

Head 48 — GOVERNMENT LABORATORY

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

Estimate 2011–12	\$347.5m
Establishment ceiling 2011–12 (notional annual mid-point salary value) representing an estimated 428 non-directorate posts as at 31 March 2011 rising by 21 posts to 449 posts as at 31 March 2012	\$197.4m
In addition, there will be an estimated six directorate posts as at 31 March 2011 rising by one post to seven posts as at 31 March 2012.	
Commitment balance	\$26.6m

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

	2009–10 (Actual)	2010–11 (Original)	2010–11 (Revised)	2011–12 (Estimate)
Financial provision (\$m)	124.5	152.8	146.1 (–4.4%)	156.5 (+7.1%)
				(or +2.4% on 2010–11 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 2010, the Laboratory continued outsourcing some of the routine food testing work to commercial testing laboratories. The resources released from this outsourcing exercise 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 the 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.

Head 48 — GOVERNMENT LABORATORY

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

Targets

	Target	2009 (Actual)	2010 (Actual)	2011 (Plan)
<i>Testing of:</i>				
food complaint cases within 25 working days (%).....	83‡	82	88	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	99	95
pharmaceuticals (quality control) within reporting time averaging 14 working days (%)#.....	95	97	99	95
pharmaceuticals (registration) within reporting time averaging 30 working days (%)#.....	90	94	93	90
Chinese medicines within reporting time averaging 30 working days (%)#.....	95	99	98	95
dangerous goods within reporting time averaging 14 working days (%)#.....	95	99	97	95
dutiable and other commodities within reporting time averaging ten working days (%)#.....	95	100	99	95
toys and children's products within reporting time averaging 15 working days (%)#.....	95	98	97	95
consumer goods within reporting time averaging 35 working days (%)#.....	95	99	99	95
non-pharmaceutical consumer goods (trade descriptions) within reporting time averaging 35 working days (%)#.....	90	100	94	90

‡ From 2011 onwards, the target is 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.

	2009 (Actual)	2010 (Actual)	2011 (Estimate)
<i>Tests performed</i>			
food complaint samples	19 776	17 089	18 000
urgent samples relating to food incidents.....	356	1 479	N.A.^
other food samples	175 405	207 735	175 000
pharmaceuticals (quality control).....	25 728	24 378	31 000
pharmaceuticals (registration).....	20 985	20 825	20 000
Chinese medicines.....	68 864	95 890	78 800
dangerous goods	3 616	3 683	5 000
dutiable and other commodities	11 761	10 684	12 000
non-pharmaceutical consumer goods (trade descriptions)	7 429	6 313	5 000
cigarette samples	13 224	13 716	13 000
toys and children's products	19 423	20 527	18 500
consumer goods	16 961	15 651	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 2011.

Head 48 — GOVERNMENT LABORATORY

Matters Requiring Special Attention in 2011–12

6 During 2011–12, 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 commercial sector in support of the development of the testing and certification industry in Hong Kong as well as to better utilise the 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;
- 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

	2009–10 (Actual)	2010–11 (Original)	2010–11 (Revised)	2011–12 (Estimate)
Financial provision (\$m)	61.0	74.5	74.2 (-0.4%)	62.8 (-15.4%)
				(or -15.7% on 2010–11 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 2010, 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 200 pieces of professional advice relating to over 1 800 items for classification under the Dangerous Goods Ordinance and over 600 pieces of advice relating to over 1 500 items supporting implementation of the Chemical Weapons (Convention) Ordinance (Cap. 578) and control of strategic commodities.

Head 48 — GOVERNMENT LABORATORY

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

Targets

	Target	2009 (Actual)	2010 (Actual)	2011 (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	99	98	96
environmental waste monitoring samples within reporting time averaging 27 working days (%)#	95	98	97	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	99	95
pesticides formulation samples within reporting time averaging 36 working days (%)#	93	100	96	93
seepage and swimming pool water samples within ten working days (%)	96	99	98	96
other samples within reporting time averaging 25 working days (%)#	90	100	99	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.

