



Nodes of Corruption, Lines of Abuse

How Mytel, Viettel and a global network of businesses support the international crimes of the Myanmar military





Justice For Myanmar, a group of covert activists campaigning for justice and accountability for the people of Myanmar, is calling for an end to military business and for federal democracy and a sustainable peace.

justiceformyanmar.org

2020 | COPYLEFT | MYANMAR

TABLE OF CONTENTS

KEY POINTS	4	CHAPTER 05: MYTEL ON MILITARY BASES	67
INTRODUCTION	7	5.1 Mytel supports military operations against ethnic communities	69
METHODOLOGY	10	5.2 Mytel and the Directorate of Defence Industries	74
GLOSSARY	11	CHAPTER 06 : GLOBAL TECHNOLOGY AND TOWER SUPPLIERS TO MYTEL AND THE MYANMAR MILITARY	77
CHAPTER 01: BACKGROUND	14	6.1 Transmission and microwave equipment	79
1.1 International law and business responsibility	15	6.2 Radio equipment	79
1.2 Myanmar's authoritarian transition	17	6.3 Timing technology	79
1.3 Military signals	18	6.4 Power suppliers	80
1.4 Myanmar human rights context	20	6.5 Nokia (Finland) and Ericsson (Sweden)	81
1.5 The abuse and corruption of Myanmar military business	22	6.6 Tower companies doing business with Mytel and the Myanmar military	81
1.6 Viettel: SIM cards and missiles	25	CHAPTER 07: FOLLOWING THE MONEY	84
CHAPTER 02: TELECOMMUNICATIONS "REFORM" - MILITARY STYLE	29	7.1 International banks benefitting the Myanmar military through Mytel and Viettel	86
2.1 Mytel: A military-crony "public-private-partnership"	34	7.2 Vietnamese banks benefitting Myanmar military through Mytel and Viettel	90
2.2 Myanmar National Telecom Holdings	36	7.3 MEC capital raising through the Yangon Stock Exchange	93
2.3 Mytel's first call	38	7.4 Financial services	94
2.4 Entertainment makes a killing	39	7.5 The military's digital financial services	96
2.5 Enterprise services	41	7.6 Take control	99
2.6 SIM registration	42	FINDINGS	100
CHAPTER 03: THERE'S NOTHING "CIVIL" ABOUT MYTEL	43	RECOMMENDATIONS	103
3.1 Viettel in Myanmar	44	APPENDICES	110
3.2 Mytel's military infrastructure	46	APPENDIX 1	111
3.3 Viettel subsidiaries in Myanmar	49	APPENDIX 2	119
3.4 Allied Vietnamese businesses	54	APPENDIX 3	123
CHAPTER 04: MILITARY AND MYTEL SATCOM	55	APPENDIX 4	127
4.1 AsiaSat (Hong Kong)	56	APPENDIX 5	129
4.2 Hughes Network Systems (USA)	59	ENDNOTES	134
4.3 Vietnam Posts and Telecommunications (VNPT) (Vietnam)	61		
4.4 Gilat Satellite Networks (Israel)	62		
4.5 Intelsat (Luxembourg/USA)	63		
4.6 JAXA, Hokkaido and Tohoku universities (Japan)	65		

KEY POINTS

- Mytel is a Myanmar mobile network owned by the Myanmar military, Vietnam's Ministry of National Defence and a network of Myanmar investors. Since its launch in June 2018 it has grown its subscriber base to over 10 million users and is a lucrative source of revenue for the Myanmar military.
- Mytel, its owners – Viettel, Myanmar Economic Corporation (MEC) and Myanmar National Telecom Holding Public Ltd (MNTH) – and its suppliers are directly and indirectly supporting the Myanmar military through the transfer of technology, infrastructure development, financing, the provision of services and access to data.
- These business facts have implications for accountability under international law and those accountability issues are the subject of this report's analysis and findings.

Mytel and Viettel provide the Myanmar military with access to technology, infrastructure and data

- Viettel is a major military conglomerate whose primary mission is to research, manufacture and sell arms. Viettel business units that manufacture weapons and dual-use tech have relationships with the Myanmar military and/or are operating in Myanmar.
- Mytel and Viettel are directly supporting the Myanmar military's modernisation through the transfer of arms and dual-use technology, training and the upgrading of military infrastructure. Mytel and the Myanmar military share infrastructure, including a national network of fibre-optic cables owned by the Myanmar Army's Directorate of Signals.
- A Viettel subsidiary is leading the construction of at least 38 Mytel towers in military bases, which may support military communications. These bases include regional and strategic operational commands, infantry battalions and an engineering battalion. Most of the bases are in ethnic areas and house military units that are directly perpetrating grave human rights violations. Four towers are located in Directorate of Defence Industries facilities, the Myanmar military's arms manufacturer.

- Viettel units, under the Ministry of National Defence, are mining personal data for analysis in Vietnam. The Myanmar military has access to this data and could use it for military purposes.

Viettel and Mytel have an international network of suppliers connected to the Myanmar military's human rights violations

- International businesses are providing technology and services to Mytel and Viettel, exposing them to risks of directly or indirectly contributing to the Myanmar military's egregious human rights violations.
- The Myanmar military has access to satellites manufactured by Lockheed Martin and Maxar Technologies, through relationships with Intelsat (Luxembourg/USA), AsiaSat (Hong Kong), ArianeGroup (France) and Gilat Satellite Networks (Israel). These businesses may be directly contributing to the Myanmar military's international crimes.
- JAXA, Japan's space agency, and allied Japanese universities, are supporting Myanmar's space programme, which benefits the Myanmar military.
- Major international businesses are supplying Mytel, commercially supporting the Myanmar military and providing technology that may be utilised for military purposes. These include NEC (Japan), ngena (Germany), CommScope (USA), Huawei (China), ZTE (China), Yanmar (Japan) and Adva (Germany). Other businesses may be connected to the Myanmar military's human rights violations through Viettel. These include Qualcomm (USA), Microsoft (USA), Fujitsu (Japan), Nokia (Finland) and Ericsson (Sweden).

The Myanmar military benefits from public and international financing of Mytel and allied networks

- Mytel was created as a public-private partnership and the military is the "government shareholder". The military is misappropriating public funds and assets through Mytel, which feeds a secretive off-budget slush fund, and misusing public assets.
- The creation of Mytel was enabled by World Bank-supported telecommunications reforms.
- Major international banks provide loans to Viettel Global Investment JSC, benefiting the Myanmar military and further enabling its criminal conduct. These funds may be used for the procurement and transfer for arms and dual-use goods to Myanmar. Banks include HSBC (UK), Standard Chartered (UK), Mitsubishi UFJ Financial Group (MUFG) (Japan), Taipei Fubon

(Taiwan) and Maybank (Malaysia).

- Vietnamese banks provide loans and services to Mytel, directly benefiting the Myanmar military. These include banks in which the International Finance Corporation (IFC) holds equity, and banks on the IFC and Asian Development Bank's (ADB) trade finance programmes. Banks include TPBank, AB Bank, VIB Bank, BIDV and VietinBank.
- Boku (USA), Digital Virgo (France), Oracle (USA) and FPT (Vietnam) are providing support to Mytel's financial operations, which benefits the Myanmar military.



INTRODUCTION

“In the wrong hands, telecommunications can do immense harm. Myanmar is undergoing a digital revolution, with rapid changes as the population comes online and gets connected. Who is in control of Myanmar’s digital transformation, and for what purpose?”

INTRODUCTION

Information and communication technology (ICT) can be a force for good. It can connect communities, enable access to knowledge, support livelihoods and be used as a tool for social change. In the wrong hands, telecommunications can do immense harm. In June 2018, the Myanmar and Vietnamese militaries, joined by a network of Myanmar crony¹ investors, launched Mytel, Myanmar's fourth and final mobile network operator. Within two years, it has grown to become a formidable business with a subscriber base of over 10 million.²

The construction and operation of Mytel has involved the upgrading and expansion of the Myanmar armed forces' telecommunications infrastructure. Mytel provides cover for the military to access an extensive international network of suppliers. Mytel is also very profitable, generating revenue that could be used as a secret military slush fund. Through a strategic alliance with Vietnam, the Myanmar military – responsible for genocide, war crimes and crimes against humanity – has expanded its grip on the state, its infrastructure and the people of Myanmar. In the process, the military has misappropriated state funds and assets, further entrenching its power and enriching top generals.

The Myanmar military's international crimes involve the use of military communications equipment and digital tech. It is through communications systems that the military leadership issues orders for clearance operations, ground attacks against civilians and wholesale air strikes against villages. Through communications infrastructure, the army's Directorate of Psychological Warfare and Public Relations³ is able to disseminate hate speech, instigating violence against ethnic and religious minorities. Through communications and digital tech, the military is able to carry out surveillance and target civilians for unlawful detention and torture. And, through its powerful hold over the judiciary, the military is persecuting journalists and activists, blocking critical websites and initiating legal action in an attempt to silence dissenting voices.

Risks to Myanmar civilians will only increase with the military's access to 5G, artificial intelligence, internet of things, big data and data mining.

The military's hold over the information and communications telecommunications (ICT) sector has taken place through its control and manipulation of Myanmar's political and economic liberalisation. Telecommunications reform has been supported by the World Bank. Justice For Myanmar has found that the World Bank has inadvertently legitimised the role of the military and its cronies, and strengthened military communications capabilities. Mytel's network has been bankrolled by international and Vietnamese banks, including ones supported by the International Finance Corporation (IFC) and the Asian

Development Bank (ADB). For Myanmar to achieve federal democracy and sustainable peace, the Myanmar military must be brought under civilian control and held accountable for its international crimes. The role of ICT must be for peace and democracy, not a weapon of the military in its human rights violations and corruption.

This report details the enmeshment of the Myanmar military's strategic and economic interests in telecommunications and digital technology. The report focuses on Mytel and its business partners aiding and abetting the Myanmar military's war crimes, crimes against humanity and other human rights violations. It exposes the grand corruption of the Myanmar military and its partners – but this is just the tip of the iceberg.

Given the total lack of transparency of Myanmar's military, a report such as this can never be fully complete. The abuse and corruption of the Myanmar military and its partners needs to be further investigated. Perpetrators must be held accountable.

Myanmar is undergoing a digital revolution, with rapid changes as the population comes online and gets connected. Who is in control of Myanmar's digital transformation, and for what purpose?

METHODOLOGY

This report is based on open source material and a trove of files from a data breach, in which Viettel Construction Myanmar (VCM) inadvertently published internal files online relating to Viettel operations in Myanmar from 2017-2020. The documents include detailed plans of base transceiver stations, operational instructions, inventories, receipts, photographs and internal policies. Where a document from the VCM data breach is cited, the original is made available on the Justice For Myanmar website and a link is provided. Justice For Myanmar has taken measures to protect the privacy of Viettel staff in documents made public.

Open source material is from the following primary sources:

- State media in Myanmar and Vietnam, with priority given to the official media of the Vietnam and Myanmar militaries.
- Myanmar, Vietnam and international laws and directives.
- Corporate disclosures published on company websites and the website of the Yangon Stock Exchange.
- Information published on government and company websites.
- Satellite imagery from Google Earth.
- Company LinkedIn and Facebook accounts.
- Registered patents and published scientific research.

The following secondary sources are also used:

- Human rights documentation from reputable sources, including the United Nations Independent International Fact-Finding Mission on Myanmar (UN IFFMM), the UN Special Rapporteur and international and Myanmar-based human rights organisations.
- Reports in privately-owned media.
- Business databases.

In instances where no translation is provided please refer to Google Translate.

GLOSSARY

ABBank	An Binh Commercial Joint Stock Bank
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BIDV	Joint Stock Commercial Bank for Investment and Development of Vietnam
BIO	Belgian Investment Company for Developing countries
BTS	Base transceiver station
BUC	Block upconverter
CDMA	Code-division multiple access
Cesium clock	Atomic clock used for highly accurate timekeeping in high-speed communications, global positioning and other functions
CFO	Chief financial officer
CMEC	China-Myanmar Economic Corridor
DAC	Viettel Big Data Analytics Center
Dark fibre	Unused optical cable
DEG	Deutsche Investitions- und Entwicklungsgesellschaft
DFC	Development Finance Corporation
DICA	Directorate of Investment and Company Administration
DOS	Directorate of Signals, Myanmar Army
EBRD	European Bank for Reconstruction and Development
EDFI	European Development Financial Institutions
EW	Electronic warfare
Eximbank	Vietnam Export Import Commercial Joint Stock Bank
FMO	Financierings-Maatschappij voor Ontwikkelingslanden
GPRS	General packet radio service
GSM	Global system for mobiles
HDBank	Ho Chi Minh City Development Joint Stock Commercial Bank
ICC	International Criminal Court
ICT	Information and communication technology
IFC	International Finance Corporation
IGT	Irrawaddy Green Towers
IP	Internet protocol
ITAH	Irrawaddy Towers Asset Holdings
ITAR	International Traffic and Arms Regulations
JAXA	Japan Aerospace Exploration Agency

JSC	Joint Stock Company
KIA	Kachin Independence Army
Ku-band	A range of the electromagnetic spectrum covering frequencies from 12-18 GHz.
LID	Light Infantry Division
LienVietPostBank	Lien Viet Post Commercial Joint Stock Bank
MAEU	Myanmar Aerospace Engineering University
MAPCO	Myanmar Agribusiness Public Corporation
MAS	Military Affairs Security
MB	Military Commercial Joint Stock Bank
MEC	Myanmar Economic Corporation
MECTel	Myanmar Economic Corporation's mobile network
MEHL	Myanma Economic Holdings Limited
MFOCN	Myanmar Fiber Optic Communication Network Co. Ltd.
MIL	Myanmar Investments International Ltd.
MMK	Myanmar kyat, the currency of Myanmar
MNO	Mobile network operators
MNTH	Myanmar National Telecom Holdings
MNTI	Myanmar National Telecom Infra Co. Ltd.
MNTS	Myanmar National Telecom Services Co. Ltd.
MOTC	Ministry of Transport and Communications
MoU	Memorandum of understanding
MPSS	Myanmar Payment Solution Services
MPT	Myanma Posts and Telecommunications
MPU	Myanmar Payment Union
MTI	Myanmar Technologies and Investment Corporation
MVNO	Mobile virtual network operator
MWD	Myawaddy, Myanmar military media
Mytel	Telecom International Myanmar Co. Ltd.
Nasdaq	A US-based stock exchange
NLD	National League for Democracy
Norinco	China North Industries Corporation
NRC	National Registration Card
NTD	National Tower Development Co. Ltd.
ODU	Outdoor unit
OECD	Organisation for Economic Co-operation and Development
OeEB	Development Bank of Austria
PPIAF	Public-Private Infrastructure Advisory Facility
S & K	Sabae Taung and Kyay Sin Taung
Saffron Revolution	Monk-led mass protests for democratic reform in Myanmar in 2007
SCB	Sai Gon Commercial Joint Stock Bank
SD-WAN	Software-defined wide area network

SeABank	Southeast Asia Commercial Joint Stock Bank
SIGINT	Signals intelligence
Tatmadaw	Myanmar military
TECHCOMBANK	Vietnam Technological and Commercial Joint Stock Bank
TP Bank	Tien Phong Commercial Joint Stock Bank
TSRP	Telecommunications Sector Reform Project
UAV	Unmanned aerial vehicle
UHF	Ultra high frequency
UN	United Nations
UN IIFMM	United Nations Independent International Fact-Finding Mission on Myanmar
USDP	Union Solidarity and Development Party
VCM	Viettel Construction Myanmar
VHF	Very high frequency
VHT	Viettel High Technology Industry Corp
VIB	Vietnam International Commercial Joint Stock Bank
VIB	Vietnam International Bank
Vietcombank	Joint Stock Commercial Bank for Foreign Trade of Vietnam
Viettel	Military Industry and Telecoms Group
Viettelimex	Viettel Import and Export
VNPT	Vietnam Posts and Telecommunications
VOIP	Voice over internet protocol
VRLA	Valve regulated lead-acid
VSAT	Very small aperture terminal
VTCC	Viettel Cyberspace Center
VTTEK	Vietnam Network Technologies Center
YSX	Yangon Stock Exchange

CHAPTER 01

BACKGROUND

- Businesses with interests in Myanmar (formerly Burma) can be held accountable for international human rights obligations directly and indirectly.
- The Myanmar military controls the country's transition to democracy to maintain its power, privilege and impunity.
- Signals is a key area of the military that has been modernised since 1988.
- The Myanmar military has an extensive network of businesses, which supports its international crimes of genocide, war crimes and crimes against humanity.
- Viettel, owned by Vietnam's Ministry of National Defence, is focussed on the production and sale of arms. Viettel has a record of illegal practices and is implicated in human rights violations.

- 1.1 International law and business responsibility
- 1.2 Myanmar's authoritarian transition
- 1.3 Military signals
- 1.4 Myanmar human rights context
- 1.5 The abuse and corruption of myanmar military business
- 1.6 Viettel: SIM cards and missiles

CHAPTER 01

1.1 International law and business responsibility

Businesses with interests in Myanmar (formerly Burma) can be held accountable for international human rights obligations directly and indirectly. They can be held accountable by states because of the obligations under international human rights law. They can be held criminally accountable in international and national courts under international criminal law. They have responsibilities under UN human rights principles and Organisation for Economic Co-operation and Development (OECD) guidelines applicable specifically to businesses.

Under international human rights law, states must respect, protect and fulfil human rights. State parties to binding international treaties, including the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights and the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, have an obligation to ensure that third parties domiciled or operating in their territory or under their control abide by those treaties, including private citizens and businesses.

Grave violations of international human rights law, including by individuals engaged in business, come under the jurisdiction of the International Criminal Court (ICC). Under the Rome Statute, individuals can be held accountable before the ICC for the crime of genocide, war crimes, crimes against humanity and the crime of aggression. Under Art. 25(c), criminal responsibility also arises when a person acts “*For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, including providing the means for its commission*”.⁴ In the Rome Statute, crimes against humanity are defined as murder; extermination; enslavement; deportation or population transfer; imprisonment in violation of international law; torture; rape and other forms of sexual violence; ethnic and religious persecution; enforced disappearance; and apartheid; when any of those acts are committed within a systemic attack against a civilian population.⁵ War crimes are defined as “grave breaches of the Geneva Convention” and “other serious violations of the laws and customs applicable in international armed conflict”.⁶ The phrase “aids, abets or otherwise assists” includes knowingly providing financial, infrastructure or logistical support that is used in the commission of these crimes under international law.

The UN Guiding Principles on Business and Human Rights elaborates how international human rights standards apply to businesses, and reiterates state responsibility over businesses domiciled or operating in its territory or under its control.⁷ Under the UN Guiding Principles, businesses are obliged to operate in a way that prevents any negative human rights impact, directly as a result of their business operations and indirectly through their business relationships.⁸ Businesses must conduct systematic human rights due diligence, which includes regular human rights assessments, the implementation of a human rights policy, transparent communication and, when violations do occur, to mitigate the impact and provide a means of remediation.⁹

Under the OECD Guidelines for Multinational Enterprises, businesses domiciled or operating in OECD member and observer states are required to uphold international standards of human rights and take proactive measures across their supply chains to prevent causing, contributing or being directly linked to human rights violations¹⁰ and corrupt practices.¹¹ The OECD guidelines therefore elaborate the standards that enable compliance with international treaty obligations. The OECD has issued sector-specific guidance to advise businesses in the implementation of human rights due diligence and anti-corruption requirements, including for banks in the issuance of corporate loans.¹²

Mandatory human rights due diligence, where it has been legislated, provides increased safeguards to prevent human rights violations by business. The 2017 French Corporate Duty of Vigilance Law is a positive step towards the creation of a legal system to prevent corporate abuse and hold perpetrators to account.¹³

In addition to general human rights obligations, states have requirements specifically relating to the trade of arms and dual-use goods. States have a responsibility to regulate exports under the international Arms Trade Treaty and regional and international frameworks. “Dual-use” is a broad category that covers equipment and software that can serve both military and non-military purposes and is therefore subject to export controls. The Wassenaar Arrangement provides a voluntary regime for the control of dual-use goods. It has 42 members, including the USA, Canada, Australia, India, Japan, South Korea and EU member states.¹⁴ Within the EU Common Position on the control of arms and military equipment, states have an obligation to impose

arms embargoes and deny export licences to jurisdictions where there is a risk that the technology could be used for international repression, such as in killings, torture, disappearances, arbitrary detention and other major human rights violations.¹⁵ Under the Common Position, equipment and technology is classified as “dual-use” when there is a reasonable likelihood that the recipient will be a military or security force. This is applied to Myanmar through the EU Council Decision concerning restrictive measures against Myanmar/Burma.¹⁶ These controls apply to technology in the telecommunications field that can be used for civil and military purposes.

The findings in this report have been analysed in relation to international human rights standards, including of international human rights law and international criminal law, guidelines on responsible business practices, and controls on the trade of arms and dual-use goods.

1.2 Myanmar’s authoritarian transition

A decade into Myanmar’s democratic transition, the Myanmar military continues to dominate the state and operate with impunity. This conduct is enabled by an authoritarian constitutional regime that the military itself created to protect its economic and political interests.¹⁷ The transition to “disciplined” democracy came after the passage of a military-drafted constitution in 2008, elections in 2010 and one term of government that was led by the military’s proxy party, the Union Solidarity and Development Party (USDP).

Under the Myanmar Constitution, an objective of the Union is “enabling the Defence Services to be able to participate in the National political leadership role of the State”,¹⁸ a principle that limits democratisation and safeguards military control over organs of the state, undermining the civilian government, parliament, civil service and judiciary.¹⁹ The military maintains its hold on the civilian government through a 25% quota in parliament, giving it a veto on constitutional reform. The military also retains the power to appoint a vice-president and the ministers of defence, home affairs and border affairs. The Ministry of Home Affairs is responsible for police, domestic intelligence and prisons, giving the military a monopoly over the use of force.

Myanmar’s judiciary is co-opted through a weak constitutional tribunal and courts that are dominated by judges appointed during the military dictatorship, before the start of Myanmar’s democratic transition. Laws provide further safeguards for the military. For instance, the auditor general of the Union Law exempts the Ministry of Defence from scrutiny. The Archives Law exempts the military from obligations for public disclosure.

Informally, the military maintains a hold on civilian branches of government through the systematic transfer of former military officials into the civil service. This provides the military leadership with an extensive network of influence, which is in part maintained through the distribution of rewards from military business.²⁰ For instance, the head of the Myanmar Customs Department, Kyaw Htin, a former brigadier general, was transferred into his post from the Ministry of Defence in the period immediately before the transition to a National League for Democracy (NLD)-led government in March 2016. A military appointee

also heads the Myanmar²¹ Port Authority, providing the military with power over imports and exports, despite the agency formally being under civilian control.²²

Despite a term of NLD-led government, the military has been able to successfully entrench its hold over the political system, and the NLD has been unwilling to implement meaningful reforms to reduce the military's power or even criticise its violations of international law. There is therefore no democratic oversight or independent limits on military conduct, even when this encompasses on areas that are formally under civilian control, such as telecommunications and the governing of the economy.

1.3 Military signals

The Myanmar military began an extensive defence modernisation programme when it came to power in 1988 after violently crushing a pro-democracy uprising. It ruled the country as the State Law and Order Restoration, later transitioning into the State Peace and Development Council. From 1988 to the political transition in 2011, the military built and operated a totalitarian system to control the population through mass arrests, torture and brutal military operations against civilians in ethnic areas. Military rule and the crimes committed were made possible by the development of signals and communications capabilities.

The military's communications and signals intelligence (SIGINT) functions are under the Directorate of Signals of the Myanmar army, part of the General Staff of the Myanmar army, and were a key focus of the military's post-1988 modernisation. According to strategic studies scholar Desmond Ball:

Since 1988-89, Burma's SIGINT capabilities have been dramatically enhanced. An extensive array of SIGINT equipment has been acquired, mostly from China, but also evidently from Singapore and Israel. The new capabilities include ground stations for collection of foreign SIGINT as well as for ocean surveillance; mobile SIGINT facilities; tactical SIGINT systems for military operations; electronic warfare (EW) systems; capabilities for monitoring microwave telecommunications (carrying telephone and facsimile traffic) in Rangoon; and a better capability to jam HF [high frequency] radio broadcasts.²³

Desmond Ball documented "SIGINT and coastal surveillance stations" in Yangon, Ramree, Hainggyi, Zadetkyi Island and Coco Island, constructed by Chinese technicians,²⁴ as well as SIGINT stations in each regional military command headquarters. China and Myanmar signed a cooperation agreement in 1997 that included intelligence sharing and SIGINT training for the Myanmar navy and air force. Desmond Ball writes that "Chinese personnel have evidently been stationed at the [coastal surveillance] sites, but probably in technical support and intelligence liaison roles".²⁵ The military has been restructured a number of times since 1998, when Desmond Ball published extensive research on SIGINT in Myanmar.

Signals development was essential for the army's command and control system, enabling generals to direct troops and carry out military operations against ethnic groups' armed organisations. SIGINT capabilities

were extensively utilised for the surveillance of ethnic armed organisation communications. In urban areas, the military's signals capabilities were used for the surveillance of political dissidents and journalists, and the jamming of radio broadcasts critical of the regime. SIGINT functions are also carried out by military intelligence, known as Military Affairs Security (MAS) (formerly the Defence Services Computer Directorate). The role of military intelligence is related to "network-centric warfare, cyber-capabilities and electronic warfare".²⁶ Like the Directorate of Signals, military intelligence is also under the General Staff of the Myanmar army.

The post-1988 dictatorship also saw the development of "civil" telecommunications, in a way that strengthened military rule and increased its signals capabilities. Reforms were carried out with the involvement of international business. After 1988, the military dictatorship awarded major contracts to Sumitomo Corporation (Japan) (current joint operator of state-mobile operator MPT), Ericsson (Sweden) and Siemens (Germany). According to military analyst Andrew Selth, "*it would be extraordinary if the Tatmadaw [Myanmar military] was not taking full advantage of these improvements to Burma's civil system*".²⁷

At the time of Myanmar's transition to democracy in 2011, each regional command of the military had significant signals capabilities. For instance, the Naypyidaw Command included the Advanced Signals Warfare Force, Air Defence Signals Battalion 8 and Advanced Signals Battalion 2. The Western Command, responsible for Arakan State (renamed Rakhine in English by the former military dictatorship), includes three advanced signals battalions, two signals battalions, a signals security force, an air defence signals battalion, three signals workstations and a signals materials-keeping squadron. The navy's main signals forces are located in the Coastal Command and South Western Command. Bureau of Special Operations, high level units that oversee regional military command operations, also have dedicated signals units.

The Myanmar military also operates the Defence Services Signals and Electronic School with courses for officers and those of lower ranks:

*Infantry officers take the infantry signals officer course to gain basic knowledge of combat-level signals operations. Officers in the signals corps have to take courses designed for signals platoon, signals company, and signals (electronic) engineering. These courses include radio operation, signals intelligence, interception, cipher making and decoding, electronic warfare, and so on.*²⁸

The Myanmar military prioritises the development of signals and SIGINT capabilities, which it utilises to commit genocide, war crimes and crimes against humanity. As is evident during the post-1988 period, the Myanmar military is continuing to benefit from the development of "civil" telecommunications and utilise it in human rights violations.

1.4 Myanmar human rights context

For decades, the Myanmar military has been responsible for committing grave human rights violations with impunity. It is well established that the Myanmar military has committed crimes against humanity, war crimes, and genocide.²⁹

On August 25, 2017, the Myanmar military launched a campaign of genocide against the Rohingya, driving 740,000 Rohingya to Bangladesh and committing atrocities including killings, sexual violence, torture and destruction of property.

The United Nations Independent International Fact-Finding Mission on Myanmar (UN IIFFMM) described the build-up to genocide: *“As the situation deteriorated from October 2016, it became a matter of the public record that United Nations humanitarian agencies were blocked from delivering aid. Myanmar’s security forces were accused of undertaking a “scorched earth” policy.”*³⁰

In Alethankyaw, a fishing community in Maungdaw township, soldiers used civil telecommunications towers as sniper posts in a systematic attack on civilians, according to a report published by the Bangladesh-based Rohingya independent media organisation Kaladan Press:

*Burma Army snipers positioned on the tops of the MPT and Telenor telecommunication towers were able to target a wide range around the village. Well over a hundred villagers were killed as they fled or tried to hide near their homes. Scores of bodies were dragged by troops and thrown into wells, as well as dumped under the Telenor tower, and into a pond near the beach.*³¹

Scores of Rohingya continue to be rendered stateless through Myanmar’s discriminatory citizenship law. Large numbers of Rohingya are confined to camps in Arakan state, guarded by security forces and denied basic human rights.

In September 2018, the UN Human Rights Council established the Independent Investigative Mechanism for Myanmar to *“collect, consolidate, preserve and analyse evidence of the most serious international crimes and violations of international law committed in Myanmar since 2011, and to prepare files in order to facilitate and expedite fair and independent criminal proceedings, in accordance with international law standards.”*³² In November 2019, the International Criminal Court (ICC) authorised an investigation into *“alleged crimes of deportation, persecution, and any other crime within the ICC jurisdiction committed, against the Rohingya people or others, violence which occurred in Rakhine State, Myanmar, and any other crimes under the ICC’s jurisdiction sufficiently linked to these events”*.³³

In December 2019, a case against Myanmar for the state crime of genocide was opened in the International Court of Justice. An initial decision ordered provisional measures that the Myanmar state is legally obliged to follow, to protect the human rights of Rohingya and to prevent the destruction of evidence. Despite the court’s binding order, Myanmar announced the start of a new “clearance operation” in Arakan state in

June 2020, causing mass displacement.³⁴ The same month, the UN reported that there are 77,200 civilians displaced in Arakan and Chin states.³⁵

The Myanmar military is committing ongoing war crimes and crimes against humanity in ethnic areas of Myanmar, including Arakan, Chin, Shan and Kachin states. On July 8, 2020, Amnesty International published evidence of indiscriminate air strikes against civilians in Arakan and southern Chin state, killing innocent people, razing ethnic villages and causing further displacement:

After hearing explosions, [a villager] ran to his father's house and found his brother with a fatal stomach wound, as well as the body of his brother's 16-year-old friend. He said his uncle, who was in a different house at the time, was also killed in the same airstrike. Two people from another family in the same village cluster told Amnesty International that an airstrike killed nine people in their community, including a seven-year-old boy. "Our family is destroyed," the boy's father said.³⁶

In Shan and Kachin states, the UN Special Rapporteur on the situation of human rights in Myanmar reported that "between August 2019 and January 2020, 75 civilians were injured, 88 civilians were detained by the Tatmadaw or militia groups, and six civilians were tortured".³⁷ Amnesty International documented human rights violations against civilians in northern Shan state in 2019, finding evidence of unlawful attacks against civilians, arbitrary arrest, torture and the confiscation of property. In one incident, in March 2019, soldiers of the 99th Light Infantry Division (LID) detained villagers from Kutkai township.

One man described what happened:

They asked where we were going and what we were doing. Then they asked our ethnicity. [When we said Kachin] they asked where the other combatants were... Someone asked me "are you KIA [Kachin Independence Army]?" – I said "no", then I was punched. [They asked] "where are your KIA commanders?" I said, "I don't know, I'm not KIA," then I was punched again... I was bleeding from my mouth.

