

Head 48 — GOVERNMENT LABORATORY

Controlling officer: the Government Chemist will account for expenditure under this Head.

Estimate 2012–13	\$375.2m
Establishment ceiling 2012–13 (notional annual mid-point salary value) representing an estimated 442 non-directorate posts as at 31 March 2012 rising by four posts to 446 posts as at 31 March 2013	\$209.5m
In addition, there will be an estimated six directorate posts as at 31 March 2012 rising by one post to seven posts as at 31 March 2013.	
Commitment balance	\$35.5m

Controlling Officer's Report

Programmes

Programme (1) Statutory Testing	This programme contributes to Policy Area 2: Agriculture, Fisheries and Food Safety (Secretary for Food and Health) and Policy Area 15: Health (Secretary for Food and Health).
Programme (2) Advisory and Investigative Services	This programme contributes to Policy Area 2: Agriculture, Fisheries and Food Safety (Secretary for Food and Health), Policy Area 9: Internal Security (Secretary for Security), Policy Area 23: Environmental Protection, Conservation, Power and Sustainable Development (Secretary for the Environment) and Policy Area 32: Environmental Hygiene (Secretary for Food and Health)
Programme (3) Forensic Science Services	This programme contributes to Policy Area 9: Internal Security (Secretary for Security).

Detail

Programme (1): Statutory Testing

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	2012–13 (Estimate)
Financial provision (\$m)	141.6	156.5	157.8 (+0.8%)	168.2 (+6.6%)
				(or +7.5% on 2011–12 Original)

Aim

- 2 The aim is to carry out statutory functions as referee analyst under a number of ordinances and regulations.

Brief Description

3 The Government Chemist discharges statutory functions as referee analyst under various ordinances and regulations. The work involves the analysis of food products for regulatory compliance; the examination of western and Chinese medicines for registration and quality control; the classification of dangerous goods for compliance with the Dangerous Goods Ordinance (Cap. 295); the testing of dutiable commodities for tariff classification; the assessment of toys, children's products and consumer articles for health and safety hazards; the determination of tar and nicotine yields in cigarettes; the assay of gold and platinum articles for fineness; the analysis of consumer goods in relation to the fitness with their trade descriptions; and the verification of products and equipment for compliance with the Weights and Measures Ordinance (Cap. 68). The Laboratory provides 24-hour on-call service to assist the Fire Services Department at scenes of accidents involving hazardous chemicals.

4 In 2011, the Laboratory continued outsourcing some of the routine food testing work to private testing laboratories. The resources released from outsourcing were deployed to take up test method development, new testing work arising from amendments of food legislation and activities related to outsourcing such as organisation of technical seminars as well as chemical metrology development in support of, among others, the development of the local testing and certification industries. In another area of health concern, the Laboratory continued to provide full support for the investigation into cases of adverse reaction arising from the consumption of proprietary Chinese medicines found containing western drug ingredients, and intoxication incidents related to substitution or contamination of herbs in Chinese herbal medicines.

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5 The key performance measures in respect of statutory testing are:

Targets

	Target	2010 (Actual)	2011 (Actual)	2012 (Plan)
<i>Testing of:</i>				
food complaint cases within 25 working days (%).....	83‡	88	85	83
urgent samples relating to food incidents within two working days (%).....	100	100	100	100
other food samples within reporting time averaging 19 working days (%)#.....	95	99	100	95
pharmaceuticals (quality control) within reporting time averaging 14 working days (%)#.....	95	99	99	95
pharmaceuticals (registration) within reporting time averaging 30 working days (%)#.....	90	93	98	90
Chinese medicines within reporting time averaging 30 working days (%)#.....	95	98	97	95
dangerous goods within reporting time averaging 14 working days (%)#.....	95	97	99	95
dutiable and other commodities within reporting time averaging ten working days (%)#.....	95	99	100	95
toys and children's products within reporting time averaging 15 working days (%)#.....	95	97	96	95
consumer goods within reporting time averaging 35 working days (%)#.....	95	99	95	95
non-pharmaceutical consumer goods (trade descriptions) within reporting time averaging 35 working days (%)#....	90	94	98	90

‡ From 2011 onwards, the target has been revised from 82 per cent to 83 per cent.

