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Pilot Investment Climate Assessment

Bhutan

Challenges and Opportunities for Private Sector Development in Bhutan

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This report was undertaken on a fully collaborative basis by the Bhutan Ministry of Trade and Industry, the Bhutan Chamber of Commerce and Industry, the United Nations Development Programme, and the World Bank. The World Bank team consisted of Simon Bell (task leader), John Nasir, Asya Akhlaque, Andrew Proctor (Foreign Investment Advisory Service), and consultants Gerald Tyler, Christopher Oates (generously financed by the United Nations Development Programme), and Cian O'Carroll. Representatives from the Ministry of Trade and Industry who were involved in the survey included Sonam Wangdi (director of the Policy Planning Department), Karma Tsering (Policy Planning Department), Tshewang Dorji (Policy Planning Department), and Jambay Yeshi (Department of Industry). The representative from the Bhutan Chamber of Commerce and Industry was Tashi Tshering.

The survey work was supported by a team of four accountants—Nim Sherpa (Sherpa Consultancies) and Alok K. Mitra, Jayanta Banik, and Ujjwal Kumar Basu (N.C. Mitra and Co., Calcutta, India). The work of the mission was ably assisted by Dawa Sherpa from Sherpa Consultancies. Initial background work on the survey was done by Karma Tshiteem and Tshewang Norbu (from the Bhutan Ministry of Finance) as interns with the World Bank. The survey data were entered into a Microsoft Access data file by a Bhutanese firm, Visual Information Technology, recruited for this purpose.

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The report was peer reviewed by Benoit Blarel (International Finance Corporation) and Geeta Batra (World Bank). Marilou Uy was responsible for oversight of the report as the sector director for private sector finance and the country director for Bhutan at the World Bank. Mieko Nishimizu, as vice president for the World Bank's South Asia Region, had ultimate oversight.

Danida	Danish International Development Agency
FOB	free on board
GDP	gross domestic product
kbps	kilobits per second
Nu	ngultrum
R&D	research and development
Rs	rupees
SAARC	South Asian Association for Regional Cooperation
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
WTO	World Trade Organization

Currency equivalents

Bhutan currency unit = ngultrum (Nu)
Nu 1 = US$0.02083
US$1 = Nu 48.00
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Fiscal year

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Bhutan has a new, small, and relatively undeveloped private sector. But the government sees it as the engine of Bhutan's future growth and, even more important, as a growing source of employment for the rapidly increasing number of Bhutanese leaving school and entering the workforce. With the looming problem of unemployment and the limited scope for expanding the public sector, the private sector is receiving closer attention. Unleashing its growth potential will require identifying and acting on the key constraints to its development—the main challenge of Bhutan's Ninth Five-Year Development Plan (2002–07).

A Small But Growing Private Sector

Before Bhutan opened its economy in the 1960s, private sector activity was limited to agriculture and some trading. Since then the economy has been transformed, with rapid growth in urban centers, the establishment of basic infrastructure, and the development of an important hydropower sector. In the 1990s national income growth averaged around 6 percent a year, driven by revenues from hydropower.

The economic growth has, in turn, fostered the development of the private sector. By the end of 2000 the government had issued more than 9,000 industrial licenses and almost 12,000 trading licenses and had registered 124 companies operating in a wide range of activities—mining, light manufacturing (such as fruit processing), power-intensive industries (cement, ferro-alloys, calcium carbide), service industries supporting tourism, sawmilling and other wood processing industries, and fast-growing service industries in such areas as transport and construction (spurred largely by the government's construction activities and the development of the Tala hydropower project).

A handful of medium-size companies dominate the private sector, reflecting its embryonic state and the small size of the economy. But most enterprises in Bhutan are very small, with fewer than 10 employees. Indeed, around 85 percent of firms are classified as cottage or mini enterprises (with invested capital of less than $10,500). The country has only about 100 companies of any size, with the largest employing fewer than 540 workers.

Creating Employment—a Critical Role for the Private Sector

Employment data are weak in Bhutan, but it is estimated that around 60,000 people are employed in the formal sector. Of these, around 22,000 are employed in public sector institutions (including 14,258 in the civil service), suggesting that the private sector accounts for around 60 percent of all formal sector jobs. But many of these private sector jobs are held by non-Bhutanese workers. Of the 60,000 formal sector jobs, about half are thought to be held by nonnationals. Since nonnationals are likely to hold a very small share of the jobs in public sector institutions, most of these 30,000 nonnational workers are employed in the private sector.

Rural-urban migration has not yet become a big source of urban unemployment in Bhutan; most of the rural population remains in rural areas (though this is likely to change in time). But good progress in achieving education goals means that a growing number of educated Bhutanese are seeking urban employment. In the past most of those leaving school were absorbed into the civil service, the preferred employer for most Bhutanese. But the government has nearly reached the saturation point, and the civil service is not expected to grow much beyond its current size.

This saturation has occurred just as Bhutan's investments in education are beginning to pay off. In 2001–10 the education system is expected to produce around 90,000 school-leavers and graduates. Indeed, the number leaving school and entering the workforce is projected to increase exponentially each year. With formal sector employment only 60,000 today, creating another 90,000 jobs poses a formidable challenge.

The government has long been the main engine of economic growth in Bhutan. But it recognizes that this must change, with the private sector gradually taking on an increasingly important role in driving growth and development. Nowhere is this more true than in employment generation. The government has made developing a dynamic private sector that can create employment opportunities a central aim of the Ninth Five-Year Development Plan. But absorbing the large number of school-leavers into the private sector will not be easy.

Advantages and Disadvantages for Private Sector Development

Like all countries, Bhutan has a unique set of advantages and disadvantages for developing the private sector. To promote private sector employment, the government should seek to build on the advantages while attempting to lessen the disadvantages as much as possible. And while this may seem painfully obvious, it is extremely important that the government not diminish any potential advantage or add to the disadvantages that the private sector faces. The task that the private sector confronts in tackling the growing youth unemployment is so formidable that it will need all the resources and support available.

Several factors create important advantages for private businesses in Bhutan:

- Relatively free access to the large Indian market under current trade arrangements, though this advantage will gradually lessen as India liberalizes trade in line with World Trade Organization requirements.
- Access to cheap skilled and unskilled labor from India, providing a considerable cost advantage in labor-intensive production.
- Extremely stable labor relations (no company in the survey reported disruptive union activity or a loss of workdays because of strikes).
- Flexible labor regulations, with very little restriction on the ability to hire and fire workers or determine wages.
- Low electricity prices, at a fifth to a half the costs in competing economies in the region. While electricity subsidies are likely to be removed in the medium term, electricity prices will remain relatively low, conferring a considerable advantage in power-intensive industrial activities.
- Political stability.
- A clean, efficient, and corruption-free government.

Businesses in Bhutan face an equally impressive set of disadvantages:

- A lack of entrepreneurial talent due to the newness of most private sector activities in Bhutan.
- Bhutan's remote and landlocked location.
- An extremely small domestic market of only around 800,000 people (compensating for this, however, is the preferential access to the Indian market of more than 1 billion people).
- A lack of skilled Bhutanese workers and an apparent unwillingness of Bhutanese workers to undertake menial or unskilled work (more than compensated for by a plentiful supply of low-cost skilled and unskilled Indian workers).
- A rudimentary and uncompetitive financial system offering only basic financial services and those at a fairly high cost.
- Road transport that is slow and regularly disrupted by monsoons and landslides, and air transport that is costly and erratic. The transport problems create cost disadvantages for many business activities, particularly in the more remote central and northern parts of the country.
- Extremely limited links with outside markets as a result of the dominant trading relationship with India (with trade in electricity, the main export, dominated by government-to-government deals) and the almost total absence of foreign direct investment (a conscious policy choice by the government).

Bhutan's advantages are considerable compared with those of many countries in the region. Some, such as cheap electricity and preferential access to the Indian market, are likely to decline in time. But every effort should be made to retain all other advantages for private sector activity.

Countering the disadvantages will prove difficult in some cases—Bhutan will always remain landlocked, for example. But some can be lessened through policy choices of the government—such as by gradually raising the skill levels of Bhutanese workers, promoting competition in the financial sector, gradually improving the transport infrastructure, and developing external links through more diversified trade and greater foreign direct investment. While action may prove costly or complex, action is nonetheless possible.

Biggest Constraints to Doing Business—Results of the Private Sector Survey

Several of the disadvantages came out clearly in the private sector survey in Bhutan. Conducted in 2001, the survey had several aims. The main goal was to collect better information on the private sector and its perceived constraints, to help formulate private sector policy for the Ninth Five-Year Plan. The survey covered 10 main areas: training, technology, infrastructure, entrepreneurship, firm data, investor confidence, labor market issues, business support services, trade and exports, and financial markets and contractual relations.

The survey also asked firms to identify their three biggest business problems and rank them by importance. The results clearly show that the main problems faced by private firms in Bhutan relate to labor—and, most important, to skilled labor (table 1). Among the nearly 100 firms surveyed, 20 percent cited skilled labor as their number one constraint to doing business, and many others cited it among their top three. In addition to a shortage of skilled labor, firms expressed concerns about labor policy and about the future direction of policy relating to the employment of nonnational labor, both skilled and unskilled.

Firms identified the bureaucratic burden imposed by the government and other regulatory concerns as their next biggest constraint. This issue encompasses a broad range of concerns, including labor policy (a big concern), tax policy, and access to land. This result is an interesting one, given the general perception that the government is friendly to business and supportive of private sector activities.

Ranking next were lack of demand, financial sector problems (including access to finance and its cost), and problems with infrastructure.

Shortage of Skilled Labor

Bhutan has made remarkable progress in raising the education and skill levels of Bhutanese workers. Yet the skills and experience that the private sector needs

Table 1 Biggest Business Problems for Bhutanese Firms

Problem	Firms citing as number one problem	Weighted index[a]
Skilled labor	20	0.51
Bureaucratic burden	16	0.38
Lack of demand	17	0.36
Credit and finance	16	0.30
Infrastructure	8	0.20
Business support services	1	0.06
Import regime	0	0.05
Foreign exchange regulations	1	0.03

Note: The table groups related problems. For example, all issues relating to government regulations—such as labor law, tax policy, regulations on obtaining land—are grouped under bureaucratic burden. Similarly, lack of demand includes competition from imports.

a. The weighting was calculated by assigning a number one ranking a weight of 3, a number two ranking a weight of 2, and a number three ranking a weight of 1.

Source: World Bank private sector survey, Bhutan, 2001.

are still in short supply. One reason is that the government has absorbed most skilled and educated workers. Another is that most educated Bhutanese have a strong preference for working in the public rather than the private sector. But this situation is slowly changing as the government absorbs fewer and fewer school-leavers and graduates.

Clearly, the private sector ought to employ Bhutanese workers when their skills and experience match those sought. But it is also important to recognize the considerable advantages offered by the country's ready access to a large pool of skilled, experienced, and relatively low-cost workers in India. Its access to unskilled workers in India offers similar advantages. Most companies complained that Bhutanese would not perform the menial tasks and dirty, repetitive, and backbreaking work that nonnational workers undertake on roadworks, construction sites, and production lines—and certainly not for the same wages.

The truth is that the increasing number of school-leavers and new graduates entering the workforce will have neither the skills and experience to undertake the skilled jobs (at least not initially) nor the willingness to take on the unskilled jobs now performed by nonnationals. So mandating reductions in the use of nonnational labor does not appear to be an effective way to promote the private sector or to generate the employment for which Bhutanese are most suited. Instead, the challenge is to create employment that matches the qualifications of school-leavers while at the same time adjusting the school system and vocational training to better match the skills needed by the private sector.

Indeed, if the objective is to build on Bhutan's strengths and reduce its weaknesses, the focus should not be on excluding nonnational workers, who confer a considerable cost advantage. Instead, it should be on increasing the productivity of Bhutanese workers through a mix of management training, worker training, and technology transfer.

Yet training emerged as a serious weakness in the survey. Virtually no firms reported undertaking any serious staff training—despite their complaints about a lack of skills—and only 3 percent of the firms' employees had received training in the previous 12 months. Given the links between worker training, worker productivity, and firm growth, putting in place incentives for firms to provide more training is critical. These incentives could include **levies on industries to support training**, greater transparency in the tax regulations on writing off training expenses, and matching grant schemes and access to retired executives to assist in training.

Bureaucratic Burden—Opaque Policies and Regulations

A surprising 26 percent of firms perceived the government as unpredictable and believed that this unpredictability adversely affected their business. And 56 percent feared that the government would make policy changes without consultation, again with adverse effects on their business.

Policy changes introduced without consultation can have pernicious effects on the private sector. Consider the export ban imposed on logs in 1999, followed in 2000 by the export ban on semifinished wood products. Companies that had invested in semifinished processing after the log ban was imposed were severely penalized by the sudden imposition a year later of the ban on semifinished products.

But the main concerns relating to government policy tended to be about lack of transparency. Many enterprises did not have a clear understanding of the tax policy on training expenses, for example. The tax authorities review training deductions case by case and do not necessarily limit them to 2 percent of profits, as many companies assumed. But case-by-case review in cases like this injects into business exactly the element of uncertainty that most good firms dislike.

Indeed, the survey team found many examples of discretionary or ad hoc treatment of important busi-

ness issues and a lack of transparent guidance on matters critical to firms. This situation is not surprising given the small size and short history of the private sector in Bhutan. Business activities have traditionally grown around personal relationships and ad hoc arrangements, a system that has served Bhutan reasonably well. But as the private sector grows and business becomes more complex, it is critical that business policies and regulations become clear and systematic.

Many firms complained about a lack of clarity in policies relating to the employment of nonnationals, the tax treatment of deductible expenses, the licensing of businesses in Phuentsholing, the tax auditing of companies, and a range of other issues. Leaving these policies opaque creates room for rent seeking practices to creep into an otherwise clean and well-managed system of governance. Addressing these issues now would reduce the potential for corruption and impose order and discipline on private sector activities. Indeed, the government is well aware of these issues and has made much progress in formulating a body of law that clarifies legal rights and obligations.

A lack of clarity and systematic practices is not only an issue in the public sector. The private sector too suffers from this problem. Firms lack good information systems, particularly robust and believable financial data—a weakness that opens the door to corruption and other bad business practices. A systematic approach to auditing and accounting not only clarifies a company's true financial position for the tax authorities; it also serves as a useful management tool for guiding its operations.

Lack of Demand—and Its Roots in Technology Weaknesses

Firms' third biggest concern, lack of demand, presents something of a puzzle. Demand is clearly not a constraint for an efficient business in Bhutan: domestic demand is growing rapidly as national income rises, and regional demand for most products from India is well beyond Bhutan's production capacity. Thus when most companies complain about lack of demand, what they often mean is *lack of demand at the price and quality offered.* These companies cannot compete with imports or with other domestic producers.

What does it take to become competitive? Among the most important factors is a firm's ability to obtain technology enabling it to conduct its business cost-effectively. Technology, broadly defined, falls into three main categories: management capability, equipment and processes, and marketing and design.

Management capabilities tend to be weak in Bhutanese firms. Most managers lack relevant experience and technical qualifications. About half have a background in the civil service, and only a small share (less than 13 percent) have had any work experience with a foreign firm (and those mainly in India). All this results in weak management practices. Managers often do not know what skills to employ to support their business activities, do not value worker training, and lack familiarity with best practices and with the technologies required for their operations.

Equipment and processes are also weak. Most companies operate with outdated and ineffective equipment from India. Indeed, the equipment is often outdated even by Indian standards. If firms are to become competitive and to grow, they need to acquire the best equipment available internationally. That probably means leapfrogging the simpler technologies now available from India.

Bhutanese firms have poor marketing and design technologies largely because they have such few contacts with external buyers and markets. Bhutan's ability to enter small, profitable niche markets in agroprocessing, wood products, and even tourism will depend crucially on its ability to design products that meet specific demands (in Europe or North America, for example) and to package food products attractively.

Addressing these weaknesses in technology is no easy matter. The task of finding, acquiring, and ab-

sorbing technology is difficult and expensive, and the mechanisms that help firms do this are poorly developed in Bhutan. The country lacks networks of suppliers or international buyers to teach firms about new technologies. It has few consultants or technical experts, and Bhutan's isolation makes it difficult to find them abroad. And foreign direct investment, one of the most powerful ways of transferring technology, is almost nonexistent in Bhutan.

Strengthening and supporting learning mechanisms is thus critical. Establishing matching grant schemes, making visas for technical experts easier to obtain, providing tax incentives for technical improvements, and, most important, liberalizing foreign direct investment could all help firms improve their technology, raise their productivity, and increase their competitiveness.

Constraints Imposed by the Financial System

Firms in Bhutan complained about many aspects of the financial system, and many of their concerns appear to be valid. Among the most common complaints was the high and inflexible cost of finance. With real interest rates at 7–10 percent, the cost of capital is exceedingly high in Bhutan, posing a serious constraint on any policy aimed at promoting greater capital intensity and mechanization of production.

A large share of companies (around 43 percent) reported being credit constrained—that is, wanting to borrow more at current interest rates. Around 30 percent had no bank credit. This partly reflects a lack of financial sophistication among firms, with some not wanting to carry any debt. But it also reflects a lack of sophistication among banks, which, despite having substantial liquid resources, did not (or could not) reach out to private enterprises to help them develop bankable projects.

Lack of competition in the financial sector has led to serious problems—high and inflexible interest rates, a lack of innovative financial products (such as leasing, venture capital, and factoring services), and a weak payments system. Based almost exclusively on paper, the payments system is slow and cumbersome, with fund transfers between branches of the same bank in different towns taking several weeks to clear. The absence of automated teller machines, wide use of credit cards, and other electronic means of payment adds to the problem.

Financial sector issues are to receive close analysis by the Asian Development Bank in its 2002 study of the sector. The study's recommendations should be carefully reviewed for possible speedy implementation.

Costly and Unreliable Transport

Firms had mostly positive perceptions of Bhutan's infrastructure, with the one big exception being transport. Roads are in poor condition and often cut off by landslides, making transport costly and unreliable. Thus the cost of transporting timber, for example, can exceed the value of the wood. As a result of the high costs and poor reliability of road transport, it is almost impossible for industries heavily dependent on transport to be competitive except in the border areas of Bhutan.

Cost and reliability are also serious concerns in air transport. The high altitudes in the Himalayas dictate the use of only certain types of aircraft, with limited capacity for cargo. This, combined with difficult flying conditions, makes air transport expensive and unreliable. One company complained that raw materials take three days to travel from the United States to Bangkok—but another month to get from Bangkok to Paro. Such delays severely undermine the competitiveness of companies producing time-sensitive goods for niche markets. Consider shiitake mushrooms, which should be in Tokyo markets within 48 hours of being picked—a good example of a potentially important market that can not be exploited because of by unreliable transport.

Challenges and Opportunities in the Priority Sectors

The four priority sectors identified by the government as potential sources of comparative advantage and employment growth in Bhutan—agroprocessing, wood-based industries, tourism, and information technology—face the challenges confronting all industries as well as sector-specific challenges. They also have good opportunities for growth.

Agroprocessing

Bhutan's agroprocessing industry faces many impediments. Raw materials are uncompetitive because of poor land use, low crop yields, low productivity, and high transport costs. Value adding activities are hampered by a lack of scale, old technology, bad packaging, a lack of branding, and costly freight. And management lacks the skills and experience to offset these higher costs through innovation and marketing.

If the agroprocessing industry could overcome these impediments to growth, it has potential in two areas:

- High-value, low-volume products (incense, mushrooms, essential oils, traditional medicines) in niche markets, based on such competitive advantages as Bhutan's biodiversity, organic production, and range of microclimates.
- Large-scale businesses with foreign ownership in border areas, based on the competitive advantages of a flexible labor force, a stable political environment, and competitive infrastructure and using mainly imported raw materials.

With processed foods the fastest-growing component of world agricultural and food trade—accounting for 75 percent of this trade and worth $384 billion in 1996—the potential could be enormous.

To exploit this potential, firms will need a timely supply of competitive, consistent, and high-quality raw materials; supportive policy on labor, transport, and investment; innovation in products, processes, packaging, and product positioning; and productivity improvements based on better management, processes, and labor skills.

Wood-Based Industries

Wood-based industries also face many constraints. Management lacks adequate qualifications and experience, technology levels are low, and labor is unskilled, resulting in low productivity. The sector has no economies of scale, with firms tending to make a diverse range of products for walk-in clients. The government, which buys up to 60 percent of the sector's output, drives down quality and margins. The government has also affected the sector through its policies. In addition to the export ban on semifinished products, firms face a requirement to buy timber in auction lots of mixed species, which means that they cannot get a consistent supply of the type and quality of wood they need.

The sector has the potential to serve regional markets, particularly Bangladesh, in specialist categories not adequately served by local producers or by the growing imports from Europe and Southeast Asia. And the sector could penetrate some niche markets with easily transported, high-value, low-volume products. But realizing this potential will require some changes. Firms must gain access to single-species timber in appropriate sizes and quality. The ban on semifinished products needs to be relaxed so that firms can gain experience and gradually move downstream to more finished products. Productivity must be raised through better management, the use of appropriate equipment, and properly trained labor. Firms' market awareness and marketing skills need to be improved. And in the medium term Bhutanese forests should be certified as being sustainably managed to provide a selling point for Bhutanese wood products.

Tourism

Though tourism has grown rapidly over the past decade, annual hotel occupancy rates remain low, in part because the market is highly seasonal, and there is little repeat tourism. A key issue is the pricing policy, which requires tourists to make sizable upfront payments from which the government collects royalties, with both determined by the season (peak or nonpeak). Better calibration of these payments—particularly the government royalty—in nonpeak seasons could encourage a steadier stream of tourists into Bhutan throughout the year.

Tourism marketing is weak. The private sector lacks resources, and the government plays a passive role. Moreover, the country is concerned about maintaining a balance between generating revenues and protecting its cultural heritage. Vacations in Bhutan are relatively expensive, but service is not commensurate. The service in hotels is usually friendly, but it is of poor quality and amenities are lacking. Part of the reason is that there is little competition to drive up standards, since tourists must pay before arriving and have little choice once they enter Bhutan. (Two recently approved Singapore-based joint ventures in the hotel industry are likely to influence its development, however.) Moreover, the range of tourism products is limited, though some improvements have recently been introduced. And access to Bhutan, particularly by air, can be difficult, with the problems exacerbated by seasonality.

Tourism in Bhutan has much growth potential both because of the country's competitive advantages and because of problems in other potential destinations in the region. Realizing this potential will require developing an unambiguous strategy with appropriate policies and regulations, adjusting pricing policy (particularly nonpeak pricing), undertaking more active marketing (by both firms and the government), improving access to Bhutan, addressing seasonality issues, developing new products, and improving standards of accommodation and service.

Information Technology

Information technology can boost the economy in two ways—as a business tool used in firms and as a tradable service. The information technology sector in Bhutan faces several constraints, however, including comparatively high connectivity charges, a lack of information technology professionals (most must come from India), undeveloped regulatory and financial systems (online banking is not yet possible, for example), and comparatively high labor costs.

Other developing countries are targeting two main kinds of opportunities: small niche firms selling such services as software development and larger firms selling data entry or call center services. But Bhutan's information technology sector is still in its infancy, and several challenges have to be overcome before it can deliver internationally competitive services. These include increasing the use of information technology in the public and private sectors, developing a pool of skilled information technology workers, introducing appropriate regulations (to support online business, for example), and building a data network.

A Vision for the Development of the Private Sector

Given the constraints and concerns of the private sector in Bhutan, the report recommends a dual- track development strategy:

- In the border areas—where labor costs are lower and the cost and reliability of transport are less pressing constraints—firms can take advantage of the low electricity prices, ease of access to Indian markets (for raw materials and finished products), and stable and low-cost labor force to produce more cost effectively than equivalent producers across the border. These advantages would permit the development of heavy industry with large inputs of labor and raw materials.
- In central Bhutan—where higher labor and transport costs make heavy industry uneconomic—

firms should focus on providing services to the industries along the southern border (such as accounting, management, financial, and information technology services), providing other services (transport, tourism, construction), and developing specialized products for niche markets (mushrooms, handicrafts, furniture, essential oils, traditional medicines).

This dual-track approach to private sector development presumes that the government will be able to deal with issues relating to skilled workers, government regulations, and bureaucracy; promote greater transfers of technology into Bhutan; address constraints imposed by the financial sector; and gradually develop solutions to the constraints and costs imposed by the transport infrastructure.

Main Recommendations

Realizing the vision for private sector development will require a series of support measures. The main measures recommended in support of private sector development under the Ninth Five-Year Plan are as follows:

- *Training.* Establish a transparent system of tax relief and possibly a system of industry levies to support radically increased worker and management training and thus greater productivity.
- *Labor.* Develop a transparent, time-bound policy for recruiting nonnational workers to ensure the continued cost competitiveness of Bhutanese industry.
- *Finance.* Encourage the development of innovative financial instruments and payment means based on the Asian Development Bank's financial sector study—including leasing finance, factoring services, automated teller machines, and greater use of credit cards (with lower transaction fees)—while promoting greater competition in the financial sector and more flexible interest rates.
- *Technology.* Support technology transfer by immediately establishing a matching grant scheme as well as others (such as those relying on retired executives) and by providing incentives such as tax breaks for research and development.
- *Foreign direct investment.* Ensure that the new foreign direct investment law is finalized and approved in the next session of the National Assembly and that supporting regulations are put in place shortly thereafter and actively encourage foreign direct investments that could have a large impact in the early phase of implementation.
- *Export incentives.* Immediately implement a duty drawback system for imported raw materials used in producing exports (including exports to India) and begin a dialogue with the banks on providing pre- and postshipment finance to the private sector.
- *Policy environment.* Within the context of the Ninth Five-Year Plan, develop a clear, consistent, and transparent policy environment for the private sector that takes into account its views, and ensure that laws and regulations affecting the private sector are clearly and properly codified.
- *Auditing and accounting.* Gradually expand the auditing net to include a broader group of private companies—both to encourage greater use of financial information as a management tool and to assist the tax authorities.
- *Industrial estates and dry ports.* Establish industrial estates in strategic locations for the private sector and dry ports at strategic border locations.
- *Dialogue.* Bring in experienced professionals from external chambers of commerce and the private sector to strengthen mechanisms for representing private sector interests (such as the Bhutan Chamber of Commerce and Industry and trade associations).

1. The Survey

Seven major development challenges were identified for the Bhutan Donors Development Forum held in Thimphu in November 2000. Two of these were private sector development and employment generation. Since the public sector is unlikely to expand in the foreseeable future, these issues become two sides of the same coin: employment in Bhutan can only be generated through growth of the private sector.

Indeed, *Bhutan 2020 Vision* firmly identifies "the private sector as the driving force behind employment growth." With the private sector still embryonic, it will need to be considerably strengthened before this vision can be realized.[1] A first step in this process is to develop a better understanding of the private sector in Bhutan and the key constraints to its growth. A lack of reliable, up-to-date statistics has made this task difficult. Indeed, that is one of the reasons for this report and the underlying private sector survey. By developing better information on the private sector, the report is aimed at aiding the government in formulating its strategy for supporting the private sector during the period of the Ninth Five-Year Development Plan (July 2002–June 2007).

How the Survey Was Conducted

Recognizing the lack of knowledge and understanding of the private sector, the government of Bhutan requested the Ministry of Trade and Industry, the Bhutan Chamber of Commerce and Industry, and the World Bank to undertake a survey of the private sector. The United Nations Development Programme provided support. The survey was conducted over a three-week period, 18 September–8 October 2001, in five major industrial areas—Thimphu, Paro, Phuentsholing, Samtse, and Gomphu. For analysis purposes the firms were usually grouped in two: Thimpu and Paro in the North and Phuentsholing, Samtse and Gomphu in the South.

The survey instrument covered 10 main areas of interest to the private sector: training, technology, infrastructure, entrepreneurship, firm data, investor confidence, labor market issues, business support services, trade and exports, and financial markets and contractual relations. The survey was pretested on 12 companies in Thimphu and then modified in July 2001.

The survey was conducted by four three-member teams. Each team was led by a specialist in one of the four sectors designated by the government for in-depth review—tourism, agroprocessing, information technology, and wood and wood-based industries—sectors where Bhutan may well have a comparative advantage and believes that it can generate more dynamic employment. The teams also included a qualified chartered accountant and a representative from the Ministry of Trade and Industry or the Bhutan Chamber of Commerce and Industry.

Profile of the Companies Surveyed

The aim was to cover 100 firms, and ultimately 98 firms were interviewed, including in the pretesting of the survey instrument in July 2001. The survey was based on registered companies operating in the Thimphu-Phuentsholing corridor. Emphasis was given to the 124 registered companies (registered under the Companies Act) rather than the 6,000–7,000 licensed firms (licensed by the Ministry of Trade and Industry) because registered companies are larger and are required by law to have audited financial statements—an important part of the survey work. Of the 124 registered companies in Bhutan, more than 80 percent operate in the five towns surveyed (see appendix 1).

Because firms in construction and tourism dominate the group of registered companies, not all companies in these two sectors were included in the sample frame. Instead, some were replaced with smaller,

licensed firms operating in the wood, agroprocessing, and information technology sectors, consistent with the government's desire to focus the study on these sectors along with tourism.

The survey includes one firm with foreign ownership (20 percent). It also includes 10 firms with at least some government ownership. For 6 of these the government ownership share was 100 percent; for the others it ranged from 6 to 80 percent.

Most of the companies surveyed were very small (table 1.1). The largest private firm in the country employed only 532 people. Among the firms surveyed, 46 percent had fewer than 10 workers, a size generally classified as microenterprise. As a result, while the survey had set out to cover the larger firms in Bhutan, it ended up covering a large number of medium-size, small, and even micro firms. This reflects how new and small the private sector is in Bhutan—and how few large enterprises there are outside the public sector.

The companies surveyed employed an average of 54 workers, and growth in employment averaged 6.8 percent a year since they were established (tables 1.2 and 1.3). Nonnationals made up a large share of the labor force in these firms (table 1.4).

Table 1.1 Firms Surveyed by Size of Employment

Size (employees)	Firms
Micro (10 or fewer)	45
Small (11–50)	26
Medium-size (51–200)	19
Large (201–500)	7
Very large (501 or more)	1

Source: World Bank private sector survey, Bhutan, 2001.

Table 1.2 Firms Surveyed by Sector, Location, and Size of Employment

	Firms			Employees		
Sector	Total	Thimphu	Phuentsholing	Mean	Median	High/Low
Cement[a]	10	3	7	103	21	532/5
Chemicals[b]	5	0	5	145	157	286/10
Construction	4	4	0	54	45	120/6
Food[c]	14	4	10	101	17	364/5
Handicrafts	4	4	0	24	32	60/12
Information technology	11	8	3	13	9	40/4
Metals	4	1	3	40	19	118/3
Textiles	2	0	2	31	38	60/16
Tourism	17	13	4	30	15	150/5
Transport	9	4	5	45	21	190/4
Wood	17	8	9	62	23	373/8
Other	1	1	0	43	43	43/n.a.
Total	98	50	48	54	20	532/3

n.a. Not applicable.
a. Includes all cement, tile, blocks, and other construction material.
b. Includes chemicals and plastics.
c. Includes agricultural processing and food and beverages.
Source: World Bank private sector survey, Bhutan, 2001.

Table 1.3 Annual Growth in Employment in the Firms Surveyed, by Sector

Sector	Firms	Employment growth (percent) Mean	Median
Cement	8	2.6	–0.3
Chemicals	5	4.3	1.9
Construction	3	13.0	11.0
Food	13	5.2	8.3
Handicrafts	3	16.0	23.0
Information technology	11	8.3	6.9
Metals	4	2.7	3.4
Textiles	2	2.3	2.4
Tourism	16	7.9	6.7
Transport	8	8.8	8.4
Wood	8	5.6	0.9
Other	1	18.2	18.2
Manufacturing[a]	43	5.0	1.9
Services[b]	39	8.9	7.7
Total	82	6.8	6.3

a. Includes cement, chemicals, food, handicrafts, metals, textiles, and wood.
b. Includes construction, information technology, tourism, transport, and other.
Source: World Bank private sector survey, Bhutan, 2001.

Geographic Coverage of the Survey

Outside of agricultural production, most private sector activity occurs in the Thimphu-Paro–Phuentsholing corridor. Indeed, around 80 percent of registered companies are located in this area. Because of this large concentration of formal businesses, the survey focused exclusively on this region—for reasons of cost efficiency as well as logistics (reaching central and eastern Bhutan generally involves many days of car travel). Security problems in the central and eastern regions of Bhutan were also a consideration. It is hoped that the work of the SNV Netherlands Development Organization in surveying smaller enterprises in these regions will augment the findings of the survey.

As a result of the regional focus of the survey, it does not capture potential peculiarities that may exist in the other regions. Future private sector surveys will need to incorporate the views of the private sector in these regions. While nonagricultural private sector activity is now concentrated in the west—for reasons relating to broader regional development, rural-urban migration, and the like—it may become increasingly

Table 1.4 Employment and Share of Nonnationals in the Labor Force of the Firms Surveyed, by Location

	Thimphu		Phuentsholing		Full sample	
	Services	Manufacturing	Services	Manufacturing	Services	Manufacturing
Firms	30	20	12	36	42	56
Employment						
Mean	34	23	24	100	32	73
Median	15	15	19	39	16	23
Share of nonnationals (percent)						
Mean	13	15	57	59	32	44
Median	3	0	63	70	14	50

Source: World Bank private sector survey, Bhutan, 2001.

important to ensure a more balanced development of private sector activities throughout Bhutan.

A Private Sector Perspective

The survey, by its very nature, covers the views, perceptions, and concerns of the private sector. In Bhutan, as in all countries, the private sector holds views that differ from those of the government. While the Ministry of Trade and Industry was involved in gathering the data and information, this report focuses on the views and concerns of Bhutan's private sector—and those need to be balanced against the views and aspirations of the government of Bhutan.

Notes

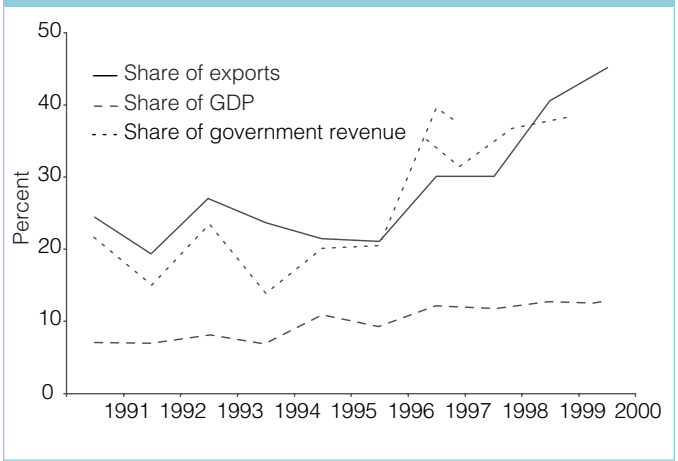
1. One indication of just how embryonic the private sector is: the Bhutan Chamber of Commerce and Industry was established with the assistance of the government.

Macroeconomic Overview

A landlocked Himalayan country, Bhutan was largely cut off from the outside world until the 1960s, with its dispersed population depending on subsistence agriculture. Once Bhutan opened up, the country embarked on a far-reaching development strategy articulated in eight successive five-year plans. Bhutan has turned in an impressive development performance, with GDP growth averaging more than 6 percent a year since 1985. In 2000 Bhutan's GDP was $441 million, and its per capita gross national income $550.[1] Although agriculture continues to account for the largest share of GDP (36 percent in 1998), natural resources have led Bhutan's rapid growth. Hydropower accounts for 11 percent of GDP (figure 2.1). Foreign aid, however, accounts for an even larger share (23 percent).

Growth has been driven by the 336-megawatt Chhukha hydropower project, which has boosted GDP growth directly through power exports to India and indirectly by supporting energy-intensive industries such as cement, ferro-alloys, and calcium carbide. The hydropower sector has become increasingly dominant in the economy, with new power projects leading to double-digit growth in the construction and transport sectors. Generating capacity is set to triple after 2006 with the commissioning of the Tala project, but will still reach only about 10 percent of Bhutan's potential (box 2.1).

Figure 2.1 Economic Contribution of the Power Sector, Bhutan, 1991–2000



Bhutan's economy is closely linked with that of its significantly larger neighbor, India. Bhutan enjoys a free trade agreement with India dating to 1949. India accounts for more than 80 percent of Bhutan's trade (more than 90 percent of exports and 70 percent of imports). India is also Bhutan's largest foreign donor and greatest source of expatriate labor. It has financed Bhutan's major hydropower projects and some of its large industrial investments. There are no restrictions on trade and payments between the two countries. Bhutan's free access to the vast Indian market and India's almost unlimited demand for Bhutan's hydropower have boosted its exports. The Bhutanese ngultrum (Nu) is pegged at parity to the Indian rupee (Rs), which circulates freely in Bhutan. These links limit the independence of Bhutan's monetary policy, and its interest rates closely follow those in India.

In recent years Bhutan has received around $80 million in annual disbursements of concessional assistance. Of this, 85 percent takes the form of grant aid, with external borrowings limited by the government's policy of using grants in the first instance. The highly favorable terms of the aid, combined with its efficient, cost-effective, and transparent use, have enabled Bhutan to limit its external debt. The large inflows of resources are reflected in a high domestic savings rate (38 percent of GDP), large foreign exchange reserves (around 19 months of import cover), and large foreign assets as a share of total financial assets.

Fiscal policy has remained prudent.[2] Bhutan has a strong record of managing public spending, with the overall budget (including grants and concessional credits) always close to balance. Bhutanese authorities have historically avoided borrowing to finance recurrent spending. Inflation has remained moderate,

Box 2.1 The Bhutanese Power Sector's Enormous Potential

Bhutan is endowed with enormous hydropower potential. Its potential generation capacity is estimated to be about 30,000 megawatts, with more than 16,000 megawatts considered technically and economically viable. The development of the power sector began in the late 1980s with the commissioning of the Chukha hydropower project (336 megawatts).

Bhutan's hydropower generation capacity is expected to grow significantly as new power projects are completed. In the Kurichhu project 45 megawatts were commissioned in 2001, and the last unit of 15 megawatts was added in 2002, bringing the total installed capacity to 60 megawatts. The 24-megawatt Basochhu Upper Stage Project was commissioned in November 2001, and the 40-megawatt Basochhu Lower Stage Project is targeted for completion in early 2005. Bhutan's generating capacity will triple in 2006 with the commissioning of the Tala project (1,020 megawatts), yet still reach only about a tenth of the country's technically viable potential.

The power sector is expected to continue to be the main engine of growth in Bhutan and a significant source of government revenue and foreign currency earnings. Bhutan still supplies less than 0.5 percent of the power used in India, which has an enormous market and faces domestic supply problems. Internal demand in Bhutan will rise substantially with progress in rural electrification (supported by a $10 million loan from the Asian Development Bank).

Despite the enormous potential, the Bhutanese power sector faces challenges. Development of future projects will depend on access to adequate financing. India is likely to be a major source of funding, and its fiscal situation could prove to be a constraint. More important, the Bhutanese authorities must find a way to promote domestic employment through the promotion of power-intensive industries. Power projects themselves tend to rely on expatriate engineering firms, since local contracting skills are limited. Still, power projects have provided employment for a large number of Bhutanese contractors in the construction of houses, access roads, and transportation.

recorded at 4.5 percent in 2000/01. The exchange rate has been relatively stable, and Bhutan continues to have a strong positive balance of payments position. The debt service ratio was estimated at 4.1 percent in 2000/01.

Overview of the Private Sector

Commercial activity—as measured by the number of new businesses licensed annually—grew steadily in Bhutan in 1987–97 (figure 2.2). Annual growth averaged around 34 percent over the decade. The service sector recorded the largest growth, followed by construction and then production and manufacturing (table 2.1). The extremely large growth recorded in services in 1994 was due to changes in classification that year.

Private sector development received a big boost beginning with the Sixth Five-Year Plan (1987–92), when the government began corporatizing government agencies and divesting equity to the private sector. Private establishments far outnumber both pub-

Figure 2.2 New Businesses Licensed, Bhutan, 1987–97

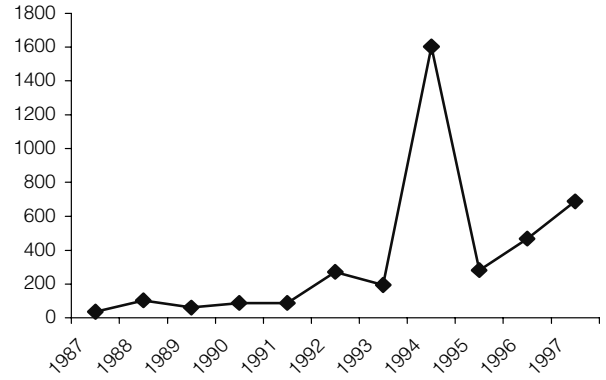


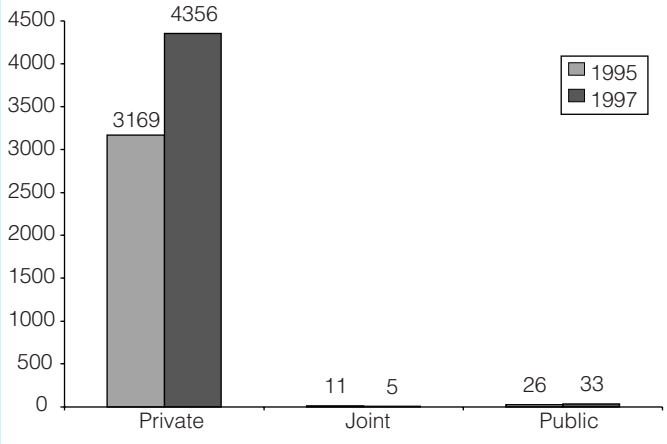
Table 2.1 New Businesses Licensed by Sector, Bhutan, 1987–97

Year	Production and manufacturing	Services	Construction	Total
1987	17	7	13	37
1988	17	12	74	103
1989	8	4	39	61
1990	14	19	54	87
1991	14	23	51	88
1992	37	40	195	272
1993	30	45	118	193
1994	47	1,297	259	1,603
1995	15	140	127	282
1996	36	180	251	467
1997	33	341	315	689
Total	268	2,118	1,496	3,882

licly owned and jointly owned establishments (figure 2.3), though the public sector continues to dominate employment.

With the government's privatization program, private ownership has been growing in the large public and jointly owned establishments—such as the Penden Cement Authority, Bhutan Ferro Alloys, and Bhutan Board Products (box 2.2). The government has privatized bus services and corporatized postal services. It also plans to privatize some agricultural services, contract out road maintenance, and encourage private participation in health and education.

Figure 2.3 Enterprises by Type of Ownership, Bhutan, 1995 and 1997



But the key power sector remains closed to private investment. All hydropower projects are fully government owned and operated. As a result, this report does not cover the power sector, though it could become an important area of private sector development through privatization.

Profile of Business Establishments

Bhutan's economy is dominated by cottage and mini enterprises (figure 2.4). The size of establishments is determined by their capital investment:

- *Cottage,* Nu 0.5 million ($10,500) or less.
- *Small,* Nu 0.5 million to 5 million ($105,000).

Box 2.2 Bhutan's Biggest Companies

Chhukha Hydro Power Corporation (CHPC). Located in Chhukha district, the Chhukha hydropower project was commissioned in 1988 and built with assistance from the government of India (60 percent grant and 40 percent loan). CHPC is the largest corporation in Bhutan, contributing 41 percent of the government's domestic revenues in 1999. Its annual sales in 1999 amounted to Nu 2,141.65 million ($47.6 million), of which 90 percent came from exports to India. It is fully government owned.

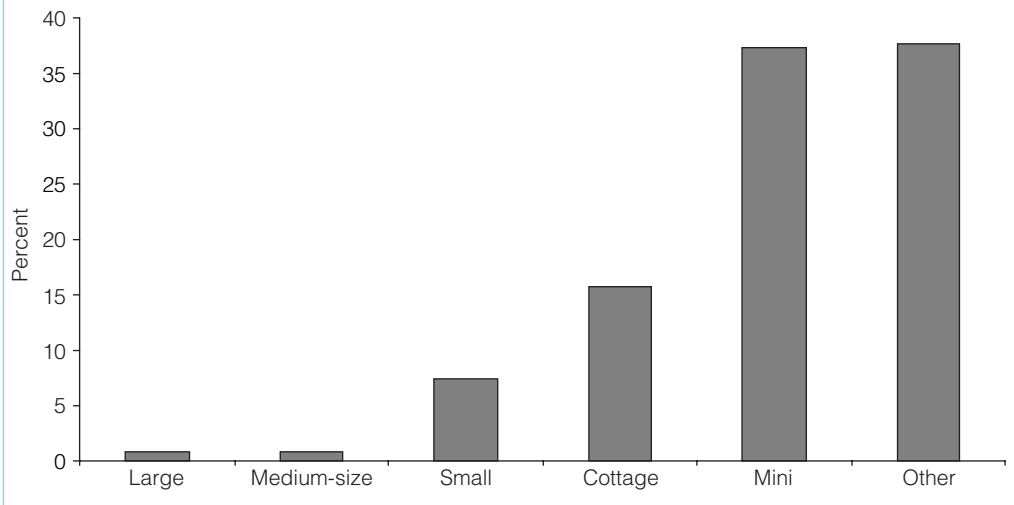
Bhutan Carbide and Chemicals Limited (BCCL). BCCL was established in Chhukha district under a joint venture arrangement between the government and the Tashi Group of Companies in 1984. Although the government had an 80 percent stake, BCCL was managed by its private promoters. By the end of the Seventh Five-Year Plan (1992–97) the government had divested its entire holding in the company. In 1998 BCCL had a market capitalization of Nu 375.0 million ($8.53 million) and annual sales of Nu 583.6 million ($13.26 million), almost all from exports to India. BCCL is one of Bhutan's most profitable companies, declaring dividends of more than 100 percent annually since 1997.

Bhutan Board Products Limited (BBPL). Also located in Chhukha district, BBPL was established under a joint venture arrangement between the government and a private promoter in 1983. Initially the government held 85 percent of the company, though it was managed by its promoter. Today the government holds a 23.9 percent share. In 1998 the company had a market capitalization of Nu 107.5 million ($2.4 million) and sales of Nu 383.8 million ($8.7 million), with 95 percent coming from exports to India.

Penden Cement Authority Limited (PCAL). The government established PCAL in 1974 and today holds a 42.7 percent share. PCAL had a market capitalization of Nu 680.0 million ($15.5 million) in 1998. In the same year its sales totaled Nu 564.7 million ($12.8 million), with exports to India contributing 81 percent. The company is located in Samtse district.

Bhutan Ferro Alloys Limited (BFAL). Established in 1995, BFAL is one of only three companies operating with foreign investment (Marubeni Japan holds a 20 percent share). The government has a 25 percent share. BFAL had a market capitalization of Nu 180.0 million ($4.1 million) in 1998. Located in Chhukha district, the company has been facing problems with landslides and floods caused by monsoons, particularly in 2000.

Figure 2.4 Enterprises by Size, Bhutan, 1997



Note: For definitions of size classifications, see the text.

- *Medium-size,* Nu 5 million to 20 million ($420,000).
- *Large,* Nu 20 million or more.

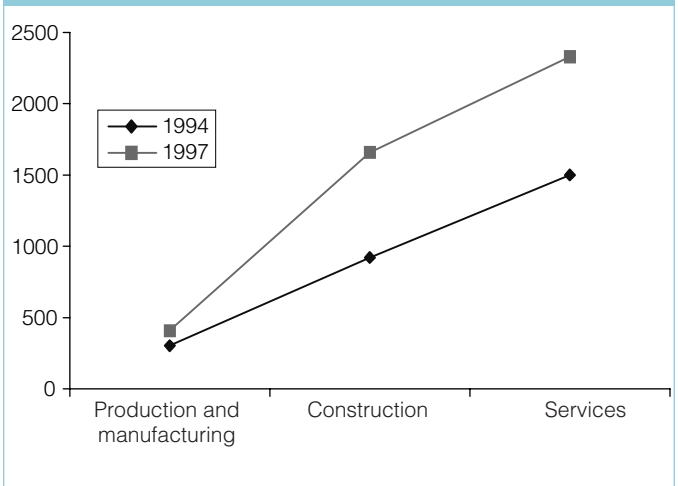
In 1993 cottage and mini enterprises and the category *other* accounted for around 84 percent of establishments. In 1997 this share had increased to 91 percent. Large firms accounted for less than 1 percent of the total. Only two large projects—in the cement and ferro alloys sector—were developed in the 1990s.

