

**BOARD
OF
DIRECTORS**

ASIAN DEVELOPMENT BANK

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**TECHNICAL ASSISTANCE TO PAPUA NEW GUINEA
FOR PREPARING THE AGRO-INDUSTRY DEVELOPMENT PROJECT
(FINANCED FROM THE JAPAN SPECIAL FUND)**

The attached Report is circulated for the information of the Board. The President approved the technical assistance on 14 November 2000.

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ASIAN DEVELOPMENT BANK

TAR:PNG 32186

**TECHNICAL ASSISTANCE
(Financed from the Japan Special Fund)**

TO

PAPUA NEW GUINEA

FOR PREPARING THE

AGRO-INDUSTRY DEVELOPMENT PROJECT

November 2000

CURRENCY EQUIVALENTS

(as of 10 November 2000)

Currency Unit	–	Kina (K)
K1.00	=	\$0.3324
\$1.00	=	K3.0075

ABBREVIATIONS

ADB	–	Asian Development Bank
DAL	–	Department of Agriculture and Livestock
GDP	–	gross domestic product
ha	–	hectare
PNG	–	Papua New Guinea
SWOT	–	strengths, weaknesses, opportunities, threats
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the Government and its agencies ends on 31 December.
- (ii) In this report, “\$” refers to US dollars.

I. INTRODUCTION

1. During the Asian Development Bank's (ADB) 2000 Country Programming Mission, the Government of Papua New Guinea (PNG) requested technical assistance (TA) to prepare a smallholder agro-industry development project.¹ The Fact-Finding Mission visited PNG from 14-26 August 2000, and reached an understanding with the Government on the objectives, scope, terms of reference, cost estimates, financing plan, and implementation arrangements for the TA. The TA is included in ADB's 2000 country assistance plan for PNG.

II. BACKGROUND AND RATIONALE

2. PNG is the largest developing country in the South Pacific. The population is about 4.5 million and is growing at an annual rate of about 2.3 percent. About 85 percent of the population is engaged in agriculture. Gross domestic product (GDP) at current prices was projected at K8.8 billion (\$3.2 billion equivalent) in 2000,² equivalent to about K1,960 (\$785) per capita. While there has been a marginal decline in the importance of the agriculture, forestry, and fisheries sector in the last decade, it remains the largest sector in the economy, accounting for 25-30 percent of GDP. The recent devaluation of the kina has resulted in an increase in the cost of living and the value of exports, in particular of cash crops.

3. Agriculture has a substantial resource base: about 23 million hectares (ha) are suitable for agriculture, although the cultivated area is confined to a comparatively small area of some 700,000 ha of cash crops and an estimated 300,000 ha of subsistence food cultivation. Cash crops that are grown by smallholders and plantations include coffee, oil palm, cocoa, copra, tea, and rubber. Smallholders account for 70 percent of PNG's coffee, 65 percent of cocoa and copra, and 35 percent of palm oil. Except for coffee and tea, production of cash crops is concentrated in the coastal region and main islands. With the exception of oil palm, most smallholder and plantation cash crops comprise old plantings of low-yielding cultivars that need rehabilitation with high-yielding varieties.

4. Coffee is grown predominantly in the highlands, where it is a major source of cash income. It remains the most important agricultural export accounting in 1998 for a record 84,000 tons with a value of K450 million (\$200 million). This has been attributed to relatively high kina prices and an increased need by smallholders for cash income. Palm oil exports have shown the most rapid growth in recent years with substantial increases in both volume and value; it is now the second most important tree-crop export. From 1990 to 1998, palm oil exports increased from K33 million (\$25 million) to K272 million (\$120 million).³ According to the industry, yields from PNG's plantations are among the highest in the world. Palm oil is currently grown in four lowland provinces under nucleus estate arrangements. Cocoa and copra have traditionally been the dominant tree crops in the lowlands. However, volumes have been adversely affected by the demise of the high cost plantations. Production has also been badly affected by the Bougainville crisis and the Rabaul volcanic eruption in 1994, and more recently by the 1997 drought. Compared with the other crops, rubber is considered a minor crop, accounting for an area of about 16,000 ha, and exports of about 5,000 tons in 1998 with a value of about K7 million (\$3 million). Sago, which has traditionally been harvested and processed as a subsistence food crop, was recently proposed as a potential cash crop due to the favorable market for high

¹ The TA first appeared in *ADB Business Opportunities* on 1 June 2000.

