



ICT and Telco Projects

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For over 35 years, GG International has been at the forefront of the ICT and telecommunications sectors, delivering strategic advisory and regulatory consultancy to governments, international institutions, and multinational ICT corporations across various regions.

We have worked across Southeast Asia, Central Asia, Oceania, and Africa, driving regulatory reforms, digital transformations, and the modernization of telecommunication frameworks.

In Southeast Asia, we led the regulatory review for the Asian Development Bank (ADB), helping Laos, Cambodia, and Vietnam align their telecommunication frameworks with regional integration. For Telecom Cambodia, we developed a sector master plan and transformational business plan that guided the nation's shift to digital services and boosted the telecom sector's sustainability.

In North Asia, we partnered with the Mongolian Government to corporatize and partially privatize its telecom sector, resulting in a more competitive market. We also supported Bangladesh's regulatory body adopting a unified licensing system to streamline telecom operations.

In Oceania, we worked with Ericsson in New Zealand to create an open-source mobile network strategy. We led the digitalization of emergency services through a public-private partnership. We also helped the New Zealand government with radio spectrum valuation and management strategies, which were crucial for the rollout of 3G and 4G technologies.

In Africa, we worked with the Rwanda Information Telecommunications Authority to enhance digital transformation as a pathway to e-government.

GG International focuses on delivering long-term sustainability, enhancing market efficiency, and providing high-quality ICT services. With our broad geographical reach and expertise in regulatory, legal, and technical fields, we offer tailored solutions that align national objectives with international best practices.

Project Name:	Regi	Regional ICT Regulatory Review											
Name of Client:	Asiar	n Developme	ent Bank (A	ADB)									
Country:		bodia, China and, Vietnan		yanmar,	Project Location				Home office				
Participation:	✓	As lead firn	7					I					
		As associate firm											
Value of Services:	Conf	Confidential (US\$)											
Source of Financing:	Asiar	n Developme	ent Bank (A	ADB)									
Project Type:	Cons	sultancy serv	rices	Intermitte	าt		✓	Со	ntinuous	3			
Project Timeframe:	Proje	ct (months):	1.0	Number (pax):				No. of person 1.0 months:			1.0		
		Start date: 01st November 1999 Completion: 01st December 1999											
Associate Firms	None	None											
Name of senior staff::	Hon.	Hon. D. Butcher (Strategic Adviser and Economist, Telecommunication)											

Challenge

The Sub-Regional Telecommunications Forum in 1999 sought to assess progress, examine regulatory issues, in particular, regulatory reform in the member countries, and chart a way forward following two earlier studies of the telecommunications links in the region, resulting in proposals for an Eastern Loop and a Western Fiber Optic Loop, which substantially improved the connectivity in the regional area and effective economic integration.

The challenge was to identify the next steps in this regional telecommunication integration and how regulatory frameworks could be aligned and integrated while at the same time helping create a regional identity after nearly 50 years of war this century.

Strategy

Our telecommunication policy and regulatory expert undertook a desktop study of ICT's regulatory progress in all the Mekong Region countries. He analyzed achievements to date, gaps in progress, and strategies for implementing them going forward.

The implementing strategy developed included further policy and regulatory reforms and drafting a TOR for future technical assistance from the ADB TOR for the region's next phase of infrastructure development, which entailed a **redesigned Western Loop covering Myanmar, Thailand, and China.**

Transformation

Our expert at the 2009 Sub-Regional Telecommunications Conference presented a presentation outlining the research findings and suggested forward-looking strategies, interviewing the forum attendees and receiving a detailed inventory of regulatory progress in each delegation's home country. The countries agreed upon a pathway forward due to future cooperation and integration in infrastructure and legal and regulatory processes.

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Project Name:	Digit	al Transfori	mation o	f Telecom	Cambodi	а						
Name of Client:	Minis	stry of Post 8	& Telecoi	nmunicatio	n							
Country:	Cam	bodia			Project L	ocatior	ו	Phnom Penh				
Participation:	✓	As lead firm	n									
		As associate firm										
Value of Services:	\$869	9,500.00 (US\$)										
Financing:	Asia	n Developm	nent Ban	k (ADB)								
Project Type:	Cons	sultancy serv	rices	Intermitte	ent	✓	C	ontinuous				
Project Timeframe:	Projec	et (months):	16	Number of	f staff (pax): 6.0		No	o. of person months:	24.0			
		Start date:	01st Feb	ruary 2007	Comp	letion:		31st May 2008				
Associate Firms	None	9			·							
Senior staff:	expe	J. third (Strategy & Marketing), S Stevens (Legal and Regulatory), A. Wilson (finance expert), Hon D. Butcher (ICT policy), Dr. P. Biedermann (technical expert), Dr. H.Railton (Spectrum Engineer)										

Challenge

Efficient and developed telecommunications services are crucial for promoting Cambodia's economic activity and social welfare. At the time of the project, Telephone density in Cambodia was only 3.0%—one of the lowest rates in Southeast Asia. The telecommunications network was inadequate for emerging business activities requiring heavy data transfer over the Internet and the projected digital transformation. The Government urgently needed to establish communication regulatory principles to promote fair competition, indispensable for providing high-quality and cost-effective telecommunications services.

The project envisaged the development of the necessary strategy and supporting legal and regulatory framework to transform the existing government-owned incumbent operator through "disruptive innovation" and encourage the development of private sector operators.

Strategy

Our firm fielded its leading telecommunication policy, legal, regulatory, and business innovation experts to meet the challenge. It developed a master plan for Cambodia's telecommunication sector to help grow the existing market and a transformational business plan for the incumbent state-owned telco operator, Telecom Cambodia.