Different samples require different analytical procedures, thus different reporting time applies. The quoted number of working days required represents an average of reporting time for the different types of samples / test requests within the category, while the target (in percentage) is the total compliance rate of the concerned samples / test requests within a particular category against their respective targets.

Indicators

The key indicators for statutory testing are the numbers of tests performed on the various categories of services.

	2010 (Actual)	2011 (Actual)	2012 (Estimate)
<i>Tests performed</i>			
food complaint samples	17 089	20 456	18 000
urgent samples relating to food incidents.....	1 479	6 747	N.A.[^]
other food samples	207 735	184 950	175 000
pharmaceuticals (quality control).....	24 378	36 758	31 000
pharmaceuticals (registration).....	20 825	19 205	20 000
Chinese medicines	95 890	80 579	80 000
dangerous goods	3 683	4 727	5 000
dutiable and other commodities	10 684	9 739	10 000
non-pharmaceutical consumer goods (trade descriptions)	6 313	5 375	5 000
cigarette samples.....	13 716	12 504	13 000
toys and children's products	20 527	18 642	18 500
consumer goods	15 651	15 081	15 000

[^] As the testing requirement for urgent food samples relating to food incidents fluctuated in previous years, it is difficult to estimate either the occurrence of this type of food incidents or the number of tests required in 2012.

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Matters Requiring Special Attention in 2012–13

6 During 2012–13, the Laboratory will:

- provide professional advice and develop testing methods in support of the legislative amendments on the control of the residues of pesticides and veterinary drugs in food;
- outsource some of the routine food testing work to the private sector in support of the development of the testing and certification industry in Hong Kong as well as to better utilise the Laboratory's resources in developing and performing new tests regarding legislative amendments;
- provide analytical support to further strengthen the regulation of pharmaceutical products and proprietary Chinese medicines and to reinforce the provision of urgent testing service relating to drug incidents;
- provide support to expedite the setting of standards for Chinese herbal medicines commonly used in Hong Kong;
- continue to provide analytical support for ensuring the safety of toys and children's products and other consumer goods; and
- continue to provide professional advisory and analytical services to support the enforcement of the various orders / regulations under the Trade Descriptions Ordinance (Cap. 362). The services will cover analysis and authenticity tests on consumer goods, in particular those related to valuable goods such as jewellery, dried seafood products and Chinese medicinal products where their authenticity is of public concern.

Programme (2): Advisory and Investigative Services

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	2012–13 (Estimate)
Financial provision (\$m)	72.4	62.8	64.5 (+2.7%)	66.6 (+3.3%)
				(or +6.1% on 2011–12 Original)

Aim

7 The aim is to provide a wide range of primarily chemical testing and advisory services to other government departments and public institutions.

Brief Description

8 The Laboratory provides comprehensive analytical and advisory services to the Government in the management and monitoring of the environment and in the enforcement of various pollution control measures. Chemical testing of air, water and waste samples for a variety of pollution indicators constitutes the main activity under this programme. Specific incidents of emission or leakage of gaseous substances into the environment involve the Laboratory in on-site investigations. Analytical support is provided to the Hong Kong Observatory's Environmental Radiation Monitoring Programme as well as the Daya Bay Contingency Plan. Other activities include the examination of seepage and swimming pool water samples for the Food and Environmental Hygiene Department, analysis of samples related to evaluation of exposure to occupational hazards for the Labour Department, testing of government supplies for conformity to tender specifications and identifying products made from endangered species.

9 In 2011, the Laboratory continued to render analytical support and professional advice to the Government in improving the quality of the environment of Hong Kong and engage in scientific research to further enhance its analytical capabilities in environmental analysis. In addition to its routine commitments, the Laboratory was actively involved in various environmental impact studies and ad-hoc projects including the analysis of environmental samples for organic pollutants under the Toxic Substances Monitoring Programme. To support the implementation of the Air Pollution Control (Volatile Organic Compounds) Regulation (Cap. 311W), the Laboratory has been providing analytical services for determining the content of volatile organic compounds in regulated products including architectural paints/coatings, marine vessel paints, printing inks, adhesives and sealants, and consumer products. In relation to the method development for the analysis of persistent organic pollutants, a special team has been established to speed up the method validation work. In addition, the Laboratory has started to provide analytical service for biodiesel in support of the implementation of the motor vehicle biodiesel specifications in the Air Pollution Control (Motor Vehicle Fuel) Regulation (Cap. 311L). The Laboratory also provided over 300 pieces of professional advice relating to over 1 000 items for classification under the Dangerous Goods Ordinance and over 610 pieces of advice relating to over 1 500 items supporting implementation of the Chemical Weapons (Convention) Ordinance (Cap. 578) and control of strategic commodities.