² Government of PNG. Various years. *Economic and Development Policies*, Budget Papers. Quoted in *The Economy of PNG, 1999 AusAID Report*.

³ Based on prevailing exchange rates in 1990 and 1998, respectively.

quality starch. About 1.0 million ha of naturally occurring sago palms are located mainly in East Sepik and Gulf provinces. The potential for harvesting and processing needs to be assessed, even on a pilot scale.

5. Processing of coffee, cocoa, and coconut is predominantly undertaken at the farm and plantation level with semiprocessed beans and copra sold to traders for export. Palm oil and rubber processing is usually done at a central factory owned by the private sector, public sector, or public-private sector partnerships, which are also the exporters. Operation of palm oil and privately owned rubber factories is satisfactory; however, substantial improvements are needed in the operation and management of government-owned rubber factories. Opportunities for smallholder participation in factory ownership do exist, but have yet to evolve. The current thrust for divestment of Government ownership offers possibilities for developing smallholder partnerships. For instance, the quality of existing processing of most cash crops need to be improved, additional downstream processing could be developed to increase the export value added. Additional opportunities for agro-industry development may also come from the horticulture subsector. Downstream processing and improved packaging of fresh products for both the domestic and export markets may represent important areas to explore. The two largest towns in PNG, Port Moresby and Lae, are good market centers with excellent potential for the development of fresh and processed horticulture products. This will only be possible if attention is given to improving and maintaining the status of infrastructure, particularly roads and buildings, which often constitute major obstacles to development and private sector participation.

6. PNG smallholders are highly price responsive; during periods of low prices they typically limit harvesting to immediate cash needs. Improvement of existing processing facilities and promotion of value addition through incremental downstream processing is expected to increase returns and decrease volatility to smallholders, thus encouraging them to harvest on a more regular basis. Previous ADB projects have relied heavily on the public sector to provide and manage crop development, infrastructure, and processing facilities with no regard for the sector's capacity to sustain the initiative, especially after project completion. Experience has shown that once development funds are no longer available maintenance ceases, management deteriorates, and operation declines. By comparison, where the private sector has taken the lead role in crop development, management, and processing, concern for sustaining the investment is increased and the result more promising. The proposed Project will extend the experience of the private sector to smallholder production by supporting the development of private sector-smallholder partnerships in production and processing, including development of down-stream processes. By providing smallholders with the option to become shareholders in the activities, the Project will promote their improved understanding of the costs, benefits, and risks of processing, as well as the need for continuity of production. By ensuring that some of the profits from processing are returned to smallholders, the Project is expected to ensure sustainability of production.

7. The TA design will be based on the lessons learned from completed and ongoing projects.⁴ Major lessons learned include (i) lack of management capacity during and after project implementation limits the sustainability of project interventions; (ii) political interference

⁴ These include Loan 656/657-PNG: *Cape Rodney Rubber Development Project*, for \$29.9 million, approved on 14 August 1986; Loan 852/853-PNG: *East New Britain Cocoa Smallholder Development Project*, for \$10.0 million, approved 3 November 1987; Loan 784/785-PNG: *West New Britain Oil Palm Smallholder Development Project*, for \$80.0 million, approved 12 December 1989; and Loan 1652-PNG: *Smallholder Support Services Pilot Project*, for \$11.5 million, approved on 10 December 1998.

results in unrealistic smallholder expectations; (iii) project design should be simple and well focused, and include measures to improve farming systems, smallholder and private sector needs, and market potential; (iv) active smallholder, private sector, and community consultation and involvement is needed throughout project design and implementation; (v) smallholder, private sector, and community participation is required for maintenance since Government funds are unlikely to be available; and (vi) implementation arrangements should be kept as flexible as possible.

8. The proposed project concept is in line with ADB's operational strategy for PNG, which emphasizes private sector development particularly in generating long-term, income-earning opportunities, and improving social indicators with an emphasis on rural areas. The Project is consistent with the Government's development priorities for tree crops. The project goals will include poverty reduction and economic growth. The objectives will be to increase employment and income earning opportunities by developing sustainable downstream processing and expanding production to ensure a regular supply of raw materials. The Project is therefore expected to make a strong contribution to the development of the tree-crop subsector and hence to economic growth, while assisting directly in the pursuit of social development. A preliminary project framework is in Appendix 1.

