara, Dr. N.S. Aratchige		
4. Production and supply of pheromone and biocontrol agents for the management of pests	Synthesis and supply of aggregation pheromone to manage red weevil, Mass rearing of parasitoids for management of coconut caterpillar, Rearing of parasitoids for control of plesispa beetle, Production of starter cultures of Green Muscardine fungus (GMF) for	1.800	Cont.	Cont.	0.20	0.70	1.4	1.8	20	50	80	100	Prevent and reduce damage by red weevil, black beetle and coconut caterpillar.	Supply of 15,000 Pheromone vials, supply of 900,000 Coconut caterpillar Parasitoids, Produce 15,000 parasitoids of plesispa beetle, Importation of 2000 L of monocrotophos 60% SL, Importation of 2000 black beetle aggregation pheromone sachets	CPD Dr R Wijesekara		

	management of black beetle, Sale of red weevil detectors, Import and supply of monocrotophos and black beetle aggregation pheromone															
5 Maintain demonstrations on Intercropping and animal farming systems	a. Intercropping demonstrations (MRC /Madhu/ BE) (Continuous)	0.780	2015	2025	0.20	0.40	0.60	0.78	25	50	75	100	Demonstrate different models of intercrops, farming systems, bio gas production to enhance knowledge of growers	Continue the maintenance of 25 intercrop demonstration blocks as models for disseminating the farming system/s technology to coconut growers.	Agronomy Division Dr. S.H.S. Senarathne	
	b. Farming system model to improve the soil fertility and productivity of coconut plantations	0.425	2015	2025	0.10	0.20	0.30	0.425	25	50	75	100		Continue the maintenance of integrated farming system model for disseminating the technology to coconut growers.	Agronomy Division Mr. S.T.Raveendra & Dr. S.H.S. Senarathne	
	c. Pastures in coconut lands (BE and RE)	0.100	2015	2025	0.025	0.05	0.075	0.10	25	50	75	100		Continue to maintenance of demonstration blocks as models for disseminating the technology to coconut growers.	Agronomy Division Dr. S.C.Somasiri	
	d. Goat and sheep breeding units and demonstration (RE)	0.295	2015	2025	0.05	0.10	0.20	0.295	25	50	75	100		Continue to maintenance of demonstration blocks as models for disseminating the technology to coconut growers.	Agronomy Division Mr. S.T.Raveendra & Dr. S.H.S. Senarathne	
	e. Bio-gas production in coconut and animal mixed system (RE) (Continuous)	0.650	2015	2025	0.10	0.30	0.50	0.65	20	60	85	100		Continue to maintenance of biogas demonstration unit as a model for disseminating the technology to coconut growers.	Agronomy Division Dr. S.C.Somasiri	

	f. Demonstrate vermin-composting in coconut lands and application as a manure (BE) (Continuous)	0.080	2015	2025	0.02	0.04	0.06	0.08	25%	50%	75%	100%		Continue to maintenance of demonstration blocks as models for disseminating the technology to coconut growers.	Agronomy Division Mr. S.T.Raveendra & Dr. S.H.S. Senarathne
6. Production of coconut products	Production of virgin coconut oil , coconut paste and other kernel based products	0.360	-	Cont.	0.09	0.18	0.27	0.36	25	50	75	100	Maintaining of model production of coconut products	Maintaining of model production of coconut products	CPRD Dr C Yalagama
7. Production of coir/ coir products at Dunkannawa Coir Research Station	Production of coir and related products	2.820	2014	Cont.	0.750	1.4	2.0	2.82	25	50	75	100	Maintaining a Model coir mill	Production of coir using 300000 husks Maintain model coir mill	CPRD Ms. JAKM Fernando
8. Development of Coconut based data bank	Collect and collate coconut based statistics	0.18	2007	Cont.	0.02	0.06	0.1	0.18	5	15	20	25	Provide coconut statistics to stakeholders	Continuation of data bank at CRI	Economics Dr. I M S K Idirisinghe

SERVICES TO STAKEHOLDERS (R- Recurrent Expenditure, others –Capital Expenditure)