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10 The key performance measures in respect of advisory and investigative services are:

Targets

	Target	2010 (Actual)	2011 (Actual)	2012 (Plan)
<i>Testing of:</i>				
air pollution monitoring samples within reporting time averaging 20 working days (%)#.....	95	99	99	95
field investigation (air pollution) samples within reporting time averaging 12 working days (%)#.....	96	100	100	96
air pollution samples for litigation purposes within reporting time averaging 18 working days (%)#.....	97	100	100	97
water quality monitoring samples within reporting time averaging 20 working days (%)#.....	96	98	98	96
environmental waste monitoring samples within reporting time averaging 27 working days (%)#.....	95	97	98	95
environmental waste samples for litigation purposes within reporting time averaging 12 working days (%)#.....	97	100	100	97
radioactivity monitoring samples within reporting time averaging 12 working days (%)#.....	95	99	100	95
pesticides formulation samples within reporting time averaging 36 working days (%)#.....	93	96	100	93
seepage and swimming pool water samples within ten working days (%).....	96	98	97	96
other samples within reporting time averaging 25 working days (%)#.....	90	99	98	90

Different samples require different analytical procedures, thus different reporting time applies. The quoted number of working days required represents an average of reporting time for the different types of samples / test requests within the category, while the target (in percentage) is the total compliance rate of the concerned samples / test requests within a particular category against their respective targets.

Indicators

The key indicators for advisory and investigative services are the numbers of tests performed on the various categories of services.

	2010 (Actual)	2011 (Actual)	2012 (Estimate)
<i>Tests performed</i>			
air pollution monitoring samples	70 838	67 885	69 600
air pollution samples for litigation purposes.....	2 472	2 437	3 000
field investigation (air pollution) samples.....	476	483	450
water quality monitoring samples	131 480	125 592	124 600
environmental waste monitoring samples	12 179	11 976	11 200
environmental waste samples for litigation purposes.....	369	284	200
pesticides formulation samples	320	378	320
seepage and swimming pool water samples.....	32 150	28 832	29 000
miscellaneous			
radioactivity monitoring samples.....	4 295	4 219	4 700
other samples	7 004	5 009	7 700

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Matters Requiring Special Attention in 2012–13

11 During 2012–13, the Laboratory will:

- continue to provide analytical services in support of the implementation of the Air Pollution Control (Motor Vehicle Fuel) Regulation, including the analysis of biodiesel; and
- continue to provide support to government departments in pursuing action items proposed under the Hong Kong Special Administrative Region Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants. In particular, new sophisticated instruments will be acquired to provide technical support for method development in connection with the analysis of the additional groups of chemicals that have come under the control of the Convention since May 2009.

Programme (3): Forensic Science Services

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	2012–13 (Estimate)
Financial provision (\$m)	125.9	128.2	131.4 (+2.5%)	140.4 (+6.8%)
				(or +9.5% on 2011–12 Original)

Aim

12 The aim is to provide comprehensive and unbiased forensic science services to the criminal justice system.

Brief Description

13 The Laboratory provides comprehensive forensic science services to law enforcement departments, which include mainly the Hong Kong Police Force, the Customs and Excise Department, the Immigration Department and the Fire Services Department. The services are grouped into two main work areas: criminalistics and quality management; and drugs, toxicology and documents. A 24-hour service is also provided for the scientific examination of crime scenes. It covers general crime scenes and scenes requiring specialist knowledge, such as fire investigation, traffic accident reconstruction, blood pattern analysis and illicit drug manufacturing.

14 Additionally, the screening and monitoring, through urine testing (urinalysis), of the drug-abuse behaviour of persons under imprisonment, rehabilitation or probation is conducted for the Department of Health (Methadone Maintenance Scheme), the Social Welfare Department, the Correctional Services Department, the Hong Kong Police Force and other organisations requiring this service.

