

Towards agricultural growth in Papua New Guinea

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Social and economic transformation in Papua New Guinea is a long-term endeavour that seeks to develop the interface between the traditional and modern sectors, while proceeding at a pace that local communities can control. Papua New Guinea has tremendous potential to harness the benefits of a resilient civil society with strong social capital based on enduring cultural and social traditions, while drawing on bountiful natural resources. But the country's rural domain remains significantly underdeveloped and the majority of rural residents continue to endure great economic and social hardship (Government of Papua New Guinea 1999; World Bank 2000).

Though the needs of Papua New Guinea's rural areas are substantial, and notwithstanding recent improvements in commodity prices that are yielding short-term gains, the country's general fiscal situation implies a scarcity of public resources. It is essential, therefore, to re-target existing resources to existing high priority investment needs carefully rather than developing elaborate new programs with unsustainable recurrent cost implications. It is also important to manage debt levels effectively to reduce historically high levels of interest rates and to promote appropriate private sector investment actively.

Improving the effectiveness of development interventions requires a joint effort by government, the private sector (including rural people) and the international community. Public institutions have an important role to play in underpinning agricultural development efforts by providing extension, research and other rural services and ensuring favourable terms of trade for rural producers. Distortionary trade, pricing and exchange rate policies, by increasing input prices while reducing export revenues, do act as serious deterrents to rural economic activity. However, rural producers in Papua New Guinea, who often balance collective social considerations with individual family needs, are nevertheless clearly responsive to price and other economic incentives, so public policies do matter. The international community can play an important role, not only through development finance but also more importantly by sharing and helping to adapt global knowledge and experience to local circumstances.

Extractive rents, mainly from the mining and forestry sectors, have been channelled to a public sector that expanded significantly in the 1980s without notably improving public services, exacerbating the significant gap between urban and rural incomes. A lack of infrastructure to physically integrate the

Policy dialogue

rugged terrain remains a major impediment to expanding market opportunities for rural producers. The insecurity and high costs generated by criminal activity act as a further disincentive to economic activity.

Agriculture in Papua New Guinea

Agriculture and natural resources (forests, fisheries and minerals) are the two sectors of paramount importance to Papua New Guinea's rural population. Agriculture provides a basis for rural livelihoods by directly providing cash incomes (through commercial tree crop and marketed food production), as well as sustaining life through non-marketed food production for household consumption and ceremonial purposes. Tree crops contribute important foreign exchange earnings: over K1 billion a year (World Bank 2000), much of which accrues to farmers, other private sector production and marketing operations, and individual commodity agencies. Forests and fisheries also directly contribute cash incomes, mainly through a variety of agreements between private sector companies and local landowner groups that are often mediated or regulated by government agencies, such as the Forest Authority and the National Fisheries Authority.

Past economic development and public investment policies have focused on the growth of modern enclave sectors (mining, petroleum and commercial logging) and four major export crops (coffee, oil palm, coconut and cocoa). Much less attention was paid to improving productivity and natural resource management in the smallholder food crop, livestock, forestry and fisheries subsectors.

Growth in real agricultural GDP has been disappointing. In only a handful of the past 20 years has annual growth exceeded 5 per cent and in many of those years growth was related to windfall gains from increases in world commodity prices. Real agricultural

growth declined by 4.3 per cent in 1997 and 13.0 per cent in 1998, although, in spite of severe drought effects, there has been some recovery in the present decade (Bank of Papua New Guinea, various years).

Development experience from other countries that have achieved high agricultural growth demonstrates that increasing smallholder productivity and output is one of the most powerful and cost-effective drivers of sustainable growth (World Bank 1997). Continuing efforts to accelerate smallholder-based agricultural growth therefore remains a key development objective. The potential for farmers to become involved in export crop production is limited by a number of factors, but becoming an export crop producer provides one of the few opportunities for rural people to gain relatively quick access to significant cash incomes.

There is considerable private sector involvement in the marketing arrangements for export crops in Papua New Guinea, helping to avoid problems caused by undue reliance on unpredictable government budgets. A strong smallholder export crop subsector brings cash incomes into the local economy and creates demand for more goods that in turn promotes further investment opportunities in farm and non-farm activities.