Proposed programme	Experiment/ activity	Allocation for 2016 Rs. Mn	Date of commencement	Date of completion	Financial Targets (Rs.)				Physical targets (%)				Output indicator (Total)	Output indicator 2016	Responsible officer/s
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
1. Leaf analysis for fertilizer recommendation (DFR)	Analyze the coconut leaf samples provided by coconut growers and issuing Differential Fertilizer Recommendations (DFR) for coconut on request	0.360	Cont.	Cont.	0.025	0.085	0.214	0.360	23	50	72	100	Provide site specific fertilizer recommendations to increase nut production	Issue 120 DFR reports	SPND Dr. D.M.D.I. Wijebandara
2. Analysis of fertilizer, coir pith, leaf, soil and water and issuing reports	Analyze inorganic fertilizer, organic manure (compost), coir pith, soil, leaf and water samples provided by coconut growers and other stakeholders for issue quality reports on request	0.535	Cont.	Cont.	0.029	0.090	0.255	0.535	24	48	74	100	Provide reports to maintain quality of materials	Analyze 250 inorganic fertilizer samples, 105 organic fertilizers (organic manure, compost and coir pith), 120 soil samples, 150 leaf samples, 10 water samples for quality tests and issue quality certificates.	SPND Dr. D.M.D.I. Wijebandara
3. Assess suitability of lands for coconut cultivation	Survey and assess soil suitability of lands for coconut cultivation on request	0.205	Cont.	Cont.	0.015	0.041	0.135	0.205	20	45	70	100	Assist growers to cultivate coconut in suitable lands	Assess 30 lands for suitability of coconut	SPND Dr. D.M.D.I. Wijebandara
4. Issue certificates for export of coir pith and coir pith products	Analyze coir samples provided by stakeholders to issue quality certificates for coir exportation on request	0.100	Cont.	Cont.	0.025	0.058	0.084	0.10	20	40	70	100	Assist maintaining quality of export coconut products	Test 350 coir pith samples and issue 70 certificates for exportation of coir pith	SPND Dr. D.M.D.I. Wijebandara
5. Quality analysis of coconut products	Analysis of samples of VCO, coconut oil, poonac, coconut water, vinegar and coconut wine on request	0.150	Cont.	Cont.	0.03	0.06	0.09	0.15	25	50	75	100	Assist maintaining quality of coconut products	Test samples on request	CPRD Dr. C Yalegama

6. Issue certificates for export of king coconut	Disseminate technology for king coconut export and issue certificates on request	0	Cont.	Cont.	0	0	0	0	25	50	75	100	Increase export earnings from coconut products country	Demonstrate the technology for improving shelf-life of tender king coconut for export purposes on request and issue certificates for all exportations of king coconut	Director/CRI and Dr. S. Ranasinghe (PPD)
8. Supply of oil palm seeds to growers	Import of preheated oil palm seeds on request	0	25	50	0	0	0	0	25	50	75	100	Expansion of oil palm area and replanting	On request	Director/CRI

LIBRARY & ENGINEERING SERVICES – CAPITAL EXPENDITURE

Proposed programme	Experiment/activity	Allocation for 2016 Rs . Mn	Date of commencement	Date of completion	Financial target (Rs Mn)				Physical target (%)				Output indicators 2016	Responsible officer
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Library services to provide access to literature on coconut	Acquiring library books and periodicals, digitization of coconut literature, management & updating of coconut literature databases, compilation of an index to CRI advisory circulars & conducting literature searches using databases	1.321	April	Dec.	0	1.321			0	50	100		Purchasing of 04 journal titles	Librarian – Mrs. P D U C Dharmapala
Infrastructure Development	Renovation of 04 Staff Quarters.	6.0	Jan.	Sep.	-	2.5	6	-	30	70	100	100	Improve institute infrastructure facilities	Resident Engineer
	Construction of New Laboratory Complex (1 st & 2 nd Stages)	47.0 (23.0 from 2016, 24.0 from 2015)	Jan .	Dec.	-	10	25	40	20	50	75	100		Resident Engineer

ADMINISTRATION, LIBRARY, ENGINEERING & FINANCE (RECURRENT EXPENDITURE)