By sector, services accounted for 53 percent of enterprises in 1997, construction for 38 percent, and production and manufacturing for only 9 percent (figure 2.5).

There was a strong geographic concentration of business establishments in region 1, around the capital Thimphu, in 1997—particularly notable in services and the category *other* (figure 2.6). Ranking next were regions 2, 3, and 4.

At the district level, business establishments are concentrated mainly in Thimphu, followed by Chhukha and Samdrup Jongkha. Medium-size and large firms are concentrated in Chhukha district, and cottage enterprises in Thimphu and other districts. Thimphu has the most forest-based, service, and construction companies; Chhukha the most agro-based firms; and Samtse the most mineral-based enterprises. This distribution of establishments by number conceals the fact that the biggest firms in Bhutan are located mostly in Chhukha district, including Bhutan Carbide and Chemicals, Bhutan Ferro Alloys, and the Chhukha Hydro Power Corporation.

Figure 2.5 Enterprises by Sector, Bhutan, 1994 and 1997



Employment

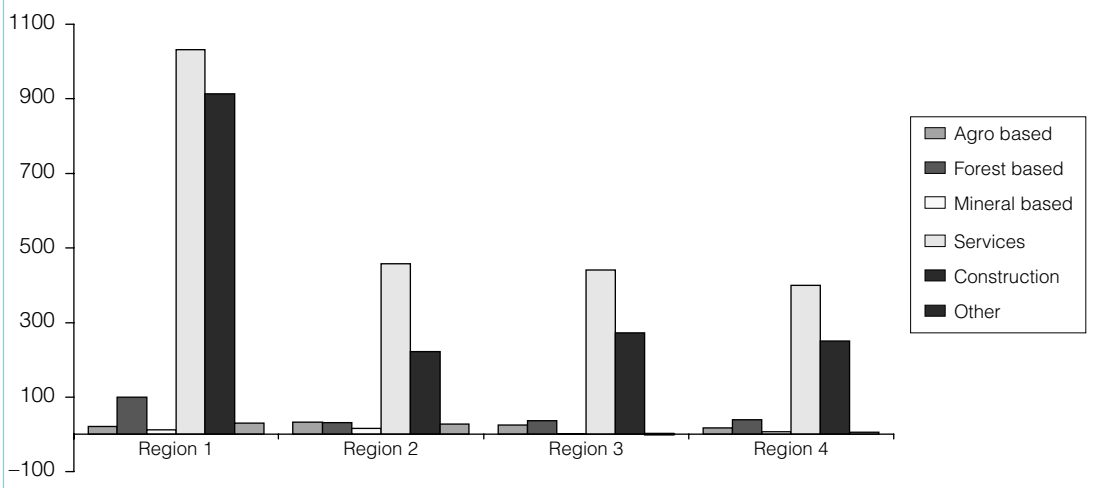
Data on employment are scarce and generally of poor quality. But data from the 1999 labor force survey show that agriculture provided employment for 75 percent of the labor force, the service sector for 12 percent, and manufacturing and mining for 5 percent.

Data relating to the private sector are limited to manufacturing and mining (figure 2.7). In 1997 registered manufacturing and mining firms operating in Bhutan employed around 12,600 people. Of these, 47 percent were employed in mineral-based firms, 20 percent in agro-based companies, 18 percent in wood-based enterprises, and the rest in unclassified ones. Women accounted for 30 percent of the workforce. Excluding the civil service, private companies employed the most workers (41 percent), followed by publicly listed companies (31 percent), public sector companies (15 percent), and jointly owned companies (11 percent). Enterprises in the categories *semi-government* and *other*, including electricity, accounted for the rest of employment.[3]

Average wages (including bonus and in-kind payments) were highest in the wood-based firms (Nu 11,315, or $257, a month), followed by the category *other* (Nu 10,072, or $229). The total output of manufacturing and mining establishments in 1997 amounted to Nu 4,920 million ($111.8 million), the cost of production Nu 2.1 million ($47,000), and the resulting value added Nu 2,814 million ($64.0 million). The category *other* had the highest value added as a share of output, 97 percent (figure 2.8).

In 1989 only 15 firms employed more than 100 people (9 percent of the 168 manufacturing and mining companies). In 1997 the number had increased to

Figure 2.6 Enterprises by Sector and Region, Bhutan, 1997



Note: Region 1 consists of Thimphu, Ha Paro, Wangdue Phodrang, Punakha, and Gasa; region 2, Chhukha and Samtse; region 3, Tsirang, Daga, Sarpang, Zhemgang, Trongsa, and Bumthang; and region 4, Samdrup Jongkha, Pemagatshel, Trashigang, Tashi Yangtse, Mongar, and Lhuntse.

22 (10 percent of the total of 213).[4] Of these 22 firms, 10 employed more than 300 people.[5]

Performance of Listed Companies

Established in 1993, Bhutan's stock exchange, the Royal Securities Exchange Board, lists 12 companies. These are the largest companies in Bhutan other than wholly government-owned firms. Market capitalization stood at Nu 1.64 billion ($37.3 million) in December 1998, equivalent to about 10 percent of GDP. The Penden Cement Authority had the largest market capitalization (Nu 680 million, or $15.5 mil-

Figure 2.7 Employment by Sector, Bhutan, 1999

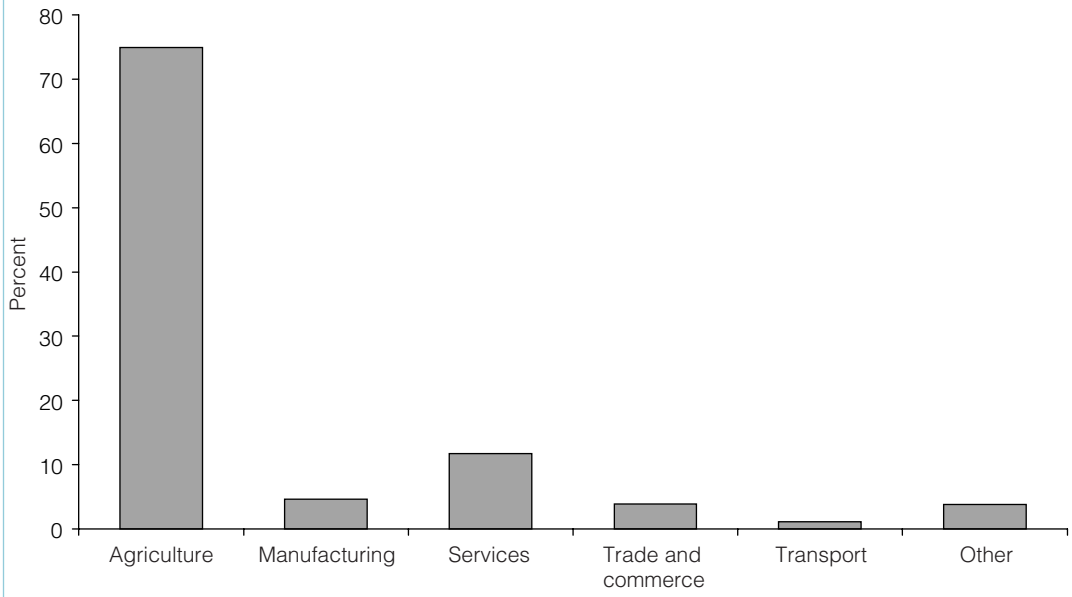
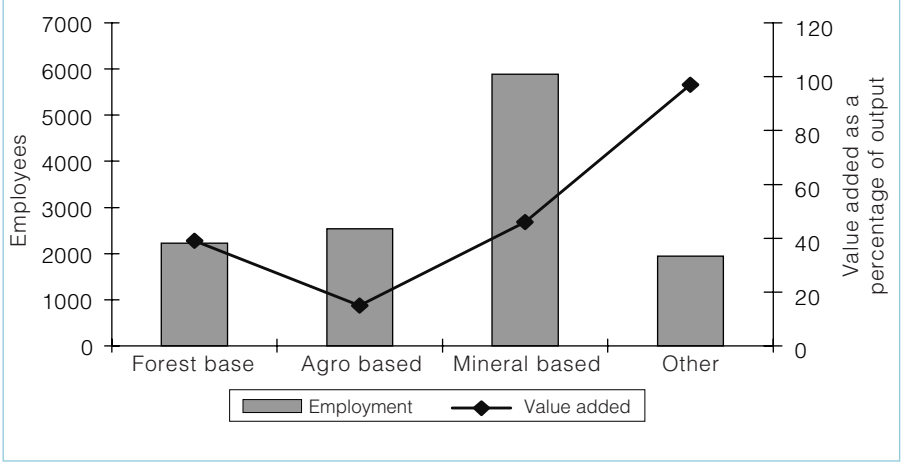


Figure 2.8 Employment and Value Added by Sector, Bhutan, 1997



lion), followed by Bhutan Carbide and Chemicals (Nu 375 million, or $8.5 million) and Bhutan Ferro Alloys (Nu 180 million, or $4.1 million). The Druk Satair Company had the highest return on capital (53 percent) in 1998, followed by the State Trading Corporation of Bhutan (48 percent) and Bhutan Carbide and Chemicals (37 percent). Because of the low volume of trading on the stock exchange, market values are unreliable indicators of a company's true value, which is often understated. All but four companies declared dividends in 1998, ranging from 10 percent (Bhutan Board Products) to 150 percent (Bhutan Carbide and Chemicals).

Financial Sector

The government plays a dominant role in Bhutan's financial sector, holding large ownership shares in all financial institutions. There is a clear need for the government to divest more of its holdings in these institutions and to focus more on banking regulatory issues. Experience elsewhere shows that significant government ownership hampers competition and growth and weakens the effectiveness of the central bank.

In Bhutan, as in other countries with a short banking history, financial intermediation is rudimentary and limited to simple deposit and lending schemes. The financial sector needs to be broadened and deepened so that it can support broader development through new financial products such as lease financing, venture capital, mortgage financing, and factoring services. Such instruments could help foster new investment opportunities and also help expand borrowing capacity, which collateral-based lending tends to depress.

Commercial Banks

Bhutan has two commercial banks—the Bank of Bhutan and Bhutan National Bank. Both are publicly owned, and there is little competition between them.

The Bank of Bhutan, established in 1968, is the oldest financial institution in the country. With assets of Nu 6,613.3 million (about $150.3 million) in 1999, it is also the largest commercial bank. It is owned by the government (80 percent) and the State Bank of India (20 percent). Its 25 branches and 3 extension centers cover all 20 districts of Bhutan.

Bhutan National Bank, converted from the Unit Trust of Bhutan in 1997, held assets of Nu 1,292.2

million (about $28.7 million) in 1999. Its largest shareholders are the government and the Asian Development Bank. Citibank was among the largest shareholders until 2001, when it sold its shares back to the government. The bank has four branches.

Nonbank Financial Institutions

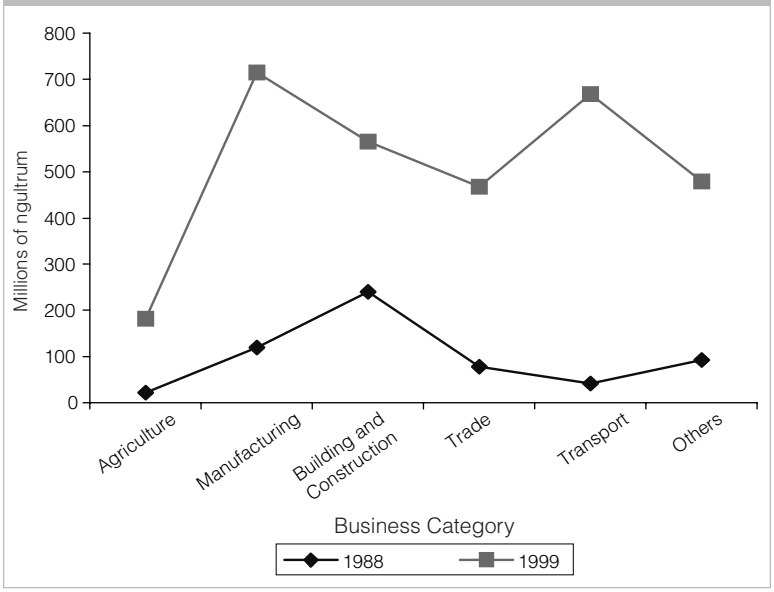
Bhutan has two nonbank financial institutions—an insurance company and a development corporation. The Royal Insurance Corporation of Bhutan, the only institution offering insurance products, is 41 percent government owned. Its assets in 1998 totaled Nu 2,077.9 million ($47.2 million), including Nu 1,304.4 million ($29.6 million) in provident funds that have since been transferred to the newly established National Pension and Provident Fund Bureau. While the corporation enjoys a monopoly in the insurance business, from its inception until 2000 it was preoccupied with managing, administering, and investing the Government Employees Provident Fund, a defined-contribution scheme that initially covered only public sector employees but was later extended to formal sector private organizations. The insurance corporation also managed the fund's real estate assets, including construction, rent collection, and property maintenance. In June 2000 the fund and the accompanying responsibilities were taken over by the National Pension and Provident Fund Bureau. With this change, the Royal Insurance Corporation is expected to focus on its core business of insurance, introducing a wider range of products and services.

The Bhutan Development Finance Corporation is fully government owned. With assets of Nu 614.7 million ($14 million) in 1999, it is Bhutan's smallest financial institution. It focuses on agricultural lending and rural microfinance, though it also lends to small and medium-size enterprises.

Lending

The financial institutions directed most lending in June 2000 to construction (20 percent), followed by transport (19.3 percent), manufacturing (19 percent), and trade and commerce (13.8 percent). Only 5.4 percent went to agriculture, and most of this (97.8 percent) came from the Bhutan Development Finance Corporation. The Bank of Bhutan was the largest lender (with 37 percent of the total), followed by the Bhutan National Bank (27.6 percent), the Royal

Figure 2.9 Bank Lending by Sector, Bhutan, 1988 and 1999



Insurance Corporation of Bhutan (21.0 percent), and the Bhutan Development Finance Corporation (13.4 percent). Among sectors, manufacturing has seen the slowest growth in bank lending—only 12 percent a year over the past decade

Bhutan's financial institutions face problems with excess liquidity, most of which is redeposited in non-interest-bearing accounts with the Royal Monetary Authority (the central bank) or, increasingly, in high-interest-bearing accounts with commercial banks in India. The excess liquidity appears to result from a lack of investment opportunities in Bhutan, caused in part by a combination of high interest rates (nominal and real), large collateral requirements, conservative lending practices, and limited financial products on offer from the banks. Interest rates were deregulated in 1998, but even in an environment of high excess liquidity, rates did not fall until September 2000, when the Bank of Bhutan lowered its interest rates in all lending categories (except term loans) with the hope of reducing its excess liquidity. At the same time it reduced its interest on fixed (time) deposits, but left the savings deposit rate unchanged. While the private sector has welcomed this initiative, high excess liquidity is likely to remain until other factors inhibiting investment have been addressed.

Privatization

In the late 1980s the Bhutanese government made a strong commitment to private sector development and privatization. It embarked on a series of large projects—such as Bhutan Carbide and Chemicals, Bhutan Board Products, and the Gedu Wood Manufacturing Corporation—that were beyond the capacity of the private sector. To pave the way for the private sector's entry into large-scale enterprises, the government offered favorable terms, such as management of the company with an investment of only 15–20 percent of the equity. These companies (except the Gedu Wood Manufacturing Corporation, which was liquidated) are among the largest and most profitable private enterprises in Bhutan today.

Since the privatization program began in the 1980s, the government has divested a significant share of its holdings in public enterprises and privatized road transport and construction (table 2.2).[6] The government continued to divest its holdings during the Eighth Five-Year Plan period (1997–2002), the most recent divestment being the sale of 34 percent of its shares in the Royal Insurance Corporation of Bhutan in October 2000. The pace of privatization and divestment has been largely dictated by the govern-

Table 2.2 Public Ownership Share in Listed Companies, Bhutan

	percentages		
Company	**Inception**	**1994**	**2000**
Bhutan Board Products Ltd.	85.0	24.9	23.9
Bhutan Carbide and Chemicals Ltd.	80.0	0.0	0.0
Bhutan Ferro Alloys Ltd.	25.0	25.0	25.0
Bhutan National Bank	—	67.2	27.0
Bhutan Tourism Corporation Ltd.	—	6.7	6.7
Penden Cement Authority Ltd.	—	60.7	42.7
State Trading Corporation Bhutan	—	51.0	51.0
Royal Insurance Corporation of Bhutan[a]	—	61.0	41.0

— data not available.

[a]As of October 2000, after the government divested 34% of its holdings.

ment's policy of encouraging and promoting broad participation by Bhutanese investors (which results in shares being sold at below-market rates, subject to a maximum ceiling per person and with priority given to individuals over institutions) and by the private sector's low absorptive capacity.

The government has also started commercializing—or corporatizing—certain government agencies, such as postal and telecommunications services, forestry (logging) services, and the Department of Power. Corporatization is seen as a first step toward privatization. By increasing autonomy, it is expected to result in better performance. But there is little evidence suggesting that performance will actually improve, since most of these organizations are managed and staffed by bureaucrats who, understandably, have no exposure to a commercial culture. Moreover, most of these corporatized institutions are monopolies. To make these sectors truly commercial, competition—both foreign and domestic—should be encouraged.

The government once carried out virtually all nonagricultural economic activity, but today private involvement is growing in most sectors in Bhutan. National contractors carried out about 36 percent of the roadworks under the Eighth Five-Year Plan, and private schools are beginning to emerge. Private participation is also on the increase in the forestry sector, with the Forestry Development Corporation (a fully government-owned entity responsible for logging in the country) subcontracting logging operations to private parties. But there is still room for the government to reduce its engagement further, particularly in logging and road construction.

The government has no established procedure for privatization except final approval by the cabinet. Nor does any government unit have sole responsibility for privatization (the main agencies involved in divestments are the Ministry of Trade and Industry and the Ministry of Finance). While this has caused no particular problems, establishing a single body responsible for this function and a framework for privatization would increase transparency, a highly desirable outcome.

Trade Regime

Trade policies have a direct and often dominant effect on economic incentives and resource allocations within the economy. Bhutan has a small domestic market; its population numbers only around 805,000 and an estimated 85 percent of the people depend on small-scale and often near-subsistence farming. With such a small market and with hydropower providing a significant revenue base, there is little reason to impose high taxes on trade to protect domestic producers or to generate government revenue. Gradual integration into the global trade system is a key government objective for promoting economic growth.

Regional Trade Relations

Bhutan enjoys a trade agreement with India, dating to 1949, that provides for duty-free trade between the two countries and for the transit of goods between Bhutan and third countries without the application of Indian tariffs. This agreement is the cornerstone of Bhutan's international trade relations, and the government is committed to maintaining and renewing it. Bhutan also has a preferential trade agreement with Bangladesh that provides for tariff concessions on a range of negotiated product lines. Since the agreement was signed in 1980, Bhutanese exports to Bangladesh have risen to Nu 179 million. The government intends to expand the scope of this agreement with Bangladesh through further negotiations. Given the positive record of bilateral trade agreements in improving market access for Bhutanese exporters, the Ministry of Trade and Industry intends to initiate bilateral trade talks with other countries in the region, such as Thailand.

At the regional level Bhutan has fully participated in and supported the South Asian Association for Regional Cooperation (SAARC), particularly the negotiations for the SAARC Preferential Trading Arrangement. Bhutan will continue to push for greater liberalization of tariffs in the region and work toward the transition to a South Asian Free Trade Area by 2002.

Accession to the World Trade Organization

To facilitate Bhutan's integration into the global economy, the government intends to accede to the World Trade Organization (WTO) as a full member. Bhutan was granted observer status in the WTO on 24 April 1998, and its application for accession was discussed at the WTO General Council Meeting on 6 October 1999 in Geneva. The Ministry of Trade and Industry has appointed a WTO liaison officer and established the WTO Reference Center in the Trade Division. It expects that Bhutan will be granted full membership in 2002.

Foreign Investment

The first foreign investment in Bhutan was the State Bank of India's 40 percent holding in the Bank of Bhutan, purchased in 1972. Since then Bhutan has pursued a conservative and restrictive foreign investment policy. All foreign investments are approved case by case, and until recently no firm in Bhutan had majority foreign ownership. Foreign direct investment has long been a sensitive issue in Bhutan, largely because of concerns about its potentially adverse effect on the Bhutanese culture and traditions. The concerns may also stem in part from the private sector's belief that it benefits from the restrictions and from a general fear of a large influx of foreign businesses from the region.

Until recently the only foreign investments were in Bhutan National Bank (Asian Development Bank), the Bank of Bhutan (State Bank of India), and Bhutan Ferro Alloys (Marubeni Japan), with the foreign ownership share 20 percent in each case. In 2001 the government allowed two international hotel chains to invest in Bhutan with a majority shareholding, considered a major shift in its approach to foreign direct investment.

Infrastructure

In Bhutan, unlike in other countries in the region, infrastructure generally is not considered a major constraint. The only serious concern is transport. The rugged terrain and topography allow little alternative to road transport, and the narrow, winding roads mean high transport costs. Road standards are low (though rapidly improving), allowing maximum loads of 8–10 tons and maximum speeds of 40 kilometers an hour in the hills. The closest port is in Calcutta, about 950 kilometers from Phuentsholing. The state-owned Druk Air, the only airline operating in Bhutan, flies to five destinations in four countries in the region but lacks the capacity to handle large amounts of cargo. The country has no railways or river transport facilities.

Labor and Employment

Shortages of skilled and unskilled labor are a serious constraint on the private sector in Bhutan. Exacerbating this problem, the growing number of Bhutanese joining the labor force often lack the skills or experience required for skilled occupations yet are unwilling to perform the menial work of unskilled jobs.

Each year some 4,000 Bhutanese leave Bhutan's educational institutions to join the labor force, a number projected to increase to almost 14,000 by 2010 (table 2.3). Of the 5,000 leaving the school system in 2001, only around 270 were tertiary graduates. Of the

others, around 1,000 had finished high school (grade 12), while the rest had completed grade 10 or even less.

In the past most graduates found jobs in the civil service, generally within a year. Private sector employment remains a second-best option for most Bhutanese because of perceived job insecurity, lack of social standing, fewer perks, and lack of training opportunities. But the civil service is reaching the saturation point. Between 1996 and 1999 the number of graduate officers in the civil service increased by only 129. In 1999, 30 graduates sat for the civil service exam, and only 21 were selected.[7]

Most businesses depend on nonnational (mainly Indian) workers, whose employment is regulated by the government. Nonnational workers, who account for an estimated 50 percent of formal wage employment,[8] tend to earn less than Bhutanese workers at all skill levels, though the disparity narrows at higher skill levels.

More than 90,000 Bhutanese are expected to come out of the school system in 2000–10, of which 75,000 will have no tertiary education. But formal sector employment in Bhutan is thought to be only around 60,000, with around 35,000 of these jobs in the private sector. Thus while the unemployment rate has been low (1.4 percent in 1999), the outlook is bleak.

The urgent need to create new employment opportunities for the growing number of school-leavers represents the most serious labor challenge facing the government. This challenge is heightened by the current capacity of the Bhutanese private sector and the expectations of Bhutanese workers, especially those who have received some education. While the private sector requires mainly low-skilled manual workers and experienced, highly skilled workers, most school-leavers have few skills and are averse to manual work. Moreover, young people's expectations for income are not matched by the types of jobs available. These expectations are based not on skills but

Table 2.3 School-Leavers Joining the Bhutanese Labor Force, 2000–10

Education level attained	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Grade 6	440	390	321	256	171	70	0	0	0	0	0	
Grade 7	436	395	324	259	222	241	262	290	315	345	368	3,426
Grade 8	363	325	284	219	196	217	235	256	282	307	337	2,983
Grade 9	284	255	224	185	167	190	211	230	249	275	299	6,204
Grade 10	1,615	2,387	2,659	2,872	3,094	3,236	3,476	3,661	3,756	3,823	3,934	30,656
Grade 11	18	17	21	27	32	39	45	52	61	68	77	5,777
Grade 12	657	953	1,032	1,687	2,097	2,539	3,061	3,511	4,132	4,780	5,397	34,861
Total	3,813	4,722	4,865	5,505	5,979	6,532	7,290	8,000	8,795	9,598	10,412	75,511
Tertiary degree	270	270	270	299	362	1,447	1,855	2,211	2,526	2,844	3,160	15,514
Total school-leavers	4,083	4,992	5,135	5,804	6,341	7,979	9,145	10,211	11,321	12,442	13,572	91,025

Note: Data after 2001 are projected. An estimated 125 degrees are obtained outside the country each year.
Source: Government of Bhutan.

on a sense of social standing derived from the level of education and literacy achieved.

To deal with this challenge, the government will need to continue to address the high expectations, develop a blue-collar culture, and increase the number of tertiary institutions providing the skills sought by the private sector. Recent initiatives include the establishment of the National Technical Training Authority in 1999 and the National Employment Board in 2000, later converted to the Department of

Box 2.3 Bhutan's Five-Year Development Plans

Since the early 1960s successive five-year plans have provided the basic framework for development planning in Bhutan. The Bhutanese authorities recently conducted a midterm review of the Eighth Five-Year Plan (1997–2002) and established guidelines for preparing the Ninth Five-Year Plan (2002–07).

Midterm Review of the Eighth Five-Year Plan

The Eighth Five-Year Plan was aimed at achieving sustainable growth and better living standards while ensuring the preservation of Bhutan's environment and cultural heritage. The review found that:

- Macroeconomic performance has been satisfactory, with the hydropower projects contributing significantly to economic growth. Fiscal performance has been solid, with better tax collection and a higher power tariff leading to higher domestic revenue.
- Most social development goals have been achieved. The number of educational facilities increased substantially, and 90 percent of the population now has access to basic health services.
- The Department of Urban Development and Housing was created to provide urban infrastructure services and manage the municipal affairs of growing townships. By the end of 1999, 45 kilometers of new road had been constructed, and funding to construct another 122 kilometers of new roads had been secured.
- Much progress was made in expanding the telecommunications network, which now connects all 20 district headquarters. National television and Internet services were launched in 1999.
- Since 1997 the government has substantially reduced its ownership in a number of public enterprises through divestiture. The Agriculture Ministry established a marketing section to encourage private participation. In education one private secondary school and seven private primary schools have been established, and applications for more private schools are being reviewed.
- All infrastructure development has been undertaken in line with the policy of conserving the country's rich natural resources. More than 72 percent of land area is now under forest coverage.
- As part of the program to restructure government, two new divisions (the National Employment Board and the Division of Information Technology) and one new department (Legal Affairs) have been created.

Guidelines for the Ninth Five-Year Plan

The Planning Commission released guidelines for preparing the Ninth Five-Year Plan in January 2001, focusing on balanced development, decentralization, and promotion of private sector development. The guidelines emphasize these objectives:

- Mobilizing greater revenue by improving tax collection and enhancing the tax base.
- Focusing on a rural access program to improve the quality of life and income of rural people.
- Consolidating and improving existing infrastructure and services.
- Initiating regionally based planning and increasing the autonomy of local governments in financing their development programs.
- Investing in areas that will generate the most employment.

Employment and Labor in the Ministry of Education. The main responsibilities of the National Technical Training Authority include coordinating efforts to develop technical and vocational skills, establishing standards for skills certification (in close collaboration with the private sector), and promoting traditional arts and crafts. The Department of Employment and Labor is expected to provide employment exchange services; support policies and programs to generate employment; monitor unemployment; formulate rules and regulations for employment, working conditions, and compensation; and take a lead role in developing national human resource policies and plans. During the Eighth Five-Year Plan period the government also supported the development of entrepreneurial skills through the Entrepreneurship Development Program (conducted by the Ministry of Trade and Industry) and by providing scholarships and training in such fields as culinary science and hotel management.

Through these measures, the government has tried to address some of the supply-side problems. But the real challenge lies in creating jobs in a growing and dynamic private sector. This is all the more critical given the slow growth expected in civil service employment.

Notes

1. The gross national income figure is from the World Bank's *World Development Report 2002* (New York: Oxford University Press, 2002), based on an estimated population in 2000 of 805,000.
2. For a description of Bhutan's tax regime, see appendix 2.
3. The data on employment may not always be accurate and are not always consistent with the findings of the private sector survey.
4. These data are based on the Bhutan Planning Commission's "Report on the National Census of Manufacturing Industries, 1998" (Central Statistics Office). These figures differ significantly from those in the Planning Commission's "Statistical Yearbook of Bhutan 1997" (Central Statistics Office), which shows the number of licensed manufacturing and mining firms in 1997 as 405.
5. Because of the lack of data on employment provided by the service and construction sectors (the two sectors with the strongest growth in company registrations), no comparison of employment generation in the major sectors could be made that would provide meaningful insight into private sector employment in Bhutan.
6. Table 2.2 shows public ownership in listed companies only. The government also holds shares in unlisted companies, such as the Bank of Bhutan, in which public ownership increased from only 60 percent in 1972 (with 40 percent held by the State Bank of India) to 80 percent in 2001.
7. Government of Bhutan *Development toward Gross National Happiness* (Thimphu, 2000).
8. RTM Background Document. In addition, an estimated 10,000–20,000 non-Bhutanese wage workers receive day employment in the border areas, and around 1,900 seasonal workers are employed during the winter in southern Bhutan.

Bhutan's increased focus on private sector development and employment creation comes at a time of great regional and global change. Among the most important developments has been India's gradual move to reduce and simplify tariff and nontariff barriers. Bhutan's free trade agreement with India gives it privileged access to the Indian market, which has been protected by high tariff barriers. As tariffs and other trade restrictions fall in India, Bhutanese exporters will need to become more efficient if they are to grow and prosper in the face of stiff competition from low-cost producers around the world.

As a small, landlocked country, Bhutan has had four main competitive advantages: relatively unrestricted access to the large Indian market for imports and exports, low electricity prices, access to low-cost and stable labor, and a competent, committed, and uncorrupt government. In addition, Bhutan's unique development path—with a strong focus on the environment—and its geographic location provide a potential for producing niche market goods based on environmental advantages (organically produced goods and sustainably managed forests) or location (such as tourism, some agricultural products, Himalayan herbs, and medicines). The challenge for the Bhutanese government is to develop policies in support of private sector–led growth that build on these competitive advantages. Indeed, different approaches to private sector development may be needed in different parts of the country.

Against these considerable advantages, Bhutan's private sector faces equally imposing obstacles. Chief among these has been the relatively late opening of the domestic economy to the outside world. Economic evidence suggests a strong link between external interactions—particularly through exports, imports, and foreign direct investment—and economic growth. But the closed Bhutanese economy precluded most of these interactions. Moreover, the almost exclusive reliance on agricultural production until recently has meant a lack of well-developed entrepreneurial skills in Bhutan outside such basic areas as agriculture and trading.

A second challenge for the private sector comes from geographic barriers and their impact on transport infrastructure. Road links are often disrupted by landslides or by political disruptions in India (several parts of Bhutan are accessible only through India), and air links are adversely affected by weather, equipment breakdowns, and landing and takeoff restrictions at Paro International Airport.

A third challenge is a government that is "new to the game" of supporting the private sector. Adding to the challenge, the private sector is even newer to the game of private sector–led growth. Because the government is relatively well run, efficient, and effective, it has a general perception of the private sector as less well organized, less effective, and likely to be more corrupt. In short, the government has developed a somewhat patronizing attitude toward the private sector that it strongly wishes to support.

This chapter examines some of these concerns in greater detail by reviewing a set of issues that affect all sectors. It uses survey data to investigate the problems and seeks to identify policy measures that will help Bhutanese industry become globally competitive and enable the private sector to eventually replace the government as the main engine of economic growth.

Biggest Business Problems for the for the Private Sector

The survey respondents, in ranking their biggest business problems, clearly identified a lack of skilled labor as the most significant concern (table 3.1). Ranking next were the bureaucratic burden and governance issues, lack of demand, credit and finance, and infrastructure. The rankings of problems re-

Table 3.1 Biggest Business Problems for Bhutanese Firms

Problem	Firms citing as number one problem	Weighted index[a]
Skilled labor	20	0.51
Bureaucratic burden	16	0.38
Lack of demand	17	0.36
Credit and finance	16	0.30
Infrastructure	8	0.20
Business support services	1	0.06
Import regime	0	0.05
Foreign exchange regulations	1	0.03

Note: The table groups related problems. For example, all issues relating to government regulations—such as labor law, tax policy, and regulations on obtaining land—are grouped under bureaucratic burden. Similarly, lack of demand includes competition from imports.
a. The weighting was calculated by assigning a number one ranking a weight of 3, a number two ranking a weight of 2, and a number three ranking a weight of 1.
Source: World Bank private sector survey, Bhutan, 2001.

mained much the same across all sectors and regions.

While most of these issues are self-explanatory, lack of demand is more complicated. Firms often complain that they cannot compete with imports dumped in the domestic market or that the local market is too small for their production base. But the underlying problem is that Bhutanese producers are often unable to compete in price, quality, delivery, and marketing. That Bhutan has significant imports shows that there is consumer demand. Moreover, the Indian market, where Bhutanese producers can sell without restriction, is among the largest in the world.

Labor Issues

Among the ironies of Bhutan is that the government shows growing concern about employment issues when by some estimates nonnationals—mainly Indians—make up around 50 percent of the formal sector workforce. These low-cost workers have accepted jobs that many employers feel Bhutanese workers will not undertake, including menial and backbreaking work in factories, on construction sites, and in road building.

That has resulted in the second irony of employment in Bhutan: despite the desire to increase the employment of Bhutanese workers, the government is concerned about increasing mechanization rather than promoting labor-intensive methods of production. The bountiful supply of low-cost, unskilled Indian labor has resulted in the adoption of labor-intensive technologies in Bhutan. But there is a general perception that the quality of production has suffered as a result and that firms are relying on less expensive nonnationals in the place of local workers or more appropriate capital equipment. Consequently, the government advocates mechanization as a way to improve production quality and break the reliance on nonnational labor.

But in attempting to spur job creation and mobilize the private sector to absorb the growing Bhutanese workforce, the government must take care not to handicap the competitiveness of the budding but fragile industrial sector. Arbitrarily cutting off the supply of inexpensive and skilled nonnational labor or forcing firms to adopt inappropriate technology so as to reduce the employment of unskilled nonnationals could render Bhutanese industry uncompetitive, slow growth, and lead to a loss of jobs. The key to success lies instead in developing the country's human resources and its productivity to levels that will make Bhutanese industry globally competitive while creating job opportunities for the expanding Bhutanese workforce. Thus the focus must be on strengthening training and education and acquiring better technology.

Bhutanese industry is labor intensive, as efficiency demands in an environment with low-cost labor and high-cost capital. So keeping labor costs

down in relation to productivity is critical to maintaining competitiveness. Geography tightly links Bhutan's future with that of India. A long, unpoliced border and a free trade agreement strengthen these ties by permitting reasonably free movement of goods and labor between the two countries. Thus in all but exceptional circumstances wages and productivity cannot be too far out of line with those in India.

As Bhutan implements requirements of the World Trade Organization, it will also have to match the productivity levels of other low-cost producers. If wages in Bhutan remain higher than those in neighboring countries, companies will be able to survive only if their labor productivity is correspondingly higher. And because capital in Bhutan is no cheaper than that elsewhere—and possibly more expensive than that in India—Bhutanese industry also needs to take care that its efforts to raise labor productivity do not result in the adoption of high-cost, inefficient, capital-intensive modes of production.

Labor Market Advantages—Stability and Flexibility

The Bhutanese labor market has two valuable attributes, the principal one being the total absence of labor unrest. Disruptive union activity does not exist, and no companies in the sample recorded workdays lost as a result of strikes (though some were lost because of nonnational workers attending festival celebrations in India). Thus Bhutan has access to cheap, nonnational labor without the unrest prevalent in other countries of the region. The stable labor force, combined with low wages, gives Bhutan a considerable competitive advantage relative to its South Asian neighbors.

A second advantage is that the labor law allows for almost complete flexibility in labor markets. Although the government ostensibly regulates the employment conditions of all Bhutanese citizens,[1] labor regulations are largely undeveloped, and employers can easily hire and fire workers and set wages with no influence from organized labor. No company in the sample experienced problems in firing poor performers, whether national or nonnational. Employers lay off workers at will, and workers, since they have no job security to lose, leave their jobs when other demands (rice planting, harvesting) loom large or they simply become discontented with their job. This flexibility has costs as well as benefits for firms, since it introduces an unwelcome element of labor mobility.

Adding to the flexibility is the absence of an official wage policy. The minimum wage law applies only to the national workforce—those who work for the government or on projects contracted by the government—not to private sector employees. While some companies follow the government's lead on wages, they are not obliged to do so. Most manufacturing firms, especially those relying on nonnational labor, do not pay the government minimum wage.

This lack of a formal wage policy gives the private sector much flexibility. Wages tend to be sticky (that is, they do not move often or easily), and there is little union agitation for salary increases. But the disadvantage is that wages tend to go for long periods without adjustment and then are suddenly increased by large increments. In 2001, for example, the government announced a doubling of the minimum wage—from Nu 50 a day to Nu 100. Because the government is a wage leader in the economy, some private firms followed suit.

Wage levels vary widely by location and nationality. The survey shows, for example, that private sector wages tend to be higher in areas away from the border. Bhutanese workers of all skill levels appear to have high reservation wages (the minimum wage that will induce them to work) and generally demand higher pay than Indians. As a result, many industrial firms—especially those in the border areas, where there is free movement of labor—rely on low-cost nonnational workers to produce competitive products for sale in the Indian market. In manufacturing firms sur-

veyed in the two main towns, Bhutanese workers in all categories receive higher pay than their Indian counterparts (table 3.2). (The comparison focuses on manufacturing because its workforce is more homogenous than that in the service sector and therefore more comparable.) At the lower end of the scale, several firms surveyed in the border towns were paying unskilled nonnational female workers as little as Rs 25 a day and nonnational male workers Rs 30 a day—extremely low rates by both regional and international standards.

Because of the high labor mobility, especially in the border areas, the only way for Bhutanese workers to sustain higher pay than nonnationals receive is to be more productive. A cursory comparison shows that firms with mostly Bhutanese workers have higher average value added per worker than those with mostly nonnational workers. The average value added per worker in manufacturing firms employing less than 20 percent Indian workers is almost 30 percent more than the average for firms employing more than 80 percent Indian workers (table 3.3).

Yet anecdotal evidence and interviews suggest that Bhutanese workers are less productive than their Indian counterparts. These two findings are not contradictory. Since Bhutanese workers have a higher reservation wage, they tend to accept employment only in firms with the high value added per worker that comes with higher pay. That suggests that most Bhutanese workers seek employment in capital-intensive firms or those demanding higher skill levels.

Table 3.2 Average Monthly Salary by Location and Nationality, Bhutan in Ngultrum

Location and nationality	Production workers	Nonproduction workers	All workers
Thimphu			
Bhutanese	4,823	13,811	6,112
Indian	3,905	8,839	5,609
Phuentsholing			
Bhutanese	4,176	9,000	5,718
Indian	2,393	6,369	3,048

Source: World Bank private sector survey, Bhutan, 2001.

Table 3.3 Average Annual Value Added per Worker by Share of Indians in Workforce, Bhutan
(U.S. dollars)

	Manufacturing	Services
All firms	2,892	4,950
Firms by share of Indians in their workforce		
Less than 20%	3,411	5,841
20–80%	2,450	5,645
More than 80%	2,645	398

Source: World Bank private sector survey, Bhutan, 2001.

Reliance on Nonnational Labor

The government, concerned for some time about the relatively large share of nonnationals in the formal labor force, has instructed firms to reduce the employment of nonnational workers. This has been difficult to enforce in border areas, where day laborers can freely walk across the uncontrolled border, undetected and unrecorded. But these nonnationals are not allowed to travel beyond the border areas without special permission. Consequently, firms in Thimphu employ a significantly smaller share of nonnationals than do firms in Phuentsholing (table 3.4). In the sample as a whole, Bhutanese account for 64 percent of the workforce but 71 percent of the presumably more skilled nonproduction workers. Companies in Thimphu appear to rely on Indians for skills that they cannot find in Bhutan and for jobs that locals will not undertake. By contrast, for firms in the border areas, where Indians account for a larger share of both production and nonproduction workers, their lower wages appear to be the determining factor.

The exception to this rule is construction companies, involved largely in building sites and road con-

Table 3.4 Share of Indian and Bhutanese Workers Employed, by Location and Job Category, Bhutan
(percent)

	Thimphu		Phuentsholing		Full sample	
Job category	**Bhutanese**	**Indian**	**Bhutanese**	**Indian**	**Bhutanese**	**Indian**
Nonproduction	89	11	63	37	71	29
Production	76	24	57	43	63	37
All workers	79	21	59	41	64	36

Note: Nonproduction workers include managers, owners, technicians, and professionals. Production workers include office workers and service workers as well as general production workers.
Source: World Bank private sector survey, Bhutan, 2001.

struction projects. These companies, whose highly labor-intensive techniques mean strenuous jobs for low wages that few Bhutanese are willing to accept, are provided generous allocations of nonnational work permits, even in central Bhutan. (This practice has spawned "construction companies" more interested in securing work permits for nonnationals than in undertaking construction projects.)

In justifying their appetite for nonnational workers, many firms assert that Bhutanese workers are expensive, are less productive than their nonnational counterparts (and thus doubly expensive), are unreliable and disappear during rice planting and harvesting seasons, lack a good work ethic and will leave a job without notice if they feel slighted or affronted by their employer, and are unprepared to undertake dirty, repetitive, or menial work. The government counters these complaints by arguing that Bhutanese workers will never develop a good work ethic and higher productivity unless they are exposed to a workplace environment. Thus the government is increasingly insisting that private companies reduce their nonnational workforce (one company in Thimphu had been told to reduce its nonnational workforce by 25 percent by the end of December 2001 and another 25 percent by the end of June 2002).

Replacing nonnational workers means higher costs, lower productivity, and a weaker work ethic, placing Bhutanese companies at a competitive disadvantage. Thus the natural desire to "Bhutanize" the labor force will need to be sensitively calibrated against the desire to generate a larger and stronger private sector, since these two objectives, at least for the short term, are likely to be in conflict.

Shortage of Skilled Labor

Asked about their biggest business problem, firms in all sectors and locations overwhelmingly cited the lack of skilled labor in Bhutan. Until recently the public sector absorbed virtually all Bhutanese with a full secondary or tertiary education. As a growing number of graduates are unable to find the preferred employment in the civil service, however, more are seeking employment in the private sector. But companies complain that the best candidates still go to the government, while those who come to them have little experience yet demand high pay. Moreover, managers report that the skills provided by most schools and training institutions do not match the skills needed by industry. So while a growing number of school-leavers cannot find jobs, industry still feels that its biggest problem is a shortage of skilled and experienced labor.

Because most private industries are fairly young, skills tend to be weakest in management. Most Bhutanese entrepreneurs have a background in civil service or government. Almost 48 percent of the sample were working for the public sector (including the civil service, nongovernmental organizations, the royal family, and the military) immediately before establishing their business. Less than 30 percent came from another private business. Managers from the public sector often do not know their industry well. Without seasoned managers, firms fail to properly manage their business, find the right technology, train their workers, or even hire workers with the skills required. And managers often "don't know what they don't know." Many managers in the survey group did not recognize management failures that were evident to the sector specialists involved in the survey.

Developing a cadre of Bhutanese managers, school-leavers, and graduates with the necessary skills will take time. Thus where skill shortages exist in the Bhutanese workforce, the government should allow liberal recruitment of skilled nonnational workers. Areas where skill shortages are immediately evident include accounting, auditing, marketing, packaging, information technology, and human resource management. Taking advantage of the skills of workers from neighboring countries in these areas should aid the development of industry in Bhutan.

Information technology is a case in point: South India has developed a vibrant export sector in this activity that the government of Bhutan now wishes to pursue. Providing the skills needed by the private sector will require liberal rules on work permits for skilled nonnationals. Access to relatively low-cost and highly skilled Indian workers gives Bhutan an important cost advantage that it should seek to leverage.

Shortage of Training

Even though managers cited the lack of skilled workers as their biggest business problem, very few private firms (apart from the largest companies) provide significant formal training for their workers. Indeed, only about 39 percent of surveyed firms reported doing any training (table 3.5). Less than 3 percent of the sample's workforce received any training in the previous year, and training costs average an extremely small 1.4 percent of sales. Service firms were more likely than manufacturing firms to provide training and trained a slightly larger share of their workforce. This finding is expected, since service firms, especially tour operators, cannot easily hire skilled nonnationals. With a growing body of evidence linking worker training with greater growth and productivity for firms, the lack of training in Bhutan needs to be addressed.

Almost 30 percent of the firms that conduct no significant formal training cited a lack of government incentives as a reason (table 3.6). Many firms labor under the misconception that worker training costs are only tax deductible up to 2 percent of total profits (as entertainment and some other allowable deductions are). For small firms and those just breaking even or making a small profit, this provides no incentive to allocate scarce resources to training. But according to the Ministry of Finance's Department of Revenue and Customs, this is not the case; training expenses are allowed case by case and are granted reasonably liberally.

Another major reason cited by managers for not training is that Bhutanese workers can move on at

Table 3.5 Training by Bhutanese Firms
(percent)

	Manufacturing	Services	Full sample
Share of firms providing training	28	52	39
Training expenses as a share of sales	1.1	2.0	1.4
Share of workforce trained	1.8	4.7	3.0

Source: World Bank private sector survey, Bhutan, 2001.

Table 3.6 Reasons Cited by Bhutanese Firms for Not Providing Training
(percentage of firms responding)

Reason	Share of firms citing reason
No need	64
Lack of government incentives	30
Worker turnover	26
Cannot afford training	25
Lack of training by associations, chambers of commerce, and the like	17

Note: Data refer to the 66 firms reporting that they do not train workers.
Source: World Bank private sector survey, Bhutan, 2001.

a moment's notice. And there is an automatic bias against training Indian workers, since they are supposed to be phased out.

But the reason cited most often is that training is not needed. Almost all companies use mature Indian technology, and it is less expensive to hire trained workers from the large labor pool on the border than to train their own staff. Indeed, some managers said that they stay with older Indian technology rather than upgrading because it makes it easier to find trained workers and maintain equipment. Forgoing training also reduces the cost of worker turnover. Another reason that managers see no need for training was apparent to the sector specialists participating in the survey: the managers themselves often lack technical skills and do not know or fully understand the need for upgrading skills. The reliance on old technology, combined with the low levels of training, augurs ill for raising labor productivity and improving international competitiveness.

The pressing need to encourage firms to train workers and the misperception of what expenses are allowable suggest that the policy on training expenses should be made as explicit and automatic as possible. To this end, the Department of Revenue and Customs needs to move away from the case-by-case approach to determining what training expenses are allowable and devise an explicit allowance freely available to all companies. Also important will be the work of the National Technical Training Authority, which is looking at how to structure incentives to make training workers more attractive in an environment where Bhutanese workers are highly mobile.

Priorities for Labor Policy

The government is preparing new labor regulations that are expected to be implemented soon. The regulations will extend the minimum wage to the private sector, set working hours, and define overtime benefits. While ensuring fairness and equity in the workplace is important, one of Bhutan's competitive advantages is its lack of excessive labor regulations, which plague many other countries in the region. Developing an appropriate balance between fairness and a "light touch" in regulation will be important in retaining Bhutan's labor market flexibility and competitive edge.