While smallholders should continue to be the main focus of agricultural development initiatives, ensuring a viable and efficient plantation and estate sector is also important because of production, marketing, and processing linkages and interdependence, and the contribution of the plantation sector to rural employment and agricultural exports. Public policies, however, affect plantations and smallholders differently, because of differences in their resource structures, inputs and management practices.

The largeholder sector plays a vital role in processing and maintaining quality. Various taxes and levies provide the national government and industry boards and

Policy dialogue

corporations with resources that contribute to the national budget while also supporting industry-specific management, technical and marketing services. Commodities are exported by licensed operators in the private sector, except for copra, where the Kokonas Industri Koporesen retains a virtual monopoly. Research and extension are carried out by crop-specific agencies largely funded by the respective industries.

In the past, the main thrust of government policies for promoting agriculture—export-crop price support, directed and subsidised term lending, tariff and non-tariff barriers against selected agricultural commodities, and input subsidies—distorted prices and incentives. With increasing globalisation, Papua New Guinea has begun to move away from such policies to focus on measures designed to improve domestic incentives for the production of agricultural tradeables that will be less distortionary and will foster greater efficiency and competitiveness over the long term.

While crop production will continue to offer the most immediate source of greater cash income, off-farm opportunities provide an important alternative for rural communities. The non-agricultural part of the rural economy can play a diverse and critical role in rural development and rural poverty reduction. Non-agricultural activities include rural industries that provide consumer services and goods to those living in the immediate area, to urban markets, and to visitors. However, efforts to support small-scale enterprises through the provision of traditional financial services have not been sufficiently widespread or effective in significantly increasing rural investment and productivity.

Agricultural services

Because of the rapidly increasing needs of agriculture there was an unbundling of institutional responsibilities for agricultural support services in the 1990s. There is no comprehensive policy, however, that sets out current objectives and priorities for delivering support services, provides guidelines for operational and technical linkages, and establishes mechanisms for coordinating this diverse set of institutions. There is little, if any, interaction between public sector entities and the small but potentially important private sector. This has inhibited the development of coordinated approaches in the planning and delivery of smallholder services as well as the pooling of scarce human and financial resources for these purposes.

Agricultural research and extension

For the main export crops, research and extension are carried out by a variety of specialised industry corporations and boards. This crop-specific approach can reflect regional patterns of commodity production, realise economies of scale, bring together industry wide management for research, extension and marketing, and target services to the needs of small-scale producers. Results from two of the earliest institutions established—the Coffee Industry Corporation in 1991 and the Oil Palm Industry Corporation in 1992—indicate success in increasing output. Organisation, management and coverage of smallholder extension services are generally characterised by clear focus, deliverable extension packages, and well-trained and highly motivated staff with adequate resources. Nevertheless, these private corporations have encountered some of the institutional difficulties that beset government agencies. Some agencies have become embroiled in lengthy legal battles

Policy dialogue

and have had to deal with charges of corruption and misappropriation, and claims for compensation. Although the quality of extension services is good, the profitability of providing these services is unclear, and the reach and scale of extension may be insufficient to expand output significantly.

Following more than a decade of operations, it would be appropriate to reevaluate the 'industry corporation' model to see if there are ways to direct incentives more towards small-scale producers. The positive experience of the Oil Palm Industry Corporation in assisting smallholders would be helpful in this regard. While specialist extension services are undoubtedly required, there may also be a need to find a better balance between crop-specific advice and integrated farming systems approaches. For example, non-government organisations of diverse types provide a range of extension services to rural communities. Many are located in provincial centers and get income from project-related activities and some overseas contracts. These organisations focus on relatively small geographic areas, are committed to long-term programs they regard as essential for community development, have strong local identities, and are energetic. Many of their programs have been reviewed, and a common finding is that, while sometimes successful, they cannot be easily replicated on a wider scale. Nevertheless, they have a lot to offer, particularly in the areas of participatory rural appraisal and implementation of community-based programs. With changes under the Organic Law and a new focus on smaller government, their skills will carry more weight. Churches too have a long history of involvement in agriculture and rural service delivery. Some own plantations and provide agricultural education as well as informal extension, promotion of agricultural businesses and improved nutrition. In some cases it may be

appropriate for churches to act as extension agents, since they are respected providers of rural services and can work directly with communities.

