

## Head 48 — GOVERNMENT LABORATORY

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

**Estimate 2001–02**..... **\$246.3m**

**Establishment ceiling 2001–02** (notional annual mid-point salary value) representing an estimated 360 non-directorate posts at 31 March 2001 rising by three posts to 363 posts at 31 March 2002..... **\$148.4m**

In addition there will be an estimated seven directorate posts at 31 March 2001 and at 31 March 2002.

**Capital Account commitment balance**..... **\$11.0m**

### Controlling Officer's Report

#### Programmes

- |  |  |
|--|--|
| <b>Programme (1) Statutory Testing</b>                   | This programme contributes to Policy Area 2: Food Supply and Food Safety (Secretary for the Environment and Food) and Policy Area 15: Health (Secretary for Health and Welfare).   |
| <b>Programme (2) Advisory and Investigative Services</b> | This programme contributes to Policy Area 9: Internal Security (Secretary for Security), Policy Area 15: Health (Secretary for Health and Welfare) and Policy Area 23: Environmental Protection and Conservation (Secretary for the Environment and Food). |
| <b>Programme (3) Forensic Science Service</b>            | This programme contributes to Policy Area 9: Internal Security (Secretary for Security).   |

#### Detail

##### Programme (1): Statutory Testing

	1999–2000 (Actual)	2000–01 (Approved)	2000–01 (Revised)	<b>2001–02 (Estimate)</b>
Financial provision (\$m)	71.6	71.6 (0.0%)	69.8 (–2.5%)	<b>71.5 (+2.4%)</b>

#### 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 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 and the verification of products and equipment for compliance with the Weights and Measures Ordinance. The Government Laboratory provides 24-hour on-call service to assist the Fire Services Department and Labour Department at scenes of accidents involving hazardous chemicals.

4 The Laboratory has largely achieved all its performance targets in 2000. It has managed to provide urgent analytical services for the detection of beta-agonists in foods in the past year. Vigorous enforcement action taken by the Customs and Excise Department against suspected pharmaceutical products and illicit diesel oil have resulted in high output of analysis of pharmaceuticals and dutiable commodities respectively. The illegal sale of biodiesel containing either kerosene or duty-not-paid diesel for vehicular use was ceased by the Customs and Excise Department with urgent analytical support from the Laboratory. Flammability performance evaluation on bedding items such as pillows and polyurethane mattresses in connection with the enforcement of the Consumer Goods Safety Ordinance has also been provided.

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

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### *Targets*

	Target	1999 (Actual)	2000 (Actual)	2001 (Plan)
Testing of:				
samples relating to food poisoning within 1 working day (%) .....	100	100	100	<b>100</b>
food samples for regulatory compliance purposes within target reporting time averaging 19 working days (%)§ .....	92	97	97	<b>95</b>
pharmaceuticals (quality control) within target reporting time averaging 14 working days (%)§ .....	92	92	95	<b>92</b>
pharmaceuticals (registration) within target reporting time averaging 30 working days (%)§ .....	85	85	94	<b>90</b>
Chinese medicines within target reporting time averaging 30 working days (%)§ ....	90	100	100	<b>95</b>
dangerous goods within target reporting time averaging 14 working days (%)§ ....	90	91	90	<b>90</b>
dutiable and other commodities within target reporting time averaging 10 working days (%)§ .....	90	87	87	<b>90</b>
toys and children's products within target reporting time averaging 15 working days (%)§ .....	95	99	99	<b>95</b>
consumer goods within target reporting time averaging 35 working days (%)§ ....	95	98	99	<b>95</b>

§ Different samples require different analytical procedures, thus different target reporting time applies. The quoted number of working days required represents an average of target reporting time for the different samples within the category.