Several key issues need to be considered with particular care. Since public sector wages are already higher than market wages and significantly higher than the wages accepted by nonnationals, extending the minimum wage to the nascent private sector threatens to impose an unmanageable burden on it. In contrast, a wage policy that provides for smaller, more frequent, and automatic salary increases in the public sector—and only the public sector—would go a long way toward ensuring that wages do not lag too far behind other prices in the economy. It would also help shield the economy, and possibly the private sector, from sudden sharp shocks in wage levels.

In designing policies to spur employment, the government needs to be careful not to cripple the small and still relatively fragile private sector. The competitive advantages arising from labor stability, labor flexibility, low labor costs, and the ability to pick up missing skills from India need to be carefully cali-

brated against the desire to protect workers' rights and gradually increase the share of Bhutanese workers in the formal labor force. These advantages should not be sacrificed to the detriment of the young private sector, given the disadvantages that it also faces.

Key to developing the private sector is raising worker productivity, which will improve the competitiveness of Bhutanese goods even at existing wage levels. Labor policy needs to:

- Ensure that private firms have access to the skills they need, including liberal access to skilled nonnational labor when adequately skilled or experienced Bhutanese workers are unavailable.
- Ensure that firms are not arbitrarily cut off from low-cost unskilled labor from India.
- Make sure that, in an effort to raise worker productivity, firms do not mechanize in ways that increase the capital-labor ratio beyond what is optimal. This strategy would merely reduce profits and make firms less competitive against countries using more appropriate technology.
- Promote productivity gains through the transfer of appropriate technologies—through better management techniques, greater worker training, and careful introduction of appropriate equipment.
- Promote productivity gains by encouraging firms to move up the value chain to new products—for example, in niche markets and in such services as design, tourism, accounting, and information technology, which typically have higher value added per worker but require higher skills.
- Permit continued wage flexibility as well as reasonable latitude in hiring and firing.

Since it is critical that Bhutan invest in improving the quality of its workforce, and since individual firms will be unable to capture the full benefits of training, the government needs to be prepared to offset some of the associated costs.[2] Readily available tax incentives, matching grant schemes to share the costs of training or acquiring technology, and direct subsidies for training should all be considered. In addition, educational and vocational training programs need to be aligned with the requirements of private industry, and more needs to be invested in secondary and higher education.

Technology Issues

To enter world markets and compete successfully with imports, Bhutanese firms must dramatically improve their productivity. That means not only upgrading their human capital but also adopting appropriate new technology. The preferential access to the Indian market, India's high tariffs, and the natural protection provided by Bhutan's remote location have led to little domestic competition and created few incentives for firms to seek productivity improvements. Investment is low and directed mainly at increasing production or replacing worn machinery with existing technology, mostly from India. Few resources are devoted to improving production processes or introducing new products. All this, combined with the lack of worker training, has led to low productivity and a lack of competitiveness for most Bhutanese products both globally and within South Asia.

Long experience in many countries has shown that learning mechanisms—such as exporting, foreign investment, foreign consultants, worker training, and external support services—are key determinants of productivity growth.[3] Such mechanisms help firms obtain information on the most productive practices and improve their technical capabilities. But most of these learning mechanisms are poorly developed or nonexistent in Bhutan. Exports other than electricity are extremely low, few firms train workers, and foreign direct investment has been almost completely absent (as a result of conscious government policy).

Exacerbating all this, most businesspeople lack knowledge about the technical aspects of their business. As a result, they do not recognize the importance of technical innovation or do not know how to go about making technical changes. Strengthening the private sector in Bhutan will require dramatically improving the learning mechanisms that enable firms to improve productivity.

In technology, Bhutanese companies need to look beyond India. Enterprises have found it easier and cheaper to look across the border for tried-and-true production methods supported by a ready pool of trained labor. But this technology may not always be the most efficient for Bhutan. With Indian trade barriers falling, Bhutan will have to adopt international best practices to compete globally. This may mean that Bhutanese companies have to leapfrog Indian technologies and take up more developed third-country technologies. Although this may be more expensive and difficult, it will help ensure competitiveness in world markets.

Key Technology Needs

Technology is a general term covering a wide range of areas. Those most relevant to Bhutan include management knowledge, market knowledge, production technology, design and product development, information technology, and management and quality systems.

Management Knowledge. Management in firms is weak, with owners commonly lacking technical qualifications or relevant experience. Owners and managers need to be more aware of appropriate best practice before they can effectively transfer new technologies to their firms. In other developing countries many managers develop skills and knowledge of best practices by working for foreign companies or attending technical courses abroad. But these practices are rare in Bhutan. Less than 13 percent of the managers in the sample worked for a foreign company, almost all of them in India. Compare Nepal, where a similar survey found that more than 51 percent of managers had worked outside the country. More than 60 percent of managers in the sample had studied outside Bhutan, but most pursued a nontechnical basic education (often in their former capacity as a civil servant) with no direct relationship to their business.

Market Knowledge. As a result of Bhutan's past isolation and the government's dominance of the market, firms lack an awareness of marketing and familiarity with marketing tools. Identifying and penetrating niche markets is difficult because Bhutan lacks relevant skills and Indian expertise may be inappropriate.

Production Technology. Productivity and quality in Bhutan fall short of international standards not only because of weak management, but also because of old equipment, insufficient maintenance, and poor operator skills. Firms need to leapfrog Indian technology and use globally competitive know-how. And they need to improve production management so that managers can make the most effective use of existing resources and future investments.

Design and Product Development. Innovative products are seen as a way to enter niche markets in the agroprocessing, wood, and tourism sectors. But before developing such products, firms first need to develop product policy—procedures to balance market needs with suppliers' resources—and market-driven, product-specific briefs.

Information Technology. Firms are struggling to introduce information technology, which is essential for such activities as managing their finances, searching for technology, and developing market links.

Management and Quality Systems. Many firms lack consistency in their products. These firms

would benefit from introducing ISO 9000, a set of standards for quality management systems, or the Hazard Analysis Critical Control Point system, a process control system aimed at ensuring food quality that is mandatory in some countries.

Difficulties in Technology Transfer

Firms face difficulties in searching for, acquiring, and absorbing technology. Some managers reported that reaching the point where a firm is reaping the full benefits of a new technology can take up to two years. Because of the costs and difficulties of changing technology, firms in Bhutan often rely on familiar technologies from India rather than upgrading. While staying with old technology lowers costs, it also means rapidly losing competitiveness.

Searching for Technology. Large firms generally rely on their equipment suppliers and buyers to identify sources of technology, but many recognize that they need more advanced technology that they cannot easily identify. Small companies often use guesswork to estimate their technology needs, which frequently leads to costly mistakes.

Acquiring Technology. Acquiring technology is less problematic, though still time consuming, if companies use reliable suppliers who commission the equipment and provide training for operators. Firms acquiring used equipment, however, often find that it is incorrect or defective. Hiring consultants can also be problematic, since many may be inappropriate unless recommended by a supplier or buyer.

Absorbing Technology. Absorbing—or internalizing—technology poses significant challenges. Once production technology is acquired, it often has to be adapted to meet orders from customers. Some firms reported that such absorption problems can increase the costs of technology transfer by a third. Maintenance and spare parts add further difficulties. With information technology, for example, three-quarters of the firms surveyed had difficulties in adequately training staff, in obtaining backup service, or in developing and customizing software.

Need for Learning Mechanisms

Overcoming these problems will require efforts to create an information-rich environment of training opportunities (from institutional or private sources) and information sources that address specific business problems as well as networks of specialized consultants. Learning mechanisms that could contribute to such an environment include government and development agencies, business associations, exporting, foreign consultants, and matching grant schemes.

Government and Development Agencies. Many countries have a network of institutions, often supported by the government or donor agencies, that provide training, technical information, recommendations on consultants, and other means for firms to obtain information and assistance in finding and absorbing new technologies. The institutions are funded and managed in a variety of ways, but all seek to build partnerships with the private sector. Bhutan appears to have few such institutions. Bhutanese firms could benefit, for example, from the voluntary services of retired executives from industrial countries, particularly in obtaining management technologies and catalyzing other technology transfers.

Business Associations. By promoting information sharing among peers and helping form cooperative agreements between firms, business associations can play a key role in helping small enterprises identify and obtain technology. Firms often need outside help to overcome coordination problems and form cooperative agreements with competitors. Associations can also lobby the government to help establish institutions to promote technology transfer. In Bhutan business associations are at an early stage

of development, and information does not appear to flow between firms.

Exporting. Firms often learn about new technologies in the process of exporting. To compete in export markets, firms must undertake market research and work closely with their buyers. Indeed, buyers will often help their producers design products, improve quality, and ensure a consistent supply.

Foreign Consultants and Matching Grant Schemes. Consultants and equipment suppliers are another important learning mechanism. But Bhutan has few consultants with technical knowledge and very few equipment suppliers with a permanent presence. And bringing in consultants is usually prohibitively expensive for a small enterprise. Matching grant schemes, sponsored by donors, promote technology transfer by sharing the cost with firms (box 3.1). All of Bhutan's main trading partners have implemented such schemes or are doing so.

Financial Sector Issues

In Bhutan, as in many developing countries, the immature financial system adds to the cost of doing business and hampers investment. While the banks' high liquidity positions show that they are efficient in mobilizing savings, the survey results suggest that they are less successful in transforming these funds into productive loans. Firms cited finance as their fourth biggest business problem. Most complaints centered on the high cost of borrowing and the poor access to credit, which restrict investment and force companies to rely on internal funds to finance most new investments.

Thus while Bhutan has made important strides in developing its financial system, the system still falls far short of what the private sector needs to become internationally competitive. The financial system's weaknesses will become an even more important constraint as the private sector grows and especially as foreign investors enter Bhutan and local

Box 3.1 Matching Grant Schemes to Aid Technology Transfer

Funded by such organizations as the European Union and the World Bank, matching grant schemes are a common way of helping firms obtain international technology at a subsidized cost. (The subsidies exclude the cost of hardware.) The schemes center on a technology fund, usually managed by an international contractor that is typically selected through an international tender. The contractor reports to a steering committee that generally represents both government and the private sector. The schemes may last three to five years.

Firms (or groups of firms) that want to obtain technology submit a project proposal detailing the technology, its provider, and the cost of acquiring the technology. Firms usually also have to show how the project fits into their business plan. In assessing a project, contractors should ensure that the firm would not have undertaken it without the fund and that the project will lead to spillovers in the wider economy, such as other firms copying the firm receiving assistance. Once a project is completed, the firm recoups part of the cost (typically 50 percent) from the fund.

The contractor running a matching grant scheme may be required to hire staff familiar with the sector (or sectors) being assisted, to advise firms on business planning, technology sources, and project implementation. Activities eligible for support could include training, marketing, product design, production assistance, management development, development of business associations, and searches for joint venture partners.

firms attempt to break into world markets. Encouraging competition and innovation would help improve the cost and efficiency of banking services. The results of the financial sector study funded by the Asian Development Bank—and the role of the Royal Monetary Authority—will both be important in helping to create more effective financial markets in Bhutan.

High Borrowing Costs

High nominal and real interest rates were a major concern cited by firms. Most lending rates fall in the range of 13–16 percent. With consumer prices increasing 3–6 percent annually in the past two to three years, that implies real interest rates of 7–10 percent. Moreover, lending rates have changed little during most of the past decade.

The banks justify the high interest rates by pointing to their high liquidity position, which has left a large share of bank funds underutilized, increasing interest rate spreads and the upper limits on lending rates. High interest rates are also blamed on the relatively large share of nonperforming assets in the banking system (interviews suggest that it is around 15 percent), which has further increased banking costs. The Royal Monetary Authority now allows banks to redeposit large excess fund balances with banks in India, and banks hold 30–40 percent of their assets in these nearly risk-free foreign deposits, earning reasonable rates of return and reducing the non-income-earning assets on their balance sheets. Developing profitable alternative outlets for commercial banking funds will help narrow spreads and reduce the high fees on banking transactions. But providing risk-free forms of investment in India also reduces banks' incentives to find ways to increase private sector lending in Bhutan.

Many bank customers believe that the Royal Monetary Authority determines interest rates for the commercial banks; in fact, it deregulated interest rates some time ago. Publicizing the fact that banks are free to determine their own lending rates and that customers are free to negotiate rates might help inject some much-needed competition into the banking system.

Anecdotal evidence suggests that Bhutanese banks set interest rates based on the borrower's sector rather than its risk profile—a common practice in underdeveloped banking systems—though hard evidence of this was difficult to obtain. Training bank credit officers to properly assess risk is an important step in moving banks away from using simplistic and less relevant criteria in determining interest rates—and in moving toward market-determined rates.

Besides being high, interest rates are also extremely inflexible, varying little with changes in economic circumstances. This lack of market orientation is driven by the banking system's lack of competition as well as its lack of innovation and creativity. Increasing competition for depositor funds and lending opportunities is likely to be the best way to promote innovation, creativity, and market orientation. In small, underdeveloped banking systems the most effective competition often comes from nonbank sources—such as leasing companies, insurance companies, venture capital, and private debt instruments.

High Collateral Requirements

Collateral requirements, which remain high despite banks' claims to the contrary, add to the cost of funds (table 3.7). In interviews, banks stated that as a general rule they demand that project finance be secured by property worth only 33 percent of the value of the loan—and that they accept machinery and other equipment purchased by the loan as security. But interviews with firms revealed that they face considerably higher collateral requirements and that banks often do not accept machinery as collateral. More than half the outstanding commercial bank loans of the sampled firms required more than 100 percent collateral; for loans from the development lenders, the average collateral required was 116 percent.

Table 3.7 Interest Rates and Collateral Ratios, Bhutan and Nepal
(percent)

Country and source of credit	Interest rate	Collateral as a share of loan value
Bhutan		
Banks		
Mean	13.4	86
Median	13.0	100
Development institutions[a]		
Mean	13.7	116
Median	13.5	150
Overdrafts		
Mean	14.4	n.a.
Median	15.0	n.a.
Nepal		
All souurces (mean)	14.3	190

n.a. Not applicable.
a. Bhutan Development Finance Corporation and Royal Insurance Corporation of Bhutan.
Source: World Bank private sector survey, Bhutan, 2001; World Bank Regional Program on Enterprise Development survey of manufacturing firms, Nepal, 1999.

Poor Access to Credit

Despite the banking system's high liquidity, the survey results show that access to credit is a major problem. Almost 43 percent of firms reported being credit constrained—that is, wanting to borrow more at current interest rates (table 3.8). Close to 30 percent of firms had neither short-term nor long-term bank credit, and 8 percent had been rejected for a bank loan. More than a quarter of the firms had never bothered to apply for a loan, most because they did not need credit or did not believe that they would receive a loan.[4] Firms reported dealing with a median of only two banks, and 40 percent of the sample used only one bank or none at all—further evidence of a shallow financial system.

Companies in the service sector were more likely than manufacturing companies to be credit constrained, and fewer had bank credit. This difference may arise because service companies generally have fewer physical assets to pledge for collateral—or because lenders are less comfortable in assessing the risks of such service providers as tour operators, transport firms, and computer training schools.

Table 3.8 Firms' Access to Credit, Bhutan and Nepal
(percentage of firms surveyed)

	Bhutan			
Access to credit	Manufacturing	Services	Full sample	Nepal
Credit constrained	40	46.5	42.5	32
No bank credit	25	33.3	28.5	26
Never applied for a loan	25	29	26.5	20
Rejected for a loan	9	5.5	7.5	5
More than two banks	11	7.5	9.5	—

— Not available.
Source: World Bank private sector survey, Bhutan, 2001; the World Bank Regional Program on Enterprise Development survey of manufacturing firms, Nepal, 1999.

Weak Information and Enforcement

Banks attribute their reluctance to lend to two factors. The first is lack of information and of mechanisms to collect information, which makes it difficult to identify profitable projects in a risky environment. Most firms do not keep accurate, transparent financial accounts (see the section in this chapter on auditing and accounting issues), and Bhutan has no credit rating agencies or other institutions providing information on borrowers. Bhutan's small, thin market, where few firms are diversified, is particularly vulnerable to shocks, and predicting earnings is difficult. Moreover, because banks lack both information and well-trained loan officers, they are unable to adequately monitor the use of borrowed funds.

The second factor is inability to enforce contracts. The legal code is improving rapidly and many new laws have been passed, but financial institutions still find it difficult to enforce agreements or seize collateral. While the laws may be adequate, they are not enforced. Banks reported, for example, that passing checks with insufficient funds is a violation of the criminal code, but no one has ever tried to enforce the law. As a result, even government agencies are reluctant to take checks.

Courts are extremely slow and inefficient, and seizing the assets of borrowers who default is almost impossible unless the property is directly attached to the loan. Thus all banks demand high collateral, specifically tied to a loan, so that it can be seized to offset the cost of long court proceedings. That the courts are considered a very inefficient way to resolve disputes is evidenced by the fact that only around 5 percent of firms in the survey reported hiring a lawyer or threatening to take a client to court for nonpayment (table 3.9).

Improving and streamlining the legal system would help improve access to capital and probably also lower its cost. It would also facilitate trade by encouraging firms to extend more trade credit.

Table 3.9 Bhutanese Firms' Experience with Nonpayment and Enforcement

Indicator	Value
Share of firms reporting nonpayment in the previous year (percent)	31
Average cases of nonpayment per firm	10.4
Share of firms hiring lawyers (percent)	6.0
Share of firms going to court (percent)	5.3

Source: World Bank private sector survey, Bhutan, 2001.

Low Efficiency and High Fees

The payments system and other banking services are relatively costly and inefficient, leading firms to conduct a large share of business on a cash basis. That raises the cost of doing business for all sectors but particularly for tourism and for firms attempting to export to markets beyond India.

The payments system and check clearance are extraordinarily slow, discouraging firms from accepting checks or other noncash forms of payment. One study suggests that clearance can take as long as 19 days between Paro and Thimphu.[5] Moreover, banks charge myriad fees that add to the cost of using banks and the formal financial system. One bank levies a fee of 0.25 percent to move money from Thimphu to its branch in Phuentsholing, and the transaction can take several days. In most countries such a service is free.

As the private sector grows—and especially as foreign investors come to Bhutan and exports increase—the inefficiency of the payments system and banking services will become a severe obstacle to doing business.

Lack of Innovative Financial Instruments

As noted, the banking system provides few innovative lending instruments. The survey team came across only one example of factoring services, in which the Royal Insurance Corporation of Bhutan provided loans to a private entity based on work orders. But this

practice did not appear to be common. Other services that are missing include leasing finance, private debt markets, electronic banking, automated teller machines, venture capital (or risk capital) for startup enterprises, and even credit or debit card facilities.

Leasing. A potentially powerful yet relatively simple financial service that is increasingly offered in the developing world, leasing has several important advantages for small and medium-size enterprises. Most important, the leased equipment (such as a vehicle or machinery) belongs to the finance company throughout the lease period, so repossession in the case of nonpayment is simple and requires no long legal process. Indeed, the leased equipment usually forms the collateral for the transaction, doing away with the need for the "borrower" to provide large amounts of security. These two advantages are particularly powerful in environments such as Bhutan's.

Bhutan's private sector could benefit in other ways from private leasing companies. In many countries leasing companies have provided not only important new financial instruments but also effective competition for commercial banks. Thus it would be useful for the Royal Monetary Authority to examine the possibility of establishing private leasing companies in Bhutan.

Private Debt Markets and Intercompany Borrowings. Another potentially effective way to increase competition for banks is to develop private debt markets, allowing companies with sound financials to issue their own debt in the domestic market. Like a government debt market, a private debt market provides funding directly to an enterprise without channeling funds through the banking system. Commercial banks receive fewer deposits as a result (reducing excess liquidity). And because the intermediation mechanism squeezes interest margins more effectively than intermediation through a commercial bank, savers benefit through higher rates while borrowers benefit through lower ones.

The main concern in developing new private debt markets is that issuers must be of sufficiently good standing and in sufficiently good financial condition that the risk is acceptable. This is particularly important where investors will be unfamiliar, at least initially, with properly assessing the risks and rewards of investing in these new instruments. In Bhutan, with its few large, good-name firms, the market for such issues is bound to be small (though the demand could well be high). Nonetheless, the potential benefits for both investors and borrowers suggest that the Royal Monetary Authority should seriously examine the possibility of developing such markets in Bhutan.

Other Concerns

Four other issues relating to the financial sector emerged from the survey as concerns for the private sector.

Inversion of Interest Rates on Term Lending. Virtually all enterprises surveyed reported that interest rates on short-term lending exceeded those on long-term lending. This contrasts with the situation in most countries, where rates are generally higher on long-term lending because it is considered to have higher risk. It would be useful for the Royal Monetary Authority and the Asian Development Bank to examine why rates are inverted in Bhutan.

High Charges on Credit Card Transactions. Where credit card payments are possible in Bhutan, the charges on the transactions tend to be extremely high (7–8 percent for some hotels). These high charges have the greatest effect on the tourism industry, since visitors from Europe, Japan, and North America use mainly credit cards rather than cash or traveler's checks. Making credit card facilities more accessible throughout Bhutan, and finding ways to reduce their

costs, could improve the efficiency of payment mechanisms in the country, with particular benefits for tourism and related industries such as handicrafts.

Inefficient Debt-Equity Mix. Many Bhutanese companies lack the skills to determine the most appropriate mix of debt and equity in their business operations. While some undertook no borrowing, apparently because of an aversion to debt rather than an inability to borrow, others significantly overleveraged themselves to banks and were experiencing financial problems as a result. Better training in securing the best mix of finance would benefit many entrepreneurs.

Royal Monetary Authority as Scapegoat. On several issues the Royal Monetary Authority appears to have become the scapegoat for the actions of other parties. As noted, there is a general misperception in the private sector that it is the Royal Monetary Authority that sets interest rates, not the banks. Another misperception is that it is the Royal Monetary Authority, not the Ministry of Finance, that is stopping the use of hard currency to purchase raw materials for goods to be exported to "non–hard currency" India. Thus it might be useful for the central bank to explain, in these cases and any others, what its role is relative to the commercial banks and the Ministry of Finance.

Effect of Borrowing Constraints on Investment

Investment is low in the Bhutanese private sector. More than a quarter of the firms surveyed made no investments in 1999–2001, though service firms were more likely to invest than manufacturing firms were (table 3.10). The median ratio of equipment investment to capital was 0.05, higher than the ratio in Nepal and some other developing countries but low by international standards. And at 5 percent, the investment rate still falls well short of the 10 percent average depreciation rate found in many developing countries. This suggests that most companies are running down their capital stock faster than they are replacing it. The average age of machinery was 6–10 years in the manufacturing sector, though it was only 1–5 years in the service sector. But these averages

Table 3.10 Firms Investing in Recent Periods, Bhutan and Nepal

	Bhutan, 1999–2001			
	Manufacturing	**Services**	**Full sample**	**Nepal, 1999[a]**
Share of firms investing (percent)	71	78	74	NA
Average capacity utilization (percent)	60	50	58.3	58
Average age of machinery (years)	6–10	1–5	6–10	NA
Median ratio of investment to capital[b]	0.05	0.21	0.09	0.014

— Not available.
a. Data refer to manufacturing firms.
b. For Bhutan this is the ratio of investment in 2000 to the value of capital stock.
Source: World Bank private sector survey, Bhutan, 2001

mask wide variation. In almost 44 percent of manufacturing firms equipment was more than 11 years old on average. Clearly, Bhutanese industry needs to increase investment if is to improve its productivity and competitiveness.

The low level of investment has many causes. Firms pointed mainly to the perceived lack of demand. With firms utilizing only 58 percent of capacity on average, they see little reason to expand. But firms still need to invest to improve their productivity and competitiveness, and the high cost and poor availability of finance make this difficult.

Firms finance most new investment from internal funds, such as retained earnings, loans from friends and relatives, and personal savings (table 3.11). This puts companies in a doubly difficult position: They must delay investments until they have accumulated sufficient internal capital to cover the costs. But as their equipment ages, maintaining competitiveness becomes more difficult, which in turn makes raising sales and building up capital more difficult.

On average, banks financed less than 27 percent of the sample firms' most recent equipment investment.[6] But this share still exceeds that in Nepal, where a similar World Bank survey found that banks funded less than 20 percent of equipment investment.

Land Issues

Though land is not always easy to obtain in Bhutan, access to land did not emerge as a major issue in the survey. The government has established industrial estates in Phuentsholing, Thimphu, Galephu, and Samdrup Jongkha. The best developed is the one at Phuentsholing, with 58 acres of fully serviced sites created in 1979. With 25 establishments, the Phuentsholing site is fully occupied. The government would like to construct additional sites in the Phuentsholing area close to the Indian border. The Thimphu industrial site is under construction 26 kilometers outside the city center. Known as the Jemina industrial estate, the site now hosts two firms (one manufacturing hollow blocks, the other handmade paper). Thimphu has additional serviced land for industrial development in the Changzamtog Service Center, established for service industries. The government is trying to relocate some of these industries farther outside Thimphu.

Table 3.11 Average Share of Financing from Different Sources for Most Recent Investment by Bhutanese Firms
(percent)

Source of financing	Manufacturing	Services	Full sample
Retained earnings	49	37	44
Personal savings	16	23	19
Loans from relatives	4	4	4
Bank loans	24	24	24
Bank overdrafts	1	6	3
Equity	0	0	0
Other	6	6	6

Source: World Bank private sector survey, Bhutan, 2001.

To facilitate industrial development and overcome constraints of space and infrastructure during the Ninth Five-Year Plan, the government has identified and approved five industrial sites:

- Singhi Gaon for the southwestern region, a new site 16 kilometers west of Phuentsholing on 267 surveyed acres.
- Chuwabari for the south-central region, a 300-acre site 15 kilometers from Geylegphug
- Samdrup Jongkhar for the southeastern region, a 31-acre site near Samdrup Jongkhar
- Bodima for the northeastern region, a site 22 kilometers from Mongar.
- Tingtibi for the central region, 21 kilometers from Zhemgang on the central highway.

Traditionally the rates charged at industrial estates have been very low, providing an effective subsidy for industrial investors but often with an eye to directing industry away from preferred sites close to border areas in the south. This policy was motivated by the difficulty of controlling the use of nonnational workers in the border areas and a desire to diversify employment opportunities. Recently, however, policy appears to be changing, with the government now discussing the possibility of developing industrial estates near Indian border areas, particularly around Phuentsholing and Galephu.

Auditing, Accounting, and Taxation Issues

The tax laws of Bhutan require every private enterprise to prepare annual accounts and every registered company to produce externally audited financial statements, mainly to ensure that proper tax assessments can be made. Despite this legal requirement, Bhutan has an extremely weak accounting and auditing tradition. Many companies keep no accounts. Others keep two sets—one for the tax authorities and the other for management.

Weaknesses in Auditing and Accounting

The lack of transparent accounts and the poor accounting standards impede private sector growth in two important ways. The lack of good information makes evaluating a company's financial strength difficult and therefore discourages lending and investing. Even more important, firms are not using accounting as a management tool to improve their competitiveness—it is difficult to lower costs or to be cost effective if you don't know what your costs are.

Many of the companies surveyed do not maintain books of accounts as required by the tax laws. Indeed, companies tend to see accounting as a necessary evil to be undertaken for the tax authorities rather than as a management tool. As a result, the very purpose of accounting and internal control—providing managers with information so that they can make decisions—goes largely unrecognized.

Firms appear to do very little day-to-day collection of accounting information, instead keeping most vouchers and receipts until the end of the year when the accounts are compiled for the tax authorities. Many firms do not maintain stock registers and fixed asset registers, and as a result cannot monitor the materials they use. Firms do not always keep books of primary records and general and party ledgers in accordance with accounting standards, making it difficult to obtain information on the acquisition and location of fixed assets. And most do not prepare periodic trial balances, profit and loss accounts, or balance sheet information.

Much better accounting systems need to be developed over time in the private sector, supported by well-qualified accountants and auditors (box 3.2). Greater emphasis on internal auditing functions will help firms develop better financial control. And estab-

Box 3.2 Recommended Actions for Improving Auditing and Accounting

The following actions could help improve accounting and auditing in Bhutan and encourage the use of formal accounting systems as a management tool in private companies.

- *Improve accounting skills and standards.* To help improve standards, licensed accountants could be required to attach a responsibility statement to financial statements verifying that they have been prepared in accordance with the firm's books and vouchers and with accepted accounting principles. Also important is providing proper training to Bhutanese students in accountancy and computers.
- *Develop auditing skills.* Bhutan lacks well-trained auditing professionals and instead must rely on Indian chartered accountants. To fill this skills gap, young Bhutanese accountants with good skills should be sent to India or elsewhere to obtain auditing qualifications.
- *Improve quantitative information.* Private firms' accounts should incorporate quantitative information on sales, purchases, production, and stocks so that the financial statements can be verified and relied on. This requires maintaining stock books.
- *Install modern systems.* Modern systems of internal auditing and cost accounting, missing in much of the private sector, should be installed to improve the accuracy and efficiency of these functions.
- *Establish fixed asset registers.* Businesses should maintain registers of fixed assets, lacking in most private companies, to help in determining the location, user, and age of their fixed assets.

lishing better financial records, information, and control will help firms control their costs and obtain financing as well as aid the tax authorities. These advances will require gradually expanding the "auditing net" to encompass more—and, by necessity, smaller—firms.

To support these goals, the government needs to devote more resources to developing auditing and accounting skills; the National Technical Training Authority has made a good start by establishing training courses in accounting. Standardizing accounting information will also need to be emphasized.

Concerns in Taxation

To fill the gaps in company accounts, Revenue Department staff conduct audits in most enterprises every two or three years (though the frequency of audits appears to vary widely). Many of these audits lead to a demand for additional tax payments because firms are often confused about what constitutes an allowable expense. Areas of confusion include:

- The limits on write-offs of staff expenses (tax deductions for salary payments had been limited to Nu 20,000 a month but were recently increased to Nu 60,000).
- The ad hoc arrangements for write-offs of training expenses.
- The limit on write-offs of sales promotion and advertising expenses to 2 percent of profits.
- The limits on write-offs of substantial repairs that do not create new assets.

The limits on tax allowances and inflexible or ad hoc application of rules by the tax authorities can have a perverse effect on the development of the private sector by discouraging such desirable actions as hiring skilled workers or training staff. The rules on tax deductible expenses need to be reviewed to ensure that they are reasonably liberal (within prudent fiscal constraints). They also need to be made transparent and easily applicable.

Other measures would also help improve the efficiency of taxation:

- *Limit cash transactions.* The large cash transactions that take place result in unrecorded dealings and underreporting of income. Suitable legislation should be put in place to disallow cash transactions over a certain threshold.
- *Assess taxes annually.* Performing tax assessments annually, rather than every three or four years as is now done, would increase the objectivity of assessments and help private firms better plan their yearly tax liabilities.
- *Introduce appropriate tax treatment of asset revaluations.* Gains from asset revaluation are taxed at normal rates even though this exercise leads to no cash accruals. This discourages firms from revaluing assets. However in potential joint ventures with foreigners more accurate valuation of fixed assets will be important in determining the equity contribution of Bhutanese partners. More appropriate tax treatment of revalued assets is also important for insurance purposes.
- *Allow expenses for substantial repairs and renovations.* Substantial repairs and renovations are considered capital expenditures and not treated as allowable expenses for tax purposes. This tax treatment discourages proper asset maintenance. Tax authorities should allow such expenses in the year in which they are incurred or as a deferred revenue expenditure to be amortized over time.
- *Reimburse tax deductions at source quickly.* To help improve the cash flow positions of loss-making firms, tax authorities should give priority to such companies in reimbursing tax deductions at source.
- *Revise limits on tax deductible expenses.* To eliminate the adverse effects of current limits on deductible expenses for sales promotion, advertising, training, entertainment, and salaries, tax provisions on these expenses should be revised and made more transparent and automatic.
- *Enter into double taxation agreements.* Bhutan should consider establishing double taxation agreements with neighboring countries to encourage cross border investment

Infrastructure Issues

In Bhutan, in stark contrast to most developing countries, infrastructure is generally not perceived to be an important constraint. The survey results show that power supply is regular in most urban centers and industrial sites, with relatively few outages or brownouts compared with neighboring countries.[7] (In more remote and rural areas, particularly in the east, however, electricity supply is understood to be a significant issue.) Water supply is also reasonably reliable in the areas surveyed. And telecommunications, waste disposal, and postal services are perceived to be operating well. Transport is the only exception to the generally positive perception of infrastructure.

These results attest to the government's considerable efforts to support the development of infrastructure. Still, continuous improvements will need to be made to support the growing and increasingly demanding private sector.

Costly and Unreliable Transport

Both air and road transport received considerable complaints from the firms surveyed. More than 33 percent of the firms cited transport services as their biggest infrastructure problem (power was next, with less than 21 percent). Air and road transport facilities are expensive and unreliable, significantly reducing Bhutan's cost competitiveness. The costs are so high that in some industries they completely offset the advantage of abundant natural resources.

Road Transport. Firms complained less about road transport than about air transport. This differ-

ence can be attributed in large part to the fact that while the roads are in relatively poor condition, they are much better today than in the recent past. Indeed, the government undertook major investments in roads during recent plan periods and has given roads even greater priority in the Ninth Five-Year Plan.

Nonetheless, depending on where firms are located, the road network can make a great difference in their ability to compete. Firms that are competitive in the border areas (because, for example, they export to India) might not be competitive in the center of the country. Most enterprises import raw materials from India, send finished products to that country, or both. As a result, the road network creates a big cost disadvantage for producing goods anywhere except along the border. During the monsoon season landslides disrupt business and make it difficult to maintain external markets. In August 2000, for example, landslides cut Thimphu off from Phuentsholing for three weeks.

The country's physical characteristics pose such a constraint on road transport that Bhutan faces a choice between investing heavily in roads and focusing the development of transport-dependent industries solely in the border areas. Choosing the second option would mean that only niche industries relying little on transport could be profitably developed in the center of the country.

Air Transport. Druk Air and the efficiency of Paro International Airport were big targets of criticism. Companies expressed concern about the unreliability of the airline, the high cost of air transport services, the effects of weather on the ability to fly in and out of the airport, the constraints imposed by the airfield on the type of aircraft that Druk Air can use, and the lack of reliable air cargo facilities, particularly from Bangkok. These limitations affect many aspects of private sector activity—from the ability of foreign tourists to enter Bhutan to the ability of companies to ship raw materials and finished products in and out of the country in a timely way. The high-cost, unreliable air transport is among the main obstacles to penetrating markets beyond India and developing service industries (such as information technology) and niche export markets (such as fresh mushrooms).

The authorities are well aware of the Paro airport's limitations, the restrictions on the types of aircraft that can be used in Bhutan, and the uncertainties these problems create for transporting goods and people. They are considering several alternative airport sites. One option for developing an international airport has long been Galephu, though the unrest in the Indian border state of Assam has recently led to consideration of other, less desirable alternatives. Until the airport facilities can be improved, efforts to upgrade service at the existing airport will be critical.

Upgrading existing facilities or introducing alternatives are long-term solutions, however. The growing number of unemployed school-leavers means that the development of the private sector cannot wait for a new airport to be built or even for the road network to be upgraded. In the short to medium term, while industries relying heavily on transport are likely to be profitably developed only along the border with India, the development plan for the center of Bhutan will probably need to focus on niche-type industries with less need for cheap, reliable transport.

But this does not mean that other options should be neglected. Indeed, Bhutan's difficult physical terrain calls for "thinking outside the box." The Ministry of Transport could review all possible alternatives—such as using private charter airlines from India and Nepal to bring tourists into Bhutan and developing helicopter services to ferry goods and passengers into and around Bhutan.

Favorable Electricity Prices

Cheap, reliable electricity is among Bhutan's biggest competitive advantages over other countries in South Asia. Indeed, several firms, including Bhutan Carbide and Chemicals and Bhutan Ferro Alloys, were estab-

lished in Bhutan because of this advantage. Electricity prices in Bhutan are less than half those of its closest competitor in South Asia and only a fifth of the prices in other important locations in the region (table 3.12).

Electricity prices in Bhutan are subsidized: the purchase price from the Chhukha Hydro Power Corporation is Nu 0.3 per kilowatt-hour (production costs are around Nu 0.25), the transmission and distribution costs are around Nu 1.0 per kilowatt-hour, but the urban sales price is only Nu 0.8 (the rural price is Nu 0.5) In 2002, however, the government intends to establish the Bhutan Power Corporation, a commercial entity responsible for transmission and distribution. The entity's commercial orientation means that the price subsidy for electricity will disappear over time. Although Bhutan's electricity prices will still remain well below regional levels, the loss of the subsidy will reduce the profitability of power-intensive industries in Bhutan.

Table 3.12 Electricity Prices for Industrial Customers in Selected South Asian Countries

Country	Price per kilowatt-hour (U.S. cents)
Bhutan	1.7
Bangladesh	6.1
India	
Assam	7.6
Bihar	5.6
Delhi	7.7
Gujarat	9.1
Maharashtra	4.2
Uttar Pradesh	8.8
West Bengal	7.2
Nepal	8.2
Pakistan	6.2
Sri Lanka	6.1

Source: For India, Annual Report on the State Electricity Boards; *for other countries, World Bank.*

Regulatory Environment

One of Bhutan's most important competitive advantages is its good governance and the friendly business environment that this creates. The government is genuinely concerned with proper administration, and officials are seen as being honest and helpful. This business environment stands in stark contrast to that in some of Bhutan's neighbors, where business is handicapped by corruption, labor unrest, bureaucratic burdens, and political instability. Bhutan's good business environment and political stability should be attractive to investors, particularly foreign investors, seeking to serve South Asian markets.

But Bhutan has reached a critical point where it could easily lose this advantage. Many important government decisions have been made case by case—such decisions as issuing a business license, determining allowable tax deductions, issuing permits for foreign workers, and approving applications for foreign direct investment. And laws and regulations have not been clearly publicized or consistently implemented. While this system has served Bhutan reasonably well, it will become a growing obstacle as the economy expands. The discretion that the system allows could open the door to corruption and certainly to the appearance of favoritism.

To guard against the corruption and bureaucratic burden that impose such high costs on business in its closest neighbors, Bhutan must take steps to improve transparency and implement laws openly and consistently. The survey reveals that most managers now see the government as a benign helping hand, in contrast to the perspective in other South Asian countries. That could well change unless the system becomes substantially more transparent. Several issues will be key.

Fairness and Transparency

Many businesspeople talked about "relationship dealing"—being able to get the right approval, the proper agreements, and a quick government signoff because of knowing "the right person." For the most part this approach to getting things done reflects the small size of the Bhutanese economy and indeed Bhutanese society, not corruption. But there is a thin line between relationship dealing and what could become corrupt practices. Developing a fair and transparent policy environment is therefore critical in avoiding bad practices in the future.

Policy Consistency

A related issue is consistency in government policy—both consistency across different players in a sector and consistency over time. The survey provides ample evidence that different players are treated differently. Some companies had little difficulty obtaining work permits or access to land, while others in the same line of business did have difficulties. There was also evidence of inconsistency over time. Some firms complained that abrupt changes in government policy on labor, taxation, licensing, and the export of wood products disrupted their plans and hindered their growth.

Some of these complaints are simply sour grapes. Still, it is important that the government strive to ensure as much policy consistency as is possible. Investors and entrepreneurs must deal with great uncertainty from world markets, the weather, and other factors beyond their control. By adding to their risk, government policy inconsistency will reduce investment.

The survey results suggest a need for greater efforts by the government to be open and consistent. Asked to rate the predictability of government on a scale of 1 (completely predictable) to 5 (completely unpredictable), more than 26 percent of managers gave the government a 4 or 5 rating. And more than 55 percent said that they expected the government to change regulations that are important to their business without taking into account their company's views (table 3.13).

Access to Clear and Concise Policy Information

To reinforce the fact that the regulatory environment within which firms operate is consistent, information needs to be written down and made easily available. One way to disseminate such information is to create government Web sites. That could produce dual benefits—providing information to private sector players while increasing the public and private sector's use of information technology as a tool for doing business.

Publishing precise policy guidelines on employing nonnationals, writing off training expenses, and the like would do much to close some of the apparent information gaps. One area of particular confusion appears to be the government's policy on licensing new businesses in the south, particularly in Phuentsholing. Most companies spoke of being unable to license new businesses, while others spoke of long delays. But some understood that the government was reversing its policy, with a view to encouraging new business activities in the south. Clearly, the policy on this issue needs clarification.

Table 3.13 Bhutanese Firms' Ratings of the Government

	Share of sample (percent)
Firms rating the government as unpredictable (4 or 5 rating)	26.3
Firms expecting regulatory changes that will not not take into account their views	55.8
Firms viewing the government as an opponent	17.0

Source: World Bank private sector survey, Bhutan, 2001.

Trade Regime

Two main concerns relating to the trade regime emerged from the survey. The first is the movement of most countries to lower tariffs within the framework of the World Trade Organization, with trade liberalization in India a particular worry. The second concern is the lack of export incentives given to Bhutanese firms.

Trade Liberalization in India

There is growing concern among some exporting businesses about the gradual move toward lower tariffs in India and the effect it will have on the ability to benefit from Bhutan's preferential access to the Indian market. Removing tariff and nontariff barriers in India is likely to take time. But some companies are already complaining about Chinese producers "dumping" cheap goods in India as tariffs fall. India's dominant role in Bhutan's trade means that Bhutanese companies will be forced to become more cost efficient and competitive. In 1999 Bhutan received around three-quarters of its imports from India and directed around 95 percent of its exports to that country (table 3.14).

India's trade liberalization is something over which Bhutan has little control. But rather than see this change as a threat, the private sector should see it as a challenge—an opportunity to become internationally competitive and gain access to markets beyond India. To meet that challenge, the private sector will have to focus increasingly on areas of comparative advantage, while the government should seek to ensure that business costs are not increased by unnecessary interventions.

Lack of Export Incentives

In contrast to most governments in South Asia and indeed around the world, the Bhutanese government offers no incentives to exporting firms, possibly because of the historically low export trade. (Electricity exports have recently taken off, but all this trade is conducted through government-to-government deals with India, so no incentives are needed.) Exporting firms complained that the lack of incentives puts them at a disadvantage relative to competitors in countries that do offer incentives.

The most important disadvantage is the lack of duty exemption or duty drawback on imported raw materials for use in export production. Most imported raw materials originate from India and are subject to Indian excise duties. Under the trade agreement between the two countries, these duties are refunded to the government of Bhutan. But they are not refunded in turn to the Bhutanese firms producing for export.

Financial incentives for exporting companies, in conjunction with other policy changes (relating to for-

Table 3.14 Bhutan's Trade with India and the Rest of the World, 1996–99

	Imports from India			Exports from India				
Year	Total imports	Value	Share (percent)	Total exports	Value	Share (percent)	Total trade balance	Trade balance with India
1996	4,525.19	2,896.16	64.0	3,553.77	3,226.98	90.8	–971.42	330.82
1997	4,977.94	3,453.59	69.4	4,274.18	4,041.94	94.6	–703.76	588.35
1998	5,516.37	3,620.94	65.6	4,455.62	4,175.64	93.7	–1,060.75	554.70
1999	7,834.88	5,845.28	74.6	4,987.96	4,711.23	94.5	–2,846.92	–1,134.05

Source: Bhutan Ministry of Trade and Industry.

eign direct investment, for example), could provide important support to the growth of export industries in Bhutan. The Committee for Private Sector Development is considering a package of incentives that includes tax exemptions and tax holidays. The costs of such incentives, however, should be carefully weighed against their likely benefits. And serious consideration should be given to including duty exemption on imported raw materials for use in the production of exports. The government should also encourage banks to provide both pre- and postshipment finance in support of export activities.

Establishing dry port facilities in Phuentsholing could also assist exporting industries. The government is examining this option, which would allow goods destined for Bhutan to be consigned directly there rather than through the port of Calcutta. Though this option needs to be further investigated, it could address the concerns of some firms that customs clearance charges are inflated by the mandatory use of Bhutanese customs clearing agents in Calcutta.

Another measure that could encourage the growth of exports to India is easing the restriction on the use of hard currency to import raw materials for producing goods destined for India (exporters gain automatic access to a hard currency only if they have earned it through exporting, which a company oriented toward the Indian market is unlikely to do). This restriction needs to be reviewed for three reasons: The demand for such funding is likely to be relatively small. Bhutan has large foreign exchange reserves. And barriers to entry in the Indian market, which is well known and the easiest to penetrate, could undermine the ability of new entrepreneurs to grow into more difficult and less familiar export markets.

Institutional Issues

Several important institutional issues also emerged from the survey.

Government Dominance of the Economy

The government has historically been the dominant economic force in Bhutan and is likely to continue to be for the foreseeable future. As a result, the private sector depends heavily on government tenders and government activity for its markets.[8] This is particularly true for construction, one of the fastest-growing private sector activities. But relying on the government is not a sustainable strategy. Government demand can support only a limited private sector, and government contracts can divert firms from seeking ways to become internationally competitive. The government's importance in the economy is likely to decline only slowly. But it is important that the private sector be permitted to play a growing role, with private-to-private relationships replacing private-to-public relationships as the dominant model.

The government deserves great credit for establishing the visionary development path that Bhutan is now pursuing. But its relationship with the private sector appears to have an element of paternalism, reflected in a "we know better than them" attitude or a sense that the government is less corrupt than the private sector. While these sentiments may be true, they are likely to impede rather than support private sector activity. Indeed, the government has been trying to step back from involvement in the private sector and to provide space for private firms to operate—its privatization and corporatization plans are but one important example. But to ensure that the private sector has enough space to grow and flourish, the government may need to accept a slightly lower level of service (at least initially) and accelerate the withdrawal of ownership and control.

One possible way to support a better understanding in the public sector of the constraints faced by the private sector is to set up internship-type programs for employees of key ministries and public corporations (industry, finance, banking), with participants working for two to three years in private companies inside or outside Bhutan. This experience not only

should help improve the understanding of private sector constraints but also might encourage younger public servants to leave the public sector for productive careers in the private sector. An alternative would be to create "reverse internships," with successful private businessmen—most of whom came out of the public sector—returning to the public sector for shorter periods, to provide a greater voice for private sector concerns in public policymaking.

Need for a Stronger Private Sector Voice

Groups lobbying in support of the private sector's interests can play a vital part in its development—by ensuring that the private sector has a voice in identifying critical needs and designing policy. The lack of export incentives, inattention to training, and proposed labor law are all issues that could be addressed by a strong private sector representative. Most important, a strong private sector voice is needed to help ensure continued good governance, promote consistency and transparency in policy implementation, and ensure that, as Bhutan grows, bureaucracy does not become the crippling burden that it has in other developing countries.

The Bhutan Chamber of Commerce and Industry and associated sector associations (such as the Wood Association thus have a key role to play. But several survey participants alleged that the chamber is not proactive enough in pursuing the private sector's goals or in lobbying for its interests. Some also believe that the chamber supports commercial and trading interests more than industrial interests—and pursues the concerns of the business community in Thimphu more than those of the business community elsewhere. Indeed, the chamber held only two meetings in Phuentsholing in the two years before the survey, even though Phuentsholing is Bhutan's second biggest city and its largest industrial base.

The government was instrumental in establishing the Bhutan Chamber of Commerce and Industry and has done much to support its development; a member of the chamber sits in the National Assembly. Thus the onus of strengthening representation lies squarely with the chamber and its private sector members. Possible ways to strengthen the chamber include increasing its interaction with other chambers of commerce in the region and recruiting an external private sector representative to work with the chamber for several years. Such alternatives need to be actively pursued if the Bhutan Chamber of Commerce and Industry is to fulfill its potential as a successful lobbyist for private sector interests.

Need for Central Coordination of Private Sector Issues

A common problem for governments in dealing with private sector issues is that they lack a designated ministry or unit for this task, largely because private sector activity is so multifaceted. While the Bhutan Ministry of Trade and Industry comes closest to being the designated government body for dealing with the private sector, its mandate does not cover all the issues affecting the sector. Indeed, a range of public institutions deal with private sector issues—including the Ministries of Finance, Education, Agriculture, Home Affairs, Trade and Industry, and Transport and Communications as well as state corporations such as Electricity, Druk Air, Posts, and Telecommunications. (Many firms expressed much gratitude for the wholehearted support of the Ministry of Trade and Industry, but had concerns about dealing with other parts of the government.)