9. During TA fact-finding, extensive discussions were held with potential stakeholders, including representatives of smallholders, private sector (processors, buyers, and plantations), Government, crop authorities and boards, research, and extension. Major problems identified include the lack of maintenance of previously constructed infrastructure, lack of availability to smallholders of inputs and equipment, imbalance of production and processing facilities (e.g., lack of capacity for oil palm processing during the peak season, while overcapacity in rubber processing results in uneconomic factory operation), lack of production from the existing area due to poor agriculture extension support, the presence of older poorer yielding varieties in need of rehabilitation and the lack of new developments, and the need for greater involvement of women in extension and training to improve production and processing. The TA will consider the special needs of women.

III. THE TECHNICAL ASSISTANCE

A. Objective

10. The TA will assist the Government to formulate a public-private partnership Project for smallholder agro-industry development. The Project will be designed to increase value added of smallholder tree-crop products through partnerships with private sector downstream processing. This will expand production to ensure a regular supply to the factories, increase incomes of smallholders thus reducing poverty.

B. Scope

11. The TA will be undertaken in two phases. The first phase will focus on (i) reviewing Government policies relevant to tree-crop production and processing, (ii) establishing priorities for promotion of tree crops in terms of crop and location, and (iii) assessing private sector interests for participation, and exploring possibilities of privatization and divestment. The second phase will focus on preparing the Project in a format suitable for ADB loan processing.

12. During the first phase a SWOT (strengths, weaknesses, opportunities, threats) analysis of the alternative tree crops will be undertaken using a participatory approach to establish

priorities for the subsequent design phase. Based on discussions during TA fact-finding, potential crops have been identified: oil palm, cocoa, coffee, coconut, rubber, and sago. Consideration will be given to production, processing, institutional capacity, infrastructure needs, community interest, opportunities for private sector-smallholder partnerships, and environmental concerns. The suitability of the existing locations will be assessed, and preliminary expressions of interest invited from potential private sector partners. Based on this prioritization, the Government and ADB will agree on two or three subprojects for the design phase.

13. The second phase will focus on preparing the subprojects using a participatory approach. The consultants will place special emphasis on (i) confirming private sector interest in participating in the Project; (ii) identifying mechanisms for smallholder participation; (iii) identifying opportunities for private sector-smallholder collaboration through joint ventures and possible privatization, divestment, or other mutually acceptable arrangements; (iv) assessing financial viability of alternative processing arrangements; (v) improving the reliability of raw material supply for processors; and (vi) defining appropriate low-cost production and maintenance arrangements. Project components could include (i) support for establishing and managing joint ventures to transfer the management and support of smallholder schemes from the public to the private sector, including growers' associations; (ii) establishment and rehabilitation of primary and downstream processing facilities through public-private partnerships; (iii) rehabilitation and expansion of crops and basic infrastructure including private sector provision of extension, input supply, output processing, marketing, and access roads and buildings; and (iv) institutional strengthening. The TA will also study the possibility of strengthening public and private capacity to deliver credit, management of crops and the environment, and delivery of land titles and equity to smallholders to enhance development of rural areas.

14. While designing the Project, the consultants will take into consideration (i) impact of completed and ongoing projects including the lessons learned; (ii) desirability of promoting development that is sustainable in terms of both the natural environment and the capacity of the target groups, including the private sector; (iii) management capacity and interest of the private sector in participating in development in partnership with smallholders; (iv) overall capacity of the executing agency and implementing agencies, and the need for clear lines of authority, delegation, and coordination between concerned public and private sector stakeholders; (v) adequate mechanisms for future operation and maintenance; (vi) importance of confidence building among beneficiaries, particularly women; and (vii) appropriate structure for overall Project management, and expected contributions from stakeholders (Government, smallholders, and the private sector). The outline terms of reference for consulting services are in Appendix 2.

C. Cost Estimates and Financing Plan

15. The total cost of the TA is estimated at \$715,000 equivalent, consisting of \$422,000 in foreign exchange costs and \$293,000 equivalent in local currency costs. ADB will cover the entire foreign exchange cost of \$422,000 and \$78,000 equivalent of the local currency cost, for a total of \$500,000 equivalent. The remaining local currency cost of \$215,000 equivalent will be provided by the Government. The TA will be financed by ADB on a grant basis from the Japan Special Fund, funded by the Government of Japan. Details are given in Appendix 3. The Government has been advised that approval of the TA does not commit ADB to financing an ensuing project.