### *Indicators*

	1999 (Actual)	2000 (Actual)	2001 (Estimate)
food samples tested for regulatory compliance purposes# .....	70 829	72 535	<b>80 000</b>
pharmaceuticals (quality control) tested# .....	22 805	26 420	<b>25 000</b>
pharmaceuticals (registration) tested# .....	5 577	15 611	<b>15 000</b>
Chinese medicines tested# .....	18 471	23 373	<b>21 000</b>
dangerous goods tested# .....	6 100	6 624	<b>7 500</b>
dutiable and other commodities tested# .....	31 127	29 790	<b>30 000</b>
cigarette samples tested# .....	15 519	13 176	<b>15 500</b>
toys and children's products tested# .....	9 082	8 637	<b>9 000</b>
consumer goods tested# .....	16 465	16 542	<b>16 000</b>

# An indicator on "expenditure per test" is not provided this year because such figures have little practical value given that the costs for conducting tests vary considerably depending on the nature and complexity of the tests.

### *Matters Requiring Special Attention in 2001–02*

6 During 2001–02, the Government Laboratory will:

- make preparation for the testing of genetically modified food;
- extend scope of analysis of various toxins and contaminants in food;
- conduct active research on the quality and safety of Chinese medicines and maintain collaboration with Mainland testing institutes;
- set up new testing facilities for safety compliance testing of toys and children's products under the amended Toys and Children's Products Safety Ordinance; and
- step up the analytical and advisory support for safety evaluation of household chemicals.

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### Programme (2): Advisory and Investigative Services

	1999–2000 (Actual)	2000–01 (Approved)	2000–01 (Revised)	2001–02 (Estimate)
Financial provision (\$m)	59.5	62.5 (+5.0%)	60.9 (–2.6%)	<b>64.4</b> <b>(+5.7%)</b>

#### *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 Government 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 also involve the Laboratory in on-site investigations. Analytical support is also 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 samples for the Food and Environmental Hygiene Department, testing of government supplies for conformity to tender specifications, analysing feed-stocks for veterinary drug residues for the Agriculture Fisheries and Conservation Department, and identifying products made from endangered species.

9 The Laboratory has achieved all work targets set for 2000 despite the heavy workload. It continues to extend its analytical capabilities in the field of environmental analyses. Extended scope of analysis includes the determination of ultra-trace levels of dioxins and related compounds in various environmental matrices. For the analysis of marine sediment, the Laboratory has extended its scope to include organotin compounds used as antifoulants in marine paints. In addition to the routine commitment, the Laboratory has been actively involved in various environmental impact studies and ad-hoc projects, rendering professional advice to the Government in improving the quality of the environment of Hong Kong.

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

#### *Targets*

	Target	1999 (Actual)	2000 (Actual)	2001 (Plan)
Testing of:				
air monitoring samples within target reporting time averaging 20 working days (%)§ .....	95	98	100	<b>95</b>
other field investigation samples within target reporting time averaging 12 working days (%)§ .....	95	100	100	<b>95</b>
water monitoring samples within target reporting time averaging 20 working days (%)§ .....	90	98	98	<b>95</b>
waste monitoring samples within target reporting time averaging 27 working days (%)§ .....	95	96	97	<b>95</b>
waste samples for litigation purposes within target reporting time averaging 12 working days (%)§ .....	95	95	98	<b>95</b>
radioactivity monitoring samples within target reporting time averaging 12 working days (%)§ .....	95	99	99	<b>95</b>
other samples within target reporting time averaging 14 working days (%)§ .....	95	96	95	<b>95</b>

§ Different samples require different analytical procedures, thus different target reporting time applies. The quoted number of working days required represents an average of target reporting time for the different samples within the category.

#### *Indicators*

	1999 (Actual)	2000 (Actual)	2001 (Estimate)
air samples tested# .....	127 385	156 594	<b>132 000</b>
tests arising from field investigations# .....	3 869	4 563	<b>4 000</b>

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	1999 (Actual)	2000 (Actual)	2001 (Estimate)
water samples tested#.....	127 926	123 677	<b>130 000</b>
waste monitoring samples tested# .....	20 419	23 596	<b>22 000</b>
waste samples tested for litigation purposes# .....	2 415	1 606	<b>2 000</b>
miscellaneous			
radioactivity monitoring samples tested# .....	4 686	4 721	<b>4 600</b>
other samples tested#.....	29 054	32 423	<b>33 000</b>

# An indicator on “expenditure per test” is not provided this year because such figures have little practical value given that the costs for conducting tests vary considerably depending on the nature and complexity of the tests.