Proposed programme	Experiment/activity	Allocation for 2016 Rs . Mn	Date of commencement	Date of completion	Financial target (Rs Mn)				Physical target (%)				Output indicators 2016	Responsible officer
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Human Resource Development	Salaries & Allowances	111.037	Jan .	Dec.	7.759	55.519	83.278	111.037	25	50	75	100	Improve efficiency of the Institute	Director, CRI, Deputy Director (Administration)
	EPF Contribution 15%	20.287	Jan .	Dec.	5.072	10.144	15.215	20.287	25	50	75	100		
	ETF Contribution 3%	4.057	Jan .	Dec.	1.014	2.029	3.043	4.057	25	50	75	100		
	Medical Contribution 8%	5.219	Jan .	Dec.	1.305	2.610	3.914	5.219	25	50	75	100		
	Overtime & Holiday pay	5.402	Jan .	Dec.	1.440	2.880	4.320	5.402	25	50	75	100		
	Tea & Coconut Allowance	1.607	Jan .	Dec.	0.402	0.804	1.205	1.607	25	50	75	100		
	COL Allowance	24.900	Jan .	Dec.	6.225	12.450	18.675	24.900	25	50	75	100		
	Fuel Allowance	7.879	Jan .	Dec.	1.970	3.940	5.909	7.879	25	50	75	100		
	Communication Allowance	2.595	Jan .	Dec.	0.649	1.298	1.946	2.595	25	50	75	100		
	Gratuity	9.000	Jan .	Dec.	2.25	4.5	6.75	9.0	25	50	75	100		
	Board Member/ AM Com. Fees	0.900	Jan .	Dec.	0.225	0.450	0.675	0.900	25	50	75	100		
	Domestic Travelling	1.020	Jan .	Dec.	0.255	0.510	0.765	1.020	25	50	75	100		
	Foreign Travelling	0.600	Jan .	Dec.	0.150	0.300	0.450	0.600	25	50	75	100		
	Stationery	0.864	Jan .	Dec.	0.216	0.432	0.648	0.864	25	50	75	100		
	Office Upkeep	0.360	Jan .	Dec.	0.090	0.180	0.270	0.360	25	50	75	100		
	Fuel & Lubricants	9.720	Jan .	Dec.	2.430	4.860	7.290	9.720	25	50	75	100		
	Uniforms	0.594	Jan .	Dec.	0.594	0.594	0.594	0.594	100	100	100	100		
	Building Structure Maintenance	3.960	Jan .	Dec.	0.990	1.980	2.970	3.960	25	50	75	100		
	Computer Upkeep	1.440	Jan .	Dec.	0.360	0.720	1.080	1.440	25	50	75	100		
Postal Charges	0.576	Jan .	Dec.	0.144	0.288	0.432	0.576	25	50	75	100			
Insurance	3.600	Jan .	Dec.	3.600	3.600	3.600	3.600	100	100	100	100			

	Security Services	2.880	Jan .	Dec.	0.720	1.440	2.160	2.880	25	50	75	100		
	External Audit Fees	0.720	Jan .	Dec.	-	-	-	0.720	-	-	-	100		
	Telephone/ Internet	2.880	Jan .	Dec.	0.720	1.440	2.160	2.880	25	50	75	100		
	Legal Fees	0.720	Jan .	Dec.	-	-	-	0.720	-	-	-	100		
	Seminars & Workshops	1.008	Jan .	Dec.	0.252	0.504	0.756	1.008	25	50	75	100		
	Training Expenses	2.500	Jan .	Dec.	0.625	1.250	1.875	2.500	25	50	75	100		
	Media, Advertising	2.000	Jan .	Dec.	0.500	1.000	1.500	2.000	25	50	75	100		
	Entertainment & Welfare	2.400	Jan .	Dec.	0.600	1.200	1.800	2.400	25	50	75	100		
	Miscellaneous	6.000	Jan .	Dec.	1.500	3.000	4.500	6.000	25	50	75	100		
Library	Library Services	0.275	Jan	Dec	0.068	0.136	0.204	0.275	25	50	75	100		Librarian
Engineering Unit	Engineering Services	27.350	Jan	Dec	6.837	13.675	20.49	27.35	25	50	75	100		Resident Engineer
Accounts Unit	Finance Activities	1.150	Jan	Dec	0.287	0.287	0.057	1.15	25	50	75	100		Senior Accountant

ESTATE MANAGEMENT –EXPENDITURE STATEMENT

Proposed activity	Allocation for 2016 Rs. Mn	Start. Completed dates	Financial Targets (Rs.) (Cumulative)				Physical targets (Cumulative %)				Output/indicator (2016)	Responsible officer
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Land improvement	14.496	Throughout the year	4.04	7.18	10.456	14.496	28	50	72	100	Under Planting 112.5ac in 06 estates, fencing 3800 Fathoms in 06 estates, construct 8000 Fathoms of drains in 04 estates, construct 2550.husk pits in 07 estates, establish 119.5 ac. of cover crops in 06 estates	M. Prashantha (Manager, Estates)
Pest & Disease Management	0.847		0.212	0.424	0.636	0.847	25	50	75	100	Carry out coconut mite control in 15396 palms in 08 estates using predatory mites and other pest management practices	
Intercropping	0.841		0.311	0.521	0.631	0.841	37	62	74	100	Intercropping of 02 estates with Pineapple -2 ac and pepper -500 ac	
Nursery Management	14.505		3.626	7.252	10.878	14.505	25	50	75	100		
Fertilizer	17.476		4.369	7.238	9.719	17.476	25	39	50	100	Manure 23637 palms in 03 estates with organic manure and other with inorganic fertilizer	
Harvesting nuts	11.992		2.998	5.996	8.994	11.992	25	50	75	100		
General Charges	49.321		12.33	24.66	36.99	49.321	25	50	75	100	Postage, Telephone, payment of Gratuity, EPF, ETF, Electricity, Water, Security, Fuel and maintenance work	
Staff Salary	27.023		6.756	13.512	20.268	27.023	25	50	75	100	Payments of salary, EPF, ETF, Medical for permanent staff	
Estate Upkeep	22.126		5.532	11.064	14.951	22.126	25	50	67	100	Weeding, ,mulching, training, emasculation, fill 1300 vacancies in 02 estates roads and drains,etc	
Other Project	5.083		1.271	2.542	5.083	-	25	50	100		Toddy tapping & animal husbandry	
Construction of Buildings	15.73		3.933	7.866	11.799	15.73	25	50	75	100	Staff quarters, stores, watcher Hut, guest House & bungalow, office	
Purchases												
Vehicle	1.05		0.263	0.526	1.05	-	25	50	100		Purchase of Double Cab- 01, Motor Bick-01, Double Cab-01,Tractor- 02, Tractor Tailor -02	
Field & Household Equipment	2.109		0.527	1.054	2.109	-	25	50	100		Harrow -03, Slasher - 03, Sola Water Pump – 03, Grass Cutter – 02, Power Sprayer -01, Water pump –01, Water Bowser -01, Gate – 01	
Office Equipment	1.615		0.404	0.808	1.615	-	25	50	100		Office Chair – 01 Television -01, Fax Machine - 01, Water Filter - 01	