D. Implementation Arrangements

16. The TA will take about six months to complete. An estimated 21 person-months of consulting services will be required to prepare a project proposal suitable for external financing. ADB will finance (i) 16 person-months of international expertise in business development, institutions, policy analysis, infrastructure engineering, tree crops, and financial analysis; and (ii) 5 person-months of domestic expertise in community development, social analysis, and environmental analysis (Appendix 4).

17. The Executive Agency for the TA will be the Department of Agriculture and Livestock (DAL), which will coordinate with the provincial and local level government, and other concerned agencies including the Oil Palm Industry Corporation, the Cocoa and Coconut Extension Authority, Coffee Industry Corporation, Coffee Board, Cocoa Board, Copra Marketing Board, and the private sector. The Government will establish a steering committee to provide overall guidance to the consultants. The steering committee will be chaired by the secretary of DAL, and comprise representatives from central and provincial governments, corporations and boards, and the private sector. The steering committee will meet at least prior to each tripartite review meeting to establish the Government's position on TA progress. During the first phase, the consultants will be based in Port Moresby, during the second phase at the subproject location(s). The Government has agreed (i) to appoint an experienced full-time TA coordinator from DAL, and experienced counterparts from the Department of Planning and Monitoring and from the boards and corporations representing the selected crops; (ii) to provide adequate counterpart funds and support staff; (iii) to provide adequate transport, office space, utilities, and furnishings for the consultants; and (iv) to assist in organizing participatory workshops.

18. Individual consultants will be engaged in accordance with ADB's *Guidelines on the Use of Consultants*. The consultants will prepare (i) an inception report six weeks after commencement prioritizing potential subprojects and presenting a sector review (including SWOT exercises); (ii) an interim report four months after commencement outlining the background and potential components of the agreed subprojects; (iii) a draft final report five months after commencement, in the format of a feasibility study; and (v) a final report two weeks after receiving comments on the draft final report. Tripartite review meetings will be held in Port Moresby, chaired by DAL, to discuss the inception, interim, and draft final reports. In addition, two participatory workshops will be held in Port Moresby as well as two participatory workshops in the provinces for each selected subproject (Appendix 4).

IV. THE PRESIDENT'S DECISION

19. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance to the Government of Papua New Guinea in an amount not exceeding the equivalent of \$500,000 for the purpose of preparing the Agro-industry Development Project, and hereby reports such action to the Board.

PRELIMINARY PROJECT FRAMEWORK

Design Summary	Performance Targets	Monitoring Mechanisms	Risks and Assumptions
<p>Goal Reduce poverty by developing private-public sector partnerships in tree-crop production and processing.</p> <p>Increase economic growth by expanding downstream processing.</p> <p>Purpose Improved smallholder tree-crop incomes through development of sustainable downstream processing.</p>	<p>Smallholder tree-crop incomes increased</p> <p>Employment opportunities in crop production and processing increased</p> <p>Incremental smallholder incomes through increased production and increased value of output</p>	<p>Benchmark survey; benefit monitoring and evaluation results; progress reports; annual, midterm, and project completion reviews; and annual reports of processing companies</p> <p>Progress reports, loan review reports, benefit monitoring and evaluation reports, annual stakeholder workshops, and annual reports of processing companies</p>	<p>Continued Government support for private sector participation in development</p> <p>Willingness of private sector and smallholders to form partnerships</p> <p>Willingness of private sector to take the lead role</p> <p>Sufficient volume of output to support viable agroprocessing industries</p> <p>Adequate rehabilitation and expansion program</p> <p>Adequate support systems including extension, input supply, and transportation</p>

(Reference in text: page 3, para. 8)

OUTLINE TERMS OF REFERENCE

1. Consulting services for the technical assistance (TA) will be provided in two distinct phases with a one-month break at the end of the first phase to allow the Government and the Asian Development Bank (ADB) sufficient time to review the consultant's progress and recommendations. During the first phase, which will be implemented over 1.5 months, the consultant will focus on assisting the Government to review existing policies relating to tree-crop and horticulture production and processing, and to identify priority crops and locations for promotion of private sector partnerships. In particular, by the end of the first phase, the consultants will prepare an inception report comprising of the following:

- (i) **Sector Review.** Concisely describe and identify major constraints and opportunities for sector development: agro-industry sector analysis, institutional structure, policy framework, and smallholder and private sector role.
- (ii) **Initial Priority Framework.** Provide preliminary identification of priority crops, potential sites, investment requirements, and other activities for sector development: (a) identification of priority crops based on the analysis of world and domestic supply and demand, comparative advantages, smallholder and private sector preferences and priorities, and other main economic factors; (b) SWOT (strengths, weaknesses, opportunities, threats) analysis of sector development with, in particular, an analysis of strengths and weaknesses, opportunities, and constraints of major players in the sector: smallholders, government, and private sector; and (c) identification of the potential subprojects, government divestment programs, and private sector-smallholder participation and partnership development initiatives.