This complexity calls for a central coordinating body that addresses all the needs of the private sector. The **Higher-Level Committee on Private Sector Development** has been an important step toward such an entity. But this committee, composed of busy, high-ranking government officials, cannot be expected to devote the time and resources needed to address many of the detailed concerns of the private sector. Establishing an interministerial working group to support this committee in coordinating the work of

government entities on private sector issues is thus highly desirable.

Benchmarking the Business Environment

The private sector survey shows that many basic problems in the business environment are perceived to be less severe in Bhutan than they are in other South Asian countries. Part of the reason might be a reluctance of Bhutanese managers to criticize the government. Nonetheless, private firms in Bhutan clearly perceive government as more supportive than do firms in most other countries. Comparative findings from the World Business Environment Survey, conducted by the World Bank in 1999–2000, provide a benchmark for the survey results in Bhutan. While the questions asked in the two surveys were not exactly the same, some categories are comparable.

Bhutanese firms participating in the World Business Environment Survey saw their country's business environment as more transparent and more supportive of industry than did firms in other countries in South Asia (table 3.15). Only 17 percent of firms in the Bhutanese sample rated laws and regulations as moderately or highly unpredictable, compared with 56 percent of firms in all of South Asia. Indeed, Bhutan fares better on this measure than any region in the survey. Performing next best are the newly industrialized countries of East Asia, and even here almost 30 percent of the sample rated laws as unpredictable. Similarly, while less than 20 percent of the Bhutanese sample perceived the government as unhelpful, 39 percent of firms in all of South Asia did.

These are only perceptions, of course, and making cross-country comparisons is difficult because different countries have different frames of reference. What might be perceived as a negligible problem in

Table 3.15 Firms Perceiving Laws as Unpredictable and Government as Unhelpful, Selected Regions
(percent)

Region	Share rating laws and regulations unpredictable[a]	Share rating national government unhelpful[b]
Africa	74	33
Middle East and North Africa	52	13
East Asia		
Newly industrialized countries and China	29	11
Developing countries	59	14
South Asia	56	39
Bhutan	17	17

a. Firms responding with a 5 or 6 (with 1 indicating fully agree and 6 fully disagree) to this question: To what degree do you agree with the statement, Interpretations of regulations affecting my firm are consistent and predictable?
b. Firms rating the government a 4 or 5 on a scale of 1 (very helpful) to 5 (never helpful).
Source: World Bank, World Business Environment Survey, 1999–2000.

one country might be considered a serious burden in a country with a better business environment. Nonetheless, such comparisons give some indications of regional and country differences. The comparison here plainly shows that Bhutan's business environment is seen as relatively supportive and transparent. Even so, managers expressed concern about the need for the government to become more systematic in its approach to the private sector to avoid corruption in the future (see the section in this chapter on the regulatory environment)—and the poor ratings in the rest of South Asia suggest the dangers that Bhutan could face.

The positive perception of government among most firms in Bhutan is reflected in the ratings given to regulation. For all categories of regulation, a smaller share of firms reported significant problems in Bhutan than in all of South Asia—where firms have the worst perception of regulation—or any other region (table 3.16). The lack of regulatory interference in Bhutan, which enhances its competitiveness and helps inspire confidence among investors, is something that the government should strive to maintain.

Bhutan also performs well on the provision of public services. For all categories, a smaller share of firms rated government services as a moderate or major constraint in Bhutan than in South Asia as a whole (table 3.17). Bhutan's ratings are more in line with those in East Asian developing countries. As expected, roads were the most likely service to be cited as a constraint by firms in Bhutan, followed by water and power.

Alternative Development Tracks

The clear difference between the opportunities and business environment in the border areas and those in the center of Bhutan call for different approaches to development. In the southern border region—with a

Table 3.16 Firms Perceiving Regulation as a Moderate or Major Constraint, Selected Regions
(percentage of firms)

Region	Business registration	Customs And trade regulation	Labor	Foreign exchange or currency	Environment	Tax administration and regulation	High taxes
Africa	26	49	38	36	22	59	76
Middle East and North Africa	26	44	33	26	24	51	54
East Asia							
Newly industrialized countries and China	22	20	27	18	17	21	39
Developing countries	28	36	35	35	29	55	74
South Asia	39	57	61	39	44	52	72
Bhutan	17	17	21	15	10	10	9

Note: Data show the percentage of firms giving each area of regulation a 3 or 4 rating on a scale of 1 (very good) to 6 (very poor).
Source: World Bank, World Business Environment Survey, 1999–2000.

Table 3.17 Firms Perceiving the Quality of Public Services as a Moderate or Major Constraint, Selected Regions
(percentage of firms)

Region	Customs	Public works and roads	Postal service	Telephone	Power	Water	Police
Africa	38	53	32	35	39	43	57
Middle East and North Africa	14	20	7	5	9	14	14
East Asia							
Newly industrialized countries							
and China	8	14	7	7	8	9	12
Developing countries	32	41	9	15	19	25	37
South Asia	40	59	22	25	45	39	49
Bhutan	15	40	9	8	23	30	18

Note: Data show the percentage of firms giving each service a 4, 5, or 6 rating on a scale of 1 (very good) to 6 (very poor).
Source: World Bank, World Business Environment Survey, 1999–2000.

large pool of inexpensive labor and better access to raw materials and markets for final products—it is more feasible to develop industries that make intensive use of labor and raw materials. Firms could take full advantage of Bhutan's inexpensive power to develop heavier industries.

In central Bhutan, where labor costs are appreciably higher and expensive transport (both inward, for raw materials, and outward, for finished products) significantly raises the cost of producing for any but the local market, a more feasible development strategy would focus on services to support labor-intensive industry in the south and on niche industries. Industrial development on the border will create demand for support services—for management, accounting, maintenance, information technology services, and the like. Service jobs typically demand higher skill levels than most manufacturing jobs but also provide higher value added per worker and thus higher wages. However, developing a service sector that provides a large source of well-paid employment will require significant investment in human resources.

The central region also has the potential to develop niche industries that do not require large inputs of raw materials (particularly from outside Bhutan) and do not produce heavy finished products that incur high transport costs in export. Niche industries should build as much as possible on the country's agroprocessing base—such as wasabi, medicinal herbs, and shiitake mushrooms. For niche industries to succeed, quality production will be critical. Thus if Bhutan is to break into such niche markets, it is imperative that it establish quality standards and consistent production. Bhutan could build on advantages that provide a marketing niche, particularly by obtaining certification for its organic status and for its sustainably managed forests. Efforts to obtain such certifications should be undertaken quickly.

Nontraditional niche industries could gradually include those based on handicrafts and information technology as well as other industries not heavily dependent on transport or low-cost labor. One excellent example of a nontraditional niche activity is an export business producing fishing flies (box 3.3). This busi-

Box 3.3 Yangphel Handicrafts—a Nontraditional Niche Business

The Bhutanese owner of Yangphel Handicrafts initially developed the idea of producing fishing flies—a nontraditional product for Bhutan—through an association with an American partner from Montana who had been trying to develop fly-fishing tourism in Bhutan. The American partner expressed interest in developing an export business based on producing flies—considered an ideal business because the product was lightweight, could be handmade in Bhutan, and could be easily exported by air to foreign markets. To get the business launched, two American experts came to Bhutan in 1989 to work with and train 12 Bhutanese workers. The workers—most of them women—appear to be particularly adept at producing high-quality flies.

The business faces competition from China and Southeast Asia as well as Africa and Latin America. With workers in Bhutan paid relatively high wages, it cannot compete on price but it does appear to have a quality advantage. A worker in the Bhutanese factory can produce 120–200 simple flies or 12–20 complicated ones a day. Retail prices in the United States and the United Kingdom, the two main export markets, range between $1.50 and $3.50 for each fly. The company employs mainly women (of its 50 employees, only 10 are men) and pays workers on a piece-rate basis, which seems to suit women with children particularly well.

The company's main obstacle has been the lack of duty concessions on raw material imports: the duties and Bhutan's business sales tax together amount to 30 percent. These duties have reduced the company's price competitiveness. Problems with Druk Air also threaten its competitiveness, since production turnaround needs to be quick (while it takes three days to get raw material from the United States or the United Kingdom to Bangkok, it takes one month on average to get this material from Bangkok to Paro). The government's decision to grant the company exemptions on import duties and the business sales tax since July 2001 has made a big difference.

Source: Firm interview.

ness is based on an association with a foreign businessman, employs a large number of women who appear to have a natural aptitude for producing high-quality flies, and produces a lightweight product that can be easily exported at low cost. But as another possible niche business illustrates, developing nontraditional export markets involves big challenges (box 3.4).

In both central and southern Bhutan the development of industries based on locally available, high-quality raw materials should also be encouraged. Examples include tourism, wood-based industries, and mining opportunities throughout the country. Wood-based industries as well as agroprocessing, however, will continue to be affected by the high costs of transport to bring both raw materials and finished products to market.

Privatization

As the Bhutanese government gradually extracts itself from the productive sectors of the economy and increasingly focuses on the social sectors and others where the market fails to provide the services needed, the private sector will be able to play a larger and more dominant role. The government has made good progress in privatization over the past decade, selling shares in several important corporations to the private sector and corporatizing some state-owned enterprises. It will be important to continue—and possibly accelerate—this process during the Ninth Five-Year Plan, preferably within a more precise and transparent structure. This could include selling the government's remaining minority stakeholdings in some companies and beginning the pri-

Box 3.4 The Challenges of Developing Niche Markets

A Bhutanese company hand-producing traditional incense using a closely guarded Tibetan formula illustrates the problems facing potential exporters of niche products. This enterprise is an established one with a product well known in the local market. And there should be strong demand for handmade incense in the high-end export market in the West given the growing Buddhist population and the popularity of all things Eastern. But without a great deal of assistance, this small enterprise is unlikely to be able to access that market.

The owner has no contacts abroad and no idea of how to find buyers. Indeed, finding buyers from Bhutan is nearly impossible, even in the days of the Internet and good telephones. Unlike India and other developing countries, Bhutan has no large expatriate community that could provide potential contacts overseas. And almost no buyers travel to Bhutan because of the cost and the lack of possible producers. Moreover, the owner knows nothing of the foreign market and would not know how to package or design his product. For that information he would have to rely on buyers. But attracting buyers for a poorly designed or packaged product is difficult.

If the owner were to receive an order, the local packaging technology would be inadequate, and importing packaging on such a small scale would be expensive. Because of the unreliable transport system, the company would be unable to guarantee delivery dates, and the transport of raw materials within Bhutan could be delayed.

The biggest problem after finding a buyer would be to obtain financing to support manufacturing and shipment. Even if the company had an order in hand, the poor information systems and enforcement mechanisms in Bhutan make it unlikely that any lending institution would be willing to incur the administrative costs or take the risk of providing a small working capital loan, even with substantial security. And foreign buyers would be unlikely to take the risk of making prepayments to finance production because of the communication difficulties and the inefficient legal system.

Thus while there is almost certainly a market for niche products such as incense, the small Bhutanese manufacturers are not positioned to enter them. Better travel facilities, matching grant schemes that subsidize technology transfer, less restriction of foreign direct investment (including foreign partners), and new financial instruments and greater competition in the financial sector would all help small producers take advantage of Bhutan's unique cultural and natural resources.

vatization of additional companies and corporations. Also important is to seek strategic partners to take over purely productive activities and to investigate greater private sector involvement in areas traditionally operated by the public sector, such as health and education.

Notes

1. Government of Bhutan, *Rules and Regulations on Employment of Bhutanese Nationals in the Private Sector* (Thimphu, December 1997).
2. As a result of large spillover effects from firm-level training, the net social benefits exceed the private benefits captured by firms. That leads to suboptimal investment and thus a need for the government to provide some support. The spillovers include trained workers taking their skills to other firms, training by one firm providing a demonstration effect to others, firms providing training to suppliers and customers, and benefits to customers that result when firm training raises the quality of products.
3. Tyler Biggs, Manju Shah, and Pradeep Srivastiva, *Technological Capabilities and Learning in*

African Enterprises, World Bank Technical Paper 288 (Washington, D.C., 1995).

4. When firms say that they do not need credit, it is difficult to disentangle their lack of desire for credit from the effect of the high cost. Although firms were asked whether it was a matter of not wanting credit or of credit being too expensive, many managers said that they did not want credit when they meant that they did not want credit at the current cost and collateral requirements. Many entrepreneurs said that they could afford to borrow but did not believe in taking on debt. But this response can be seen as a reflection of the immaturity of both the financial system and the private sector. Entrepreneurs fear taking on debt or lack knowledge about how to manage it.
5. World Bank, "Financial Sector Vision Concept Note" (Washington, D.C., 2000).
6. The study focuses on investment in equipment because it accounts for the vast majority of recent investment expenditures. Investment in buildings was insignificant.
7. Survey responses show a difference in the reliability of power supply between Phuentsholing (on the border) and Thimphu (in the center). Firms in Phuentsholing reported losing power five times a month on average, while those in Thimphu reported losing it less than once a month. Almost a third of firms in Phuentsholing had backup generators, compared with only 17 percent in Thimphu.
8. Some firms that rely on government tenders complained that the government places too much emphasis on price over quality—and that this emphasis tends to adversely affect Bhutanese producers while benefiting Indian producers. The government, however, refutes this claim.

Present Situation

Agriculture is an important sector in the Bhutanese economy, with 79 percent of the population depending on some form of agricultural production for their livelihood. Although its contribution to GDP has fallen in recent years, agriculture still remains the largest sector. In 1999 it was estimated at 35 percent of GDP—17 percent from agriculture, 10 percent from forestry, and 8 percent from livestock. In 2000 agro-based industries employed 2,536 people and had a turnover of less than $4 million, with output accounting for 2.8 percent of the total in manufacturing.

Agricultural land, about 7.7 percent of the total land area, consists of small landholdings that are fragmented and scattered over difficult terrain. Many farming communities exist in isolation, often several days' walk from the nearest road head. Land in the main river valleys commands a high price.

The agricultural system in Bhutan has traditionally been subsistence based, and in many parts of the country that is still the case. Many farmers are unable to participate in the market economy because they have no surplus or are cut off from markets by poor transport. Lack of access to markets is the main reason that farmers are reluctant to produce a crop surplus beyond that required for barter trade. In some regions, however, farmers have adopted cash crops.

Developing Bhutan's agricultural production base must be a priority for developing the agroprocessing sector. The government's self-sufficiency program, under the Ninth Five-Year Plan, calls for giving equal priority to all important cereal crops. But land could be used for cash crops, with the earnings from exports used to buy rice from cheaper producers.

Bhutan produces about 60 percent of its annual food requirements. Because most food is consumed fresh, processing opportunities are limited, and farms are isolated, only about 3 percent of output is processed for commercial purposes (mainly fruit and vegetables). The opportunities for on-farm processing will increase as rural infrastructure, packaging, transport, and processing capacities improve (many of these issues are addressed in the Ninth Five-Year Plan). And while commercial food processing is virtually absent today, given the right environment, agroprocessing industries could have good potential for growth, mainly through exports of high-value, low-volume products.

Industry Structure

Bhutan produces a narrow range of fresh produce and an even narrower range of processed foods (see appendix 3 and table 4.1). In 2000 fruit processing contributed more than 90 percent of turnover and employment in the sector (excluding alcoholic beverages). But the category that has grown fastest in the past five years is bakery, expanding by 16 percent a year.

The relatively unorganized agroprocessing sector is dominated by small firms, none of which are foreign owned: 104 cottage and small-scale enterprises and only 3 large-scale enterprises. Agroprocessing enterprises in developing countries are typically micro or small scale.

Bakery. Bhutan's fledgling bakery sector consists of four to five firms whose scale is akin to the small, retail-level bakeries found in more developed parts of Asia. Despite their relatively small size, these companies are successful. They produce cakes and pastries for affluent consumers, and biscuits for mass consumption. Domestic producers have a market share of 70 percent, while the balance is imported, mainly from India as well as some from Thailand and Bangladesh. The bakery industry is characterized by healthy margins and roots in urban markets and by a reputation for quality and reliability that drives growth. The bakery sector in India is a $3 billion a year industry.

Table 4.1 Early Entrants in Agroprocessing Categories Typical in Developing Countries

Category	Products	Production in Bhutan
Bakery	Bread, biscuits, cake	Four to five small, retail-level bakery outlets in Thimphu
Consumer food	Confectionery, soft drinks, ready-to-eat products, noodles	Little production; a few cottage and small processing units making noodles.
Grain and oilseed	Rice and wheat milling, edible oil extraction	Limited number of small, village-level rice and wheat mills. In Phuentsholing, a small wheat mill with a capacity of 65 metric tons a month; total wheat mill capacity in Bhutan is about 620 metric tons a month. Also in Phuentsholing, one small mustard oil extraction plant with a capacity of 330 metric tons a year.
Dairy products	Milk, cheese, butter and ghee, yogurt, milk powder	Staple products produced in villages. One modern dairy processor in Phuentsholing, with a capacity of 250 metric tons a year.
Meat and poultry products	Meat cuts, processed products	Mostly informal sector activity. One small poultry processor in Thimphu.
Others	Tea, coffee, spices, alcoholic beverages	Informal drying of spices but no processing plant. One distillery in southern Bhutan.

Vegetable Oil. Production capacity in the local vegetable oil sector (mainly mustard seed oil) has shrunk in recent years. Firms have closed mainly because of an inability to compete with cheaper imported products from India (about 5 percent cheaper) and shifting crop production patterns. Technology is at a low level. Raw materials come mainly from India, supplemented by a small share (20 percent) of mustard seed from local sources. But procuring raw materials locally depends on subsistence farmers generating surpluses, and there has been little effort to initiate contract farming or to promote oilseeds as a cash crop. Brand loyalty is weak, and products are sold as a commodity. Annual domestic consumption of fats and oils amounts to about 5,000 metric tons (including 1,800 metric tons of mustard seed oil, of which 330 metric tons is produced locally).

Consumer Foods. Surprisingly, the production of consumer foods, even traditional items, is small. Most least developed and developing countries have many small establishments producing traditional consumer products—in East Asia, usually noodles or confectionery, and in South Asia, packaged atta (wheat flour, a $4 billion industry in India) or confectionery (a $2 billion industry in India).

Fruit and Vegetable Processing. Bhutanese production of all forms of agricultural produce (grains, fruits, vegetables) amounts to 177,000 metric tons a year, with fruit accounting for 39,000 metric tons and vegetables for 32,000. (Grains account for about 106,000 metric tons.) Bhutan's neighbor India is the world's third largest producer of fruits, after Brazil and the United States, and the largest producer of vegetables. The main fruit crops grown in Bhutan (mango, citrus, and apple) are similar to those produced in India. Bhutan has a small fruit and vegetable processing industry (three firms), which, like its Indian counterpart, produces fruit pulps, pickles, chutneys, canned fruits and vegetables, concentrated pulps, juices, and dehydrated vegetables. The Bhutanese companies have a turnover of about $3 million, while

their Indian counterparts have a turnover of $900 million (excluding canned products).

Dairy Products. Dairy products form the base of the Bhutanese diet. Locally, about 27,000 metric tons of milk is produced annually, of which 15 percent is directly consumed. The rest is converted into cheese (1,442 metric tons) and butter (1,316 metric tons). In addition, Thimphu imports milk powder (877 metric tons a year), butter (199 metric tons), cheese (72 metric tons), and yogurt (20 metric tons) from India. In Phuentsholing a small dairy processor (with a capacity of 700 liters a day) produces pasteurized milk and dairy products, mainly for Thimphu, obtaining fresh milk from India. The dairy industry in India is valued at $11.5 billion a year.

Meat and Poultry Products. Most of the population consumes meat or poultry products, and meat consumption is growing by an estimated 10 percent a year. But in Buddhist culture there is a strong religious and cultural revulsion toward the slaughter of animals that in many communities also extends to the rearing of livestock for slaughter. Bhutan has only a small meat and poultry industry. It produces 1,700 metric tons of meat annually, supplemented by 234 metric tons from India and a small amount of processed meat products that is also imported. Most locally produced meat is of poor quality. Only about 1 percent of the meat is converted into value added products, and most meat is purchased by consumers in rural areas. Bhutan has only one poultry processor. By comparison, meat and poultry in India is a $10 billion industry.

Other Products. Bhutan has a small traditional medicine sector and produces essential oils at the community level, mainly lemongrass oil. In addition, one of the main agroprocessing companies is a distillery that reconstitutes whiskey concentrate and produces a range of liquors, including brandy, its main export product.

Markets

As noted, the food products consumed in Bhutan are mainly from local sources, supplemented by imports from India and some from Bangladesh and Thailand. Imports are increasing as urban populations grow and food preferences change to higher-value processed products. One exception is bakery, which takes advantage of the perishability of the products and changing consumer tastes.

Bhutan's three main food processors sell more than 65 percent of their production to India, a small amount to Bangladesh, and the balance locally. By contrast, smaller units restrict their sales to the local market. Of the firms surveyed, only two reported exporting to countries outside the free trade zone with India.

Bhutan also exports a range of fruit and vegetable products, in a fresh or chilled state, mainly to India and Bangladesh. Trade in fresh produce is modest (Nu 225 million in fruit and Nu 230 million in vegetables and spices), as is that in processed products (Nu 103 million in juice, Nu 99 million in processed fruit and vegetables, Nu 80.3 million in rum, and Nu 37 million in jams).

To put the industry in perspective, world agricultural and food trade amounted to $464 billion in 1996. Processed foods constituted the fastest-growing part of this trade. Expanding at twice the rate of primary products, processed foods grew from 50 percent of global agricultural trade in 1985 to some 75 percent in 2000.

Government Policy

Several aspects of government policy create a favorable environment for the agroprocessing sector, just as for other manufacturing sectors. These include the import-export regime and the stable exchange rate with India. Moreover, the steps taken to introduce product quality standards—drafting food safety regulations and establishing the quality control and regulatory service units in the Ministry of Agriculture—are

important in moving the industry toward international norms in this area.

Labor and Employment

The agroprocessing firms surveyed were generally modest in size, with more than half employing only 5–15 people (table 4.2). The largest employed 364.

In the Phuentsholing-Samtse area, except for the Army Welfare Project, firms rely on Indian day workers for 90 percent of their workforce. Firms hire Indians because of their skills and experience, their better attendance, and their lower wage rates. In Thimphu Indian workers make up only 1–2 percent of the workforce and are employed as regular staff.

Table 4.2 Agroprocessing Firms in the Survey, by Characteristics

Characteristic	Share of firms (percent)
Employees	
Less than 6	8
6–99	70
100–200	15
More than 200	8
Annual turnover (millions of ngultrum)	
Less than 5	40
5–10	25
10–100	15
100–200	15
More than 200	8
Share of raw materials imported (percent)	
Less than 50	8
50–95	15
95–100	78
Capacity utilization (percent)	
Less than 50	30
50–75	45
More than 75	25

Source: World Bank private sector survey, Bhutan, 2001.

Most firms identified labor costs as an impediment to their survival. Companies employing Indian workers generally view Bhutanese workers as unreliable, too expensive, and lacking the necessary technical skills and experience. Thus the risks associated with training are thought to be too high to warrant much investment. But many of the problems identified by firms may be of their own making; the companies relying on Indian workers tend to be characterized by poor working conditions and little sense of ownership. In contrast, the few companies employing Bhutanese workers and providing a reasonable working environment appear to be rewarded by employee loyalty.

Reliance on Indian workers was most apparent for firms operating at or near a loss. Given the apparent inefficiencies in their operation, these firms are unlikely to survive if they pay the higher rates demanded by Bhutanese workers. Yet firms also face little incentive to automate.

None of the firms interviewed volunteered views about the productivity of labor, and none recognized a need for training. No firm articulated the links between the cost of labor, labor productivity, and international competitiveness. Firms that ranked cost of labor as a significant obstacle to competitiveness may really have been pointing to low labor productivity, which results at least in part from poor management skills, low levels of training, and inappropriate technology.

Costs and Competitiveness

Three main factors determine the competitiveness of the processed food sector:

- At the front of the value chain, the cost, availability, and reliability of raw materials delivered to the processors.

- Along the value chain, the relative efficiency with which value is added—in financing, manufacturing, packaging, branding, marketing, and distribution.
- The business environment.

Lack of Price Competitiveness for Raw Material Inputs

The agroprocessing industry in Bhutan has several competitive advantages relating to local raw materials:

- The ability to produce a wide range of produce because of the huge variety of microclimates, including high-altitude zones (alpine), central valleys (temperate), and low-lying foothills of the Himalayas (subtropical).
- Organic farming, which is practiced by default because the country has not developed the pest infestations endemic in the rest of the region and has never used agricultural chemicals in large amounts.
- An extension service that is experienced in introducing new high-value crops.

But while the country could produce many high-value primary products, it lacks mechanisms for realizing this potential. Processors need to work with farmers to progressively identify and exploit opportunities.

Unfortunately, Bhutan's agroprocessing industry relies on low-value markets, where the raw materials produced in Bhutan confer no appreciable cost advantage.[1] And the sector lacks appropriate management or marketing strategies that might compensate for the lack of cost advantage. While benchmarking the price of raw materials used in the sector was beyond the scope of the survey, respondents provided useful information, as do some existing studies (table 4.3).

All the agroprocessing companies surveyed cited the high cost of raw materials as a significant impediment to profitable operation. Local products have high farm-gate prices and incur high transport costs from farm to factory, made worse by the high incidence of damage and loss. Farm-gate prices average 35–300 percent more than those in India, transport can add another Nu 0.7–1.0 per kilogram (over distances of up to 200 kilometers), and losses can be as high as 40 percent. For companies located away from the border areas, products from India also incur high transport costs and are subject to taxes (see chapter 3).

The relatively high farm-gate prices for Bhutanese raw materials reflect low yields, low farmer productivity, and poor land use (farmland is only 45–50 percent utilized). Evidence shows that given the right stimulus, productivity gains could be considerable and should translate into lower raw material prices and higher on-farm income.

Comparative data on worker productivity in agriculture suggest much room for improvement. Value added per agricultural worker in Bhutan is $148 a

Table 4.3 Price Competitiveness of Agricultural Raw Materials, Bhutan

Raw material	Competitiveness
Dairy	Bhutanese costs are high because of high transport costs when raw milk is purchased from India. Local milk costs are high because cow yields are low and herds fragmented.
Chicken meat	Bhutanese costs are high because feed must be purchased from India and transported to Thimphu.
Horticulture	Bhutan is considered a high-cost producer.
Grain	Bhutan is considered a high-cost producer.

Source: World Bank private sector survey, Bhutan, 2001; various studies.

year, compared with $407 in Cambodia, $526 in the Lao People's Democratic Republic, an average of $567 in low-income countries, and an average of $18,918 in high-income countries.[2]

The most widely used indicator of crop productivity, production per unit of land (or crop yield), is also low in Bhutan. Yields of basic food commodities (cereals, oil crops, and roots and tubers) are 30–50 percent lower in Bhutan than in other least developed countries, where yields average less than half the average for all developing countries.[3] Here again there appears to be potential for substantial gains in productivity.

The conclusion: If local raw materials are not cheaper than imports, the development of a local agroprocessing industry able to export to price-sensitive markets such as India will be unlikely.

Lack of Competitiveness in Adding Value

Value adding activities in Bhutan—including manufacturing, packaging, branding, marketing, and distribution—may not be competitive for a number of reasons (see table 4.4 for a summary).

Marketing. A key issue in marketing is whether Bhutan should seek to compete on price or value. Bhutan will have difficulty competing in processed foods in Asia and India as these markets rapidly mature, because of the difficult challenges for Bhutanese processors in developing scale, modern processing and management systems, and brand awareness—all critical factors. Realistically, Bhutan can only be a niche player in Asia. Niche markets are often lucrative, but Bhutan lacks the world-class management, processing structures, research and development (R&D), and product or process innovation needed to compete in niche markets. None of the firms interviewed invest in R&D, for example. In contrast, more than 80 percent of Australian agroprocessing firms do—yet Australia still struggles to compete in niche markets because of its lack of innovation. Exacerbating Bhutan's problems, all the firms source their technology conservatively, preferring to buy from India. Indian technology is often outdated and cannot be calibrated or optimized, making it difficult for processors to produce a quality product.

Another key issue is the need for innovative marketing. Bhutan's main export market is under increasing pressure as Indian producers learn how to increase quality and lower costs in response to foreign companies and imports. Despite awareness of the advantages of Bhutanese agricultural products, neither companies nor government officials articulated a strategy for developing innovative export marketing. Firms exporting to India or other countries do so in a conventional and conservative manner, often relying on established or chance contacts. Because Bhutanese products are not clearly differentiated, they struggle for margins in the markets where they are sold. Expanding exports will require devoting resources to communicating the nutritional and other advantages of Bhutanese food products to potential customers.

Human Resources. Firms reported weak capabilities in exporting and, in several cases, even in sustaining market positions. The wide range of firms interviewed generally had outdated or at best mediocre processing technology, lacked vision, and showed no ability to battle the poor prospects for survival characterizing much of the agroprocessing sector. Many of these weaknesses relate to the firms' human resources, motivation, training, and outlook.

Bhutan lacks a cadre of talented managers with world-class business experience and perspectives and with entrepreneurial skills and abilities in innovation. Skills are poor at all levels, and firms are unable or unwilling to invest in training to rectify this situation. The sector will not improve unless it addresses shortcomings in general management and technical and marketing skills.

Table 4.4 Can Bhutan Compete in Agroprocessing?

Link in the value chain	Critical factors	Competitiveness
Raw material (delivered to factory)	Price, quallity, length of supply season, reliability of supply	Produce delivered to factories has no price advantage and the quality is often low because of the lack of a grading system. The harvest season could be extended by vertical cropping, but this has not happened. Supply to factories is unreliable.
Manufacturing	Technology, labor, utilization rates, innovation	None of the firms has a competitive advantage. Technology is old and inefficient, labor productivity is low, capacity utilization is poor, and processes lack innovation.
Packaging	Costs, quality, design	Uncompetitive processors rely on imported raw materials from India. Recycled bottles are used, which are not appropriate for many markets. The production scale is too low to use alternative packaging such as Tetra Pak.
Branding	Recognition, support	Bhutanese food products have a good reputation for quality in India, but this has not been built into a brand. Establishing and building international (or regional) brands is beyond the resources of most Bhutanese companies.
Freight	Price, time for delivery, damage	Firms in the interior are at a disadvantage. Firms on the border have less problem unless they require a refrigerated container. The time to market generally reduces shelf life. There is a high incidence of product spoilage and damage.
Marketing	Innovation, investment	No competitive advantage. Firms need to learn the requirements of their target markets and how to take advantage of this knowledge.
Financing	Cost of debt, availability	No competitive advantage.
Research and development	For small-scale firms hands-on development most appropriate.	There is no culture of research and development in agroprocessing.

Capacity Utilization and Scale of Operations. Three-quarters of the firms surveyed reported utilization rates of less than 75 percent; the rest were working near full capacity.[4] The reasons cited for the low capacity utilization include seasonality and logistical issues with the supply of raw materials and a lack of market resulting from poor price competitiveness. Difficulties in obtaining raw materials and the cost of transport can seriously undermine firms' ability to operate efficiently (box 4.1).

Without exception, processing plants were too small to compete with Indian units. Being small can be an advantage, sometimes allowing a firm to succeed in niche markets too small to attract the attention of larger companies. But this is not yet the case in Bhutan.

Packaging. Most of the firms interviewed were concerned about the cost and other problems associated with packaging and the effects of these issues on their competitiveness. An ideal packaging for many of Bhutan's food products would be Tetra Pak. But Tetra Pak systems, in their smallest configuration, deliver several thousand units a minute—a much greater capacity than that needed today.

Box 4.1 The Importance of Location

The supply and price of raw materials and the cost of transport pose major challenges to the development of an agroprocessing sector in Bhutan. The effect of these challenges can differ dramatically among firms, depending on their location. Consider these two fruit and vegetable firms producing nearly identical product ranges.

Company A, located in the interior of Bhutan, buys about 43 percent of its raw materials from India and exports most of its products. Since both inputs and outputs are transported to and from the Indian border, its transport costs are comparatively high (about 6 percent of the ex-factory price). The firm also depends on raw materials from local producers. The quality of the raw materials is usually poor, adding to the production costs. Moreover, local supply is inconsistent, and as a result the firm usually runs at less than 75 percent capacity, based on a single shift. With such low capacity utilization, the company is unable to take full advantage of mechanization, and its production is relatively capital intensive. The firm has experimented with schemes to promote contract farming and believes some are slowly beginning to have an effect.

In contrast, company B, located on the Indian border, imports 98 percent of its raw materials from India and elsewhere and reports no problems with supply. Its transport costs are lower (3 percent of the ex-factory price) than company A's. With a regular supply of raw material, the firm operates at near full capacity for two shifts a day. In the past the firm depended on cheap Indian labor, reflected in the low mechanization and high labor intensity of its operation (with output per worker 36 percent lower than that in company A), but it is now increasing its mechanization. The firm makes a profit every year.

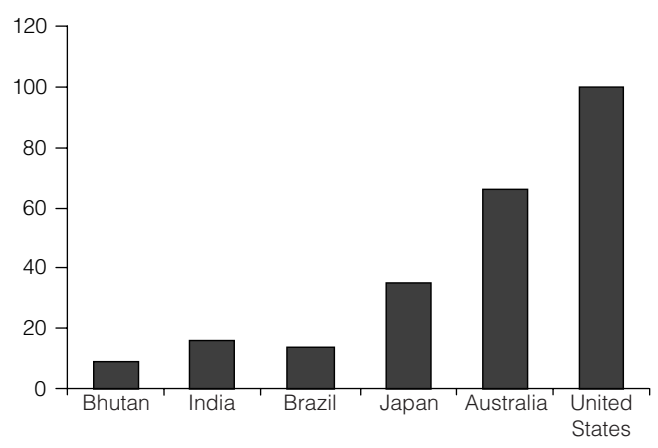
Source: Firm interviews.

The Bhutanese food processing industry is too small to support a thriving local packaging industry. Yet without one the industry will face extra costs and other constraints to its growth. Efforts are also needed to ensure that packaging is acceptable to the buyer. The bottle top used in Bhutan is not acceptable in Thailand, for example, because it is difficult to confirm an accurate seal.

Output per Worker. Output per worker, an important measure of supply-side efficiency, is very low in Bhutan. In Thimphu it is $9,147 a year, and in Phuentsholing $5,864. By contrast, in the Lao People's Democratic Republic it is $74,000.

A simple comparison suggests that Bhutanese food processors are no more efficient than small-scale Indian processors—and are disadvantaged by high raw material costs and logistical constraints. The labor productivity of Bhutanese companies is therefore assumed to be similar to that of unregistered Indian food processors, estimated at 9 percent of the level in the United States (figure 4.1). The labor productivity of registered processors in India, with greater economies of scale, is estimated at 16 percent of the U.S. level.

Figure 4.1 Labor Productivity in Agroprocessing, Selected Countries
(index: United States = 100)



Cost Structure of the Industry. The cost structure of the food processing industry varies widely within Bhutan. Processors in Thimphu face higher raw material costs, for example, because of the larger share of local raw materials used or the cost of transporting imports from India (see box 4.1).

Labor costs vary by district, by the background of the worker, and by industry. Monthly pay averages $120 in Thimphu and $45.50 in the Phuentsholing-Samtse area, with much of the difference explained by the predominance of Indian workers in Phuentsholing. But pay varies among firms. For example, the Army Welfare Project in Phuentsholing, which employs 90 percent Bhutanese staff, pays its employees $153 a month on average, more than the average in Thimphu. While labor costs account for 9 percent of the ex-factory price of products in Phuentsholing, they account for 14.5 percent in Thimphu (these relative shares are also influenced by the cheaper raw materials in the border area of Phuentsholing).

Factors Critical for Success

Many factors need to be present for agroprocessing firms to be successful. Several factors important for firms in all sectors are in place—the favorable import-export regime, the exchange rate, reliable and affordable infrastructure services, and trade agreements with other countries (these are covered elsewhere in the report). For firms in agroprocessing, however, five additional factors are critical for success:

- *Availability of consistently high-quality raw materials.* Firms need access to good-quality, graded raw materials that suit the needs of the market and their processing lines and are available at market competitive prices. In Bhutan today, however, factories receive surplus material that is generally of low quality, has not been graded, and is high priced. And both supply and quality are inconsistent.
- *Friendly policy toward manufacturers.* Government policy needs to be sympathetic to the needs of manufacturers and provide an environment in which the processors can develop and grow. But new agroprocessing enterprises in Bhutan face changing policies, unfavorable tax treatment, and high cost structures.
- *Product innovation.* Firms need to transcend price competition by developing differentiated products that do not need to compete on price. That requires investing in innovation, which must occur all along the value chain. Innovation can take many forms—managing the supply chain, positioning products in clever ways, and improving processes, products, and packaging. Government support is critical in providing an enabling environment for such innovation.
- *Access to appropriate technology and labor.* The technology in agroprocessing needs upgrading. Firms are prepared to invest if they have assurances that their land leases will not end before investments in technology have paid off. They also need guidance in sourcing competitive technology that will propel them ahead of the competition. In addition, the policy environment needs to be appropriate and consistent. And companies need skilled labor at predictable wage rates.
- *Market-led production.* Industry should be led by the needs of the market. Efforts to introduce new products should start by identifying the target market and precisely defining its needs and sustainability.

Impediments to Growth

Firms reported being disadvantaged relative to Indian firms in labor, raw materials, domestic freight costs, and financing for new equipment. (Labor is discussed above in this chapter and in chapter 3; raw materials are discussed above.) Disadvantages also stem from management weaknesses and poor information on markets. If Bhutan tackles these key impediments to

performance and makes substantial productivity gains, it will be able to compete in global niche markets—the high-value, high-quality markets that now elude the country's agroprocessors.

Costly and Unreliable Domestic Freight

Most firms cited the cost of domestic freight and transport as a major issue. Most businesses must transport raw materials, packaging, or finished products—or all of these—within Bhutan or to or from India or even farther afield. The sector faces serious transport constraints, many related to the country's landlocked and isolated location, that affect both the supply of raw materials and processing inputs and the shipment of final products. Some of the constraints are related, and few will be easily solved. The most important constraints cited by companies are these:

- The distance from the nearest seaport (Thimphu is 950 kilometers from Calcutta).
- The poor standards of roads, including national highways.
- The tendency of roads to close during the monsoon season.
- Lack of competition in air services to and from Paro.
- High road and air transport charges.
- Difficulties in shipping fruit exports through India to Bangladesh.

Transport time is vital when transporting fresh produce from farms. But farms may lie several days from a road head and more days from the processing site, limiting the area within which raw materials can be sourced. Transport time can be just as critical in exporting finished goods. Typical transit times by truck from Thimphu to Calcutta are reported to be up to six days.

The costs associated with transporting raw materials and finished products reduce the competitiveness of Bhutanese agroprocessors. These costs climb dramatically if containers are required. Charges for containers from Phuentsholing to Calcutta are quoted at Rs 10,000 for a 20-foot container—and at Rs 40,000–50,000 for a refrigerated container, which normally has to be shipped empty from Calcutta.

Another problem is that several fruit and vegetable products with good export potential are available for export only during the summer months, when monsoon weather tends to disrupt both land and air transport.

Firms exporting products to Bangladesh face particular difficulties. The products exit India at Changrabandh and then enter Bangladesh at Burimari. Fruit is generally carried in boxes by Bhutanese trucks to Burimari, where it must be transshipped to Bangladeshi trucks for onward carriage to such markets as Dhaka, Rangpur, and Chittagong. The products can hit several snags along the way:

- The poor conditions at Changrabandh—where queues to clear Indian customs are often long—can seriously delay even vehicles carrying perishable transit products (which should be given priority).
- The flow of products such as apples may be further disrupted by the muddy conditions at the border during the monsoon months, when many vehicles become bogged down.
- Once goods have been left for transshipment at Burimari, the Bangladeshi importers may claim short delivery or loss of product quality and refuse to pay the full amounts specified in the letters of credit.

Goods may also be damaged in transit. They may be loaded and offloaded several times, and breakage is common (the breakage rate for glass bottles is 7–9 percent). And haulers may fail to use proper care and handling procedures.

Limited Financing for New Equipment

Most firms acknowledged problems with undercapitalization. Small firms generally must rely on retained earnings or borrowing to finance expansion or investment in innovation. Because profitability tends to be low in the food sector, using retained earnings usually slows investment. Lenders treat the sector conservatively, expecting to lend funds against fixed assets, so small firms find it difficult to expand.

Management Problems

Beyond the issues cited by survey respondents, management problems also hamper the agroprocessing industry. Bhutan faces deeper management problems than many countries because of its lack of qualified and experienced entrepreneurs and a resource pool from which innovations can grow. In the agroprocessing sector the absence of these resources stems from the lack of agro-industrial development and opportunities to develop necessary skills and knowledge. When poor management means that firms fail to address the needs of buyers, the consequence can be the loss of business (box 4.2).

The low productivity of Bhutanese agroprocessing firms stems in part from their low capital intensity, small scale, and problems with raw material supply. But these problems are much less important than the low management aspirations and limited innovation in businesses. The firms surveyed are characterized by:

- *Slowness in adopting innovative new processes developed overseas.* All firms lack adaptive skills and interest in systems, technology, and conceptual product development. In these areas Bhutan lags far behind its neighbors—and these countries are far from leading edge. Firms that have upgraded their technology have done so only minimally and have adopted technology from India, which is generally far behind international standards.
- *Poor product and marketing innovation.* Firms lack innovation in products and marketing. Management is unable to rethink product categories and innovate to meet new customer demand. This will become a serious issue as Bhutanese companies try to identify and enter niche markets.

Box 4.2 Effects of Poor Management on Bhutan's Market Potential

When firms use poor management in dealing with export markets, they can establish a poor reputation for Bhutan and lose business to competitors in other countries. Consider this example.

A European company specializing in importing and distributing aromatherapy products worked closely with the government of Bhutan for up to 10 years to develop a market in Europe for lemongrass oil. For a number of years the company purchased some 2 metric tons of lemongrass oil annually from Bhutan.

The company reported that it paid around $16 a kilogram (including carriage and freight) for the lemongrass oil, compared with a normal price of some $11 a kilogram. Despite the price premium, the company found the Bhutanese suppliers difficult to deal with. Orders arrived late, were often short-weighted, failed to meet technical specifications, and lacked consistent quality. When the company tried to communicate the problems, the suppliers claimed not to have received the messages; sometimes they simply ignored them (other buyers supplied from Bhutan have reported similar problems).

The company finally changed suppliers, finding better-quality lemongrass oil from other outlets. It now purchases the product from Nepal.

- *Passive supplier relationships.* Food processors have tended not to build proactive relationships with primary producers—with the notable exception of Bhutan Agro Industries—though some companies plan to forge closer links in the near future. Collaborative relationships are needed that provide opportunities to improve products and processes. The recently introduced Cooperative Act offers, for the first time, a framework for collaboration at the community level. This initiative should help in introducing systems such as quality farming and in ensuring quality through the supply chain.
- *Modest management aspirations.* Companies are more likely to adopt innovations when managers with high aspirations push for change or when competitive pressures force firms to improve their performance to survive. Companies lacking these aspirations and pressures may neglect promising opportunities. None of the Bhutanese agroprocessors showed the level of commitment needed to compete and thrive.

Lack of Market Information

Companies lack knowledge and experience in foreign markets as well as the resources for developing export markets. They have neither the financial resources nor the management time to collect and analyze market information themselves, and none knew that governments provide such services. This unawareness is evidenced by the lack of response to requests by the Bhutan Export Promotion Center when organizing trade missions and firms' lack of understanding of how the center could help them in developing their business.

Potential

The value chains of mainstream food commodities are dominated by large, vertically integrated firms and supermarket chains. To appropriate at least some of the sizable value added generated in marketing and distribution, Bhutanese firms will have to identify specialty and niche products for which markets are smaller and scale economies less important in determining competitiveness. Naturally, the more processing that takes place in Bhutan, the higher the returns will be, even with simple processing such as drying or packing. Organic markets offer new opportunities. And links with foreign companies can help Bhutanese producers gain access to export markets.

High-Value, Low-Volume Products

With its biodiversity and range of microclimates, Bhutan is well placed to grow many high-value products such as those used in essential oils and traditional medicines. Its ability to produce the full range of products—both high- and low-altitude species—gives it an important advantage over all its competitors.

But the demands of consumers require a high level of professionalism. To compete in the international market, Bhutan will have to offer not just a product but a range of services, including approved quality systems, assured supply, and the capacity to bring new products and product presentations to market rapidly. And it will have to ensure quality not only in the final product but also in production, processing, packaging, and transport. Working closely with buyers can help producers meet the demands of niche markets (box 4.3).

For major niche food and beverage products, the price premiums are increasingly controlled by only a handful of companies. At the retail level price premiums are mostly appropriated by a few marketing companies, which dictate far less attractive purchase prices to producers. Moreover, retail price premiums vary widely among products. Those for spices, for example, are generally no more than 5 percent, while those for high-quality tea can be as high as 1,000 percent.

Box 4.3 Penetrating Niche Markets through Innovation and Proactive Relationships

Working closely with buyers can lead to steady export markets for Bhutanese products. Take the example of company C, which exports Bhutanese red rice to Europe and the United States.

The company turned a chance inquiry from a rice importer in 1992 into a long-term relationship. Despite having no experience in producing for export, the company took a chance, assuring the importer that it could supply rice according to the importer's requirements. It then worked closely with the importer to ensure that it did meet those requirements, delivering a first trial order of 1 metric ton in 1994. That was followed by 4 metric tons, and then by a container load.

A big part of the firm's success was due to its working closely with the importer to design packaging that appealed to niche markets and to overcome logistical problems in supply. The design, based on traditional handmade paper bags with Bhutanese motifs, differentiated the product and appealed to gourmet stores and high-end health food chains. Supply systems were worked out that ensured that farmers would supply the paddy, workers were trained in cleaning and grading rice, and problems in customs clearance and transshipment were tackled.

Thanks to the close work with the importer to meet the demands of the niche market for a differentiated product, good quality, and assured supply, the company has seen growth of about 45 percent a year.

Source: Firm interview.

Traditional medicinal herbs could offer good opportunities if Bhutan developed links with established exporters to take advantage of established markets. In essential oils the best prospects may lie with specialized products, usually those used in aromatherapy and not commonly grown elsewhere. Some products have almost lost their niche advantage. Lemongrass, for example, is becoming a price-sensitive product, with minimum consignments of 1 metric ton generally required.

Organic Produce

Much of the farming system in Bhutan is organic, but this advantage has not been exploited for several reasons: lack of awareness of organic farming systems, lack of infrastructure and marketing facilities, limited access to capital, and inability to capture economies of scale. Moreover, major hurdles need to be overcome, including the high costs of certification, the lack of market information and marketing strategies, insufficient export facilitation, complex procedures in importing countries, and tariff and nontariff protection in import markets.

Certification and accreditation issues are particularly important. Most exporters turn to international certification bodies to allow them to market their products as organic in foreign markets. While the costs of certification vary, they can be significant, and Bhutan may find it difficult to establish a national certification infrastructure.

While organic markets are growing rapidly, this growth raises the question of whether the opportunities are real or perceived. The rapid growth in demand for organic food in industrial countries is likely to create temporary gaps between supply and demand that at times can be bridged by supply from developing countries. But Bhutan can seize these short-term opportunities only if exporters meet the certification requirements in foreign markets and gain access to the markets. Maintaining a presence in these markets thereafter will depend on Bhutan's ability to retain significant production cost advantages, maintain supplies, and ensure consistent quality. In the medium term the organic production capacity in industrial countries is likely to expand rapidly, spurred by attractive prices and government subsidies.

Links with Foreign Companies

The prohibitively high costs and barriers to entry in food processing suggest that developing countries like Bhutan that want to expand into this field can best do so on the back of an established company. The economies of scale can be considerable. Where developing countries have made significant inroads into food processing—orange juice production in Brazil, canned pineapples in Thailand, and soluble coffee production in Brazil and Colombia—they have secured the upstream access to large supplies of raw materials and the downstream access to markets critical for efficient production.