	2009 (Actual)	2010 (Actual)	2011 (Estimate)
<i>Tests performed</i>			
air pollution monitoring samples	77 536	70 838	69 600
air pollution samples for litigation purposes	2 740	2 472	3 000
field investigation (air pollution) samples	451	476	450
water quality monitoring samples	124 988	131 480	131 000
environmental waste monitoring samples	17 366	12 179	11 200
environmental waste samples for litigation purposes	279	369	200
pesticides formulation samples	398	320	380
seepage and swimming pool water samples	23 231	32 150	23 000
miscellaneous			
radioactivity monitoring samples	4 351	4 295	4 700
other samples	8 620	7 004	7 700

Head 48 — GOVERNMENT LABORATORY

Matters Requiring Special Attention in 2011–12

11 During 2011–12, the Laboratory will:

- continue to provide analytical services in support of the implementation of the Air Pollution Control (Volatile Organic Compounds) Regulation where more types of regulated products will come under its control, including pleasure craft paints and vehicle refinishing paints;
- 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

	2009–10 (Actual)	2010–11 (Original)	2010–11 (Revised)	2011–12 (Estimate)
Financial provision (\$m)	123.6	127.7	127.2 (–0.4%)	128.2 (+0.8%)
				(or +0.4% on 2010–11 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. This sphere of routine urinalysis showed an increase of five per cent of cases from 2009 to 2010, as indicated under the entry “drug urinalysis – judicial confirmation (routine)” in the “Indicators” segment.

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	2009 (Actual)	2010 (Actual)	2011 (Plan)
<i>Cases for:</i>				
biochemical grouping (DNA profiling) - non-complicated cases completed within 66 working days (%).....	90	98#	97	90
complicated cases completed within 130 working days (%).....	90	99#	91	90
DNA database (DNA profiling) completed within 22 working days (%).....	90	91	90	90
parentage testing (DNA profiling) completed within 22 working days (%)Δ	90	91	91	90
trace evidence completed within 66 working days (%).....	90	90	78	90
accident reconstruction completed within 66 working days (%).....	90	90	94	90

Head 48 — GOVERNMENT LABORATORY

	Target	2009 (Actual)	2010 (Actual)	2011 (Plan)
illicit drug seizures completed within 11 working days (%).....	90	88	89	90
major illicit drug seizures and manufacturing completed within 44 working days (%).....	90	82	93	90
other illegal drug activities completed within 120 working days (%).....	90	100	95	90
analytical toxicology completed within 33 working days (%).....	85	78	87	85
drug urinalysis - methadone clinics completed within 11 working days (%).....	90	92	90	90
judicial-confirmation (routine) completed within 22 working days (%)Ω.....	85	87	88	85
judicial-confirmation (enhanced probation) completed within five working days (%).....	100	100	100	100
drink-driving completed within 11 working days (%).....	90	88	97	90
handwriting examination completed within 66 working days (%).....	85	87	88	85
counterfeiting/forgery completed within 33 working days (%).....	90	93	97	90
express counterfeiting/forgery service completed within one working day (%)	99	99	99	99

From 2010 onwards, the target of “non-complicated cases” under “biochemical grouping (DNA profiling)” has been enhanced from completion within 88 working days to completion within 66 days; and the target of “complicated cases” from completion within 154 working days to completion within 130 working days. The actual figures for “non-complicated cases” and “complicated cases” in 2009 were based on the previous targets of completion within 88 and 154 working days respectively.

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.

Ω From 2010 onwards, the previous target of “judicial confirmation” under “drug urinalysis” has been re-named to “judicial confirmation (routine)” to exclude cases under the pilot scheme for enhanced probation as mentioned in the second bullet point of paragraph 16, which are subject to a separate target of “judicial-confirmation (enhanced probation)”.