Working closely with officials from the ministry, a comprehensive Sector Masterplan developed by our experts, recognizing that the digital World had arrived and that the sector needed to adjust its approach to provide long-term, financial, and economically sustainable telecommunication and IT services to the people of Cambodia – delivery lowest price and best quality to consumers.

Separately, our experts worked with the state-owned Telecom Cambodia to develop a transformational Business Plan that would place them at the forefront of change and innovation.

Transformation

Our team developed a legal and regulatory framework for the telecommunication sector to provide a platform for innovation and growth. The state-owned incumbent operator and private sector mobile providers warmly adopted the framework. Telecom Cambodia was able to identify its unique and innovative part of the transformed telecommunication sector and its strategy for the future.

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Project Name:	Tran	Transforming Telecom Mongolia											
Name of Client:	Minis	stry of Finan	ce as ir	mp	lementing ag	gei	ncy						
Country:	Mon	golia				Project UI Location				Ulaanba	atar		
Participation:	✓	As lead fire	n		·								
		As associate firm											
Value of Services:	\$350	50,000.00 (US\$)											
Financing:	Euro	pean Bank	for Rec	cor	nstruction a	nd	Develo	pmei	nt (E	BRD)			
Project Type:	Cons	sultancy serv	/ices		Intermitten	ittent			Co	ontinuous	3		
Project Timeframe:	Proje	ect (months).	: 10	Э	Number (pax):				No. of person 17.0 months:			17.0	
		Start date:	01st S	Sep	tember 2004	4	Compl	etion:		01st Se	eptember	2006	
Associate Firms	None	None											
Senior staff:		Hon. D. Butcher (Economist), J. Third (ICT expert), S. Stevens (Telco Policy, Legal and Regulatory expert), A. Wilson (finance expert)											

Challenge

The Mongolian Government had a Public-Private Partnership (PPP) with Korea Telecom (KT) involving a 20-year infrastructure lease and key ICT hardware. However, the Government felt the partnership was not delivering the desired outcomes. Our ICT engineers, policy advisors, and legal, regulatory, and economic experts reimagined the ICT sector to create a new model to ensure the PPP worked effectively.

Strategy

We thoroughly analyzed Mongolia's ICT and telecommunication sector to enhance market efficiency and effectiveness. Our goal was to ensure long-term, high-quality services at the lowest cost for consumers. We explored various market structure models as part of a revised ICT strategy tailored to Mongolia's unique geography, population density, and service demand.

Our international telecom legal expert reviewed the existing legal contracts, including joint venture and operational service delivery agreements, to compare them against revised international best practice standards. We then identified gaps in Mongolia's current ICT legal and regulatory framework.

With input from our economic and technical experts, we developed several PPP and privatization options for the Mongolian Government's consideration. We also accompanied the Mongolian delegation in negotiations with Korea Telecom in Seoul, where all parties successfully agreed on contractual revisions to the PPP.

Transformation

Our efforts led to significant progress toward an Open Access model, ensuring that all ICT providers had equal, non-discriminatory access to the network. This approach reduced the risk of network duplication, maximized infrastructure use, and ensured lower unit costs for services.

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Project Name:	Strei	ngthening R	egulato	ry Regime in	Telecom	nmunic	atio	ons			
Name of Client:	Minis	stry of Post 8	Telecor	nmunication	l						
Country:	Cam	bodia			Project Location	n	I	Phnom Penh			
Participation:	✓	As lead firm	n								
		As associa	te firm								
Value of Services:	\$195	\$195,000.00 (US\$)									
Financing:	Worl	d Bank, PPI	AF GRAI	NT NO. #A09	0100/M/	TCI/RF	/KH				
Project Type:	Cons	ultancy serv	ices	Intermitter	nt 🗸		Co	ontinuous			
Project Timeframe:	Projec	t (months):	9	Number of st	taff (pax):	3.0	No. of person months:		14		
		Start date:	01st Feb	ruary 2001	Compl	letion:		01st November 200	1		
Associate Firms	Transcend Worldwide										
Senior staff:		Hon D. Butcher (Economist), J. Third (ICT expert), S. Stevens (Telco Policy and Regulatory expert)									

Challenge

Efficient and developed telecommunications services promote economic activity, create jobs, alleviate poverty, and improve social conditions. At the time of the project, while fixed-line telephone density in Cambodia was low, the new emerging economy had four cellular mobile companies and the highest mobile penetration in the World. Telecommunication services were being provided (successfully) without a robust regulatory system – but further gains to consumers beyond "availability" were predicted from regulatory fine-tuning, including higher service quality within the Country and access to outside the Country.

Strategy

Our experts sought to assist the Government and its telecommunication sector in capturing further efficiencies through light-handed regulation to support the free market and a competitive approach—intervening only where necessary in market failure. Examining the current approach, our team recommended a new approach that recognized the inherent conflicts within the existing sector bundling of capital-intensive, natural monopoly infrastructure earning a low and low-risk return versus the services delivery, which required lower investment, derived higher, yet riskier returns.

Transformation

As a result, our experts supported the functional separation of policy, regulation, business management, ownership, and social provisions in the sector, coupled with a mandatory split between facilities and services for all companies. This report has laid the groundwork for Project: AOTA: (N) CAM 39125-01.