They took me to a corner of the village. [A soldier asked again] "Are you KIA?" I said "no", then they started punching and kicking me. They forced me to take off my clothes [and] held a knife to my neck... Then they forced me to squat with my fingers on my knees... They told me if I moved they would cut off my fingers... They put a grenade in my mouth... I was afraid if I moved it would explode.³⁸

During the Covid-19 pandemic, Myanmar authorities have cracked down on journalists and civil society activists. As of January 2020, the UN Special Rapporteur on the situation of human rights in Myanmar reported 647 political prisoners, and 96 defamation cases filed by members of the military.³⁹ In March, a warrant was issued for the arrest of Saw Tha Phoe, a Karen environmentalist who has drawn attention to the social and environmental destruction from a military-owned coal-powered cement factory, forcing him

into hiding.⁴⁰ The same month, the Myanmar government classified the Arakan Army, an ethnic armed organisation, as a terrorist group and used the designation as a pretext in attacks against independent media. Nay Myo Lin, the editor-in-chief of Voice of Myanmar, was arrested for interviewing a spokesperson of the Arakan Army, and a warrant was issued for the arrest of Hline Zin Wai, editor-in-chief of Khit Thit Media for re-publishing the interview, forcing him into hiding.⁴¹ In June 2020, charges were filed against six freedom of expression activists, including poet Maung Saungkha, for campaigning against the internet shutdown in western Myanmar.⁴² In September, 14 anti-war student protesters were arrested and have been sentenced to prison.⁴³

1.5 The abuse and corruption of Myanmar military business

The Myanmar military has an expansive hold on the Myanmar economy, which supports the military's continued autonomy from civilian oversight and provides a strong financial incentive for it to block meaningful, democratic reform. The military's business interests are dominated by two conglomerates: Myanma Economic Holdings Limited (MEHL) and Myanmar Economic Corporation (MEC), each of which have their own global networks of subsidiaries, joint ventures and business partnerships. Both conglomerates were built through the systematic transfer of state assets and the endemic corruption of Myanmar's military dictatorship.

During the military dictatorship following the 1988 pro-democracy uprising, a rapid programme of privatisation involved the transfer of state assets to military conglomerates and their cronies, an immense loss of wealth for the people of Myanmar and a mechanism for the maintenance of military power. Research on the Myanmar military's economic reforms found that *"marketisation was entered into as part of an attempt to reconstitute and reassert authoritarianism, as both a practical strategy (policies to rebuild a failing economy) and a symbolic attempt (economic "reform" alongside closed authority structures) to resolve an apparent crisis of state legitimacy,"* concluding that *"the ostensibly market-supporting process of privatisation not only provided an opportunity for powerful governing and business elites to absorb many of the most profitable assets and business sectors, but resulted in the fundamental transformation of the country's political economy".*⁴⁴

MEC is owned by the Myanmar military and reportedly operates with a high degree of secrecy under the office of the Quartermaster General Department of the General Staff of the Myanmar army.⁴⁵ The quartermaster general is under the command of the commander-in-chief, who has ultimate responsibility for MEC. The UN fact-finding mission has recommended prosecution of the current Commander-in-Chief, Senior General Min Aung Hlaing, as a perpetrator of international crimes in Arakan state.⁴⁶ MEC has multiple businesses and joint ventures across key sectors of the economy, including telecommunications, banking, insurance, mining, trade, agriculture, real estate, manufacturing, transportation and logistics.⁴⁷

Despite being owned by the state and controlling valuable state assets, there is no transparency over revenue flows. There is even a lack of clarity over what legal entity MEC refers to. Myanmar Economic Corporation Co. Ltd. is registered as a private company and shares are held by Myanmar Economic Corporation, an entity

with registration number 23/2010. However, entity 23/2010 does not exist in Myanmar's company registry. The legality, structure and operations of entity 23/2010 are therefore unknown.

In a press conference on June 22, 2020, a spokesperson for the Ministry of Defence claimed that MEC was privatised and is "concerned only with the military".⁴⁸ There is no evidence of MEC being privatised, or of any democratic process to sell MEC's state assets. It is odd to claim that a "private" business can be owned by the military, as the military is a state institution funded through the Union Budget. Therefore, a military-owned business would, by definition, be a state-owned enterprise. It follows from this that for all practical purposes, MEC can be considered a state-owned enterprise.

Within the telecommunications sector, MEC operates a number of businesses in addition to Mytel, MECTel and digital financial services (discussed later in this report). Within the telecommunications sector, they control a remote sensing ground station and a cable factory. Details of the remote sensing ground station are scarce. According to the MEC website, it was established in 1997 as "Electronic and Computer Department", which may have been part of the military intelligence apparatus. The facility is located in the "Indine Military District" in Hlegu.⁴⁹ It is not known if the Myanmar military operates other remote sensing ground stations in addition to that under MEC. The remote sensing data MEC is able to produce for the Myanmar military could be "*essential for strategic planning, deployment, monitoring, targeting and threat assessment. Their strategic and tactical value cannot be underestimated*".⁵⁰ It is likely that MEC's remote sensing ground station is supporting the Directorate of Signals and SIGINT. Justice For Myanmar sees a high likelihood that MEC's remote sensing ground station plays a direct role in military operations, and it is probable that data provided by MEC from the remote sensing ground station to the military could amount to the crime of aiding and abetting genocide, war crimes and crimes against humanity.

MEC's Sigma Wire and Cable Factory is in Hlaingthaya, Yangon, and was established in 2001. According to the MEC website, the factory produces 56 types of wires, copper rods and telephone cables. MEC's cable manufacturing capabilities are unknown.⁵¹ It is likely that MEC manufactures some materials for the Directorate of Signals, as well as for the supply of other parts of the military.

In 2019, the UN fact-finding mission published an extensive report on the Myanmar military's business interests.⁵² The report found that military-owned businesses enable the Myanmar military's conduct, and that:

*Two Tatmadaw conglomerates, Myanmar Economic Holdings Limited (MEHL) and Myanmar Economic Corporation (MEC), are owned and influenced by senior Tatmadaw leaders, including the Commander-in-Chief Senior General Min Aung Hlaing and the Deputy Commander-in-Chief Vice Senior General Soe Win, responsible for gross violations of international human rights law and serious violations of international humanitarian law... The revenue that these military businesses generate strengthens the Tatmadaw's autonomy from elected civilian oversight and provides financial support for the Tatmadaw's operations with their wide array of international human rights and humanitarian law violations.*⁵³

In addition to revenue, the Myanmar military uses business relationships to purchase military items, including arms and dual-use goods. The UN fact-finding mission revealed an annexe of seven private companies from which the Myanmar military has procured or sought to procure dual-use goods. Of the seven companies, six provide communications and allied technology, including a cellular data streaming system from Dejero (Canada), VHF transceivers from Icom Inc (Japan), remote radio controllers from Jotron (Norway), very high frequency (VHF) and ultra high frequency (UHF) transceivers from Reutech Communications (South Africa) and a navigation and positions system from Veripos (UK), a subsidiary of Hexagon (Sweden). These procurement records, which are likely a very small sample of dual-use procurement, form part of the Myanmar military's modernisation efforts, in which communications are prominent. It also shows diversification of procurement, lessening the military's reliance on China for military communications equipment.

The UN fact-finding mission report recommended that all entities, including loan-providers and investors, cut ties with Myanmar military-controlled businesses and their "subsidiaries and business relationships" and warned of potential criminal culpability, directly naming Telecom International Myanmar (Mytel) and its largest shareholder, Viettel:

Through such joint venture and commercial relationships, the Mission finds that any foreign business activity involving the Tatmadaw and its conglomerates MEHL and MEC poses a high risk of contributing to, or being linked to, violations of international human rights law and international humanitarian law. At a minimum, these foreign companies are contributing to supporting the Tatmadaw's financial capacity.⁵⁴

The fact-finding mission called on UN member states to:

Implement targeted sanctions against legal persons, entities or bodies contributing economically to or benefitting economically from the Tatmadaw and its operations as well as family members and associates of identified individuals, where they may act as surrogate business owners or be used as proxies by identified individuals to evade sanctions, while respecting human rights.⁵⁵

Despite the UN fact-finding mission's recommendations for sanctions against military businesses, their owners and partners, no country has implemented sanctions thus far. Canada is currently the only jurisdiction with sanctions against Myanmar military businesses, although its list of targets has not been updated to reflect the military's current business network.⁵⁶ Canada, along with other UN member states, has so far failed to implement targeted sanctions as the mission recommended.

1.6 Viettel: SIM cards and missiles

Military Industry and Telecoms Group (Viettel), is the biggest shareholder in Mytel and a key business and technology partner of the Myanmar military. Viettel is a large state-owned conglomerate established by the prime minister of Vietnam and managed by the minister of defence. Viettel is the only Vietnamese brand that makes the Brand Finance Global 500 list.⁵⁷

Viettel is an arm of the Vietnam People's Army, under the leadership of the Central Military Commission.⁵⁸ It is led by a president who is legally required to be a serving officer of the Vietnam People's Army.⁵⁹ Other key leadership positions through Viettel are also held by serving military officials.⁶⁰ The group has more than 20 subsidiaries⁶¹.



Vietnam's National Assembly Chairperson addressing Viettel officials at the company's headquarters in July 2020. In her speech, she stated the need for Viettel to "become the centre of the hi-tech defence industry complex".

SOURCE: PHNOM PENH POST AND PEOPLE'S ARMY NEWSPAPER

In 2018, the Vietnam government issued Decree No.05/2018/ND-CP, reorienting Viettel as a high-tech arms manufacturer. Its chartered capital, as of January 5, 2018, was US\$5.35 billion, slated to increase to US\$13.2 billion by 2020.⁶² Viettel's charter, published together with the decree, describes the group as a "national defence and security enterprise".⁶³ This includes building, operating and reserving telecommunications infrastructure for military use and "information missions" as required.⁶⁴

According to Article 1 of Viettel's 2018 charter, Viettel must carry out "*special political, military and defense tasks assigned and produced by the State and the Ministry of National Defense in accordance with the law*".

Viettel Group's national security and defence operational objectives (5.1) are:

- *Set up a hi-tech defense industry complex, integrating the national defense industry with the national industries; create national defense-related products, military hardware, equipment, and supplies.*
- *Ensure the infrastructure of the military information network works properly when the country faces threats, hostile circumstances and be the backup network during peacetime.*

Viettel's main business lines (Article 5.2 (a)) include:

- *Research, develop, manufacture, produce, repair, improve, maintain, trade, perform technology transfer, export and import of products, military technical equipment; specialized professional means and techniques, weapons, military hardware, ammunition, chemical products, specialized chemical supplies, explosives and explosive materials (explosive powders, launchers, triggers, detonators); combat vehicles, combat support equipment, aircraft, spacecraft and related machines; measuring, testing, navigating and control equipment and support instruments in service of national defense and security.*
- *Research, develop, manufacture, produce, and repair; perform trading products and services; leasing, exporting and importing dual-use goods (including technical equipment, services, supplies and goods used for national defense as well as socio-economic domain).*

Viettel's business makes clear that the group's primary purpose is military, and "civil" communications is a tool for defence and political objectives.

It is of grave concern that Viettel is investing significant resources into the research and development of military and dual-use technology, including for guided missiles, radars, laser weapons and unmanned aerial vehicles (UAVs). Viettel has already manufactured a UAV with surveillance capabilities and plans to arm it with missiles.⁶⁵ UAV and UAV weapons development likely takes place within VTX, the Viettel Aerospace Institute.⁶⁶

Recent Viettel scientific publications give insight into the company's research and development ambitions, which include utilising artificial intelligence for military use. Research projects include simulating a control system of "smart" guided munitions;⁶⁷ an "algorithm for viewshed computation on raster terrain", specifically for electronic warfare;⁶⁸ a damping controller for autopilot homing missiles;⁶⁹ and an abnormal moving target detection system for coastal surveillance radars.⁷⁰

Viettel's global ambitions in the arms industry can be further seen in its patent activity. A selection of 2019-2020 US patent applications include a wing deployment system that can be used in missiles and UAVs;⁷¹ a marine target surveillance system;⁷² a high-magnification continuous zoom system for UAV surveillance;⁷³ an optical focusing system;⁷⁴ a target-tracking method through radar with sensor;⁷⁵ a method to identify flying targets;⁷⁶ a low-profile antenna that can be used in military radar and communications systems;⁷⁷ a

spring-support mechanism for parallel robots;⁷⁸ and a damping method for laser activation.⁷⁹

Under Viettel's regulations, it is authorised to use telecommunications resources for defence and security, including in overseas markets such as Myanmar. In Article 16, Viettel is obliged to use telecommunications and television for defence and security purposes. The section enables Viettel to use resources of the Vietnam People's Army units to perform defence and security in relation to business enterprises and to produce and supply military equipment for foreign organisations, which is what Viettel is evidently doing in Myanmar. In Article 21, Viettel's national defence obligations are outlined, including the use of army assets and "*to produce and supply national defense and security products and services or to perform national defense and security tasks*", which authorises a military role for Viettel in Myanmar.

Viettel has a track record of illegal conduct and disregard for human rights. In 2017, Huy Quang Bui, a Viettel executive operating in the USA, was sentenced to 12 months and one-day imprisonment for attempting to smuggle missile parts out of the country. Viettel had tried to evade allegations of criminal activity.⁸⁰ in the USA under the guise of a civil communications subsidiary, registered as VTA Telecom to sell international calling cards. Viettel hid its intentions by failing to register its business with the Federal Communications Commission under its legal Vietnamese name at the time, "Military Telecommunications Industry Group" and did not disclose that it is fully owned and operated by Vietnam's Ministry of National Defence.

Mark Harris, a tech journalist, investigated the case for OneZero:

Although [Bui] was meant to be focusing on calling cards, Bui was also regularly asked by his superiors in Vietnam to procure various items for Viettel. Early that summer, Bui began negotiations for a sophisticated motion sensor used in commercial aircraft and satellites, but also in bombs, missiles, and torpedoes.... In June 2015, he approached a Florida company about buying 10 video tracking systems. This time, there was no ambiguity about their intended use – the trackers were designated "significant military equipment" under U.S. International Traffic and Arms Regulations (ITAR), and thus subject to strict export controls. Then in August, Bui attempted to purchase mechanical components for a missile from a third company. When the supplier told him the device was also ITAR-controlled, Bui responded that he did not have time to get an export license, and requested that his and VTA's name be removed from all paperwork in the deal. Bui had progressed from selling telephone cards to shopping for engines made for the U.S. military's premier anti-ship cruise missile, the Harpoon.⁸¹

In June 2018, VTA hired law firm McDermott Will & Emery to "*involve helping VTA acquire US or US licensed technology, including but not limited to radar equipment and other defense or dual use technologies.*"⁸²

In Cambodia, Viettel's subsidiary Metfone is the dominant mobile operator. The Metfone board includes Hun Mana, a daughter of Cambodia's strongman prime minister Hun Sen, and Viettel actively supports the

military and gendarmes, which are systematic abusers of human rights and rule of law.⁸³ In 2009, Viettel announced a promotion of free SIM cards for all members of the armed forces, loaded with \$8 in free call credit with a further \$2 in call credit automatically provided on a monthly basis.⁸⁴ In 2010, Metfone became “sponsor” of the Ream Naval Base and RCAF Division 31,⁸⁵ donating US\$461,000 between 2010 and 2014 to the base.⁸⁶

In March 2020 the CEO of Viettel’s Tanzania subsidiary and five executives appeared in a Tanzania court charged with organised crime, money laundering and the illegal use of communications equipment.⁸⁷ Viettel also operates mobile networks in Cameroon, Burundi, Peru, Haiti, Lao and Timor-Leste. Viettel has also explored investment in Belarus.⁸⁸

In Vietnam, as the Viettel regulations show, Viettel’s market domination as a telecommunications operator is explicitly utilised for defence and security purposes, and is part of Vietnam’s system of censorship that Freedom House labels “draconian”.⁸⁹ Viettel’s domestic mobile network has a 50.6% market share and is part of the government’s systemic violations of freedom of expression and the right to privacy.⁹⁰ Vietnam’s freedom of expression violations have implicated international businesses under its 2019 Cybersecurity Law, which requires foreign businesses to open an office in the country, store data domestically and provide user information to the government upon request under the law.⁹¹ In one prominent case, the government succeeded in forcing Google and Facebook complied with government requests to censor content related to the widespread discontent around land confiscation in Dong Tam, in which Viettel seized 50 hectares of land from local villagers.⁹² Amnesty International has found that “Facebook and Google play an increasingly prominent and complicit role in the Vietnamese authorities’ systematic repression of freedom of expression online in Viet Nam”, censoring content critical of the state and removing accounts.⁹³

CHAPTER 02

TELECOMMUNICATIONS “REFORM” - MILITARY STYLE

- Mytel was created in the context of World Bank-supported reforms of the telecommunications sector.
- The sector was reformed in a way that enables the Myanmar military to control critical infrastructure, undertake mass surveillance, access technology and profit financially.
- Mytel is a public private partnership, formed by the Myanmar government, which appointed military-owned Star High as the public shareholder. Despite the Myanmar public's stake in Mytel, the business operates without transparency. Profits are misappropriated.
- Mytel's domestic private shareholder, Myanmar National Telecom Holdings, is a consortium of crony investors, some of who have family and commercial ties to the Myanmar military.
- Mytel has grown its subscriber base by undercutting competitors and providing lucrative content offerings.

- 2.1 Mytel: A military-crony “public-private-partnership”
- 2.2 Myanmar National Telecom Holdings
- 2.3 Mytel’s first call
- 2.4 Entertainment makes a killing
- 2.5 Enterprise services
- 2.6 SIM registration

CHAPTER 02

In Myanmar, telecommunications are under the authority of the Ministry of Transport and Communications (MOTC) (formerly the Ministry of Communications and Information Technology until it was reorganised in 2016). Until 2012, there was a national telecommunications monopoly held by Myanma Posts and Telecommunications (MPT), a state-owned enterprise under MOTC. During Myanmar’s military dictatorship, the state telecommunications monopoly provided the military with total control over all aspects of telecommunications, and there were no safeguards to protect privacy or freedom of expression. Telecommunications infrastructure was poor, coverage limited and costs astronomical. When mobile telecommunication was first introduced under military dictatorship, the cost of a SIM card was as high as \$7,000.⁹⁴

After the ruling Union Solidarity and Development Party (USDP) government was formed in 2011, the sector was reformed in a way that allowed for foreign entry into the market and rapid telecommunications development, while enabling the Myanmar military to control critical infrastructure, undertake mass surveillance, access technology and profit financially. Myanmar’s Telecommunications Law⁹⁵ was passed in 2013, followed by Licensing Rules in 2014 and Competition, Numbering and Spectrum Rules in 2015.⁹⁶

These reforms were supported through two World Bank projects: the Public-Private Infrastructure Advisory Facility (PPIAF), with a technical assistance grant of US\$540,000;⁹⁷ and the Telecommunications Sector

Reform Project (TSRP), which involved a US\$22.5 million international development assistance grant.⁹⁸ The reform agenda was put in place by the USDP-led government, and provides the regulatory context that facilitated the international crimes discussed in this report.

The World Bank detailed the role of the PPIAF project:

In 2013 PPIAF provided a technical assistance (TA) grant to the Post and Telecommunications Department (PTD) in charge of regulatory issues. This TA supported the development of an operational sector road map, the design and implementation of a regulatory framework, and helped develop technical and administrative capacity within the PTD to address issues related to sector liberalization. An international best practices report on telecommunications regulations was delivered to the Ministry, providing inputs in the design process of telecommunication regulations applicable to Myanmar's context. Accordingly, a set of key regulations on licensing, competition, access and interconnection, spectrum and numbering have been drafted and are undergoing public consultations for finalization.⁹⁹

Market liberalisation, in a way that is highly beneficial for the Myanmar military, continued under the World Bank's TSRP. One of the four TSRP components was “*creating an enabling environment for connectivity... [with a] focus on technical assistance for addressing policy and regulatory bottlenecks to maximize the benefits of the sector reform agenda*”. This was intended to facilitate private sector entry in telecommunications. One of the key performance indicators is the number of licensed telecommunications operators. As licensed operators include the Myanmar Economic Corporation (MEC), Mytel and military cronies, the World Bank's project design therefore counts the entry of military and crony licensees as a sign of success.¹⁰⁰

Myanmar's 2013 Telecommunications Law provides the military with authority to use telecommunications for “security” purposes and to undertake surveillance, thereby failing to meet basic democratic standards. One of the law's main objectives (4(e)) is “*To supervise telecommunications services, network facilities and telecommunications equipment for the purpose of ensuring the stability and security of the State*”,¹⁰¹ giving the Myanmar military, which has a monopoly on security, a central role. Under Article 77, the military is granted emergency powers to suspend, intercept or take over communications from licensees. Under Article 82, the military may carry out telecommunications activities without prior government approval. These powers are exercised without any adequate protections for the people of Myanmar and there is no transparency over how the law is used and abused by the military.

Article 77 of the law has been used to enforce an internet shutdown in western Myanmar,¹⁰² in place for more than one year, after which “obsolete” 2G internet was restored, which “*means in practical terms that access to internet service in these areas continues to be effectively denied*”.¹⁰³ The government has also issued orders to censor ethnic media sites and the website of Justice For Myanmar, the author of this report.¹⁰⁴ These acts are a violation of international human rights law. According to Human Rights Watch, it puts people at further risk of Covid-19, by blocking access to information, and prevents reporting on the grave human rights violations being committed by the Myanmar military in those areas.¹⁰⁵

The Telecommunications Law has been regularly used against activists and journalists, and is a serious threat to freedom of expression. Section 66(d) sets a prison sentence of up to three years for “*extorting, coercing, restraining wrongfully, defaming, disturbing, causing undue influence or threatening to any person by using any telecommunications network*”. The Say No to 66(d) campaign has documented 210 criminal complaints, noting that judicial harassment involving the Telecommunications Law has “substantially increased under the NLD [National League for Democracy]”.¹⁰⁶

As part of telecommunications reforms, the government is supposed to establish an independent communications commission, outlined in Section 86 of the Telecommunications Law. An independent commission ought to protect Myanmar telecommunications users. However, this has not taken place and, under the security provisions of the law and Myanmar’s authoritarian constitutional framework, a commission could not exercise power over the Myanmar military.

In 2014, the government established a National Communication Advisory Committee, which may be a precursor to the proposed commission. Under Ministry of Communications and Information Technology Notice 19/2014, the government appointed Maj Gen Thaw Lwin, director of the Directorate of Signals of the Myanmar army, to the committee, thereby protecting military interests and giving the military direct power of civil telecommunications. It was also a conflict of interest as Maj Gen Thaw Lwin was a director of MEC, which operates its own virtual mobile network, in addition to other telecommunications-related businesses. Justice For Myanmar cannot confirm if the committee is still operational.

It is likely that active or retired military appointees would be part of any independent commission, thereby protecting military interests. This is the case in the National Broadcasting Development Authority, set up under the 2015 Broadcasting Law. The authority includes the director of the Directorate of Psychological Warfare and Public Relations as a member.¹⁰⁷

After the passage of the Telecommunications Law, Myanmar held a tender process for two telecommunications licences, to be fully owned by a private foreign or domestic company. Telenor (Norway) announced that it signed an agreement with the Myanmar government on January 30, 2014, paying US\$500 million for the 15-year licence.¹⁰⁸ Ooredoo (Qatar) was also awarded a licence on the same day as Telenor.¹⁰⁹

Before the telecommunications law was passed, MEC began operating a virtual network, named MECTel, with the support of the communications ministry. According to the MEC website, an 800MHz code-division multiple access (CDMA) project was authorised in 2012 for a public telecommunications network, and MEC states there are 6 million subscribers.¹¹⁰ A 438,000-user global system for mobiles (GSM) allocation was announced for 2014-15, covering the Ayeyarwaddy region.¹¹¹ MEC did not receive a telecommunications licence until March 23, 2015, and it is the only company with a licence as a mobile virtual network operator (MVNO). According to the International Telecommunications Union, “*MVNOs are wireless services providers that do not own the wireless network infrastructure but instead buy network capacity from existing MNOs [mobile network operators] to offer services to their users*”.¹¹²

In MECTel's case, it has been operating through the MPT network.¹¹³ Myanmar's Spectrum Roadmap describes MECTel as "using spectrum provided by MPT".¹¹⁴

It is unlikely that MEC is paying MPT for use of the public network, and it is not known where MECTel's profits are going. MEC profits are not disclosed to parliament and remain "off-budget".¹¹⁵ A thorough and independent investigation is needed on MECTel's relationship with MPT and the Ministry of Transport and Communications, including public funds and assets used by MECTel and a complete audit of MECTel finances.

In 2017, Myanmar passed the Law Protecting the Privacy and Security of Citizens, which fails to protect the privacy of citizens, in accordance with international human rights standards.¹¹⁶ Concerningly, the law allows for the interception of communications on government approval and fails to provide safeguards on the collection and storage of data or judicial review.¹¹⁷ Rather than protecting people's rights, the law has been used to infringe on freedom of expression, in effect as "Burma's fourth criminal defamation law".¹¹⁸ Robust privacy protections that meet international human rights standards are therefore urgently needed.

The surveillance risk faced by the people of Myanmar has severely worsened as the Myanmar government acquires new technology. In November 2020, a report published by the Open Technology Fund revealed that MOTC has allocated approximately US\$4 million in a "lawful interception system" within its 2019-2020 financial year budget.¹¹⁹ The system's capabilities include the indexing and search of SMS, calls and metadata, network analysis and the collection of location data, involving all mobile network operators. The Open Technology Fund research concluded that "*it is of grave concern to see the government implementing a surveillance system in a country where no legal framework to protect people's rights exists*".¹²⁰ Telenor Myanmar has confirmed that "*the government intends to be able to directly access each operator and ISP's [internet service provider] systems without case-by-case approval*".¹²¹ While Telenor states that they are advocating for a regulatory framework that upholds human rights, they are nonetheless complying with the order. The "lawful interception system" for mobile operators and ISPs risks greatly contributing to the Myanmar military's surveillance capabilities. The system is a serious breach of the right to privacy of the people of Myanmar and is a major threat to civic space and media freedom. This comes in addition to technology used by the government's Social Media Monitoring Team, whose work has led to the censorship of independent media and civil society websites, including Justice For Myanmar.¹²²

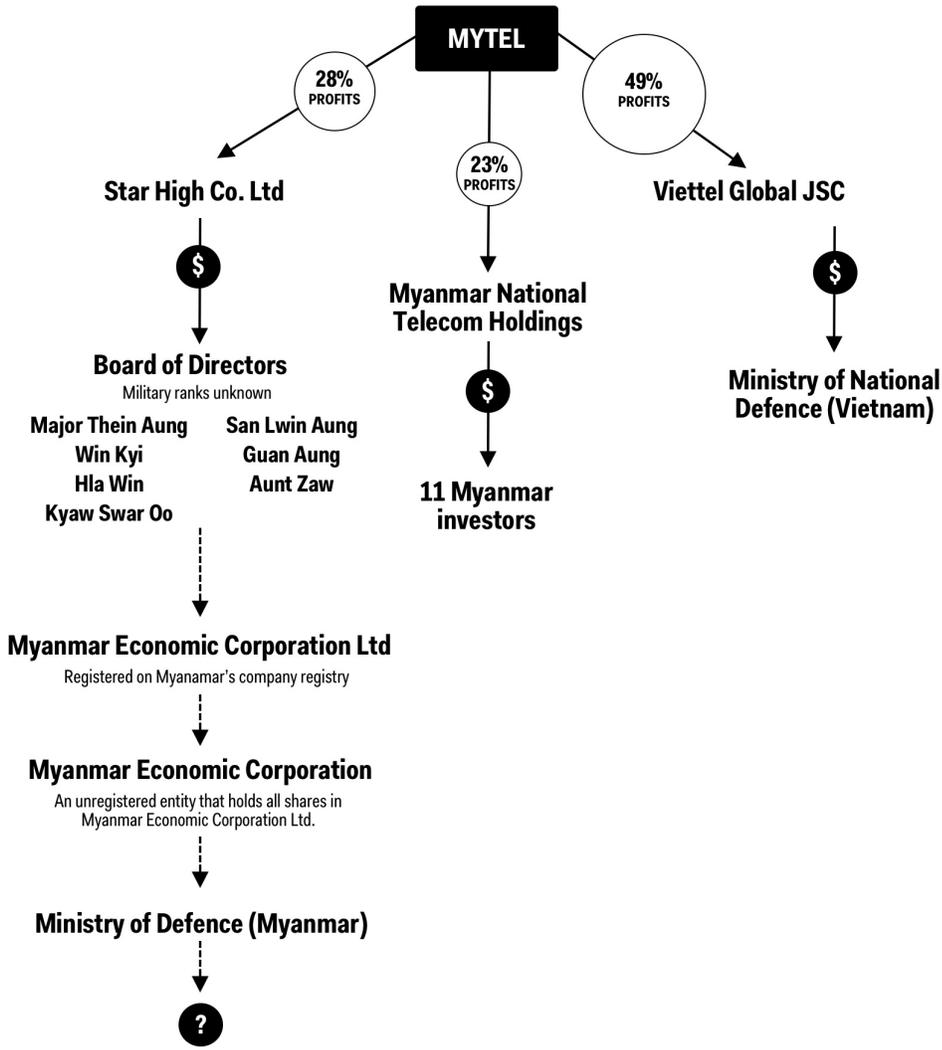
The TSRP includes support for the development of e-government, under the implementation of MOTC's Department of Information Technology and Cyber Security, in collaboration and coordination with the Asian Development Bank (ADB).¹²³ In 2015, the ADB commissioned an e-government master plan design, which was conducted by digital consultant service Infosys. Worryingly, the document included an e-government plan for the Ministry of Defence, with provisions for procurement and support for the military's psychological warfare programme, namely an online portal/system for tender management and an "Integrated Communication Management Platform".¹²⁴ The tender system is designed to facilitate military procurement, including arms. The integrated communications platform is linked to the Myanmar army's Directorate of Psychological Warfare and Public Relations, and it involves the development of a

“unified strategy” for the directorate’s media to “project the holistic image [sic]”. The expected benefit is “to make Citizens aware of the support/positive work conducted by the Defence forces”.¹²⁵ It is not known how much of the ADB’s plan has been implemented through the TSRP. The TSRP includes a component for “enabling eGovernment foundations... to support the Government’s charter in governance reforms by improving transparency and accountability. It will also place a stronger emphasis on the provision of Government information and services for its constituents as committed by the President to its people.”¹²⁶ In Notification 14/2018, the government established a steering committee for e-government under the patronage of State Councillor Aung San Suu Kyi, while the committee is controlled by the military. The committee is chaired by Vice-President Lt Gen Myint Swe, a military appointee who commanded the brutal crackdown of the 2007 “Saffron Revolution”.¹²⁷ It also includes the ministers of home affairs, border affairs and defence. In November, MOTC announced the drafting of a second e-governance master plan for 2021-2025, which will include cyber crime and criminal tracking systems.¹²⁸

Justice For Myanmar concludes that World Bank-supported telecommunications reforms paved the way for the military to stake out a dominant position within Myanmar’s telecommunications sector. The World Bank failed in its due diligence by not preventing the military’s entrenchment in the communications sector. These risks should have been identified. MECTel began operations before the commencement of the PPIAF programme, and were operating in the same ministry that the World Bank was supporting. The World Bank must investigate its telecommunications sector support and put in place heightened measures to prevent its Myanmar programmes from directly or indirectly supporting the military and its business interests.

2.1 Mytel: A military-crony “public-private-partnership”

In 2015, the Myanmar government formed a Joint Venture Formation and Tender Selection Work Committee to form the consortium for Myanmar’s fourth and final telecommunications licence, intended as “a successful collaboration between private sector and Union Government [sic]”.¹²⁹ The consortium consists of three parts: an international company, a domestic special-purpose vehicle of “local firms or investors” and a Myanmar government shareholder. After the selection process, state-owned enterprise Star High Co. Ltd. was selected as the Myanmar government shareholder, under the “supervision” of the Ministry of Defence, with a 28% stake. Viettel’s international telecommunications investment subsidiary, Viettel Global Investment JSC, controls 49% of Mytel; and Myanmar National Telecom Holdings (MNTH), a special project vehicle of Myanmar companies, controls 23%.¹³⁰ Through the combination of Star High and MNTH equity, the government ensured that 51% of the company is Myanmar-owned. Mytel is registered as a private company under the name Telecom International Myanmar Co. Ltd. (formerly Myanmar National Tele & Communications Co. Ltd.).