To attract foreign companies, a potential host country needs to offer a supportive business environment. Bhutan's business environment combined with its strategic location next to India should probably suffice to attract foreign companies to Bhutan to produce for the Indian market using raw materials mainly from India. Bhutan's business environment offers several competitive advantages over India's:

- *Nonrestrictive labor laws.* In India restrictive labor laws make it difficult for companies to restructure, hampering efforts to improve efficiency and expand output.
- *Literate labor force.* In India low literacy levels in the labor force deter foreign companies seeking high labor productivity.
- *Minimal red tape and lack of corruption.* In India multiple and often conflicting regulations increase red tape, delay production, and hamper exports. And surveys have shown that executives of large companies perceive India as having substantially greater corruption than other developing countries.
- *Reliable infrastructure.* In India poor infrastructure is among the most frequently cited barriers to investment, with electricity shortages common in many regions, for example.

For Bhutan, working with foreign companies could be a viable strategy for upgrading capacity in agroprocessing and penetrating new markets. Such relationships could address many of the strategic gaps in the sector:

- Bhutanese managers would receive valuable training and exposure to international management practices, technology, and marketing methods—forming a pool of high-quality agribusiness managers with the skills and vision for world-class manufacturing and marketing.
- The modern facilities and international working environment could entice more skilled Bhutanese to work in agroprocessing.
- Foreign companies could be encouraged to purchase more Bhutanese ingredients, such as spices and herbs, leading to multiple benefits. Increased demand would stimulate production systems and diffuse skills and technology back through the supply chain as companies seek high-quality products. And as the skills spread in rural communities, Bhutan would become better equipped to export its own products to high-value markets.
- Bhutanese-made products would gain greater market penetration and recognition.
- And as the industry grows, it would stimulate the development of support services.

Recommendations for the Sector

Recommendations for developing Bhutan's agroprocessing industry center on creating an enabling environment, strengthening competitiveness, and developing production and marketing bases.

Creating an Enabling Environment

Many of the constraints on the development of agroprocessing in Bhutan are due to the industry's being

new. Firms will be unable to overcome these constraints without a supportive enabling environment. Creating such an environment calls for:

- Developing food laws to cover issues relating to safety standards, nutrition, and merit goods.
- Creating a food processors association or relevant chapter within the Bhutan Chamber of Commerce and Industry.
- Initiating a concerted promotion campaign to create new markets, with a first step being to strengthen the export promotion center.
- Expanding the supply of high-quality raw materials—by practicing vertical cropping, increasing production, and improving productivity.
- Developing databases and market intelligence systems or strengthening existing ones to support planned investment matching the availability of raw materials and the marketability of processed products.
- Strengthening the technical skills of extension services and cooperatives in postharvest management of produce, to encourage the development of preprocessing facilities (washing, fumigation, packaging) near the farms.
- Encouraging the establishment of agroprocessing facilities as close to the production area as possible to avoid waste and reduce transport costs. This might include primary processing units. Establishing product belts, as called for in the Ninth Five-Year Plan, will be an important step.
- Promoting investment, both foreign and domestic.
- Building strong infrastructure for value added products, with a special emphasis on food safety and quality to match international standards.
- Providing a program for developing skills at all levels, especially in management and marketing systems.
- Supporting innovation at the company level by providing national R&D facilities and resources. The mushroom research center is an excellent example.
- Encouraging the development of an industrial cluster of foreign food processors.

Strengthening Competitiveness

Successful agroprocessing firms need to be competitive all along the value chain, from farm production through marketing. Possible ways to increase competitiveness include:

- Devoting more company resources to developing a well-trained workforce.
- Improving performance in innovation. For example, firms need to find ways to capture the "value of values" in their products, such as by promoting them as "eco-efficient."
- Conducting a detailed study to precisely assess the range and level of skills needed in agroprocessing.
- Encouraging firms to invest in technology and adopt best-practice management systems.
- Initiating a food safety program.

Pursuing a Multiphase Strategy

Promoting agroprocessing also requires developing the production base and marketing base in parallel.

Production Base. Efforts to develop the production base need to focus on:

- Improving the availability of raw materials. This calls for extending the area from which raw materials are procured, improving yields, reducing losses, and lowering transport costs. Farmers will address yield issues as they come to understand market opportunities. Efforts to develop this understanding should work through a cooperative or association, since dealing with individual farmers is inefficient. Cooperatives could also be used to

introduce primary processing, to extend the life of produce and lower transport costs. To control the quality of primary processing, training will be critical, reinforced by a management system that links all actors in the chain.

- Developing a central collection site, to help ensure the quality of material processed in the cooperatives. The center would need to work closely with the cooperatives to ensure that quality issues are continually addressed.
- Exploring product diversification through market-directed opportunities.

Marketing Base. Efforts to strengthen the marketing base need to center on:

- Promoting import substitution. Some products now imported from India could be replaced by local products. Possibilities include most perishable items—including bakery, dairy products, and ice cream—as well as vegetable oils, potato products, maize products, and animal feed.
- Developing niche exports. This category includes a wide range of high-value products, such as candies, herbal drinks, herbal medicines, mushroom extracts, fruit products such as health bars, and organic products such as tea and nuts. Key requirements in this market are quality, consistency, assured supply, responsiveness to consumer demand, and vigorous marketing to support the products.
- Developing a cluster of foreign companies near the Indian border. In time these companies would purchase domestically produced ingredients such as herbs and spices that have a competitive advantage over those obtainable in India.

Notes

1. One processor claimed that it purposely produced low-quality products, since they were better suited for the segment of the Indian market that it was targeting.
2. World Bank, *World Development Indicators [year?]* (Washington, D.C., [year?]).
3. Based on data for 1995–99 from the Food and Agriculture Organization's FAOSTAT database.
4. If calculated on the basis of the international standard of 24-hour operation, capacity utilization would be much lower.

Present Situation

Forestry contributes some 11 percent of Bhutan's GDP and generates about 3 percent of government revenue through sales of forest-related products and royalties. Forest-related products account for 20 percent of exports, and forestry generates more than 25,000 jobs in the informal and formal sectors.

Bhutan has 2.8 million hectares of forest area—including fir, mixed coniferous, chir pine, and broad-leaved forests—representing more than 70 percent of its total land area. The broad-leaved species, or hardwoods, grow in the lowlands, and the coniferous species in the highlands. A relatively large share of the forests are in protected areas, and much of the forestland that could legally be harvested remains undisturbed. Of the estimated annual allowable cut of 35 million cubic feet, only about 10 million is extracted each year. Some 20 percent of this originates in natural but managed forests, harvested by the government's forestry management units.[1] These units supply the wood for commercial use. Extraction has remained relatively stable in recent years.

According to the Ministry of Agriculture, good forest management calls for extracting the full annual allowable cut, but it lacks the capacity for this. The 14 or so forestry management units cover only about 8 percent of the forest area. About 53 percent of the harvested timber is coniferous; the balance is broad-leaved.

Commercial users buy timber through auctions from the Forestry Development Corporation. The wood-based industry comprises around 56 sawmills, 60 furniture workshops, 1 large particle board firm, some producers of wood handicrafts, and some producers of broom handles, fruit boxes, veneer, plywood, and blockboard. Most of these establishments are in the western and southern parts of Bhutan. Since transporting timber from one district to another is costly, hardwoods are processed mainly in the lowlands and conifers in the highlands. Sawmills are widely dispersed, specialist furniture firms are mainly in Thimphu, and panel and board producers, which consume some 60 percent of hardwoods, are in the Phuentsholing area. In mid-2001 a Wood-Based Industries Association was formed to represent the sector.

The market is fragmented, as is common in developing countries, and the fragmentation is exacerbated by Bhutan's small population and its geography. Achieving economies of scale is difficult. The government is a major customer for timber products: of the timber available for commercial use, perhaps 70–80 percent is consumed by the construction industry, and of this, more than 70 percent is said to be funded by the government or donors.

Government Policy

Several aspects of government policy create a favorable environment for the wood sector as well as for other manufacturing sectors. These include the import-export regime, the stable exchange rate with India, and, to a greater or lesser extent, the trade agreement among members of the South Asian Association for Regional Cooperation (SAARC). The effects of other aspects of government policy have been mixed.

Bhutan's Eighth Five-Year Plan emphasized sustainable forest management for the dual purpose of conserving environmental resources and supplying wood resources to the domestic market. In January 1999 the government introduced a new pricing and marketing policy enabling the urban, commercial, and industrial sectors to purchase timber through open auctions; allowing the market to determine prices; and banning the export of logs and sawn timber except when there is a glut in the market. As a result of the export ban, timber exports in 2000 fell to only 10 percent of the amount in 1998 (table 5.1). At the auctions the timber lots invariably consist of mixed species, of varying grades, sizes, and qualities. If a lot remains unsold after two auctions, the Forestry Development

Table 5.1 Disposal of Timber by the Bhutan Forestry Development Corporation, 1998–2000

	1998	1999	2000
Rural	214,826	242,235	162,254
Urban	730,809	44,771	690
Defense	19,208	1,348	0
Industry	158,408	1,000	0
Auction, export	720,484	201,004	74,897
Auction, internal	n.a.	1,406,686	1,425,940
Total	1,843,735	1,897,044	1,663,781
Total for commercial use (direct or through auctions)	878,892	1,608,690	1,500,837

n.a. Not applicable.
Source: Bhutan Forestry Development Corporation.

Corporation may sell it through an international auction in which foreign buyers can participate.

While the industry generally welcomed the new policy, two new regulations introduced in 2000 have had adverse effects. First, in April 2000 the export of semifinished products was banned to counter such practices as exporting barely processed timber disguised as finished products. Second, in September 2000 the system for measuring timber was changed from the quarter girth to the true volume system, resulting in buyers getting 21.5 percent less timber for the same nominal price.

Earlier in 2000, out of a belief that sawmills were colluding to keep prices high, the Forestry Development Corporation started two sawmills to force private millers to lower their prices. While the Forestry Development Corporation and private firms both buy conifers for about Nu 130 per cubic foot, the corporation sells the sawn wood for Nu 140 per cubic foot, and the private sector for about Nu 220.[2]

In addition, two policy changes have adversely affected the sector's labor situation: the announcement that government workers should be paid a minimum of Nu 100 a day (a policy that many private firms have found it necessary to follow) and the pressure on firms to reduce the number of nonnational workers they employ.

Other factors in the government domain have also had significant effects on the industry: the many (uncoordinated) ministries and agencies with influence over firms, the terms and conditions of tendering for government contracts, the perception that the government discourages joint ventures with foreign firms, and the difficulties that foreign businesspeople face in traveling to Bhutan (mainly in obtaining flights and visas).

Labor and Employment

Firms in the wood sector are generally modest in size, with an average of 31 employees. The two large firms producing particle board and plywood and blockboard, however, employ 292 people on average. Total employment in Bhutan's wood sector is estimated at no more than 2,000.

Skilled labor is in short supply, as evidenced by the low productivity and poor quality in the sector. Firms reported that there is a scarcity of labor in towns, while in rural areas workers are seasonal and lack an "industrial culture." Because of high labor turnover, firms do not provide workers with any formal training. The Woodcraft Center, established in 1991 by the government and the Danish International Development Agency (Danida), is the only organization in Bhutan that provides systematic training for woodworkers. The center, which combines training with production, has produced some 36 trainees by 2001, some of whom work in local firms (box 5.1).

Firms deal with labor shortages by hiring Indian workers, often preferred because of their skills, better attendance, and lower pay. In the Phuentsholing area Indian day workers make up 69 percent of the workforce in the sector. In Thimphu, where Indian workers form 49 percent of the workforce, they are formally employed as regular staff—that is, the workers have identity cards and their employment has been ap-

Box 5.1 Supply and Demand for Government-Trained Woodworkers

A country where skilled labor is at a premium, as it is in Bhutan, needs to make the best use of its skilled workers. The Woodcraft Center trains workers for the wood product sector, but there is often a big mismatch between supply and demand. Firm 16 reported that "one day in February eight or nine workers arrived at the door with a letter from the National Employment Board asking if I could absorb the workers. I discovered that they were trained by Woodcraft, and I thought that I would take three of them. The firm had been stagnating for two years, and I thought they would help the firm grow. But I could not decide between them, so I took eight of them. But there is no change in sales and now I have more stock."

In the same month firm 11 applied for a permit to hire an Indian worker. The request was forwarded to the National Employment Board in March, but six months later the firm still had received no reply. In May the firm had applied to the Woodcraft Center for a manager and four workers. The center replied that it had no graduates and advised the firm to wait, saying that it was accepting new trainees in September.

The needs of these two firms match the number of skilled graduates available from the Woodcraft Center—but while one firm has too many workers from the center, the other has none. Firm 11 would like the Woodcraft Center to write a letter acknowledging that it cannot provide the skilled workers the firm needs—rather than saying it will have them in the future—since the firm believes that would provide justification for a permit to hire Indian workers instead.

Source: Firm interviews.

proved by government agencies. The number of Indian workers that a firm is allowed to hire is generally determined by the size of the firm's capital investment. In practice, however, firms can supplement these regular workers when they undertake government contracts by claiming that they need additional Indian workers to complete the contract on time. Some firms also have construction companies that hire Indian workers, who may then work in the firms' woodworking factory.

The owners of most firms lack technical skills and, for production, must rely on the skills of a production manager or supervisor. But these managers, even those from India, generally lack qualifications and appropriate skills. All firms also need technicians for maintenance, tooling, drafting, and the like, but Bhutanese workers lack these skills (which must be acquired over long experience on the job). The technicians who do have these skills often have little education, and firms reported that the agencies responsible for issuing work permits for nonnational workers do not appreciate how indispensable the skills of these poorly educated technicians are.

Technology

Sawmills use low-level technology, typically decades-old technology from India. There is no evidence that firms seek to upgrade their technology, whether by investing in new equipment, performing maintenance on saws, or improving work practices. The low technology results in poor timber yield and quality. As a result of the ban on log exports, a few firms have moved downstream to use waste wood or to add value.

Many of the firms have kiln-drying facilities. But the technology is weak. Moreover, its performance is undermined by the practice of drying timber of mixed species and dimensions, which prevents use of the optimum drying schedule.

In response to the ban on exporting logs and semifinished products, firms in the Phuentsholing area have invested in plywood and blockboard production. To identify the technology they needed, the firms gen-

erally hired Indian consultants and visited similar production units in India. The time and cost involved in searching for and acquiring technology exceeded expectations.

The most professional furniture producers are in Thimphu. Compared with firms in Phuentsholing, these producers have orderly and comparatively clean premises, and they generally have relatively new equipment. Two newer firms in Thimphu received assistance from the Woodcraft Center in designing their layout and specifying equipment. Furniture made by firms in Phuentsholing tends to be of inferior quality.

Design skills are lacking in Bhutan. Firms in Thimphu often use Danida-inspired designs, which are dated and lack Bhutanese character. In some places designs from UNICEF have influenced the products made for schools. Overall, designs are very poor.

Asked about technology needs, firms identified these priorities:

- Production assistance (in order of priority, rehabilitation and maintenance of machinery, advice on new machines, visits to modern factories, visits to machinery fairs, kiln-drying, and machining).
- Marketing (information on foreign markets, marketing techniques, study visits to foreign markets, and development of promotional materials).
- New product design.
- Management development (financial management, quality systems, business planning, computer training, and human resource development training).

While all these are important, more emphasis should be given to sawmilling and kiln-drying and to business development planning. And above all else, company managers need to be made aware of the global environment in which they operate and to become familiar with best practices.

Costs and Competitiveness

For furniture firms competitiveness depends mainly on the cost of timber (typically 40–50 percent of the ex-factory price internationally), the cost of labor (15–20 percent internationally), productivity, and yield.

Competitive Raw Material Costs

A precise comparison of timber costs across countries is difficult (internationally there can be a fourfold difference between the prices of different qualities and grades of the same timber species), but prices in Bhutan generally fall within the range of international competitiveness. The price of Bhutanese hardwoods ranges from $65 to $102 per cubic meter, compared with international prices of $126–238 (table 5.2). For teak the price in Bhutan is $127 per cubic meter, compared with international prices of $522–1,695. For conifers Bhutan's prices are 12–15 percent more than those in Indonesia.

Timber costs vary across Bhutan, however. In 2001 the price of mixed hardwoods ranged from Nu 50 per cubic foot in one region to Nu 76 in another. The price of mixed conifers was more consistent, ranging from Nu 85 per cubic foot to Nu 100.

On top of the cost of the timber, trucking can be expensive—and the cost may even exceed the value of the timber. The price for trucking timber from Mongar to Phuentsholing is Nu 65 per cubic foot.

Competitive Labor Costs

Labor costs in Bhutan's wood-based industries are competitive with those in a range of countries (table 5.3). A machine operator in a furniture company in Bhutan costs about $89 a month, compared with $136 in Bangladesh and $156 in the Philippines. But labor costs as a share of the ex-factory price of products is high in Bhutan—at 29 percent, it is nearly twice what is desirable to be internationally competitive.

Labor costs vary by district and by the worker's background. In Thimphu production workers are paid

Table 5.2 Timber Prices, Selected Markets

Market	Timber	Price (U.S. dollars per cubic meter)	Details
Bhutan	Hardwoods, mixed species	65	FDC auction price (average for Jan.–Sept. 2001)
Bhutan	Hardwoods, grade A	102	FDC auction price (average for Jan.–Sept. 2001)
Malaysia	Hardwoods, average of 6 species	126	Sawmill quality; ex-log yard
West Africa	Hardwoods, average of 12 species	163	FOB; sawmill quality
Indonesia	Hardwoods, average of various species and sizes	238	Air-dried timber for construction industry
Bhutan	Hardwood, teak	127	Firms' reported purchase price (2001)
Bangladesh	Hardwood, teak (Chittagong)	522–696	Prices paid by furniture firms (Feb. 2001)
Myanmar	Hardwood, teak	1,695	FOB; average price for grades 1–4
Indonesia	Conifer, pine	80	Mill yard price
Bhutan	Conifer, mixed species	90	FDC auction price (average for Jan.–Sept. 2001)
Bhutan	Conifer, blue pine grade A	92	FDC auction price (average for Jan.–Sept. 2001)

Note: FDC is the Forestry Development Corporation.
Source: International Tropical Timber Organization, Tropical Timber Market Report, *16–30 September 2001; Bhutan Forestry Development Corporation; Tyler Associates.*

Table 5.3 Labor Output and Costs in Typical Firms in Wood-Based Industries, Selected Countries

Country	Product line	Annual output per worker (U.S. dollars)	Labor costs as a share of ex-factory price (percent)	Monthly cost of machine operator (U.S. dollars)
Bhutan	Sawmills	3,654	22	59
Bhutan	Plywood, particle board, blockboard	8,692	13	58
Bhutan	Furniture	3,576	29	89
Bangladesh	Furniture	3,668	—	136
Jamaica	Furniture	10,500	25	350
Romania	Furniture	28,000	20	100
Philippines	Furniture	30,000	40[a]	156
Ireland	Furniture	115,000	14	1,400

— Not available.
a. It is not uncommon for labor costs to be high in Philippine firms, because they specialize in labor-intensive decorative techniques to add value and to differentiate their products from those of lower-cost countries.
Source: Firm interviews; Tyler Associates.

$95 a month on average, and labor accounts for 32 percent of the ex-factory price. In Phuentsholing they are paid $55 a month, and labor accounts for 20 percent of the ex-factory price. Much of the difference in monthly wages stems from the predominance of Indian workers in Phuentsholing. The lower labor costs as a share of the ex-factory price in Phuentsholing is due to the large number of Indian workers as well as to the number of comparatively capital-intensive board factories there.

In Thimphu firms hiring workers trained by the Woodcraft Center pay wages of $100 a month, while other firms pay an average of $83. Firms observed that these government-trained workers seek public sector pay and working conditions. For example, they insist on government-mandated holidays, while other Bhutanese workers demand half the holidays, and Indian workers a third. Output per worker in the "Woodcraft-trained" firms is $3,753—little better than the national average—while in the other firms it is $5,841.[3] When all issues are considered, government-trained workers may not be more productive than other workers, because of a poorer work ethic, though their work may be of better quality.

Low Productivity

Productivity measured by output per worker is low in Bhutan. In firms making furniture annual output is $3,576 per worker—one of the lowest levels among similar countries. In Bangladesh, for example, where there is generally less mechanization, output is $3,668. Some experts believe that annual output of $12,000 per worker is needed to export regionally and $20,000 to export internationally.

Low Yield

Measuring yield—the amount of usable timber resulting from each stage of processing—is difficult to do through short visits to firms, and the yield can vary significantly (table 5.4). Where "best practice" is used, 34 percent of the tree trunk can be converted into finished products such as furniture and panel doors. But in Ghana, for example, only 7–10 percent of the tree trunk may be recovered. In the few firms in Bhutan where the information provided seems to be plausible, yield may be 11–20 percent. The practice in Bhutan is to convert the waste into subsidiary products.

Table 5.4 Comparative Timber Yields
(percent)

	Best practice	Ghana	Bhutan
Share of tree trunk going to sawmill	80	45–66	60
Share of tree trunk converted to finished products	34	7–10	11–20

Source: World Bank, "Ghana Country Economic Memorandum" (Washington, D.C., 2000); firm interviews, Bhutan, 2001.

The low yield in Bhutan can be attributed to several factors—poor equipment, poor work practices, the traditionally low price of wood, and the lack of international competition to force yield efficiencies on firms.

Low Output Prices

Efficiency, if not competitiveness, can be measured by the price firms can achieve per unit of timber, a measure that reflects design and marketing as well as processing skills. As firms move downstream, the unit value of the timber rises significantly (table 5.5). A firm can obtain almost 100 times as much for its timber if it makes key rings ($27,000 per cubic meter) than if it makes rotary veneer ($275 per cubic meter). Many Bhutanese firms have not yet moved downstream and are still obtaining as little as $348 per cubic meter for furniture.[4]

Factors Critical for Success

Firms need a wide range of factors to be successful. Some of them, common across all sectors, are in place—such as the import-export regime, the ex-

Table 5.5 Value of Wood Exports by Type of Product, Ghana, 1999–2000

Product	Value (U.S. dollars per cubic meter, FOB)
Rotary veneer	275
Moldings	600
Joinery	1,000
Garden furniture parts	1,200
Subassemblies	1,800
Finished garden furniture	3,000
Handicrafts (carved key rings)	27,000

change rate, reliable and affordable utilities, and trade agreements with other countries. In addition, four critical factors are specific to firms in Bhutan's wood sector:

- *Availability of preferred raw materials.* Firms need access to good-quality raw materials in species and sizes that suit market demand and their technology and are available at predictable prices.
- *Supportive policy toward manufacturers.* Firms require government policy that is sympathetic to their needs. A leading industrialist described the government's attitude as follows: "the intention of government is favorable; the policy is not so healthy; and the application of policy is bad. And we want to avoid frequent policy changes."
- *Access to appropriate technology and labor.* Technology in the sector needs to be upgraded, starting in sawmilling and working downstream. Firms are prepared to invest in technology if the policy environment is appropriate and consistent. At the same time firms need skilled managers and labor at predictable wages.
- *Market-led production.* Industry should be led by the needs of private markets, particularly export markets. Today much of the market is determined by the government, as a buyer of wood products and as a major arbiter of what firms make, through its control of the timber being sold into the market and its restriction on the export of certain products.

Impediments to Growth

Firms in wood-based industries face several impediments to growth, including lack of access to preferred raw materials, inappropriate policies, difficulties in obtaining technology and skilled labor, and poor market awareness and marketing skills.

Difficulty in Obtaining Preferred Raw Materials

The government's policy restricting the export of logs and sawn timber is appropriate, but other actions by the government have made it difficult for the industry and the economy to reap the benefits. The export restrictions signaled the industry to move downstream and add more value in Bhutan. But firms cannot move downstream if they cannot obtain single species of timber (preferably in the right grade, size, and quantity) and cannot make products that are considered semifinished. Moving downstream is difficult: in Ghana, for example, which has a log ban and wood sector exports of $180 million, only one firm consistently exports furniture.

Firms commonly buy lots in which a third of the timber is good for their core business, a third can be used in some capacity, and a third is unwanted. As one contractor explained, the Forestry Development Corporation sells timber in lots of mixed species for the following reason:

> In whatever area we are given, we have to harvest the marked trees. We are just the contractors. The amount harvested is target driven, and consists of various qualities. We do not segment the species at the depot because of the cost, and what difference would it make? The users

are not experienced and do not prefer certain species—they can switch their taste within one month—in the wink of an eye.[5] Even after the hard work in segregating, there is no guarantee we will get the best price for the timber. What do you do about the rejects? It's hard to get approval from the Ministry of Agriculture to get rid of timber which industry has rejected.

To see how this practice affects firms, consider a typical lot bought by a typical sawmill (table 5.6). The firm wanted the lot, considering it more valuable than others in the auction. Of the 532 cubic feet in the lot, the firm wanted timber amounting to 302 cubic feet. It bought the lot for Nu 67 per cubic foot. It would have paid Nu 80–130 per cubic foot for the timber it wanted, but valued the timber it did not want at only Nu 30 per cubic foot.

It could be argued that the firm lost little in buying the lot if the lower and higher values for the firm are offset against each other: the firm paid Nu 35,644 and estimated the actual value at Nu 34,670. In addition, however, the firm had to pay up to Nu 65 per cubic foot to transport the wood to its factory, where it might get only Nu 110–170 per cubic foot for converting what wood it can recover from the unwanted logs into orange and apple boxes. The firm has another problem—its clients do not normally want the costly Champ wood, and selling it could take up to a year.

Perhaps most important, having to buy a variety of species, grades, and sizes hampers specialization, which would help the firm achieve scale economies and facilitate technology transfer and skills upgrading. Indeed, firms would commonly pay 20–30 percent more if they could obtain timber more suited to their core product lines.

Auction lots that include the wrong species, qualities, and sizes can put firms off altogether. One of the three biggest purchasers of auction timber stated that it might not buy an auction lot if 10 percent of it might be unusable. Another of the three noted that timber begins deteriorating the moment it is felled, so it is

Table 5.6 Price Paid for a Typical Timber Lot in Bhutan and Its Actual Value to the Sawmill
(ngultrum, except where otherwise specified)

		Shorter lengths (3'0"–4'11")				Longer lengths (5'0" +)			
Species	**Grade**	**Cubic feet**	**Value to firm (per cubic foot)**	**Price paid**	**Actual value to firm**	**Cubic feet**	**Value to firm (per cubic foot)**	**Price paid**	**Actual value to firm**
Kaula	C	32	30	2,144	960	83	93	5,561	7,719
Dabdapey	C	113	30	7,571	3,390	137	93	9,179	12,741
Champ	A	15	130	1,005	1,950	0			
Paihely	E	17	30	1,139	510	22	30	1,474	660
Bongser	D	17	30	1,139	510	0			
B. Kaula	C	41	80	2,747	3,280	0			
Katush	C	0				29	30	1,943	870
Kapasy	A	0				26	80	1,742	2,080
Total		235		15,745	10,600	297		19,899	24,070

a. At Nu 67 per cubic foot.
Source: Firm interview.

crucial to process it as soon as possible. The firm observed that the Forestry Development Corporation tried to sell the old timber first at auctions rather than the new timber, which then too deteriorates before it is sold. The firm reported that it had bought no "new" timber in the previous two years.

Under the policy introduced in 1999, timber can be sold in an open international auction if there are no local buyers after two auctions. But the Forestry Development Corporation must first obtain permission from the Ministry of Agriculture, which does not always grant it. Delays in getting the ministry's approval may sometimes result in timber being offered at local auctions four or five times. And gluts in the market can mean that open international auctions need to be held at short notice to prevent further deterioration. In May 2001, for example, 70,000 cubic feet of timber was offered for sale, but only 15,000 cubic feet sold.

Local firms sometimes buy the deteriorated mixed lots only to regret it later. One of the biggest buyers bought 35,000 cubic feet of timber at Nu 27 per cubic foot in December 2000, then paid Nu 30 per cubic foot for transport. But when the timber arrived at the factory, it was found to be unsuitable.

Because the present policy requires firms to pay for everything in an auction lot—whether they want it all or not—they face extra costs that they would not incur if the auction system worked better. The auction system burdens the private sector in several ways:

- Firms cannot concentrate on core product lines, which would enable them to focus their investment. Instead, they must invest time and money in processing or selling unwanted timber. The diversification being forced on firms undermines their ability to achieve scale economies and develop exports—critical given the fragmented domestic market.
- Forced to be a jack-of-all-trades, manufacturers cannot concentrate on upgrading worker skills that are specific to the firm. Specialization would make it easier to upgrade worker skills and would reduce labor turnover—since few firms would have a similar specialization, there would be less opportunity to poach workers trained elsewhere.
- The ability to make good-quality products is being undermined. For example, each species of hardwood should have a different kiln-drying schedule so that it does not warp and crack. But as one of the biggest firms noted, buying sufficient timber of a single species to fill the kiln would take a year under the present government policy. That is one reason that hardwood products are of such poor quality and that firms are moving to conifers and boosting the price, while the price of hardwoods is declining. In Bhutan hardwoods are cheaper than conifers, though internationally hardwood may be three to four times as expensive (see table 5.2).
- The market is increasingly rejecting products made from mixed species. Indian buyers, for example, are insisting that the core of blockboard must be a single species (historically the market did not discriminate against blockboard consisting of mixed species). India no longer wants multicolored parquet flooring. And all markets except Bangladesh are turning against fruit boxes made of wood, the most common product for which unwanted wood has been used. If firms cannot sell their unwanted timber, the added cost will render them uncompetitive.

The Forestry Development Corporation is reportedly moving toward segregating timber at two depots, a welcome step. But it will need adequate resources to achieve this aim.

Burden of Policy

Government policy—on labor, joint ventures, and business licenses—and the changes in government policy do not encourage firms to acquire technology needed to move downstream to higher-value products. Yet exporting semifinished products, a natural

outcome of this policy situation, is banned. If government policy encouraged technology acquisition and the marketing of semifinished products, firms would be more likely to move downstream successfully. The ban on semifinished products may have prevented some smuggling of goods out of the country, but its unintended effects have harmed the development of the sector.

Effects of the Export Ban on Semifinished Products. The ban on the export of logs and sawn timber announced in January 1999 encouraged firms to move downstream to higher-value products, but the ban on "semifinished" products that followed some 16 months later has hurt firms that moved in that direction. The new ban has affected firms in three main ways.

First, for firms that invested in downstream activities after January 1999, the ban on semifinished products has adversely affected the business in which they had recently invested. Consider the experience of one of Bhutan's largest plywood and blockboard producers. After the government imposed the ban on log exports, the firm diversified into manufacturing flush and panel doors, investing a considerable amount. But since the ban on semifinished products was introduced, the firm can no longer export the frames of doors or windows, which are considered semifinished products, though it can export doors and window casements. The policy has thus severely affected the market potential of a firm whose pioneering activities would have opened opportunities for other Bhutanese firms.

Second, the ban makes it difficult for firms to gain experience in making semifinished or secondary products—experience that is often needed before they move on to tertiary products such as furniture. Manufacturing secondary products—such as floorboards, picture frame moldings, and tongue-and-groove paneling—can benefit firms in several ways. It may require machinery that is a step up the technology ladder, enabling firms to learn new-technology skills. It means making relatively large quantities of similar products, acquainting manufacturers with scale economies. Because the work is repetitive, training machine operators is comparatively easy. And once these steps are mastered, it is easier for firms to move on to products with more value added, such as garden decking and furniture parts.

Third, by restricting firms' ability to manufacture secondary products, the ban has eliminated an important way to use unwanted wood. Selling secondary or semifinished products made out of unwanted wood can boost competitiveness—for example, the processing and sale of offcuts is one reason that Brazil is internationally competitive in the export of pine beds.[6] In Bhutan, however, some firms have had to close businesses because the subsidiary products they made were considered semifinished.

A veneer exporter in eastern Bhutan found that the larger pieces of veneer it produced were eligible for export, but the smaller pieces made from offcuts were deemed semifinished products and were banned for export. It had to raise the price of the larger pieces as a result, but the market could not absorb the higher price and the firm closed. A firm in Phuentsholing had to close four manufacturing units, including a veneer slicing plant with a value of $300,000. Firms reported that valuable species suitable for veneer, such as maple, lie in the forest for up to nine months because of the effect of the ban on the prices they would get at auction.

In Ghana sliced veneer exports have an average value of $891 per cubic meter, though some firms get up to $18,000 per cubic meter with careful selection and processing of logs. Even if Bhutanese firms could obtain prices at only the lower end of the range for veneer, the value per cubic meter would still be more than some firms are getting for furniture. One firm reported that it could no longer export even sawdust because it is considered a semifinished product. The firm noted the damage that sawdust causes to fish if it

is dumped in the river, the fire hazard it creates if kept in the factory, and the irritation it causes to eyes when blowing around the factory.

Effects of Policy Change on Investment. Several firms expressed a desire to invest in their businesses as long as they could plan ahead with certainty. But as a result of the unexpected changes since 1999, requiring firms to reorient themselves at least twice, they lack confidence in the stability and consistency of policy. Moreover, firms believe that financial institutions lack confidence in the sector because the changes make it unclear what the government's attitude toward the sector is.

Difficulties in Obtaining Appropriate Technology and Staff

Problems in obtaining appropriate technology and staff are widespread in the wood sector, posing a serious impediment to growth.

Technology. Firms benefit from their proximity to the Indian market, where they can undertake market research, hire consultants, and source machinery. But there have been problems in acquiring technology, a process involving several steps. First, firms must identify the products they want to make and search for the appropriate technology provider. Second, they must acquire the technology—for example, buying new machinery from a supplier, which commissions the machinery and then trains workers in its use. Third, they must absorb, or internalize, the technology, using the equipment in everyday conditions once the supplier has left. Complications often occur throughout this process, and Bhutan is no exception—acquiring and absorbing new technology often takes up to 20 months for Bhutanese firms (table 5.7).

Larger firms, such as firm 4 in the table, are able to hire Indian marketing and production consultants to undertake market research and plan a new facility. These firms can identify and visit foreign factories to

Table 5.7 Time Required to Transfer Technology to Bhutanese Firms in the Wood Sector *(months)*

Step in technology transfer process	1–3	4–6	7–9	10–12	13–15	16–18	19–21
Firm 4							
Technology search	x x x	x x x					
Technology acquisition (planned)			x x x	x x x			
Technology absorption (unplanned)							
Firm 11							
Technology search	x x x	x x x	x x				
Technology acquisition (planned)			x	x x x	x x x	x	
Technology absorption (unplanned)						x x	x
Firm 13							
Technology search	x x x	x x x	x x				
Technology acquisition (planned)			x	x x x	x		
Technology absorption (unplanned)					x x	x x x	x

Source: Firm interviews.

study different production techniques, obtain suggestions from machinery suppliers about potential buyers, and, if they are near the Indian border, draw on a large pool of labor. Even so, firm 4 started its facility as a pilot plant to test the market, using old technology and available labor. To be internationally competitive, the firm wants to make a leap to technology and labor skills that are beyond the capacity of India to provide (as India liberalizes, firms need globally competitive technology to compete with third-country manufacturers on the Indian market). But given the recent policy changes, the firm is hesitant to make this leap in technology.

Smaller firms, such as firms 11 and 13, have difficulties in identifying appropriate markets, determining what technology they need, preparing business plans, and obtaining financing (box 5.2). For these firms things are more likely to go wrong. Indeed, both firm 11 and firm 13 obtained second-hand equipment that turned out to be defective, had to acquire additional machinery, and may need to make unexpected alterations to their premises. And both firms unexpectedly had to hire foreign engineers to solve their problems. For firm 13 the acquisition of technology took more than twice as much time and money as planned. Moreover, the price of timber went from Nu 70 per cubic foot at the planning stage to Nu 130 within three months of starting production, jeopardizing the firm's market development activities.

For the greatest benefits, the wood sector should upgrade its technology in primary processing (sawmilling) and gradually upgrade downstream processes. Sawmilling is the weakest part of the sector, with all mills working at low capacity. Since all the equipment is depreciated and premises are freehold, too many firms remain in business, and none of the mills visited can get sufficient throughput to justify new investment. Moreover, the sawmilling activities of the Forestry Development Corporation add uncertainty. As a result of all this, inefficiency is high, and downstream firms suffer. Because of these inefficiencies, some smaller downstream firms are investing in sawmilling equipment, further reducing throughput in the sawmills and diverting the attention of downstream firms from their core business.

Labor and Management. Complaints about the shortage of skilled labor are common in all sectors. But particular aspects of this problem are specific to the wood sector. First, since the government buys much of the sector's output under contracts awarded to the lowest bidder, firms tend to hire the cheapest labor. Second, it is unrealistic for firms to train workers if they cannot rely on a consistent supply of single

Box 5.2 A Small Firm's Difficulties in Sourcing New Machinery

Firm 11, established in 1999 by a former government employee with no knowledge of the wood sector, obtained information on machinery from the Woodcraft Center when it started up. The firm recently decided to manufacture moldings for the construction industry. Learning that it needed to purchase a Weinig four-head molder, it obtained a price of $120,000 from the European manufacturer. But the firm could not get that much financing and was unsure that the market was large enough to justify the expenditure even if it could.

When the World Bank wood sector expert discovered this, he contacted a second-hand machinery supplier and within 24 hours had offers of suitable Weinig machines ranging in price from $9,775 to $28,750. He also identified an independent technician who would visit the machines for $500 to ensure that they were in good order and would suit the firm's needs. The firm is now considering the purchase of two additional different machines.

Source: Firm interview.

species and cannot export semifinished products. Third, skilled woodworkers from the Woodcraft Center are too costly for many firms to hire, and there is a mismatch between the center's output and firms' needs (see box 5.1).

Productivity is low even in firms with reasonable machinery because of poor management as well as poor labor skills. For example, in one of the better firms a cupboard takes one man 42 work-hours to make, while a European firm, given the same specification, estimated 5.2 work-hours. Furniture firms and sawmills rarely have batch production that makes work repetitive and thus more efficient, so they are unable to organize labor in the most effective way. As a result of poor management and a lack of production runs, there is little division of labor in firms (and one firm believed that division of labor makes it impossible to know who is at fault if something goes wrong). Consequently, many workers are equally unskilled. If firms gained scale economies, they could introduce a division of labor and target training to potentially competent employees while the others become low-paid helpers.

Uncertainty over Foreign Investment Policy. Bhutanese firms recognize that they need to upgrade their technology, management, and labor skills if they are to compete internationally—and that even standard Indian technology and skills may be inadequate. This upgrading can be done over many years using internal resources, or the process can be kick-started through foreign investment. Several firms reported interest in joint ventures—and some have made initial overtures to possible partners—but they believed that the government would not allow them to pursue these relationships. Preventing foreign firms from entering into partnerships with Bhutanese firms encourages many twilight practices, which result in many disadvantages and few benefits for the economy.

If the right conditions were in place for foreign investment (policy consistency, flexible labor policy, and easier entry into Bhutan), foreign firms would be interested in the potentially favorable investment conditions in Bhutan. Two or three appropriate joint ventures could lead to a renaissance in the wood sector and have spillover effects for the economy.

Lack of Market-Led Firms

Firms typically serve a small hinterland of walk-in clients or bid reactively for contracts from the government, the biggest buyer of wood products. Relying on the government as a market is no help to firms in raising their standards to those demanded for export. Firms cannot supply goods of one quality for the local market one day and supply export-quality goods the next day. Since government contracts go to the lowest bidder, sawmilling, kiln-drying, and joinery skills are not put at a premium. Nor do clients seem to adequately check the quality of goods to ensure that they meet specifications. Several firms reported a desire to improve the standards of their products but said that their dependence on government contracts prevented this. They observed that it was better for business to supply products that lasted a few years rather than make better-quality ones for a slightly higher price that would last a lifetime.

Firms' dependence on a local market in which business goes to the lowest bidder and marketing skills do not attract a premium has meant that few conduct marketing. Firms lack the ability to research markets and discover niches they could serve, such as by developing Bhutanese-inspired designs that could give them a competitive advantage. (One firm, however, was making Bhutanese-inspired furniture that was selling for $5,000 per cubic meter of timber, more than 10 times what a producer of generic furniture was getting.) Identifying niches is important even for firms exporting boards. One end of the Indian market is being served by Indian cottage industries, while the other is being served by Southeast Asian and European imports. Bhutan needs to position itself in a niche of the market where competition is minimal.

Both the furniture and board markets probably include niches—such as the knock-down, Bhutanese-style low occasional tables selling on the U.S. market and the boards with exotic face veneers selling to contract buyers in India.

Potential

The potential of the wood sector is determined by the availability and cost of its inputs, its productivity, the market demand for its products, its ability to identify and serve market demand, and the policy and business environment. Bhutan has excellent prospects for developing the sector if adequate timber is harvested and made available in single species, the export of semifinished products is allowed, conditions are favorable for upgrading technology and achieving scale economies, firms can gain access to design talent, and marketing skills improve. Nearly all firms have looked to the Indian market, but the Bangladesh market may offer greater potential in the short to medium term. Handicrafts have good potential in foreign markets beyond India. In the long term bulky products (such as panel products) are likely to be sold in neighboring countries, while smaller, more downstream products should find markets in such countries as Japan and the United States as well as some countries in the region.

Availability and Cost of Inputs

Timber could potentially be made available at the right price and, to a greater extent than today, in the species, quantities, and sizes that firms require. Bhutan has lower prices for hardwoods than international competitors, but quality has to be assured. Bhutan has slightly higher softwood (pine) prices than Indonesia, though on the Indian market firms reported that Bhutanese timber (at Rs 160–190 per cubic foot) is less expensive than mixed conifers from New Zealand and Scandinavia (Rs 200). And labor costs in Bhutan, particularly for machine operators, are lower than those in many other countries.

In the longer term international certification of sustainable forest management will become increasingly important in realizing the value of Bhutan's timber resource. Bhutan will need to get at least some of its forests and its management practices certified by an organization such as the Forestry Stewardship Council; otherwise, products will remain locked out of potential export markets.

Productivity

Bhutan's wood sector has among the lowest levels of productivity in the region. Productivity is a function of management, production technology, labor skills, and scale economies. Management could be improved if firms could hire foreign managers and consultants at subsidized costs. Technology transfer mechanisms for doing so are available, but they are not used in Bhutan at present (see chapter 3). Production technology could also be improved. Given consistent policy, firms are prepared to invest in equipment—and they can obtain the knowledge about what equipment to buy and where to buy it by hiring foreign managers and consultants. With these improvements, labor skills could be upgraded. And scale economies could be developed if semifinished products could be exported and firms become aware of market opportunities for goods produced in volume.

Market Demand

Market demand for wood products exists in neighboring countries, but Bhutanese firms lack adequate market awareness and marketing skills. Firms specializing in the construction industry noted that India's depends on imported timber for 60–70 percent of its needs and that this share is growing as a result of the opening of the Indian market. In Bangladesh, where the market is sizable compared with Bhutan and international trade is based on the U.S. dollar, timber is scarce, machine operators are more expensive than

in Bhutan, and firms are no more efficient than Bhutanese firms. The potential for different product categories is mixed at the current performance levels in the sector:

- *Particle board.* Particle board from Europe is increasing the competition for Bhutanese exports in India, but prospects in Bangladesh (especially in the donor community) are good as long as satisfactory trade agreements go into place.
- *Plywood.* In the Indian market Southeast Asian and European plywood suppliers are creating greater competition, as are local cottage industries. Typical Bhutanese exporters have seen their sales decline significantly in the past three years, reportedly because of unfavorable government policies. One firm reported that its plywood is twice as expensive as Indonesian and Malaysian plywood in the Indian market.
- *Face veneers*. Bhutan now imports face veneers, but Indian firms would like to establish export firms in Bhutan if government regulations permit this, signifying good potential for veneer manufacturing.
- *Blockboard.* Bhutanese blockboard falls within the range of competitiveness. The Bhutanese price for 19-millimeter blockboard is Rs 385 per square meter, compared with a range of Rs 150–450 in India. One firm that set up a plant after the export ban on semifinished products reported that its blockboard sells for slightly more than that of Indian competitors, but is of better quality—the key to market penetration. As noted, the market potential of Bhutanese blockboard is constrained by the growing demand for single-species cores.
- *Panel doors.* Bhutanese panel doors and windows are competitive in India, though firms' inability to export frames (which fall under the export ban on semifinished products) limits their potential.
- *Moldings.* Demand for moldings is high, especially in Bangladesh, where firms specializing in moldings have difficulty getting timber and one leading firm has closed. But exports of moldings from Bhutan are presently banned.
- *Furniture.* Many firms see the best potential in exports of knock-down furniture. While there are long-term prospects, today all firms lack the necessary design and marketing skills and, almost without exception, production skills.
- *Handicrafts.* Wood handicrafts have good market potential. For traditional products possible distribution channels include museum shops and vendors of Buddhist supplies. Wooden containers, which could be produced from timber offcuts, have potential as packaging for food products. Developing this market will require improving design and merchandising, which could be done through technology transfer mechanisms.

Policy and Business Environment

The policy environment imposes the biggest constraint on the potential of the wood sector. There can be no meaningful development without better and more consistent policy. Once policy is put right, the business environment is generally favorable. The trade regime is generally conducive to exports. For example, firms that truck goods to Mumbai reported no transport problems. But some details in the SAARC trade agreement may not be favorable to the wood sector (for example, particle board exported to Bangladesh is subject to the 765 tariff). And transshipping goods at borders is an unnecessary problem.

Recommendations for the Sector

The recommendations that follow relate to areas of concern for private manufacturing industry. They do not consider forestry policy and policy implementation, which are beyond the scope of this report.

Improving the Availability of Preferred Raw Materials

Reconcile the Roles of the Forestry Development Corporation. The Forestry Development Corporation fulfills contradictory roles as an agent for the Ministry of Agriculture's forestry policy and an agent in the development of the manufacturing industry. These roles should be examined and reconciled.

Better Match the Industry's Timber Needs. The Ministry of Agriculture and Forestry Development Corporation should make available, through auction, the industry's preferred species, grades, and sizes of timber in single-species lots. This would require regularly auditing the industry to identify the species, grades, and sizes of timber it needs; minimizing the time from felling to auction; and informing the industry in advance of the species, grades, and sizes likely to be made available for auction so that firms can perform medium-term planning. The Forestry Development Corporation believes that it could make medium-term information available based on the plans of forestry management units.

Give the Forestry Development Corporation the Tools It Needs. The Forestry Development Corporation, to carry out its work effectively, needs electronic systems to help audit the industry's requirements and disseminate information on auctions to local and international buyers, equipment and human resources to carry out its auctions more efficiently, and the ability to speedily dispose of timber (through international open auctions or by other means) that does not meet the needs of local industry.

Since it makes little sense for the Forestry Development Corporation to introduce recommended practices if it lacks the resources to implement them, or to implement some and not others, it may be best to introduce new practices in pilot areas or depots to minimize cost. Pilot schemes should be monitored, assessed as to their costs and benefits, modified as needed, and then rolled out when proven. External funding to implement the recommendations should be sought where needed.

Ensuring a Supportive Policy toward Manufacturers

Ensure That Policy Is Planned, Phased, and Consistent. Because firms need to plan their activities up to 10 years ahead, and financial institutions need assurance that changes in government policy will not unreasonably affect their risks, policy changes need to be introduced in a planned, phased manner after consultation with those affected. In addition, the activities of all government agencies dealing with the wood sector—whether as suppliers or as end users of timber—need to be coordinated (there should be coordination between the Ministry of Agriculture and the Ministry of Trade and Industry, for example). And the impact of construction projects and government procurement on the manufacturing industry—the responsibility of several ministries—should be forecast and the results communicated to those affected.

Remove the Ban on Exporting Semifinished Products. Semifinished products have an important role as a source of income for manufacturers, as a vehicle for introducing new technology and upgrading worker skills, and as a means for developing marketing skills and penetrating foreign markets. To enable firms to reap the potential benefits of semifinished products, the ban on their export should be replaced with other measures to control the export of unprocessed and primary processed products, such as improved monitoring of timber movements.