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Project Name:	Unifi	Unified Licensing for Telecommunication transformation											
Name of Client:	Bang	ladesh Tele	commun	ications Regu	ılatory C	ommis	ssio	า					
Country:	Bang	ladesh			Project Location			Dhaka					
Participation:	✓	As lead firr	n										
		As associate firm											
Value of Services:	\$163	\$163,000.00 (US\$)											
Financing:	Bang	gladesh Tele	ecommu	nications Re	gulatory	Comi	miss	sion					
Project Type:	Cons	sultancy serv	rices	Intermittent	t	✓	Co	ontinuous					
Project Timeframe:	Projec	et (months):	2.0	Number of sta	off (pax):	4.0	No	o. of person months:	9.0				
		Start date:	30th Sept	ember 2009	Comple	etion:	•	05th January 2010					
Associate Firms	Apex Economics												
Senior staff:		Dr. J. Durkin (technical expert), Dr. C. Doyle (Economist), Hon. D. Butcher (Policy expert), S. Stevens (Legal and Regulatory expert)											

Challenge

Bangladesh made impressive progress in its ICT sector, growing from under 1 million subscribers in 2000 to over 50 million by 2009. However, the licensing process evolved in an ad hoc manner. Since 2008, the Country's licensing activities have increasingly diverged from international norms, becoming complex to administer and comply with. Companies found their licenses losing value due to additional fees for activities originally included in their basic licenses. Moreover, the International and Long-Distance Policy (ILDTS), meant to facilitate interconnection, created monopolistic bottlenecks and added heavily taxed costs.

Recognizing these challenges, the regulator sought ways to streamline the licensing system and requested technical expertise from our team to assess the potential benefits of a unified licensing system.

Strategy

Our team conducted a comprehensive analysis of the market structure and regulatory challenges within Bangladesh's telecommunications sector, focusing on the complexity of the existing licensing system and its impact on operations and regulatory oversight. We then performed an international benchmarking study to compare Bangladesh's current approach with unified licensing regimes in other countries, particularly those of nearby nations.

We uploaded a discussion paper to the BTRC website to facilitate industry-wide engagement, allowing stakeholders to review our analysis and contribute to the consultation process. Through one-on-one discussions with ten key stakeholder groups and companies, we uncovered a division between firms benefiting from the monopolistic ILDTS policy and those advocating for a more competitive environment.

Transformation

Due to our consultative approach, we developed and introduced a new unified licensing model inspired by Singapore and Malaysia. This model offered separate licenses for infrastructure and services, allowing companies the flexibility to hold either or both. Following widespread agreement from the sector and the regulator, this model was adopted, streamlining the licensing process and fostering a more efficient and competitive telecommunications environment.

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Project Name:	Mark	cet entry str	ategy - O	pen Source	Digital M	1obile	Net	work				
Name of Client:	Erics	son UK										
Country:	New	Zealand			Project Location			Auckland				
Participation:	✓	As lead fire	n									
		As associate firm										
Value of Services:	\$150	50,000.00 (US\$)										
Financing:	Erics	sson	 									
Project Type:	Cons	sultancy serv	vices	Intermitter	nt	✓	Co	ontinuous				
Project Timeframe:	Projec	ct (months):	18	Number of st	taff (pax):	3.0	No	o. of person months:	8.0			
		Start date:	01st Janua	ary 2001	Compl	etion:		30th June 2002				
Associate Firms	None											
Senior staff:		J.Third (Strategy & Marketing), S. Stevens(Legal and Regulatory), P. Goodeve (Telco Policy)										

Challenge

Ericsson, a global leader in Information and Communication Technology (ICT), empowers service providers by delivering cutting-edge technology and services that are adaptable, scalable, and user-friendly, helping customers thrive in a fully connected world. This ambition drove Ericsson to partner with GG International to leverage a radio spectrum auction by the New Zealand Government, which allowed mobile network operators to explore new mobile network models (3G, 4G).

Ericsson encouraged new market entrants in New Zealand's telecommunications sector to choose its latest ICT technology as part of their competitive entry strategies.

Strategy

With deep expertise in the New Zealand spectrum market—having previously advised the Government on radio spectrum strategy, valuation, and auctioning options, as well as supporting several existing mobile operators—GG International was ideally positioned to assist Ericsson in crafting an effective market entry strategy based on open-source mobile networks.

We collaborated closely with Ericsson and the state-owned broadcasting corporation (BCL), using our insights into telecommunications operators, regulators, and policymakers to design a targeted approach. This strategy showcased the benefits of Ericsson's ICT solutions to both existing operators and potential new entrants. Our teams prioritized potential partnerships and developed viable business cases, considering New Zealand's unique telecommunications landscape, including teledensity, terrain, and market outlook.

Transformation

Ericsson quickly gained a comprehensive understanding of New Zealand's unique mobile market and successfully aligned its ICT solutions with the needs of both existing operators and potential new entrants. GG International's strategic support enabled Ericsson to navigate the market confidently, understand key stakeholders, and adapt its offerings to meet local requirements, positioning it for success in the New Zealand telecommunications sector

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Project Name:	Digit	Digitalizing Emergency Services Networks - a PPP model											
Name of Client:	Broa	dcast Comr	nunicatio	ns Limited (l	ВС	L)							
Country:	New	Zealand			Project Location				Wellington				
Participation:	✓	As lead fire	n										
		As associate firm											
Value of Services:	\$140	\$140,000.00 (US\$)											
Financing:	New	Zealand Go	overnme	nt									
Project Type:	Cons	nsultancy services Intermi			ent 🗸		Co	ntinuous					
Project Timeframe:	Projec	et (months):	17	Number of st	taff	(рах):	2.0	No.	of person months:	7.0			
		Start date: 01st February 2002 Completion: 01st June 2003											
Associate Firms	None	9											
Senior staff:	J. Thi	. Third (ICT expert), S. Stevens (Telco Policy and Regulatory expert)											

Challenge

In emergencies, communication failures between potential victims and first responders or medical personnel can lead to severe consequences, including unnecessary pain, misdiagnoses, treatment errors, prolonged hospital stays, and even fatalities. When multiple agencies, such as Police and Paramedics, respond to major incidents, the lack of coordination can be critical. The tragic collapse of a viewing platform at Cave Creek in New Zealand in 1995, which resulted in significant loss of life, underscored the risks when communication between responders from different agencies broke down.