Where are the Mytel profits?

The Myanmar military's profits in Mytel are hidden through proxy shareholders and military shell companies. Star High was appointed by Myanmar's communications ministry as the government shareholder, under the "supervision" of the Ministry of Defence. There is no transparency over financial flows.

Despite being identified as a public company in government documents and on the Mytel website, Star High is registered as a private company. Unlike other MEC subsidiaries, shares in Star High are held by individual members of the military leadership, including MEC’s managing director Thant Swe, based on an analysis of company extracts of MEC and its subsidiaries. As Star High is “supervised by” the Ministry of Defence,¹³¹ the civilian government lacks authority to scrutinise Mytel finances or operations, despite MEC holding the government’s share in the business.

2.2 Myanmar National Telecom Holdings

Myanmar National Telecom Holdings (MNTH) is a holding company of 11 Myanmar public companies, created by the government to facilitate domestic private investment in Mytel. MNTH’s total paid up capital is nearly 55 billion MMK, equivalent to just under US\$40 million, according to data from Myanmar’s company registry.¹³² This low market capitalisation figure is consistent with the government expression of interest document, which required a minimum investment commitment of only US\$3 million in order to join MNTH.¹³³ As Viettel’s investment commitment is US\$859.95 million for its 49% stake in Mytel, it appears that MNTH investors have been awarded a massive public subsidy, paying a fraction of Mytel’s true market value for lucrative shares in the business.

MNTH shareholders (share percentage unknown)

No.	NAME
1	Golden Land East Asia Development Ltd.
2	International Power Generation Public Company Ltd.
3	Mahar Yoma Public Company Ltd.
4	Myanmar Agribusiness Public Corporation Ltd.
5	Myanmar Agriculture And General Development Public Ltd.
6	Myanmar Edible Oil Industrial Public Corporation Ltd.
7	Myanmar Ict Development Corporation Ltd.
8	Myanmar Industries Alliance Public Ltd.
9	Myanmar Technologies And Investment Corporation Ltd.
10	Royal Yatanarpon Telecom Public Company Ltd.
11	Shwe Pyi Tagon Telecommunication Public Company Ltd.

SOURCE: JOINT VENTURE FORMATION AND TENDER SELECTION WORK COMMITTEE

Neither MNTH nor Mytel publish financial reports, but Justice For Myanmar found limited information in the disclosures of some MNTH shareholders. A 2016-17 audit report for Myanmar Technologies and Investment Co. Ltd. (MTI) states that its MNTH share purchases are carried “*at cost, less impairment because the fair value cannot be reliably estimated using valuation techniques supported by observable market data*”.¹³⁴ MTI’s stake in MNTH is 11.16%, from an initial share purchase of 435,520 shares at 10,000 MMK per share in 2017, followed by an additional purchase of 120,000 shares in 2019. In the 2019 purchase, shares were still valued at 10,000 MMK per share, an artificially low figure given Mytel’s “strong growth” and Viettel’s large-scale investment.¹³⁵

There are additional inconsistencies regarding MNTH’s ownership stake in Mytel. According to the Mytel website, MNTH controls 23% of Mytel.¹³⁶ However, MTI’s 2018-19 report states that MNTH only controls 12% of Mytel.¹³⁷ Justice For Myanmar is not able to explain this inconsistency.

MNTH includes major crony companies and investors from senior military families. For instance, one of Myanmar Technologies and Investment Co. Ltd.’s founders is Aung Soe Tha, the son of U Soe Tha, former Minister of Communications and former Minister of National Planning and Economic Development under Myanmar’s military dictatorship. Aung Soe Tha is also chairperson of ComBiz Group of companies, named by the UN Independent International Fact-Finding Mission on Myanmar (UN IIFMM) for making donations to the Myanmar military in support of “clearance” operations against the Rohingya. Aung Soe Tha and his father were formerly subject to EU and Australian sanctions.¹³⁸ MTI has also borrowed funds from Innwa Bank, which is owned by MEC.¹³⁹

MNTH shareholder, International Power Generation Public Company Ltd., is a major crony conglomerate owned by Ne Aung, son of Aung Thaung, the former Minister for Industry-1 under the military dictatorship and a leader of USDP, the military’s proxy party.¹⁴⁰ Aung Thaung was sanctioned by the US in 2014 for undermining Myanmar’s reform process and “perpetuating violence, oppression, and corruption”.¹⁴¹ Aung Thaung died in July 2015.

MNTH shareholder Myanmar Agribusiness Public Corporation (MAPCO) is headed by Chit Khine, a notorious crony who amassed immense wealth during the dictatorship and received major government contracts, including for corrupt and secretive construction of Naypyidaw, Myanmar’s new capital city. Chit Khine was also formerly subject to US sanctions.¹⁴² As of MAPCO’s 2017 annual report, MAPCO held a 3.34% stake in MNTH.¹⁴³

Dagon Win Aung, a major crony removed from US Treasury Sanctions in 2015, invests in MNTH through his company, Golden Land East Asia Development, which holds 72,480 shares in MNTH.¹⁴⁴

MNTH has two fully-owned subsidiaries, presumably established to serve and profit from Mytel: Myanmar National Telecom Infra Co. Ltd. (MNTI) and Myanmar National Telecom Services Co. Ltd. (MNTS). Little is publicly available about these MNTH subsidiaries.

MNTH operates in secrecy, despite being formed and regulated by the government. Myanmar's company directorate shows changes in MNTH's share capital structure and directory of members, demonstrating that the company is engaged in share trading. However, share purchases are not open to the public and MNTH and the Myanmar government does not disclose MNTH equity details. Created by the USDP-led government, the investor structure of MNTH appears to reward loyal cronies and children of top military generals, putting them in line to receive Mytel's profits. A full and independent investigation of MNTH and its shareholders is needed, with prosecution for any corrupt practices.

MNTH plays an integral role in Mytel, as an investor and as an entity represented on the Telecom International Myanmar board of directors. Through Mytel, MNTH is supporting the Myanmar military operationally, and through the creation of an independent revenue stream for the military, which enables the Myanmar military's international crimes. Justice For Myanmar finds that MNTH is aiding and abetting the commission of war crimes and crimes against humanity. MNTH's shareholders may also be aiding and abetting the commission of those crimes.

2.3 Mytel's first call

Mytel's "first call" took place on February 11, 2018, in a lavish ceremony packed with military generals. Senior General Min Aung Hlaing made the first video call to Vietnam's Minister of National Defence General Ngo Xuan Lich, followed by video calls to the commander of the Northern Region Military Command, Maj Gen Nyi Nyi Swe, and commander of Triangle Region Military Command, Maj Gen Aung Zaw Aye. The Northern Command and Triangle Command commanders are responsible for grave human rights violations against ethnic communities in Kachin and eastern Shan states. Vice Senior General Soe Win, the deputy commander-in-chief of the armed forces and commander-in-chief of the army, was also in attendance.

In Mytel's first call, Myanmar's commander-in-chief demonstrated the military use of the network. After the event, Mytel did a pre-launch roll-out use within the military. According to comments from a Telenor executive, *"MyTel has launched within the military segment, if I should dare use that term. So, we see that this is probably a soft launch."*¹⁴⁵ From the beginning, Mytel has explicitly served the Myanmar military.

Mytel held a public launch on June 9, 2018, a symbolic date that was a dog whistle to extremist Buddhist nationalists.¹⁴⁶ Senior General Min Aung Hlaing gave the opening speech, stating that information and communications technology can *"be utilised to promote culture, patriotism, nationalism and national identities, which are fundamentals for nation building"*.¹⁴⁷ The event took place less than a year after Senior General Min Aung Hlaing launched "clearance operations" against the Rohingya.

As a business, Mytel operates with a disregard for Myanmar domestic law. According to the Vietnam People's Army Newspaper, *"in terms of charges, in the first phase, Mytel will offer call and SMS charges at half the current rates in Myanmar while the data rate will be 37% lower"*. Norwegian bank DNB described Mytel's advantage as *"the military fighting in its corner"*.¹⁴⁸ This is despite provisions in the Telecommunications

Law that prohibit “anti-competitive practice” (Chapter IX). In 2019, the Ministry of Transport and Communications issued three complaints against Mytel for failure to abide by the licensing rules.¹⁴⁹ Despite its anti-competitive practices, Mytel has only been fined a trivial amount of US\$200,000 in July 2019 for breaching the Pricing and Tariff Regulatory Framework, for giving away free SIM cards.¹⁵⁰

In February 2020, Facebook announced that it had removed 13 accounts and 10 pages linked to Mytel for “coordinated inauthentic behaviour”. Mytel used the fake accounts to promote its business and attack competitors, including through the use of nationalist messages. Mytel and Viettel spent around US\$1,115,000 on advertising through the fake accounts before they were taken down by Facebook.¹⁵¹

2.4 Entertainment makes a killing

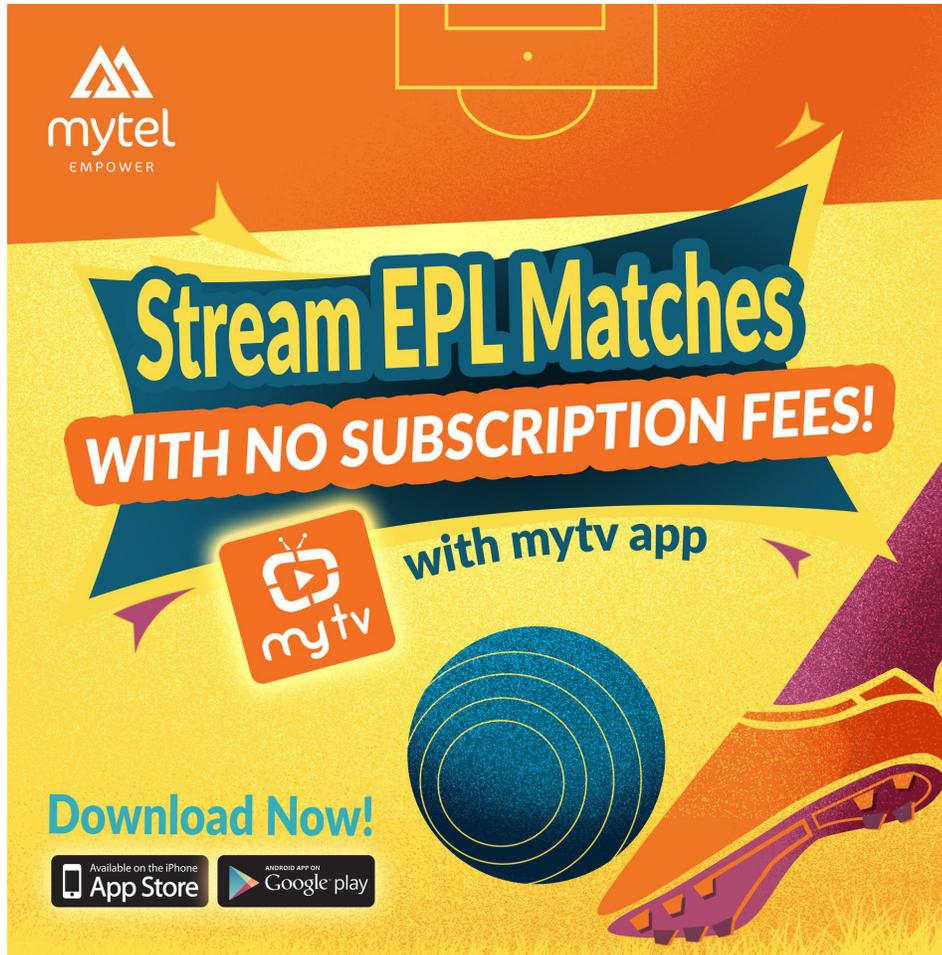
Mytel’s growth strategy in Myanmar has involved the provision of lucrative content, celebrity endorsement and the promotion of eSports to attract Myanmar subscribers.

One of Mytel and the military’s key partners is SkyNet, owned by Shwe Than Lwin. Shwe Than Lwin is a crony conglomerate that was named by the UN fact-finding mission for making donations to the Myanmar military in support of “clearance operations”.¹⁵² Kyaw Win, Shwe Than Lwin’s owner, was formerly subject to EU and Australian sanctions.¹⁵³

Mytel and Shwe Than Lwin have a video streaming agreement.¹⁵⁴ After Mytel’s launch, Shwe Than Lwin offered free access to English Premier League football through Mytel’s MyTV app. This incentivised users to join Mytel, feeding military profits. The details of the English Premier League’s licensing deal with Shwe Than Lwin are not known.

In 2014, Viettel signed a licensing deal with A Company, a German film distributor, for content on “all digital platforms”. It is not known if A Company licensed films are available on the MyTV app, however there is a risk that A Company could be in business with and profiting the Myanmar military, through its partnership with Viettel.¹⁵⁵

Mytel’s savvy marketing features Nay Toe, one of Myanmar’s biggest actors and winner of multiple Myanmar Academy Awards. Mytel promotes Myanmar films in its apps, including through Mahar, a Myanmar movie-streaming service that is integrated into Mytel’s digital content offerings. Mahar is owned by ABC-MIB Group, a crony business.



A Mytel promotion offering free streaming of English Premier League matches on the My TV app.

SOURCE: MYTEL

Mytel offers a number of gaming platforms to subscribers. Mytel's MyID app included content from Elofun, a Vietnam-based developer. Mytel's game subscription, MySotkasar, includes games from Blue Planet, Contents Hub and PlayBox.¹⁵⁶ Contents Hub and PlayBox are subsidiaries of Myantel Holdings,¹⁵⁷ a conglomerate that also operates digital financial services with Myanmar military businesses (see [Chapter 7](#)). Other Mytel content partners include UniPin, an Indonesia-based gaming platform that provides Mytel users with access to a range of games on a subscription basis.¹⁵⁸

Mytel is investing heavily in eSports, running major events including the Mytel Community Cup, Mytel Myanmar Championship and the seven-country Mytel International Championship.¹⁵⁹ Gaming videos are streamed through Mytel's Myanmar Game Hub and MyID app, supporting Mytel's network growth. One of Mytel's main eSports partners is Moonton, the China-based developer of Mobile Legends: Bang Bang, a game banned in India due to privacy concerns.¹⁶⁰

Mytel's digital content is a serious privacy risk for users. Its MyID Digital Hub, downloaded more than 1,000,000 times on the Google Play store, requires a large number of permissions, including recording audio,

finding accounts on a device, precise location tracking, photo and video control, reading contacts, reading the content of USB storage, making and receiving calls and full network access.¹⁶¹ The MytelPay app requires permission to download files without notifications.¹⁶² MyID app functions include a free voice over internet protocol (VOIP) and messaging service, generating data that could be mined by the Vietnam military. It is almost certain that the trove of information from these apps is accessible by the Myanmar military, which could use it for intelligence purposes, creating serious risks for Mytel users.

Digital content providers are, at a minimum, directly linked to the Myanmar military's international crimes, by maintaining a commercial relationship with Mytel and feeding the military's secret slush fund. They must cut ties with the Myanmar military and their partners.

2.5 Enterprise services

Mytel currently provides a range of services to enterprise customers. These offer a revenue stream to the Myanmar military, enriching top generals and supporting human rights violations. The Myanmar military also has access to these enterprise services and could use them for military purposes.

In August 2018, around the first anniversary of the Rohingya genocide, ngena – the Germany-based Next Generation Enterprise Network Alliance, announced a partnership with Viettel for the sale of software-defined network (SD-WAN) services in Myanmar.¹⁶³ ngena services include technology from Cisco, for “state-of-the-art cloud and virtualization technologies”.

ngena is an alliance of major international businesses founded by Deutsche Telekom. ngena and Cisco are at a high risk of supporting war crimes and crimes against humanity in Myanmar through their provision of services to Mytel. At a minimum, they are supporting the military's criminal business activities. ngena failed in its human rights due diligence obligations by allowing Viettel to join ngena. ngena should therefore expel Viettel from the alliance until it ceases trading in Myanmar.

Mytel enterprise offerings include “My Meeting”, a video conferencing solution.¹⁶⁴ Justice For Myanmar strongly suspects Mytel's video conferencing technology is supplied by Viettel IDC, a subsidiary within the Vietnam Ministry of National Defence. Viettel IDC's system is also built with Cisco, and there is a risk that Cisco technology is being used and sold by the Myanmar military.¹⁶⁵

Other Mytel enterprise services include “My Tracking” for the tracking of “large, distributed fleets” with artificial intelligence;¹⁶⁶ a distribution management system; cloud computing services; data centre services; internet protocol (IP) transit services; and virtual, domestic and international private networks.¹⁶⁷ In 2019, Blue Ocean Business Services Co. Ltd. signed an agreement with Mytel for the provision of products and services to micro, small and medium-sized businesses.¹⁶⁸ Blue Ocean Business Services is owned by Htun Htun Naing, who also owns content provider Blue Planet. Htun Htun Naing is connected to the military's digital financial services through Myanmar Payment Solutions Services (discussed in [Chapter 7](#)). Mytel has developed an ecosystem of content, products and services, developed through global supply chains.

Businesses within these supply chains are, at a minimum, providing an additional source of revenue to finance the Myanmar military's crimes. All businesses that may be connected to Mytel, directly, or indirectly through Viettel, must conduct human rights due diligence in accordance with their international human rights obligations.

2.6 SIM registration

On June 30, 2020, the Myanmar government's deadline for compulsory SIM card registration passed, resulting in the disconnecting of 34 million sim cards during the Covid-19 pandemic.¹⁶⁹ The move requires registration through the National Registration Cards (NRC) system, which discriminates against Rohingya and other minorities who are rendered stateless within Myanmar's "race"-based citizenship law. According to Privacy International, it is also a "serious threat to privacy in a country lacking any data protection or surveillance laws and where minorities are systematically persecuted".¹⁷⁰ According to the Special Rapporteur on the situation of human rights in Myanmar,

*Mandatory registration creates an ability to track and locate registered individuals without proportionate and necessary justification. It also has the potential to be used for surveillance, censorship, targeting political opponents, and infringing on freedom of expression. This poses serious risks to security, safety, privacy and other rights.*¹⁷¹

The mandatory registration involves a "common database" to be paid for through the Universal Service Fund, which is supposed to support telecommunications access for remote communities. Privacy International wrote to the Ministry of Transport and Communications and the four operators raising human rights and privacy concerns regarding compulsory SIM card registration and the common database. Mytel and MPT have not replied.¹⁷²

Telenor expressed "sincere regret" in an open letter on July 1, 2020, regarding its compliance with the Myanmar government's SIM registration policy, writing that "it is painful to have to switch off and stop serving a large share of our customers".¹⁷³ Mytel expressed no public concerns. Mytel's SIM registration is being carried out in partnership with Misfit Technologies, a Singapore company with offices in Myanmar and Bangladesh. Misfit is providing Mytel with optical character recognition technology for its processing of National Registration Cards.¹⁷⁴ Misfit Technologies' business relationship with Mytel contravenes its human rights obligations under the UN Guiding Principles. Its participation in the SIM registration scheme, and its commercial link to Mytel, contributes to the Myanmar military's human rights violations.

CHAPTER 03

THERE'S NOTHING "CIVIL" ABOUT MYTEL

- Viettel's investment in Mytel is part of the wider defence relationship between Vietnam and Myanmar, which involves technology transfer and training.
- The launch of Mytel involved the upgrading of military-owned infrastructure, including fibre optic cables.
- A number of Viettel subsidiaries are operating in the Myanmar market and have commercial ties with Mytel and the Myanmar military, supporting the Myanmar military's modernization, and thereby contributing to the military's international crimes.
- One Viettel subsidiary, M1, has a relationship with the Myanmar Air Defence Command for technology transfer and training.
- Personal data is being collected by Mytel and analysed by a Viettel subsidiary in Vietnam, which the Myanmar military could use for intelligence purposes. This creates a serious privacy risk for Mytel users and those in their networks.

- 3.1 Viettel in Myanmar
- 3.2 Mytel's military infrastructure
- 3.3 Viettel subsidiaries in Myanmar
- 3.4 Allied Vietnamese businesses

CHAPTER 03

Viettel's entry into Myanmar and the creation of Mytel is part of a wider context of Myanmar-Vietnam military relations, serving the strategic purposes of both militaries. Under the Viettel charter, and within the bilateral defence relationship, political concerns and the survival of their authoritarian systems are paramount. For Myanmar, close military ties to Vietnam reduces reliance on China and could lessen its hold over the Myanmar military. Access to military hardware from Vietnam could strengthen the Myanmar military by diversifying the supply of arms and technology. For Vietnam, Myanmar is a key ally in the Association of Southeast Asian Nations (ASEAN), and the country has appealed for Myanmar to support its position on the South China Sea, including in discussions related to Mytel.¹⁷⁵

3.1 Viettel in Myanmar

Viettel's first representative office was opened in 2010, under the military dictatorship, after lobbying at the highest levels for Myanmar to support Viettel investment in the country.¹⁷⁶ In early 2010, the Myanmar military dictatorship hosted Vietnamese Prime Minister Nguyen Tan Dung. A joint cooperation statement was signed that included telecommunications, in which *"Myanmar agreed to further consider other investment projects submitted by Viettel while facilitating VNPT [Vietnam Posts and Telecommunications] to enhance its business cooperation in Myanmar"*.¹⁷⁷

When the USDP-led government came to power, Senior General Min Aung Hlaing's first international trip was to Vietnam, breaking from the tradition of the commanders-in-chief visiting China first, which some commentators viewed as a snub.¹⁷⁸ Myanmar and Vietnam signed a comprehensive military cooperation agreement in 2011, which paved the way for later cooperation, including Viettel's investment in Myanmar and support for military communications.¹⁷⁹ The 2011 meeting preceded a large number of high-level state visits that involved negotiations over Mytel, within the context of the wider political and military relationship. In a number of bilateral meetings, Mytel has been framed as a "highlight" of the military relationship between the two countries.¹⁸⁰ Myanmar military and business delegations to Vietnam for Mytel are almost certainly made at public expense, from the state budget.

Justice For Myanmar has found disturbing evidence that Viettel is supporting the Myanmar military's modernisation through the transfer of technology and training, boosting the military's technical capabilities. In doing so, Viettel and the Vietnam Ministry of National Defence are contributing to military operations in ethnic areas of Myanmar and aiding and abetting war crimes and crimes against humanity.

The Director of the Myanmar army's Directorate of Signals, Maj Gen Thaw Lwin, is a Mytel director. This gives the Directorate of Signals direct oversight over the Mytel network and its equipment.¹⁸¹ Viettel also directly supports the directorate through a military communications partnership. This involved a Directorate of Signals delegation to Vietnam in 2017, led by Maj Gen Thaw Lwin.¹⁸² The institutionalised role of the Directorate of Signals in Mytel is a serious concern, placing what is supposed to be a civil mobile network operator within the army's tactical communications apparatus. It is also a severe conflict of interest, as the military and its partners are profiting from public military infrastructure. Maj Gen Thaw Lwin was formerly a director of MEC.¹⁸³



Maj Gen Thaw Lwin meeting the deputy chief of staff of the Vietnam People's Army during a visit of the Myanmar army Directorate of Signals to Vietnam in 2017.

SOURCE: VOICE OF VIETNAM¹⁷⁸

The Vietnam-Myanmar military communications relationship includes support for “illegal migration control”,¹⁸⁵ which potentially means Vietnamese military and Viettel involvement in state attempts to block Rohingya from returning to Myanmar, part of the state crime of genocide being heard before the International Court of Justice. There is a risk that this could involve the use of Viettel surveillance drones in the future, which the company is arming with missiles. Bilateral cooperation has also reportedly been deepened in the field of “defence industry”, suggesting Vietnamese support for the Myanmar military’s weapons manufacturing programme.¹⁸⁶

3.2 Mytel's military infrastructure

Justice For Myanmar has uncovered new evidence that Mytel is using and upgrading Directorate of Signals infrastructure, including the army’s network of fibre-optic cables. This infrastructure is under the responsibility of Maj Gen Thaw Lwin, director of the Directorate of Signals and a director of Mytel.

Building and maintaining a dual-use network, where the “civil” network “provides a backup to the military communications network in peacetime, ready to be switched to a military footing, if so required in wartime” is part of Viettel’s domestic mission, and is a strategy shared by the Myanmar military.¹⁸⁷ Mytel’s network was built on, and is integrated into, pre-existing Myanmar military infrastructure, constructed with public funds, serving the Directorate of Signals as needed and ensuring military profits.

On launch, Viettel announced that Mytel had “over 30,000km of fibre-optic cable that cover the entire nation”.¹⁸⁸ Media reporting of Mytel’s launch similarly reported that “30,000km of fiber cable has been installed, contributing to 50 percent of the country’s fiber-optic infrastructure”.¹⁸⁹ The Vietnam People’s Army Newspaper wrote that “Mytel... installed more than 30,000km of optical cable throughout Myanmar”.¹⁹⁰ MEC reportedly controlled 13,000km of fibre-optic cables at the time of Mytel’s formation in 2016, and this was given as a reason for the government’s selection of MEC as the state shareholder.¹⁹¹ If the Mytel and MEC figures are added together, it would put Mytel in control of 43,000km of fibre-optic cables.

However, Ministry of Transport and Communications records of permitted fibre routes show Mytel in control of only 14,125km across 48 routes, less than half of the supposed 30,000km. Of the 14,125km, only 8,892km had been completed as of September 2019. MOTC does not list MEC’s 13,000km, suggesting it is not under the remit of the civilian regulator. As MECTel operates and is licenced as a mobile virtual network operator, it is unclear how and why MEC came to own and operate 13,000km of fibre optic cables. That figure would put MEC on a par with MPT, which MECTel operates through. In comparison, as of 2019, Telenor Myanmar only has 3,501km of fibre-optic cables constructed, with 76km under ongoing construction, and Ooredoo has 3,722km, with 1.5km under construction.

Mytel does use fibre-optic cables from third parties. The largest shared fibre network is operated by Chinese-owned Myanmar Fiber Optic Communication Network Co. Ltd., (MFOCN) which had 24,106km completed as of September 2019. MFOCN signed a contract with Mytel in 2018.¹⁹² Mytel also has a contract for dark

fibre with GlobalNet, a Myanmar company.¹⁹³ While third-party contractors may increase the capacity of Mytel and the military's network, this does not account for Mytel's 30,000km and MEC's 13,000km.

In an April 2020 Mytel transmission database for Sagaing and Mandalay regions, found in the Viettel Construction Myanmar data breach, three owners of Mytel cable routes are listed: Mytel, MFOCN and DOS.¹⁹⁴ DOS is a common abbreviation for the Directorate of Signals of the Myanmar army. In an incident summary spreadsheet, found in the Viettel Construction Myanmar data breach, cable fault descriptions related to "DOS" include a number of references to military captains and DOS team captains, description of a DOS team repairing a cable in the Defence Services Medical Academy army compound and multiple references to DOS "stations".¹⁹⁵

Based on the available evidence, Justice For Myanmar concludes that a significant portion of Mytel's fibre-optic cable network includes infrastructure controlled by the Myanmar military, serving a military purpose. Military communications infrastructure is not regulated by the Ministry of Transport and Communications (MOTC) and therefore would not be included in its reporting. Mytel may pay to lease the network from the Myanmar army, or access could amount to an "in-kind" contribution, as part of the secret agreement between the two militaries and their commercial enterprises.

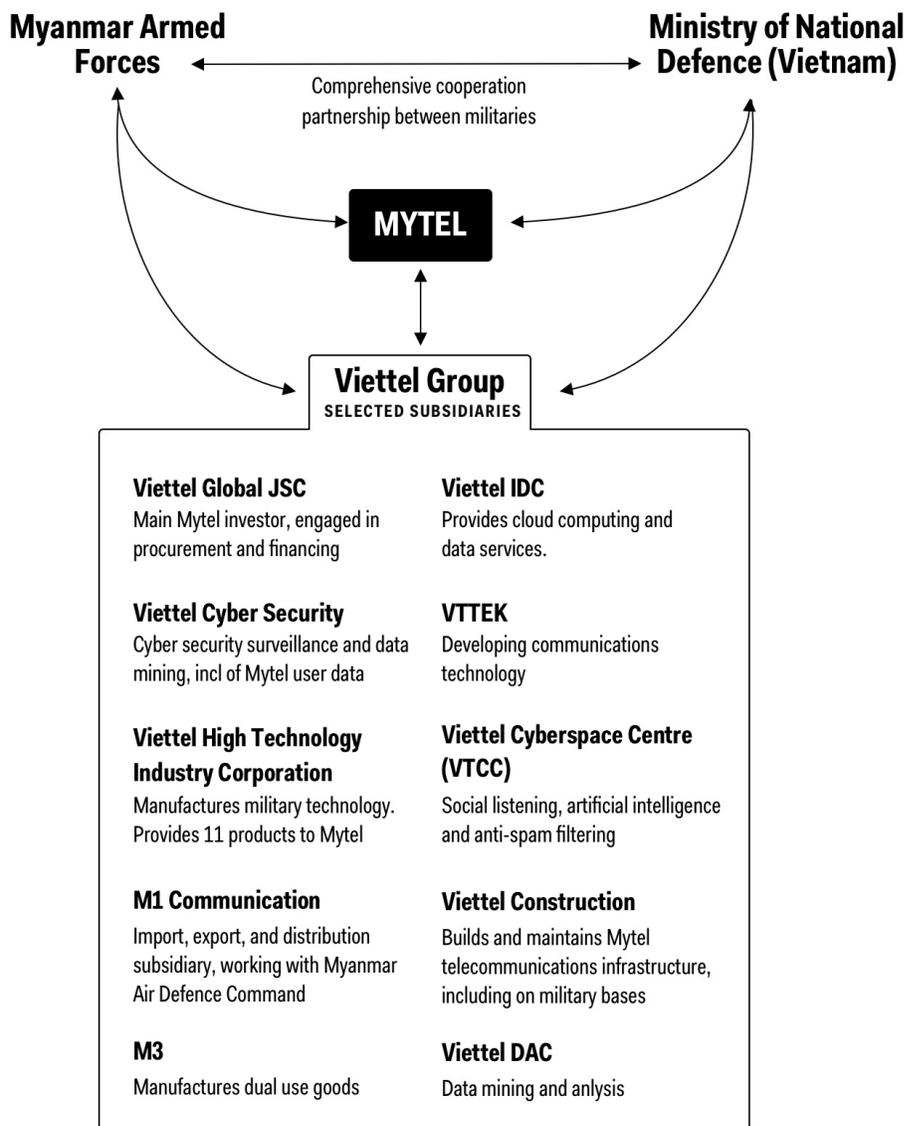
It is likely that some fibre-optic cables reported by Mytel come under Myanmar's Air Defence Command, which has a technology transfer partnership with Viettel (discussed under "M3" later in this chapter). Myanmar's air force reportedly constructed a national network of fibre-optic cables before the launch of Mytel:

In 2010, Myanmar Air Defense Command has completed installation of optical fiber communication network throughout the country. Those network are to be used for Air defense operations between Central Command HQ from capital & several air bases, early warning radar stations & mobile anti air craft missile & artillery units... Each IOC [Intercept Operations Centre] is optimized to direct either SAMs [surface-to-air missiles] or fighter/interceptor aircraft against incoming enemy aircraft or missile. Each IOC was connected to observer and early warning area reporting posts (RP) via military owned underground fibre optic cable network [sic].¹⁹⁶

On launch, MEC had more than 1,000 towers.¹⁹⁷ As MECTel was a mobile virtual network operator, run through MPT, MECTel would need those towers for its own network. It is likely that the towers are part of the army's signals infrastructure, commercialised by the military and upgraded through Mytel. A DNB analysis described MEC's towers as being on "less regulated military land".¹⁹⁸ Justice For Myanmar has found that an unknown number of towers are in military facilities and bases (see [Chapter 5](#)). Towers were also built on sites of MEC businesses, including its "main store" in the Mingalar Taungnyunt area of Yangon¹⁹⁹ and its sugar-processing facility in Kanbalu, currently at the centre of a conflict with local farmers after the military seized their land for sugar plantations.²⁰⁰ According to MOTC, as of May 2020, MEC controls 1,052 towers, with Mytel controlling 3,436 towers. This combined figure puts Mytel and MEC in control of 4,488 towers, more than any other operator, including MPT. As of May 2020, MOTC has reported that Mytel also controls 14,129 base transceiver stations.