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.

	2009 (Actual)	2010 (Actual)	2011 (Estimate)
<i>Criminalistics and Quality Management Group</i>			
cases investigated			
DNA database	4 915	4 009	4 600
biochemical sciences -			
non-complicated.....	1 296	786	1 000
complicated.....	1 585	1 520	1 550
parentage testing	2 684	2 382	2 500
chemical sciences.....	932	801	860
physical sciences.....	772	635	680
<i>Drugs, Toxicology and Documents Group</i>			
cases investigated			
controlled drugs	7 403	5 627	6 600
analytical toxicology	2 907	2 540	2 750
drink-driving	112	98	110
questioned documents.....	1 380	1 247	1 320

Head 48 — GOVERNMENT LABORATORY

	2009 (Actual)	2010 (Actual)	2011 (Estimate)
drug urinalysis -			
methadone clinics.....	13 119	11 951	12 320
judicial-confirmation (routine)^	30 896	32 571	32 300
judicial-confirmation (enhanced probation).....	134	2 479	4 500
<i>Forensic Science Division</i>			
statutory certificates issued	7 595	5 775	6 600
technical reports/statements	14 113	12 427	13 300
crime scenes attended	546	432	500

^ From 2010 onwards, the previous indicator of “judicial-confirmation” under “drug urinalysis” has been re-named as “judicial-confirmation (routine)” to exclude cases under the pilot scheme for enhanced probation as mentioned in the second bullet point of paragraph 16, which are subject to a separate indicator of “judicial-confirmation (enhanced probation)”.

Matters Requiring Special Attention in 2011–12

16 During 2011–12, the Laboratory will:

- endeavour to enhance the efficiency in service areas where targets were not met by refining methodology, reorganisation and restructuring within the relevant work categories;
- 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. The number of cases examined for the scheme is projected to be 4 500 in 2011. Analytical support is also provided to a trial scheme on school drug testing and the introduction of hair drug testing, with a view to transferring the technology to the industry; and
- scientific inputs will be provided in relation to the legislative amendment exercise to combat drug driving.

Head 48 — GOVERNMENT LABORATORY

ANALYSIS OF FINANCIAL PROVISION

Programme	2009–10 (Actual) (\$m)	2010–11 (Original) (\$m)	2010–11 (Revised) (\$m)	2011–12 (Estimate) (\$m)
(1) Statutory Testing	124.5	152.8	146.1	156.5
(2) Advisory and Investigative Services	61.0	74.5	74.2	62.8
(3) Forensic Science Services	123.6	127.7	127.2	128.2
	309.1	355.0	347.5 (-2.1%)	347.5 (—)
				(or -2.1% on 2010–11 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2011–12 is \$10.4 million (7.1%) higher than the revised estimate for 2010–11. This is mainly due to the net increase of nine posts and increased requirement for capital equipment, specialist supplies and other operating expenses.

Programme (2)

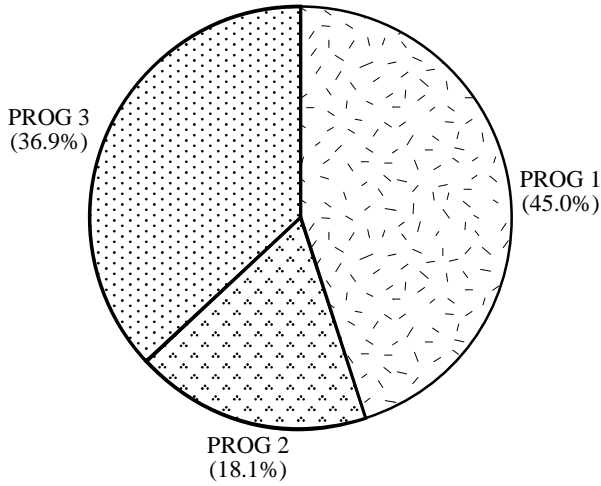
Provision for 2011–12 is \$11.4 million (15.4%) lower than the revised estimate for 2010–11. This is mainly due to reduced requirement for procurement of capital equipment.