2. During the second phase, which will be implemented over 3.5 months, the consultant will help the Government prepare the proposed Project in a format suitable for ADB loan processing.

A. International Consultants

1. Business Development Specialist/Team Leader (5 person-months)

3. The team leader will do the following:

- (i) Lead and coordinate the activities of the technical assistance (TA) team. In association with the institutional specialist, identify and assess potential private sector partners.
- (ii) Review the existing structure of agro-industrial entities involved in producing and processing cash crops. Assess their potential and interest in adopting innovative approaches involving private sector-smallholder partnerships for sustainable agro-industrial development. Help the institutional specialist identify and assess potential private sector partners based on appropriate and transparent criteria.
- (iii) Develop a detailed project framework in accordance with ADB's guidelines to measure the impact of the development Project.

- (iv) Assess the beneficiaries' supply and demand for credit to participate in the proposed Project. Identify institutions such as nongovernment organizations, cooperatives, and self-help groups; and propose a system to effectively channel credit to the beneficiaries.
- (v) Review existing marketing arrangements for cash crops and semiprocessed outputs. Tree and horticulture crops demand analysis is needed to private sector interest in sector investment, as well as public sector involvement.
- (vi) Formulate business development plans for the proposed agro-industrial entities including projections of profit and loss statements, and balance sheets. Assess the financial requirements for establishing and operating the agro-industrial entity, investigate alternative financing mechanisms, and make recommendations on their appropriateness. Evaluate the financial viability of the proposed entities. Ensure that project design takes full account of lesson learned.
- (vii) Assist the financial analyst in preparing smallholder household budgets.
- (viii) Prepare a detailed feasibility report in a format suitable for ADB loan processing; detailing the rationale, scope, and cost of the proposed Project, including the framework; investment needs; implementation arrangements; indicative income, expenditure, and profit and loss statements of the proposed agro-industrial entities; and financial and economic viability of subprojects and the overall Project. Assess all risks associated with the Project and advise on their mitigation.

2. Institutional Specialist (4 person-months)

4. The institutional specialist will do the following:

- (i) Assess capabilities of the potential executing and implementing agencies, including central, provincial, and local governments, corporations and boards, the private sector, and growers and landowner associations; identify areas where institutional strengthening and management support are required; and recommend necessary institutional changes.
- (ii) Assist the team leader to develop a detailed project framework in accordance with ADB's guidelines to measure the impact of the development Project and to identify and assess potential private sector partners.
- (iii) Develop suitable and innovative implementation arrangements for the proposed Project taking into account the institutional capacity of both the public and private sectors. Identify institutional strengthening required to ensure project success, and propose appropriate strengthening mechanisms.
- (iv) Develop a computerized project performance management system consistent with the Government's existing system of benefit monitoring and evaluation and in accordance with the ADB's Project Performance Management System Guidelines with detailed indicators for monitoring performance and impact.

- (v) Specify appropriate arrangements for the flow of funds to ensure efficient Project implementation.
- (vi) Assist the team leader in preparing the inception report and the detailed feasibility report.

3. Policy Specialist (1.5 person-months)

5. The policy specialist will review and evaluate existing Government policies and strategies for production and processing of cash crops, in particular those relating to the private sector, national investment, small and medium-size industries, and food security. Identify any weaknesses in current policy and suggest necessary improvements. Provide detailed product, input, credit, land, and agricultural support policy analysis and assessment of PNG's export markets. Assess market distortions arising from possible subsidies, taxes, tariffs, quota, etc.

