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Vulnerabilities of Bali's Tourism Economy: A Preliminary Assessment

This paper represents an initial stocktaking of probable impacts and emerging responses following the October 2002 bomb. Sections 1 and 2 provide an overview of Bali's economy and the overall tourism economy. Section 3 examines the fiscal impacts on Bali's provincial and local governments. Section 4 looks at the potential implications for the poor and possible coping and empowerment strategies for the most vulnerable. Section 5 examines implications for the handicrafts and SME sectors. Section 6 briefly addresses possible scenarios and a further workplan, based in part on other international instances where tourism and terrorism have met.

A better picture of likely impact magnitudes, incidence, and possible response and coping strategies needs to set the stage for implementing effective government and donor responses. The most direct impact of the Bali Bomb will be on a probable reduction in international visitor numbers and visitor spending. These effects will work themselves through other sectors in the Balinese economy in terms of regional incomes, investment and employment.

The impact of the bombings will not only be limited to Bali's tourism economy. Other regions with strong migration, labor market or supply linkages to the Balinese economy (e.g., Central/East Java and Lombok) will be affected. As international visitors stay away from Bali, they will also stay away from other tourist destinations such as Yogya and Lombok.

Table 1: The Structure of the Balinese Economy

	Employment (2002, %)	RGDP (2000, %)	Growth (%, 1997-2000)	National Employment (%)	National RGDP (%)	National Growth (%, 1997-2000)
Agriculture	32.2	20.6	0.5	44.9	16.0	5.4
Mining & Quarrying	0.5	0.7	-1.6	0.9	8.7	5.5
Manufacturing	14.5	9.6	-3.5	12.6	20.9	-11.1
Utilities	0.1	1.3	30.9	0.1	1.0	23
Construction	7.9	4.2	-9.6	4.4	4.6	-33.7
Trade, Restaurants, & Hotels	24.2	33.2	1.1	18.3	15.4	-6.8
- *Wholesale and Retail*	20.2	12.1	-12.2	17.3	12.7	-7.4
- *Hotels*	2.9	12.9	9.1	0.2	0.5	-6.1
- *Restaurants*	1.1	8.14	7.1	0.7	2.23	2.7
Transport and Communications	5.1	11.3	-2.8	5.6	5.2	4.6
Financial Services	1.2	6.0	0.6	0.62	5.4	-17.22
Public Administration and Services	14.3	13.2	-0.9	12.61	7.13	-2.45
TOTAL	1.71 million	1.65 trillion Rps	-0.5	87.29 million	1,291 trillion Rps	-6.48

Source: National Socio-Economic Survey (SUSENAS) 2002 and BPS Regional Accounts. National figures include oil and gas processing, which accrues to mining and manufacturing. These differ somewhat from the national accounts. Figures for 2001 were not yet available.

The October 2002 Bali blast follows a period of events in Indonesia that has already put the island's tourism dependent economy in a fragile state. The political upheavals of May 1998 and the East Timor crisis of August 1999 hit Indonesia's international image. Bali's tourist industry proved largely resilient, buoyed by an off-setting depreciation of the Rupiah after 1997. Many a visitor was indeed surprised that Bali was part of Indonesia. Yet, the 9/11 destruction hit the global travel industry worldwide. The most recent events strike at the heart of the tourist industry in Bali.

I. Overview

Bali's economy was worth an estimated 16.5 trillion in 2000 (est. USD 1.8 billion), or 1.3 percent of the national economy (1.6 percent of the non-oil and gas economy). Of the population of 3.1 million, 1.7 reported working in the previous week. About half of the population was urban, somewhat higher than the national share (42.4%).