Strategy

Our ICT and Public-Private Partnership (PPP) experts conducted a feasibility study to explore integrating the existing police microwave services network, managed by a private sector operator, with a state-owned enterprise's digital microwave TV network. The goal was to establish a robust ICT, mobile telephony, and broadband platform under a PPP arrangement involving the private sector, government broadcasters, and emergency service providers.

The review assessed the possibility of combining the various emergency services into a unified digital network, using the police's need to upgrade their analog system as the catalyst. Our team evaluated all existing networks, infrastructure, land easements, radio spectrum, and legacy equipment to develop an integration pathway. This integrated solution allowed for the consolidation of what had previously been a series of independent and fragmented networks, each utilizing different platforms and ICT solutions. We identified commonalities, areas for collaboration, and solutions to meet the diverse needs of all emergency services through a new, comprehensive digital network capable of nationwide coverage.

Transformation

We developed a PPP model that delivered a secure, scalable, and stand-alone wireless digital network for emergency services. The model enabled seamless communication and coordination between various agencies during disasters and emergencies, addressing a crucial aspect of effective emergency management. Our process demonstrated that while central organizations in emergency preparedness have high levels of ICT capability, the multiple parties within these systems did not previously use them in emergency response networks. The new network provided a platform for fully leveraging ICT solutions to enhance emergency communication across the Country.

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Project Name:		o Spectrum sformation	ı Va	luatio	n and Mana	age	ement f	or Tel	eco	mmunication			
Name of Client:	Minis	stry of Comr	nero	ce, Ra	dio Spectrui	m l	Manage	ment	Gro	up			
Country:	New	Zealand				Project Location				Wellington			
Participation:	✓												
		As associate firm											
Value of Services:	\$100	,000.00	(US\$)									
Financing:	New	Zealand Go	over	nmer	nt								
Project Type:	Cons	sultancy serv	vices	3	Intermitter	ηt		✓	Co	ontinuous			
Project Timeframe:	Projec	ct (months):		12	Number of st	taff	(pax):	3.0	No. of person months:		6.0		
		Start date:	018	st Janua	ry 1999		Comple	tion:		01st March 2000			
Associate Firms	None	None											
Senior staff:		J. Third (Telecom Strategy and Policy expert), S. Stevens (Team Leader and Legal and Regulatory expert), P. Goodeve (Policy Analyst)											

Challenge:

The New Zealand Government had recently formed the Radio Spectrum Management Group within the Ministry of Commerce, responsible for overseeing commercial and regulatory policies in the telecommunications sector. As part of their role in policy development, officials sought to gain insights into international best practices for radio spectrum management, particularly in spectrum valuation, regulatory approaches, and lessons from benchmark countries and ITU guidelines. With the emergence of 3G technology, which relies heavily on radio spectrum rights and regulatory frameworks, the ministry turned to our firm for expertise to research the issues, consult with industry, and present comprehensive findings and solutions.

Strategy:

GG International conducted an extensive desktop analysis to evaluate the latest international methods for allocating spectrum to commercial and non-commercial users. Our team examined the best processes for determining the value of spectrum, particularly as the demand for 3G services grew and the rights sold to industry stakeholders. We also reviewed government policies for spectrum management. We addressed related concerns, such as managing potential rights in the spectrum held by indigenous groups and the need to account for public sector uses like military, police, and emergency services.

Transformation

Due to our research and recommendations, the ministry successfully adjusted its policies, leading to a highly effective spectrum auction. Additionally, the ministry made provisions to reserve spectrum for indigenous landowners in New Zealand, ensuring an inclusive and balanced approach to spectrum management.

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Project Name:	Deve	Develop a transformational business model for state-owned Telco											
Name of Client:	Teled	com Cambo	dia Limit	ted									
Country:	Cam	bodia				Project Location			Phnom Penh				
Participation:	✓	As lead firm	n					•					
		As associa	te firm										
Value of Services:	\$100,000.00 (US\$)												
Financing:	Tele	com Cambo	dia Lim	ite	d								
Project Type:	Cons	sultancy serv	rices		Intermitten	t	✓	С	ontinuous				
Project Timeframe:	Projec	et (months):	124	-	Number of sta	aff (pax):	3.0	No	o. of person months:	6.0			
		Start date:	01st Janu	uary	2001	Compl	etion:	•	10th April 2003				
Associate Firms	None												
Senior staff:		Hon. D. Butcher (Economist), J. THIRD (ICT expert), S. STEVENS (Telco Policy and Regulatory expert)											

Challenge:

In 2005, the Ministry of Posts and Telecommunications corporatized its incumbent telecom operator into Telecom Cambodia Limited, a wholly state-owned company, transferring all legacy fixed-line assets, switches, and licenses. However, the new operator faced challenges due to lacking a clear vision, strategic direction, or business plan. As a result, Telecom Cambodia struggled to meet its potential in supporting the growth of the telecommunications sector in Cambodia and generating sufficient income from its transferred assets.