### *Matters Requiring Special Attention in 2001–02*

**11** During 2001–02, the Government Laboratory will:

- develop sophisticated and fast analytical techniques to cater for the new initiatives of control and monitoring programmes undertaken by the Government on air quality management;
- maintain communication and technical exchange with environmental laboratories in Guangdong, extending to those in Dailin and Tianjin, in connection with the National Marine Environmental Monitoring Network and the South China Sea Regional Monitoring Network, to establish traceability and comparability of pollution data;
- provide analytical support to the analysis of animal tissues and feeds for the presence of prohibited chemicals listed under the first schedule to the proposed Public Health (Animals and Birds) (Agricultural and Veterinary Chemical Residues) Regulation;
- provide analytical and advisory services to government departments in support of the implementation of the Chemical Weapons Convention in Hong Kong; and
- extend the implementation of the ISO 14000 environmental management principles to the operation of the Laboratory.

### **Programme (3): Forensic Science Service**

	1999–2000 (Actual)	2000–01 (Approved)	2000–01 (Revised)	2001–02 (Estimate)
Financial provision (\$m)	89.7	104.6 (+16.6%)	100.9 (–3.5%)	<b>110.4 (+9.4%)</b>

### *Aim*

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

### *Brief Description*

**13** The Government Laboratory provides essential forensic science services to all law enforcement departments, including the Hong Kong Police Force, the Customs and Excise Department, the Immigration Department and the Independent Commission Against Corruption. In addition, urinalysis monitoring is conducted for the Department of Health (Methadone Maintenance Scheme), the Social Welfare Department, the Correctional Services Department and other organisations requiring this service.

**14** The services are grouped into two main work areas: physical and biochemical evidence; and drugs and toxicology. One of the important features of the forensic science services is the provision of round-the-clock scientific examination of scenes of crime. Other than general crime scenes, this service is also provided to cases where specialist knowledge is required, such as fire investigation, traffic accident reconstruction, blood spatter pattern interpretation and illicit drug manufacturing.

**15** In some work areas, targets are not met. The need for deploying existing staff for the preparatory work for the introduction of services related to parentage testing and DNA database has affected performance in biochemical grouping while a large increase in demand for express service relating to travel documents has affected performance in the handwriting, counterfeiting and forgery areas. These problems are being addressed and the performance should improve in 2001.

**16** The key performance measures in respect of the forensic science service are:

### *Targets*

Targets are defined as the number of working days required to complete 80% of cases in each category to accommodate the wide variations experienced in forensic casework.

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	Target Wkg Days Per Case	1999 (Actual)	2000 (Actual)	2001 (Plan)
biochemical grouping (DNA profiling).....	88	87	99	<b>88</b>
parentage testing (DNA profiling).....	22	—	—	<b>22</b>
DNA database (DNA profiling).....	22	—	—	<b>22</b>
trace evidence.....	66	97	95	<b>85</b>
accident reconstruction.....	66	77	80	<b>79</b>
handwriting examination.....	66	84	105	<b>85</b>
counterfeiting/forgery.....	33	33	53	<b>33</b>
express counterfeiting/forgery service.....	1	1	1	<b>1</b>
routine illicit drug seizures.....	11	13	15	<b>13</b>
major drug seizures and manufacturing.....	44	44	50	<b>45</b>
analytical toxicology.....	33	40	37	<b>35</b>
drug urinalysis (methadone clinics).....	11	12	16	<b>15</b>
drug urinalysis (judicial-screening).....	11	7	12	<b>11</b>
drug urinalysis (judicial-confirmation).....	22	17	18	<b>17</b>
drink-driving.....	11	7	9	<b>7</b>