Market infrastructure and market information

Although Papua New Guinea faces significant geological challenges, the country compares favourably with other developing countries in terms of metres of road per square kilometre and metres of road per person. More than 85 per cent of main roads and most feeder roads are, however, poorly maintained and are often unusable during and after heavy rains. This weak road infrastructure imposes significant economic costs. Vehicle fleets, for example, depreciate more rapidly. Togolo (1998) estimated that increased tyre wear along the Highlands Highway added an additional K100,000 in operating costs per semitrailer.

Marketing systems are also disrupted as the time needed to transport products from farm to market increases. This is especially costly for perishable agricultural goods, such as horticultural products, resulting in subsequent loss of markets as buyers switch to more assured sources. One estimate (Ume 1997) calculated forgone economic value of K200 million due to poor roads. Reduced accessibility by road also makes it more difficult to provide public services and to administer justice. Agricultural buyers, in particular, are subjected to a much greater risk of criminal attack. In 1997, for example, it was estimated that 30 per cent of the potential coffee crop, with a value of K100 million, was not marketed because buyers, who carry cash to purchase crop output, stayed away from areas prone to crime (Togolo 1998).

While the need for better market access has been recognised, improved transport infrastructure is only part of the requirement. Higher value outputs (for example, export crops or horticultural products) also have

Policy dialogue

higher input costs. Though the potential payoff is an incentive to produce, uncertainties about demand tend to make risk-averse farmers wary of committing scarce resources up front. Poor market conditions tend to push farmers back to subsistence farming, where rewards are lower but more assured. Risk-averse behaviour, together with uncertain weather, makes it difficult for marketers to guarantee output to final purchasers. It is difficult to establish forward contracts that lock in price and quantity.

A multipronged approach is needed that focuses on reducing risk for producers and purchasers alike. Producers need better access to inputs and appropriate extension advice, better access to markets, and better access to information about costs and prices. Purchasers need constancy of production so they can use the full range of market mechanisms to mitigate price volatility as well as increase production volumes to expand export markets and improve households' nutritional status by providing a wider range of produce. Further analysis of these issues is needed to help formulate improved agricultural policies.

For small farmers, diversified farming systems offer the best prospect for spreading risk, improving nutrition, and building on indigenous agricultural systems. Experience in other rural economies indicates that Papua New Guinea's extension, research and marketing policies need to be better aligned to global agricultural market opportunities.

Rural finance

Though there are significant resources flowing to rural areas through revenues from oil, mining and logging activities, few of these resources have generated sustainable improvements in essential local services, nor have they supported the expansion of rural enterprises. Efforts to provide rural financial services have not been able to meet the needs

of most agricultural producers and small business enterprises, partly reflecting the difficulties of providing profitable and sustainable financial services to often remote rural areas, but also reflecting the selection of inappropriate institutional models, sometimes within a poor regulatory and governance framework. Based on the presumed inability of rural communities to mobilise their own resources, formal government efforts, mainly through the Rural Development Bank and its predecessors, to improve resource availability have mistakenly emphasised increases in credit rather than promoting savings mobilisation as an initial imperative. These formal efforts have also tended to target medium to large-scale enterprises. Despite a number of capital injections, the Rural Development Bank has not been able to establish profitable or sustainable approaches to agricultural lending, though the magnitude of this challenge should not be underestimated. It is clear that repeated efforts to find a publicly financed model have not been successful; options for inducing greater private sector involvement do not seem promising either—no private financial institution has shown any interest in extending financial services to locally owned medium or larger-scale agricultural enterprises. Possible solutions are, at least initially, likely to incorporate a mixed public-private model that provides some limited public subsidies to offset the cost and risk of doing business in environments where concepts of collateral and foreclosure are hard to enforce, while harnessing the greater efficiency of the private sector as a contracted deliverer of rural financial services on behalf of the state. Further study of this difficult challenge is required if Papua New Guinea is to avoid the danger of repeating past failure.

Though there is an important need to identify sustainable ways to support and finance medium to large-scale operations,

Policy dialogue

there is a similar need to find mechanisms to support smaller-scale business ventures (both agricultural and non-agricultural) in rural settings. Unfortunately, efforts to support such development through informal micro-credit and savings and loans schemes have hardly ever proved successful in terms of sustainability or loan repayments. Many savings and loans societies in rural areas have collapsed. Plagued by mismanagement and a lax regulatory environment, nearly all had ceased operating by the early 1990s, though there are ongoing efforts aimed at revitalising the sector.