15 The targets are defined to be the percentage of completed cases whose individual case-completion time does not exceed a specified number of working day(s). The key performance measures in respect of the forensic science services are:

Targets

	Target	2010 (Actual)	2011 (Actual)	2012 (Plan)
<i>Cases for:</i>				
biochemical grouping (DNA profiling) - non-complicated cases completed within 66 working days (%).....	90	97	98	90
complicated cases completed within 130 working days (%).....	90	91	93	90
DNA database (DNA profiling) completed within 22 working days (%).....	90	90	94	90
parentage testing (DNA profiling) completed within 22 working days (%)Δ.....	90	91	95	90
trace evidence completed within 66 working days (%).....	90	78	90	90
accident reconstruction completed within 66 working days (%).....	90	94	94	90
illicit drug seizures completed within 11 working days (%).....	90	89	92	90
major illicit drug seizures and manufacturing completed within 44 working days (%).....	90	93	90	90

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	Target	2010 (Actual)	2011 (Actual)	2012 (Plan)
other illegal drug activities completed				
within 120 working days (%).....	90	95	94	90
analytical toxicology completed within				
33 working days (%).....	85	87	87	85
drug urinalysis -				
methadone clinics completed within				
11 working days (%).....	90	90	91	90
judicial-confirmation (routine)				
completed within 22 working				
days (%).....	85	88	89	85
judicial-confirmation (enhanced				
probation) completed within				
five working days (%).....	100	100	100	100
drink-driving completed within				
11 working days (%).....	90	97	97	90
handwriting examination completed				
within 66 working days (%).....	85	88	91	85
counterfeiting/forgery completed				
within 33 working days (%).....	90	97	93	90
express counterfeiting/forgery service				
completed within one working				
day (%)	99	99	99	99

Δ The figures represent the number of working days lapsed between the reception by the Laboratory of samples for genetic testing and the issuing of genetic data after completion of DNA analysis of these samples within the Laboratory.

Indicators

Key indicators for the forensic science services are the number of cases investigated in each category, statutory certificates or technical reports/witness statements issued and crime scenes attended.

	2010 (Actual)	2011 (Actual)	2012 (Estimate)
<i>Criminalistics and Quality Management Group</i>			
cases investigated			
DNA database.....	4 009	3 502	4 000
biochemical sciences -			
non-complicated	786	430	450
complicated.....	1 520	1 441	1 500
parentage testing	2 382	2 409	2 500
chemical sciences.....	801	746	800
physical sciences.....	635	602	630
<i>Drugs, Toxicology and Documents Group</i>			
cases investigated			
controlled drugs	5 627	5 414	5 000
analytical toxicology.....	2 540	2 649	2 800
drink-driving	98	58	80
questioned documents.....	1 247	815	1 050
drug urinalysis -			
methadone clinics	11 951	12 659	12 400
judicial-confirmation (routine).....	32 571	30 184	31 000
judicial-confirmation (enhanced probation).....	2 479	3 376	3 000
<i>Forensic Science Division</i>			
statutory certificates issued.....	5 775	5 516	5 600
technical reports/statements.....	12 427	11 416	12 000
crime scenes attended	432	391	400

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Matters Requiring Special Attention in 2012–13

16 During 2012–13, the Laboratory will:

- continue to provide analytical support to government departments in the judicial-confirmation urinalysis cases in combating the youth drug abuse problem such as the pilot scheme for enhanced probation. Analytical support will also be provided to a trial scheme on school drug testing in the healthy school programme and for hair drug testing; and
- analytical service will be provided to support the implementation of the legislative amendments to combat drug driving after the amendments have been brought into effect.

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ANALYSIS OF FINANCIAL PROVISION

Programme	2010–11 (Actual) (\$m)	2011–12 (Original) (\$m)	2011–12 (Revised) (\$m)	2012–13 (Estimate) (\$m)
(1) Statutory Testing	141.6	156.5	157.8	168.2
(2) Advisory and Investigative Services	72.4	62.8	64.5	66.6
(3) Forensic Science Services	125.9	128.2	131.4	140.4
	339.9	347.5	353.7 (+1.8%)	375.2 (+6.1%)
				(or +8.0% on 2011–12 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2012–13 is \$10.4 million (6.6%) higher than the revised estimate for 2011–12. This is mainly due to the net increase of five posts and increased requirement for capital equipment, partly offset by reduced requirement for specialist supplies and other operating expenses.