Programme (3)

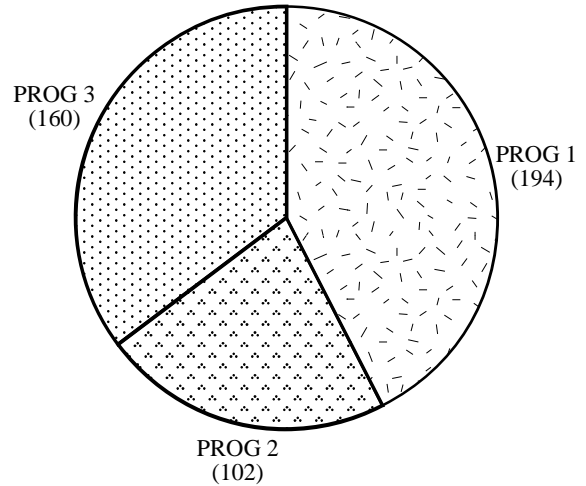
Provision for 2011–12 is \$1.0 million (0.8%) higher than the revised estimate for 2010–11. This is mainly due to the increase of 13 posts and increased operating expenses, partly offset by reduced requirement for procurement of capital equipment.

Head 48 — GOVERNMENT LABORATORY

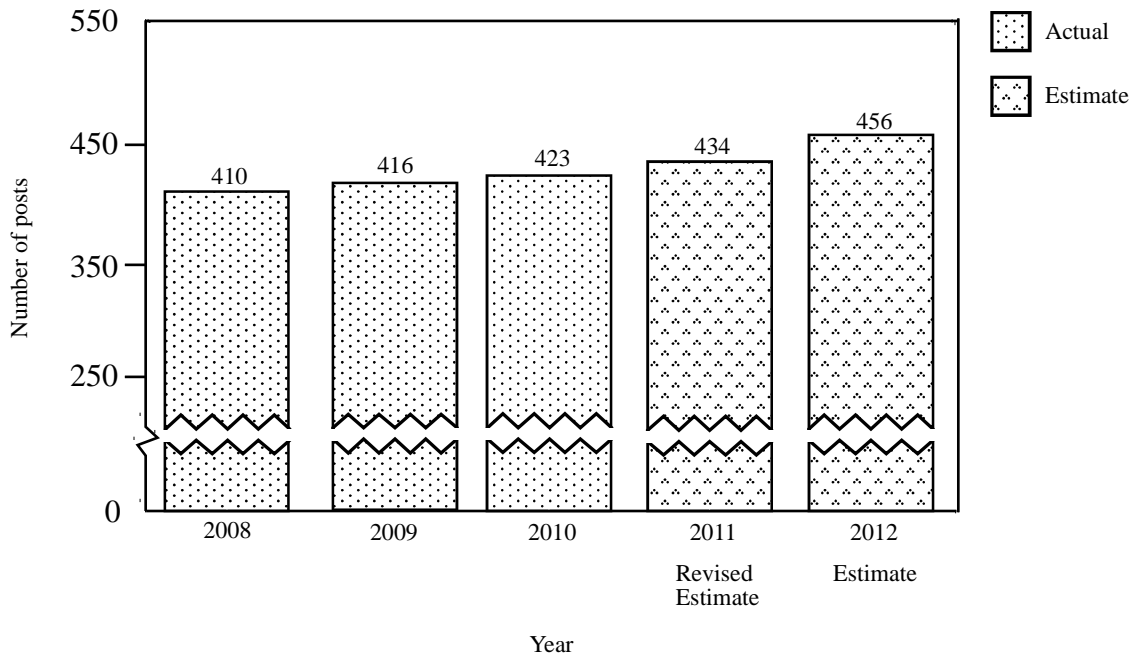
*Allocation of provision
to programmes
(2011-12)*