### Indicators

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

	1999 (Actual)	2000 (Actual)	2001 (Estimate)
<b>Physical and Biochemical Evidence Group</b>			
samples tested			
DNA database.....	—	—	<b>2 500</b>
cases investigated			
biochemical sciences.....	750	731	<b>800</b>
parentage testing.....	—	—	<b>2 500</b>
chemical sciences.....	1 445	1 356	<b>1 380</b>
physical sciences.....	465	501	<b>510</b>
questioned documents.....	1 276	2 479	<b>2 700</b>
Total.....	3 936	5 067	<b>7 890</b>
<b>Drugs and Toxicology Group</b>			
cases investigated			
controlled drugs.....	7 912	9 461	<b>10 000</b>
analytical toxicology.....	2 767	2 663	<b>2 800</b>
drink-driving.....	142	180	<b>170</b>
Total.....	10 821	12 304	<b>12 970</b>
samples tested			
drug urinalysis (methadone clinics).....	22 463	20 626	<b>20 000</b>
drug urinalysis (judicial-screening).....	11 565	11 870	<b>12 500</b>
drug urinalysis (judicial-confirmation).....	11 162	13 314	<b>14 000</b>
Total.....	45 190	45 810	<b>46 500</b>
<b>Forensic Science Division</b>			
statutory certificates issued.....	8 317	9 863	<b>10 450</b>
technical reports/statements.....	7 160	8 154	<b>11 000</b>
crime scenes attended.....	791	736	<b>800</b>

### Matters Requiring Special Attention in 2001–02

17 During 2001–02, the Government Laboratory will:

- start handling parentage verification cases relating to the relevant Certificate of Entitlement applications made by persons who claim right of abode under paragraph 2(c) of Schedule 1 to the Immigration Ordinance;
- set up a DNA Database Section to maintain a database of DNA profiles to assist in the detection and investigation of serious crimes; and
- improve work procedures and administration to meet target performances.

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### ANALYSIS OF FINANCIAL PROVISION

<b>Programme</b>	1999–2000 (Actual) (\$m)	2000–01 (Approved) (\$m)	2000–01 (Revised) (\$m)	<b>2001–02 (Estimate) (\$m)</b>
(1) Statutory Testing .....	71.6	71.6	69.8	<b>71.5</b>
(2) Advisory and Investigative Services .....	59.5	62.5	60.9	<b>64.4</b>
(3) Forensic Science Service .....	89.7	104.6	100.9	<b>110.4</b>
	<hr/>	<hr/>	<hr/>	<hr/>
	220.8	238.7 (+8.1%)	231.6 (–3.0%)	<b>246.3</b> (+6.3%)

#### Analysis of Financial and Staffing Provision

##### Programme (1)

Provision for 2001–02 is \$1.7 million (2.4%) higher than the revised estimate for 2000–01. This is mainly due to a net increase of two posts relating to the formulation of a regulatory framework for genetically modified foods and the strengthening of food surveillance on chemical contaminants, biotoxins and viruses.

##### Programme (2)

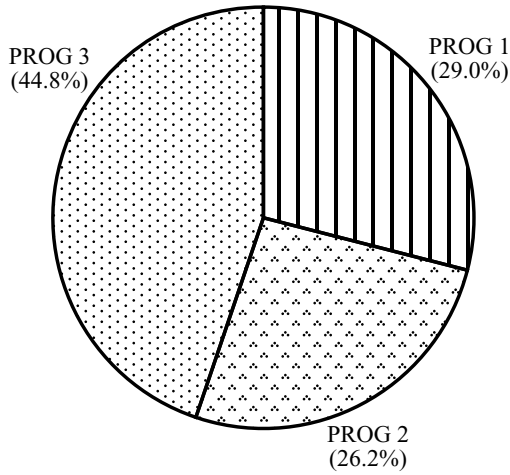
Provision for 2001–02 is \$3.5 million (5.7%) higher than the revised estimate for 2000–01. This is mainly due to a net increase of one post relating to the improvement of food safety by monitoring food additives for livestock and for procuring equipment items in 2001–02.