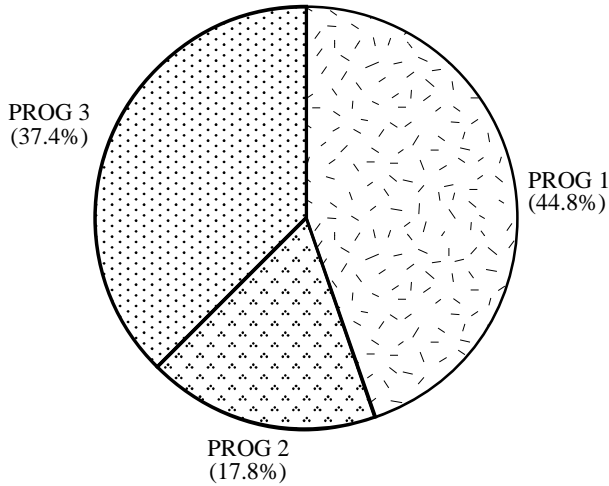
Programme (2)

Provision for 2012–13 is \$2.1 million (3.3%) higher than the revised estimate for 2011–12. This is mainly due to increased requirement for procurement of capital equipment, specialist supplies and other operating expenses.

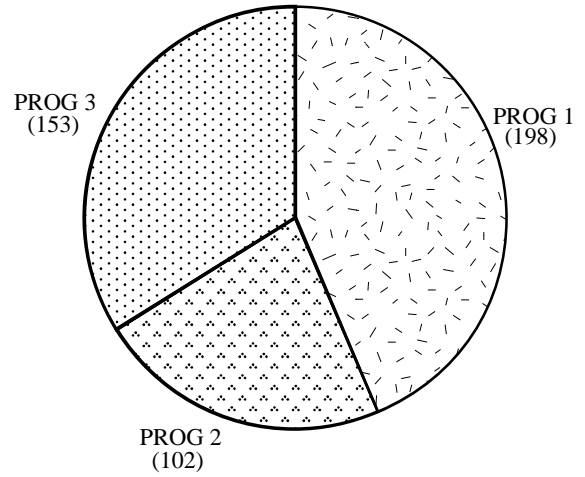
Programme (3)

Provision for 2012–13 is \$9.0 million (6.8%) higher than the revised estimate for 2011–12. This is mainly due to increased requirement for procurement of capital equipment, specialist supplies and other operating expenses.

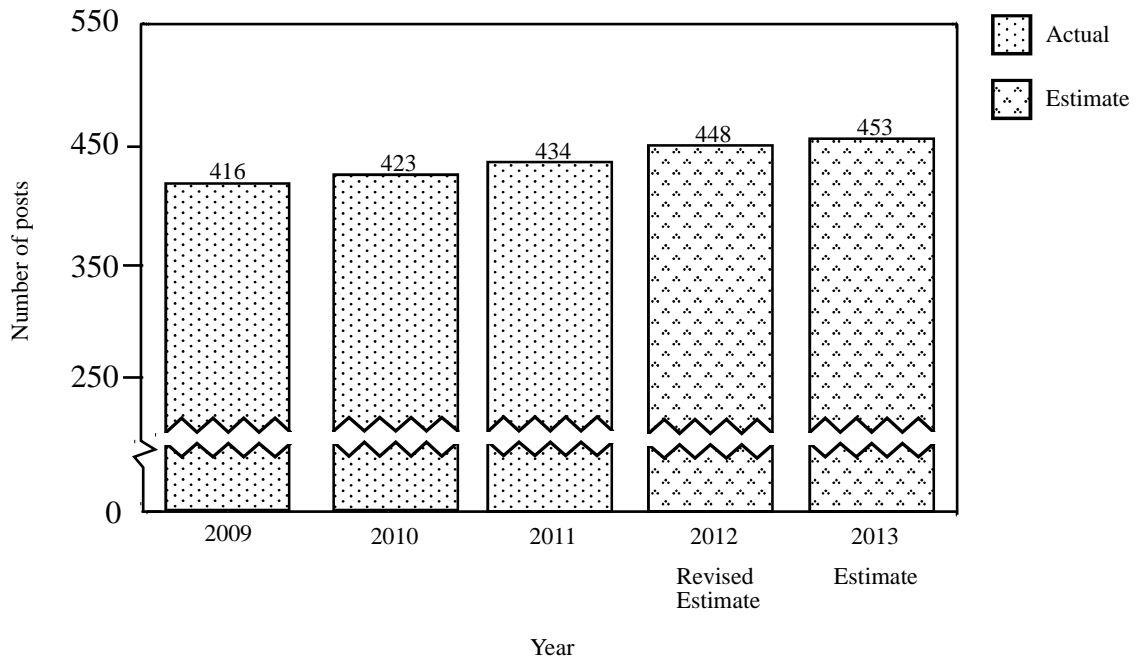
Allocation of provision
to programmes
(2012-13)