Renegotiate Trade Agreements. Provisions in bilateral and regional trade agreements that hamper the export of value added products should be renegotiated. And the haulage of goods across borders

should be simplified to reduce delays, damage to goods, and unnecessary costs.

Privatize the Forestry Development Corporation's Sawmills. Since the public sector should seek to withdraw from activities that can be better undertaken by the private sector, consideration should be given to privatizing the Forestry Development Corporation's sawmills. Indeed, these sawmills may be impeding the flow of private investment into sawmilling.

Design Government Purchasing to Award Quality. Measures should be introduced to give quality a premium in awarding contracts to industry and to encourage the processing of building products at factories rather than construction sites For example, independent monitors could annually rank approved contractors and award them points for quality and for such things as after-sales service. These points could be translated into a price premium when contractors bid for government contracts.

Strengthen the Dialogue between Industry and Government. The dialogue between the government and the private sector should receive greater emphasis. The establishment of a wood sector association has been an important step forward. To ensure its effectiveness, the association should concentrate on a few key issues for a specific period when lobbying government while ensuring that these issues are supported by all interests. When different tiers in industry have different priorities, less is achieved.

Pursue Forestry Certification. To help attract foreign direct investment and, in the longer term, assist manufacturers in penetrating foreign markets, the forestry department should identify, and plan to introduce over time, the measures needed to obtain certification of sustainable forest management from such organizations as the Forestry Stewardship Council.

Improving Access to Appropriate Technology and Labor

Introduce Mechanisms and Incentives for Technology Transfer. The government could encourage the private sector to acquire technology, hire competent management, and train workers by providing or supporting incentives and mechanisms for technology transfer. These could include matching grant schemes, schemes relying on retired executives, the hiring of skilled foreign staff, and foreign direct investment. Eligible activities could include design, training, production, marketing, management, the development of joint ventures, and the development of business associations. Such efforts should emphasize primary processing (sawmilling and kiln-drying). And they should foster process-specific training, especially short courses on a single topic for a firm or group of similar firms. These mechanisms could be supported by the World Bank (which has supported matching grant schemes in many other countries), tax breaks, a levy on auction sales, or a combination of these.

Ease Immigration Restrictions. Immigration regulations should be eased to facilitate the entry into Bhutan of foreign buyers and technology providers.

Notes

1. Petri Lehtonen, "Bhutan Forest Policy Review" (International Development Association, Washington, D.C., and Swiss Development Corporation 2000).
2. There is no concrete evidence that sawn timber prices are high. A consultant to the Bhutan Forestry Institutional Development Initiative recently concluded that sawmills' pricing was reasonable. In addition, a Bhutan mission to Switzerland found that a sawmill was selling timber for more than

three times its purchase price, while in Indonesia sawn rubberwood is sold for more than four times the price of logs.

3. These figures are based on a small sample. Moreover, the product lines vary, with "Woodcraft-trained" firms producing Woodcraft-inspired designs and the other firms making other types of furniture.
4. But some Bhutanese producers are adding value through timber selection, processing, design, and marketing. In the Thimphu weekend market plain, new, turned wooden bowls sell for prices ranging from $3,492 to $508,000 per cubic meter.
5. Firms reported, however, wanting a continued supply of the same species so that they could specialize.
6. Tyler Biggs, Margaret Miller, Caroline Otto, and Gerald Tyler, *Africa Can Compete! Export Opportunities and Challenges for Garments and Home Products in the European Market,* World Bank Discussion Paper 300 (Washington, D.C., 1996).

Bhutan represents a unique tourism product—a pristine environment, high mountains, excellent trekking routes, nature parks with rare and endangered species, a culture considered both rich and unique, and the natural warmth and friendliness of the Bhutanese people. With these resources, tourism offers important earnings potential for the country. But the sector has always been, and will continue to be, developed with an eye toward the high-end tourism market. The focus on small numbers of high-paying tourists is dictated by several factors. Most important is Bhutan's desire to ensure that its cultural heritage is not overpowered by large numbers of visitors entering the country—overwhelming and even "polluting" this nation that has only recently begun to cautiously open up. The Nepalese model of more or less unregulated backpacking tourism is not one that the government of Bhutan wishes to pursue. In addition, Bhutan has limited facilities and services (roads, hotels, airline services) and cannot cater to a large number of tourists.

Present Situation

Bhutanese tourism began only around 1974, when several lodges were built for foreign dignitaries coming to Bhutan for the king's coronation. It was given a boost in 1988, when the national airline, Druk Air, began its jet plane operation. Before this tourists had to come into the country by road. Bhutan had only one tourism operator, the Bhutan Tourism Corporation, until 1991, when that company was privatized and the market opened to private competition. At the time 35 companies applied for tourism licenses, and after two were canceled, 33 companies operated throughout most of the 1990s. In January 1999 the government further liberalized entry, dropping a requirement that tour operators provide a bank guarantee of Nu 100,000 (a condition intended to ensure that only serious operators received a license), and the market now consists of around 75 domestic tour operators. Not all are active players, however, and only a handful are of any real size (see appendix table A4.1).

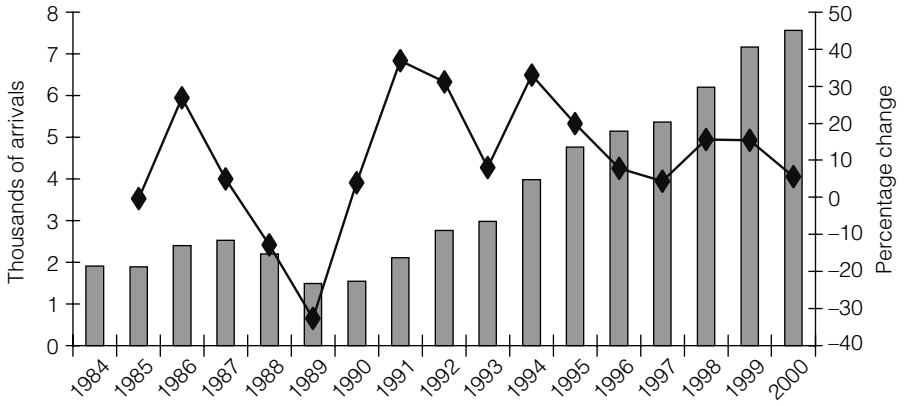
Growth of Tourism

As a result of these policies and other factors, Bhutan receives only a small number of tourists. Still, tourist arrivals grew rapidly over the past decade, with arrivals by air increasing by an average of more than 17 percent a year—though from a very small base (see figure 6.1 and appendix table A4.2). In 2000, a record year, nearly 7,600 tourists came into Bhutan by air, and another 13,000 by road from India.

Despite the growth in tourism, most hotels remain small and underused. The country has an estimated 560 hotel rooms, which should permit 204,400 room nights to be sold annually. In 1997, however, the industry sold at most 37,000 room nights (with 5,363 tourists spending an average of seven nights each), assuming that each tourist stayed in a separate room. Even with this unrealistic assumption, occupancy rates were less than 20 percent, against an industry benchmark of 60 percent.

Anecdotal evidence suggests that tourists coming to Bhutan tend to be professionals or retirees. But staff of the Ministry of Trade and Industry's Department of Tourism believe that this profile is slowly changing to that of a family tourist. Although rankings have changed over time, tourists from Europe, the United States, and Japan tend to be most important for Bhutan. In 2000, for example, Europeans made up 38 percent of tourists (Germans, 8.8 percent; British, 7.9 percent; French, 5.3 percent; Dutch, 4.7 percent; and Italians, 2.1 percent), Americans 36 percent, and Japanese almost 12 percent (see appendix table A4.3). Americans tend to stay for longer periods, and Japanese for shorter periods. Repeat tourism is apparently low, possibly because of the high cost of traveling to Bhutan and the relatively low quality of tourism services (a recent study states that the average hotel in Bhutan "would struggle to reach 2-star status").

Figure 6.1 Tourist Arrivals, Bhutan, 1985–2000



Note: Data excludes tourist from India.

Recent Developments

An important recent development has been the approval of two new joint ventures in the Bhutanese hotel industry. In a first for the country, the foreign owners (both based in Singapore) will be permitted to hold a majority 60 percent share in the Bhutanese operation. Of the remaining 40 percent share, a minimum of 10 percent will be sold on the local stock exchange and the rest sold to a local promoter. The foreign investors, both involved in hotel chains in Asia, are expected to provide high-cost, high-quality service in a chain of hotels across the country (including in Bumthang, Paro, Phunaka, Thimphu, and Trongsa). This foreign direct investment could well have a big impact in raising standards in Bhutan (30 employees who will work in the new hotels are undergoing training in Singapore) and shaking up the local industry. The hotels are expected to begin operation during the Ninth Five-Year Plan period.

The tourism sector is overseen by the Tourism Development Committee. Chaired by the minister of trade and industry, this multisectoral committee includes representatives from the Finance Ministry, the Home Ministry, and the private sector, reflecting the importance of the sector to the economy. A tourism development fund, raised through a one-time $10 levy on tourists, is managed by the Department of Tourism for the development of public goods in the industry. The department also provides training in such areas as trekking, cooking, and guide services.

The Department of Tourism is drafting a tourism policy, expected to be completed in early 2002. A tourism master plan is expected to be ready in time for the Ninth Five-Year Plan. A challenge for Bhutan will be to define a balanced national policy. This policy should allow for a modest increase in tourists up to the total available hotel capacity throughout the year. Achieving this goal will require promotion campaigns to increase business, particularly during the low season.

Legal Environment

With tourism established less than 30 years ago, no formal laws have been enacted to regulate the sector. This offers some advantages in flexibility. But over the longer term putting in place a comprehensive set of laws governing tourism would be desirable. Other countries offer many good legal precedents that could be researched through the World Tourism Organization. And Bhutan has the outline of a regulatory system that could provide a partial basis for future laws. The regulations in force include the following:

- *Trekking in Bhutan Regulations, 1996,* which specify reasonable conditions and provide a good approach to protecting the environment.
- *Bhutan Filming Regulations, 1995,* which take a very restrictive approach, with conditions that discourage visits by overseas film and television companies. In stark contrast, most other tourist destinations promote such visits.
- *Rules for Familiarization Visits by Overseas Travel Agencies, 2000,* which are restrictive and need to be liberalized. Travel agency owners and counter staff should be encouraged to visit Bhutan. Indeed, groups of up to 20 people, including travel writers, should be encouraged to visit at the same time.
- *Bhutan Tour Handlers,* which reflects greatly relaxed rules for issuing licenses in recent years. As a result of the liberalization, the number of tour operators has increased sharply relative to the volume of business (31 operators managed between 40 and 1,322 clients each, while 45 looked after up to 40 clients each). A case now exists for halting future license applications and encouraging smaller tour handlers to merge and thus increase profitability.

Employment

Like the rest of the private sector in Bhutan, the tourism industry reflects little organization of employees or employers. Trade unions do not exist, and hoteliers are not yet fully organized. Data are available on employment in the hotel sector (table 6.1) but not in other tourism activities.

Nonetheless, informal discussions with hotel owners and tour handlers gave some indication of the employment situation in tourism. Employees earn very low wages (a chef earns $0.83 an hour, and a porter $0.14) and work long hours (13 hours a day, 6 days a week). The industry has an overreliance on untrained staff and provides virtually no formal training; most training takes place on the job. For senior staff, training is limited to short courses overseas. As a result, establishing more formal training facilities in Bhutan is generally considered highly desirable.

Table 6.1 Employment in the Tourism Sector, Bhutan

Type of staff	Employees
General	678
Skilled	612
Unskilled	135
Total	1,425

Because many Bhutanese workers are reluctant to undertake menial work, such as cleaning, the industry relies on Indian workers, who are prepared to both work for minimal wages and undertake menial tasks.

Contribution to the Economy

Tourism receipts and royalty payments to the government provide an important source of revenue for the country and the government budget. In 2000 tourism produced gross foreign exchange earnings of $10.5 million—up 18 percent from the previous year, the approximate growth rate for the 1990s. These earnings make tourism Bhutan's most important source of hard currency receipts from exports of goods and services. (While electricity brings in more foreign exchange, it is sold in rupees, which are not considered a hard currency. And while donor receipts are a significantly larger source of hard currency resources, they are not of course export earnings.)

Moreover, these receipts exclude important sources of hard currency earnings from tourism, including airfares on Druk Airlines and spending by tourists once they are in the country (on drinks, souvenirs, handicrafts, and the like). Including these receipts might almost double the hard currency earnings from tourism. In other countries similar in size to Bhutan tourist spending on souvenirs alone commonly exceeds 10 percent of gross earnings in the industry.

The government's royalty share of these receipts amounted to $4.1 million in 2000, purportedly making tourism the fourth largest source of domestic revenue after Chhukha Hydro Power, the Department of Power, and Telecommunications (table 6.2). Indeed, government receipts from tourism have been growing even faster than hard currency earnings—rising by 33 percent a year on average over the nine-year period between 1991 and 2000. The government's share in gross earnings from tourism has also been slowly increasing, reaching around 40 percent in 2000.

All these numbers on tourist arrivals and earnings exclude Indian tourists. Since Indians can enter Bhutan without a visa and there is little control over their entry, it is difficult to collect data on Indians who visit Bhutan and to differentiate between those who enter as tourists and the many who enter daily for other reasons (such as work). Although the Department of Tourism estimates the number of Indian arrivals as high as 13,000 a year, it has no data on their possible financial contribution to the tourism industry.

Current Government Policy

The government's current policy on tourism is defined in the *Rules and Regulations for Tour Operations, 1999:*

> While tourism operations have been liberalized consistent with the overall objective of strengthening the private sector, sustainable tourism development based on high value, low volume shall remain the guiding principle for all future tourism policies.

Bhutan maintains a low level of high-end tourism by imposing a high entry price. Tourists coming into the country must pay, up front, $200 a day during

Table 6.2 Tourist Arrivals and Gross Earnings and Government Revenue from Tourism, Bhutan, 1990–2000

Year	Tourist arrivals	Gross earnings from tourism (millions of U.S. dollars)	Government revenue from tourism (millions of U.S. dollars)	Government revenue as a share of gross earnings (percent)
1990	1,538	1.91	—	—
1991	2,106	1.99	0.31	15.65
1992	2,748	2.97	0.98	33.10
1993	2,984	3.23	1.13	34.99
1994	3,971	3.97	1.39	35.00
1995	4,765	5.83	2.04	34.98
1996	5,138	6.52	2.32	35.64
1997	5,363	6.55	2.48	37.80
1998	6,203	7.98	3.02	37.83
1999	7,158	8.88	3.46	38.96
2000	7,559	10.50	4.10	39.05

— Not available. Note: Data exclude tourists from India.
Source: Bhutan Ministry of Trade and Industry, Department of Tourism.

the peak season (February–April and September–November) and $165 a day during the "lean season." Tour operators are required to give the Royal Monetary Authority 90 percent of these funds ($180 or $132 per day per tourist), which is exchanged for its ngultrum equivalent; the other 20 percent is used to pay the foreign tour operator. These funds can be charged against meals, internal transport, accommodation, and guide services. But they do not cover travel to and from Bhutan, the cost of alcohol within Bhutan, or shopping and personal expenses.

The differential pricing policy was reintroduced in 1999. But the Department of Tourism feels that demand is not sufficiently elastic for the policy to induce enough additional tourism during the lean season to iron out the intense seasonality.

But this lack of elasticity may also result from the small difference in price between the two seasons as well as the government's requirement for a royalty of $65 from every peak season tourist and $63 from every lean season tourist (these royalties are collected from the upfront payments). Since some tour operators are suspected of passing along packages at prices lower than the advertised rates, this compulsory payment to the government may well be the more binding constraint. For this reason the Department of Tourism has recently recommended reducing the government royalty for lean season tourists to $55.

For the future the government could consider three possible options for pricing policy:

- Making no change in the arrangements.
- Liberalizing the market entirely so that tourists can gain access to Bhutan in the same way as any other destination (with only a visa and passport required) and freely choose travel routes, hotels, and meals.
- Striking a middle ground between the first two options.

The choice involves complex economic, cultural, and social issues—both positive and negative. To help develop a solution that maintains the high-value, low-volume approach while maximizing revenues from tourism and reducing seasonality, it is recommended that a special commission be established to research the issue and come up with recommendations for consideration by the government. Such a commission should include both public and private sector representatives as well as an internationally recognized tourism expert nominated by the World Tourism Organization.

Toward a New Government Policy

The government's policy on tourism is at an important stage. While the tourism industry is controlled by regulations and precedent, the intention is to enact laws dealing with all aspects of the industry in detail.

Meanwhile, the Department of Tourism has prepared an important document listing the issues that need to be tackled to put Bhutanese tourism on a sounder footing. The document focuses on such problems as the lack of new products (new trek routes), the extreme seasonality of tourism in Bhutan, the lack of private investment (especially in the east), the lack of community participation, the low and uneven standards of tourist accommodation, and the lack of clear policy guidelines and related legislation. To address these shortcomings, the document develops a vision and mission for the sector with well-defined strategies and programs for its development, focusing on building institutional capacity, developing skills, developing and maintaining infrastructure, and strengthening information and publicity.

But the approach lacks specificity. A more effective strategy, developed after consultation with interested parties, would describe the necessary actions, provide a timeline and estimated costs for implementation, allocate personal responsibility for actions, and incorporate reporting and central monitoring systems.

Costs and Competitiveness

Comparative data on tourism costs in similar remote locations in the region show that Bhutan does not compete for tourist business on the basis of cost (table 6.3). Instead, it is a niche market with great appeal to clients seeking a unique experience.

Table 6.3 Cost of a Seven-Day Tourism Package, Selected Countries, 2001

Country	Approximate cost (U.S. dollars)
Bhutan	1,260
Lao PDR	960
India	755
Cambodia	615
Nepal	546

Note: The data assume a shared twin room and include all meals, transport, guide services, and the like but exclude airfare.
Source: Various travel agents.

Cost Structure and Revenue Shares

Most hotels in Bhutan lose money or just break even, despite the relatively low wage levels, reasonably low food costs, and reasonably high room and food charges. The main reason is the low hotel occupancy rates, averaging no more than 20 percent annually. In contrast, the largest tour handlers appear to be quite profitable, thanks to their ability to operate with low overhead and minimal capital investment.

Indicative data on the distribution of tourism revenue (not completely accurate because of assumptions that had to be made) show that the government collects a large share, 24.5 percent from royalties and the business sales tax (table 6.4). This is in addition to the 38.2 percent collected indirectly through Druk Air, the state-owned airline. In the longer-term interests of the tourism industry, the government should be encouraged to calibrate the levy and invest some of the funds earned from tourism in marketing and product improvement.

Table 6.4 Breakdown of the Cost of a Seven-Day Visit to Bhutan, 2001

Component	Share of total (percent)	Cost (U.S. dollars)
Roundtrip airfare on Druk Air (Bangkok-Paro)	38.2	779.28
Government royalty	22.3	454.92
Hotel	13.1	267.24
Meals	6.6	134.64
Tour guide and transport	3.0	61.20
Business sales tax	2.2	44.88
Tourism development fund	0.5	10.20
Other costs, including tour operator's profit	14.1	287.64
Total	100.0	2,040.00

Note: The data assume individual purchases of an all-inclusive Bhutan vacation from an overseas retail travel agent based in Bangkok, travel during the peak season, a group of eight people, and couples sharing a room.
Source: Various tour operators.

Factors Critical for Success

Several factors are critical to the competitiveness of Bhutan's tourism sector, including the reputation of the country, its accessibility, the accommodation standards, visitor attractions, and synergies between different elements of the private sector development policy. (See appendix table A4.4 for an assessment of the tourism industry's strengths, weaknesses, opportunities, and threats, and appendix table A4.5 for the results of a small visitor survey undertaken for this report.)

Reputation of the Country. Many potential tourists, even well-traveled professionals, are unaware of Bhutan's location or its features. In line with the government's policy of high-value, low-volume tourism, a generally low-key approach to marketing has been adopted. Bhutan relies almost exclusively on the efforts of overseas retail travel agents to create tourist business for the country (table 6.5). Bhutanese tour handlers make contact with these agents at tourism trade fairs held annually in London and elsewhere. These efforts are assisted by the Department of Tourism and the Bhutanese Tour Operators Association, which contribute toward travel costs and the leasing of space at the trade fairs. The low hotel occupancy rates and the possibility of routing more tourists through land entry points (because of the limitations of the Paro airport) suggest that a well-organized, focused marketing campaign could increase business to close to current capacity.

Table 6.5 Overseas Travel Agents Serving Bhutanese Tourism, by Location

Location	Agents
United States and Canada	10
United Kingdom	8
Germany	2
Other European countries	4
Australia	1

Source: Lonely Planet Guide

The reputation of a country not only depends on its own efforts, however. It is also affected by events in other countries in the same region, as confirmed by events surrounding the 2001 World Travel Market (box 6.1).

Accessibility. As noted in chapter 3, access to Bhutan is limited, particularly by air. To make the best use of the limited air travel resources, it is important to spread the tourist season more evenly through the year. Several steps could be taken to do so, such as researching patterns of tourism in similar destinations to see how these countries spread the market, and identifying features present in Bhutan in the low season and promoting these to special interest groups, such as ornithologists and groups interested in Buddhism or traditional medicine.

Accommodation Standards. Standards of accommodation are generally poor, particularly for high-priced tourism. Improving standards is important (and the new foreign-supported hotels will do so). But there are ways to make basic accommodation a feature of themed vacations, with tourists traveling to different parts of the country to stay in rustic accommodations and eat food traditional to the area. And hotels could upgrade services to compensate for poor physical amenities.

Visitor Attractions. Tourism activity in Bhutan focuses mainly on outdoor pursuits, such as trekking, touring, and cultural events. But complementary activities are increasing, including museums, craft shops, historical monuments, open air markets, and music and dance training institutions. All these enhance visitors' experience and greatly improve the prospects for low-season tourism. To increase tourism and help secure repeat visits, efforts to develop new

Box 6.1 Public-Private Cooperation in Marketing Tourism

In many countries the government and the private sector work together in marketing tourism. At one of the sector's leading showcases, the World Travel Market in London, for example, private operators often exhibit in "national space" that the exhibitors' government has coordinated, if not partly funded. Bhutanese travel firms reported that the Bhutanese government does less in this way than the governments of competing countries—a policy stance they lamented, particularly given the income the government earns from the sector.

Bhutanese firms represented at the World Travel Market in November 2001 saw the show as a good opportunity for the government to "fly the flag." The timing was good, they said, for capturing market share from other countries in the region where political events have adversely affected business—and for filling the resulting gaps in the product offerings of tour operators specializing in countries along the Himalayan chain.

International tourism specialists at the World Travel Market supported the views of these private Bhutanese firms, saying that at times of difficulty in the trade, it is essential for governments to support their private sector. And 2001, they confirmed, was just such an occasion, with the effects of the economic downturn in Europe and the United States exacerbated by political conflicts. They pointed to a need for general image building given the public's scanty knowledge of the region and confusion over the location of Bhutan, Kashmir, Afghanistan, and Nepal. And they cited the example of Ireland, whose government, recognizing that 2002 would be a "very challenging year for tourism," allocated an additional $11 million for marketing.

products—such as a showcase monastery and a one-stop Bhutan experience center—should continue.

Synergies. Given Bhutan's limited resources for developing industry, whether tourism or manufacturing, it is important to seek synergies between different elements of private sector development so that activities in one area develop opportunities in another. For example, tourists who had visited Bhutan could become customers for its niche exports, and wood products could be developed as souvenirs. In the Caribbean wood handicrafts valued at $11.5 million are sold to tourists each year.

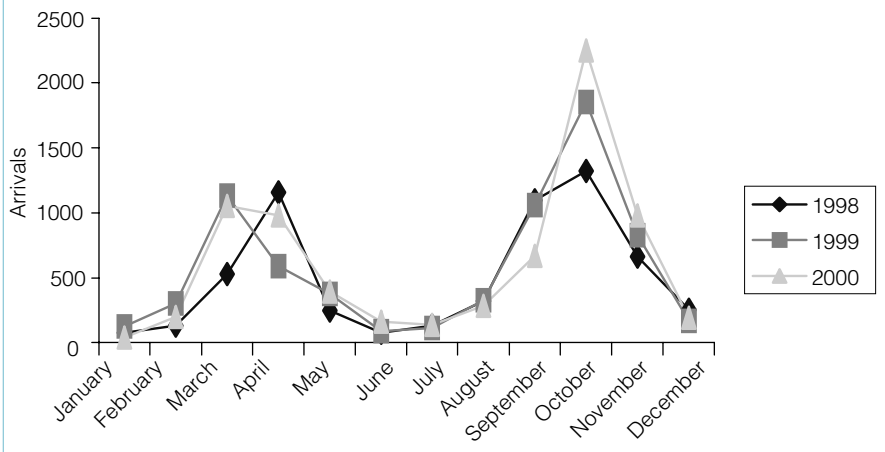
Impediments to Growth

Big advances have been made in developing tourism in recent years, but impediments to growth remain. These include the seasonality of the market, the limited access to Bhutan, weaknesses in the infrastructure for tourism, and poor standards of accommodation. And the proposed new structure of the Department of Tourism could either stimulate the development of tourism or constrain it.

Seasonality of the Market

The two main tourist seasons—spring (March–May) and autumn (September–November)—coincide with important festivals in Paro in March, in Thimphu and Wangdue in late September and early October, and in Bumthang in November. The extremely bimodal pattern of tourist entries is further exacerbated by the monsoons in June–August and the colder weather in the Himalayas in December–February (figure 6.2). Also contributing to the seasonality, Bhutanese tourism is often sold as a package with visits to India and Nepal, where tour operators have traditionally targeted European and North American tourists for spring and fall. Indeed, with its limited

Figure 6.2 Tourist Arrivals by Month, Bhutan, 1998–2000



Note: Date exclude tourists from India.

tourism marketing, Bhutan is to some extent at the mercy of the tour operators in these two neighboring countries.

Limited Access to Bhutan

Access to Bhutan is complicated in part because Druk Air is the only carrier flying into the country. The authorities claim that it is not their intention to exclude other carriers, but that regional and other carriers have very little interest. The lack of interest is due to the intense seasonality of passenger traffic, the need for special planes to negotiate the landing strip in Paro, and the perceived lack of commercial viability of such a route.

In 2001 access was further complicated because Druk Air, which normally operates two airplanes, had had one of its planes out of commission for more than a year. That meant that in September 2001 only one 75-seat airplane was serving the country. While that would not be a problem during six months of the year, during the tourist season Druk Air can hardly handle the volume of passengers with two airplanes. The result has been delays and other inconvenience for tourists, which could damage Bhutan's reputation as a tourist destination.

During the spring 2001 season Druk Air chartered a 19-seat aircraft from Buddha Air, a private Nepalese domestic airline, to help relieve the pressure. Greater use of external airlines during the peak season could be one way to relieve the access constraints created by Druk Air's limited seating capacity. But the peak season in countries such as Nepal, the most likely source of the additional seating capacity, is likely to coincide with the peak season in Bhutan, possibly limiting the availability of extra capacity.

Druk Air intends to purchase two new aircraft in the foreseeable future (with a substantial impact on the country's holdings of foreign exchange reserves; the cost of the two aircraft is estimated at $35 million, more than 10 percent of the approximately $300 million in reserves). Tellingly, Druk Air, which has traditionally operated at a loss, reportedly did better financially during the 12 months in which it operated only one aircraft rather than two.

Inadequate Infrastructure for Tourism

The quality of a country's infrastructure has a profound effect on the development of its tourist industry. Bhutan's infrastructure creates some impediments to tourism.

Roads. The construction and maintenance of Bhutan's main and secondary roads pose formidable engineering challenges, mainly because of the country's terrain. Upgrading the roads will take many years and substantial financial resources. The courtesy and good driving skills of most bus and truck drivers help alleviate the problems of poor roads. Nonetheless, poor roads and landslides can sometimes inconvenience tourists entering and traveling around the country.

Aviation. Druk Air operates in difficult circumstances. It must contend with the challenge of flying into the high-altitude airport at Paro, the lack of facilities for night flying, the lack of a convenient alternative airport for planes diverted by fog, the high fuel costs of operating its two Aerospace 146 aircraft, and the need to reduce seating capacity on its planes when temperatures are high. And it must contend with what is known as the "Druk Air paradox": its busiest flying times coincide with some of the worst periods of unpredictable weather, making flying into Paro (which must be done visually) particularly difficult. International aviation consultants with experience in flying aircraft at high altitudes should advise on issues relating to additional airport sites, types of aircraft (including helicopters), landing pads, and the like.

Telecommunications. Although Bhutan has made major investments in telephone and information technology systems in recent years, standards fall short of international requirements. Hotel bedrooms lack direct-dial telephones, international calls have poor signal quality, there are no Web sites allowing prospective tourists to make Internet bookings, and the mobile phone network is limited.

Emergency Services. Tourists and travel agents expect emergency services to be readily available in most destinations—modern hospitals, ambulances (including helicopters), traffic police, and emergency phones along roads. Bhutan has few if any of these services. It is recommended that a committee, representing all the interests involved, be established to develop suggested actions for addressing this issue.

Internal Transport. Private transport services, relying mainly on minibuses, offer the main means of transport from towns to more remote rural areas. But only a limited number of tourists, mostly among those originating from India, use this type of transport. Private bus operators cited several difficulties, including the government's fixing of fares at uneconomic levels, the requirement to operate particular services even if there are no passengers, the loss of some services because of terrorism close to the Indian border, the growing competition from private car owners, and the poor road conditions.

Finance and Banking. The two banks in Bhutan offer an array of basic banking services. But the limited acceptance of credit cards, and the extremely high service fees charged where they are accepted, impose big limitations, particularly for making bookings on the Internet. The lack of cash dispensing machines, widely used by tourists in other countries, also poses difficulties.

Poor Standards of Accommodation

Hotel accommodations, generally viewed as poor value for money, need improvements. In addition, the internal grading system for "international" hotels is limited: grades A, B, and C exist, but the difference between one category and the next is small. Most hotels would qualify for only a two-star international grade. While bedrooms are generally adequate in size, shortcomings are apparent: beds are of poor quality, plumbing fixtures are substandard, many staff have limited training, and the décor is often dull.

Inefficient Management Structure of the Department of Tourism

The institutional structure of the Department of Tourism is complex, with staff at different levels reporting to the director (figure 6.3). Moreover, the structure makes no specific provision for marketing, a high priority.

A proposed new structure, based on commercial models that have worked in other countries, could better serve the needs of the tourism sector (figure 6.4). The proposed structure clarifies functions and emphasizes marketing rather than regulation. And if a public-private tourist development board was established, the structure could easily be adapted for that entity.

Organizations with interests in tourism and the environment should have an advisory role in any new structure. Such organizations include the Bhutanese Tour Operators Association, the Natural Environment Commission, the Royal Society for the Protection of Nature, the National Commission for Cultural Affairs, the Association of Hotel Owners, and the Bhutan Chamber of Commerce and Industry.

Recommendations for the Sector

The following measures could enhance tourism in Bhutan.

Figure 6.3 Organogram of the Bhutan Department of Tourism

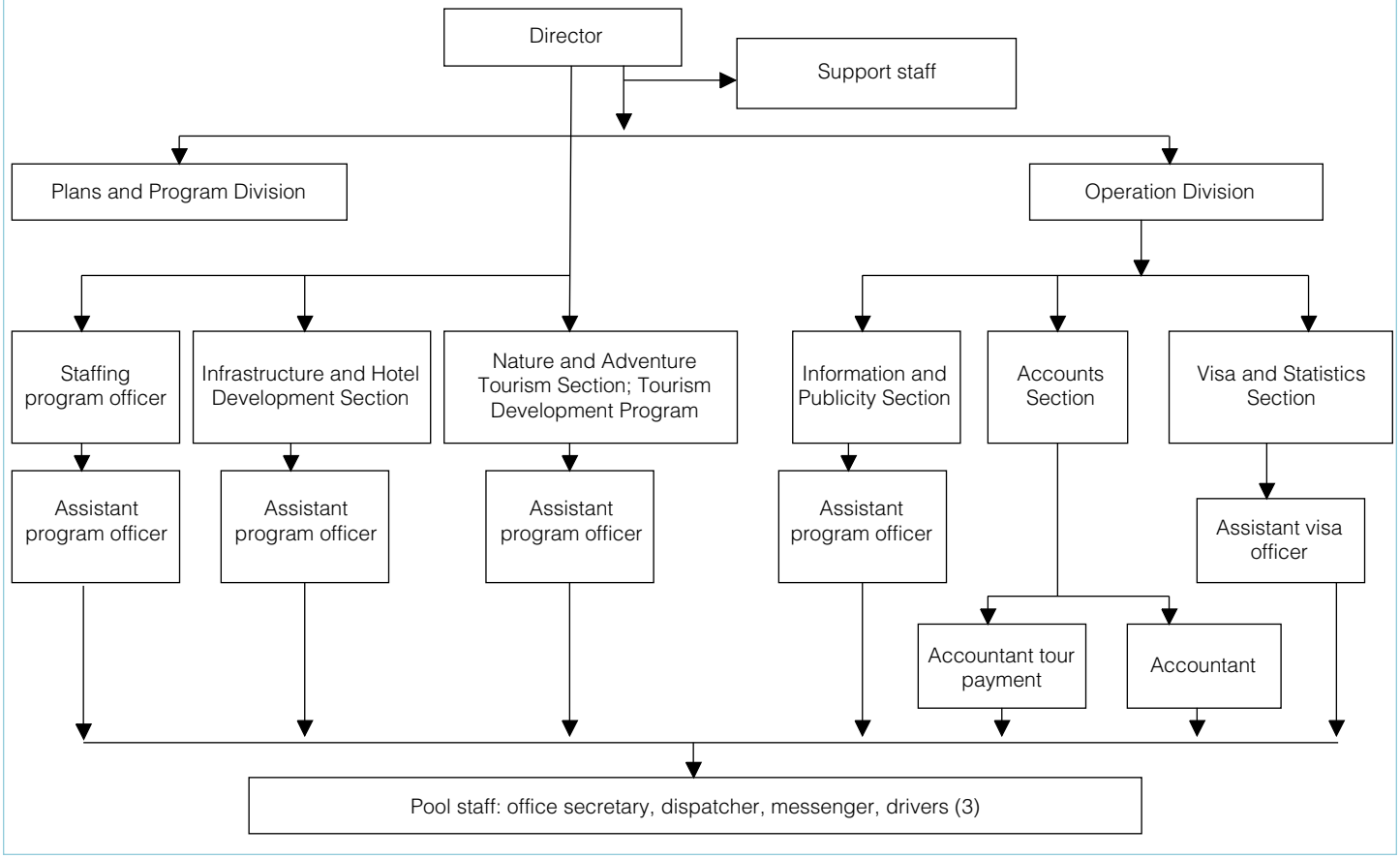
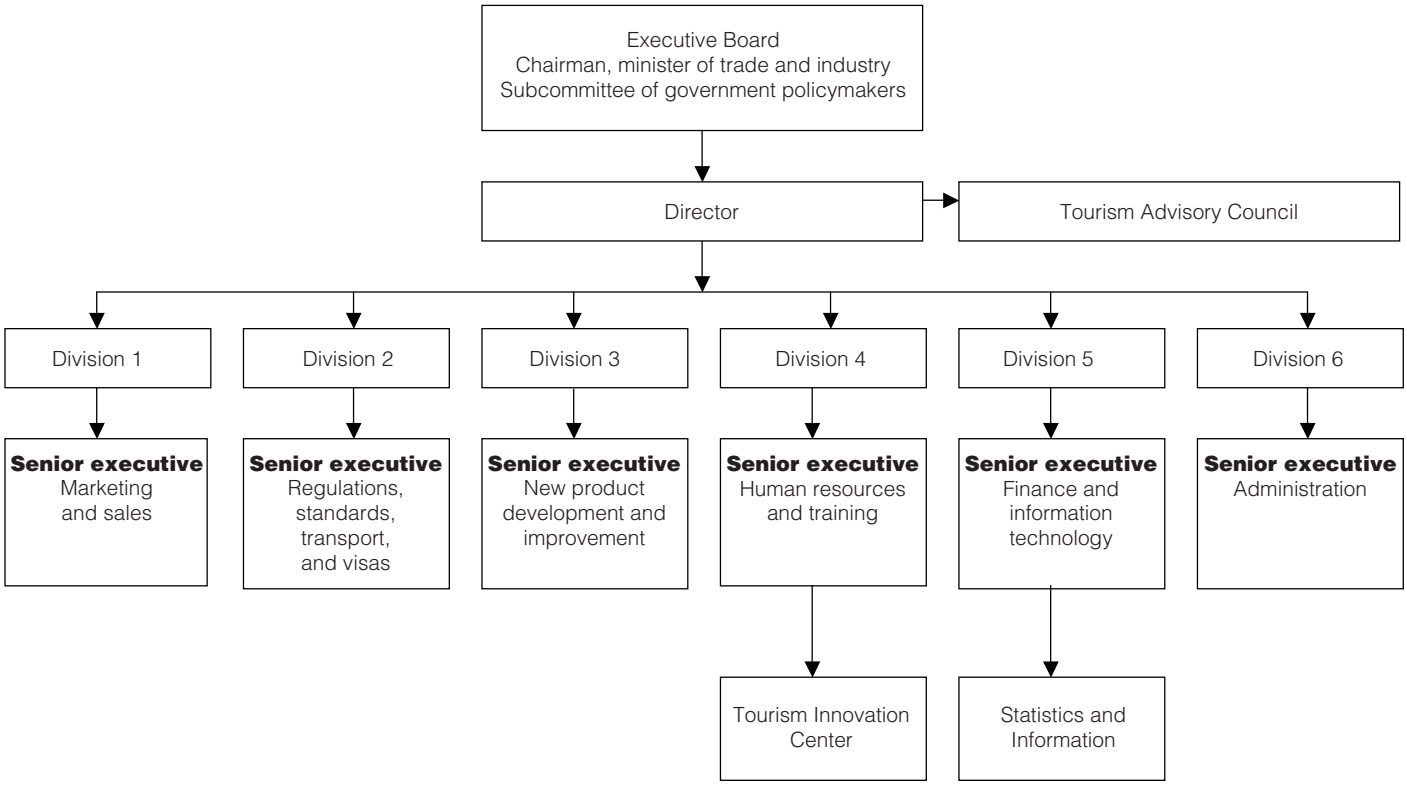


Figure 6.4 Proposed Organigram of the Bhutan Department of Tourism



Note: Only the senior management line is shown. Another option would be to establish a tourism development board with this structure, though governed by an independent board (with government and private sector nominees).

Strategic Actions

- Devise and implement a comprehensive master plan for tourism, including product development and marketing. The plan should focus on developing new marketing and sales arrangements, making maximum use of information technology, reducing seasonality by expanding activities for visitors, raising annual hotel occupancy rates to up to 70 percent, providing training in tourism, offering more dependable air access, improving road standards, encouraging more travel by road from India, and introducing new products.
- Restructure the Department of Tourism to conform with international best practice.
- Establish a training resource, such as a training institution or a partnership with a foreign training institution, that could provide training in tourism with a Bhutanese orientation.
- Encourage the establishment of employers and employees organizations in tourism, particularly in the hotel industry.
- Seek the advice of an international consultant on Bhutan's aviation and airport needs.
- Seek the advice of a specialist group on the future operation of internal transport, including the pricing policy.
- Establish an advisory committee for developing emergency services.

- Further develop ecotourism as a major promotional element.
- Establish consultative mechanisms for all tourism-related organizations.
- Introduce an incentive scheme to encourage the upgrading of hotels.
- Further explore the potential of tourism related to Buddhism.

New Product Development

- Develop an existing or purpose-built monastery as an interpretive center (with actors and audiovisual facilities) with the cooperation of the religious and other local authorities.
- Establish a new form of evening entertainment for tourists in an appropriate setting, with a meal, music, folklore, and dance.
- Develop new visitor attractions in Phuentsholing to extend visitors' stay beyond one night (such as the Buddhist temple in the town square, the Kharbandi Monastery, and demonstrations of paper and incense making).
- Provide a one-stop Bhutanese experience center to present art, music, folklore, history, religion (including scenes from religious festivals), the monarchy, and the future vision for Bhutan.
- Develop an international Buddhist research and conference center to promote the tantra of Buddhism—the code for living and system of values that still dominates nearly every aspect of life in Bhutan, including the arts, annual festivals, literature, and the laws of the land.
- Develop ecotourism products further along the lines suggested at the September 2001 workshop arranged by the Department of Tourism—including devising organizational strategies to coordinate all organizations involved; developing products such as a protected habitat for black-necked cranes and traditional medicine products and health centers; expanding domestic tourism; using new marketing tools, particularly the Internet; and developing human resources in the areas identified.
- Continually upgrade attractions, including by adopting seven-day schedules, introducing costumed guides, and the like.

Marketing

- Devise and implement a comprehensive marketing and sales campaign—including developing an expanded database of potential overseas retail agents using the Internet and specialized directories; publishing editions of Bhutanese Travel News in hard copy and on the Internet; using email for regularly disseminating special offers and information; sending ad hoc sales teams on regular visits to overseas travel agents; inviting travel writers from key markets to Bhutan; and developing tourism literature consistent in design, content, and quality.
- Liberalize regulations on filming in Bhutan and on familiarization trips by travel agents and writers.
- Create a comprehensive new database on tourism to measure and monitor all aspects of the industry. Some work is being done but needs to be strengthened. The effort would benefit from recruiting a consultant, ideally from a national tourism organization, to design and establish a suitable monitoring system for the industry and to train local staff to manage and update it. The data should cover tourists—their numbers and their country of origin, their reasons for choosing Bhutan, their income level and age group, the activities they undertook, and their satisfaction with their experience—as well as the industry—revenues, performance trends, hotel occupancy rates, aircraft load factors, and return on hotel and other investments.
- Undertake regular, comprehensive attitudinal surveys of tourists.
- Introduce travel reservation systems using the Internet and toll-free phone numbers, both of which could be under the direct control of the

Department of Tourism. The phone system could handle calls directly or through a call center, dealing with general inquiries and sending literature. A Web site should allow customers to make real-time reservations, which could then be referred to accredited overseas travel agents (an equitable arrangement could be devised for distributing business).

- Participate fully in international events such as the United Nations International Year of the Mountains 2002 or the International Year of Eco-Tourism 2002. Some of these events would enable Bhutan to obtain useful technology, and some would also provide opportunities for funded workshops on matters important to the country, such as the role of tourism in developing culturally distinct, high-altitude rural areas.

General

- Introduce a formal accreditation system in the tourism trade to foster good standards for promotional literature, profit margins, and knowledge about Bhutan among staff.
- Encourage banks and vendors to adopt credit cards and provide cash dispensing machines in primary locations.
- Adequately regulate the Bhutanese tour handling industry and promote its rationalization through mergers of smaller tour handlers.
- Arrange visits and short-term placements in other countries for tourism professionals, to expose them to other tourism organizations and their practices and products.
- Establish closer links with the World Tourism Organization (on general tourism issues, including comparative data), UNESCO (on cultural and environmental issues), and the International Council of Museums (on museum practice), all of which could support the transfer of new technologies and methods of doing business.
- Ensure the availability of a range of technology transfer mechanisms—such as retired executive programs, matching grant schemes, and foreign direct investment—and develop awareness of these mechanisms in the tourism industry. In other countries matching grant schemes have helped tourism businesses undertake promotion campaigns, establish Web sites, develop new products, and set up management information systems. For hotels and craft shops, retired executives could provide training and advice at a very modest cost. (For more information on technology transfer, see chapter 3.)

The government of Bhutan sees information technology and the knowledge-based industries that it enables as ideal sources of future economic growth. Information technology both plays to Bhutan's strengths and avoids its major constraints. It takes advantage of Bhutan's disciplined, English-speaking workforce and relatively developed telecommunications network. Yet it is not limited by the country's mountainous terrain, extreme weather, or geographic isolation. Moreover, information technology services impose little burden on the country's natural resources, supporting the government's goal of preserving the natural environment.

But while the information technology sector offers great promise, it is still in its infancy in Bhutan, and the country is unlikely to export significant information technology services or knowledge-based products in the near future. Bhutan has had a late start and must overcome many challenges to become internationally competitive. If it concentrates on developing a computer culture and supporting the growth of the information technology sector, it could set the stage for future service exports. Meanwhile, rapid development of information technology could increase the productivity and competitiveness of private enterprises and improve the delivery of government services.

Present Situation

First introduced in Bhutan in 1984, computers are now estimated to number more than 4,000, with most in government offices. Most private firms surveyed also have computers, but they tend to underutilize them. Indeed, private firms appear to use computers mostly as a labor-saving technology. With computers expensive and not widely available until recently, a computer culture—in which young people in the workforce are comfortable using information technology—has not yet developed. The recent reduction in import duties on computers and the efforts to make computers more accessible to students are beginning to improve this situation. But computer literacy and comfort with information technology remain low, and the private sector still makes little effective use of information technology services.

Among the sampled firms, about 70 percent had computers, with most using them for simple functions such as word processing, basic accounting, and other office applications. Almost none had local networks, used an automated inventory management system, employed computer-aided design, or used information technology in other sophisticated ways. The networks that do exist are mostly in government agencies. Of the firms sampled, about 62 percent had access to email, yet most of these continue to communicate mainly by fax and telephone.

A mere 15 percent of firms, mostly in the tourist industry, had Web sites. Outside the service sector a metal firm and a handicraft firm were the only companies with Web sites. Notably, only a third of the companies providing information technology services had Web sites. That most information technology enterprises see no value in establishing Web sites indicates just how limited computer penetration and Internet access are. All the sites are static—serving only to advertise—and no company reported conducting business over the Web. A few of the more sophisticated entrepreneurs reported using the Web to discover new technology and communicate with overseas vendors, but even this activity was rare.

Bhutan has one Internet service provider, the government-run Druk Net, which began operations in 1999. Druk Net provides dial-up service at 33.6 kilobits per second (kbps) for the price of a local call throughout most of Bhutan. There are 64-kbps and 128-kbps leased lines available—dedicated lines allowing rapid transmission of large amounts of data—but few customers take advantage of them. Of those that are taken, most are leased by government agencies. Even the banks have not leased lines, though financial institutions are among the heaviest users of

leased lines in many countries. Druk Net estimates that it hosts 30–35 Web sites, mostly for government agencies, and this number is unlikely to grow significantly in the near future. Druk Net maintains around 800 accounts and estimates that there are more than 2,500 users.[1] In mid-2001 the country had only six Internet cafes, four in Thimphu and two in Phuentsholing.

Asked why they don't make more use of information technology, firms said they saw too few benefits to justify greater investment. In manufacturing, most firms use old technology, where computerization would be inappropriate and would add little to productivity. The service sector also sees little value in investing in information technology, since most businesses are very small and few consumers have access to computers or the Internet. Moreover, upgrading information technology capabilities involves big costs, because all hardware and expertise must be imported. Connectivity is another issue. While dial-up service is good and relatively inexpensive, Bhutan's lack of a data network makes sending large amounts of data problematic and linking geographically dispersed units expensive.

But the biggest obstacle firms face in building information technology capacity is the lack of skilled professionals. The private sector must bring almost all information technology professionals from India. This is expensive and, because of the strict immigration procedures, difficult. Private training institutions have recently been established in the major towns. But most of these focus on training office workers in word processing, accounting, and other basic office skills. Few offer training in programming, database management, Web site development, or other advanced tasks. Most of the students are school-leavers paying their own way to improve their job skills. Few firms send workers for training, again reflecting the low value most firms see in investing in information technology. Almost all the trainers in the private institutions come from India.

The Sherubste College has begun to graduate information technology students, but the recently established Division of Information Technology estimated that the class of 2001 at less than 20. All these graduates were expected to go to government agencies, not the private sector. One local company reported offering a recent information technology graduate a salary more than three times the salary level in the government. But the graduate rejected the offer, preferring a secure government job over what is perceived as the risky private sector.

Besides Sherubste College, the Royal Institute of Management teaches database management and provides some training in programming. But the Division of Information Technology estimated that it would produce only 12–13 students this year and again expected most to find employment in the government. Thus when private firms do have an interest in hiring computer professionals, they face difficulties in finding candidates who are suitably trained and willing to work for them.