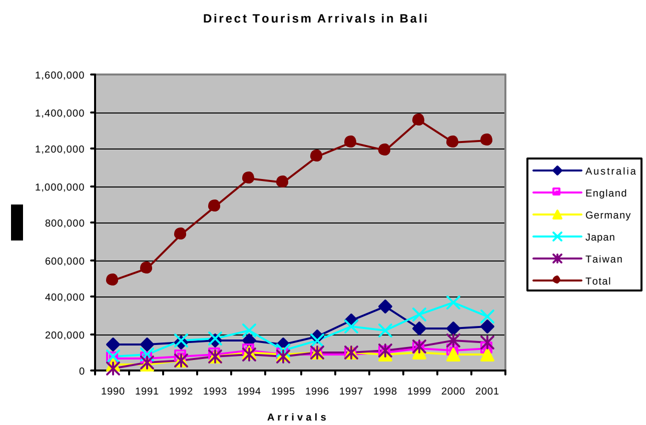
The island weathered *krismon* better than many other parts of Indonesia. Bali's economy suffered a real overall decline in 1997, but almost rebounded to 1996 levels by 2000. The hotel and restaurant sectors helped by expanding during this period. Per capita income levels remain above the national average. Poverty rates were relatively low in 2002, only 4% versus the 16% national average. Bali ranked 10th out of 26 for a Human Development Indicator (BPS/BAPPENAS/UNDP 2001). In terms of many health and education indicators Bali performs better than other comparable regions (UNICEF 2002). Overall Bali is a more service-oriented economy that is directly and indirectly highly dependent on tourism.

II. The Tourism and Related Industries

Tourism has emerged as an increasingly important industry in Indonesia, and one that is especially important for Bali. As estimated 5.1 million tourists visited Indonesia in 2001, contributing 5.3 billion dollars to Indonesia's balance of payments (about 9.2 % of total exports). Most of these tourists appear to end up in Bali at one stage or other.

Visitors: Tourism in Bali appears to be dominated by international visitors, with domestic visitors playing a more limited role. Total reported stay-overs at hotels in Bali to 5.7 million visitors in 2000. Over three quarters of these were foreign (4.3 million). Owing to some double-counting owing to multiple stays, there figures may overstate total visits, but provide an insight into the general magnitudes.[1]

Not all visitors to Bali arrive directly on the island, but the figures to provide an insight into national composition. Direct international tourism arrivals to



Bali in 2001 were just over 1.2 million in 2001, more than doubling in the past decade, but down from their peak of 1.35 million in 2000. The top three nationalities in 2001 were Japanese (24%), Australian (19%), and Taiwanese (12%).

Foreign tourists tended to stay in more upscale hotels relative to domestic tourists (e.g., by level of star classification). Foreign visitors moreover spent only about a third of their total budget on hotels and restaurants.[2] The remainder is spent on a host of

[1] Figures are reported for classified ("starred") and unclassified hotels, 133 classified hotels with 17,027 rooms in 2000 reported serving a total of 1.4 million visitors. A further 1,255 unclassified hotels and other accommodations had a room capacity of 19,529. These were reported to have served 4.3 million visitors. The share of foreign visitors in classified hotels was 82 percent, whereas that in unclassified hotels was 73.4 percent (BPS Bali 2001).

[2] These figures are from the Passenger Exit Survey of the Indonesia Culture and Tourism Board.

other goods and services that impact all sectors of the local and regional economy. Many visitors to other major Indonesian tourist destination such as Lombok, Yogya in Central Java and Toraja in South Sulawesi also go to Bali.[3] If Bali indeed serves as a major magnet for international visitors to Indonesia, these may also be expected to suffer. The magnitude of these linkages will have to be assessed.

Tourism Employment and Income: Recent evidence on the full income and employment impacts of tourists is not available.[4] A very crude approximation suggests that one foreign visitor per year is responsible for just under half a local job. Hence a 20 percent loss in foreign tourists to Bali – 860,000 by current rough measures - could cost 361 thousand jobs, equivalent to 21 percent of current employment in Bali. These figures should clearly be taken with a grain of salt, but they do suggest some possible magnitudes of overall repercussions.