Staff by programme
(as at 31 March 2013)



Changes in the size of the establishment
(as at 31 March)



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Sub-head (Code)	Actual expenditure 2010-11	Approved estimate 2011-12	Revised estimate 2011-12	Estimate 2012-13	
	\$'000	\$'000	\$'000	\$'000	
Operating Account					
Recurrent					
000	Operational expenses	291,259	305,645	312,173	324,520
	Total, Recurrent	291,259	305,645	312,173	324,520
	Total, Operating Account	291,259	305,645	312,173	324,520
Capital Account					
Plant, Equipment and Works					
603	Plant, vehicles and equipment	28,257	26,584	25,378	35,483
661	Minor plant, vehicles and equipment (block vote).....	20,394	15,225	16,125	15,225
	Total, Plant, Equipment and Works	48,651	41,809	41,503	50,708
	Total, Capital Account	48,651	41,809	41,503	50,708
	 Total Expenditure	 339,910	 347,454	 353,676	 375,228

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Details of Expenditure by Subhead

The estimate of the amount required in 2012–13 for the salaries and expenses of the Government Laboratory is \$375,228,000. This represents an increase of \$21,552,000 over the revised estimate for 2011–12 and an increase of \$35,318,000 over actual expenditure in 2010–11.

Operating Account

Recurrent

2 Provision of \$324,520,000 under *Subhead 000 Operational expenses* is for the salaries, allowances and other operating expenses of the Government Laboratory.

3 The establishment as at 31 March 2012 will be 448 permanent posts. It is expected that there will be a net increase of five permanent posts in 2012–13. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2012–13, but the notional annual mid-point salary value of all such posts must not exceed \$209,531,000.

4 An analysis of the financial provision under *Subhead 000 Operational expenses* is as follows:

	2010–11 (Actual) (\$'000)	2011–12 (Original) (\$'000)	2011–12 (Revised) (\$'000)	2012–13 (Estimate) (\$'000)
Personal Emoluments				
- Salaries	198,037	207,171	214,562	225,763
- Allowances	1,437	1,307	1,344	1,391
Personnel Related Expenses				
- Mandatory Provident Fund contribution	474	460	384	458
- Civil Service Provident Fund contribution	4,219	5,852	6,239	7,652
Departmental Expenses				
- General departmental expenses	87,092	90,855	89,644	89,256
	291,259	305,645	312,173	324,520

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Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2011	Revised estimated expenditure for 2011-12	Balance
			\$'000	\$'000	\$'000	\$'000
Capital Account						
603		<i>Plant, vehicles and equipment</i>				
	809	Acquisition of an integrated liquid chromatographic-mass spectrometric system.....	4,725	—	—	4,725
	811	Replacement of an integrated gas chromatographic system.....	4,484	—	—	4,484
	814	Replacement of a smoking machine.....	2,499	—	—	2,499
	815	Replacement of a capillary electrophoresis system.....	2,400	—	—	2,400
	816	Acquisition of an equipment for handling speciation of toxic metals in food.....	5,845	—	—	5,845
	817	Acquisition of a set of instruments for drug testing services.....	5,530	—	—	5,530
	818	Replacement of a high performance liquid chromatograph with mass spectrometer system.....	5,500	—	—	5,500
	828	Replacement of an integrated chromatographic system with mass spectrometric detector.....	4,500	—	—	4,500
		Total	<u>35,483</u>	<u>—</u>	<u>—</u>	<u>35,483</u>