Potential online businesses face obstacles in the financial and regulatory systems. The lack of credit cards or other systems makes it impossible to make payments electronically—even Druk Net is unable to accept online payments. Banks reported that they offer no online services because the lack of demand makes them uneconomic. Even if they were to offer such services, foreign currency regulations would pose a big obstacle. Tourism often leads the growth of online business. But the requirement in Bhutan to use group travel arranged through registered travel agents reduces the need for interactive Web sites where tourists can make reservations. The lack of laws or regulations covering e-commerce and cyber fraud provides another disincentive to pursue online business.

Because of the lack of demand, only a handful of companies provide information technology services in Bhutan, and most of these train office workers in basic computer skills. Fewer than five small firms provide

hardware or services, and their capabilities are limited to designing simple, static Web sites and installing basic networks. With little demand for other services, there is little incentive to develop more sophisticated offerings. No firms export information technology services or are seriously considering doing so.

Opportunities

So, given the state of information technology services in Bhutan, what can be said about the government's desire to see an export industry develop? Information technology export businesses in developing countries can often be grouped in two general categories. First, small firms using skilled professionals to serve niche markets in programming, software development, Web site design, or other specialized applications. And second, bigger companies using large numbers of less skilled workers to carry out such operations as data entry, digital encoding, or call centers.

The competitiveness of small programming firms relies on low-cost skilled workers who can turn out high-quality products in a short time. These firms often subcontract for companies in industrial countries where wages are extremely high. In Madagascar, for example, a young industry is designing interactive Web sites for companies in Belgium and France. The cost of good information technology professionals in Madagascar is only 10–20 percent of the cost in France and on par with that in India. And Madagascar is one of the few low-cost countries with a good-quality, disciplined workforce that speaks French. Bhutan might seek to play a similar role for English-speaking countries.

But carving out a niche in this market will be difficult—many low-cost countries with an English-speaking workforce are already competing in the market. Bhutan's neighbor India is the biggest of these. Hiring the information technology professionals Bhutan would need from India would require paying Indian workers sufficiently high wages to attract them to Bhutan (as well as dealing with the immigration formalities of bringing them in). Some of the training institutions in Thimphu pay Indian instructors four times the wages they were receiving in Calcutta. These are skilled workers with five to seven years' experience who are capable of constructing databases and simple Web sites. More complicated programming would require more experienced workers and an even larger wage differential.

As Bhutan produces more information technology workers, the wage differential is likely to narrow, but it will not disappear in the near future. Higher labor costs will probably preclude Bhutan from entering the programming market unless it can establish a reputation for very high quality or unique work. Given the artistic ability of Bhutanese designers, this is not impossible, but turning native design talent into saleable information technology services will take time.

The wage rates of Indian and Bhutanese workers along the border are closer, but even here Bhutanese workers demand slightly higher wages. With time this gap may narrow. But the wages of information technology professionals, even along the border, are unlikely to ever fall to a level competitive with those in information technology clusters like Bangalore and Hyderabad. Moreover, enterprises in or near these clusters benefit from a large pool of skilled workers, an ability to easily share recent advances in technology, and access to inexpensive support services from surrounding firms. Companies in Bhutan would have to fill unique niches to compete against these advantages.

One advantage Bhutan offers is its friendlier business environment: customs clearance takes less time, corruption is far less, and taxes are more transparent than in India. But this alone is unlikely to offset the competitive advantages offered by the huge pools of trained labor, established infrastructure, and spillover

effects found in the information technology clusters in India, Malaysia, and elsewhere.

Bhutan might be able to build capacity more easily in the second category—in data entry, encoding, and call centers—though even this capacity will take time to develop. Firms in industrial countries often subcontract data operations to firms in developing countries such as India. The major costs in this work are labor and connectivity, areas where Bhutan has no special competitive advantage over India.

Large data entry firms depend on large numbers of inexpensive, literate workers. In countries such as Ghana, India, and Madagascar firms have hired recent secretarial school graduates, given them basic computer training, and then had them enter data or find Internet content. Among office workers in Bhutan, assumed to have equivalent training, Bhutanese workers earn substantially higher wages than their Indian counterparts (table 7.1). In Phuentsholing Indian workers earn less than half as much on average as equivalent Bhutanese workers do. To compete with labor costs in surrounding English-speaking countries, any information technology export industry in Bhutan would have to rely on Indian workers—or find Bhutanese workers with comparable skills and productivity who would accept wages on par with those of Indian workers.

Connectivity costs also pose an obstacle (table 7.2). For large data entry firms, telecommunications connectivity can account for as much as 40 percent of costs, depending on the nature of the business. Bhutan has two 1-megabyte satellite links—one to the east and one to the west—and no optical cable. The satellite links suffice to meet current demand, but they will quickly become strained if a large number of firms begin demanding international links. Druk Net charges for leased lines are higher than those in neighboring countries, but this cost could fall if alternative links are developed as demand grows. Firms might be able to share connections by leasing satellite time from Indian users, for example.

No firms in Bhutan have their own satellite connections. It is estimated that a two-way, 64-kbps link from Intelsat costs around $700 a month. Though this is not much less than a Druk Net leased line, the figure does not include the costs of hardware, maintenance, or software. Companies targeting the U.S. market would have to have an additional link or access to a cable network because data cannot be transmitted to North America on a single bounce from

Table 7.1 Average Monthly Earnings for Sales and Office Workers, by Nationality and Location, Bhutan
(ngultrum)

Nationality	Phuentsholing	Thimphu
Bhutanese	3,082	4,129
Indian	1,168	3,525

Source: World Bank private sector survey, Bhutan, 2001.

Table 7.2 Monthly Fees for Leased Lines, Selected Countries

Country and type of connection	Cost (U.S. dollars)
Bhutan	
64 kbps	600
128 kbps	1,500
France	
512 kbps	20
India	
64 kbps	476
128 kbps	734
Madagascar	
28.8 kbps	800
Nepal	
64 kbps	2,800
128 kbps	4,500

Source: World Bank interviews.

Bhutan. Establishing better international connectivity in Bhutan would be relatively easy, and costs will fall as demand increases. But the costs are unlikely to fall enough to become competitive with those in India and other countries where high demand creates low unit costs for connectivity.

So to become competitive in exporting information technology services, Bhutan will have to overcome cost disadvantages in labor and connectivity. For small-scale, high-value operations like Web design, it will have to increase the supply of skilled labor, and firms will have to serve niche markets where their skills, design quality, or service standards compensate for higher costs. For relatively large operations such as data entry, firms will initially have to operate in border areas, where there are larger pools of inexpensive, semiskilled labor.

No matter what type of information technology service industry develops, it will face many of the same infrastructure constraints as other industries. Expensive transport is an important obstacle even for the information technology sector. Firms must be able to import parts and hardware cheaply and quickly. And they will need to periodically bring in maintenance personnel and other experts. The irregular air cargo service in Bhutan is also problematic, since some firms ship data using tapes or other digital storage devices when they have large amounts or when their network fails.

Bhutan is not without some important competitive advantages over its neighbors. Besides the friendlier business environment, it also has a regular and consistent power supply, no labor unrest, and a government bureaucracy that appears to be both more efficient and less corrupt. Yet these advantages may not be enough to overcome the competitive advantages of the lower labor costs, less expensive connectivity, more efficient shipping, and spillover effects of large information technology clusters in India, Singapore, and other countries.

The Way Forward

The challenges in establishing an information technology export industry in Bhutan suggest that focusing initially on developing services to support the domestic private sector is most feasible. Greater use of information technology could increase competitiveness in many ways—from improving productivity in manufacturing to enhancing the effectiveness of marketing in the service sector. And building the infrastructure, training the workers, and creating the institutional structure needed to support the domestic private sector could set the stage for exporting information technology services in the future.

The government of Bhutan has already started this process by concentrating on first expanding information technology services in government agencies. All government agencies are pushing to quickly automate and to provide more services online. The hope is that this will not only help the government provide better services, but also create incentives for information technology service providers to expand and for the private sector to automate and invest more in information technology. The government, however, in its desire to rapidly expand the use of new technology, is monopolizing the skilled labor, leaving few well-trained information technology professionals to work in the private sector.

Any attempt to foster information technology services in support of the domestic private sector must address several key issues, including developing human resources, improving institutions and the payments system, building a data network, and attracting foreign direct investment.

Developing Human Resources

Most important is developing a domestic supply of skilled information technology professionals. That requires not only nurturing institutions that train workers but also creating a computer culture in which technol-

ogy is accessible and part of everyday life. Making computers available in schools, putting more government services online, and subsidizing Internet services are important steps in creating such a culture.

But it is vital to recognize that building a reservoir of experienced information technology workers takes time. Training cannot substitute for years of practical experience. The only way to develop a supply of talented Bhutanese workers is to bring in experienced guest workers to train and work with locals for an extended time. Today private firms find it difficult to obtain work permits, and once they do receive them, they have no confidence that the permits will be renewed. If firms are to make large investments in new technologies, they must be confident that they can easily bring in and retain the skilled information technology workers needed to support the investments.

Improving Institutions and the Payments System

Creating institutions and regulations to support online business and other uses of information technology is another important step. Supporting online financial services will require improving the payments system so that firms can conduct business online. Also necessary is to expand the acceptance of credit cards, create online access to bank accounts, and revise foreign exchange controls so that they do not interfere with online business activity. And it is important to carefully examine the legal environment and laws relating to such issues as online fraud, unauthorized access, and confidentiality. The need for legal and regulatory reform has been clearly identified in the Bhutanese government's *Information Technology Master Plan.*

Building a Data Network

Much work is needed to improve the infrastructure. The voice network is good, and dial-up access is available in most areas. But transmitting large volumes of data remains difficult. As suggested in the *Information Technology Master Plan,* a data network needs to be built that will overlay the voice network, making it easier to span the country. Such a network could significantly improve the management system for shippers, helping to reduce the delays and high costs caused by the rugged terrain and poor transport network.

Attracting Foreign Direct Investment

Many of these issues can be addressed through joint ventures. Foreign investors bringing with them the latest production techniques will expect up-to-date information technology services. The demand they create will spur the development of the sector. And any services that are lacking they will provide. For example, large multinationals will bring skilled professionals capable of training workers, and will have sufficient capital to buy the hardware needed to improve bandwidth and solve connectivity issues. Foreign partners will also bring market contacts and buyers, solving one of Bhutan's biggest challenges in developing export markets.

But deriving these benefits for the information technology sector will first require creating the conditions to attract foreign investment. While foreign investors might view Bhutan favorably because of its political stability and absence of labor unrest, the current lack of transparency and difficulty in getting joint ventures approved reduce Bhutan's attractiveness as an investment destination.

Notes

1. *Bhutan Information Technology Master Plan,* p. 10.

To promote the development of the private sector in Bhutan, the government embarked on a program in the 1980s to gradually liberalize trade, industrial, and financial policies. An important part of the liberalization has been the development of national policies along with transparent and streamlined rules and procedures. Efforts to rationalize policy continue in different sectors, and development of a foreign investment policy is one part of the ongoing reforms.

Beyond traditional trading, the private sector has no real history of entrepreneurial activities. Thus Bhutan largely lacks the foundations for an active private sector that contributes strongly to economic growth—such as management skills and market links. As a result, a "bootstrap" approach to private sector development, while not necessarily destined for failure, seems likely to achieve only slow and limited progress.

Foreign direct investment can be expected to help close some of the gaps. Foreign capital attracted to investment opportunities in Bhutan is likely to embody such critical factors as technology, management skills, and familiarity and links with export markets. By attracting productive foreign direct investment, the government will thus create opportunities for accelerating economic development in Bhutan—and thereby generating employment, raising incomes, and increasing welfare through greater choice for consumers—in ways consistent with the country's goal of preserving its natural and cultural heritage.

Need for Foreign Direct Investment in the Priority Sectors

The government, in its private sector development strategy, identified four sectors that it sees as having good potential for development along internationally competitive lines. If attracting foreign direct investment is to be an important part of the private sector development strategy, it will need to contribute to development in those sectors: agroprocessing, wood and wood-based industries, tourism, and information technology.

Agroprocessing

Agroprocessing has three potential areas of development in Bhutan—import substitution, exporting to niche markets, and large-scale processing of imported raw materials for export. Foreign direct investment (or at least some kind of foreign involvement) could be an important catalyst in promoting the second and third of these. While production of import substitutes for the local market may not need to meet international quality standards in the short term, production for the export market clearly will.

Indeed, the food products that Bhutan will be able to sell in niche markets internationally are likely to have high value relative to weight (to overcome high transport costs), superior quality (and quality control), and superior packaging, so that premium prices can be secured. Achieving these standards will require international best practice at all stages of production—from harvesting to distribution. Bhutan is unlikely to have this knowledge or to be able to acquire and apply it successfully without significant foreign involvement. It will also need to learn what markets such products can be sold in and how those markets can be accessed.

Export processing of imported agricultural raw materials in the border areas close to India will also need substantial foreign inputs. The scale of production envisaged for these operations is well beyond any experience in the domestic private sector. Success will require high-turnover, low-margin operations (the hallmark of export processing operations wherever they are), suggesting that the effective management that foreign investors could bring is likely to be critical in determining profitability. And since this activity will focus on the Indian market, the companies best placed to profit from it will be those already established in India, which will see investment in Bhutan

as a lower-cost alternative for serving their existing market.

Wood and Wood-Based Industries

In the wood and wood-based industries profitability is likely to be directly correlated with the level of technology, at least for the more processed products. While the strong demand from India for wood may mean that traditional extraction and production can continue to be profitable, the outputs from wood-based industries are much more like manufactured products than commodities—thus the need for international inputs of technology, management, and marketing skills. The government's concern for adding value to forest resources before their export, and the belief that this requires a series of technology-based steps, suggests that the government's long-term objectives for this sector can be met only with significant foreign involvement. Encouraging investment by experienced foreign companies—through joint ventures or independently—is one way to promote such involvement.

Tourism

In tourism, where investing in capital development and services offers many opportunities, foreign direct investment could contribute in several ways. At the same time the sector involves greater cultural and environmental sensitivities than most other sectors, reflected in the government's policy of high-value, low-volume tourism. Under this policy one strategy for increasing benefits is to attract more visitors at the current price level and offer improved tourism products to also create a higher-value market. Attracting more visitors at current prices may simply require adjusting government policy, improving marketing, and the like. But upgrading products for a higher-value market will almost certainly require foreign capital and expertise. Indeed, the government's recent decision to permit two majority foreign-owned hotel companies to invest in Bhutan implicitly recognizes this.

Information Technology

Two main opportunities for growth have been identified for the embryonic information technology sector in Bhutan—increasing the use of information technology in the private sector and developing small-scale exports of information technology services (such as data entry and call centers). Each will depend on substantial inputs of foreign expertise, most likely to come from foreign investment.

Expanding the use of information technology in the private sector will require increasing the awareness of the benefits this offers and upgrading skills and support services. Foreign direct investment could do much to accelerate progress in building up skills and support services.

The opportunities for exporting information technology services are undoubtedly limited. But Bhutan does have a resource that, though far from unique, is increasingly prized in information technology industries—a young, well-educated, English-speaking workforce. While India will always be a major competitor, the strength of its information technology skills need not be seen as an insurmountable barrier. Still, the competitive environment does suggest that attracting foreign direct investment will be essential for developing the information technology sector in Bhutan. Success in building an export market for information technology services will depend not only on the operating environment offered but also on the skill with which the country promotes its opportunities. These factors are likely to be more important than the potential scale of activity relative to that in India.

Present Constraints to Foreign Direct Investment

Clearly, a major constraint today to attracting foreign investment to Bhutan is the lack of a legislative framework for such investment. The government is well aware of this, however, and has begun establishing

the necessary legislation, regulation, and administrative systems (see the following section). Issues in the general business environment that will not be affected by the proposed law on investment could also be seen as important constraints by potential foreign investors. Most of these act as constraints to private sector development in general and are discussed elsewhere in this report. But some will assume greater importance for potential foreign investors and thus deserve more attention if the government is to attract foreign direct investment at the levels it has targeted.

Taxation

Many aspects of the tax system will be seen as obstacles by foreign investors, particularly those interested in export-oriented businesses. The tax system's apparent unsuitability for enterprises with foreign ownership is not surprising, since it was developed to serve the interests of a government taxing a private sector dominated by small enterprises, focused on the domestic market, and involved mainly in small-scale production and service industries. Enterprises with foreign ownership are likely to be substantially different.

Aspects of the tax system likely to be seen as impediments by foreign investors include the limits on the amounts of individual salaries that businesses can claim as deductions, the limits on the deductibility of some business expenses, the taxation of assumed capital gains created through asset revaluation, the provisions on tax deducted at source, and the lack of double taxation agreements with other countries.

Limits on Business Deductions of Salaries. Since personal income tax is now levied on salaries, there seems to be no logical reason for imposing any limit on the levels of salaries that businesses can deduct. Moreover, the current limit of Nu 60,000 a month is only a small share of the salaries that international investors would expect to pay their senior managers Paying tax on amounts over this limit would greatly reduce the profitability of investments. (It is understood that exceptions can be made, but only by the Ministry of Finance on a case-by-case basis.)

Limits on Deductions of Business Expenses. The limits on deducting costs incurred for such activities as market development, advertising, and quality control will have varying effects, depending on whether companies are producing for the local market (where advertising may be more important) or for the export market. But foreign companies would see all such costs as normal business expenses. In some cases these costs would account for a large share of total costs—and in all cases they would exceed the levels at which companies could easily absorb them and still remain competitive.

Taxation of Assumed Capital Gains. The taxation of assumed capital gains created through asset revaluation will act as a deterrent in two ways. First, foreign investors are much more likely than domestic firms to follow international accounting standards and thus more likely to use updated asset values, particularly where they seek to borrow to finance expansion or other capital spending. Paying capital gains tax on the assumed capital gain would be a burden.

Second, most Bhutanese investors wanting to participate in a joint venture with a foreign company are likely to offer land and fixed assets (such as buildings) at current market value as their equity contribution. Having to pay capital gains tax on any assumed capital gain would be a severe penalty, one that could deter many potential candidates from forming joint ventures. And without local partners, fewer foreign investors would be able to invest in Bhutan, since joint ventures are mandatory.

Tax Deducted at Source. While the tax deducted at source can be used as an offset against annual corporate tax liabilities, this provision is of no benefit to companies making losses. Indeed, for these compa-

nies, such tax payments only heighten the losses. That could be a significant deterrent for foreign direct investment, since foreign investors, particularly those in manufacturing, typically expect to make losses early on as they gear up to full production, develop markets, identify lower-cost supply sources, and cope with unexpected startup costs. This startup scenario differs from those of most domestic investors, which generally start out with less capital and expect to be producing profits earlier.

Double Taxation Agreements. Another tax-related issue is the lack of double taxation agreements with the countries from which most investment is likely to come. Without such agreements, investment in Bhutan will be far less attractive to foreign companies. If the Bhutanese government plans to move to a corporate tax rate lower than that in India, negotiating a double taxation agreement with India may be advantageous. Such an agreement would allow Indian companies (which could well be the biggest investors in Bhutan) to benefit from the lower tax rates in Bhutan even if India moves to taxation of worldwide income.

Indeed, Bhutan would benefit from a double taxation agreement with any industrial country from which significant investment is expected and whose corporate tax rate exceeds that in Bhutan. Such agreements are particularly important if any investment incentive is introduced to lower the effective rate for investors. Without them, the tax incentive merely transfers revenue from Bhutan to the government of the source country for the investment.

Other Constraints

The regulations on access to foreign exchange for imports are also likely to affect the attractiveness of Bhutan as an investment location. Under these regulations foreign exchange is automatically available to an enterprise only if it has earned the currency required—Indian rupees or hard currency—through exporting. Since India is likely to be the dominant market for exports from Bhutan, foreign investors expecting to use imports from hard currency countries will see this system as an impediment.

The services and skills in the banking sector could have effects particularly for exporters. But the inflexibility of interest rates could affect a wider range of investors—at least to the extent that they want to borrow locally, for example, for their working capital needs.

Finally, as in many developing countries where landownership is a sensitive national issue, restrictions on access to land by foreign investors could also act as an impediment in Bhutan.

Proposed Regime for Foreign Direct Investment

Recognizing the potential benefits, the Bhutanese government has recently developed a policy for opening the economy to foreign direct investment. It has worked slowly in developing the policy, out of a desire to closely examine the issues in introducing foreign investment for the first time and to structure the investment in a way that avoids threatening important characteristics of the society and economy.

Goals of the Policy

The draft policy is understandably cautious. It has been prepared with an explicit understanding that changes will be made once the government has gained greater experience. There has also been an explicit understanding that it is far better to err on the side of caution—and accept the risk of smaller inflows of foreign investment than hoped for—than to have foreign investment lead to outcomes that will be regretted.

The policy defines three broad objectives of encouraging foreign investment in Bhutan:

- Broadening employment and training opportunities for the people.

- Benefiting from the transfer of technology and skills.
- Broadening the revenue base and enhancing foreign exchange earnings.

These are modest and sensible goals for a first entry into a complex and competitive market, and they should prove to be consistent and mutually supportive.

Key Elements of the Policy

Much of the detail defining the operation of the policy will be available only after the regulations and procedures have been developed. But some of the more important elements of the proposed policy regime are already clear:

- *Definition of a foreign investment.* At 20 percent of the equity in a company, the trigger point for determining foreign direct investment is twice the international norm. That means that foreign investors will be able to take significant financial positions in Bhutanese companies without becoming subject to the new law on foreign direct investment.
- *Commitment to using a simple, transparent, and automatic registration system.* In adopting this stance, the government has moved directly to international best practice, a move that will be welcomed by those interested in investing in Bhutan.
- *Minimizing competition for Bhutanese small and micro investors.* With little history of modern entrepreneurial activity, the private sector in Bhutan is not in a position to compete effectively with entrepreneurs from surrounding countries, particularly in trading, services, and simple manufacturing for the domestic market.
- *Positive list of sectors open to foreign direct investment.* By choosing this option, the government has limited foreign direct investment to sectors in which it believes Bhutan has potential competitive advantage and in which such investment would be beneficial.
- *Mandatory joint ventures.* The foreign equity share in a company will be limited to 70 percent.
- *Nonequity foreign involvement.* Unlike with equity investments, for which approval will be automatic (against defined criteria), proposals for nonequity foreign involvement must be submitted for consideration by the Board of Investment.
- *Equal treatment.* Foreign investors will receive the same treatment in the application of relevant laws, regulations, and procedures as local investors engaged in the same business.
- *Remittance of profits and dividends.* Profit and dividend remittances will be allowed only to the extent that net foreign exchange earnings in the currency involved are available.
- *Taxation.* For companies with foreign investment, just as for other private companies in Bhutan, worldwide income provisions will not apply.
- *Imports.* Subject to the requirement that the foreign investor provide the necessary foreign exchange, all imports of industrial plant, machinery, spare parts, and raw materials will be exempt from sales tax and customs duty.
- *Employment.* Enterprises with foreign investment will be automatically entitled to a designated number of work permits based on the size of the investment. Additional employment of expatriates will be approved where shortages of appropriately skilled Bhutanese can be demonstrated, but these positions will have to be converted to local jobs through a training program.

The proposed policy is an admirable attempt to develop a compromise between the liberal conditions that would make Bhutan a more attractive location for foreign direct investment and the understandable concern about the possible adverse effects on the economy and culture of inappropriate investment projects or excessive investment levels, particularly in key

sectors. The compromise involves a risk, of course, that some of the objectives of the policy may not be realized. Indeed, some of the policy choices appear to limit the attractiveness of investment in the four priority sectors.

Three policy choices will have a significant effect on the extent to which foreign direct investment contributes to private sector development in Bhutan: the choice of a positive list approach to determine where investment is allowable, the requirement for local equity in each enterprise with foreign investment, and, possibly to a lesser extent, the stipulation of minimum project size. Two others that may also have an effect are the limits on the remittance of profits and dividends and the requirement for training nationals and converting positions to local jobs.

Positive List Approach. The decision to define a positive list of sectors for investment will incur costs in two ways. First, since it is impossible to anticipate all the projects that foreign investors might identify as attractive—some of which might be in sectors that would be uncontentious but still fall outside the positive list—Bhutan may be denied investment it would have been happy to accept. Even if such projects were allowable under a negative list approach, the minimum project size requirement might preclude many of them. That suggests that a move from a positive to a negative list approach might need to be accompanied by a reduction in the minimum equity requirements to generate a significant impact. Such a change may be feasible once the government has gained greater confidence in the foreign direct investment process.

Second, the positive list approach will involve administrative costs. Investment proposals will constantly require interpreting the positive list to determine whether it includes the sector involved—particularly since the list defines sectors broadly, for example, "light industries, including electronic industries" and "engineering and power-intensive industries."

Local Equity Requirement. The requirement for local equity of 30 percent seems likely to be the most costly impediment to foreign direct investment, particularly when combined with the minimum project size requirement. Again there are two kinds of costs. First, the local equity requirement limits the population of potential investors interested in a country. Around the world most foreign investment takes the form of 100 percent foreign-owned projects, because most investors have a strong preference for this kind of investment. While some favor joint ventures in some circumstances, and others will agree to seek a local partner when this is the only option, many will not invest in joint ventures.

Second, given its stage of private sector development, Bhutan is unlikely to be able to offer more than a handful of local companies with the technical and managerial capacity to be viewed as acceptable (let alone attractive) joint venture partners. Add to this the minimum project size requirement—with a minimum of 30 percent of projects required to be at least $1.0 million in manufacturing and $0.5 million in services—and the field of potential partners is narrowed even further. Thus even foreign investors willing to consider a joint venture may have great difficulty identifying potential partners. Projects well above the minimum size will be even harder to structure unless the government steps in as the local equity partner—which would appear to be counter to the private sector development strategy.

Related to this is the question of the development impact. Evidence from many developing countries shows that where the private sector is poorly developed, imposing local equity requirements leads to the emergence of a small number of large, powerful, multisector conglomerates. This outcome is understandable: forced into joint ventures, foreign investors will try to link themselves with the companies offering the best prospects for success. Often these will not be companies that can bring relevant industrial experience, but companies with the management capacity

and financial strength to contribute to the relationship. Thus the same companies (or individuals) appear time and again as partners in new enterprises with foreign investment, severely limiting the benefits for private sector development that the policy was intended to produce. In the starkest terms, a local equity requirement can easily lead to a small number of relatively affluent businesspeople benefiting substantially while a much larger number of workers remain jobless because potential foreign investors were deterred by the joint venture requirement.

Minimum Project Size Requirement. The minimum project size requirement will have effects beyond those already mentioned. One of these will be to limit the "osmosis effect"—the absorption of better business practices by the domestic private sector through its interaction with the foreign private sector. The extent to which the osmosis effect occurs will be determined largely by the number of enterprises with foreign investment that are created, rather than their size or value. So limiting foreign investors to what are fairly large investments relative to the Bhutanese economy will also limit the benefits from this effect.

Moreover, the fact that the minimum project sizes are relatively large is likely to preclude a range of small projects that would be beneficial to the economy and nonthreatening to the local private sector. Indeed, this outcome is likely in two of the priority sectors, agroprocessing and information technology. Exporting high-value processed food products to niche markets offers much potential. As argued earlier in this chapter, such export projects are likely to develop only through foreign direct investment, yet these projects are likely to be relatively small and would certainly be so in their startup phase. Similarly, information technology service providers are likely to be small in terms of capital investment, since human resources would be the main input.

Remittance of Profits and Dividends. Much of the foreign direct investment attracted to Bhutan can be expected to be export oriented. But some will be aimed at domestic sales, including potential investment in the priority sectors. For this investment, limiting the remittance of profits and dividends to net earnings in the foreign currency required for the remittance will be a major impediment. In the priority sectors this limit will affect information technology services for the domestic economy and agroprocessing for the domestic market, with the second affected perhaps even more if projects require imported inputs. Even where projects focus on export markets, non-Indian investors wanting to sell in the Indian market may find themselves short of the hard currency needed for remittances.

Conversion of Positions to Local Jobs. The draft policy leaves unclear how the requirement for training nationals and converting positions to local jobs will be implemented. But the hope is that market forces, rather than regulation, will play a major part. Given the limited training now carried out in the private sector in Bhutan, there is a good case for introducing fiscal incentives to encourage companies to train staff and so accelerate the rate at which employment becomes local without adversely affecting the efficiency of enterprises with foreign investment.

Remaining Issues

In early October 2001 the minister of trade and industry submitted the final draft of the foreign investment policy to the government for consideration. Legislation based on the draft policy was expected to be submitted to the National Assembly for consideration in July 2002. Regulations can be prepared concurrently—with adjustments as needed to reflect changes made to the legislation by the National Assembly—so that

they will be ready as soon as the legislation is approved. But even with the legislation and regulations in place, Bhutan will not yet be ready to start operating its foreign investment system. Procedures will need to be developed (including for monitoring the investment activity), responsibilities for administering the system assigned, and staff trained.

Once the administrative system is in place, Bhutan will need to address two other elements of its strategy for foreign direct investment. First, it will need to create capacity for investment promotion. With Bhutan virtually unknown as a potential location for foreign investment, targeted publicity about the decision to allow foreign direct investment—and the opportunities available—would help ensure that the country can effectively exploit the opportunities created by the new policy. At the same time prospective investors will need facilitation services from the government as they seek information needed to decide whether an investment is feasible and as they seek registrations, approvals, and licenses needed once they decide to invest. Creating an investment promotion agency will require decisions about the agency's position within government, about the mandate and functions it should be given, and about the recruitment and training of staff and a range of other capacity building measures.

Second, Bhutan will need to create a system for monitoring and reviewing the foreign direct investment regime and its impact. The government will need to periodically conduct reviews of this regime, which will require quantitative data on the sources of potential and actual investment and on the sectoral interests and intended scale of operations of prospective and actual investors. These reviews will also require qualitative information on the attractiveness of Bhutan as an investment location, which the investment promotion agency should be able to collect through its frequent contacts with the foreign investor community.

Arrangements are being developed for providing the Bhutanese government with external assistance in converting the investment policy statement into draft legislation and supporting regulations. It is proposed that the Foreign Investment Advisory Service provide some of the assistance, funding the effort jointly with the United Nations Development Programme. Following the approval of the legislation by the National Assembly and the promulgation of the regulations, a second phase of external assistance from the Foreign Investment Advisory Service is planned, to cover the outstanding tasks described above. The government is now seeking cofinancing for this project.

Absorbing the rapidly expanding pool of educated labor and raising living standards for the general population in Bhutan will require that the private sector gradually replace the government as the engine of economic growth. With the government capable of providing suitable employment for only a limited number of people, the private sector must play an increasing role in investment, production, and employment. But to grow substantially and expand into new markets, Bhutanese industry must become much more competitive—by cutting costs, improving quality, upgrading technology, and raising productivity. Indeed, given the dramatic changes wrought by trade liberalization and the gradual loss of preferential access to the Indian market, Bhutanese industry must become more competitive just to maintain existing markets.

The poor competitiveness of Bhutanese industry is reflected in the high ranking of lack of demand among the biggest business problems faced by survey respondents. Bhutan may have relatively low consumer purchasing power, but it is next door to one of the world's biggest consumer markets and still has preferential access to that market. Moreover, domestic demand for consumer imports is growing rapidly. That Bhutanese firms cannot tap these markets successfully means that they are not competitive. Thus the challenge for the government is to provide an environment that will allow industry to become internationally competitive. The following sections discuss some of the main cross-cutting areas of concern emerging from the survey.

Governance and Regulation

Because the private sector has only recently begun to develop in Bhutan, much of the business conducted—by the public as well as the private sector—has not been undertaken systematically. Books of accounts are not maintained, external audits take place irregularly, applications for foreign direct investment are approved case by case, tax concessions are sometimes granted in an apparently nontransparent way, and so on. This situation can be traced largely to the closed economy and the small size of business networks. Bhutan has suffered little from these ad hoc business arrangements. But as firms venture into new and more complicated areas of business, they need to operate in a system based more on rules than on relationships. And so does the government.

The survey revealed evidence of concern in this area, with more than a quarter of firms perceiving the government as unpredictable. Regulations need to be clear, transparent, and consistently interpreted to enable firms to concentrate on their business. They also need to take into account the legitimate needs of industry. But firms have little belief that this is happening: more than half expect regulatory changes that will not take their needs into consideration. That suggests that the Bhutan Chamber of Commerce and Industry and other industry associations (though still embryonic) need to more actively lobby the government on issues of interest to the private sector. Supporting them in more effectively representing the views of industry and providing services to members deserves high priority.

The survey not only pointed to concerns about how regulations are implemented but also revealed issues relating to particular areas of regulation:

- Labor regulations, including minimum wage regulations, regulations on employing nonnationals, the proposed new labor regulations, and the need for incentives to invest in training.
- Tax regulations, including tax deductions at source, deductible expenses, double taxation agreements, asset revaluations, and annual tax assessments.
- The need for regulations to support online business and other uses of information technology, encompassing such issues as online fraud, unauthorized access, and confidentiality.

- Wood sector regulations, including the ban on exports of semifinished products and provisions in the regional trade agreements that prevent exports of wood products to Bangladesh.
- Regional regulations requiring the unreasonable transshipment of goods from one freight hauler to another at border crossings.
- Regulations relating to business startup and development, including the ban on new business licenses in Phuentsholing.
- The unavailability of visas on arrival, particularly for foreign technicians and buyers, who often need to make unplanned visits.
- The case-by-case approach to approving applications for foreign direct investment.

Bhutan appears to be standing at an important crossroads. It can structure government regulations and business practices in a way that ensures consistency and transparency—or it can continue the ad hoc and opaque operating methods that will take the country down the path toward greater rent seeking, following much of the rest of South Asia. Taking a firm stand on good governance will be critical for avoiding the corruption endemic in other developing countries and building a strong private sector. Uncertainty is anathema to the private sector. The more clearly the rules of the game are laid out and the more transparently and consistently they are applied, the greater the chance that the private sector will be able to operate effectively.

But in moving to an increasingly rules-based system of regulation, the government needs to avoid overburdening the private sector with bureaucracy and red tape. In developing countries introducing new regulations intended to support the private sector, officials have sometimes ended up impeding its development. Where officials lack a clear understanding of rules and regulations, opportunities open for varied interpretations, bureaucratic impediments, and corruption. South Asia is replete with examples of government bureaucracy and regulations resulting in long delays and rent seeking by public officials. The challenge in Bhutan will be to establish an appropriate balance between a system based too little on rules and one based too much on bureaucracy.

Labor, Skills, and Employment

As a growing number of Bhutanese leave school and enter the workforce, those with higher education continue to find it relatively easy to get jobs, while those who have not completed high school or gone on to tertiary education are finding it increasingly difficult. These workers have high expectations for wages and for the type of work they will undertake, and an aversion to menial, difficult, dirty, or labor-intensive occupations. These mid-level workers—with some education but no tertiary qualifications—are those most likely to face unemployment in the future. And in 2002–10 around 65,000 more Bhutanese are expected to leave school without a tertiary education to join this group.

At the same time the private sector employs a large number of Indian workers—both in menial jobs shunned by the Bhutanese and in high-level, skilled occupations for which the domestic workforce has not yet developed adequate skills. Nonnationals are thought to account for around half of all formal sector employment and perhaps 60–80 percent of all formal private sector employment.[1] The wages for unskilled nonnational workers are among the lowest in the world, but those for skilled nonnational workers compare favorably with wages for comparable workers in other countries.

Faced with growing unemployment, the government understandably wishes to reduce the number of nonnational workers employed in Bhutan. But the Bhutanese school-leavers most likely to be seeking employment over the next decade are unlikely to want to undertake the menial jobs at the low end of the skills spectrum or to be able to perform the jobs at the

high end of that spectrum. Meanwhile, the private sector needs a comprehensive range of skills if it is to operate effectively and to grow.

Thus if Bhutan is to strengthen its ability to compete in a rapidly globalizing world—producing cost-competitive products for both domestic and export markets—it will need to retain the cost advantages conferred by its access to low-cost, nonnational labor while simultaneously increasing the productivity of Bhutanese workers. Indeed, improving the productivity of Bhutanese workers, rather than arbitrarily reducing the nonnational workforce, is the key to gradually replacing nonnational workers.

Adopting appropriate technologies is one way to enhance worker productivity. And in Bhutan, where most firms rely on old technology from India, introducing new technologies could substantially improve productivity. But it is important that the private sector not be forced to abandon more appropriate labor-intensive production methods for excessively capital-intensive ones. In an environment where labor is relatively cheap and capital relatively expensive (in comparison with the region), pursuing an overly capital-intensive strategy of private sector development makes little sense. Moreover, this strategy would work against increasing employment.

Another important way to improve worker productivity is to train workers. Even more important is to train managers: few entrepreneurs in Bhutan have experience in industry, know the latest techniques, or understand their firm's training needs. But today few Bhutanese firms provide training.

Managers cited several reasons for not training workers:

- Managers see no need to provide training.
- The government provides no incentives for training.
- Trained workers will leave the firm, preventing it from recouping the costs (Bhutanese workers are considered "too mobile").
- The firm cannot afford to provide training.
- Bhutan lacks training providers.
- Indian workers, whom firms expect to be phased out, make up a large share of the workforce.

As firms increasingly specialize to penetrate niche markets and achieve economies of scale, they will need workers with specialized skills as well as a general work ethic. Individually or in groups, firms will need to provide many of these specialized skills through a mix of formal and on-the-job training. The government can support these efforts by closely aligning the education system with the needs of the private sector and by sharing the costs of training through carefully designed incentives.

Finance

The rudimentary state of Bhutan's financial sector has made it difficult for private firms to obtain the funds they need for investment: more than 40 percent of firms claimed to be credit constrained. The underdeveloped financial system also leads to high costs of doing business, because of inefficient service, high service fees, and, most important, high interest rates relative to those in competitor countries. With the financial system limited to two banks and two nonbank institutions—and dominated by the state—there is little competition or innovation. And high liquidity levels have perpetuated the lack of creativity in the sector.

Limited Access to—and Demand for—Credit

The particularly large share of firms (around 30 percent) without access to bank finance can be attributed in part to the private sector's lack of sophistication and its unwillingness to take on debt to make the most of its productive potential. But it can also be attributed to the banking system's conservatism and its inability to support the private sector in developing bankable projects. Although some welcome signs

of innovations were evident, they were few and far between.

Uncompetitive Banking System

The lack of competition in Bhutan's financial sector is evidenced by the absence of even simple and well-accepted innovations such as introducing automated teller machines and wide use of credit cards. It is also reflected in the inflexibility of interest rates, which show no change with shifting economic conditions. The banks do reasonably well without competing on margins and without trying to attract a new and possibly more difficult customer base. An important objective for the immediate future should be increasing competition, possibly through nonbank sources of finance such as leasing, finance, and venture capital companies.

Lack of Financial Instruments

Developing innovative new instruments tailored to meet private sector demands will be an important challenge for the banking system in the medium term. Leasing finance is almost entirely absent in Bhutan, despite being ideally suited to support small and medium-size businesses. Only one example of factoring (providing credit against receivables) was turned up by the survey, though factoring can offer particular advantages to companies needing injections of working capital to meet immediate production demands. Venture (risk) capital is barely evident in the market. And the high cost and low penetration of credit cards impede sales growth, slow transactions, hamper ventures into e-commerce, and hinder development of some aspects of the tourism industry.

Slow Payments System

The payments system is slow and cumbersome. Transferring funds within the same bank between Thimphu and Paro can take more than a week (and even longer for more remote parts of the country). The absence of automated teller machines, credit card systems, and other electronic means of payment adds to the problems. The weak payments system slows the operations of the private sector and reduces its competitiveness with other world producers. And it impedes the growth of e-commerce in Bhutan.

Competitiveness and Technology

As noted, firms' complaints about lack of demand reflect their lack of competitiveness and inability to win market share. Firms in all sectors often cannot compete on price, which tends to be a big factor in initially penetrating markets. Bhutanese firms are not competitive on price for a range of reasons—low productivity, lack of economies of scale, inadequate infrastructure, expensive capital, and geographic isolation—all of which increase costs relative to those of competitors.

But the lack of competitiveness is not just a matter of price. Bhutanese firms also have problems competing on quality and delivery.[2] Firms have not developed the capability to assure quality or produce popular designs. And problems in infrastructure and the payments system make it hard to meet delivery schedules.

These failings can often be solved if firms adopt appropriate technology—broadly defined to include management capability, equipment and processes, and marketing and design. To become internationally competitive, companies will in some cases have to look beyond the Indian technologies on which they have traditionally relied and adopt international best practices. But the learning mechanisms that companies use to acquire new technologies are extremely weak in Bhutan. So if Bhutanese industry is to grow, strengthening these mechanisms will be vital.

Management Capability

Managers' lack of relevant experience and technical qualifications acts as a big constraint on productivity and competitiveness. Many Bhutanese entrepreneurs

have spent a large part of their career working in the government—and almost no entrepreneurs have worked in industry outside Bhutan or for foreign-owned firms. Lacking familiarity with best practices or the demands of international trade, they have difficulty transferring relevant technology to their firms. Even when firms have no immediate aims to export, such exposure is crucial. As the global economy liberalizes, firms must know the competition to defend their markets. As a result of their lack of experience and technical knowledge, managers also often have difficulty choosing appropriate production and marketing personnel as well as employees with other skills needed. Improving management capabilities is thus key to increasing competitiveness.

Equipment and Processes

Many companies in Bhutan operate with outdated and ineffective equipment and production processes. Many sawmills use decades-old technology from India, for example, and most firms still do not use even rudimentary information technology as a business tool. This report often refers to the need to leapfrog Indian technology to develop niche products capable of penetrating international markets. But acquiring and absorbing new technology takes a long time for all firms and poses particularly severe challenges for small firms that lack adequate capital or external connections.

Unable to research the market to forecast demand, firms often have difficulty determining the appropriate capacity of machinery to purchase. They often cannot afford modern equipment and must use second-hand machinery instead. Acquiring and absorbing a new production technology may take twice as much time and money as planned. In addition, production managers often have difficulty adapting to the new technology—maintaining the equipment, obtaining spare parts, and estimating the raw materials needed. Similar problems occur in absorbing new technologies: the vendors may fail to provide good training, lack the skills to develop or customize software, and provide inadequate after-sales service.

Marketing and Design

Just as firms in agroprocessing can compete internationally if they focus on niche markets with high-value, low-volume products, so can firms in other sectors. In tourism, for example, there is great potential for developing a high-end market in such areas as rafting and high-altitude trekking, where Bhutan has a comparative advantage. For all these niche markets there are well-defined needs, prices, and channels of distribution. Yet in all the sectors surveyed marketing skills are weak as a result of Bhutan's isolation and the dominance of the government and India in market relationships.

Also important are product delivery and packaging. Products will need to be developed that have a low transport cost, and packaging must be designed to facilitate transport as well as appeal to consumers. In addition, products often must conform to international standards, and retail packaging must include mandatory information. Firms commonly have to import packaging technology not only to break into export markets but also to defend local markets from imports.[3]

Learning Mechanisms

To stay competitive in existing markets and to enter niche and other high-value markets, firms must upgrade their technology of all types—including management, production, marketing, and design—while ensuring that the technology adopted is appropriate. But the mechanisms that help firms with the difficult and expensive task of finding and absorbing technology are weak in Bhutan. The country lacks networks of suppliers or international buyers to teach firms about new technologies. It has few consultants or technical experts, and Bhutan's isolation makes it difficult for firms to find them abroad. And foreign direct investment, one of the most important ways of transferring

technology between countries, is almost nonexistent in Bhutan.

Establishing matching grant schemes, making visas for technical experts easier to obtain, providing tax incentives for technical improvements, and, most important, liberalizing foreign direct investment are all actions that the government could take to help firms improve their technology, raise their productivity, and increase their competitiveness.

Infrastructure

The survey confirms that most infrastructure in Bhutan is good compared with that in other countries in the region and adequate to meet current needs in most areas. But in more remote parts of central and eastern Bhutan infrastructure remains a significant problem, especially the provision of electricity. And road and air transport poses problems nationwide.

Road Transport

With on-time delivery a key determinant of success in international markets, transport has become particularly important. Transport problems slow incoming deliveries of raw materials and intermediate goods and delay shipments of goods out of the country. These problems become both worse and more expensive during the monsoon season, which coincides with the fruit harvesting season. During the monsoon season the cost of transport can double and there are delays in getting trucks. The lack of loads for return trips leads to further delays and cost increases.

Trucking firms put much of the blame on the roads, observing that their poor condition increases transport costs by around 30 percent. Law and order problems, particularly in the Indian state of Assam, have also increased costs. Costs for hauling goods from Phuentsholing to Sarpang have tripled recently, for example, because trucks used to travel through India but now must travel within Bhutan. On- and off-loading at the border, required by such regulations as axle-weight restrictions, also leads to delays and higher costs.

Transport infrastructure will influence the location and development of industry. Expensive and unreliable road transport will, for example, constrain the development of agroprocessing firms that use high-altitude crops. Since hardwoods grow along the border areas, making high-value hardwood products is costly in central Bhutan. Twice as many tourists enter Bhutan from the lowlands than from the highlands, but the main attractions—festivals and trekking routes—are in the highlands. Such anomalies need to be taken into account in devising policy for private sector development—and they call for strong coordination among ministries responsible for transport, industry, tourism, and agriculture.

Air Transport

Air service, also a major target of complaints from the private sector, will become a greater issue as firms move to higher-level technology, requiring technology as well as parts and engineers to be flown in. Moving to high-value exports in niche markets will also increase reliance on air cargo, as is the case for the fishing flies exported by Yangphel Handicrafts. Improving the reliability of air service, particularly cargo service, is therefore critical. For passenger transport, reducing the seasonality of tourism or developing charter tourism could lessen the strain on Druk Air.

Other Infrastructure

Electricity is cheap and reportedly plentiful, but power outages cause some difficulties. It is not uncommon for firms to report production losses of 2–6 percent due to such outages—losses unsustainable for low-margin firms and those producing time-sensitive goods. These problems were most notable in Phuentsholing during the rainy season. A lack of water is also a constraint for some firms, particularly in Phuent-

sholing during the monsoon season. The telecommunications system is relatively good, though there is no data network.

So while the government has established a strong infrastructure base, it will be important to extend this base to cover more and more of the country and to continually upgrade the infrastructure to meet the more sophisticated demands that will be placed on it as the economy grows.

Public-Private Dialogue

Establishing a strong, continuing dialogue between the government and the private sector is a necessary first step in addressing concerns raised by the private sector. The private sector needs to be involved in identifying impediments to its development, in establishing their relative priority, and then in designing policy prescriptions. If the private sector does not have input, policies and solutions, no matter how well intended, may hamper rather than aid its growth.

In this dialogue the private sector needs a strong voice that can put forth its concerns confidently and competently. The natural candidate for this role is the Bhutan Chamber of Commerce and Industry along with the local chambers and the trade associations. The government has been supportive of the Bhutan Chamber of Commerce and Industry, but in the eyes of many of its members, this support has led to its being nearly co-opted by the government. Many private sector managers do not believe that the chamber presents their views strongly enough. The regional chambers and industry trade associations, newly formed and not yet strong enough to have a large impact, nonetheless promise to develop into good representatives of the private sector. The private sector needs to make greater efforts to organize and strengthen local chambers and trade groups and to push the Bhutan Chamber of Commerce and Industry to become more responsive to its needs.

Challenges and Opportunities in the Priority Sectors

The cross-cutting issues that concern the private sector are evident in the four priority sectors, along with sector-specific issues.

Agroprocessing

Bhutan's agroprocessing industry faces many impediments. Raw materials are uncompetitive because of poor land use, low crop yields, low productivity, and high transport costs. Value adding activities are hampered by a lack of scale, old technology, bad packaging, a lack of branding, and costly freight. And management lacks the skills and experience to offset these higher costs through innovation and marketing.