4. Infrastructure Engineer (1.5 person-months)

6. The infrastructure engineer will do the following:

- (i) Assess the current status of existing infrastructure in the major cash crop areas and the need to develop and rehabilitate infrastructure to support the rural cash economy, including rural roads (and associated culverts and bridges); land reclamation works; market facilities at growth centers; multipurpose community centers; village water supplies (wells, bores and diversion structures); and other facilities including cargo jetties.
- (ii) Based on the final shortlist of areas and crops, identify rural infrastructure needs for effective agro-industry development. For selected infrastructure, provide detailed designs, costs, and operation and maintenance arrangements conducive to active local community and private sector participation for long-term sustainability.

5. Tree Crop Specialist (2.5 person-months)

7. The tree crop specialist will do the following

- (i) Identify and evaluate the future potential and suitability of development models, current harvesting, yields, processing, and prospects for downstream processing, etc. for the major cash crops including horticulture, summarizing the results in the form of a SWOT analysis.
- (ii) Determine the rehabilitation and new development strategies including optimal size, farm financing and input requirements, management, likely increases in production and processing, and potential for downstream processing, etc. Estimate the detailed investment, marketing, operation and maintenance, and input requirements for the selected crops. Based on the detailed evaluation recommend the components that could be considered for inclusion in the Project embodying local participation to ensure sustainability.

6. Financial Analyst-Economist (1.5 person-months)

8. The financial analyst-economist will do the following:
- (i) Prepare representative household budgets for smallholders participating in tree-crop production and processing to assess their overall financial benefits.
 - (ii) Prepare benefit-cost models for individual subprojects and undertake financial and economic analyses for each subproject and the overall Project in accordance with ADB's *Guidelines for the Economic Analysis of Projects*. Identify and evaluate all risks associated with project implementation and formulate suitable mechanisms to reduce their impact. Assess the likely impact of risk on project viability through sensitivity analysis.
 - (iii) Prepare cost estimates and a financing plan for the Project using COSTAB software; address issues of subsidies, sustainability, cost recovery, and willingness of the beneficiaries to pay and contribute to project success.

B. Domestic Consultants

1. Community Development Specialist-Social Analyst (3 person-months)

9. The community development specialist-social analyst will do the following:
- (i) During the first phase assess the interest and capability of local communities to participate in the Project.
 - (ii) During the second phase work with the identified communities to design appropriate approaches for private sector-smallholder partnerships for cash crop production and processing.
 - (iii) Conduct a benchmark socioeconomic survey using participatory approaches and in accordance with ADB's *Guidelines for Incorporation of Social Dimensions in Bank Operations* to establish representative baseline socioeconomic data, covering modes of livelihood, existing microenterprises and rural enterprises, income levels, economic linkages, health and education, and institutional structures, etc.; and prepare women-in-development and gender analyses. Based on information collected, prepare a social assessment and evaluate the social impact of the Project with particular emphasis on the expected impact on the poor and women.
 - (iv) Undertake a detailed analysis of the impact of the Project on poverty, and prepare a poverty assessment in accordance with ADB's poverty reduction strategy.

2. Environmental Specialist (2 person-months)

10. The environmental specialist will do the following:

- (i) During the first phase, participate in preparing the inception report with specific focus on mainstreaming environmental dimensions in the identification of priority crops, locations, and other elements of the policy framework and sector review.
- (ii) Review existing environmental legislation and identify the environmental impact assessment requirements for establishing/rehabilitating agro-industry enterprises and rehabilitating/expanding crop production activities. Examine the environmental issues relating to the proposed subprojects particularly with respect to agro-industries.
- (iii) On the basis of these findings, prepare an initial environmental examination (IEE) in accordance with ADB's *Environmental Assessment Requirements and Environmental Review Procedure*. Prescribe necessary measures to enhance environmental benefits and to minimize possible adverse impacts of the Project on the environment and ecology of the proposed project area, and incorporate such measures into the project design.
- (iv) Recommend appropriate mechanisms and approaches for assessing the environmental impact and the need to mitigate adverse impacts of other microenterprises and rural enterprises that were not included in the IEE but are proposed during project implementation, and for providing ongoing environmental management and monitoring in the project area.
- (v) Based on the findings of the IEE, prepare a full environmental impact assessment and an environmental monitoring plan.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