##### Programme (3)

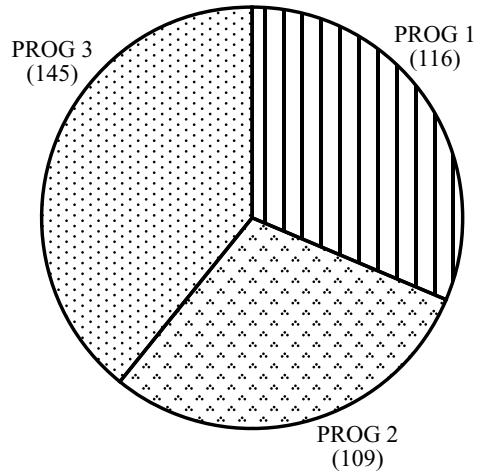
Provision for 2001–02 is \$9.5 million (9.4%) higher than the revised estimate for 2000–01. This is mainly due to the full-year provision for the newly established Parentage Testing Section and the DNA database laboratory.

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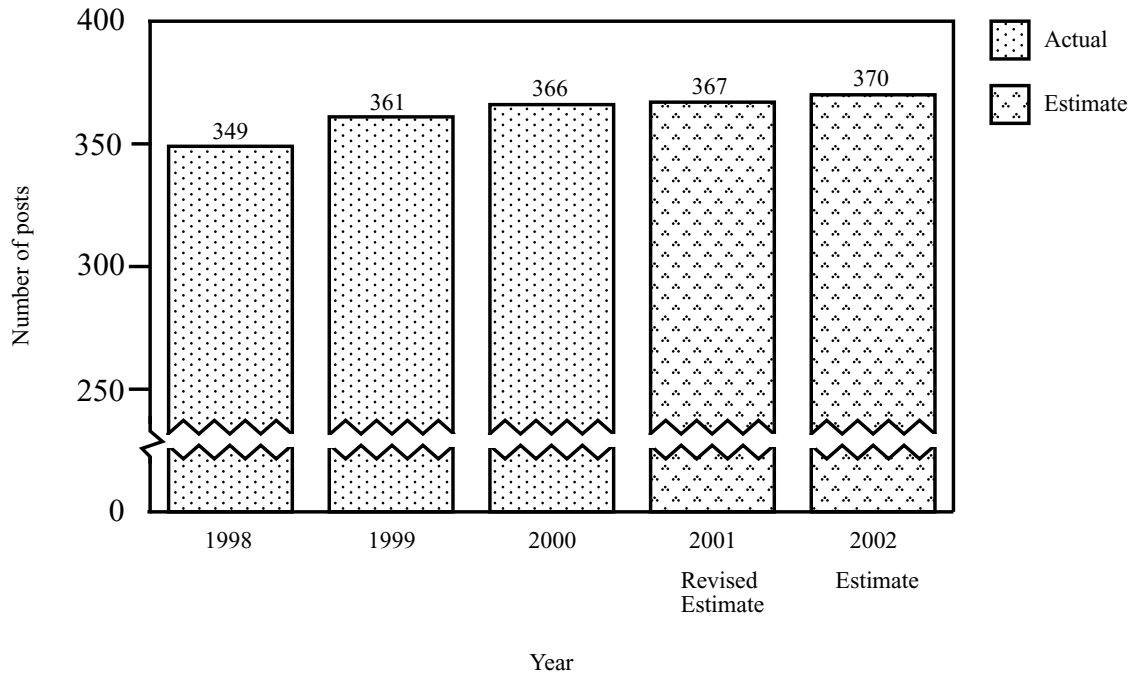
*Allocation of provision to programmes (2001-02)*