According to Senior General Min Aung Hlaing, the establishment of Mytel has involved the “systematic upgrading” of MECTel infrastructure.²⁰¹ MECTel is fully-owned by the Myanmar military, in which it is integrated, and it is likely that the military would utilise MECTel infrastructure, if only as a back-up network. Through Mytel, the Myanmar military has therefore upgraded its own infrastructure and expanded its military communications network, tightening its grip on the country.

There must be an independent investigation of Mytel’s use of military infrastructure and the disclosure of all public funds spent on the construction and operations of the Mytel network.



Mytel and Myanmar military's defence partnership.

Viettel is engaged in the transfer of military and dual-use tech to Myanmar. Mytel is a core aspect of the Vietnam - Myanmar defence partnership.

3.3 Viettel subsidiaries in Myanmar

Through Mytel, numerous Viettel subsidiaries operate in the Myanmar market, to invest in and manage Mytel and to supply it and the Myanmar military with technology and services. All Viettel subsidiaries serve a military purpose for Vietnam's national defence. Many are engaged in the manufacture of weapons and dual-use goods, as well as services for the Vietnam military's cyber capabilities. There is a high risk that Viettel is arming the Myanmar military and supporting its cyber capabilities. Justice For Myanmar concludes that Viettel is providing the Myanmar military with dual-use goods, aiding and abetting international crimes.

3.3.1 Viettel Global Investment JSC

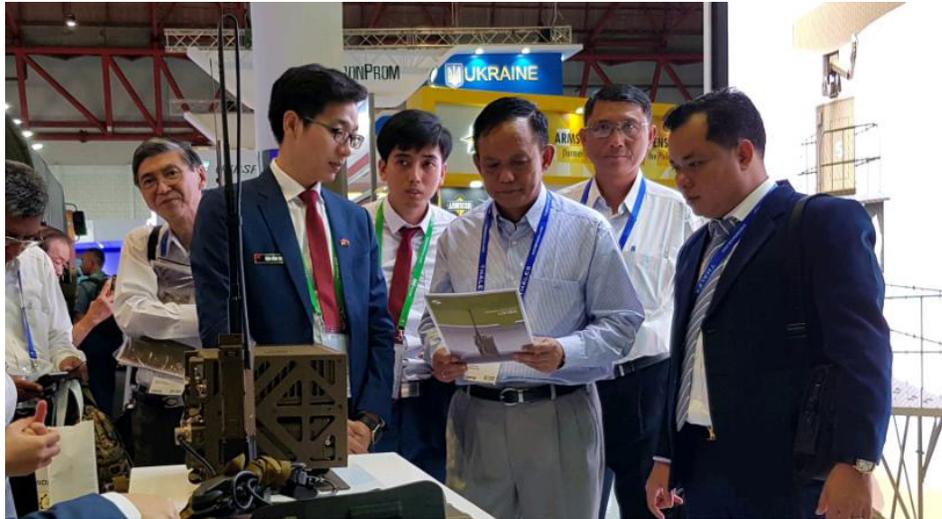
Viettel's global telecommunications subsidiary, Viettel Global Investment JSC holds Viettel's 49% equity in Telecom International Myanmar (Mytel) and plays a key role in capital-raising and management. See details in [Chapter 7](#). Viettel Global Investment JSC hold 4 seats on the Telecom International Myanmar board, and a member of Viettel Global Investment JSC holds the position of Chief Executive Officer. See [Appendix 4](#) for details.

3.3.2 Viettel High Technology Industry Corp (VHT)

VHT was established with a vision to *"become the nuclear of the hi-tech defense industry complex [sic]"*.²⁰² VHT manufactures radar systems, electronic weapons, electro-optical weapons, military command systems and military communications equipment.²⁰³ According to the Vietnam People's Army Newspaper, 11 unspecified VHT products are being used in Viettel's "11 overseas markets", which presumably includes Myanmar.²⁰⁴ In March 2017, Senior General Min Aung Hlaing led a military delegation to Vietnam, visiting the Viettel Research and Development Institute, which was incorporated into VHT in 2019.²⁰⁵ In 2018, Myanmar military officials visited VHT at the Indo Defence arms expo.²⁰⁶ Justice For Myanmar expects a wider range of contacts between the Myanmar military and VHT, which are not in the public record.

Viettel is cultivating links with the North Korean regime – a North Korean delegation visited a research and development facility in 2019, which is likely VHT,²⁰⁷ and Viettel has publicly announced a desire to invest in North Korea.²⁰⁸

Iridium, a Nasdaq-listed satellite business domiciled in the USA, has a commercial partnership with Viettel to sell a hybrid general packet radio service (GPRS)/Iridium satellite tracking system.²⁰⁹ It is not known if Iridium provides additional technology to VHT. Through Viettel, Iridium technology could be accessed by the Myanmar military and contribute to human rights violations. Iridium has previous links with Myanmar, signing a wireless communications deal with the Myanmar military dictatorship in 1998.²¹⁰



Myanmar military officials at the VHT booth during the 2018 Indo Defence expo.

SOURCE: VHT

3.3.3 Viettel Cyber Security

Viettel Cyber Security is engaged in network surveillance, machine learning and data mining, including for the Vietnam's Ministry of National Defence.²¹¹ A 2019 announcement confirmed that Viettel Cyber Security provides digital security services to Viettel's "invested telecommunications networks in the 10 foreign markets", which would include Mytel. This creates the risk that Viettel Cyber Security could be utilised by the Myanmar military and security forces, including for surveillance and internal repression.²¹² The presence of Viettel Cyber Security in Myanmar creates a serious privacy risk for Myanmar Mytel users, and the technology could also be deployed within Directorate of Signals and military intelligence.

3.3.4 M1 Communication

M1 is a Viettel subsidiary that manufactures arms and dual-use technology, and has a commercial relationship with the Myanmar military. M1 operates five production lines, including manufacturing factories for military and telecommunications devices and for military auxiliary.²¹³ M1 was created in 1945 under the Defence Communications Agency and merged with Viettel Group in 2009.²¹⁴

In March 2018, Qualcomm (USA) signed a partnership with M1, giving M1 access to its patents for the research, design, manufacture and sale of telecommunications equipment worldwide.²¹⁵ This agreement came after Viettel's entry into Myanmar and followed the Rohingya genocide. There is a high risk that Qualcomm technology could be used in the manufacture of weapons or dual-use goods that are sold to the Myanmar military. Justice For Myanmar sees a high likelihood that, by giving M1 access to Qualcomm patents, Qualcomm has failed to live up to its international human rights obligations and may be contributing to human rights violations in Myanmar.

In April 2018, a Myanmar Air Defence Command delegation held negotiations with M1 for the transfer of technology, training and other support. According to news posted on the M1 website,

*“Lieutenant General Tin Maung Win expected to soon reach agreement with Viettel and M1 for long-term co-operation in the future, not only related to sales but also technology transfer, training and installation of modern lines such as Viettel M1”.*²¹⁶ The reference to “installation of modern lines” suggests that Viettel is supporting the Myanmar military to establish high-tech manufacturing.



Myanmar Air Defence
Command visit to M1 in 2018.
SOURCE: M1

3.3.5 M3

M3 is a Viettel subsidiary that manufactures optical products, machinery and antennas for dual-use. Products include tactical optical cables,²¹⁷ for use in military communications, and turbojet mini engines for use in unmanned aerial vehicles (UAVs) and “flying targets”, which may refer to missiles.²¹⁸ In 2018, M3 announced contracts in Myanmar. It is not known if these are with Mytel, the Myanmar military directly or a third party.²¹⁹ Viettel Global lists payments to M3 without specifying which market.²²⁰ There is a high likelihood that M3 products are being procured for use by Mytel and the Myanmar military.

3.3.6 Viettel Network Center (Viettel IDC)

IDC is Viettel’s cloud computing subsidiary, providing a range of cloud computing, security and data centre services. It also deploys smart city technology, including public security surveillance.²²¹ In 2018, the director of Viettel IDC announced plans to export its cloud computing services, starting with Myanmar.²²² Justice For Myanmar cannot confirm if the Myanmar military is using Viettel IDC technology. However, there is a high risk that the military has access to high capacity cloud computing through Viettel IDC, which could support military applications in artificial intelligence, big data and internet of things. Mytel is offering cloud computing services to enterprise users already, which could possibly be provided by IDC.²²³ There is a high risk that IDC technology provides profits to the Myanmar military and supports the Myanmar military’s modernisation. Viettel IDC has partnerships with Fujitsu, for server infrastructure,²²⁴ and Microsoft, for access

to Azure cloud and other applications.²²⁵ Azure cloud is also being used by the US Department of Defence in a projected US\$10 billion “JEDI” cloud computing contract.²²⁶ Through their partnership with IDC, Fujitsu and Microsoft may be connected to the Myanmar military’s international crimes.

3.3.7 Viettel Big Data Analytics Center (DAC)

Operating from Hanoi, DAC collects personal data from Viettel subsidiaries into a data lake for analysis. The DAC data-mining system has already been implemented in Myanmar.²²⁷ Justice For Myanmar found evidence that at least one full-time data analyst is employed by DAC solely to analyse Mytel user data.²²⁸ Justice For Myanmar cannot confirm what data is collected. Mytel’s privacy policy does not specify what data is collected and enables the sharing of personal data with Mytel shareholders, which therefore includes the Myanmar military, and authorises data storage outside of Myanmar’s jurisdiction:

Mytel is allowed to share your information securely, including internally within the Mytel company, Mytel’s shareholders companies and externally our partners in accordance with this policy. Your information may, for example, be transferred or transmitted to, or stored and processed in the Myanmar or other countries outside of where you live for the purposes as described in this policy. These data transfers are necessary to provide better the services and products to you.²²⁹

It is therefore highly likely that the Myanmar military would have access to DAC’s trove of personal data collected from Mytel users and DAC systems could strengthen military intelligence capabilities. The operations of DAC raise serious privacy concerns for Mytel users and their networks, whose personal data may be used for purposes that they are not aware of and have not consented to, and without democratic safeguards. It is of further concern that data is very likely being stored and used in Vietnam, outside of Myanmar’s jurisdiction.

3.3.8 Viettel Cyberspace Center (VTCC)

VTCC provides social listening, artificial intelligence, data mining and big data services. VTCC has produced an anti-spam filtering system for phone calls that has been ordered for use in Myanmar, which is likely the Mytel network.²³⁰ The system would collect a large amount of personal data, which the Myanmar military could have access to and could be used for intelligence purposes. VTCC raises serious privacy concerns for Myanmar users, which needs further investigation.

3.3.9 Vietnam Network Technologies Center (VTTEK)

VTTEK undertakes research and development in telecommunications technology and systems – including 5G, location systems and core network applications.²³¹ VTTEK technology has been deployed in Viettel’s overseas markets and, while it cannot be confirmed that VTTEK technology is in use in Myanmar, it is highly probable. As a military manufacturer of 5G technology, there is a risk that VTTEK could supply the Directorate of Signals and support the modernisation of Myanmar military communications.

VTTEK's 5G development involves a partnership with NuRAN Wireless Inc, a Canada-based company listed on the Canadian Securities Exchange.²³² There is a high risk that NuRAN's partnership with VTTEK will contribute to the Myanmar military's war crimes and crimes against humanity, through technology transfer and through revenue, as Mytel rolls out its 5G network.

There is also evidence to suggest VTTEK has adapted Nokia technology for 4G base stations.²³³ The status of this, and whether equipment connected to Nokia has been deployed in the Mytel network, needs further investigation.

3.3.10 Viettel Business Solutions Corporation

Viettel Business Solutions provides digital services, including in smart city technology and internet of things. Viettel Business Solutions products include video surveillance technology,²³⁴ an "Intelligent Operation Centre"²³⁵ and social media monitoring.²³⁶ Its Intelligent Operation Centre features "intelligent image processing through identification algorithm" for public security supervision and monitoring.²³⁷ Viettel Business Solutions has been developing smart city technology in partnership with Nokia, in connection with Nokia's Integrated Operations Centre.²³⁸

Viettel Business Solutions lists Myanmar as part of its network²³⁹ and Myanmar appears to be one of the 10 foreign markets with Viettel Business Solutions's service and customer care network.²⁴⁰ Justice For Myanmar could not find details of services the business is providing in Myanmar. There is a high risk that the technology could be used for human rights violations against Myanmar people, were it to be used by the Myanmar military or police.

3.3.11 Viettel Construction

Viettel Construction specialises in the building, operations and maintenance of telecommunications infrastructure, and has a registered office in Myanmar. According to the aforementioned internal documents Viettel Construction's Myanmar subsidiary inadvertently published online, Viettel Construction Myanmar (VCM) has major contracts with Mytel. These include the construction and maintenance of telecommunications infrastructure in military bases, according to company documents. (See [Chapter 5](#) for details). VCM describe themselves as a "*strategic partner of ZTE and Mytel.*"²⁴¹

3.3.12 Viettel Import and Export (Viettelimex)

Viettel Import and Export is Viettel's logistics business, operating a distribution and export centre and it appears to be involved in procurement for Viettel's global network, which likely includes Myanmar.²⁴²

3.4 Allied Vietnamese businesses

The following Vietnamese businesses are operating in Myanmar and have commercial links to the Vietnamese military:

3.4.1 Comit

Comit works in the field of artificial intelligence, big data, network monitoring, communications testing and measuring equipment and allied services. Comit is a partner of Viettel, and works with a number of Viettel subsidiaries, including M1 and M3.²⁴³ The business is also a contractor of the Vietnam Ministry of Defence and police.²⁴⁴ Comit opened a subsidiary in Myanmar in 2014, Comit Telecommyanmar Co. Ltd., working with clients including the Myanmar government, MPT, Nokia, Ericsson and Mytel. For the Mytel network, Comit is a “partner” for a large number of Mytel and MEC towers.²⁴⁵ Comit partners with Nasdaq-listed company VIAVI Solutions (USA). In Myanmar and other south-east Asian markets, Comit is a VIAVI Solutions “Premium Elite Partner” providing telecommunications system testing, monitoring and optimisation.²⁴⁶ Comit’s role in providing services to Mytel appears to be substantial, and may include services on military sites. Justice For Myanmar concludes that Comit may be aiding and abetting the commission of war crimes and crimes against humanity.

Comit provides artificial intelligence-based marketing support to Viettel, as part of a partnership with Netherlands-based Flytxt, analysing personal data in Vietnam to increase Viettel sales. It is not known if Comit is also using the Flytxt system to analyse Mytel user data, and whether the Myanmar military has access to Comit’s artificial intelligence technology.

3.4.2 FPT

FPT is a Vietnam-based major telecommunications and technology business, operating in sectors including security and defence, and a Viettel partner.²⁴⁷ In 2013, FPT opened an office in Myanmar and has major contracts with the Myanmar government, including Myanmar’s national portal, six data centres for the Ministry of Finance and the construction and operation of Myanmar’s National Financial Switching System for Myanmar Payment Union (MPU). FPT also built a data centre for Mytel in Myanmar.²⁴⁸

3.4.3 Taicom JSC

Taicom is a Vietnamese business that is involved in telecommunications infrastructure construction for Mytel, including within military bases (see [Chapter 5](#)). Justice For Myanmar could not find evidence of a Taicom legal subsidiary in Myanmar.

CHAPTER 04

MILITARY AND MYTEL SATCOM

- Access to satellite technology is essential for the Myanmar military. As a result of market liberalisation, the Myanmar has wider access to satellite communications.
- The satellite communications industry implicates major international businesses that may be directly contributing to the Myanmar military's international crimes, both directly and through Mytel.
- JAXA, Japan's space agency, and allied Japanese universities, are supporting Myanmar's space programme, which benefits the Myanmar military.

- 4.1 AsiaSat (Hong Kong)
- 4.2 Hughes network systems (USA)
- 4.3 Vietnam posts and telecommunications (VNPT) (Vietnam)
- 4.4 Gilat satellite networks (Israel)
- 4.5 Intelsat (Luxembourg/USA)
- 4.6 JAXA, Hokkaido and Tohoku universities (Japan)

CHAPTER 04

Satellite communications (Satcom) is crucial for the military's command and control system as well as for electronic warfare, missile systems, naval and air force operations, killer robots, signals interception and mass surveillance. Access to satellites supports the Myanmar military in the commission of international crimes of genocide, war crimes and crimes against humanity.

Satellites also plays a role in civil telecommunications by providing backhaul support and enabling people in remote areas to have access to mobile communications. Through Myanmar's transition to "disciplined" democracy, the Myanmar military's access to satellites has increased, likely boosting military capability. This is supported by a domestic Satcom industry that emerged as a result of World Bank-supported telecommunications reforms, approved by the NLD-led government government.

4.1 AsiaSat (Hong Kong)

AsiaSat is a Hong Kong-based satellite business with direct links to the Myanmar military. AsiaSat is owned by CITIC and the Carlyle Group. CITIC is a Hong Kong-listed conglomerate majority owned by China's Ministry of Finance. CITIC is leading a consortium to develop a controversial special economic zone and deep-sea port in Kyaukphyu, Arakan state, as part of the China-Myanmar Economic Corridor (CMEC).²⁴⁹

The Carlyle Group is a US-based equity firm listed on the Nasdaq. In 2019, a Wall Street Journal investigation uncovered the Chinese government’s acquisition of US satellite technology through AsiaSat, and the use of AsiaSat to “strengthen police and military power” including in the South China Sea and Xinjiang.²⁵⁰ As a result, the US Congress ordered an investigation into AsiaSat in December 2019.²⁵¹

AsiaSat has provided Satcom support to the Myanmar military since as early as 1989, when China installed an AsiaSat network in Myanmar for external communications.²⁵² In 1994, the military leased a quarter of a transponder on the satellite AsiaSat 1, expanding its Satcom capabilities.²⁵³ The Myanmar army’s Directorate of Psychological Warfare and Public Relations has had a long relationship with AsiaSat, signing a contract in 1997 to broadcast military propaganda on AsiaSat 2.²⁵⁴ AsiaSat 2 was built by General Electric Astro Space, a predecessor of Lockheed Martin (USA).²⁵⁵ The Directorate of Psychological Warfare and Public Relations currently uses AsiaSat 9 to broadcast seven Myawaddy TV (MWD) channels, a medium the army used to disseminate hate speech against the Rohingya and instigate communal violence, as part of the crime of genocide.²⁵⁶ The UN Independent International Fact-Finding Mission on Myanmar (UN IIFFMM) found that hate speech “*accompanied outbreaks of violence, especially in Rakhine State*” and described “*dehumanizing and stigmatizing language against the Rohingya, and Muslims in general*”.²⁵⁷ AsiaSat 9 was built by US-based Maxar Technologies, one of five satellites Maxar has sold to AsiaSat.²⁵⁸



A screengrab of the Myanmar army broadcasting over Maxar-built AsiaSat 9 during the Rohingya genocide in September 2017.

SOURCE: MWD ON YOUTUBE.

AsiaSat has contacts with a number of Myanmar businesses, including King Royal Technologies Co. Ltd., a Myanmar military contractor that has commercial ties to Viettel. King Royal Technologies was set up in 2013 for the supply and provision of “secure satellite communications for Ministry of Defence [sic]”.²⁵⁹ King Royal Technologies received a network facilities licence in 2015, benefiting from the World Bank-supported sector reforms. Services under the licence include terrestrial fixed-line transmission facilities, satellite earth station facilities, provision of internet, ducts, trenches, poles, dark fibre, radio equipment, deployment and maintenance of telecommunications networks.²⁶⁰



A King Royal Technologies product display at CommuniCast show, Myanmar, 2014, showing military communications equipment.

SOURCE: KING ROYAL TECHNOLOGIES

During the 2018 Myanmar Air Defence Command visit to Viettel subsidiary M1 (see [Chapter 3](#)), two members of King Royal Technologies Co. Ltd were included in the delegation.²⁶¹ According to the M1 website, King Royal Technologies is engaged in military research and manufacturing of military equipment. This could suggest a public-private partnership involving the army's signals workstations, or investment into domestic manufacturing of military signals equipment for sale to the Myanmar army. In the same year, King Royal Technologies proposed a meeting with the Myanmar army's Directorate of Procurement regarding the VIP configuration of an Airbus A319, according to a leaked document released by Justice For Myanmar.²⁶²

As Myanmar's telecommunications market has grown, King Royal Technologies has branched out into civil telecommunications, further showing the enmeshment of military and business interests in the sector.

In 2015, OCK Group (Malaysia) and King Royal Technologies signed a master lease agreement with Telenor for 920 towers, an alarming failure in Telenor's human rights due diligence given King Royal Technologies open military procurement activities.²⁶³ King Royal's partner, OCK, leases towers to Mytel.²⁶⁴ King Royal Technologies provides services to Myanmar's state-owned telecommunications enterprise MPT, and there is a high likelihood that King Royal is also a Mytel contractor.²⁶⁵

King Royal Technologies sells satellite services in Myanmar through AsiaSat, and there is a risk that the company uses AsiaSat for its Satcom services to the Myanmar military. According to the AsiaSat website, King Royal Technologies is using AsiaSat 7's Ku-band frequency spectrum.²⁶⁶ King Royal also has a satellite contract with Speedcast International, a Singapore company that recently filed for bankruptcy.²⁶⁷

Other Myanmar AsiaSat contractors include KBZ Gateway and Seanet. KBZ uses multiple AsiaSat satellites, including AsiaSat 4, which was built by US aerospace giant, Boeing.²⁶⁸ It is not known if KBZ Gateway and Seanet are providing satellite services to the Myanmar military and Mytel although there is a risk.

Seanet, based in Malaysia, has contracts with the Myanmar government, including for e-passports and e-visas and provides satellite services to MPT, which may be used by the military-owned virtual mobile network MECTel.²⁶⁹ KBZ Gateway is part of Yangon-based Kanbawza (KBZ) Group of Companies, a major crony conglomerate with close ties to the Myanmar military. In 2019, the UN fact-finding mission recommended that KBZ “*should be criminally investigated and, if appropriate, prosecuted for making a substantial and direct contribution to the commission of the crime against humanity*” as a result of its donations to the Myanmar military in 2017, in support of military operations in Arakan state and the construction of a border fence.²⁷⁰

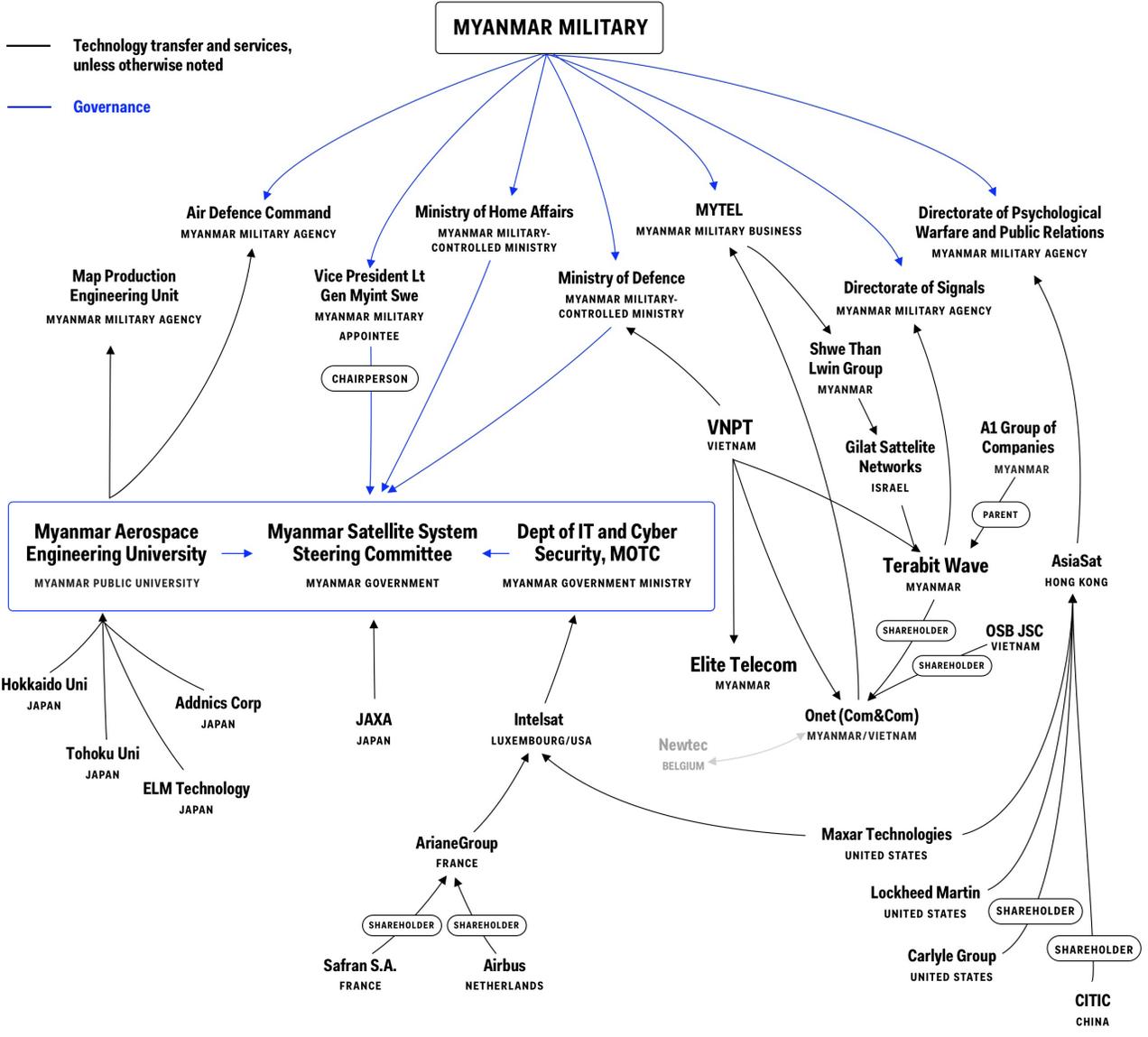
AsiaSat’s links to the Myanmar military are substantial. Justice For Myanmar concludes that AsiaSat’s and King Royal Technologies’ provision of satellite services to the Myanmar military may amount to the crime of aiding and abetting war crimes and crimes against humanity in Arakan, Chin, Kachin and Shan states.

4.2 Hughes Network Systems (USA)

Hughes is a US-based satellite technology and service company, listed on the Nasdaq. Hughes has contracts with both Seanet and KBZ Gateway for the use of the Hughes JUPITER system. According to a 2016 press release, Seanet will use the Hughes satellite network to serve telecommunications businesses and unnamed government agencies, which could include Mytel and the Myanmar military.²⁷¹ Seanet may also use Hughes for state biometric identity and immigration contracts, which can further infringe on the rights of Rohingya, who are severely discriminated against within Myanmar’s citizenship framework.²⁷² In 2019, Hughes announced that KBZ Gateway is using its satellite for the network expansion of an unnamed “*leading Mobile Network Operator (MNO) in Myanmar and internationally*” that could be Mytel.²⁷³

Under the UN Guiding Principles for Business and Human Rights, Hughes must prevent human rights violations within its business and relationships. Accordingly, Hughes must conduct rigorous human rights due diligence and divest from Myanmar if it cannot ensure that its satellite technology will not directly or indirectly benefit the Myanmar military.

International satellite networks serving the Myanmar military and Mytel



4.3 Vietnam Posts and Telecommunications (VNPT) (Vietnam)

VNPT is a Vietnamese state-owned enterprise under the Committee for Management of State Capital at Enterprises, after being transferred from the Ministry of Information and Communications in 2019. VNPT currently has two satellites in orbit: Vinasat-1, launched in 2008, and Vinasat-2, launched in 2011. Both satellites were built and launched by Lockheed Martin.²⁷⁴ VNPT's entry into Myanmar was part of the 2010 bilateral agreement, signed with the former military dictatorship, that also involved provisions for Viettel.²⁷⁵

In 2014, Myanmar-based private company Terabit Wave signed a memorandum of understanding (MoU) with VNPT to access Vinasat explicitly for the expansion of coverage for services already being provided for Myanmar's Ministry of Defence.²⁷⁶ In the same year, VNPT signed agreements with Myanmar companies Elite Telecom Public Company and Fortune International for access to Vinasat. Mya Han, managing director of Fortune International, is an investor and board member of Mytel.

Terabit Wave is a subsidiary of A1 Group of Companies, a crony conglomerate operating in sectors including mining, construction, tourism and finance. Terabit Wave was registered in 2012 and has benefited from the World Bank-supported liberalisation of the telecommunications sector. Terabit Wave received a network facilities telecommunications licence in 2015 for services including *“satellite earth station facilities, resale of wireline connectivity services, resale of terrestrial wireless connectivity services, international and domestic network transport and switching services, resale of international gateway services, masts, ducts, trenches, poles, dark fiber, radio equipment installed to send, receive and route communications”*. Terabit Wave was providing communications services to the Myanmar military before receiving a telecommunications licence.

Terabit Wave and Vietnam-based tech firm OSB JSC formed Com & Com, in 2014, a joint venture that provides satellite mobile backhaul network services to Mytel. In 2018, Belgium-based Newtec signed a deal with Com & Com to provide its Mx-DMA system for Mytel's network.²⁷⁷ Following the publication of the UN fact-finding mission's 2019 report, which named Newtec, the company severed its relationship with Com & Com.²⁷⁸

Com & Com signed a contract for the commercialisation of Vinasat in Myanmar, in 2016, under the brand name ONET. ONET is a Mytel contractor, providing satellite services. The Com & Com website lists ONET usage for emergency and rapid response, maritime satellite communication, aeronautical satellite communication and *“communication on the move”*, which could be used for military purposes.²⁷⁹

The business activities of Terabit Wave is an instance of a supplier profiting from both the Myanmar military's commercial and military communications activities.

While Justice For Myanmar cannot confirm if OSB JSC is providing technology to the military, it is likely, given the evidence of Mytel, being used for military purpose. At a minimum, OSB JSC is directly connected to the military's international crimes through its commercial relationship with Mytel, which the military financially profits from.

Based on the available evidence, Justice For Myanmar concludes that the technology and services provided by VNPT and Terabit Wave to the Myanmar military’s Directorate of Signals is substantial, and amounts to the crime of aiding and abetting the commission of war crimes and crimes against humanity in Arakan, Chin, Kachin and Shan states. In addition, OSB JSC, through the joint venture, Com & Com, may also be aiding and abetting the commission of war crimes and crimes against humanity through its provision of satellite technology to Mytel.

4.4 Gilat Satellite Networks (Israel)

In June 2016, in the lead up to Mytel’s launch, SkyNet, part of the Shwe Than Lwin Group, announced a deal with Gilat for “quick deployment” of a satellite-based cellular backhaul network for one of Myanmar’s four mobile operators, which is likely Mytel.²⁸⁰ Gilat Satellite Networks is an Israeli corporation listed on the Tel Aviv Stock Exchange that sells civil and military Satcom technology and services. According to Gilat promotional material, its business “delivers its core strength in advanced Land, Airborne and Maritime Satellite Communications solutions to military customers worldwide”.²⁸¹ Gilat supplies the US army’s Warfighter Information Network-Tactical (WIN-T) programme.²⁸² Gilat disclosed that it already has a relationship with a subsidiary of the unnamed mobile operator and that it has a number of projects in Myanmar.

The Myanmar army’s Directorate for Psychological Warfare and Public Relations’ broadcasts through SkyNet implicates Gilat Satellite Networks in the Myanmar military’s dissemination of hate speech.