INCOME STATEMENT

Description/Crop	Estate Mgt. Div	Thabbow a Demonstration	BE	RE	GRC Ambakelle	PRS	WE	MRC	DRC	GRC Makandura	GRC Maduruoya	PRS	Total
1. Coconut													
1.1 Fresh Coconut Rs.		1,056,000	16,665,000	17,460,000	3,900,000	18,900,000	3,133,221	1,941,500	1,524,900	11,904,000	3,034,985	17,756,160	97,275,766
1.2 Seed Coconut Rs.					44,499,000						17,722,280	4,000,000	66,221,280
1.3 Rejection sold Rs.			725,000	120,000	54,600				90,000				989,600
1.4 Allowance Rs.			1,000,000	60,000	78,000				14,400	52,000			1,204,400
2. Copra Rs. (01 kg)			250,000	240,000		1,093,072	45,000	34,000		380,500	114,260	650,000	2,806,832
3. Coconut husks & Shells													
4. Coconut Oil bottle													
Coconut Poonac													
5. Milk / Animal			610,000	487,000	62,510	450,000	20,000				592,500	165,000	2,387,010
6. Curd / Toffees					100,000								100,000
7. Yoghurt / Curd			200,000										200,000
7 Coconut Seedling													
7.1 Poly Bags		1,995,000		1,750,000	2,905,000		1,425,000	2,702,500	3,360,000	2,043,750	212,500	5,275,000	21,668,750
8. Inter Cropping		15,900	165,000	9,000		32,750	300,000	30,000		25,000		96,250	673,900
9. Sundry income		101,927			1,085,000	500,000		46,900		25,000		500,000	2,258,827
10. Coconut logs													
11. White Coconut Oil													
12. Toddy Tapping (Treacle)			1,462,500										1,462,500
GRAND INCOME TOTAL		3,168,827	21,077,500	20,126,000	52,684,110	20,975,822	4,923,221	4,754,900	4,989,300	14,430,250	21,676,525	28,442,410	197,248,865

Laboratory Equipment (Development Budget of the Ministry)

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Drenching applicator	1	Agronomy Division	0.02				
Sward stick pasture ruler	1		0.06				
GPS	1		0.07				
Fibertech machine	1		2.2				
Climate monitoring unit	1		0.2				
Sand box apparatus	1		2.0				
Total			4.55				

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Polythene sealer	3	Crop Protection Division	0.05				
Stereo zoom microscope	1		0.45				
Total			0.5				

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Desiccator	1	Coconut Processing Research Division	0.1				
Heating Mantel	1		0.5				
Can sealer	1		0.1				
Freeze dryer	1		3.0				
Sugar centrifuge	1		0.5				
Gas chromatography	1		6.5				
Difibering machine	1		2.4				
Cleaner drum of Ceylon drum	1		0.4				
Twine machine	1		0.14				
TOTAL		13.64					

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Ice crusher blender	1	Genetics and Plant Breeding Division	0.03				
TOTAL			0.03				

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Automated weather station	02	Plant Physiology Division	0.85				
Water bath	01		0.1				
TOTAL			0.95				

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Soil moisture probes and data logger with software	2	Soil and Plant Nutrition Division	1.6				
Auto analyzer	1		5.0				
Block digester	2		1.5				
Distillation unit	1		0.25				
pH and EC meter	1		0.14				
Refrigerator	1		0.1				
Fume cupboard	1		1.0				
Vortex mixture	1		0.07				
Weighing scale	1		0.07				
TOTAL				9.73			

Item/Activity	No. of Items	Division/Unit	Allocation for 2015	Expenditure (Rs. Million)			
				Q1	Q2	Q3	Q4
Soil classification kit	1	Oil Palm Research Division	0.4				
TOTAL			0.4				