Strategy:

Telecom Cambodia engaged our firm to comprehensively review the state-owned operator to address its growth challenges and develop a forward-looking strategic business plan. Our team of experts undertook a strategic planning initiative, collaborating closely with senior management and key staff through one-on-one meetings and workshops to gain an in-depth understanding of the business and its challenges.

This analysis identified several key issues, including low subscriber numbers, a primary focus on large enterprises, the constraints of government ownership, limited capital, slow decision-making processes, and growing unpaid debt from government departments. Additionally, the company had limited retail experience and lacked expertise in business growth strategies. However, we weighted these challenges against Telecom Cambodia's valuable fixed-line infrastructure, internal network expertise, and a significant voice switch.

Transformation

We developed a new corporate structure to streamline and enhance the management of the enterprise. A financial model and strategic business plan guided Telecom Cambodia toward sustainable growth and improved operational efficiency.

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Project Name:	Strat	Strategic Transformation of State-Owned Telecommunications											
Name of Client:	Minis	stry of Infras	tructure	, Mongolia									
Country:	Mon	golia				Project Location			Ulaanbaatar				
Participation:	✓	As lead fire	n		·			•					
		As associate firm											
Value of Services:	\$60,	\$60,000.00 (US\$)											
Financing:	Mini	stry of Fore	ign Affa	rs, New Zea	alar	nd							
Project Type:	Cons	sultancy serv	vices	Intermitte	ent		✓	Co	ontinuous				
Project Timeframe:	Projec	ct (months):	1.0	Number of	stafi	f (pax):	1.0	No	. of person months:	2.0			
		Start date: 01st March 1997 Completion: 30th November 1997											
Associate Firms	None	Э											
Senior staff:	Hon.	Hon. D. BUTCHER (Strategic Adviser and Economist, Telecommunication)											

Challenge

As Mongolia transitioned into a market-based economy, the Government initiated reforms in its state-owned sector. It recognized the need first to establish a strong financial management system and closely examine the operations and regulatory oversight of its state-owned trading entities, particularly in telecommunications. The goal was to introduce a quasi-corporate structure for managing telecommunication services, ensuring proper supervision and regulation to drive the sector's growth and efficiency.

Strategy

Our Strategic Adviser and Economist, who had previously led similar reforms as a minister in the New Zealand Government during its pioneering corporatization and privatization of the telecommunications sector in the 1980s, applied these insights to Mongolia. We tailored the lessons from New Zealand's experience to fit Mongolia's unique cultural, political, and economic landscape. Our strategy focused on adopting best practices while learning from past successes and challenges to craft a suitable framework for the Mongolian Government.

We reviewed the Ministry of Infrastructure and its trading agencies, including telecommunications, emphasizing minimal regulatory intervention and a strong commercial and competitive focus. Together with the Government, we established a Strategic Management framework to enhance the control and management of state enterprises, including the Mongolian Telecommunications Corporation (MTC), and to strengthen the Post and Telecommunications Agency (PTA) role.

Transformation

The new strategic management framework redefined the relationship between the corporatized utility agencies and the Government, laying the foundation for a major transformation in Mongolia's telecommunications sector. This transformation included partially privatizing the state-owned Mongolian telecommunications company to Korea Telecom, bringing in much-needed capital and industry expertise to drive further growth and innovation.

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Project Name:	Ope	Open Access Broadband Network										
Name of Client:	Broa	Broadcast Communications Limited (BCL)										
Country:	New	New Zealand					Project Location			Wellington		
Participation:	✓	/ As lead firm										
		As associate firm										
Value of Services:	\$51,0	00.00										
Financing:	New	Zealand Go	overr	nmer	nt							
Project Type:	Cons	sultancy serv	ices		Intermitter	nt		✓	Continuous			
Project Timeframe:	Projec	ct (months):		12	Number of st	taff	(pax):	2.0	No. of person months:		5.0	
		Start date:	01st	t May 2	2001		Comple	tion:		01st October 2003		
Associate Firms	None	None										
Senior staff:	J. Thi	rd (ICT expe	rt), S.	. Stev	ens(Telco Po	olic	cy and R	egula	tory	expert)		

Challenge

The principle of universal service aims to ensure that information and advanced communication technologies (ICTs) are accessible to all communities, particularly targeted population groups, at affordable prices. In New Zealand, the greatest challenge lies in serving remote and rural communities, where the topography presents obstacles. Yet, these areas have significant business needs, especially in export-driven agricultural ventures. The key challenge was to develop a practical solution to support these communities and fulfill the Country's vision of enhanced digital inclusion in an evolving ICT landscape.

Strategy

Our ICT experts collaborated with the State-Owned BCL (now Kordia), the terrestrial television network operator, to assess the feasibility of using its existing fiber backbone to provide broadband access to rural communities. We benchmarked BCL's economic efficiency and effectiveness by requiring the state-owned enterprise to compete in a process to deliver broadband services. Our telecommunications/ICT engineers, legal, and policy advisors team evaluated the technical and commercial feasibility. In contrast, our social and cultural advisors explored sustainable partnership opportunities between private sector providers and key clients, such as schools and community facilities, to deliver services in low-density rural areas.

Transformation

The proposed model secured 50 percent of the tenders for delivering universal service obligations (USO) in rural areas, such as schools and police stations. By partnering with private sector operators, utilizing existing government-owned infrastructure, and building strong connections with rural communities, we delivered an environmentally, socially, culturally, and economically sustainable solution.