Gilat technology has supplied the Myanmar military. In 2014, Gilat announced a Satcom procurement deal that included “tactical satcom units” for a “Myanmar government agency”. The deal included a SkyEdge II hub and terminals – with SatTrooper Manpacks, Raysat Satcom-on-the-Move antennas, WaveStream BUCs [block upconverters used for satellite transmission], and associated modems”.²⁸³ Terabit Wave confirmed on their website that the recipient of “Manpacks and Satcom-on-the-Move” was the Myanmar army’s Directorate of Signals.²⁸⁴ It is not known if additional equipment has been provided to the Myanmar army, and whether Gilat is continuing to provide very small aperture terminal (VSAT) support to the Myanmar army. According to the Gilat Satellite Networks announcement, “*Terabit Wave won the deal through a competitive bidding process involving leading global and local solution providers*”, suggestive of a wider military communications procurement industry in Myanmar.²⁸⁵ There is no evidence on the Ministry of Defence website of a “bidding process” for the Directorate of Signals. If there was a bidding process, it was likely out in secret, without democratic oversight and with a high corruption risk.



Directorate of Signals troops demonstrating Gilat equipment supplied by Terabit Wave.
SOURCE: TERABIT WAVE.

Based on the available evidence, Justice For Myanmar concludes that the technology and services provided by Terabit Wave/A1 Group and Gilat Satellite Networks to the Myanmar military's Directorate of Signals is substantial, and amounts to the crime of aiding and abetting the commission of war crimes and crimes against humanity in Arakan, Chin, Shan and Kachin states.

4.5 Intelsat (Luxembourg/USA)

Intelsat is a Luxembourg-based satellite corporation listed on the New York Stock Exchange with operational headquarters in the USA. In 2016, Intelsat signed a lease agreement with the Ministry of Transport and Communications (MOTC) to provide the Myanmar government with access to two Intelsat satellites for the "Myanmar government's network" and for mobile operators.²⁸⁶ It is highly likely that the Myanmar military had access to Intelsat satellites as part of the agreement, and Intelsat services may have directly supported the 2017 genocide against the Rohingya.

In January 2017, the President of Myanmar's NLD-led government formed the Myanmar Satellite System Steering Committee, under Notification 17/2017.²⁸⁷ Alarmingly, the president gave the Myanmar military control of the committee. The committee is chaired by Vice-President Lt Gen Myint Swe. Committee members include the ministers of defence and home affairs, also military appointees under the command of the military's commander-in-chief. The committee is tasked with policy, financial and programme oversight. A photo of the first coordination meeting shows the participation of a uniformed official with insignia of the army's Directorate of Signals, although the Directorate of Signals is not officially a member of the committee under Notification 17/2017.²⁸⁸

The government also formed a Satellite System Working Committee under Notification 18/2017, which is supervised by the steering committee. The working committee is chaired by the Minister of Transport and Communications (MOTC) and includes the deputy ministers of defence and home affairs, and the director general of MOTC's Department of Information Technology and Cyber Security as secretary.²⁸⁹

The Information Technology and Cyber Security Department is responsible for the operations of the satellite programme in MOTC, through its satellite sector, headed by Chief Engineer Win Aung. Win Aung is a military appointee who has worked as deputy chief engineer for MPT's Overseas Communications section from 1990 to 2015 and was transferred to the satellite sector before the transfer of power to the National League for Democracy (NLD).²⁹⁰ During military rule, all international telecommunications were monitored, "presumably at the gateway switches connected to the Satcom ground stations. Telephone conversations and telex messages are recorded; connections are cut on both censorship and more general security grounds."²⁹¹ Win Aung is therefore directly implicated in mass military surveillance. It was the acting director general of the Information Technology and Cyber Security Department who signed the payload indefeasible rights of use (IRU) agreement with Intelsat Global Sales & Marketing Ltd. in 2018.²⁹²

In 2018, MOTC signed a deal with Intelsat for the hosting of the satellite MyanmarSat-2, in a “multi-year, multi-transponder agreement... [for] both C- and Ku-band satellite services” on Intelsat 39.²⁹³

MyanmarSat-2 is co-owned by Intelsat Global Sales & Marketing Ltd, domiciled in the UK, and the Myanmar government is paying US\$155.7 million total from the state budget.²⁹⁴ In a speech to a steering committee meeting, Vice President Lt Gen Myint Swe announced that the satellite would be used “efficiently and effectively in education, health, human resources development and *other sectors required by the nation*”²⁹⁵ (emphasis added). Through the steering committee, “relevant ministries are to draw up systematic plans to use the leased satellite channels.”²⁹⁶

Intelsat 39 was launched in August 2019 by ArianeSpace, a subsidiary of ArianeGroup, a French joint venture between Airbus and Safran SA. The satellite, including the MyanmarSat-2 payload, was manufactured by Maxar Technologies.²⁹⁷ Intelsat’s announcement detailed the hosting of MyanmarSat-2 and the MOTC deal, which supposedly involves the use of MyanmarSat-2 for mobile operators. This would therefore support Mytel’s expansion, adding to the Myanmar military’s secret slush fund. It is concerning that Intelsat failed to publicly disclose that the satellite steering committee is controlled by the Myanmar military.

It appears likely that the Myanmar military will use MyanmarSat-2 for military purposes. Justice For Myanmar therefore concludes that Intelsat could be aiding and abetting the commission of war crimes and crimes against humanity. Maxar Technologies could be aiding and abetting the commission of those crimes, depending on what it knew and when, and the nature of the business’s contractual arrangements with Intelsat and the Myanmar government. By launching MyanmarSat-2, ArianeSpace has failed in its human rights due diligence obligations under France’s 2017 Corporate Duty of Vigilance Law and the UN Guiding Principles.

Myanmar Sat 2 ပါဝင်သည့် Intelsat 39 အောင်မြင်စွာလွှတ်တင်

MINISTRY OF INFORMATION/ နေပြည်တော် / AUGUST 07, 2019



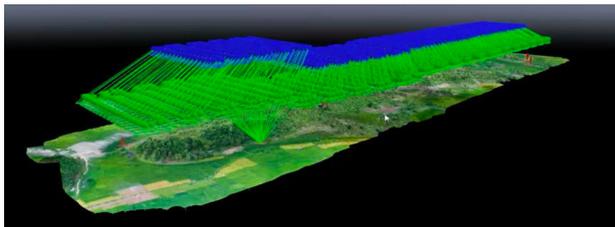
A Myanmar government announcement on the launch of MyanmarSat-2 on Intelsat 39.

SOURCE: MINISTRY OF INFORMATION

4.6 JAXA, Hokkaido and Tohoku universities (Japan)

The Japanese government and Hokkaido and Tohoku universities are providing technology and support to Myanmar for a domestic space programme. The programme involves the launch of two micro-satellites, training, and the construction of a ground station, developed with the Myanmar Aerospace Engineering University (MAEU).²⁹⁸ The Japan Aerospace Exploration Agency (JAXA) is set to launch the satellite.²⁹⁹ The programme falls under the military-controlled Satellite System Steering Committee, and it is likely that the micro-satellite may also be used for military purposes. The project is designed to boost Myanmar's satellite research and design capabilities, with the objective of enabling Myanmar to carry out "construction of a spacecraft bus, payload and sensors, ground control station and utilisation of space technology."³⁰⁰ These involve dual-use technology and could enhance the Myanmar military's signals capabilities.

The involvement of MAEU raises serious additional concerns. The university was established in 2002 by Myanmar's former military dictator, Senior General Than Shwe, under the Ministry of Science and Technology.³⁰¹ MAEU provides training and technology to the Myanmar military, and is conducting research and development in arms and dual-use goods. MAEU's Department of UAV Research does applied research in unmanned aerial vehicle design, multi-copters, autonomous capabilities, aerial surveying, mapping and aerial surveillance, specifically for military application, with the support of French and US researchers.³⁰² The department provides support and training to the military's Map Production Engineering Unit and to the No. 8 and No. 2032 Air Defence Commands, and owns a number of UAV, allied technology and a ground control station with a 100km range. For the Air Defence Command, MAEU's unmanned aerial vehicle programme has provided "real monitoring for surveillance mission"; bomb damage assessment; piloting and ground control air defence officer training; and the use of target drones for air defence systems training.³⁰³ Other programmes of concerns include MAEU's Fuel and Propellant Engineering Department, which conducts research and training in the construction and operation of rockets, specifying missiles as a use case.³⁰⁴ MAEU's Department of Space Systems Engineering provides courses in satellite engineering, remote sensing and Satcom.³⁰⁵



MAEU UAV map production and training support for the military's Map Production Engineering Unit.

SOURCE: MAEU

Myanmar's micro-satellite is scheduled to launch in Feb. 2021. In Oct. 2020, the satellite construction was completed and it was transferred to JAXA.³⁰⁶ Myanmar is seeking overseas development assistance for its space programme.³⁰⁷ MAEU's rector has disclosed that the micro-satellite can transmit "images for ministries".³⁰⁸ The micro-satellite could be utilised in reconnaissance and command capabilities for military operations in ethnic areas.

Through the programme, the Myanmar government is procuring technology from Japanese companies, including antennas and a satellite tracking system from ELM Technology and a transmitter and receiver from Addnics Corp. These and other suppliers to the micro-satellite programme could be aiding and abetting the commission of war crimes and crimes against humanity.³⁰⁹

Based on the findings of this report and the extensively documented evidence of the conduct of the Myanmar military, Japanese government departments, universities and businesses will be in support of Myanmar military operations that violate international human rights and international criminal law, should the micro-satellite programme be implemented. Japanese public and private entities will therefore be aiding and abetting the commission of war crimes and crimes against humanity.

The government of Japan, its universities, ELM Technology, Addnics Corp and associated businesses must immediately cease their support for Myanmar's micro-satellite and space programme.

As long as the Myanmar military remains outside of civilian control, there must be a moratorium on the transfer and provision of satellite technology to Myanmar, until it can be independently established that the Myanmar military and its operations will not benefit, directly or indirectly.

CHAPTER 05

MYTEL ON MILITARY BASES

- Viettel Construction Myanmar is leading the construction of at least 38 Mytel towers in military bases, many in ethnic areas where there is conflict.
- Mytel infrastructure on military bases are plausibly used to support military communications.
- Bases with Mytel towers include regional and strategic operational commands, infantry battalions and an engineering battalion that are directly perpetrating grave human rights violations.
- Four towers are located in Directorate of Defence Industries facilities, the Myanmar military's arms manufacturer.

- 5.1 Mytel supports military operations against ethnic communities
- 5.2 Mytel and the Directorate of Defence Industries

CHAPTER 05

An examination of confidential Viettel files shows the site designs for 37 Mytel base transceiver stations in military bases and secret military facilities. Documents show that staff from Viettel Construction Myanmar, including Vietnamese staff employed by the Vietnam People's Army, and their subcontractors (namely Taicom JSC), operate within Myanmar military bases and conduct site surveys, tower construction, repairs and maintenance. While Justice For Myanmar cannot confirm whether construction for all these base stations has been completed, it is likely given Mytel's rapid roll-out. Justice For Myanmar does not have access to the complete list of Mytel or MECTel base station locations so the true number of sites on military bases and other military facilities is expected to be higher.

There is a high risk that Mytel infrastructure directly supports the Myanmar military and is being used for military purposes, if even as a backup or adjunct communications system. Mytel's 4G LTE network can be utilised for varied purposes including military communications, surveillance systems, command and control, base security and wi-fi for bases. The risk of the military's tactical use of Mytel infrastructure will only increase as 5G is rolled-out in the Mytel network. 5G can be used for sensors; on-the-move communication between vehicles; the operation of autonomous ground and air vehicles; anti-jamming applications and within high-powered military cloud computing.³¹⁰

In placing base transceiver stations in military bases, Mytel effectively escapes regulation of those sites. There is no independent oversight body that can inspect for the illegal use of Mytel telecommunications infrastructure within military bases. Under Section 39(b) of Myanmar’s Telecommunications Law, the Posts and Telecommunications Department (MPT) has the authority to “*inspect and supervise the licensed telecommunications service businesses, network facility businesses and telecommunications equipment businesses*”, and, under 40(a)(ii), may “*enter and inspect the building and places and equipment offering telecommunications services*”.³¹¹ However, civilians do not have the authority to enter military bases, thereby exempting Mytel base stations from the law.

Viettel’s operational presence within military bases is regulated under article 21 of Viettel’s charter,³¹² requires Viettel “*to perform national defense and security tasks*” using Vietnamese military assets and “*to perform national defence and security tasks at other enterprises where necessary*” including with foreign organisations. Viettel’s activity on bases amounts to a form of direct technical support for the Myanmar military and its communications systems.

By potentially supporting the Myanmar military operationally, through the provision of telecommunications, Mytel and Viettel are aiding and abetting the military’s crimes, which include war crimes and crimes against humanity.

Within areas of armed conflict, the commercialisation of military bases through Mytel implicates the business in militarisation and land grabbing. Placing towers on bases provides Mytel with security through the Myanmar army, significant in areas where there is ongoing armed conflict and where Mytel can be viewed with hostility given its military ownership. It is unknown if Mytel is paying the army for security of infrastructure.

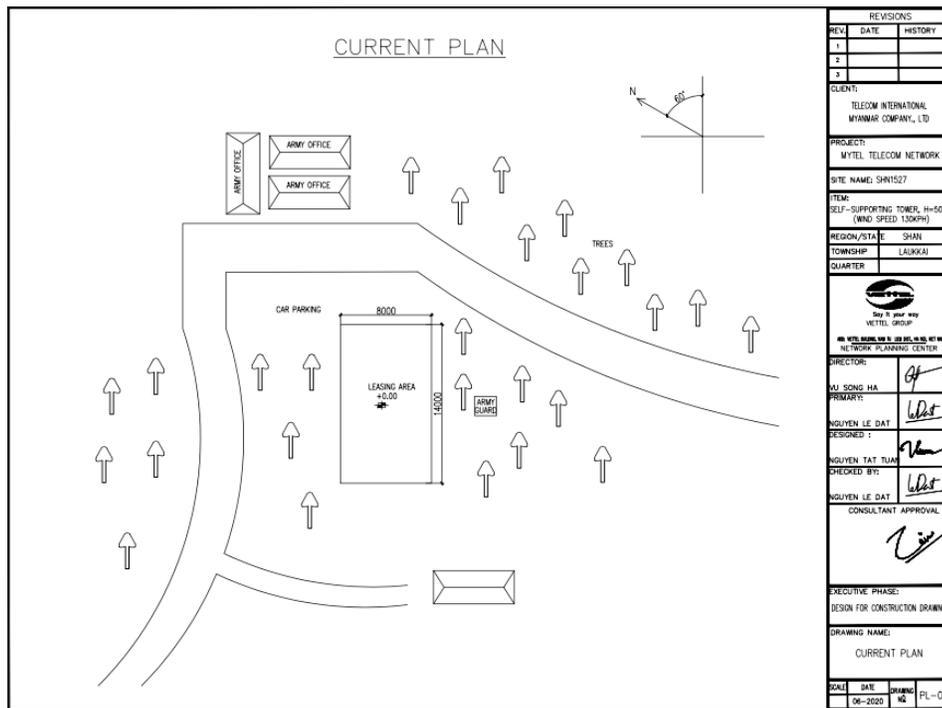
A number of documents describe “leases” on bases, evidence of an additional off-budget source of revenue for the Myanmar military. As the country’s auditor-general lacks the authority to scrutinise the Ministry of Defence, there is no civilian oversight of payments from Mytel to the Myanmar military for the use of its facilities, which is a public asset. Business revenue supports the military’s international crimes and strengthens its grip on Myanmar.

5.1 Mytel supports military operations against ethnic communities

By operating transceiver base stations within military units that are committing war crimes and crimes against humanity, Mytel is aiding and abetting those crimes. In the Ann township of Arakan state, Mytel operates a base station within the base of Myanmar Army Engineering Battalion 919.³¹³ Ann is the headquarters of Myanmar’s Western Command, which was “actively engaged” in the 2017 “clearance operations” and sexual violence against the Rohingya.³¹⁴

In June 2020, the Myanmar army again launched “clearance operations” in western Myanmar and there are reports of more than 12,000 civilians in Ann township under siege, displaced from their villages, without access to an escape route and facing a critical lack of food supplies. According to DMG, an indigenous media group whose site is banned from Myanmar cyberspace by the military, “*Out of rice, the villagers are surviving on bananas, jackfruit, mangoes and vegetables*”.³¹⁵ International crimes committed against civilians in Ann and other parts of Arakan involve the same army units that are hosting Mytel infrastructure.

In some cases, base stations are located beside guard posts and gates, suggesting that Mytel is using the army to defend its infrastructure. In the Laukkai township in the Kokang region in northern Shan state, a Mytel base station is located beside a guard post.³¹⁶ In Kokang, there are well-documented cases of war crimes and crimes against humanity. In 2017, approximately 20,000 civilians were displaced as a result of military operations in the Kokang region³¹⁷ and there are reports of extrajudicial killings, torture and forced disappearances.³¹⁸



Mytel BTS SHN1527, in an unspecified military base in Laukkai township in the Kokang region. An army guard is located beside the tower. War crimes and crimes against humanity committed by the Myanmar military have taken place in the township. SOURCE: VIETTEL CONSTRUCTION MYANMAR (VCM) VIA DATA BREACH

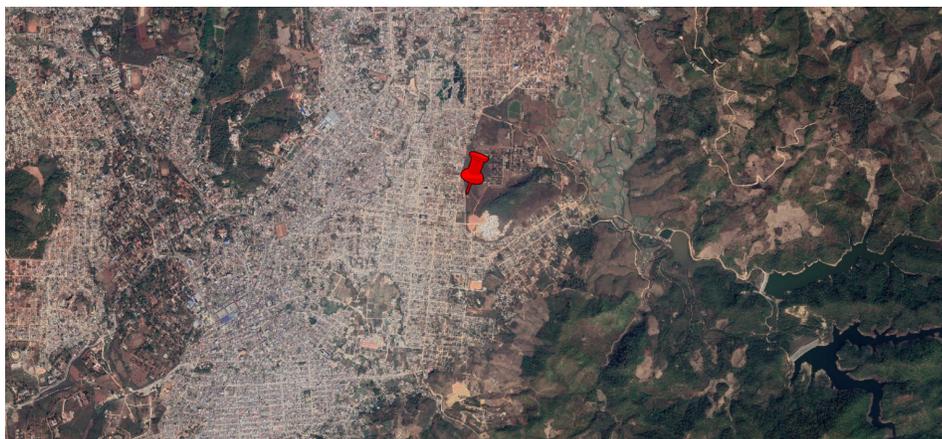
In Kengtung town in eastern Shan state, there are two Mytel base stations in military bases within the town's vicinity, including one³¹⁹ in the headquarters of the Triangle Command and a second³²⁰ in a base west of Kengtung airport. The Triangle Command houses signals and intelligence units, whose role includes military communications and signals intelligence (SIGINT) activities. The presence of base stations in Kengtung that are directly controlled by the Myanmar military creates a surveillance risk for town residents, in addition to the risk that the infrastructure is being used for military communications.



Two Mytel base stations are located in military bases in the vicinity of Kengtung town, putting the population at a high risk of surveillance.

SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH

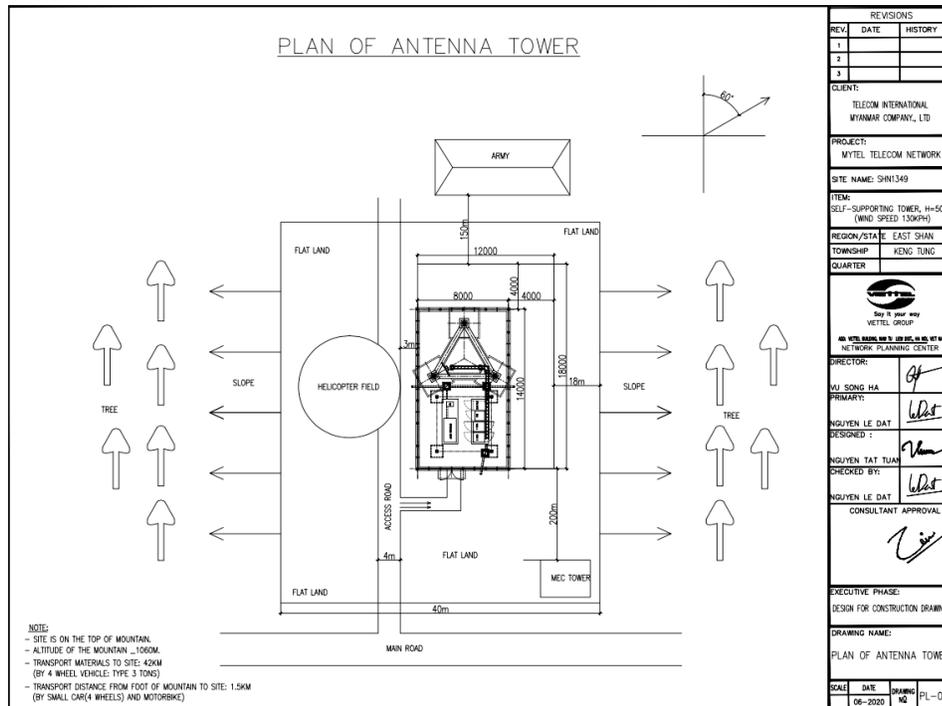
In Lashio town in northern Shan state, a Mytel base station in Engineering Battalion 912 also puts the local population at risk of surveillance and abuse.³²¹ Controlled by army engineers whose duties include the management of infrastructure, there is a high risk that the tower is being used by the military, which is engaged in ongoing conflict in Shan and committing human rights violations with impunity.



Mytel BTS SHN1038 in the vicinity of Lashio town, creating a risk that the army can use Mytel infrastructure for military communications and surveillance.

SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH

In remote ethnic areas, base stations are located on sites where there is active armed conflict. One base station is located in a base in Phin Htout of Kengtung township, an area where there is armed conflict.³²² Within the military base, Viettel Construction Myanmar is building infrastructure, and there is also a MEC tower. The base station is located beside a helicopter landing pad, and there is a risk that it serves military communications, directly contributing to the human rights violations being committed by troops under the Triangle Regional Command.



Mytel BTS SHN1349 in Phin Htout, Kengtung township, is in a military base that also includes a MEC tower.

SOURCE: VCM VIA DATA BREACH

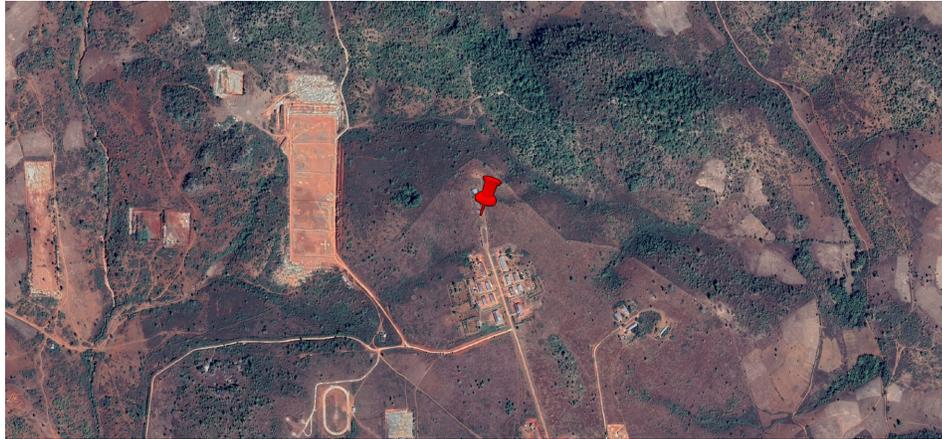
In Mong Phyak, eastern Shan state, a Mytel base station³²³ is hosted by Special Operations Command 18, one of a number of bases in the area where soldiers commit crimes with impunity. Shan Human Rights Foundation (SHRF), an ethnic civil society organisation established in 1990, documented the rape of a 73-year-old woman, whose head and ears were slashed in order to steal her earrings.³²⁴

There are about 1,000 Burma Army troops stationed around Mong Phyak town, which has a population of about 6,000 civilians. Such a large military-civilian ratio is a constant source of fear for local residents, particularly women, given ongoing military impunity for sexual violence. In 2015, SHRF documented the rape of a woman near Tachilek by a Burma Army soldier from Mong Phyak. The soldier was transferred back to his base in Mong Phyak, but there was no news of further punishment.

Mytel's base station in Military Operations Command 18 is part of the Myanmar army's chilling presence in the Mong Phyak area. Given the evidence of the military's criminal conduct in Mong Phyak and elsewhere,

there is a risk that the Mong Phyak base station supports military activity and contributes to grave human rights violations.

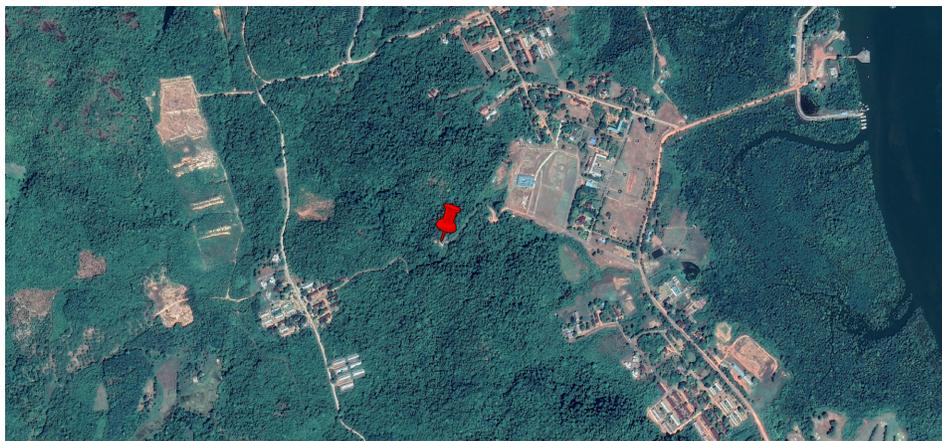
In Karenni state (renamed Kayah in English by the Bamar-dominated government in 1951), Light Infantry Battalion 337 hosts a Mytel base station in the Bawlakhae area.³²⁵ The battalion is directly involved in establishing new bases in Karenni, which has caused fear among local civilians that tensions could inflame conflict.³²⁶ An additional Mytel base station (KHY0089) is hosted at an army training facility in Hpruso.



Mytel BTS KYH0089 in a military training facility in Hpruso, Karenni state.

SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH

In Karen state (renamed Kayin in English by the former military dictatorship), there are two base stations under Light Infantry Division 22: One in the division headquarters in Hpa'an³²⁷ and one in an unspecified army base that appears to be Light Infantry Battalion 202 in Taung Ka Lay, a conclusion based on location.³²⁸ The Karen Human Rights Group has documented land confiscation involving troops from both of these military units.³²⁹ Land confiscation for military bases has been reported in Myanmar for many years, both under military dictatorship and after the regime reformed itself.³³⁰



Mytel BTS TNI10220 in a naval base in Yebyu township, Tanintharyi.

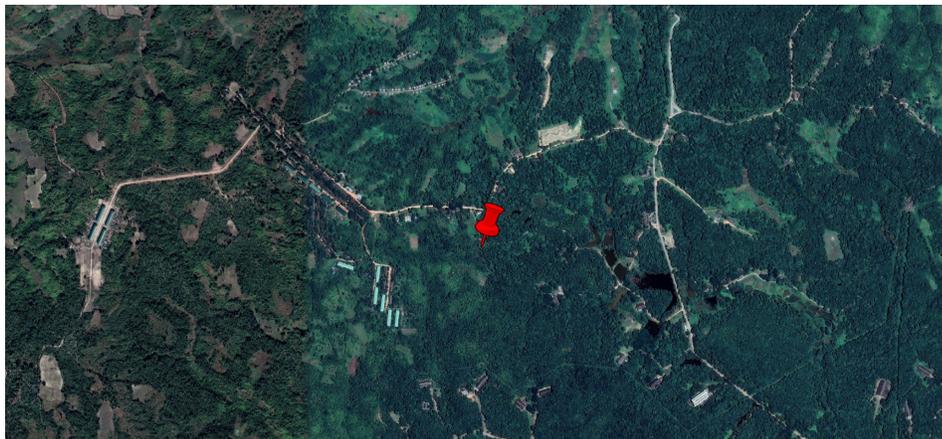
SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH

In building infrastructure, businesses must abide by the principles of free, prior and informed consent. This is especially important in ethnic areas of Myanmar, where there is a long history of militaristic development. As a report by Norwegian bank DNB on Telenor’s business in south-east Asia puts it, Mytel has “exclusive access to military land for site acquisition”.³³¹ Similarly, a shareholder of tower company Apollo Towers disclosed in 2015 that the Ministry of Defence had rejected their attempts to lease military land for towers.³³² Mytel’s connection to military communications systems has enabled the operator to force its way into ethnic areas, without the need to negotiate access to land or consent, and without regard for the rights of local communities. Based on the data available to Justice For Myanmar, the majority of Mytel towers on military bases are located in ethnic areas.

5.2 Mytel and the Directorate of Defence Industries

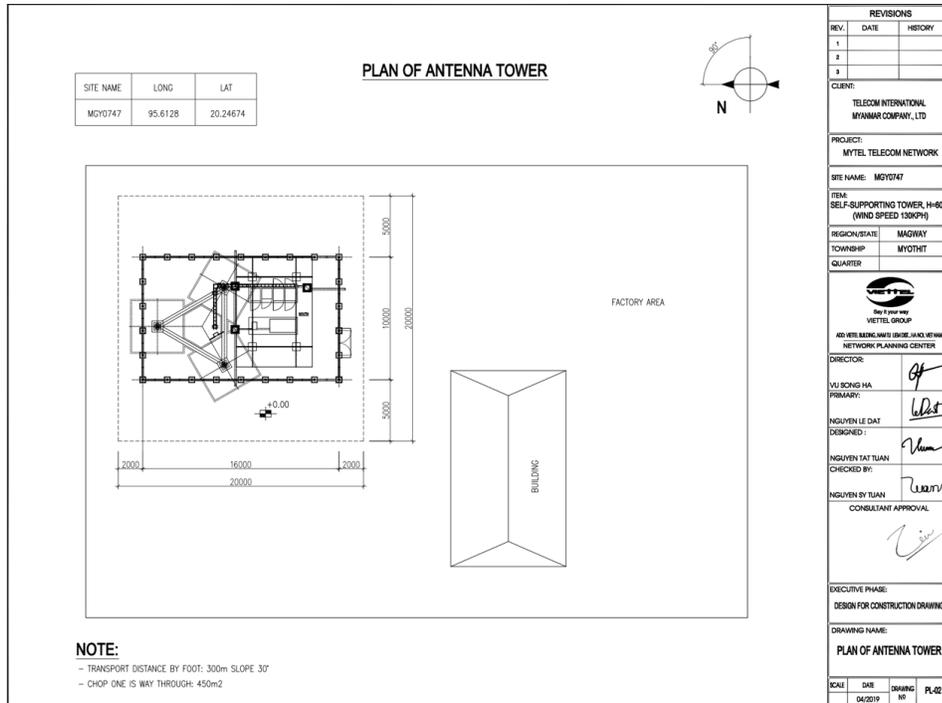
The Directorate of Defence Industries is the Myanmar military’s arms manufacturer, producing weapons that the military uses to commit genocide, war crimes and crimes against humanity. Mytel operates infrastructure in at least four Directorate of Defence Industries facilities in the Magwe region.³³³ This is evidence of a direct business connection between Mytel and the Directorate of Defence Industries. While the four towers are in different parts of Magwe, the base transceiver station (BTS) identification numbers are in sequence, suggesting a systematic plan to build communications infrastructure in Directorate of Defence Industries bases.

In 2018, the UN Panel of Experts reported that the Directorate of Defence Industries “maintains a sophisticated global procurement network”, including for a North Korea-linked missile programme³³⁴ and that the directorate had received “ballistic missile systems from the Democratic People’s Republic of Korea in addition to a range of conventional weapons, including multiple rocket launchers and surface-to-air missiles”.³³⁵



Mytel BTS MGY0746 within a large Directorate of Defence Industries facility.

SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH



Site plans for Mytel BTS MGY0747, within a Directorate of Defence Industries production area. The location suggests that the tower's primary purpose is in the service of the directorate.
SOURCE VCM VIA DATA BREACH



Mytel BTS MGY0747, within a Directorate of Defence Industries production area.
SOURCE: GOOGLE EARTH, BASED ON COORDINATES FOUND VIA VCM DATA BREACH

Mytel's direct operational link to the Directorate of Signals provides further evidence of Mytel and Viettel's role in aiding and abetting the Myanmar military's war crimes and crimes against humanity, through the provision of infrastructure and communications technology. There is also a high risk that Mytel and Viettel are engaged in procurement activities in support of the Directorate of Defence Industries and other parts of the military, through Viettel's global supply chain.

As the next chapter will show, Mytel's base stations are constructed with equipment from international suppliers, either through Mytel directly, or through Viettel's procurement networks. Each base transceiver station includes transmission, radio and microwave equipment; optical cables and cable accessories; power supply technology; as well as the tower structure, foundation and mini-shelter.

By building towers in military facilities, Viettel and Mytel are providing the Myanmar military with full access to technology from international suppliers, and there is a risk that military can use this technology for military purposes.



CHAPTER 06

GLOBAL TECHNOLOGY AND TOWER SUPPLIERS TO MYTEL AND THE MYANMAR MILITARY

- International businesses are providing technology and services to Mytel and Viettel, exposing them to risks of directly or indirectly contributing to the Myanmar military's egregious human rights violations.
- Major international businesses, including those domiciled in Japan, Germany, the USA and China, are supplying Mytel, commercially supporting the Myanmar military and providing technology that may be utilised for military purposes.
- International tower companies with financing from international financial institutions are providing services to and profiting from Mytel.

- 6.1 Transmission and microwave equipment
- 6.2 Radio equipment
- 6.3 Timing technology
- 6.4 Power suppliers
- 6.5 Nokia (Finland) and Ericsson (Sweden)
- 6.6 Tower companies doing business with Mytel and the Myanmar military

CHAPTER 06

Through Viettel's global reach, a wide number of international businesses are providing technology and services for the Mytel network. As Mytel is operationally and financially integrated into the Myanmar military, these businesses could be aiding and abetting the commission of war crimes and crimes against humanity. Any equipment procured by Mytel can be used by the Myanmar military. All Mytel suppliers must therefore immediately cut ties. Any businesses that have breached international human rights law must be held accountable. All Viettel suppliers, direct and indirect, could be in contravention of their obligations under the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises, through links to the Myanmar military, and must conduct urgent and thorough human rights due diligence. If they cannot ensure that the Myanmar military neither directly nor indirectly benefits from their business relationship with Viettel, then their only option is to cut ties.

Huawei (China) and ZTE (China) have been widely criticised by several governments for perceived threats to user privacy, and users in Myanmar are no exception to these concerns.³³⁶ It is notable that Viettel has shunned Huawei within its domestic network, due to cybersecurity concerns, but it is using Huawei and ZTE technology extensively in Myanmar.³³⁷ ZTE has had close ties with Mytel since the establishment of the business. An early international trip of Mytel investors was to China to meet with ZTE.³³⁸

6.1 Transmission and microwave equipment

Huawei and ZTE are major suppliers of transmission equipment to Mytel. Huawei is also directly partnered with Mytel for the operation of Huawei-branded towers. As a result of the extensive use of Huawei and ZTE technology in the Mytel network, Justice For Myanmar concludes that Huawei and ZTE could be aiding and abetting the commission of war crimes and crimes against humanity.

NEC (Japan) is a key supplier of microwave equipment for Mytel base stations. According to Viettel documents, NEC provides the bulk of microwave equipment across the network.³³⁹ Equipment is primarily from NEC's iPasolink family, which NEC advertises as being widely used across the military sector.³⁴⁰ NEC microwave equipment used Mytel includes various configurations of microwave outdoor units (ODU) and the iPasolink VR2.³⁴¹ As a result of the extensive use of NEC equipment in the Mytel network, including within military bases, Justice For Myanmar concludes that NEC could be aiding and abetting the commission of war crimes and crimes against humanity.

Microwave equipment is also supplied by Huawei, including Huawei's RTN 905, XMC ODU and microwave antennas.³⁴²

6.2 Radio equipment

CommScope (USA) is a Nasdaq-listed company that manufactures a broad range of telecommunications technology, including base antennas. CommScope is supplying Mytel and the Myanmar military with at least three models of antenna and it is highly likely that these are being used in Myanmar military facilities and supporting its signals capabilities.³⁴³ As a result of the extensive use of CommScope equipment in the Mytel network, there is a high risk that it is also being used within military bases. Justice For Myanmar therefore concludes that CommScope could be aiding and abetting the commission of war crimes and crimes against humanity.

ZTE is also a major supplier of radio equipment to Mytel, including baseband units and remote radio units. Remote radio units and other radio components are also supplied by Huawei.³⁴⁴

6.3 Timing technology

Adva (Germany), through its subsidiary, Oscilloquartz (Switzerland), provides advanced timing technology. In March 2020, Adva, which is listed on the Frankfurt Stock Exchange, announced a deal with Viettel for the roll-out of a timing solution across the Mytel network, in support of 4G services and in preparation for 5G.³⁴⁵ The technology is built on Adva's primary reference cesium clock with synchronisation supply units. According to Oscilloquartz's own promotional material, the equipment is "the ideal timing source for mission-critical infrastructure such as radio access networks... and military networks".³⁴⁶ Cesium clocks

can also be used in guided missile systems. According to Adva's announcement, NEC is responsible for installation and maintenance. As the roll-out is network wide, it will include installations on restricted military sites, as detailed in the previous chapter, and the Myanmar military will have unrestricted access to Adva's technology for military purposes. As a result of the nationwide use of Oscilloquartz/Adva equipment in the Mytel network, including within military bases, Justice For Myanmar concludes that Oscilloquartz/Adva could be aiding and abetting the commission of war crimes and crimes against humanity.

6.4 Power suppliers

Mytel has a range of suppliers for lithium and for valve regulated lead-acid (VRLA) batteries for base stations. Batteries are designed specifically for powering telecommunications networks, and, in some cases, the suppliers list military communications as an explicit use case.³⁴⁷ In addition, Mytel is using generators to power base stations throughout its network, utilising technology from Japan. Some Mytel towers are running on solar power provided by Voltalia, a French business controlled by the Mulliez family with investment from the European Bank for Reconstruction and Development (EBRD) and French development bank Proparco.³⁴⁸ Justice For Myanmar concludes that these suppliers are in breach of their obligations under the UN Guiding Principles. They must conduct urgent human rights due diligence and ensure that their business relationships do not directly or indirectly benefit the Myanmar military.

Suppliers include:

- **Leoch International Technology (Hong Kong)** – supplies VRLA batteries to power Mytel base stations.³⁴⁹
- **Shandong Sacred Sun Power Sources Co. Ltd. (China)** – supplies VRLA batteries to power Mytel base stations.³⁵⁰
- **ZTT (China)** – supplies lithium batteries to power Mytel base stations.³⁵¹
- **Coslight (India)** – supplies lithium batteries to power Mytel base stations.³⁵²
- **Yanmar (Japan)** – supplies generators to power Mytel base stations.³⁵³
- **Voltalia (France)** – supplies 2kw continuous off-grid solar energy to 171-plus Mytel towers through a contract with Myanmar National Telecom Infra Company Limited (MNTI), a subsidiary of MNTH.³⁵⁴

6.5 Nokia (Finland) and Ericsson (Sweden)

Nokia and Ericsson are major suppliers of hardware for Viettel's domestic network³⁵⁵ and Ericsson is supporting Viettel's 5G trials.³⁵⁶ Viettel Global Investment JSC's financial statements include liabilities to Nokia Networks (formerly Nokia Solutions and Networks). While Justice For Myanmar has not seen evidence of the use of Nokia and Ericsson technology within the Mytel network, there is a high risk that it could be deployed in Myanmar through Viettel in Vietnam.

6.6 Tower companies doing business with Mytel and the Myanmar military

Myanmar telecommunications reforms have led to a growing tower industry in the country, referring to domestic and international firms that construct telecommunications towers to be leased out to mobile operators. Mytel is benefiting from the market liberalisation by leasing towers from third parties for network transmission. Leased towers from private operators may be utilised for military purposes within the Myanmar military's communications network. At a minimum, tower companies have commercial ties with the Myanmar military, through Mytel. From a privacy standpoint, it is concerning that Mytel personnel have access to collocation sites that are being used by other mobile operators, including Telenor (Norway) and Ooredoo (Qatar). There is risk that shared tower sites can be tampered with, including for surveillance.

One of the biggest private tower operators, Irrawaddy Green Towers (IGT) (Luxembourg), signed a master-lease agreement with Mytel in July 2017 for 677 tower sites.³⁵⁷ IGT is therefore supporting the Myanmar military's business and is linked to its international crimes. IGT was named by the UN fact-finding mission because of this commercial relationship with the Myanmar military.

In the lead up to the Rohingya genocide in July 2017, IGT made a 5,000,000 MMK (US\$3,644) donation to the commander of the Naypyidaw Regional Military Command, Lt Gen Myint Maw, purportedly for victims of a military plane crash.³⁵⁸ The donation is a sign of IGT's close ties to the Myanmar military. As commander of the Naypyidaw Regional Military Command, Lt Gen Myint Maw is directly involved in the Mytel network, which has planned a mobile car tower at command headquarters.³⁵⁹



Donation was made on 21 June, 2017 at Nay Pyi Taw military command. It was received by area military commander Lt.General Myint Maw.

A photograph of IGT's donation to the Naypyidaw Regional Military Command.

SOURCE: TOWER TIMES.

IGT was formerly owned by Irrawaddy Towers Asset Holding (ITAH), a Singapore-registered shell company. The majority owners of ITAH are Alcazar Capital Limited, a Dubai-based private equity firm, and M1 Group Limited.³⁶⁰ On December 11, 2020, the business was sold to CVC Capital Partners (Luxembourg).³⁶¹ The International Finance Corporation (IFC) and Asian Development Bank (ADB) have provided a joint loan facility to IGT. IGT has additional financing from European Development Financial Institutions (EDFI), led by Dutch development bank Financierings-Maatschappij voor Ontwikkelingslanden (FMO). Participating EDFI institutions in the IGT financial package are Deutsche Investitions- und Entwicklungsgesellschaft (DEG) (Germany); Proparco (France); CDC Group (Great Britain); Belgian Investment Company for Developing countries (BIO) (Belgium); and the Development Bank of Austria (OeEB) (Austria). CDC Group is Europe's biggest lender to IGT.³⁶²

IGT's main competitor is Apollo Towers, a tower business majority-owned by US-equity firm TPG Capital. Apollo Towers has US\$250 million in financing from the Development Finance Corporation, the USA's international development bank.³⁶³ In 2018, Apollo Towers merged with tower company Pan Asia Majestic Eagle to form AP Towers.³⁶⁴ At the time of the merger, minority shareholder Myanmar Investments International Ltd (MIL) announced that "Apollo Myanmar recently secured a large-scale commitment for additional tenancies on its existing towers from Telecom International Myanmar Company Limited [Mytel]... The Directors of MIL (the "Directors") believe that this will have a positive impact on Apollo Towers' profitability."³⁶⁵ According to Viettel data, Pan Asia also leases towers to Mytel,³⁶⁶ thereby supporting the Myanmar military and its crimes.

National Tower Development Co. Ltd. (NTD) (Singapore) is a tower company set up “to take advantage of the new fourth operator Mytel’s network rollout in the country.”³⁶⁷ According to a presentation published by former NTD CEO Kieran J Rabbitt, the company signed a “build to suit” agreement with Mytel in Jul. 2017 and had built 120 sites by Dec. 2018, focussing on Mandalay region and Kachin state.³⁶⁸ One of NTD’s directors, Patrick Aung, is involved in arms procurement for the Myanmar military.³⁶⁹ Other tower businesses leasing to Mytel include edotco and OCK Group, both of which are domiciled in Malaysia.³⁷⁰ OCK Group is a partner of military arms contractor King Royal Technologies (see [Chapter 4](#)).

In addition to commercial links to the Myanmar military through Mytel, Apollo Towers has attempted to lease military land. According to Tillman Global Holdings disclosures to the US government, “some of the land where operators desire to locate towers (to achieve reliable cell phone coverage throughout the country), is owned by the military. Apollo has, along with other tower companies, met with military officials solely regarding leasing arrangements.”³⁷¹ In an earlier 2014 report, Tillman Global Holdings states that Telenor is one of the telecommunications providers attempting to lease land from the Myanmar military.³⁷² Justice For Myanmar cannot confirm if these negotiations were successful. In 2015, Tillman Global Holdings reported that “all applications for Military owned land lease by Apollo Towers have been rejected by the Ministry of Defense.”³⁷³ However, Apollo Towers has successfully leased land from the Ministry of Home Affairs, which is controlled by the Myanmar military.³⁷⁴ Justice For Myanmar is concerned about Apollo Towers’ commercial relationship with the Ministry of Home Affairs. Funds can contribute to human rights violations committed by the police and domestic intelligence, which are under the Ministry of Home Affairs. As Apollo Towers is financed by US public funds, the US government has a responsibility to act.

All tower companies must adhere to their obligations under the UN Guiding Principles, cut ties with Mytel and sever any leases with Myanmar military-controlled entities, including the Ministry of Home Affairs.

CHAPTER 07

FOLLOWING THE MONEY

- Mytel was created as a public-private partnership and the military is the “government shareholder”. The military is misappropriating public funds and assets through Mytel, which feeds a secretive off-budget slush fund.
- Major international banks provide loans to Viettel Global JSC, benefiting the Myanmar military and further enabling its criminal conduct. These funds may be used for the procurement and transfer for arms and dual-use goods to Myanmar.
- Vietnamese banks provide loans and services to Mytel, directly benefiting the Myanmar military. These include banks in which the International Finance Corporation (IFC) holds equity, and banks on the IFC and Asian Development Bank’s (ADB) trade finance programmes.
- MEC has benefited from financing raised on the Yangon Stock Exchange.
- A network of digital financial services businesses in Myanmar include both military-owned and allied entities and facilitates military transactions, including for the state.

- 7.1 International banks benefitting the Myanmar military through Mytel and Viettel
- 7.2 Vietnamese banks benefitting Myanmar military through Mytel and Viettel
- 7.3 MEC capital raising through the Yangon Stock Exchange
- 7.4 Financial services
- 7.5 The military's digital financial services
- 7.6 Take control

CHAPTER 7

Mytel serves an economic purpose for the Myanmar military. As a highly profitable business, Mytel provides an off-budget source of revenue for the Myanmar military that supports the military's international crimes and enriches senior military figures. Through Viettel Global Investment JSC, a subsidiary of Viettel, the Myanmar military has benefited from loans that bankroll the network's roll-out and international financial service businesses. With Myanmar state involvement, the military has also created its own digital financial infrastructure, increasing profits and enabling its continued criminal conduct. The military may even benefit from World Bank development assistance, which has awarded strategic contracts to military suppliers.

Mytel is now a highly competitive mobile network, despite its late market entry.³⁷⁵ According to the People's Army Newspaper, in the first quarter of 2020, Mytel made US\$25 million in profits,³⁷⁶ but there is no transparency over revenue flows to MEC and the Myanmar military, nor of payments for Mytel's use of public assets, such as military land and infrastructure. Despite already making profits, Mytel has a tax exemption from the Myanmar government.³⁷⁷ This was likely granted under Myanmar's 2016 Investment Law, which has provisions for various forms of tax relief and exemptions, including income tax exemptions for 3, 5 or 7 years.

The Myanmar military has direct influence over Mytel finances. Under the Memorandum of Association of Telecom International Myanmar (formerly Myanmar National Tele & Communications Company Limited), the chief financial officer (CFO) is to be nominated by Star High or Myanmar National Telecom Holdings

(MNTH).³⁷⁸ In Telecom International Myanmar's first board of directors, Retired Maj Gen Thein Aung, managing director of MEC, served as CFO. He was removed from the Mytel board of directors on Sept. 23, 2019.³⁷⁹ This gives Senior General Min Aung Hlaing influence over Mytel finances through the military's chain of command, since Maj Gen Thein Aung (rtd) and other military appointees are subservient.

7.1 International banks benefitting the Myanmar military through Mytel and Viettel

The human rights violations and corruption linked to Mytel are enabled through substantial financing from international banks, through Viettel Global Investment JSC. International banks providing credit to Viettel Global include HSBC (UK), Standard Chartered (UK), MUFG (Japan), Maybank (Malaysia) and Taipei Fubon Bank (Taiwan).

Viettel Global's committed investment in Mytel is US\$859.95 million, which amounts to approximately 49% of the project's total capital requirements of US\$1.755 billion. Of Viettel Global's allocation of capital expenditure, US\$690.9 million is in the form of shareholder borrowings and credit from domestic and foreign financial institutions.³⁸⁰ As of March 31, 2020, Viettel Global has invested approximately US\$550.5 million, largely from foreign and domestic bank loans.³⁸¹ According to 2019 financial disclosures from Viettel Global, investment in Mytel from long-term loans was VND8,221,158,325,327, equivalent to US\$354.56 million.³⁸² Investment from short-term loans was VND382,954,151,290, equivalent to US\$16.51 million.³⁸³ For the 2019 financial year, Viettel Global reported investment capital in Mytel of VND3,750,686,475,101, equivalent to US\$163 million.³⁸⁴

In examining Viettel Global loan data, general loans have been included because there is a high likelihood that they support Viettel Global's investment in Myanmar. Mytel is Viettel Global's largest source of revenue and largest recipient of capital expenditure among subsidiaries and associates. In 2019, Mytel accounted for 44.61% of Viettel Global's net sales and service revenue.³⁸⁵ In the same year, Mytel received over 59% of capital expenditure for Viettel Global subsidiaries and associates.

International banks contributing loans to Viettel Global from 2016 to Q1 2020.

Amount shows highest value loan during the period. Where loans are provided from more than one branch in the same year, they are added together

BANK NAME	TYPE OF LOAN	AMOUNT (VND BILLION)	AMOUNT EQUIVALENT (USD MILLION)
HSBC	Long-term Loan	927.33	40.32
Maybank	Long-term loan	2,773.84	120.6
	Short-term Loan	465	20.22
Standard Chartered Bank	Short-term Loan	464.39	20.19
Taipei Fubon Commercial Bank	Short-term Loan	348.30	15.14
Bank of Tokyo-Mitsubishi UFJ, Ltd (MUFG)	Short-term Loan	1,688.857	73.43

SOURCE: SEE BREAKDOWN AND REFERENCES IN [EXCEL HERE](#). SUMMARY EXCHANGE RATE OF 23,000 VND TO US\$1.

Even if loans to Viettel Global are restricted for use in Vietnam, there is a risk that they will contribute to the Myanmar military's crimes. Justice For Myanmar has uncovered evidence in this report of procurement and services for Mytel that are purchased in Vietnam. These include payments to other Viettel subsidiaries that manufacture arms and dual-use goods, including VHT, M3 and Viettel Cyber Security, as well as to third-party vendors. Finance to Viettel Global that is used in Vietnam may therefore still support Mytel.

In 2017, MUFG granted a loan to Mytel shareholders via Singapore, totalling VND835.52 billion, equivalent to US\$37 million.³⁸⁶ It is not known whether the recipient is Telecom International Myanmar or their shareholders but it is clear the loan is tied to "network development" in Myanmar. As the loan recipient is specified as "Mytel shareholders" rather than Viettel Global, it is possible that this loan is not part of Viettel Global's investment commitment in Mytel and may have been secured on behalf of one of the two other Mytel shareholders, Star High or MNTH. There is therefore a high risk that MUFG financing benefits the Myanmar military. This benefit would be direct, if Star High is the recipient, or indirect, if MNTH or Telecom International is the recipient. MUFG financing may therefore amount to aiding and abetting the commission of war crimes and crimes against humanity.

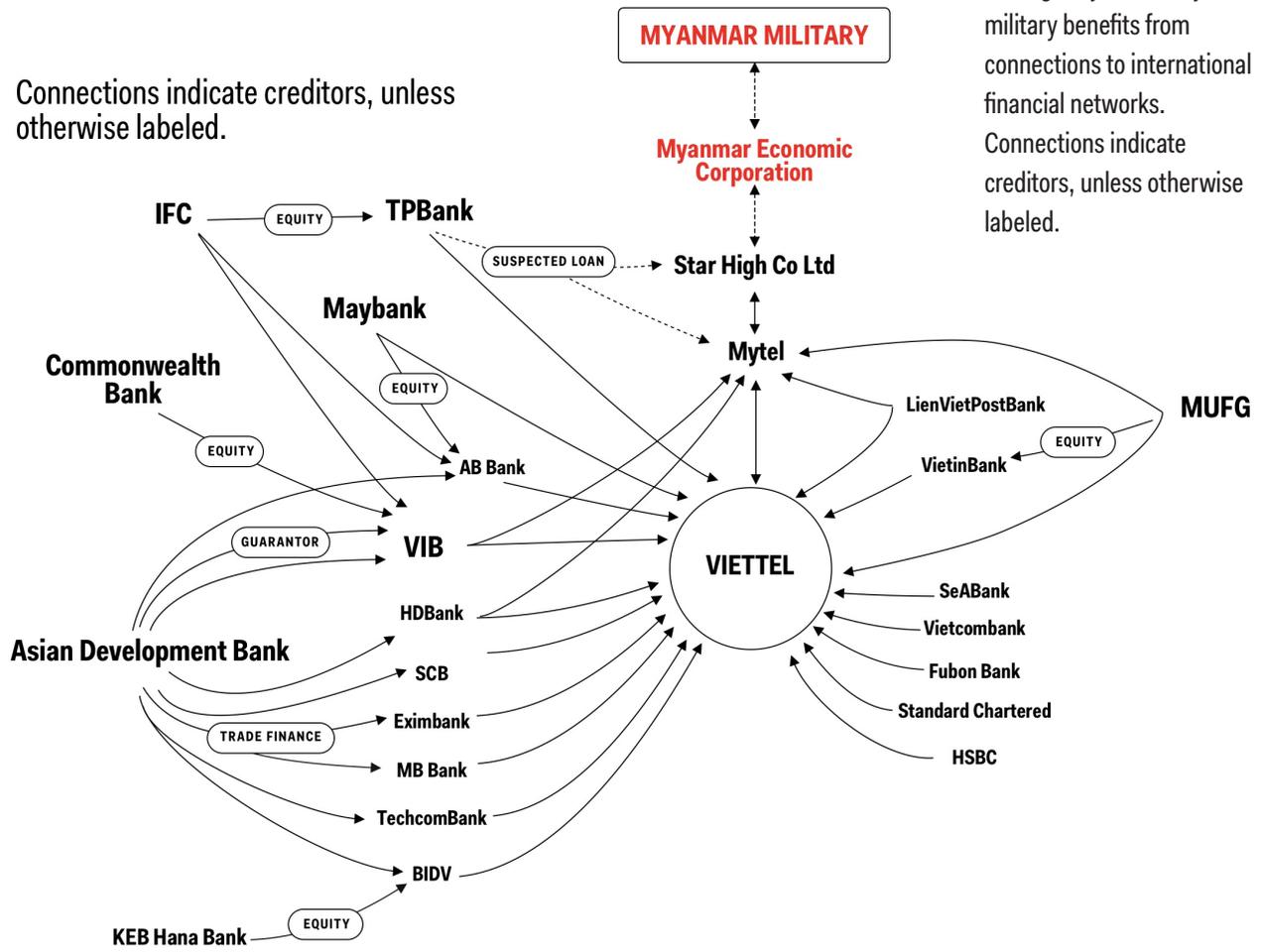
International banks that maintain business relationships with Viettel Global Investment JSC are in breach of their human rights responsibilities under the UN Guiding Principles and OECD Guidelines, and may be violating their own policies. HSBC, Standard Chartered and MUFG have all adopted the Equator Principles framework to assess and manage social and environmental risk in their operations, including in relation

to human rights.³⁸⁷ It is unclear if loans to Viettel Global Investment JSC were assessed under the Equator Principles. Furthermore, under HSBC's 'defence equipment sector policy', the bank must not provide financial services to businesses that primarily manufacture weapons, including conglomerates "*where the conglomerate's business relates primarily to weapons*", a clause that may apply to Viettel.³⁸⁸

HSBC and Standard Chartered may be in breach of EU Restrictive Measures on Myanmar, for providing "*financing or financial assistance related to goods and technology referred to in paragraph 1, including in particular grants, loans and export credit insurance, for any sale, supply, transfer or export of these goods and technology, or for the provision of related technical assistance, brokering services or other services, directly or indirectly, to any military end-user or to the Border Guard Police in Myanmar/Burma, or for military use in Myanmar/Burma.*"³⁸⁹

There is a high risk that loans to Viettel are directly assisting the "*sale, supply, transfer or export of equipment, technology or software intended primarily for use in the monitoring or interception by the Government of Myanmar/Burma, or on its behalf, of the internet and of telephone communications on mobile or fixed networks*" prohibited under EU restrictive measures.³⁹⁰ International loans are supporting the Myanmar military, through Viettel Global, to develop a source of revenue, access technology and software and likely conduct surveillance of Mytel's more than 10 million subscribers, in breach of the human rights obligations of HSBC, Standard Chartered, Maybank and Tapei Fubon Commercial, under the UN Guiding Principles. Human rights due diligence is urgently needed and these banks must cut ties with Viettel if they cannot ensure that their business relationship does not directly or indirectly benefit the Myanmar military.

Connections indicate creditors, unless otherwise labeled.



Myanmar Financial Networks

Through Mytel, the Myanmar military benefits from connections to international financial networks. Connections indicate creditors, unless otherwise labeled.

7.2 Vietnamese banks benefiting Myanmar military through Mytel and Viettel

Major Vietnamese banks provide short and long-term loans and financial services for Mytel, in some cases through their direct operations in Myanmar. A number of these banks are linked to international financial institutions, who bear responsibility for human rights violations connected to banks they have invested in and financed. Many of the loans found are general, while a minority are tied to Mytel. There is a high risk that general loans issued in Vietnam are connected to Mytel, given the substantial size of Viettel Global's investment in Myanmar compared its other businesses. In some cases, Viettel Global has secured financing for Mytel and/or its shareholders.

Vietnamese banks contributing loans to Viettel Global from 2016 to 2020 (approximate)

Amount shows highest value loan during the period. Where loans are provided from more than one branch in the same year, they are added together

BANK NAME	TYPE OF LOAN	AMOUNT (VND BILLION)	AMOUNT EQUIVALENT (USD MILLION)
Military Commercial Joint Stock Bank (MB Bank)	Short-term Loan	427.678	18.59
	Long-term Loan	2,948.261	128.19
Vietnam Export Import Commercial Joint Stock Bank (EXIMBANK)	Short-term Loan	1,427.988	62.09
	Long-term Loan	239.053	10.39
Joint Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank)	Short-term Loan	1,006.735	43.77
Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV)	Short-term Loan	221.82	9.64
	Long-term Loan	1,389.33	60.41
Vietnam Technological and Commercial Joint Stock Bank (TECHCOMBANK)	Short-term Loan	25.27	1.10
	Long-term Loan	473.00	20.57
An Binh Commercial Joint Stock Bank (ABBank)	Short-term Loan	180.727	7.86
Sai Gon Commercial Joint Stock Bank (SCB)	Short-term Loan	181.429	7.89
	Long-term Loan	2,082.063	91
South East Asia Commercial Joint Stock Bank (SeABank)	Short-term Loan	85.651	3.72
VietinBank	Short-term Loan	361.54	15.72
	Long-term Loan	610.024	26.52
Ho Chi Minh City Development Joint Stock Commercial Bank (HDBank)	Long-term Loan	1,179.00	51.26
Lien Viet Post Commercial Joint Stock Bank	Long-term Loan	1,179.00	51.26
Vietnam International Commercial Joint Stock Bank (VIB)	Long-term Loan	993.731	43

SOURCE: SEE BREAKDOWN AND REFERENCES IN [EXCEL HERE](#). SUMMARY EXCHANGE RATE OF 23,000 VND TO US\$1.

According to Viettel Global's 2019 financial disclosures, a VND658,565,092,523 (US\$28.4 million) loan from Vietnam International Bank (VIB) to Mytel is listed, secured against Mytel assets.³⁹¹ Viettel Global's 2018 and first quarter 2020 reports also list VIB loans tied to Mytel.³⁹² It is not clear if this credit has financed Viettel Global's investment commitment, or if it is issued to Telecom International Myanmar and is the responsibility of all shareholders. VIB is part of the IFC Global Trade Finance Program, with a guarantee of US\$144 million for the bank.³⁹³ In July 2020, VIB received an IFC award for "Best Operations Bank in East Asia and the Pacific".³⁹⁴ One of VIB's largest shareholders is Australia's Commonwealth Bank, with 20% equity, raising serious concerns that Australia's largest bank is in breach of its human rights responsibilities through its ownership of VIB.³⁹⁵ Loans from VIB may have directly supported Mytel's military infrastructure, potentially aiding and abetting the military's international crimes.

In 2017, Tien Phong Commercial Joint Stock Bank (TPBank) (Vietnam) granted an unsecured loan of US\$45 million to Myanmar National Tele & Communications Co. Ltd., the former name of Telecom International Myanmar, Mytel's registered company.³⁹⁶ The loan term expires May 26, 2022. As the loan was earmarked for Mytel, it may not be part of Viettel Global's investment commitment in Mytel. The loan, earmarked for telecommunications network development, may also benefit the Myanmar military's communications capabilities, aiding and abetting their international crimes. TPBank is a member of the IFC's Global Trade Finance Program and, in addition, the IFC acquired a 5% stake in the bank in 2016, before the Myanmar loan was issued. As equity-holder of the bank, the IFC bears responsibility for TPBank's financial links to the Myanmar military, including any international crimes that the loan may have contributed to.

HDBank and BIDV both provide loans specifically for Mytel³⁹⁷ and, in addition, have signed comprehensive partnerships with Viettel for the provision of credit and financial services that includes Mytel.³⁹⁸ HDBank has opened a representative office in Myanmar,³⁹⁹ while BIDV has opened a branch in the country.⁴⁰⁰ Comprehensive services may include support of MytelPay, Mytel's mobile money service in which the Myanmar military is a shareholder, through Telecom International Myanmar. South Korea's KEB Hana Bank has a 15% stake in BIDV and is a "strategic shareholder".⁴⁰¹ Furthermore, HDBank has a credit agreement with the Asian Development Bank as part of its Trade Finance Program.⁴⁰²

According to Viettel Global's 2018 audit, LienVietPostBank issued a loan to Mytel of VND487.804 billion (around US\$21 million).⁴⁰³ Again, it is unclear if Viettel Global brokered the loan for Telecom International Myanmar, or whether this contributes to Viettel Global's investment commitment.

VietinBank, a member of IFC's Global Trade Finance Program,⁴⁰⁴ has provided Viettel Global with VND361.55 billion (US\$15.72 million) short-term loans and VND610.03 billion (US\$26.52) in long-term loans, with a high likelihood that the funds have benefited the Myanmar military through Mytel.⁴⁰⁵ IFC reportedly reduced its stake in VietinBank from 8% to 1.63% as of January 2020, while the IFC Capitalization Fund reduced its ownership in the bank to 3.35%.⁴⁰⁶

Loans and financial services to Mytel from VIB, TPBank, HDBank and BIDV are substantial, and Justice For Myanmar concludes that they could amount to aiding and abetting the commission of war crimes and

crimes against humanity. Evidence of loans from other major Vietnamese banks raises serious concerns about the lack of human rights due diligence and routine breaches of their international obligations under the UN Guiding Principles. No responsible bank should provide loans to Viettel, as an arms manufacturer, and Mytel, as a business directly supporting the Myanmar military's international crimes.