*Staff by programme (as at 31 March 2002)*



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



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Sub-head (Code)		Actual expenditure 1999-2000	Approved estimate 2000-01	Revised estimate 2000-01	<b>Estimate 2001-02</b>
		\$ 000	\$ 000	\$ 000	<b>\$'000</b>
<b>Recurrent Account</b>					
I — Personal Emoluments					
001	Salaries.....	166,441	174,626	168,448	<b>173,309</b>
002	Allowances.....	1,732	1,571	1,571	<b>1,571</b>
007	Job-related allowances.....	105	168	171	<b>168</b>
	Total, Personal Emoluments .....	<u>168,278</u>	<u>176,365</u>	<u>170,190</u>	<b><u>175,048</u></b>
III — Departmental Expenses					
149	General departmental expenses.....	30,807	38,630	38,630	<b>46,688</b>
	Total, Departmental Expenses .....	<u>30,807</u>	<u>38,630</u>	<u>38,630</u>	<b><u>46,688</u></b>
	Total, Recurrent Account .....	<u>199,085</u>	<u>214,995</u>	<u>208,820</u>	<b><u>221,736</u></b>
<b>Capital Account</b>					
I — Plant, Equipment and Works					
603	Plant, vehicles and equipment.....	—	5,968	4,975	<b>9,182</b>
661	Minor plant, vehicles and equipment (block vote).....	19,682	17,759	17,759	<b>15,406</b>
	Total, Plant, Equipment and Works .....	<u>19,682</u>	<u>23,727</u>	<u>22,734</u>	<b><u>24,588</u></b>
II — Other Non-Recurrent					
	General other non-recurrent.....	2,072	—	—	—
	Total, Other Non-Recurrent.....	<u>2,072</u>	<u>—</u>	<u>—</u>	<u>—</u>
	Total, Capital Account.....	<u>21,754</u>	<u>23,727</u>	<u>22,734</u>	<b><u>24,588</u></b>
	Total Expenditure .....	<u><u>220,839</u></u>	<u><u>238,722</u></u>	<u><u>231,554</u></u>	<b><u><u>246,324</u></u></b>



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### Details of Expenditure by Subhead

The estimate of the amount required in 2001–02 for the salaries and expenses of the Government Laboratory is \$246,324,000. This represents an increase of \$14,770,000 over the revised estimate for 2000–01 and of \$25,485,000 over actual expenditure in 1999–2000.

#### *Recurrent Account*

##### Personal Emoluments

**2** Provision of \$175,048,000 for personal emoluments represents an increase of \$4,858,000 over the revised estimate for 2000–01.

**3** The establishment at 31 March 2001 will be 367 permanent posts. It is expected that a net three posts will be created in 2001–02.

**4** Subject to certain conditions, the controlling officer may under delegated powers create or delete non-directorate posts during 2001–02, but the notional annual mid-point salary value of all such posts must not exceed \$148,354,000.

**5** Provision of \$1,571,000 under *Subhead 002 Allowances* is for standard allowances.

**6** Provision of \$168,000 under *Subhead 007 Job-related allowances* is for standard job-related allowances.

##### Departmental Expenses

**7** Provision of \$46,688,000 under *Subhead 149 General departmental expenses* represents an increase of \$8,058,000 (20.9%) over the revised estimate for 2000–01. This is mainly due to the full-year provision for the employment of non-civil service contract staff and the anticipated increase in expenditure on procurement of additional stock of chemicals and specialist equipment to cater for new activities earmarked to start in 2001–02.

#### *Capital Account*

##### Plant, Equipment and Works

**8** Provision of \$15,406,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents a decrease of \$2,353,000 (13.2%) against the revised estimate for 2000–01. This is mainly due to reduced requirement for the purchase of minor equipment.

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### Capital Account

#### Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2000	Revised estimated expenditure for 2000-01	Balance
			\$ 000	\$ 000	\$ 000	\$ 000
603		<i>Plant, vehicles and equipment</i>				
	321	Provision of DNA testing and analytical facilities for the Parentage Testing Section .....	2,293	—	1,300	993
	322	Acquisition of an integrated system for analysis of fuel samples .....	2,210	—	—	2,210
	323	Setting up a DNA database laboratory ...	9,209	—	1,381	7,828
		Total .....	<u>13,712</u>	<u>—</u>	<u>2,681</u>	<u>11,031</u>