Although jobs in hotels and restaurants are only of limited importance in Bali, the overall importance of the tourist industry in terms of jobs and incomes is clearly more important. Hotels and restaurants generated 58 thousand jobs (3.3. % of the labor force) on Bali, almost a tenth of Indonesia's overall employment in this sector (562 thousand but only 0.6 percent of the national workforce). Hotels and restaurants contributed 21% Bali's provincial economy in 2000, high by comparison. If we include retail trade, manufacturing, and construction, tourism can be argued to drive over half of Bali's income.

[3] Another major foreign tourist destination is Batam, but relies extensively on tourism from Singapore.

[4] Only an updated national input-output table is available for 1998 from BPS. Booth (1990) utilized a foreign tourist expenditures and an input-output table to calculate the national value added and employment implications of tourism. She suggests that the foreign visitor to employment ratio for 1989 was 0.42. Hence 1 million visitor arrivals could be associated with 420,000 jobs. Evidence from Egypt (Tohamy, Tommy and Adrian Swinscoe 2000) suggests that international tourism impacts are similar in terms of employment and are typically 2-3 times the share of hotels and restaurants, implying 42-64 percent in Bali's case.

Investment: Dampened economic prospects may lead to a reduction in investments, most notably reflected in the construction industry. The regional accounts expenditure data suggests a significant decline in private capital formation after the crisis, with significant contractions in 1997 (3.5%) and 1998 (-26.6%). Flat levels in 1999 and 2000 meant that investment levels were still well below pre-crisis levels. This appears to be mirrored in the regional income accounts for construction. Income in that sector dropped by 10 percent between 1997 and 2000, the largest decline of any sector, suggesting that the sector was already in the doldrums prior to the Bali bomb.

III. Regional Fiscal Implications: The Budgets of Bali

The regional governments of Bali – province, *kota*, and *kabupaten* – spent 2.5 trillion Rps in 2001 (est. USD 284.60 million). The center spent at least another 0.57 trillion Rps (est. USD 63 million) in development expenditures.[5]

The bulk of regional revenues come from the center. Hence the direct impact through a reduction in the own tax base (PAD) will be limited, but not insignificant. The general block grant (DAU) is determined by the center prior to the start of the year, and is independent of subsequent developments in regional economic conditions or own revenue effort. This fiscal dependence insulates regions from localized economic shocks. Bali is somewhat more exposed -- although not excessively so – owing to the fact that it enjoys/enjoyed a more buoyant own revenue base.

The provinces depend more heavily that the local governments on own source revenues. These are largely derived from motor vehicle taxes. Bali province derives more than half of its revenues from this source, well above the national average of under 30 percent. The degree to which these depend on the tourism industry is not clear.

[5] This data accounts just over half of central development expenditures to specific provinces (WBOJ 2002).

Table 2: Bali's Summary APBD Fiscal Position

	PC Rev	Share PAD	Share of Wages
Bali Province	245,633	55.6	29.83
National Average	**189,122**	**28.8**	**43.46**
Kab. Badung	1,324,929	56.3	43.85
Kab. Bangli	590,268	4.2	62.26
Kab. Buleng	436,938	6.1	85.2
Kab. Gianyar	726,221	17.1	65.97
Kab. Jembrana	622,058	3.8	62.77
Kab. Karangasem*	420,256	10.17	78.32
Kab. Klungkung	812,180	6.8	77.41
Kab. Tabanan	643,910	10.2	76.71
Kota Denpasar	552,500	27	56.53
National Average	**657,285**	**5.98**	**70.22**

Source: Ministry of Finance

A few of Bali's nine local governments have own revenue contributions that are significant and above the national average. These are largely due to the hotel and restaurant tax. Only Kabupaten Badung (56.3%) and Kota Denpasar (27%) derived more than a quarter of their revenues from own sources, while Kabupaten Gianyar was less exposed (17.1%).

As an upper bound impact of the possible regional fiscal impact, we simply assume that one third of total own revenue receipts would be lost for 2003. This would imply a loss of 0.29 trillion (est. USD 32.7 million). About half of these loses would fall on the province, the other half on the local governments. Since the hotel and restaurant tax lies with the local governments, these would be expected to bear the most direct brunt of declines in the tourism industry.