The complicity of major Vietnamese banks raises questions over the due diligence and human rights safeguards of IFC and ADB in their relationships with financial intermediaries. Justice For Myanmar welcomes IFC's commitment to undertake an audit of its investments in Myanmar, so as to ensure they do not benefit the Myanmar military. However, limiting the audit to investments within Myanmar is clearly insufficient. The IFC must include other financial intermediaries in the region that are investing in Myanmar. This must include all Vietnamese banks. The ADB should follow the IFC's lead and conduct a comprehensive audit of its investments, including financial intermediaries, to ensure none are supporting the Myanmar military and its businesses.

7.3 MEC capital raising through the Yangon Stock Exchange

The Myanmar military has used Yangon Stock Exchange to raise funds for military communications infrastructure, through TMH Telecom Public Co. Ltd.

TMH Telecom is associated with Tah Moe Hnye Chan Thar Group and established in Kutkai township in northern Shan state.⁴⁰⁷ In 2017, TMH Telecom appointed retired Brig Gen David Abel to their board. Brig Gen David Abel, who died in January 2019, was a founder of military conglomerate Myanmar Economic Holdings Ltd. (MEHL), a former military finance minister and an assistant quartermaster general.⁴⁰⁸

According to TMH Telecom's prospectus, 70% of the capital raised from its listing was to be spent on a towers project in Mandalay region and Shan state for military holding company Myanmar Economic Corporation (MEC).⁴⁰⁹ TMH Telecom lists substantial ongoing projects for MEC, suggesting that it is a major private contractor supporting military communications construction and maintenance, including for use in the Mytel network. TMH Telecom lists receivables for mobile station construction and maintenance, including a significant number of towers in Naypyidaw and the construction of a tower on Kyay Sin Taung, where the military operates the notorious Sabae Taung and Kyay Sin Taung (S & K) copper mine with Chinese arms manufacturer Norinco.⁴¹⁰ TMH Telecom also lists mobile radio projects, which could be for military use. The company has a bank guarantee from Innwa, a bank closely linked to the Tatmadaw.⁴¹¹ According to TMH Telecom's 2018 financial statements, the business is doing network maintenance and optimisation for MEC, as well as procurement, including to power MEC tower sites.⁴¹² In addition to its work with MEC, TMH Telecom has contracts with Mytel and the state-owned Myanma Posts and Telecommunications (MPT). Tah Moe Hnye Chan Thar Group directors control Myanmar Hurricane Investment & Telecom, which operates MEC's call centres, does network monitoring and provides value added services to users of virtual mobile network MECTel.⁴¹³

TMH Telecom is involved in the maintenance of critical national telecommunications infrastructure for China and Myanmar, working with China Unicom to build and operate the landing stations for the China-Myanmar inland fibre route, which connects to AAE1, one of Myanmar's main communications nodes. Landing stations are in Ngwesaung and Muse and TMH Telecom provides security, power systems, submarine equipment and management of the network operation centre.⁴¹⁴ Given TMH Telecom's close association with the military, its involvement in these landing stations may serve to protect the military's interest in this infrastructure. TMH Telecom's role could compromise Myanmar's national communications infrastructure, as it could support any military cable tapping.

Justice For Myanmar concludes that TMH Telecom's support for MEC and Mytel, which includes infrastructure development, could amount to aiding and abetting the commission of war crimes and crimes against humanity.

It is a major concern that the military is using the Yangon Stock Exchange to raise capital, and it shows a serious lack of due diligence on the part of the stock exchange operators, which are the state-owned Myanma Economic Bank, Daiwa Securities (Japan) and Japan Exchange Group.⁴¹⁵ The Yangon Stock Exchange must implement human rights and corruption due diligence safeguards and prevent businesses from raising funds for military projects through the stock exchange.

7.4 Financial services

7.4.1 Deloitte (UK)

Since before the formation of Mytel in 2016, UK-based Deloitte has provided audit services to Viettel Global Investment JSC through their firm in Vietnam.⁴¹⁶ Deloitte's audits include details of Viettel funds transferred to Myanmar, transactions between Viettel and the Myanmar military and details of Mytel profits. Mytel's auditor in Myanmar is unknown. In maintaining business links to Viettel, Deloitte provides an international source of legitimacy to Mytel. According to Deloitte's "Commitment to Responsible Business Practice Statement", the firm abides by the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises, which require Deloitte to prevent, mitigate and remedy human rights violations connected to its business and relationships.⁴¹⁷ Deloitte specifies that it is "committed to making informed and deliberate choices about client acceptance and engagement".⁴¹⁸ Yet it has continued to provide services to Viettel, despite potential evidence of Viettel's connection to international crimes being committed by the Myanmar military, via its business links with Mytel.

7.4.2 Fortumo OÜ/Boku, Inc. (Estonia/USA)

Boku Inc is a mobile payment solutions business domiciled in the UK and listed on AIM, the London Stock Exchange's market for small and medium businesses. In July 2020, Boku, Inc. announced the acquisition of Fortumo OÜ, a direct carrier billing business domiciled in Estonia.⁴¹⁹ In August 2020, Fortumo announced a direct carrier billing contract with Mytel to facilitate user payments for digital

content and services. Fortumo’s press release describes Mytel as “*a caring innovator... [that] wants to become a telecommunication network that strengthen the power for the people of Myanmar*”.⁴²⁰ Boku did not disclose to its shareholders that the Myanmar military is a key beneficiary of its partnership with Mytel, and that the UN Independent International Fact-Finding Mission on Myanmar (UN IIFFMM) has recommended that businesses cut ties with Myanmar military-owned companies, explicitly naming Mytel, which creates investment risks. The Fortumo OÜ/Boku, Inc. partnership with Mytel will generate off-budget revenue for the Myanmar military that could be used in military operations. Justice For Myanmar therefore concludes that Fortumo OÜ/Boku, Inc. could be aiding and abetting the commission of war crimes and crimes against humanity.

7.4.3 Digital Virgo (France)

Digital Virgo is a mobile payments technology provider, domiciled in France. The business is owned by BNP Paribas and private equity firm Sofival, both domiciled in France, and Ioda SA, domiciled in Luxembourg.⁴²¹ Digital Virgo announced a contract with Viettel Global in May 2020 to support the direct carrier billing system for Viettel subsidiaries, including in Myanmar. According to the announcement, Digital Virgo’s platform “goes one step further on the consolidation of a sustainable and efficient profitability”.⁴²² It is unclear if Mytel has already incorporated Digital Virgo’s technology into its billing system. Once implemented, Digital Virgo could be in breach of EU export restrictions, for the provision of “*technical assistance, brokering services and other services related to military activities and to the provision, manufacture, maintenance and use of arms and related materiel of all types*”.⁴²³

Digital Virgo must withdraw from its contract with Viettel and ensure that the Myanmar military does not access Digital Virgo’s payment technology.

7.4.4 Oracle (USA) and FPT (Vietnam)

In 2016, FPT signed a deal with Viettel Group to deploy Oracle Hyperion software across Viettel’s network, enabling Viettel to consolidate its financial reporting.⁴²⁴ This directly supports Viettel’s financial operations, including Mytel and Viettel’s comprehensive support for the Myanmar military.

7.4.5 World Bank payments to military contractors

Through the World Bank, military contractors have received funds for key “reform” project components. A search of tender documents published on the World Bank website shows records of three Telecommunications Sector Reform Project contracts awarded to business partners of Mytel and the Myanmar military. These include US\$414,800 for a spectrum management system, awarded to Spectrum Center – Comit – A1 Joint Venture in June 2020;⁴²⁵ US\$2,382,053 for a fixed spectrum monitoring station awarded to Comit – A1 Joint Venture in May 2019;⁴²⁶ and US\$177,876 for electromagnetic field testing and measurement equipment awarded to an alliance of Terabit Wave and Comit in May 2019.⁴²⁷ Comit provides services for Mytel and MEC towers (see [Chapter 3](#)). Terabit Wave, a subsidiary of A1 Group, provides satellite services to Mytel and the Myanmar military (see [Chapter 4](#)).

These contracts raise serious concerns regarding the World Bank's due diligence systems. One contract was even awarded after publication of the UN fact-finding mission's report on military businesses, that recommended international financial institutions "*support and encourage investment only in the non-Tatmadaw linked private sector to support the growth of alternative economic actors to the Tatmadaw and associated businesses*".

The involvement of businesses linked to the Myanmar military also threatens the integrity of Myanmar's spectrum management system, as Myanmar military partners cannot fulfil independent regulatory functions.

7.5 The military's digital financial services

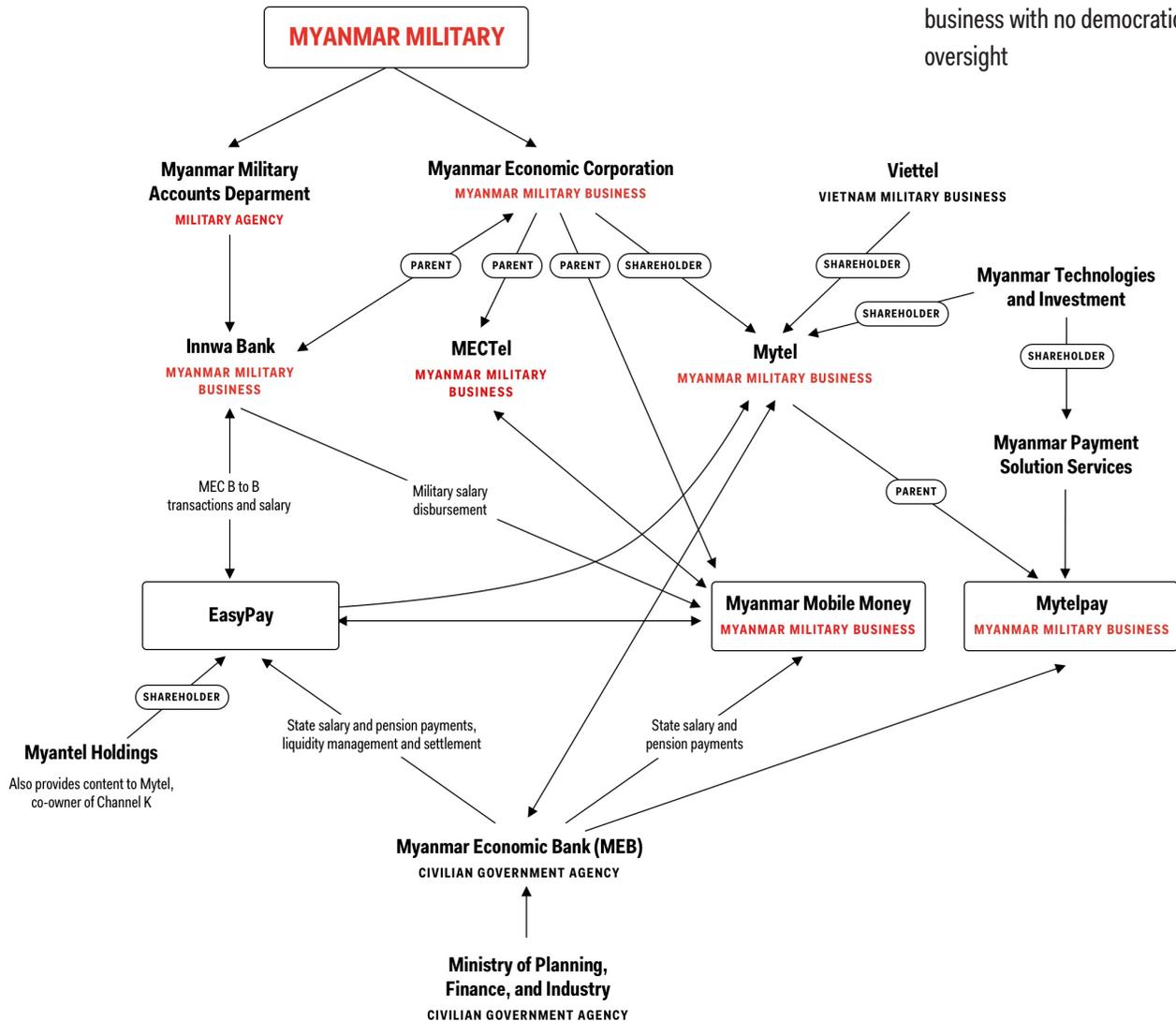
Tied to MEC's telecommunications businesses, the military has significant interests in the digital financial services sector, benefiting from post-2011 economic liberalisation. In January 2013, MEC formed a partnership to establish Myanmar Mobile Money, in connection to Innwa Bank, MEC's private bank.⁴²⁸ One of Innwa Bank's key functions is to serve the military accounts department, which uses the bank for salary distributions to military officers. Military officers are able to manage their funds through Myanmar Mobile Money.⁴²⁹

Since 2015, Myanmar Mobile Money has provided mobile banking for Myanma Economic Bank, a state bank under civilian control that provides financial services primarily to government departments and civil servants. According to the Ministry of Planning, Finance and Industry website, Myanma Economic Bank's own mobile payment system operates with Myanmar Mobile Money and Innwa Bank, and the bank's identity verification system has been limited to MECtel, Mytel and MPT SIM users, although this may have recently changed.⁴³⁰

Through Myanma Economic Bank, Myanmar Mobile Money is also integrated into the civilian civil service pension system, enabling government staff to withdraw their pension through MEC's Myanmar Mobile Money network (Mytel Pay, MPT Money and Wave Money are also available).⁴³¹ Since 2019, Myanma Economic Bank has approved other digital financial services providers for mobile payments, however they are only allowed to operate through a limited number of branches and for a narrower range of services, according to the ministry website. This protects the military's economic interests and incentivises civil servants to become customers of MEC, profiting the military at public expense.⁴³²

Myanmar military's digital financial services

The Myanmar military has built a secretive financial network that gives it access to digital payment services and performs government business with no democratic oversight



Myanmar Mobile Money was established in partnership with Mobilemate Telecommunication Co. Ltd. and French-based Oberthur Technologies.⁴³³ Oberthur Technologies, now called IDEMIA, was named by the UN fact-finding mission as a “foreign company with contractual or commercial ties to MEHL or MEC”.⁴³⁴ IDEMIA responded to the UN IIFFMM, stating that they had provided software to Innwa Bank via a contract with Mobilemate Telecommunications Co. Ltd. which has since expired.⁴³⁵ IDEMIA has since been in discussion with the Myanmar civilian government and members of the military over biometric identification systems and e-government.⁴³⁶ Mobilemate Telecommunications Co. Ltd. is owned by Kyaw Htoo Linn, who is a director of KMA Telemedia Holdings Ltd., which owns and operates the national broadcast network Channel K as a joint venture with K Telemedia Holdings.⁴³⁷ Until recently, Kyaw Htoo Linn was a director of Myanmar Telemedia, which operates in Singapore and provides services to Mytel,⁴³⁸

In 2012, EasyPay was launched, as a “*sister company*” of Myantel and Solutions Hub Co. Ltd.⁴³⁹. It operates in cooperation with Myanmar Mobile Money and has a “*partnership agreement*” with Innwa Bank,⁴⁴⁰ and describes MECTel, Mytel and MPT as “*partners*”.⁴⁴¹ EasyPay and Myanmar Mobile Money are the only digital financial services providers for Myanma Insurance, the state insurance programme.⁴⁴² Solutions Hub is a subsidiary of Myanmar Telemedia Holdings.⁴⁴³ EasyPay and Myanmar Mobile Money are not included on the Central Bank of Myanmar’s “*list of mobile financial services providers*”.⁴⁴⁴ According to information disclosed by EasyPay, the service may be operating with Myanmar Mobile Money through Innwa Bank’s licence.⁴⁴⁵

In 2019, MytelPay was launched, fully owned by Telecom International Myanmar, Mytel’s registered company. MytelPay is a mobile wallet and digital transfer system tied to Mytel’s mobile network. The service is part of “Viettel’s comprehensive strategy on digital transformation”,⁴⁴⁶ and is a major expansion of the Myanmar military’s digital financial operations. One of MytelPay’s partners is Myanmar Payment Solution Services (MPSS), a business founded by Myanmar Technologies and Investment Corporation (MTI), a Mytel shareholder through MNTH.⁴⁴⁷ MytelPay was included in Myanmar’s pension payment system in 2020.⁴⁴⁸



Mytel executives at the launch of MytelPay, with the Yangon chief minister and Vietnamese ambassador to Myanmar.

SOURCE: VIETNAM EMBASSY IN MYANMAR

In partnership with Viettel and crony businesses, the Myanmar military is expanding its financial infrastructure, which can be used to facilitate the military's criminal conduct and the offshoring of the country's wealth, misappropriated by top generals and their cronies. It is unconscionable that military-controlled finance businesses are being supported by civilian institutions and are performing state functions, including the payment of salaries and pensions. These services also create high risks for internet users, enabling their military owners to mine large amounts of data from Myanmar people.

The Myanmar military's digital finance services partners are directly contributing to the enrichment of Myanmar's military and could be aiding and abetting the commission of war crimes and crimes against humanity.

An independent investigation must be initiated into the military's finance businesses, including corruption within the state payroll and pension system.

7.6 Take control

Through Mytel's abstruse structure within Myanmar's military economy, top generals misappropriate funds and divert revenue to finance the military's international crimes. There is no democratic oversight of Mytel, which is an instrument for military abuse and corruption. This abuse and corruption is supported by a global network of businesses, banks and organisations. It has to end.

The people of Myanmar demand real change. Mytel is a creation of the Myanmar government. It has to serve the people, not the military generals. Myanmar's democratic government must end all military business. Take Mytel back.

Telecommunications can be a force for good.



FINDINGS

Mytel, its shareholders, partners and the Myanmar government are aiding and abetting the commission of war crimes and crimes against humanity. An international network of businesses are legally implicated.

FINDINGS

1. Mytel provides communications technology and infrastructure to the Myanmar military, including within military facilities. As such, it directly supports the military's operational capabilities, specifically in the field of signals for the army and air force. As a result, Mytel is aiding and abetting the Myanmar military in the commission of war crimes and crimes against humanity.
2. Mytel is a source of off-budget revenue for the Myanmar military through shares held by Star High, a subsidiary of the military operated Myanmar Economic Corporation (MEC). This revenue could be used in the Myanmar military's commission of war crimes and crimes against humanity. Mytel and its shareholders could therefore be aiding and abetting those crimes.
3. Viettel, which is the biggest investor in Mytel, is systematically upgrading military communications infrastructure, transferring technology to multiple parts of the Myanmar military and providing training. Viettel is therefore making a significant contribution to the operational capabilities of the Myanmar military. As a result, Viettel is aiding and abetting the Myanmar military in the commission of war crimes and crimes against humanity.
4. Viettel is acting as a loan guarantor. This financial role support off-budget revenue to the Myanmar military, which could be used in the commission of war crimes and crimes against humanity.
5. The government of Myanmar as a whole is supporting Myanmar military operations through the Satellite Steering Committee, Myanmar Aerospace Engineering University and the Ministry of Transport and Communications. In doing so, the government of Myanmar as a whole, both the civilian side of the government and the military side, share responsibility for failing in its obligation to respect, protect and fulfil human rights. The civilian side of the government therefore bears responsibility for the associated serious human rights violations that the military is committing.
6. Mytel and Viettel are violating the right to privacy of the people of Myanmar through the collection and analysis of personal data, outside of Myanmar's jurisdiction and without apparent democratic oversight from Myanmar authorities. These violations of the right to privacy are enabled by Myanmar's lack of robust privacy protections.
7. Mytel is a public-private partnership and MEC is the government shareholder. As a result, Mytel must be subject to democratic oversight and MEC's full share of profits are required to be incorporated into the Union Budget. However, Mytel is being managed outside of democratic oversight and profits are being misappropriated and not going into the Union Budget. Mytel is also using public assets,

including land and military communications infrastructure, without democratic oversight as to the terms of these agreement and the financial arrangements.

- 8.** Myanmar businesses, through Myanmar National Telecom Holdings (MNTH), are providing capital and operational support for Mytel. As Mytel provides communications technology, infrastructure and revenue to the Myanmar military, which supports military operations, domestic shareholders could be aiding and abetting war crimes and crimes against humanity.
- 9.** The military has access to satellites, which it uses for military communications, for psychological warfare broadcasts and for remote sensing. Satellites support core operations of the Myanmar military, including the commission of war crimes and crimes against humanity. Businesses providing satellite services to the Myanmar military are therefore aiding and abetting war crimes and crimes against humanity. These include Intelsat, VNPT, Gilat Satellite Networks and AsiaSat. Businesses manufacturing satellite technology and providing allied services may be aiding and abetting those crimes, depending on the circumstances of the sale. These include Maxar Technologies and ArianeSpace. The government of Japan will be aiding and abetting war crimes and crimes against humanity should its support for Myanmar's microsatellite programme continue.
- 10.** Major suppliers of Mytel are providing technology that is being used by the Myanmar military and within military bases in areas where international crimes are being committed. These businesses could be aiding and abetting war crimes and crimes against humanity. These businesses include NEC, Huawei, ZTE, CommScope and Oscilloquartz/Adva.
- 11.** Viettel supports Mytel operations from Vietnam, and multiple Viettel subsidiaries provide goods and services to Mytel and the Myanmar military. Businesses with commercial relationships to Viettel are therefore at a high risk of directly or indirectly contributing to human rights violations in Myanmar. These businesses must therefore conduct urgent human rights due diligence, in accordance with their obligations under the UN Guiding Principles on Business and Human Rights and OECD Guidelines for Multinational Enterprises.
- 12.** International and Vietnamese banks are providing finance and other forms of support, directly to Mytel and indirectly, through Viettel. Through Mytel, these businesses are contributing to the development of military infrastructure, the procurement of technology that can be used for military purposes; and profits in which the military has an interest. Loans and financial services to Mytel and Viettel may therefore contribute to serious human rights violations and could contravene obligations under the UN Guiding Principles, OECD Guidelines and Equator Principles.
- 13.** The World Bank's support for telecommunications reform in Myanmar has provided indirect support for the military, in a serious shortfall of the World Bank's human rights and corruption due diligence. Other international financial institutions have also failed in their due diligence through their support for entities that have commercial relationships with Mytel.



RECOMMENDATIONS

- Boycott Mytel
- Sanction Myanmar military generals and their businesses
- Dismantle the military cartel

To the people of Myanmar

Boycott Mytel! Mytel fundamentally harms the people of Myanmar. Mytel is stealing the wealth of Myanmar, misusing public assets and enriching military generals. Mytel is directly contributing to grave human rights violations, fuelling civil war in ethnic areas. Mytel is a major threat to privacy, collecting personal data on a mass scale, fully accessible to the militaries of Myanmar and Vietnam.

- If you value human rights, boycott Mytel!
- If you value democracy, boycott Mytel!
- If you're concerned about privacy, boycott Mytel!
- If you're concerned about Myanmar sovereignty, boycott Mytel!
- If you want to take a stand against corruption, boycott Mytel!
- If you want fair and equitable economic development, boycott Mytel!
- If you want to stop the Myanmar military's abuse of Buddhism for their personal and political benefit, boycott Mytel!
- If you have a Mytel SIM card, destroy it. If you're thinking of buying a Mytel SIM card, don't do it.
- Spread the message on social media. Tell your family and friends to boycott Mytel!

Demand that the government and your local hluttaw representatives take action on Mytel. Mytel is a state-owned enterprise. It belongs to all the people of Myanmar and must be controlled by the civilian government elected by the people. All profits must be used democratically for the benefit of the people of Myanmar. Funds and assets stolen by the military cartel must be returned to the people.

To civil society of Myanmar

- Raise public awareness about Mytel's deplorable conduct and demand action for peace, human rights and privacy. Campaign for a boycott of Mytel.
- Mytel is a threat to civic space and civil society through the mass collection of personal data that can be used for military surveillance. Those working to improve the human rights situation in Myanmar are particularly at risk. Protect civil society by boycotting Mytel.
- Advocate for the removal of Mytel from military bases. Mytel is operating in military bases in ethnic areas, contributing to grave human rights violations and threatening peace.
- Refuse donations and sponsorship from Mytel.
- Boycott Mytel-sponsored events.

To media, entertainment and eSports

- Continue to monitor and investigate Mytel, Viettel and the rest of the military cartel.
- Continue to expose their criminal conduct and the complicity of the government and other entities.
- Mytel is a threat to freedom of expression through the mass collection of personal data that can be used for military surveillance. Protect independent media space by boycotting Mytel.
- If you're a celebrity, refuse to collaborate with Mytel and all other military businesses to support human rights and build democracy in Myanmar. Spread the word to boycott Mytel!
- If you're in the entertainment and gaming industry, support human rights and democracy by refusing business from Mytel.
- If you're an eSports athlete, support human rights and democracy by boycotting Mytel competitions and refusing sponsorship.

To the government of Myanmar

Human rights and privacy

- Support international mechanisms to hold Mytel and its partners accountable for contributing to the Myanmar military's international crimes. Ensure Mytel and its partners are held accountable, including by taking legal action where appropriate and compensating victims of human rights violations connected to Myanmar military business.
- Comply with the provisional measures order of the International Court of Justice, issued on Jan 23, 2020 to protect the rights of Rohingya under the Genocide Convention.
- Mytel collects personal data that is used by military-owned entities in Vietnam and Myanmar,

without any transparency or public oversight. Create a privacy commission with the power to ensure that the people of Myanmar are guaranteed the right to privacy and the right to erase their personal data stored by entities including Mytel and Viettel.

Corruption and mismanagement

- Star High is the public shareholder in Mytel. Immediately place Star High under civilian public management. As a public-private partnership, Mytel must be fully transparent to the Hluttaw (parliament) and all public profits must go into the Union Budget. This has not happened and must be investigated. There must be a full and public audit of Mytel's finances, including public financing of Mytel and their revenue and profits.
- Appoint a special commission to undertake an impartial, comprehensive and public investigation of Mytel. This must include:
 - Mytel's creation under the Joint Venture Formation and Tender Selection Work Committee, including the selection of Star High and Viettel and Mytel's licencing process.
 - The formation, operations and capital investment of Myanmar National Telecom Holdings (MNTH).
 - Mytel's use of public assets, including military infrastructure.
 - Mytel's collection and use of personal data.
- Prosecute all cases of criminal conduct. Seize stolen assets and proceeds of corruption.

National security

- Conduct an urgent, comprehensive and independent investigation of the national security risks of Mytel's operations in Myanmar in relation to Viettel's access to sovereign assets and infrastructure, as an entity controlled by the Ministry of National Defence of Vietnam. Immediately cease Mytel's use of military infrastructure. Defence infrastructure must never be used for business purposes. Fully disclose findings to the public and take legal action as needed.
- Ban Viettel and all other foreign military-owned businesses from operating in Myanmar.
- Support international efforts to hold the military accountable for its international crimes. The military can only ensure national security when it is fully under civilian control and abides by international law.

Telecommunications regulation

- Create a truly independent telecommunications regulator which has the power to protect the rights of the people of Myanmar.
- Reform the Telecommunications Law so it meets international human rights standards. This must involve the repeal of 66(d).

Dismantle the military cartel

- Ban the Myanmar military from business and politics, placing the military fully under civilian, democratic control.
- Dismantle the military cartel by nationalising all military businesses, including MEC, MEHL and

- their subsidiaries.
- Use all funds and assets seized from the military cartel for the benefit of the people of Myanmar.

To the Hluttaw (parliament)

- Scrutinise Mytel, including the formation and licencing process, Mytel's use of state assets and state revenue and the state's 28% equity, which is currently held by Star High. Ensure the state's 28% share in Mytel is managed in accordance with state procedures as applied to state-owned businesses. All profits must go into the Union Budget. Mytel accounts must be fully subject to Auditor General and parliamentary scrutiny.
- Thoroughly investigate all military businesses and disclose findings to the public. Military business is a fundamental threat to democracy, peace and economic development in Myanmar.
- Legislate to disband Myanmar Economic Corporation (MEC), Myanma Economic Holdings Limited (MEHL) and all other military-owned businesses. End the corruption and conflict of interest that enables the military's criminal conduct.
- Exercise authority to end the military's involvement in business. Transfer all military-owned businesses to civilian control. Assets stolen by the Myanmar military must be returned to the people.
- Withhold the approval of Ministry of Defence budgets until the military and their businesses are fully under civilian control.

To businesses and investors

- The Myanmar military's criminal conduct is enabled by their business interests. It is the responsibility of all businesses under international human rights law to ensure that they are not aiding and abetting the commission of war crimes and crimes against humanity. Cut all ties with the Myanmar military, their conglomerates, subsidiaries and business partners, including within all parts of the supply and investment chain.
- All businesses with commercial ties to Viettel, and their subsidiaries, must urgently conduct comprehensive human rights due diligence and take concrete action to ensure that they are not directly or indirectly supporting Viettel's business in Myanmar.
- When doing business in Myanmar, conduct continuous, rigorous and transparent human rights due diligence prior to investment, in a way that is publicly transparent and in accordance with international human rights principles.
- Fully abide by the UN Guiding Principles for Business and Human Rights. Where human rights violations have taken place in relation to business, ensure victims and survivors have full access to justice and remedy, including compensation and psycho-social support.
- Investors must divest from businesses that continue to maintain commercial ties with the Myanmar military.

To the government of Vietnam

- Immediately withdraw Viettel from Myanmar.
- Stop supporting Myanmar military business.
- Immediately terminate the Myanmar military's access to VNPT satellites, including through third parties.
- End the transfer of weapons and dual-use goods to the Myanmar military.
- End all training and technical support to the Myanmar military.
- As a UN Security Council member, play a positive role in preventing the Myanmar military's crimes and holding perpetrators to account under international law. Stop supporting the international crimes that the Myanmar military has been committing.

To UN member states

- Investigate all violations of domestic and international law involving businesses domiciled in your territory, in relation to their commercial ties with Myanmar military-controlled businesses.
- Prevent any businesses domiciled in your territory from entering into a commercial relationship, directly or indirectly, with the Myanmar military and its businesses.
- Cut all ties with the Myanmar military. Ensure development assistance does not directly or indirectly support the Myanmar military and its businesses.
- Impose targeted sanctions on the Myanmar military leadership, Myanmar military businesses, their subsidiaries and joint businesses. This must include Viettel, until it leaves Myanmar.
- End all support for Myanmar's satellite program until the Myanmar military is brought under civilian control.
- JAXA, Japan's state agency, must halt the planned launch of Myanmar's micro-satellite.
- Tohoku and Hokkaido universities must end their relationship with Myanmar Aerospace Engineering University (MAEU), as a result of MAEU's direct support for the Myanmar military and the high risk of MAEU research being used for military purposes.
- Advocate for the referral of the Myanmar military's international crimes to the International Criminal Court, including the role of business in supporting those crimes.
- Support the Myanmar government to remove the military from business and politics and promote non-military business that upholds human rights.
- Legislate for mandatory human rights due diligence.

To the United Nations Security Council

- Impose targeted sanctions against the Myanmar military leadership and Myanmar military-owned businesses to prevent them from continuing to commit war crimes and crimes against humanity.
- Impose a comprehensive arms embargo against the Myanmar military and military-controlled entities.

- Refer Myanmar to the International Criminal Court for war crimes and crimes against humanity in Arakan, Chin, Kachin and Shan states.

To the World Bank

- Investigate the World Bank's role in enabling the creation of Mytel and its crimes through World Bank-supported reforms.
- Investigate Comit and A1 Group of Companies contracts, in relation to their supply of technology and services to the Myanmar military and its business interests.
- Ensure that no World Bank contracts in Myanmar are awarded to Myanmar military businesses or businesses with links to the Myanmar military.
- End all direct and indirect relationships with the Myanmar military, military-owned businesses, their subsidiaries and joint business partners.

To the IFC, ADB and EDFI

- Conduct a comprehensive assessment of direct and indirect financial support for the Myanmar military, its businesses and associates, including through financial intermediaries in Myanmar, Vietnam and elsewhere that have investments in Myanmar.
- Put in place transparent and rigorous measures to ensure programmes, including direct budget support, do not benefit the Myanmar military, its businesses, subsidiaries and joint business partners in any way.
- Implement heightened human rights due diligence requirements to prevent any future project from directly or indirectly benefiting the Myanmar military.