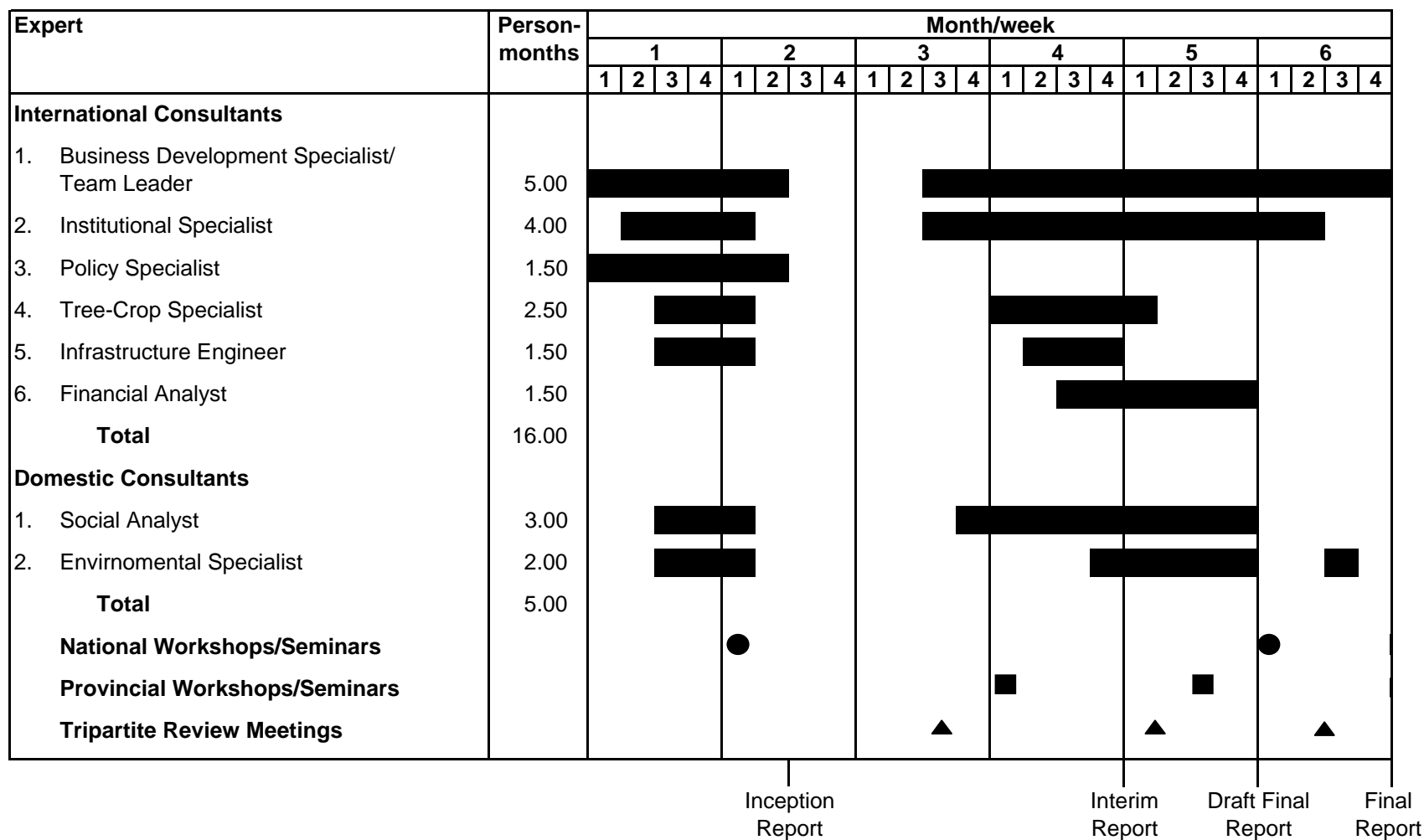
Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	305	0	305
ii. Domestic Consultants	0	30	30
b. International and Local Travel	36	20	56
c. Reports and Communications	5	10	15
2. Equipment and Vehicle Hire ^b	25	0	25
3. Workshops	0	8	8
4. Contingencies	51	10	61
Subtotal (A)	422	78	500
B. Government Financing			
1. Counterpart Staff	0	55	55
2. Office Accommodation	0	80	80
3. Travel and Per Diem of Counterpart Staff	0	30	30
4. Office Furniture and Equipment	0	25	25
5. Venues for Workshops and Tripartite Meetings	0	25	25
Subtotal (B)	0	215	215
Total	422	293	715

^a Financed from the Japan Special Fund.

^b Includes one desktop computer set, one printer, office software, and hire of vehicles and boats in Port Moresby and the field.

Source: Staff estimates.

PRELIMINARY STAFFING SCHEDULE



(Reference in text: page 5, para. 16)