On the expenditure side, the share of wages effectively reflects the non-discretionary expenditure pressures of the local governments. Development budgets can in theory be used to adjustment and or more targeted social programs. On the upside, the two regions with the highest own revenue shares also had the lowest wage bill shares.

Compared to 2002, most local governments in Bali are expected to see a rise in their per capita DAU allocations, which may also help to offset declines in own local revenues. While the direct impact of losses to own local revenues does not appear to be that great, this data obviously does not shed any light on potential additional public expenditure needs in the wake of the Bali blast. Special central government transfers (e.g., the earmarked DAK) may therefore be necessary to offset these losses.

Impact on National Tax Base: Bali's overall share in the national economy is quite small (1.3 %). We expect the Bali economies primary impacts on the national tax base to be through VAT, luxury tax, and import duties. We hope to further clarify these flows, but anticipate that the main impact will not be through the regional Bali economy but the overall macro-economic impact on the national economy (e.g., through consumer and investor confidence effects).

IV. Poverty, Community and Empowerment

Bali is fortunate that its poverty rate was only 4 percent in 2002 (compared to 15.9 percent in Indonesia as a whole). The data suggests that it will not initially be the poor that will be the most vulnerable to a downturn in the tourism industry. Evidence from SUSENAS 2002 suggests that 71 percent of the poor in Bali depend on agriculture, which may not be directly impacted by the bombing. Only to the extent the poor in agriculture supply the tourist industry will they suffer.

Workers in hotels were almost exclusively formal wage earners (97.5 %) in 2002, as are those in the restaurant sector (78.2%). Almost two thirds of construction workers were wage earners. In contrast, those in the retail trade were predominantly informal (75.5%)

Strategies to assist the poor, but in particularly assist those most vulnerable to shocks emanating from the anticipated decline in the tourism sector will therefore have to be varied. For wage earners, this may entail stemming layoffs, providing opportunities for temporary employment, or smoothing opportunities for find alternative income sources in the informal sector. For some, it may entail leaving Bali for opportunities elsewhere.

If employers perceive the shock to be more temporary, they may refrain from immediate layoffs. A rapid revival of Bali's image as a safe and secure destination will contribute to this. The average wage in hotels was Rps 822 thousand per month in 2002. Wages in the manufacturing sector were 433 thousand per month (unadjusted for worker characteristics). The minimum wage (UMP) for Bali was Rps 341,000 per month in 2002 and Rps 309,750 in 2001. The UMP for 2003 is not yet clear. Although these wages appear well below average wages, an increase in the minimum wage at this stage may accelerate layoffs, especially for those at the lower end of the wage scale.

But income opportunities in the informal sector may also be impacted. Appropriate strategies to assist these groups will have to be developed, not just in Bali but in other impacted areas (see World Bank, *Possible Poverty Effects of the Bali Bombing).*

Migration: How important are migrants -- and hence potential remittance and/or return flows -- from the Bali economy? Just over 7 percent of Bali's residents were migrants in 2000. These were predominantly concentrated in urban areas (12.9%), with comparatively few life-time migrants in rural areas (1.3%). In comparison, the national average was 10 percent. Eighteen of Indonesia's thirty provinces had higher in-migrant shares.

Recent migration is somewhat more important for Bali than the national average, but only marginally so. 3.1 percent of Bali's population lived in a different province five year previous to 2000, compared to a national average of 3.0 percent. The concentration of in-migrants was far higher in urban areas (5.5%) than rural areas (0.6%).