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ICT and Telecommunication | Central Africa

Project Name:	Tran	Transforming and digitalizing the telco sector to align with eGovernment										
Name of Client:	Rwar	Rwanda Information Telecommunications Authority										
Country:	Rwar	Rwanda					Project Location			Kigali		
Participation:	✓	As lead firm										
		As associate firm										
Value of Services:	\$50,	00.00	(US	\$)								
Financing:	Rwa	nda Informa	ation T	ele	communic	at	ions Au	thorit	у			
Project Type:	Cons	sultancy serv	/ices		Intermitten	nt		✓	Continuous			
Project Timeframe:	Projec	ct (months):	1.	0	Number of st	aff	(pax):	1.0	No	of person months:	1.5	
		Start date:	01st M	ay 2	2006		Comple	tion:		01st June 2006		
Associate Firms	None	None										
Senior staff:	Hon.	D. Butcher	(Teleco	mr	nunication P	Pol	icy and I	Regula	itory	expert)		

Challenge

In 2006, the Government of Rwanda, with the support of the World Bank, launched the e-Rwanda project to enhance government operations and service delivery, particularly in rural areas. The initiative leverages technology as a growth and development catalyst and, in the process, modernizes key government systems critical to Rwanda's economic and social progress. The challenge was aligning the legal and regulatory framework of Rwanda's telecommunications sector with the needs of the e-Rwanda initiative.

Strategy

Our telecommunications policy and regulatory expert thoroughly analyzed e-government service delivery and its potential impact on the existing telecommunications and ICT legislative framework. We assessed whether any regulatory changes were necessary to transform and align the sector with the digital delivery of services, especially in rural areas.

We engaged in discussions with stakeholders, including the privatized fixed-line company owned by American interests, the local branch of South Africa's MTN, and several emerging ICT businesses and internet providers, to gather valuable input during the process.

Transformation

Our assessment revealed that Rwanda's existing laws and regulations strongly support e-government service delivery. The legal and regulatory framework was already well-positioned to facilitate the success of the e-Rwanda project, serving as a solid foundation for the digital transformation of government services.

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Impr	Improving ICT and Telco Regulatory Effectiveness										
Com	Communications and Regulatory Commission of Mongolia										
Mong	golia		Project Location			Ulaanbaatar					
✓	As lead firm										
	As associate firm										
\$30,0	00.00	(US\$)									
Worl	d Bank	1									
Cons	sultancy serv	ices	Intermittent	t	✓	✓ Continuous					
Projec	et (months):	1.0	Number of sta	aff (pax):	1.0	No. of person months:		2.0			
	Start date:	01st April 2	2005	Completion:			01st July 2005				
None)										
S. Ste	S. Stevens (Telco Policy, Legal, and Regulatory expert)										
	Sao, (World Conservation None	Communications Mongolia As lead firm As associa \$30,000.00 World Bank Consultancy serv Project (months): Start date: None	Communications and Reg Mongolia ✓ As lead firm As associate firm \$30,000.00 (US\$) World Bank Consultancy services Project (months): 1.0 Start date: 01st April 2	Communications and Regulatory Com Mongolia	Communications and Regulatory Commission Mongolia Project Location ✓ As lead firm As associate firm \$30,000.00 (US\$) World Bank Consultancy services Project (months): Start date: 01st April 2005 Computed None	Communications and Regulatory Commission of Mon Mongolia Project Location ✓ As lead firm As associate firm \$30,000.00 (US\$) World Bank Consultancy services Intermittent Project (months): 1.0 Number of staff (pax): Start date: O1st April 2005 Completion:	Communications and Regulatory Commission of Mongolia Mongolia Project Location ✓ As lead firm As associate firm \$30,000.00 (US\$) World Bank Consultancy services Intermittent ✓ Co Project (months): 1.0 Number of staff (pax): Start date: 01st April 2005 Completion: None	Communications and Regulatory Commission of Mongolia Mongolia Project Location ✓ As lead firm As associate firm \$30,000.00 (US\$) World Bank Consultancy services Intermittent Project (months): Start date: 01st April 2005 Completion: 01st July 2005 None			

Challenge

Mongolia's newly established Communications and Regulatory Commission needed to assess its effectiveness and seek guidance on improving its regulatory processes.

Strategy

Our regulatory expert, a former telecommunications regulator from New Zealand, conducted a comprehensive review of the Commission's structural and organizational design. This review evaluated its internal operational procedures, regulatory functions, institutional framework, and legal authorities. We assessed the Commission's capacity to exercise its regulatory duties effectively. A series of workshops focused on using cost-benefit analysis in regulatory oversight. The workshops emphasized the importance of transparent procedures, public participation, and accountability to build public confidence in the regulator, ensure compliance with laws and regulations, and foster a supportive environment for growth and development in the sector.

Transformation

The Regulatory Commission repositioned itself to allow competition to serve as the primary regulator, stepping in only when there was an identification by the regulator of market failures following its cost-benefit analysis processes. Its new objective was to deliver the lowest-cost, highest-quality ICT services to Mongolian consumers while ensuring long-term sustainability for end users.