Importance of supportive local services

Papua New Guinea's rugged terrain presents significant challenges to cost-effective delivery of services. This is compounded by the remoteness and inaccessibility of many villages. While there is recognition of the need to extend services to areas where none exist, the costs of doing so are often prohibitive. Government departments have found it difficult to maintain original investments while at the same time constructing extensions of service networks. The result has often been a failure to provide sustainable services either to core development centers or to outlying areas.

Yet successful rural development implies rapidly increasing access to key services, including those that facilitate market access (roads, bridges, sea and air transport systems and marketing services); directly improve the quality of people's daily lives (basic health and education services, water supply); and encourage economic participation.

To be responsive to people's expressed needs and to be sustainable in the long run, delivery of services needs to be accompanied by processes that reflect the local context—that is, it is essential to give communities sufficient

opportunity to determine their own priorities within an agreed framework for civic participation. This is particularly important when dealing with traditional institutions, where the learning process is likely to take longer, and when dealing with sensitive issues, such as land conversion or mining in fragile ecosystems. The quality of these processes is critical. Guarantees of participation, transparency, and accountability are essential in curbing rent seeking, and promoting a greater sense of inclusiveness and ownership.

Conclusion

To promote the further development of rural areas, the forgoing discussion suggests policymakers should focus on removing impediments to the types of private sector investment that are appropriate to local circumstances in Papua New Guinea and on developing public institutions (wherever possible in partnership with the non-state sector) designed to draw on global knowledge and experience from other countries facing similar development challenges—that is, widely dispersed rural populations with strong traditional, community-based institutions and a public sector that struggles to provide effective and sustainable services to support the needs of the rural people.

While the overall management and performance of the economy will continue to affect significantly the extent to which central government departments can deliver on core service-delivery mandates and the availability of resources for sub-national governments, specific strategies for agricultural and rural development in Papua New Guinea would need to focus on the following four issues.

- Savings and credit by providing rural financial services through sustainable, replicable microfinance interventions in support of small-scale and community-

Policy dialogue

managed farm and non-farm enterprises, as well as identifying innovative solutions to the challenge of providing credit for medium and larger-scale rural operations on a sustainable financial basis.

- Jobs and employment for rural people through programs of targeted public works programs and private enterprises through enhanced rural financial and business management services.
- Service delivery and governance through alternative modalities, for example 'social funds' (Rawlings et al. 2003) or other demand-driven interventions, as well as through sub-national governments wherever possible (Parker and Serrano 2000).
- Agricultural services. Pursuing creative options for public-private partnerships to provide extension services while defining an appropriate role for public institutions in agriculture, based on available funding and capacity to provide reasonable coverage to dispersed rural communities.

References

- Bank of Papua New Guinea, various issues. *Quarterly Economic Bulletin*, Bank of Papua New Guinea, Port Moresby.
- Papua New Guinea, 1999. *Papua New Guinea: human development report 1998*, Prepared by the Office of National Planning with funding from the United Nations Development Programme, Government of Papua New Guinea, Port Moresby.
- Parker, A. and Serrano, R., 2000. *Promoting Good Local Governance through Social Funds and Decentralization*, Social Protection Discussion Paper No. 0022, World Bank, Washington, DC.
- Rawlings, L., Sherburne-Benz, L. and Van Domelen, J., 2003. *Evaluating Social Funds: a cross-country analysis of community investments*, World Bank, Washington, DC.
- Togolo, M., 1998. Report of the Consultative Implementation and Monitoring Council Proposal, National Economic Development Forum, Port Moresby, 12–13 October (unpublished).
- Ume, M., 1997. 'Physical resource development: infrastructure', in I. Temu (ed.), *Papua New Guinea: a 20/20 vision*, National Research Institute and National Centre for Development Studies, Port Moresby and Canberra.
- World Bank, 1997. *Papua New Guinea—Accelerating agricultural growth: an action plan*, Agriculture Operations Division, East Asia and Pacific Region, Report No. 16737-PNG, World Bank, Washington, DC.
- , 2000. *Papua New Guinea: poverty and access to public services*, Report No. 19584-PNG, World Bank, Washington, DC.

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