If the agroprocessing industry could overcome these impediments to growth, it has potential in two areas:

- High-value, low-volume products (incense, mushrooms, essential oils, traditional medicines) in niche markets, based on such competitive advantages as Bhutan's biodiversity, organic production, and range of microclimates.
- Large-scale businesses with foreign ownership in border areas, based on the competitive advantages of a flexible labor force, a stable political environment, and competitive infrastructure and using mainly imported raw materials.

With processed foods the fastest-growing component of world agricultural and food trade—accounting for 75 percent of this trade and worth $384 billion in 1996—the potential could be enormous.

To exploit this potential, firms will need a timely supply of competitive, consistent, and high-quality raw materials; supportive policy on labor, transport, and investment; innovation in products, processes, packaging, and product positioning; and productivity

improvements based on better management, processes, and labor skills.

Wood-Based Industries

Wood-based industries also face many constraints. Management lacks adequate qualifications and experience, technology levels are low, and labor is unskilled, resulting in low productivity. The sector has no economies of scale, with firms tending to make a diverse range of products for walk-in clients. The government, which buys up to 60 percent of the sector's output, drives down quality and margins. The government has also affected the sector through its policies. A 1999 ban on the export of logs encouraged firms to move downstream to add value, but an extension of the export ban to semifinished products in mid-2000 put an end to some of the new value adding activities. And the requirement that firms buy timber in auction lots of mixed species means that they cannot get a consistent supply of the type and quality of wood they need.

The sector has the potential to serve regional markets, particularly Bangladesh, in specialist categories not adequately served by local producers or by the growing imports from Europe and Southeast Asia. And the sector could penetrate some niche markets with easily transported, high-value, low-volume products. But realizing this potential will require some changes. Firms must gain access to single-species timber in appropriate sizes and quality. The ban on semifinished products needs to be relaxed so that firms can gain experience and gradually move downstream to more finished products. Productivity must be raised through better management, the use of appropriate equipment, and properly trained labor. Firms' market awareness and marketing skills need to be improved. And in the medium term Bhutanese forests should be certified as being sustainably managed to provide a selling point for Bhutanese wood products.

Tourism

Though tourism has grown rapidly over the past decade, annual hotel occupancy rates remain low, in part because the market is highly seasonal, and there is little repeat tourism. A key issue is the pricing policy, which requires tourists to make sizable upfront payments from which the government collects royalties, with both determined by the season (peak or nonpeak). Better calibration of these payments—particularly the government royalty—in nonpeak seasons could encourage a steadier stream of tourists into Bhutan throughout the year.

Tourism marketing is weak. The private sector lacks resources, and the government plays a passive role. Moreover, the country is concerned about maintaining a balance between generating revenues and protecting its cultural heritage. Vacations in Bhutan are relatively expensive, but service is not commensurate. The service in hotels is usually friendly, but it is of poor quality and amenities are lacking. Part of the reason is that there is little competition to drive up standards, since tourists must pay before arriving and have little choice once they enter Bhutan. (Two recently approved Singapore-based joint ventures in the hotel industry are likely to influence its development, however.) Moreover, the range of tourism products is limited, though some improvements have recently been introduced. And access to Bhutan, particularly by air, can be difficult, with the problems exacerbated by seasonality.

Tourism in Bhutan has much growth potential both because of the country's competitive advantages and because of problems in other potential destinations in the region. Realizing this potential will require developing an unambiguous strategy with appropriate policies and regulations, adjusting pricing policy (particularly nonpeak pricing), undertaking more active marketing (by both firms and the government), improving access to Bhutan, addressing seasonality issues, developing new products, and improving standards of accommodation and service.

Information Technology

Information technology can boost the economy in two ways—as a business tool used in firms and as a tradable service. The information technology sector in Bhutan faces several constraints, however, including comparatively high connectivity charges, a lack of information technology professionals (most must come from India), undeveloped regulatory and financial systems (online banking is not yet possible, for example), and comparatively high labor costs.

Other developing countries are targeting two main kinds of opportunities: small niche firms selling such services as software development and larger firms selling data entry or call center services. But Bhutan's information technology sector is still in its infancy, and several challenges have to be overcome before it can deliver internationally competitive services. These include increasing the use of information technology in the public and private sectors, developing a pool of skilled information technology workers, introducing appropriate regulations (to support online business, for example), and building a data network.

A Vision for the Development of the Private Sector

With accession of Bhutan and its main trading partners to the World Trade Organization, barriers to trade are falling. Several of Bhutan's traditional markets in India have already been successfully penetrated by third-country exporters. Bhutanese producers face competition in the Indian market for wood panels from both European producers with higher labor costs and Southeast Asian producers with lower labor costs. And Bhutan confronts growing competition from China and Southeast Asia in the Indian markets for cement, calcium carbide, and ferro-silicon—the main products of Bhutan's three largest private companies—as well as other traditionally important product markets.

The global integration of markets means that Bhutan and the wider Indian market have to face imports made by producers with cheap inputs and large economies of scale. But it also means that Bhutan has access to inputs and technology as advanced as any in the world. And while global integration brings greater competition, it also provides opportunities—allowing a growing number of consumers to learn about, and to buy, niche market products in which large-scale producers may have no interest.

Global integration, along with the dictates of geography in Bhutan, suggests that the best strategy for developing the country's private sector is to follow a dual track. Areas along the border could continue to exploit industries with large labor and transport cost components. Proximity to large markets in India for raw materials, intermediate inputs, and finished products and access to cheap, low-skilled, nonnational labor allow Bhutan to make the most of its other considerable advantages—good governance, political stability, lack of labor unrest, and abundant, low-cost electricity. These attributes should permit Bhutan to produce cost-competitive products for export to India and beyond. Developed further, these heavy industries could support import substitution activities and help extend and diversify export markets. They could also form a growing market for services provided by businesses in central Bhutan.

In the central part of the country, where labor costs are comparatively high and transport costs often prohibitive, efforts to develop cost-competitive industries need to focus on services (such as transport, tourism, and information technology) along with niche markets (mushrooms, wasabi, artifacts, essential oils, medicinal herbs, intermediate products, and the like). Bhutan has many attributes needed to be a niche market player producing high-value, low-volume exports, particularly its small size, distinct identity, diverse microclimates, and potential synergies between its positive attributes. Further develop-

ment of such services as information technology (initially for the domestic market) and expansion of tourism also offer much promise, as does continued reliance on other fast-growing service industries, such as transport and construction.

To succeed in this strategy, it is critical that Bhutan maintain and exploit its potential while at the same time avoiding creating any impediments to private sector development. Depending on the actions it takes during the Ninth Five-Year Plan period, Bhutan could become an important, though small, player in world markets, creating opportunities for its increasingly educated population—or it could continue to languish as an irrelevant player, with all the implications that has for employment for its growing population.

Several factors will be critical in developing both additional heavy industries in the southern part of the country and the service and niche industries in central Bhutan. First, greater worker productivity, which will require worker training, management training, and the adoption of new and appropriate technologies. Second, the development of a more competitive and innovative financial sector, one that can provide new financial instruments to support the increasingly complex private sector. Third, appropriate technology links and better management in all stages of product development, production, design, and marketing. All these goals can be supported by encouraging appropriate inflows of foreign direct investment. And key prerequisites of continued growth of the private sector are good governance and a transparent policy environment.

Main Recommendations

Realizing this vision for private sector development will require a series of support measures. The main measures recommended in support of private sector development under the Ninth Five-Year Plan are as follows:

- *Training.* Establish a transparent system of tax relief and possibly a system of industry levies to support radically increased worker and management training and thus greater productivity.
- *Labor.* Develop a transparent, time-bound policy for recruiting nonnational workers to ensure the continued cost competitiveness of Bhutanese industry.
- *Finance.* Encourage the development of innovative financial instruments and payment means based on the Asian Development Bank's financial sector study—including leasing finance, factoring services, automated teller machines, and greater use of credit cards (with lower transaction fees)—while promoting greater competition in the financial sector and more flexible interest rates.
- *Technology.* Support technology transfer by immediately establishing a matching grant scheme as well as others (such as those relying on retired executives) and by providing incentives such as tax breaks for research and development.
- *Foreign direct investment.* Ensure that the new foreign direct investment law is finalized and approved in the next session of the National Assembly and that supporting regulations are put in place shortly thereafter, and actively encourage foreign direct investments that could have a large impact in the early phase of implementation.
- *Export incentives.* Immediately implement a duty drawback system for imported raw materials used in producing exports (including exports to India) and begin a dialogue with the banks on providing pre- and postshipment finance to the private sector.
- *Policy environment.* Within the context of the Ninth Five-Year Plan, develop a clear, consistent, and transparent policy environment for the private sector that takes into account its views, and ensure that laws and regulations affecting the private sector are clearly and properly codified.

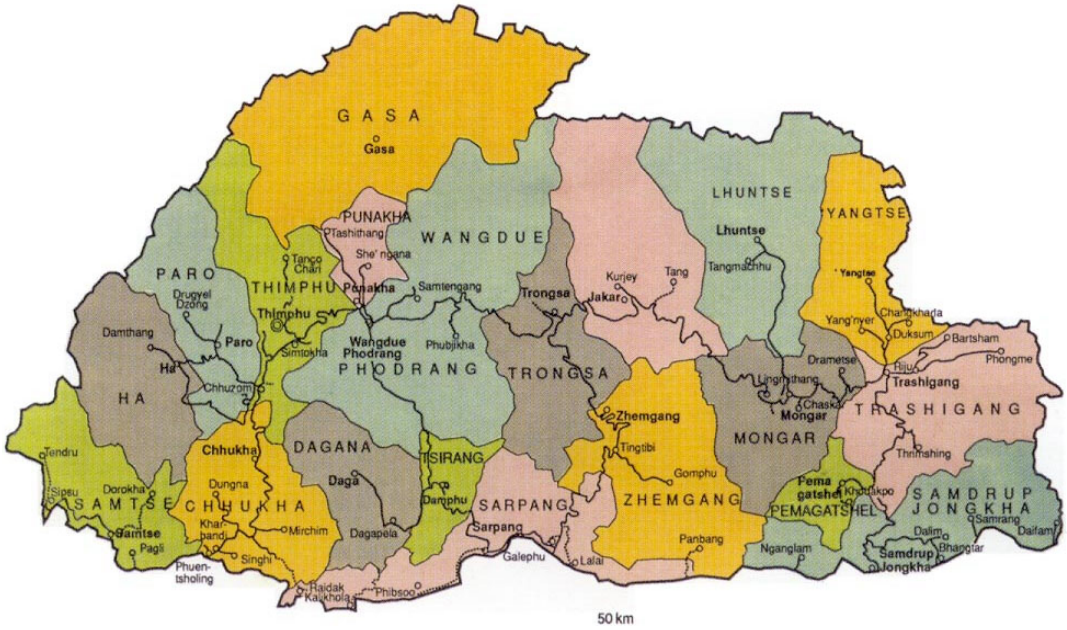
- *Auditing and accounting.* Gradually expand the auditing net to include a broader group of private companies—both to encourage greater use of financial information as a management tool and to assist the tax authorities.
- *Industrial estates and dry ports.* Establish industrial estates in locations strategic for the private sector and dry ports at strategic border locations.
- *Dialogue.* Bring in experienced professionals from external chambers of commerce and the private sector to strengthen mechanisms for representing private sector interests (such as the Bhutan Chamber of Commerce and Industry and trade associations).

Notes

1. Although nonnational workers accounted for only 36 percent of employees in the firms surveyed, this reflects in part the bias against interviewing a large number of construction firms, which dominate the list of registered companies. These firms typically have very large shares of nonnational employees, often more than 90 percent.
2. In a survey of 500 U.S. importers, 95 percent ranked on-time delivery as the most important buying criteria.
3. When the Zimbabwe market was liberalized in the early 1990s, firms realized the importance of retail packaging after generic biscuits imported from South Africa started to penetrate the local market despite being three times the price of locally produced biscuits.

APPENDIXES


CHINA
(TIBET)
NEPAL
Bhutan
INDIA
BANGLADESH


GASA
Gasa
PUNAKHA
Tashithang
WANGDUE
She' ngana
Tanco
Chari
PARO
THIMPHU
Punakha
Samtengang
Drugyel
Dzong
Thimphu
Damthang
Paro
Simtokha
Wangdue
Phodrang
Phubjikha
Ha
PHODRANG
Chhuzom
HA
Trongsa
Kurjey
Jakaro
Tang
LHUNTSE
Lhuntse
Tangmachhu
YANGTSE
Yangtse
Changkhada
Yang'nyer
Duksum
Bartsham
Phongme
Drametse
Hiju
Trashigang
Lingmithang
Chaska
Mongar
TRONGSA
TRASHIGANG
Zhemgang
Tingtibi
MONGAR
Thrimshing
Tendru
Chhukha
DAGANA
SIRANG
Dagã
Gomphu
Sipsu
Dorokha
Dungna
Damphu
SARPANG
ZHEMGANG
Pema
gatshel
Kharuikpo
SAMDRUP
JONGKHA
SAMTSE
CHUKHA
Gaintse
Pagli
Khar-
pandi
Mirchim
Dagapela
Sarpang
Panbang
PEMAGATSHEL
Samrang
Dalim
Daifam
Phuen-
tsholing
Singhi
Galephu
Lalai
Nganglam
Bhangtar
Samdrup
Jongkha
Raidak
Kalkhola
Phibsoo
50 km

	Company	Post box	Location	Registration number	Date of registration
1	Bhutan Polythene Company	—	Phuentsholing	1	27-12-90
2	Penden Cement Authority Ltd.	—	Gomphu	2	27-12-90
3	Bhutan Development Finance Corporation	—	Thimphu	4	27-12-90
4	Forest Development Corporation	—	Thimphu	5	27-12-90
5	Handicrafts Development Corporation	—	Thimphu	6	27-12-90
6	Bhutan Board Products Ltd.	—	Phuentsholing	7	27-12-90
7	Druk Japan Himalayan Co.	—	Thimphu	8	27-12-90
8	Bhutan Engineering Co. Pvt. Ltd.	—	Thimphu	9	27-12-90
9	Bhutan Carbide and Chemicals Ltd.	—	Phuentsholing	10	27-12-90
10	Bhutan Ferro Alloys Ltd.	—	Phuentsholing	11	27-12-90
11	Bhutan Fruit Products Ltd.	—	Phuentsholing	12	29-03-91
12	Bhutan Marble & Minerals Ltd.	—	Thimphu	14	10-04-91
13	Druk Air Corporation Ltd.	—	Thimphu	15	16-04-91
14	Bank of Bhutan	—	Phuentsholing	16	1-05-91
15	Chhukha Hydro Power Corporation	—	Chhukha	17	2-07-91
16	Royal Insurance Corporation	—	Phuentsholing	18	11-10-91
17	Bhutan Agro Industries Ltd.	329	Thimphu	20	24-10-91
18	Yangzom Cement Industry Ltd.	—	Samtse	21	3-12-91
19	Zana Bliss International Pvt. Ltd.	145	Phuentsholing	23	7-01-92
20	Bhutan Tourism Corporation Ltd.	—	Thimphu	25	22-04-92
21	Food Corporation of Bhutan	—	Phuentsholing	27	8-07-92
22	Dangling Company Ltd.	105	Trashigang	28	3-07-92
23	Etho Metho Tours & Treks Ltd.	—	Thimphu	29	14-08-92
24	Malo Corporation (P) Ltd.	145	Phuentsholing	30	1-09-92
25	Chapcha Engineering Co. Ltd.	641	Thimphu	31	21-09-92
26	Charry Engineering Company	—	Thimphu	32	29-10-92
27	Woodcraft Center	581	Thimphu	34	30-11-92
28	Chimi Wangchuk Construction Co.	—	Thimphu	35	11-11-92
29	Lomnekha Construction Co.	—	Chhukha	36	30-12-92
30	Tandin Import & Export (P) Ltd.	455	Thimphu	37	22-01-93
31	Environment Friendly Construction Co.	—	Bumthang	38	2-03-93
32	Mindu Company (P) Ltd.	—	Thimphu	39	16-04-93
33	Radag Company	—	Wangdue	40	28-04-93
34	Druk Lothuen Company Ltd.	—	Thimphu	41	12-05-93
35	Druk Stone & Mineral Export Co. Ltd.	230	Phuentsholing	42	3-06-93
36	Lama Tours & Treks Pvt. Ltd.	704	Thimphu	43	14-06-93
37	Gahsel Pharmaceutical Pvt. Ltd.	495	Thimphu	44	17-06-93
38	Rigsar Construction Co. (P) Ltd.	—	Samdrup Jongkha	45	27-07-93

	Company	Post box	Location	Registration number	Date of registration
39	Royal Securities Exchange of Bhutan Ltd.	154	Thimphu	46	18-08-93
40	Jomo & Shaykhar Co. Ltd.	—	Trashigang	47	18-08-93
41	Kuenphen Wangchuk Co.	—	Trashigang	48	18-08-93
42	Gangri Tours & Treks Ltd.	607	Thimphu	50	20-08-93
43	Daga Kuenphen Enterprise	—	Phuentsholing	51	20-08-93
44	Drook Securities Ltd.	—	Thimphu	52	2-09-93
45	Pagsam Company Ltd.	—	Lhuntse	53	4-10-93
46	BNB Securities Ltd.	—	Thimphu	54	12-10-93
47	Yurung Company Pvt. Ltd.	235	Samdrup Jongkha	55	12-10-93
48	Druk Satair Corporation Ltd.	—	Samdrup Jongkha	56	14-10-93
49	Chituen Construction Co. Ltd.	470	Thimphu	57	18-10-93
50	Lhomen Tours & Trekking Co. Ltd.	341	Thimphu	58	21-10-93
51	Etho Metho Construction Co.	341	Thimphu	59	22-10-93
52	Lhaki Cement Pvt. Ltd.	—	Gomphu	60	17-11-93
53	Army Welfare Project	92	Phuentsholing	61	18-11-93
54	Bank of Bhutan Securities Ltd.	—	Thimphu	62	8-12-93
55	RICB Securities Ltd.	77	Phuentsholing	63	8-12-93
56	H & K Company	74	Phuentsholing	64	27-12-93
57	Bhutan Dairy Ltd.	196	Phuentsholing	65	27-12-93
58	Bhutan Adventure Pvt. Ltd.	231	Thimphu	66	28-12-93
59	Druk Petroleum Corporation Ltd.	298	Phuentsholing	67	25-01-94
60	Yeti Tours & Trekking Pvt. Ltd.	456	Thimphu	68	25-01-94
61	Shongar Construction Co. Ltd.	—	Mongar	69	16-02-94
62	National Construction Co. Ltd.	398	Thimphu	70	28-04-94
63	Chhukha Construction Co. Ltd.	—	Chhukha	71	10-05-94
64	Kinga Tours & Treks Ltd.	635	Thimphu	72	23-05-94
65	Ratna Transport Co. Pvt. Ltd.	149	Samdrup Jongkha	73	5-07-94
66	Gayjur Construction Co.	—	Mongar	75	29-07-94
67	Eastern Bhutan Coal Co.	—	Samdrup Jongkha	76	3-08-94
68	Druk Norlha Co.	631	Thimphu	77	8-08-94
69	Hotel Kelwang Pvt. Ltd.	350	Thimphu	78	18-08-94
70	Kelwang Consultancy & Construction Ltd.	350	Thimphu	79	24-08-94
71	Nansay Company	—	Galephu	80	7-09-94
72	Perfection Engs. & Consultants Ltd.	—	Gomphu	81	29-09-94
73	Bhutan Shangri-La Adventure Ltd.	532	Thimphu	82	27-10-96
74	Phuensum Import & Export Co. Ltd.	772	Thimphu	83	30-11-94
75	RSA Pvt. Ltd.	321	Phuentsholing	84	9-05-95
76	International Tours & Treks Ltd.	—	Paro	85	25-07-95

	Company	Post box	Location	Registration number	Date of registration
77	Druk Construction Company	204	Thimphu	86	26-07-95
78	Kuensel Corporation	—	Thimphu	87	16-08-95
79	Tsenphu Company	—	Mongar	88	20-09-95
80	Phub Bro's Construction Co.	—	Thimphu	89	16-10-95
81	Namgail Cement Co. Ltd.	138	Phuentsholing	90	30-10-95
82	Stade Trading Corporation of Bhutan	—	Phuentsholing	91	5-03-96
83	Dragon Nest Ltd.	—	Wangdue Phodrang	92	29-03-96
84	Phuensum Construction (P) Co.	—	Thimphu	93	29-07-96
85	Bhutan Broadcasting Service	101	Thimphu	94	15-08-96
86	Goendrap Eng. Company	—	Punakha	95	6-09-96
87	Bhutan National Bank	—	Thimphu	96	2-09-96
88	Bhutan Postal Corporation	—	Thimphu	97	25-10-96
89	National Transport Company	—	Thimphu	98	9-12-96
90	Sakteng Health Club & Saloon Ltd.	825	Thimphu	99	8-01-97
91	T&K Construction Co.	881	Thimphu	100	4-03-97
92	Bhutan Tours & Travel Pvt. Ltd.	224	Thimphu	101	18-04-97
93	Himalayan Plastic & Chemicals	—	Thimphu	102	21-04-97
94	Yarkay Oxygen Ltd.	134	Phuentsholing	103	22-04-97
95	Green Wood Mfg. Corporation	—	Phuentsholing	104	28-04-97
96	United Construction Co. Pvt. Ltd.	—	Thimphu	105	29-04-97
97	Alpine Builders	—	Thimphu	106	28-05-97
98	Bhutan Polymers Co. Ltd.	321	Gomphu	107	12-06-97
99	Kubera Tours & Treks Pvt. Ltd.	—	Thimphu	108	13-06-97
100	Bhutan Board Exports Ltd.	—	Phuentsholing	109	3-07-97
101	Druk Silicon Carbide Ltd.	—	Thimphu	110	11-07-97
102	Choden Chemical & Industry Ltd.	—	Samdrup Jongkha	111	21-07-97
103	Rabsel Construction Co. Ltd.	488	Thimphu	112	1-08-97
104	Namcha Construction Pvt. Ltd.	—	Thimphu	113	8-10-97
105	Royal Society for the Protection of Nature	—	Thimphu	114	29-10-97
106	Bhutan Construction Co. Ltd.	—	Thimphu	115	5-02-98
107	Euchok Construction Co.	—	Thimphu	116	11-05-98
108	Bumthang Brewery Ltd.	—	Bumthang	117	29-05-98
109	Hotel Druk-Yul	—	Thimphu	118	30-07-98
110	Gongphel Construction Co. Pvt. Ltd.	—	Thimphu	119	16-12-98
111	Pinewood Builders	—	Thimphu	120	8-01-99
112	Goong Construction	—	Phuentsholing	121	23-02-99
113	Lhaki Wood Industries Ltd.	—	Thimphu	122	—
114	Rainbow Tours & Travels Pvt. Ltd.	—	Thimphu	123	28-04-99

Company	Post box	Location	Registration number	Date of registration
115 Osang Electrical Company Pvt. Ltd.	—	Thimphu	124	16-06-99
116 Druk Chlorate Company	—	Thimphu	125	9-08-99
117 Peljorekhang Pvt. Ltd.	—	Thimphu	126	9-08-99
118 Tshungmed Solar Inc.	—	Thimphu	127	13-08-99
119 N.D. Construction	—	Thimphu	128	25-08-99
120 Hotel Riverview Pvt. Ltd. Thimphu	—	Thimphu	129	22-12-00
121 Pelchen Randin Real Estate	—	Thimphu	130	10-04-01
122 BTB Pvt. Ltd. Thimphu	—	Thimphu	131	8-05-01
123 Singye Group of Companies Pvt. Ltd.	—	Thimphu	132	—
124 Bhutan Agrotech Research and Development	—	Thimphu	133	14-05-01

— Not available.

Corporate and Personal Income Tax

The corporate income tax regime has the following key features:

- Resident companies are taxed 30 percent of net profit.
- Nonresident companies are taxed 3 percent of turnover, a tax withheld at source.
- Business expenses are allowable deductions as long as they are supported by documentary evidence. Ceilings apply on salaries, donations, and entertainment expenses.
- Depreciation of assets within the maximum prescribed limit is allowed according to a straight line method.

A personal income tax replaced the salary tax in 2001. The tax on salary is charged at rates ranging from 10 to 25 percent (table A2.1). No tax is payable on individual incomes below Nu 100,000 a year.

In 2001/02 the corporate income tax was forecast to generate government revenues of Nu 939 million (20.4 percent of total revenue); the business income tax, revenues of Nu 201 million (4.4 percent); and the salary tax, Nu 62 million (1.3 percent).

Tariffs

Import duties range from 0 to 30 percent except for some higher tariffs on imports of beer, other alcoholic beverages, and tobacco products. Under the long-standing free trade arrangement with India, these tariffs are applied only on imports from third countries. Tariffs in Bhutan tend to be lower than corresponding rates in India.

The trade liberalization program in Bhutan has reduced the number and level of tariffs. The 2001/02 budget abolished tariffs on a wide range of electrical appliances for the home, with the expectation that rural electrification will allow people in rural areas to take advantage of these time- and labor-saving devices. It also abolished tariffs on computers, reflecting the growing importance given to developing information technology in Bhutan.

Business Sales Tax

Trade is also affected by the business sales tax, originally imposed on imports from India (and on sales by selected hotels and restaurants and cement sales by Penden Cement Authority) but in September 1998 ex-

Table A2.1 New Personal Income Tax Rates Effective as of 2001

Gross annual salary	Tax rate
Up to Nu 100,000	None
Between Nu 100,000 and Nu 250,000	10 percent
Between Nu 250,000 and Nu 500,000	Nu 10,000 plus 15 percent on income over Nu 250,000
Between Nu 500,000 and Nu 1,000,000	Nu 25,000 plus 20 percent on income over Nu 500,000
More than Nu 1,000,000	Nu 65,000 plus 25 percent on income over Nu 1,000,000

tended to imports from countries other than India as well. Indian exporters to Bhutan can claim the business sales tax as a rebate against the Indian sales tax, and Indian authorities have not treated the business sales tax as an import tariff. Since producers of import substitutes in Bhutan do not pay this tax, it has a protective effect similar to that of a tariff. The business sales tax ranges from 0 to 20 percent (with higher rates for beer, other alcoholic beverages, and tobacco), so the actual duties on imports from countries other than India range from 0 to 50 percent rather than the 0 to 30 percent in the import tariff schedule. The business sales tax contributes 7.2 percent of total government revenue.

The business sales tax accounts for most of the taxes collected on imports. In the medium term consideration will be given to reducing this tax except on a few items such as vehicles and alcohol or tobacco products. This would eliminate much of the protectionist element of a business sales tax imposed on imports but not on sales of domestically produced goods. It would also eliminate the trade diversion effects that result from the present system because India has a rebate system for the sales tax and most other countries charge no sales tax on exports. The medium-term goal is a commodity tax system based on a business sales tax applied on a nondiscriminatory basis to imports from India as well as from other countries.

In the longer run consideration will be given to imposing an excise tax on domestically produced goods at the point of production. With a relatively uniform business sales tax applied to imports from India and other countries and an excise tax of a similar rate imposed at the factory gate, Bhutan will have an efficient, low, and relatively uniform commodity tax system in place.

The structure of import duties—tariffs and the business sales tax—shows the normal cascading, with rates generally highest on final products (except for some essential goods), lower on intermediate products, and lowest on raw materials. This cascading effect can give high levels of effective protection to activities competing with imports. Thus, for example, a 50 percent tariff on a final product in which an imported input with a 20 percent tariff accounts for half the production costs results in an effective rate of protection of 90 percent. Since there is much scope for waiving duties on intermediate products and raw materials as an incentive, effective protection rates can often be even higher.

Export Taxes

Some export taxes are in effect, but these contribute only a small share of government revenue (0.3 percent) and the government has decided to eliminate them. Export bans exist on timber, antiques, and animals and plants classified as endangered species (including their parts and products).

Excise Taxes

Excise taxes are restricted to sales of alcoholic products by the Army. Still, they are a relatively important source of government revenue, contributing 10 percent of the total, and are the most important indirect tax in Bhutan.

State Controls on Trade

There are, in general, no quantitative restrictions on imports, though some exceptions exist. Import licenses are required, and there is supposed to be automatic approval of licenses for importing all commodities outside a narrow negative list for which special permission is required.

Although import licensing is supposed to be automatic, there are some complaints from the private sector that this is not so. The government's concern

about exacerbating the trade deficit with hard currency countries plays a part in this. Some businesspeople complain about long delays in getting import licenses for inputs from hard currency areas, especially if these inputs are to be used in producing goods for export to India. Investors also complain of difficulties in getting approval for investment projects in which imported inputs from hard currency areas will be used to produce exports for India.

The government maintains an effective monopoly on imports of rationed goods such as fertilizer, kerosene, and liquefied petroleum gas (LPG), providing these goods to domestic users at subsidized prices.

Table A3.1 Quantity and Value of Cash Crops in Bhutan, 1995–98

	1995		1996		1997		1998	
Commodity	**Quantity (metric tons)**	**Value (millions of ngultrum)**	**Quantity (metric tons)**	**Value (millions of ngultrum)**	**Quantity (metric tons)**	**Value (millions of ngultrum)**	**Quantity (metric tons)**	**Value (millions of ngultrum)**
Potatoes	14,603,698.00	72.266	16,478.600	88.785	17,030.971	55.394	18,193,596	147.201
Apples	519.231	4.125	252.945	1.869	281.435	1.799	972.745	7.113
Oranges	4,010.058	16.525	3,639.693	18.211	2,915.403	14.538	3,657.400	15.879
Ginger	719.496	6.536	1,023.279	6.285	1,084.368	4.181	640.131	4.124
Dry chiles	40.821	1.349	22.639	1.244	32.678	1.366	36.274	1.348
Rajma	36.319	0.517	69.54	0.882	102.916	1.357	38.798	0.736
Soybeans	90.957	0.742	92.356	0.726	142.921	1.425	87.008	0.692
Arecanut	192.354	1.086	182.522	0.646	104.343	0.585	75.763	0.731
Pipla	86.886	1.197	8.286	0.829	17.399	1.324	16.069	0.981
Other fruits	3.405	0.018	1.215	0.008	3.832	0.017	2.465	0.021
Cardamom	14.785	5.526	5.838	0.376	26.630	1.972	1.34	0.07
Garlic	—	—	—	—	0.502	0.008	0.834	0.016
Lemons	54.637	0.315	47.264	0.343	34.974	0.237	2.333	0.027
Kalai dal	—	—	—	—	3.710	0.040	—	—
Pulses	3.560	0.037	4.702	0.046	4.297	0.038	1.549	0.013
Mustard	0.629	0.006	1.314	0.013	0.683	0.006	1.721	0.016
Chirota (herb)	6.277	0.202	0.999	0.029	2.395	0.091	3.738	0.330
Dry beans	—	—	3.630	0.022	—	—	0.060	0.001
Stararis	—	—	0.288	0.011	0.019	0.001	0.270	0.010
Lac	—	—	—	—	0.558	0.23	—	—
Vegetables	1,136.903	7.06	1,970.567	7.950	1,362,478	6.752	1,366.566	7.651
Total	21,520,016	117.507	23,805.677	128.274	23,155,512	91.156	25,101.664	186.962

— Not available.

Table A4.1 Tourist Arrivals by Tour Operator and Month, Bhutan, 2000

	Operator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	Bae Yul Excursion	0	0	43	21	20	3	0	25	6	51	26	1	196
2	Bhutan Adventure	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bhutan Expeditions	0	0	0	0	0	0	0	0	10	0	0	0	10
4	Bhutan Cultural Tours	0	0	1	0	0	0	0	0	0	0	1	0	2
5	Bhutan Dorji Holidays	0	0	0	0	0	0	1	5	3	0	0	0	9
6	Bhutan Heritage	0	8	7	0	5	0	2	0	0	0	22	1	45
7	Bhutan Himalaya Tours	7	0	0	3	0	0	0	1	0	0	0	0	11
8	Bhutan Holiday Tours	0	0	0	0	0	0	2	3	3	10	14	9	41
9	Bhutan Lhayul	0	0	5	0	0	0	0	0	0	0	2	0	7
10	Bhutan Mandala Tours	0	17	65	71	11	26	34	34	68	31	3	25	385
11	Bhutan Millennium	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Bhutan Tours and Travels	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Bhutan Travel Service	0	0	0	1	1	1	2	3	1	31	2	0	42
14	Bhutan Treks and Tours	0	0	19	6	0	1	0	0	0	0	0	0	26
15	Bhutan Vacation Inc.	0	0	0	0	0	0	1	0	0	4	0	0	5
16	Bhutan Travel Bureau	2	5	10	8	1	5	0	12	15	44	4	4	110
17	BTCL	1	22	143	137	56	4	2	17	83	331	96	17	909
18	Chundu Tours	2	2	22	21	6	3	1	0	8	77	23	4	169
19	Dechen Cultural	0	0	16	0	0	0	0	0	0	20	0	7	43
20	Deodgu Yangkhil	0	0	0	0	7	0	0	0	0	0	0	0	7
21	Discovery Bhutan	0	0	0	0	6	0	0	3	2	4	2	1	18
22	Dragon Tours	0	0	19	18	0	31	0	14	3	17	0	0	102
23	Druk Adventure	0	0	5	0	0	0	0	0	0	0	0	0	5
24	Eagle Tours	0	0	0	0	0	0	0	0	0	0	7	0	7
25	Equator Expeditions	0	0	2	0	3	0	2	0	4	59	32	0	102
26	Etho Metho Tours	11	57	197	172	114	18	34	43	110	406	121	39	1,322
27	Exotic Destination	0	0	0	1	3	0	0	0	2	0	0	4	10
28	Ezekiel Tours	0	0	3	0	0	0	0	0	0	0	5	0	8
29	Gangri Tours	0	3	44	75	5	18	3	11	74	149	48	0	430
30	Himalayan Adventure	0	0	0	0	0	0	0	0	0	3	0	0	3
31	Himalayan Kingdom	0	2	0	11	0	0	0	2	0	0	2	0	17
32	International Tours	8	14	120	102	43	24	19	35	34	272	105	31	807
33	Jamphel Tours	0	0	0	19	0	0	0	2	2	15	0	2	40
34	Khuju Tours	0	0	1	6	0	0	0	0	0	0	0	0	7
35	Kinga Tours	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Kubera Tours	0	0	3	0	0	0	0	0	0	0	0	0	3
37	Lama Tours	0	0	0	0	0	0	0	0	4	19	19	0	42

continued . . .

Table A4.1 Tourist Arrivals by Tour Operator and Month, Bhutan, 2000 *(continued)*

	Operator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
38	Lotus Tours	0	0	0	1	0	0	0	0	0	0	0	0	1
39	Lhomen Tours	0	0	4	16	6	2	0	2	13	13	5	0	61
40	Lingkor Tours	3	3	15	1	1	3	2	2	0	30	18	5	83
41	Masagang	2	0	0	3	4	5	0	0	0	2	3	4	23
42	Namsey Tours	0	0	16	25	6	0	3	0	7	8	38	0	103
43	Osang Tours	0	0	0	0	2	0	0	0	0	0	0	0	2
44	Prestine Yul Druk	0	0	2	0	0	0	0	0	0	0	0	0	2
45	Rabsel Tours	2	5	2	1	4	0	6	3	11	36	8	5	83
46	Rainbow Tours	0	2	9	8	21	3	25	0	6	20	6	3	103
47	Ratna Tours	0	0	0	0	0	0	1	0	2	0	9	0	12
48	Riki Tours	0	0	0	3	0	0	0	0	0	0	0	0	3
49	Rinchen Tours	0	0	0	11	0	0	0	0	0	30	0	0	41
50	Sakten Tours	3	0	27	14	7	5	6	7	10	24	52	8	163
51	Shangrila Tours	0	0	4	5	1	0	0	1	9	5	5	0	30
52	Siddarth Tours	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Sky Travels	0	0	0	0	0	0	0	0	1	7	0	2	10
54	Snow Leopard	0	4	0	31	14	0	0	0	17	67	8	0	141
55	Sophun Tours	0	0	0	0	0	0	0	0	0	0	0	2	2
56	Taktsang Tours	8	8	0	0	0	0	0	0	0	0	0	0	16
57	Tara Tours	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Tashi Delek Tours	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Tashi Tours	0	15	30	69	0	0	0	44	14	23	58	0	253
60	Thimphu Tours	0	0	0	0	0	0	0	0	1	0	0	0	1
61	Thoesam Tours	0	16	10	19	2	2	0	1	19	18	3	0	90
62	Thunder Dragon	0	15	25	32	2	0	0	0	21	35	37	1	168
63	Travel Bhutan	0	0	0	0	0	0	0	0	0	0	0	0	0
64	Thunder Bolt	0	0	0	0	0	0	0	0	0	3	0	0	3
65	Vajra Tours	0	0	0	0	0	4	3	0	0	0	0	0	7
66	White Lotus Tours	0	0	0	0	0	0	0	0	0	0	13	2	15
67	White Tara Tours	0	0	4	1	0	0	0	0	0	0	0	0	5
68	Wangchuk Tours	0	0	0	0	4	0	0	0	0	0	0	0	4
69	Wings Tours	4	5	14	5	3	3	6	27	11	2	4	6	90
70	Wild Horse Tours	0	0	4	0	2	0	1	1	6	5	4	0	23
71	Yangphel Tours	4	11	100	50	31	4	4	6	59	249	103	19	640
72	Yarkey Tours	0	0	2	0	0	0	0	0	0	2	3	0	7
73	Yeti Tours	1	1	5	1	0	2	0	1	14	29	25	4	83
74	Yodsel Tours	4	5	24	19	6	3	2	0	3	31	38	1	136

continued . . .

Table A4.1 Tourist Arrivals by Tour Operator and Month, Bhutan, 2000 *(continued)*

	Operator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
75	Yudruk Tours	3	2	44	5	15	17	0	2	27	63	22	6	206
76	Expatriate guests	0	0	0	0	3	0	0	0	0	2	0	0	5
77	Tab guests	0	1	0	3	0	0	0	0	0	0	0	0	4
	Total pax	65	223	1,066	995	415	187	162	307	683	2,247	996	213	7,559
	Total fams	4	4	5	5	5	8	1	2	12	16	4	0	66
	Total focs	0	0	3	3	1	1	0	0	0	0	0	1	9
	Actual fax	61	219	1,058	987	409	178	161	305	671	2,231	992	212	7,484

Note: Data exclude tourists from India.
Source: Bhutan Ministry of Trade and Industry, Department of Tourism.

Table A4.2 Tourist Arrivals by Month, Bhutan, 1984–2000

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
January	35	40	43	59	26	21	35	25	91	67	101	120	133	108	96	148	65
February	76	39	45	63	43	39	34	82	118	139	175	134	304	254	154	322	223
March	91	237	409	122	390	250	146	270	346	232	643	341	605	1,062	542	1,145	1,066
April	406	214	172	466	230	118	265	152	265	587	274	1,022	689	662	1,167	604	995
May	114	130	134	145	140	87	99	110	140	124	373	337	215	275	267	395	415
June	52	22	49	16	31	38	12	32	68	60	115	81	91	90	97	108	187
July	62	94	92	91	62	32	44	47	118	51	99	119	160	123	152	132	162
August	208	182	306	235	147	133	84	181	117	161	301	183	306	231	340	348	307
September	204	237	338	253	298	164	262	402	355	494	465	466	788	276	1,107	1,069	683
October	459	452	573	709	670	375	249	426	701	426	787	1,168	1,128	1,488	1,329	1,856	2,247
November	134	160	112	268	118	179	205	268	300	475	418	599	508	640	678	841	996
December	59	88	132	97	44	44	103	111	144	168	220	195	211	154	274	190	213
Total	1,900	1,895	2,405	2,524	2,199	1,480	1,538	2,106	2,763	2,984	3,971	4,765	5,138	5,363	6,203	7,158	7,559
Annual growth (percent)	—	–0.26	26.91	4.95	–12.88	–32.70	3.92	36.93	31.20	8.00	33.08	19.99	7.83	4.38	15.66	15.40	5.60
Trekkers	—	—	—	—	—	—	—	—	—	—	—	—	1,851	746	1343	830	926
Cultural tourists	—	—	—	—	—	—	—	—	—	—	—	—	3,287	4,617	4,860	6,328	6,633
Foreign exchange earnings (millions of U.S. dollars)																	
Gross earnings	—	—	—	—	—	—	1.91	1.99	2.97	3.23	3.97	5.83	6.52	6.55	7.98	8.88	10.50
Government revenue	—	—	—	—	—	—	—	0.31	0.98	1.13	1.39	2.04	2.32	2.48	3.02	3.46	4.10

— Not available.

Note: Data exclude tourists from India.

Source: Bhutan Ministry of Trade and Industry, Department of Tourism.

Table A4.3 Tourist Arrivals by Economy of Origin, Bhutan, 1995–2000

Economy of origin	1995	1996	1997	1998	1999	2000
Japan	1,192	1,211	1,173	1,032	1,102	875
United States	865	963	910	1,471	2,122	2,754
Germany	500	722	533	520	574	662
United Kingdom	418	358	642	686	646	595
France	338	331	229	366	236	399
Italy	202	242	186	218	276	156
Austria	200	156	156	270	197	131
Thailand	57	181	140	19	71	92
Switzerland	220	161	186	170	296	137
Netherlands	100	131	234	370	362	359
Australia	142	71	121	64	131	179
Belgium	79	77	75	95	107	95
Canada	55	57	89	82	149	194
Spain	22	49	33	109	118	141
Korea, Rep. of	0	41	31	11	14	3
Norway	0	43	6	12	33	7
Singapore	0	45	78	77	26	31
Taiwan, China	0	32	83	135	179	175
Denmark	42	26	61	45	13	30
Finland	8	15	21	0	5	60
Nepal	0	15	32	23	23	50
Portugal	0	13	11	0	43	19
Luxembourg	0	11	14	0	0	2
Sweden	45	7	18	58	37	48
Israel	0	0	0	81	80	68
Poland	0	0	0	45	35	26
Russian Federation	0	0	0	36	17	13
New Zealand	0	0	0	28	22	31
Turkey	0	0	0	0	49	34
Philippines	0	0	0	0	20	13
Brazil	0	0	0	27	14	10
Czech Republic	0	0	0	24	0	12
Greece	0	0	0	16	0	25
China	0	0	0	12	11	10
Argentina	0	0	0	11	12	29
Ireland	0	0	0	0	16	10
South Africa	0	0	0	0	12	7
Mexico	0	0	0	0	49	37
Malaysia	0	0	0	0	0	16
Others	280	180	301	90	61	24
Total	4,765	5,138	5,363	6,203	7,158	7,559
Trekkers	0	1,851	746	1,343	830	926
Cultural tourists	0	3,287	4,617	4,860	6,328	6,633

Note: Data exclude tourists from India.
Source: Bhutan Ministry of Trade and Industry, Department of Tourism.

Table A4.4 SWOT Analysis of the Bhutanese Tourism Sector

Strengths	*Weaknesses*
• Unique destination • Natural beauty • Moderate climate • Friendly people • History • A monarchy • Scope for fine-tuning the visitor experience with product enhancements • Professionalism and skills of Bhutan Tourism Corporation and other tour operators • Opportunity for outdoor activities (fishing, trekking, bird watching) • Great opportunity for cultural tourism, including towns, history, museums, collections, monastic buildings, costumes, folklore, and music and dance • Close proximity to the important Indian market • Established tourism plan, including such services as guides, access, internal transport, restaurants, accommodation, and outdoor and cultural tourism activities	• Undue growth in numbers of visitors could damage the tourism industry because of the sensitive nature of the product • High-priced destination, but support services below expectations • Insufficient attention in some hotels to customer service • Absence of information literature for tourists • Undue emphasis on tour groups, to the detriment of individual travelers • Poor range of books, postcards, and souvenirs available • Range of visitor accommodations limited to those with two-star ratings and below (a situation being corrected) • Government royalty on visitors not reinvested in tourism • Unduly complex trade and state structures for tourism • Absence of focused, well-financed state body to concentrate on overseas tourism marketing and product development • Access limitations, including complex booking arrangements, air service with poor capacity, and unreliability arising from weather conditions
Threats	*Opportunities*
• Conservatism of tourism industry and the government • Sensitive balance required between demand and available resources • Virtual absence of repeat business • Safety fears generally and relating to international air transport • Political instability in adjoining countries	• Promoting limited growth in visitors • Increasing the focus on top-market, high-spending visitors • Attracting more internationally recognized hotels to Bhutan • Devising a tourism master plan • Establishing a national tourism training organization • Undertaking ongoing market research, particularly customer satisfaction surveys

Table A4.5 Results of Pilot Visitor Survey, Bhutan, 2001

Item	Respondents	Share of respondents (percent)	Item	Respondents	Share of respondents (percent)
Country of origin			*Occupation*		
United States	7	41	Professional	5	29
United Kingdom	4	24	Retired	6	35
Israel	3	17	Management	4	24
Italy	2	12	Technical	1	6
Norway	1	6	Millworker	1	6
Income			*What influenced your visit?*		
More than $100,000	10	59	Personal recommendations	10	59
$50,000–100,000	4	23	Been to region before	5	29
Less than $50,000	1	6	Brochures	2	12
No answer	2	12			
Traveling in Bhutan			*Kind of tour package*		
In group	15	88	Cultural	10	59
With friend or relative	2	12	Cultural and trekking	5	29
			Cultural and adventure	1	6
			Biking	1	6
Enjoyment of visit			*Fulfillment*		
Excellent	13	76	Met expectations	8	47
Exceptional quality	2	12	Exceeded expectations	7	41
Satisfactory	2	12	Did not meet expectations	2	12
Obligatory regulations			*Value for money*		
Reasonable	11	65	Reasonable	8	47
Not acceptable	4	23	Expensive	5	29
Fully acceptable	2	12	Excellent	2	12
			Very, very expensive	1	6
			No answer	1	6
Arrangements in Bhutan			*Quality of meals*		
Excellent	10	59	Satisfactory	5	29
Good	4	23	Poor	1	6
Poor	2	12	Good	9	53
Faultless	1	6	Excellent	2	12

continued . . .

Table A4.5 Results of Pilot Visitor Survey, Bhutan, 2001 *(continued)*

Item	Respondents	Share of respondents (percent)	Item	Respondents	Share of respondents (percent)
Type of accommodation			*Quality of hotel services*		
Hotel	14	82	Satisfactory	5	29
Guesthouse	1	6	Excellent in superior room; poor in standard room	5	29
Various	2	12	Excellent	1	6
			Good	2	12
			Very unsatisfactory	1	6
			Poor	2	12
			Mixed	1	6
Quality of internal transport			*Visit Bhutan again?*		
Satisfactory	6	35	Yes	15	88
Excellent	8	47	No	2	12
Poor	3	18			
Recommend Bhutan to a friend?			*Highlights*		
Yes	15	88	Festivals	5	29
No	2	12	n.a. (visit uncompleted)	6	35
			Terrain	2	12
			People and landscape	2	12
			Biking through countryside	1	6
			Punakha Monastery being rebuilt	1	6
Items purchased			*Amount spent (U.S. dollars)*		
Textiles	3	17	200	8	47
Arts	1	6	1,000	1	6
Souvenirs	1	6	1,500	1	6
Handicrafts	2	12	500	2	12
Books and stamps	1	6	90	1	6
Textiles, weaving, paintings, paper, jewelry	5	29	50	1	6
Car rings and bells	1	6	0	2	12
Nothing	3	18			

continued . . .

Table A4.5 Results of Pilot Visitor Survey, Bhutan, 2001 *(continued)*

Item	Respondents	Share of respondents (percent)	Item	Respondents	Share of respondents (percent)
Objective of visit			*How arrived in Bhutan?*		
Culture	6	35	By air	5	88
Nature	1	6	By road	2	12
Nature, religion, and culture	1	6			
Culture and trekking	4	24			
Culture and philosophy	2	12			
Religion and culture	1	6			
Everything except trekking	1	6			

General comments by visitors	
Improve the hotels	Limited choice for meals and accommodation
Reduce the number of dogs	Prices fixed, but standards vary
Organize tours better	Undue restrictions on photography
Communications too costly and quality poor	No public access to most religious buildings
Buses poor	
Tourist information should be in rooms	

n.a. Not applicable.