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Project Name:		Strategic Advice on Separation of Telecommunications and Postal Services										
Name of Client:	Gov	Government of Kazakhstan										
Country:	Kaza	akhstan			Project Location	7	Almaty	Almaty				
Participation:	✓	✓ As lead firm										
		As associate firm										
Value of Services:	\$20,	000.00	(US\$)									
Financing:	Euro	pean Bank	for Reco	nstruction a	nd Devel	lopme	nt					
Project Type:	Con	sultancy serv	/ices	Intermitten	nt		Continuous	✓				
Project Timeframe:	Proje	ct (months):	1.0	Number of st	aff (pax):	1.0	No. of person months:	1.0				
		Start date:	01st April	1993	Compl	etion:	01st May 1993					
Associate Firms	Non	е	•									
Senior staff:	Hon	Hon. D. Butcher (Strategic Adviser and Economist, Telecommunication)										
Oballanda												

Challenge

As Kazakhstan transitioned from a Soviet-style economy, the Government aimed to improve living standards and increase economic efficiency by introducing market forces into sectors previously reserved for state control. The initial focus was reforming the postal and telecommunications sectors, which the Government planned to separate into two separate and distinct organizations. This assignment, part of an EBRD mission, sought to identify the need for reform, highlight its economic and social benefits, address obstacles, outline the necessary policy and legal frameworks, and propose a digital overlay network to enhance services across Kazakhstan.

Strategy

As a former Minister in New Zealand, we fielded an expert with extensive experience in corporatization reform. He provided strategic and economic advice on ICT to the Government of Kazakhstan. His role included offering guidance on separating postal and telecommunications services and the necessary legal and policy changes to support this reform, including:

- o **Corporatization and Strategic Political Guidance**: Hon. David Butcher presented to the Government the benefits of separating the two communication services, addressed key issues in the separation process, and outlined the required legal amendments.
- o **Implementation Support**: He reviewed the progress of the separation, identified additional organizational, legal, and administrative changes necessary for successful implementation, and provided advice on business process reorganization to optimize efficiency.
- Telecommunication Policy Advice: Hon. David Butcher recommended appropriate budget allocation, guided government financial support and investment ring-fencing, and ensured the proper reallocation of redundant staff.

Our expert presented the findings and strategic implementation plan at a major management conference attended by officials, advisors, and the EBRD project team leaders.

Transformation

The Government adopted a clear path for transforming Kazakhstan's telecommunications industry.

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Project Name:	Corp	Corporatization of Telecommunications and other public utilities										
Name of Client:	Gove	Government of Mongolia										
Country:	Mon	Mongolia						,	Ulaanbaatar			
Participation:	✓	As lead firm										
		As associate firm										
Value of Services:	\$20,	00.00	(US\$)									
Financing:	Harv	ard Institut	e for Inte	rnational D	ev	elopme	ent					
Project Type:	Cons	ultancy serv	vices	Intermitter	าt		Continuous		ntinuous	✓		
Project Timeframe:	Projec	et (months):	1.0	Number of si	taff	(pax):	1.0	No. of person months:		1.0		
		Start date:	01st Dece	ember 1993		Comple	tion:		01st January 1994			
Associate Firms	None	None										
Senior staff:	Hon.	D. Butcher (Strategic	Adviser and	Ec	onomis	t, Tele	com	imunication)			

Challenge

The project involved providing expert advice to the Privatization Committee of the Mongolian Government on the corporatization of telecommunications and other utilities as part of Mongolia's shift to a free-market economy. The focus was on transforming the provision of telecommunication and public utility services to align with this new economic approach.

Strategy

Our international expert in telecommunications and public sector reform, Hon. David Butcher, a former minister in the New Zealand Government during the 1980s, played a key role in reforming and corporatizing state-owned enterprises, including telecommunications and other utilities. Drawing on this experience, he provided invaluable insights to the Mongolian Government.

An initial presentation was delivered to representatives of various state enterprises, followed by detailed discussions with seven major utility sectors. These discussions focused on the differences between the public sector reforms in Mongolia and New Zealand, helping tailor the approach to Mongolia's unique context.

Our expert then thoroughly reviewed the seven selected Mongolian public utilities, including telecommunications. He highlighted the benefits of corporatization and privatization, emphasizing the need to corporatize and privatize state-owned enterprises, introduce performance-related contracts for senior staff, increase management autonomy, shift financial reporting from input-based to output-based, implement strategic government planning, and decouple departments by separating policy and operations.

Following the review, our expert prepared a comprehensive report for the Mongolian Government, outlining the optimal approaches for reforming these sectors.

Transformation

The Mongolian Government largely accepted and implemented the recommended structural, policy, and regulatory reforms in the telecommunications sector. While the Government chose to retain ownership of telephone equipment, leading to a partial privatization, this decision still allowed Mongolia to make significant strides. By enforcing a structural separation of services and facilities, Mongolia positioned itself as a leader in regulatory practices within the telecommunications sector.

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Project Name:	Supp	Supporting Regulatory Reform in Telecommunications											
Name of Client:	Minis	Ministry of Post & Telecommunication											
Country:	PDR	Laos			Project Location	า	Vientiane	Vientiane					
Participation:	✓	/ As lead firm											
	As associate firm												
Value of Services:	\$20,	00.00	(US\$)										
Financing:	KfW	– German D	evelopm	nent Assista	nce Fina	nce Ag	ency						
Project Type:	Cons	sultancy serv	rices	Intermitten	t	Continuous							
Project Timeframe:	Projec	ct (months):	1.0	Number of sta	aff (pax):	1.0	No. of person months:	1.0					
		Start date:	01st May	2002	Compl	etion:	01st June 2002	01st June 2002					
Associate Firms	None	None											
Senior staff:	Hon.	Hon. D. Butcher (Strategic Adviser and Economist, Telecommunication)											

Challenge:

Digital services and the Internet, which require high-quality, high-speed connections, place heavy demands on telecommunication infrastructure. In Laos, connectivity was scarce, satellite links were limited and costly, and internal telecommunication infrastructure existed only in a few major cities, leaving rural areas largely unserved. KfW supported the Lao Government by securing expert assistance to review and advise on a reform program to improve consumer access through market mechanisms, ensuring the least cost, highest quality, and long-term sustainability. However, the reform process stalled with the Government's introduction of a second, non-competitive state-owned operator.