Table 3: Bali's Employment by Sector

	Bali					**Average Wages Levels (PC Rps/month)**	
	Formal		**Informal**		**Total**	**National**	**Bali**
	Number	**%**	**Number**	**%**			
Agriculture	18,045	3.27	534,021	96.73	552,066	347,520	474,377
Mining	2,591	33.74	5,088	66.26	7,679	1,143,482	631,243
Manufacturing	113,052	45.50	135,402	54.50	248,454	607,078	433,783
Electricity	2,149	100.00	0	0.00	2,149	1,021,943	1,214,801
Construction	88,868	65.91	45,968	34.09	134,836	618,986	635,380
Services :							
- Transportation	33,780	50.90	32,584	49.10	66,364	755,868	778,099
- Wholesale trade	20,232	61.43	12,703	38.57	32,935	848,263	627,272
- Retail trade	73,568	23.45	240,218	76.55	313,786	500,717	500,337
- Hotel	49,014	97.50	1,255	2.50	50,269	830,224	821,900
- Restaurant	14,277	78.22	3,976	21.78	18,253	483,994	585,765
- Travel agent	11,201	81.80	2,492	18.20	13,693	1,195,428	892,326
- Telecommunication	6,511	91.89	575	8.11	7,086	1,071,142	895,409
- Financial service	21,196	100.00	0	0.00	21,196	1,331,869	744,330
- Housing	0	0.00	373	100.00	373	986,970	-
- Busines service	7,655	74.59	2,608	25.41	10,263	1,183,879	998,955
- Government service	143,840	97.61	3,521	2.39	147,361	979,160	1,096,319
- Other services	46,747	53.32	40,919	46.68	87,666	368,922	390,519
TOTAL	652,726	38.07	1,061,703	61.93	1,714,429	670,104	701,583

Source: SUSENAS 2002

The 2000 Population census allows us to see which kabupatens or kotas migrants come from. This measures the extent to which these regions my loose out in remittances if family members still remain there or if migrants return to their homes as they loose their livelihoods in Bali and cannot fall back on local coping networks.

To assess the relative dependence of a local jurisdiction on Bali migrants, we calculated the share of migrants in Bali relative to own population. In 21 localities, lifetime migrants in Bali represented more than one half a percentage point of the current population. This was the case for eight localities for recent migration. The highest rates of lifetime (3.14%) and recent (0.83%) migration were found to Kabupaten Banywangi in East Java. Other leaders in recent migration relative to own population were Mataram (0.35%) and Ambon (0.33%).

Religious and Ethnic Composition: Open tensions between different ethnic, religious or migrant groups in Bali have been limited. This is not to say that future economic strains may heighten frictions. Bali is almost as Hindu as Indonesia is Moslem. 87.4 percent of its population was Hindu in 2000, compared to a national share of 88.4 Moslem in Indonesia as a whole. Rural areas were more Hindu (94.6 %) than urban areas (80.2%), in part explained by the greater presence of in-migrants in urban areas.

V. Small Industry and Handicrafts

Manufacturing in Bali employed 248 thousand people in 2002 (14.5% of the workforce). Over half of these workers (54.5) could be classified as falling in the informal sector. With a declining demand for souvenirs, which accounted for over 8 percent of foreign tourist expenditures in 2000, these may suffer. However, these may also be off-set to the extent that handicrafts producers are already meeting export demand.

But these impacts may not be exclusive to Bali. Other regions in Indonesia depend on Bali not just for tourism demand (e.g., textiles, souvenirs, and vegetables), but also as an transit point for international exports. There is abundant anecdotal evidence to suggest the important linkages. These include handicrafts from Sidoarjo, East Java and Sarongs from Yogyakarta. There are also important agro-business linkages in East Java, and areas such as Jember Probolinggo and Banyuwangi, which serve as the main supplier of fruits and vegetables to hotels in Bali. The magnitude of the linkages will have to be further investigated.

The exact magnitude of these ripple effects is hard to quantify at this stage. We can only indirectly estimate which sectors are dependent on Bali, as little direct evidence exists on the extent specific sectors export to Bali. East Java's total manufacturing industry employs 1.4 million workers. The figure for NTB is 80,235. Figures as high as ten percent of the East Java industrial workforce has been argued to be dependent on Bali, but this seems high. Clearly more attention will have to be devoted to teasing out localized impacts.