*Staff by programme
(as at 31 March 2012)*



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



Head 48 — GOVERNMENT LABORATORY

Sub-head (Code)	Actual expenditure 2009–10	Approved estimate 2010–11	Revised estimate 2010–11	Estimate 2011–12	
	\$'000	\$'000	\$'000	\$'000	
Operating Account					
Recurrent					
000	Operational expenses.....	274,824	295,571	294,300	305,645
	Total, Recurrent	274,824	295,571	294,300	305,645
	Total, Operating Account.....	274,824	295,571	294,300	305,645
Capital Account					
Plant, Equipment and Works					
603	Plant, vehicles and equipment	26,076	43,190	32,611	26,584
661	Minor plant, vehicles and equipment (block vote).....	8,163	16,244	20,609	15,225
	Total, Plant, Equipment and Works	34,239	59,434	53,220	41,809
	Total, Capital Account	34,239	59,434	53,220	41,809
	 Total Expenditure	 309,063	 355,005	 347,520	 347,454

Head 48 — GOVERNMENT LABORATORY

Details of Expenditure by Subhead

The estimate of the amount required in 2011–12 for the salaries and expenses of the Government Laboratory is \$347,454,000. This represents a decrease of \$66,000 against the revised estimate for 2010–11 and an increase of \$38,391,000 over actual expenditure in 2009–10.

Operating Account

Recurrent

2 Provision of \$305,645,000 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 2011 will be 434 permanent posts. It is expected that there will be a net increase of 22 permanent posts in 2011–12. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2011–12, but the notional annual mid-point salary value of all such posts must not exceed \$197,382,000.

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

	2009–10 (Actual) (\$'000)	2010–11 (Original) (\$'000)	2010–11 (Revised) (\$'000)	2011–12 (Estimate) (\$'000)
Personal Emoluments				
- Salaries	199,142	203,858	202,575	207,171
- Allowances	1,151	1,204	1,216	1,307
Personnel Related Expenses				
- Mandatory Provident Fund contribution	829	1,046	777	460
- Civil Service Provident Fund contribution	2,536	2,722	3,904	5,852
Departmental Expenses				
- General departmental expenses.....	71,166	86,741	85,828	90,855
	274,824	295,571	294,300	305,645

Capital Account

Plant, Equipment and Works

5 Provision of \$15,225,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents a decrease of \$5,384,000 (26.1%) against the revised estimate for 2010–11. This is mainly due to reduced requirement for procurement of replacement and new items in 2011–12.

Head 48 — GOVERNMENT LABORATORY

Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2010	Revised estimated expenditure for 2010–11	Balance
			\$'000	\$'000	\$'000	\$'000
Capital Account						
603		<i>Plant, vehicles and equipment</i>				
813		Acquisition of an integrated mass chromatographic system for efficient detection of veterinary drug residues in food	4,500	—	—	4,500
821		Acquisition of a set of instruments for provision of analytical support to the regulatory and enforcement work of proprietary Chinese medicines	5,343	—	669	4,674
826		Replacement of a high resolution gas chromatograph/high resolution mass spectrometer system	5,220	—	3,700	1,520
828		Replacement of an integrated chromatographic system with mass spectrometric detector	4,500	—	—	4,500
832		Replacement of a liquid chromatograph-mass spectrometer system.....	3,990	—	—	3,990
833		Replacement of an integrated gas chromatographic system.....	2,900	—	—	2,900
840		Acquisition of a set of instruments for provision of urgent services and emergency support to strengthen control against adulterated pharmaceutical and health products under the Pharmacy and Poisons Ordinance (Cap. 138).....	7,600	—	3,100	4,500
		Total	<u>34,053</u>	<u>—</u>	<u>7,469</u>	<u>26,584</u>