Strategy:

Our expert telecommunications market advisor and economist, who had led similar reforms as a senior minister in the New Zealand government, conducted a thorough review of the telecommunications sector in Laos. The assessment focused on the effectiveness of the joint venture between Shinawatra of Thailand and the Lao Government, which had been partly privatized and corporatized, and the impact of reactivating a second state-owned telecommunications company. The new operator lacked facility sharing and had a weak commercial focus, complicating the competitive landscape.

As part of the review, our expert engaged with policymakers to enhance their understanding of telecommunications and the significant benefits of competition.

Transformation

The expert's review demonstrated that introducing a second state-owned telecommunications operator would hinder operations and regulation in Laos' small telecommunications market and derail the Government's reform efforts. The review also helped key policymakers understand the importance of adhering to the Country's existing telecommunications development strategy.

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Project Name:	Tele	com Sector	Revi	ew									
Name of Client:	Asia	n Developm	ent E	Bank	(ADB) and	٨	1inistry	of Co	mm	nunic	ations	, Post	s, and
	Teleg	graphs (MPT)										
Country:	Myar	nmar				Р	roject		I	Nay	Pyi	Taw	and
			Location				Yangon						
Participation:	✓	As lead firm											
		As associa	te firi	m									
Value of Services:	\$15,	00.00	(U	S\$)									
Financing:	Asia	n Developm	nent E	Bank	(ADB)								
Project Type:	Cons	sultancy serv	vices		Intermitten	it			Co	Continuous			✓
Project Timeframe:	Projec	ct (months):		1.0	Number of st	aff	(pax):	1.0	No	. of per	son mo	nths:	1.0
		Start date:	01st	Octob	per 2012)12 Comple				31st October 2012			
Associate Firms	None	9											
Senior staff:	Hon.	D. Butcher (Strate	egic /	Adviser and	Ec	onomis	t, Tele	com	ımuni	cation)	

Challenge

Myanmar had been undergoing significant reforms for four years following the devastating Cyclone Nargis in May 2008. Many existing laws and business barriers were being relaxed and reviewed. The new President sought to implement an economic liberalization policy, which heavily relied on reforms in the ICT and telecommunications sectors. The Ministry of Communications, Posts, and Telegraphs (MPT) required technical, policy, and strategy advice on several key telecommunications issues to meet the challenges of a free-market economy and develop a high-level telecom reform law.

Strategy:

Our international telecommunications expert led a scoping study for the telecommunications and broader ICT sectors, consulting directly with senior officials from MPT and key private sector executives. After these one-on-one discussions, the expert facilitated three workshops over 10 days to deepen understanding of sectoral challenges, align stakeholder perspectives (including Government, private businesses, and ICT professionals), and compare these findings with international best practices. The approach carefully considered Myanmar's current stage of development and its future goals.

Following the scoping study, the expert prepared a comprehensive report. This report covered key areas such as institutional arrangements, sector conditions, policy objectives, licensing and competition, access to courts, consumer protection, dispute resolution, and an analysis of the draft telecom law considered by Parliament. The report highlighted the importance of establishing clear policies before finalizing the law.

Transformation

The report was well received by officials and the funding institutions, with both the ADB and World Bank agreeing that the World Bank would take the lead in policy development. Shortly after the completion of the project, two mobile licenses were successfully issued under the revised policy, demonstrating the effectiveness of the project in facilitating Myanmar's telecom reform.

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Project Name:	Econ	Economic Analysis of Telecommunication Regulatory Costs										
Name of Client:	Worl	World Bank / London Economics										
Country:	New	New Zealand						'	Wellington			
Participation:	✓	/ As lead firm										
		As associate firm										
Value of Services:	\$10,0	00.00	(US\$)									
Financing:	Worl	d Bank			-1							
Project Type:	Cons	sultancy serv	rices	Intermitte	nt		✓ Continuous					
Project Timeframe:	Projec	et (months):	1.0	Number of s	taff	f (pax):	1.0	No	. of person months:	0.3		
		Start date:	01st June	1995		Comple	tion:		01st July 1995			
Associate Firms	None)										
Senior staff:	Hon.	D. Butcher (Telecom	munication I	Ecc	onomist))					

Challenge

Price benchmarking is a valuable tool for regulators, helping them assess competition, negotiate price reductions, identify the need for regulatory intervention, and confirm the reasonableness of regulatory outcomes. However, it can be complex due to the need for accurate comparisons, varying interpretations of the benchmark results, and the effort required to ensure relevance and precision. This project aimed to provide data on the costs and benefits of telecommunications regulation in New Zealand as part of a broader cross-country study.

Strategy

Our telecommunications expert and industry economist began by analyzing New Zealand's regulatory framework, where separate entities manage policy development and regulatory oversight. This approach ensured that data could be anonymized and comparable with data from other countries. Data from both New Zealand and Australia were collected, focusing on the costs of regulatory intervention and oversight from the perspectives of regulators and industry participants.

Transformation

The project resulted in a comprehensive benchmark dataset for regulatory costs in both Australia and New Zealand. The study's key finding was that in New Zealand, the cost of regulation was largely influenced by litigation, with new market entrants winning many cases. The total expenses incurred were comparable to a single year of regulatory authority operations in many other countries in the region.

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