What is clear is that on-going monitoring of employment and real wage/income trends for these sectors in both Bali and linked areas will be necessary, especially if the tourism industry faces a future of prolonged depressed and souvenir manufacturers or vegetable suppliers are not able to access alternative markets.

VI. Scenarios

Terrorism impacts on tourist dependent regions have not been infrequent (Pizam, Abraham and Ginger Smith 2001). Yet international experience offers only a very imperfect yardstick.

Incidents involving direct attacks on tourists like in Bali have been less frequent. The most comparable event is perhaps Luxor, Egypt. The killing of 58 tourists in November 1997 at the temple of Queen Hatshepsut followed a 20% annual expansion in Egypt's tourism industry since 1994. The immediate impact of the attack was marginal growth in 1997, and a decline in arrivals of 13 percent in the next year. However, growth returned to 30 percent in 1999 (ILO 2001). Evidence from Israel and Greece, also suggests that the impact of shocks is temporary rather than permanent (Aly, Hassan Y. and Mark C. Strazicih 2000).

Table 4: Time -Horizons for Impacts

	Possible Negative Impact	Issue	Possible Actions
Short (12 months)	Significant Decline in Tourism	Possible Loss of Employment/Income for "Vulnerable" Groups	Impact assessment and monitoring. Restore security and image. Response Strategy Development Direct Assistance
Medium Term (-3 years)	No or limited recovery of tourism industry	Need for diversification for "traditional" tourist industries or markets	Assistance in adjustment strategies Help producers in other regions access alternative markets.
Long Term (3 year +)	No or limited recovery of tourism industry	"	"

The international evidence that terrorist shocks on tourism are temporary rather than permanent is heartening. However, they do not detract from the fact that destinations that suffer declines may suffer a loss of several years of growth before returning to trend, and will for a long time not achieve the levels of tourism activity they would have achieved in the absence of the terrorist shock (ILO 2001).

How Bali's beaches compare to the Pharoes' pyramids for edgy tourists remains to be seen. Clearly a whole range of worst case, base case, and high case scenarios is possible for the medium term (2002-2005). We can only guess how Bali's visitor numbers in 2003 will compare to Egypt's 13+ percent decline in the wake of Luxor. Occupancy rates in Bali have plunged from over 60 % to below 10%. How quickly these will recover is highly uncertain. Coming late in the year, overall impact on 2002 will be more limited. As the security situation develops, it remains difficult to make predictions about even 2003. More work will have to be done to understand the likely transmission magnitudes and linkages of reduced international tourists to Bali and other linked regions.

Other factors, such as an increase in domestic tourists or diversification to other markets (e.g., India and China) may serve to offset declines in past international tourism flows. As the previous sections show, domestic tourists account less than a quarter of pre-bomb tourism levels and appear to spend less. These will therefore have to be significant improvements in domestic visitors to offset declining international numbers. The restoration of international tourism flows therefore remains the clear priority. A major depreciation of the Rupiah, unlike in the wake of *krismon* is unlikely to offset the island's blemished international image.

The previous sections have provided only a cursory review of the context and possible impacts. A statistical appendix provides more detailed information on Bali's economy. Clearly these are early days, and much work remains to be done. Given the current uncertainty, it will be necessary to consider both short and possible longer-term impact scenarios. Different scenarios may call for very different responses. Also, it will be important to consider impacts in Bali relative to other regions throughout Indonesia. Sustained monitoring – e.g., of early warning indicators such as real wages and health and education indicators (e.g., by UNICEF and the Dutch/World Bank) -- will be necessary in an effort to put impacts in Bali and more generally nationally into perspective.

An accompanying matrix seeks to map the main presumed implications addressed in the foregoing sections to anticipated donor and government actions. It is hoped that these will develop in tandem with a better understanding of the actual measure and incidence of future developments in Bali's tourism economy.

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