To United Nations agencies, international donors, international non-governmental organisations and embassies in Myanmar

- Put in place transparent and rigorous measures to ensure programmes do not benefit the Myanmar military, its businesses, subsidiaries and joint business partners in any way.
- Put in place a ban on the purchase of goods and services from businesses owned by the Myanmar military, its subsidiaries and joint business partners, including Mytel.



APPENDICES



APPENDIX 1

Named international businesses that are connected to Mytel, Viettel and the Myanmar military.

Findings are graded as follows:

- A.** The company is aiding and abetting the commission of war crimes and crimes against humanity in Myanmar.
- B.** The company might be aiding and abetting the commission of war crimes and crimes against humanity in Myanmar.
- C.** The company may be failing to meet its obligations under the UN Guiding Principles on Business and Human Rights, must conduct human rights due diligence and take steps to ensure that it does not directly or indirectly benefit the Myanmar military.

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
1	A Company	Germany	Provides content to Viettel	C
2	Addnics Corp	Japan	Providing a transmitter and receiver for Myanmar's satellite programme	B
3	Adva	Germany	Provides timing solutions to Mytel – Parent company of Oscilloquartz (Switzerland)	B
4	An Binh Commercial Joint Stock Bank (ABBank)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C
5	Apollo Towers	USA	Leases towers to Mytel. Majority owned by US private equity firm TPG Capital.	C

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
6	ArianeGroup	France	Subsidiary ArianeSpace launched the satellite Myanmarsat-2.	C
7	AsiaSat	Hong Kong	Provides satellite services to the Myanmar military, including to the Directorate of Psychological Warfare and Public Relations	B
8	Boku Inc	USA	Provides a direct carrier billing system to Mytel through its subsidiary, Fortumo OÜ (Estonia).	B
9	Cisco	USA	Provides technology to Viettel IDC and ngena, both of which are connected to Mytel	C
10	Com & Com	Vietnam	Com & Com provides satellite and other telecommunications services to Mytel. A joint venture between OSB JSC and Terabit Wave	B
11	Comit	Vietnam	Partnership with Mytel and Viettel. World Bank contractor for spectrum monitoring in Myanmar	B
12	Commscope	USA	Supplies antennas to Mytel.	C
13	Coslight	India	Supplies lithium batteries to Mytel	C
14	Deloitte	UK	Audit provider to Viettel Global Investment JSC	C
15	Digital Virgo	France	Provides a customer billing system to Mytel. Shareholders include BNP Paribas	B

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
16	ELM Technology	Japan	Providing antennas and a satellite tracking system for Myanmar's satellite programme	B
17	Elofun	Vietnam	Content provider for Mytel.	C
18	Edotco Group	Malaysia	Leases towers to Mytel	C
19	Ericsson	Sweden	Viettel vendor, including for 5G	C
20	FPT	Vietnam	Provides Oracle Hyperion financial supporting software to Mytel and has built a Mytel data centre	B
21	Flytxt	Netherlands	Provides artificial intelligence technology to Viettel partner, Comit	C
22	Fujitsu	Japan	Partnership with Viettel IDC for cloud computing	C
23	Gilat Satellite Networks	Israel	Sold tactical satellite equipment to the Directorate of Signals in 2014. Supplier of Shwe Than Lwin	A
24	Ho Chi Minh City Development Joint Stock Commercial Bank (HDBank)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C
25	Huawei	China	Provides a broad range of telecommunications technology to Mytel, including for 5G	B
26	HSBC	UK	Provides debt financing to Viettel Global Investment JSC	C

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
27	Hughes	USA	Provides satellite services in Myanmar to private operators including KBZ Gateway and Seanet	C
28	IDEMIA	France	Myanmar Mobile Money partner	B
29	Intelsat S.A. and Intelsat Global Sales & Marketing Ltd.	Luxembourg/USA and UK	Partner of the satellite Myanmarsat-2 programme and co-owner of the satellite hosting payloads for the Myanmar government. Also supported Myanmarsat-1	B
30	Irrawaddy Green Towers	Luxembourg	Has a master lease agreement with Mytel	C
31	Iridium	USA	Partnership with Viettel High Technology for the sale of satellite tracking devices	C
32	Joint Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C
33	Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV)	Vietnam	Provides debt financing to Viettel Global Investment JSC and has a comprehensive cooperation agreement with Mytel	B
34	Leoch International Technology	Hong Kong	Supplies VRLA batteries to Mytel	C
35	Lien Viet Post Commercial Joint Stock Bank	Vietnam	Provides financing to Mytel Viettel Global Investment JSC.	B

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
36	Lockheed Martin	USA	Manufacturer of VNPT Vinasat satellites. Also manufactured AsiaSat 2	C
37	Maxar Technologies	USA	Manufacturer of Intelsat 39, including Myanmarsat-2 payloads. Manufacturer of AsiaSat 9	B
38	Maybank	Malaysia	Provides debt financing to Viettel Global Investment JSC	C
39	MFOCN/Hyalroute	Singapore	Leases fibre-optic cables to Mytel	C
40	Microsoft	USA	Partnership with Viettel IDC, providing access to Azure cloud services	C
41	Military Commercial Joint Stock Bank (MB)	Vietnam	Provides debt financing to Viettel Global Investment JSC.	C
42	Misfit Technologies	Singapore	Provides SIM registration technology to Mytel	C
43	Mitsubishi UFJ Financial Group (MUFG)	Japan	Provides debt financing to Viettel and Mytel	B
44	Moonton	China	Provides content to Mytel	C
45	National Tower Development (NTD)	Singapore	Builds and leases towers to Mytel	C
46	NEC	Japan	Supplies microwave transmission equipment to Mytel. Installs and maintains Adva timing solutions equipment for Mytel	B

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
47	ngena	Germany	Provides SD-WAN services to Viettel, including in Myanmar.	C
48	Nokia	Finland	Viettel vendor, including for 5G. Viettel Global Investment JSC financial reports include payments to Nokia Networks	C
49	NuRAN Wireless	Canada	Partnership with Viettel subsidiary VTTEK for 5G research.	C
50	OCK Group Bhd	Malaysia	Leases towers to Mytel	C
51	Oracle	USA	Supplies Oracle Hyperion financial supporting software to Mytel, through FPT	C
52	Premier League	UK	Licenses content to Mytel through Shwe Than Lwin.	C
53	Qualcomm	USA	Partnership with Viettel subsidiary M1 Communication for research, design, manufacture and sale of telecommunications technology	C
54	Sai Gon Commercial Joint Stock Bank (SCB)	Vietnam	Provides debt financing to Viettel Global Investment JSC.	C
55	Shandong Sacred Sun Power Sources Co. Ltd.	China	Supplies VRLA batteries to Mytel	C
56	Southeast Asia Commercial Joint Stock Bank (SeABank)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
57	Standard Chartered	UK	Provides debt financing to Viettel Global Investment JSC	C
58	Taicom JSC	Vietnam	Contracted for the construction of Mytel infrastructure.	A
59	Taipei Fubon Commercial Bank	Taiwan	Provides debt financing to Viettel Global Investment JSC	C
60	Tien Phong Commercial Joint Stock Bank (TPBank)	Vietnam	Provides financing to Mytel and Viettel Global Investment JSC	B
61	UniPin	Indonesia	Mytel content provider	C
62	VIAVI Solutions	USA	Supplies radio frequency monitoring technology to Viettel partner Comit	C
63	VietinBank	Vietnam	Provides debt financing to Viettel Global Investment JSC	C
64	Vietnam Export Import Commercial Joint Stock Bank (EXIMBANK)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C
65	Vietnam International Commercial Joint Stock Bank (VIB)	Vietnam	Provides debt financing to Mytel and Viettel Global Investment JSC	B
66	Vietnam Technological and Commercial Joint Stock Bank (TECHCOMBANK)	Vietnam	Provides debt financing to Viettel Global Investment JSC	C

No.	NAME OF COMPANY	DOMICILE COUNTRY	CONNECTION	FINDING
67	Voltalia	France	Supplies solar energy to Mytel towers through MNTI. Majority-owned by the Mulliez family	C
68	Yanmar	Japan	Supplies generators for Mytel towers	C
69	ZTE	China	Supplies a broad range of telecommunications technology to Mytel	B
70	ZTT	China	Supplies lithium batteries to Mytel	C

APPENDIX 2

Named Myanmar businesses that are connected to Mytel, Viettel and the Myanmar military

Findings are graded as follows:

- A.** The company is aiding and abetting the commission of war crimes and crimes against humanity in Myanmar.
- B.** The company might be aiding and abetting the commission of war crimes and crimes against humanity in Myanmar.
- C.** The company may be failing to meet its obligations under the UN Guiding Principles on Business and Human Rights, must conduct human rights due diligence and take steps to ensure that it does not directly or indirectly benefit the Myanmar military.

No.	NAME OF COMPANY	CONNECTION	FINDING
1	ABC -MIB	Owner of Mahar Myanmar movie-streaming service. Provides content to Mytel	C
2	Blue Ocean Business Services Co. Ltd.	Partnership with Mytel for services to micro, small and medium businesses	C
3	Blue Planet	Provides content to Mytel	C
4	Contents Hub	Provides content to Mytel. A subsidiary of Myantel Holdings	C
5	EasyPay (Easy Pay Company Ltd.)	Digital financial services partner of MEC and Mytel	A
6	GlobalNet (Global Technology Group)	Supplies dark fibre to Mytel.	C

No.	NAME OF COMPANY	CONNECTION	FINDING
7	Golden Land East Asia Development Ltd.	Mytel shareholder, through MNTH	B
8	International Power Generation Public Company Ltd. (IGE Group)	Mytel shareholder, through MNTH	B
9	KBZ Gateway	Provides satellite services, in Myanmar.	C
10	King Royal Technologies Co. Ltd.	Provides technology and services to the Myanmar military, including the Air Defence Command	A
11	Mahar Yoma Public Company Ltd.	Mytel shareholder, through MNTH	B
12	Mobilemate	Myanmar Mobile Money partner	B
13	Myanmar Agribusiness Public Corporation Ltd.	Mytel shareholder, through MNTH	B
14	Myanmar Agriculture and General Development Public Ltd.	Mytel shareholder, through MNTH	B
15	Myanmar Edible Oil Industrial Public Corporation Ltd.	Mytel shareholder, through MNTH	B
16	Myanmar Hurricane Investment & Telecom	Operates MECTel's call centre Provides network monitoring and value-added services for MECTel	B
17	Myanmar ICT Development Corporation Ltd.	Mytel shareholder, through MNTH	B
18	Myanmar Industries Alliance Public Ltd.	Mytel shareholder, through MNTH	B

No.	NAME OF COMPANY	CONNECTION	FINDING
19	Myanmar National Telecom Holdings Public Co. Ltd. (MNTH)	Special Project Vehicle of 11 Myanmar companies. Provides investment and operational support to Mytel. Subsidiaries include Myanmar National Telecom Infra Co. Ltd. (MNTI) and Myanmar National Telecom Services Co. Ltd. (MNTS)	A
20	Myanmar Payment Solutions Services	Provides services to MytelPay	B
21	Myanmar Technologies and Investment Corporation Ltd.	Mytel shareholder, through MNTH	B
22	PlayBox	Provides content to Mytel. A subsidiary of Myantel Holdings	C
23	Royal Yatanarpon Telecom Public Company Ltd.	Mytel shareholder, through MNTH	B
24	Shwe Pyi Tagon Telecommunication Public Company Ltd.	Mytel shareholder, through MNTH	B
25	Shwe Than Lwin, owner of SkyNet	Provides satellite services to the Myanmar military's Directorate of Psychological Warfare and Public Relations. Content and service provider for Mytel	B
26	Seanet	Provides satellite services to the Myanmar government	C
27	Solutions Hub Co. Ltd	EasyPay shareholder. A subsidiary of Myantel Holdings	B

No.	NAME OF COMPANY	CONNECTION	FINDING
28	Telecom International Myanmar Co. Ltd. (Mytel)	Mobile network operator co-owned by Myanmar military-owned conglomerate MEC and overseen by the director of the Directorate of Signals. Involved in the upgrading of military communications infrastructure, military procurement and military financing. Parent company of Mytel Wallet International Co. Ltd.	A
29	Terabit Wave	Procures technology and provides services for the Myanmar military, including the Directorate of Signals. A subsidiary of A1 Group of companies	A
30	TMH Telecom	Provides network maintenance, optimisation and procurement for MEC and Mytel. Part of Tah Moe Hnye Chan Thar Group.	B
31	Yangon Stock Exchange (YSX)	A joint venture between Japan Exchange Group (Japan), Daiwa Securities (Japan) and Myanma Economic Bank. Enabled TMH Telecom's float, which primarily raised funds for investment into MEC's telecommunications operations	C

APPENDIX 3

Named state and international actors

No.	NAME OF ENTITY	JURISDICTION	CONNECTION
1	Asian Development Bank	International	Supported the development of e-government in Myanmar. Provides trade finance to creditors of Viettel Global Investment JSC, raising serious human rights due diligence concerns
2	CDC Group	UK	Loan to Irrawaddy Green Towers, which has a master lease agreement with Mytel and has donated funds to the Myanmar military. Serious human rights due diligence concerns regarding CDC Group's investment
3	European Development Financial Institutions (EDFI)	European Union	Loan to Irrawaddy Green Towers, which has a master lease agreement with Mytel and has donated funds to the Myanmar military. Lead arranger is Dutch development bank FMO. Serious human rights due diligence concerns regarding EDFI investment
4	Hokkaido University	Japan	Provides training and technical support for Myanmar's micro-satellite programme, which risks contributing to grave human rights violations

No.	NAME OF ENTITY	JURISDICTION	CONNECTION
5	International Finance Corporation (IFC)	International	Provides trade finance and equity to creditors of Viettel Global Investment JSC and Mytel, raising serious human rights due diligence concerns
6	Japan Aerospace Exploration Agency (JAXA)	Japan	Plans to launch Myanmar's micro-satellite in 2021, which risks contributing to grave human rights violations
7	Ministry of Transport and Communications	Myanmar	Formed and licensed Mytel. Establishing system of mass surveillance through its "lawful interception" program. Systemic failings in its responsibility to regulate Mytel. Major violator of the right to privacy and freedom of expression
8	MPT	Myanmar	Myanmar's state mobile network operator, hosts MECTel for MEC. Under Ministry of Transport and Communications (MOTC)
9	Myanma Economic Bank	Myanmar	Partner of Myanmar Mobile Money and majority shareholder in Yangon Stock Exchange. Under the Ministry of Planning, Finance and Industry. Provides institutional support for the Myanmar military and its businesses.
10	Myanmar Economic Corporation (MEC) and its subsidiaries	Myanmar	A military conglomerate that holds government shares in Mytel through its subsidiary, Star High Co. Ltd. Procures equipment and finances the Myanmar military. Also operates MECTel, Sigma wire and cable business and a remote sensing ground station. Is aiding and abetting the commission of war crimes and crimes against humanity

No.	NAME OF ENTITY	JURISDICTION	CONNECTION
11	Myanmar Aerospace Engineering University	Myanmar	Supports the implementation of Myanmar's satellite programme. Provides technology and training to the Myanmar military, aiding and abetting the commission of war crimes and crimes against humanity
12	Myanmar Armed Forces	Myanmar	Beneficial owner of MEC and Star High. Responsible for genocide, war crimes and crimes against humanity. Systemically misappropriating public revenue and assets
13	Star High Co. Ltd.	Myanmar	MEC subsidiary that legally controls the government's 28% share of Mytel. Star High shares are held by private individuals. Is aiding and abetting the commission of war crimes and crimes against humanity
14	Steering Committee on Establishing a Myanmar-owned Satellite System	Myanmar	Public management body for Myanmar's satellite program, controlled by the Myanmar military. Could be aiding and abetting the commission of war crimes and crimes against humanity
15	Tohoku University	Japan	Provides training and technical support for Myanmar's micro-satellite programme, which risks contributing to grave human rights violations
16	Military Industry and Telecoms Group (Viettel)	Vietnam	Largest shareholder and investor in Mytel. Involved in the upgrading of military communications infrastructure and military procurement through multiple Viettel subsidiaries. Is aiding and abetting the commission of war crimes and crimes against humanity. Under the Ministry of National Defence

No.	NAME OF ENTITY	JURISDICTION	CONNECTION
17	Vietnam Posts and Telecommunications (VNPT)	Vietnam	Provides satellite services to Myanmar's Ministry of Defence. Is aiding and abetting the commission of war crimes and crimes against humanity. Under the Committee for Management of State Capital at Enterprises
18	World Bank	International	Provides funding and support to the government of Myanmar through the Telecommunications Sector Reform Project and Public-Private Infrastructure Advisory Facility. Reforms led to creation of Mytel. Has awarded contracts to military partner businesses for spectrum management. Serious human rights due diligence failings in Myanmar programming

APPENDIX 4

Telecom International Myanmar (Mytel) board of directors

No.	NAME	POSITION	NATIONALITY	OTHER POSITIONS
1	Do Manh Hung	Director	Vietnam	General director of Viettel Global Investment JSC
2	Hoang Trung Thanh	CEO	Vietnam	
3	Khin Maung Soe	Chairperson	Myanmar	Director of MEC and of Star High Co. Ltd.
4	Moe Myintzu	Secretary	Myanmar	Also secretary of Mytel Wallet International Co. Ltd.
5	Mya Han	Director	Myanmar	Director of MNTH, chairperson of Fortune Group of Companies, director of New Day Energy, director of Myanmar Kyauk Phyu SEZ Consortium, director of Rakhine Development Corporation, director of Yatanarpon Teleport, director of Myanmar Information & Communication Technology Development
6	Nguyen Cao Loi	Director	Vietnam	Deputy general manager, Viettel Global Investment JSC

No.	NAME	POSITION	NATIONALITY	OTHER POSITIONS
7	Soe Thein	Director	Myanmar	Director of MNTH, director of Myanmar Information & Communication Technology Development, director of Royal Yatanarpon Telecom, director of Yatanarpon Teleport
8	Colonel Tao Duc Thang	Director	Vietnam	Deputy director, Viettel Group.
9	Major General Thaw Lwin	Director	Myanmar	Director of the Directorate of Signals, Myanmar army
10	Yin Maung Nyunt	Director	Myanmar	Myanmar Economic Corporation (held the position of deputy general manager in 2008).

APPENDIX 5

Known telecommunications towers on military bases

No.	CODE AND LINK	DESCRIPTION	STATE OR REGION	NOTES
1	CHN0005	No. 268 Infantry Battalion, Falam	Chin	N/A
2	KCN0321	No. 383 Light Infantry Battalion	Kachin	Plans specify Waingmaw, but GPS coordinates are in Sahmaw. Reports on LIB 383. Guyed Tower
3	KCN0156	No. 40 Army Hopin Quarter, Monyin	Kachin	N/A
4	KCN0402	Army land in Mansi - unspecified	Kachin	Area of armed conflict. Details unknown
5	KYH0055	No. 337 Light Infantry Battalion base in Bawlakhae	Karenni	Area of conflict related to military base-building
6	KHY0089	No. 14 Army High Grade Training School in Hpruso	Karenni	N/A
5	KYN0253	No. 22 Light Infantry Division - Hpa'an	Karen	Hpaan

No.	CODE AND LINK	DESCRIPTION	STATE OR REGION	NOTES
6	KYN0358	Taung Kalay army base	Karen	Base is unspecified – likely to be Light Infantry Battalion 202, which is under Light Infantry Division 22
9	MGY0008	No. 101 Light Infantry Division, Pakkouku	Magwe	MEC tower already in place. Mytel building an equipment room
10	MGY0746	Directorate of Defence Industries facility, Thayet township, Magwe	Magwe	N/A
11	MGY0747	Directorate of Defence Industries facility, Myothit township, Magwe	Magwe	N/A
12	MGY0748	Directorate of Defence Industries facility, Taungdwingi, Magwe	Magwe	N/A
13	MGY0749	Directorate of Defence Industries 18, Taungdwingyi township, Magwe	Magwe	N/A
14	MON0379	No. 24 Infantry Battalion, Thaton	Mon	N/A
15	MON0163	No. 8 Infantry Battalion, Billin	Mon	N/A

No.	CODE AND LINK	DESCRIPTION	STATE OR REGION	NOTES
16	NPW0074	Naypyidaw Army Division Commander Office Compound	Naypyidaw	Command includes Advanced Signals Warfare Force, No. (2) Advanced Signal Battalion and No. (8) Air Defence Signal Battalion. Mobile car tower
17	NPW0040_1	National Defence College	Naypyidaw	National Defence College, which trains high-ranking military officials. Studies include military science and technology. Rooftop tower
18	NPW4001	No. 3 Military Hostel	Naypyidaw	Mobile car
19	RKE0233	No. 919 Engineering Battalion, Ann township, Arakan	Arakan	Location of Western Command Headquarters
20	SHN0001_01	Lashio township – place unknown	Shan	Within a base, next to an army store and officer's home
21	SHN0005	No. 350 Artillery Army, Mongyai township	Shan	Subcontracted to Taicom JSC.
22	SHN0118	Combat Training Force, Lawksauk	Shan	N/A

No.	CODE AND LINK	DESCRIPTION	STATE OR REGION	NOTES
23	SHN0121	Army Tactical Unit, Monghsat Township	Shan	Subcontracted to Taicom JSC.
24	SHN0734	Army outpost, Laukkaing Township	Shan	N/A
25	SHN0808	No. 281 Infantry Battalion, Mongyang, Shan	Shan	N/A
26	SHN1038	No. 912 Military Engineers Battalion, Lashio	Shan	N/A
27	SHN1064	No. 522 Light Infantry Battalion, Lashio	Shan	N/A
28	SHN1192	No. 351 Artillery, Tangyan township	Shan	N/A
29	SHN1231	No. 226 Infantry Battalion, Kengtung township	Shan	Between Loi Pang Koi and Low Mwe Hill Station
30	SHN1233	Military Operation Command 18, Mong Hpyak Army, Monghpyak township	Shan	N/A
31	SHN1240	Triangle Command, Kengtung	Shan	SE of Kengtung town. Location of Signals units

No.	CODE AND LINK	DESCRIPTION	STATE OR REGION	NOTES
32	SHN1266	No. 150 Infantry Battalion, Monghsu township	Shan	Beside Mongsan town within expansive military base
33	SHN1349	Phin Htout army base, Kengtung	Shan	Also shows an MEC tower and Viettel supporting MEC infrastructure. Next to military heli-pad
34	SHN1405	Army Training School, Kengtung	Shan	Near Kengtung town and airport
35	SHN1527	Unknown base, Laukkai township	Shan	Kokang region, tower located next to a guard post, appears to have a dedicated guard. Close to other army buildings
36	TNI0220	Naval/army base – Yebyu township	Tanintharyi	Area of ongoing land conflict
37	YGN0024	Army village, Mingalardon	Yangon	Location of three Signals units
38	YGN1605	MEC Main Store	Yangon	N/A

ENDNOTES

- 1 Following the UN Fact-Finding Mission, “crony” is defined as individuals or companies that “remain closely linked through economic, commercial, familial, political and operational relationships that directly or indirectly benefit the Tatmadaw and its leadership.” See A/HRC/42/CRP.3, paragraph 76.
- 2 *Mytel Surpasses 10 million subscribers*, People’s Army Newspaper (Jun. 5, 2020), <https://en.qdnd.vn/economy/military-businesses/mytel-surpasses-10-million-subscribers-517321>
- 3 Known in Burmese as ပုဂ္ဂိုလ်သုခဆက်ဆံရေးနှင့် စိတ်ဓာတ်စစ်ဆင်ရေး ညွှန်ကြားရေးမှူးရုံး
- 4 Rome Statute of the International Criminal Court.
- 5 Rome Statute of the International Criminal Court, article 7.
- 6 Rome Statute of the International Criminal Court, article 8.
- 7 Principles 3-6, UN Guiding Principles on Business and Human Rights; OECD (2011), *OECD Guidelines for Multinational Enterprises*, OECD Publishing, Chapter IV.
- 8 Principles 11-14, UN Guiding Principles on Business and Human Rights.
- 9 Principles 15-22, UN Guiding Principles on Business and Human Rights.
- 10 OECD (2011), *OECD Guidelines for Multinational Enterprises*, OECD Publishing, Chapter IV.
- 11 OECD (2011), *OECD Guidelines for Multinational Enterprises*, OECD Publishing, Chapter VII.
- 12 OECD (2019), *Due Diligence for Responsible Corporate Lending and Securities Underwriting: Key considerations for banks implementing the OECD Guidelines for Multinational Enterprises*.
- 13 Loi no. 2017-399 du 27 Mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d’ordre.
- 14 Wassenaar Arrangement, <https://www.wassenaar.org>
- 15 European Union Council Common Position 2008/944/CFSP of 8 December, 2008, defining common rules governing control of exports of military technology and equipment.
- 16 European Union Council Decision 2013/184/CFSP.
- 17 Melissa Crouch, *Pre-emptive Constitution-Making: Authoritarian Constitutionalism and the Military in Myanmar*, 54 *Law & Society Rev.* 487 (2020).
- 18 Constitution of the Republic of the Union of Myanmar (2008), section 6(f).
- 19 Melissa Crouch, *Pre-emptive Constitution-Making: Authoritarian Constitutionalism and the Military in Myanmar*, 54 *Law & Society Rev.* 487 (2020).

- 20 *Myanmar's Military Cartel: Corruption by Design*, Justice For Myanmar, <https://www.justiceformyanmar.org/stories/myanmars-military-cartel-corruption-by-design>.
- 21 “Myanma” is the possessive form of “Myanmar” used in the official names of some entities.
- 22 *YSX Listed Conglomerate to Enrich the Myanmar Military*, Justice For Myanmar, <https://www.justiceformyanmar.org/stories/yangon-stock-exchange-listed-logistics-conglomerate-to-enrich-myanmar-military>.
- 23 Desmond Ball, *Burma's Military Secrets* 92 (1998).
- 24 Desmond Ball, *Burma's Military Secrets* 104 (1998).
- 25 Desmond Ball, *Burma's Military Secrets* 224 (1998).
- 26 UNIDIR, *The Cyber Index: International Security Trends and Analysis* 36 (2013), <http://www.unidir.org/files/publications/pdfs/cyber-index-2013-en-463.pdf>.
- 27 Andrew Selth, *Transforming the Tatmadaw: The Burmese Armed Forces Since 1988* 26-27 (1996).
- 28 Maung Aung Myoe, *Building the Tatmadaw* 154 (2009).
- 29 For instance, see UN IIFFMM A/HRC/42/CRP.5. Also see the *Burma Human Rights Yearbooks* published by the Human Rights Documentation Unit of the National Coalition Government of the Union of Burma, from 1994 to 2008: <https://www.burmalibrary.org/en/category/burma-human-rights-yearbooks-1994-2008>.
- 30 UN IIFFMM, *The economic interests of the Myanmar military*, A/HRC/42/CRP.3, paragraph 80.
- 31 Kaladan Press Network, *the Killing Fields of Alethankyaw* (2018), <http://www.kaladanpress.org/images/document/2018/KillingFieldsWEB--01.pdf>. Telenor responded that the towers implicated in the Alethankyaw mass killings were owned and operated by their network vendor, and called on the Myanmar government to investigate, a concerning recommendation as Myanmar lacks institutions that can hold the military to account for international crimes. See Statement on Report from Kaladan Press Network (Nov. 29, 2018) <https://www.telenor.com/media/announcement/statement-on-report-from-kaladan-press-network>. On Oct. 27, 2020, the OECD National Contact Point in Norway accepted a complaint against Telenor from the Committee Seeking Justice for Alethankyaw. See <https://www.responsiblebusiness.no/news/the-norwegian-ncp-accepts-new-complaint-csja-vs-telenor/>.
- 32 UN Human Rights Council, *Situation of human rights of Rohingya Muslims and other minorities in Myanmar*, A/HRC/RES/39/2.
- 33 *Burma/Myanmar*, International Criminal Court, <https://www.icc-cpi.int/bangladesh-myanmar>.
- 34 AFP, *UN concerned as thousands flee Myanmar 'clearance operation'* DW (June 28, 2020), <https://www.dw.com/en/un-concerned-as-thousands-flee-myanmar-clearance-operation/a-53972650>.
- 35 United Nations, *The United Nations expresses concern over the humanitarian impact of conflict in Rakhine and southern Chin states and calls on all parties to respect international humanitarian law and allow humanitarian access* (June 28, 2020), <https://myanmar.un.org/en/51223-united-nations-expresses-concern-over-humanitarian-impact-conflict-rakhine-and-southern-chin>.
- 36 Amnesty International, *Myanmar: Indiscriminate airstrikes kill civilians as Rakhine conflict wors-*

- ens (July 8, 2020), <https://www.amnesty.org/en/latest/news/2020/07/myanmar-indiscriminate-air-strikes-kill-civilians-rakhine/>.
- 37 Report of the Special Rapporteur on the situation of human rights in Myanmar, A/HRC/43/59, paragraph 51.
- 38 Amnesty International, *Myanmar: "Caught in the middle": Abuses against civilians amid conflict in Myanmar's northern Shan State* (Oct. 24, 2019), <https://www.amnesty.org/en/documents/asa16/1142/2019/en/>.
- 39 Report of the Special Rapporteur on the situation of human rights in Myanmar, A/HRC/43/59, paragraph 15.
- 40 Nathan Vanderklippe, 'They think I make trouble': Myanmar man on the run is latest attack on civil society, the Globe and Mail (March 10, 2020), <https://www.theglobeandmail.com/world/article-they-think-i-make-trouble-myanmar-man-on-the-run-is-latest-attack/>.
- 41 San Yamin Aung, *Myanmar Police Continue Arrests, Interrogations of Reporters Over AA Coverage*, the Irrawaddy (April 1, 2020), <https://www.irrawaddy.com/news/burma/myanmar-police-continue-arrests-interrogations-reporters-aa-coverage.html>.
- 42 Waiyan Moe Myint, *Six Activists Charged for Protest Against Internet Ban in Myanmar's Rakhine*, RFA (June 24, 2020), <https://www.rfa.org/english/news/myanmar/activists-charged-06242020154538.html>.
- 43 Sebastian Strangio, *Myanmar Accelerates Arrests of Student Anti-War Protesters*, the Diplomat (October 2, 2020), <https://thediplomat.com/2020/10/myanmar-accelerates-arrests-of-student-anti-war-protesters/>.
- 44 Michele Ford, Michael Gillan & Htwe Htwe Thein, *From Cronyism to Oligarchy? Privatisation and Business Elites in Myanmar*, 46 J. Contemporary Asia 18, 19, 37-38 (2016).
- 45 UN IIFFMM, Economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 6(a) and paragraph 55.
- 46 UN IIFFMM, A/HRC/39/64 paragraph 92.
- 47 See UN IIFFMM, Economic interests of the Myanmar military, A/HRC/42/CRP.3.
- 48 Nyan Hlaing Lin, *Military conglomerate shields profits from the public while leaving Myanmar with massive debt*, Myanmar Now (Jun. 27, 2020), <https://myanmar-now.org/en/news/military-conglomerate-shields-profits-from-the-public-while-leaving-myanmar-with-massive-debt>.
- 49 *Remote Sensing Ground Station*, Myanmar Economic Corporation, <https://www.mecwebsite.com/remote-sensing-ground-station/>.
- 50 Ricky J. Lee et al., Military Use of Satellite Communications, Remote Sensing, and Global Positioning Systems in the War on Terror, 79 J. Air L. & Com. 69, 81-81 (2014).
- 51 *Myanmar Sigma Wire and Cable Factory*, Myanmar Economic Corporation, <https://www.mecwebsite.com/myanmar-sigma-wire-and-cable-factory-hlaing-thar-yar-2/>.
- 52 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3
- 53 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 6(a).

- 54 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 6(d).
- 55 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 188(c).
- 56 Special Economic Measures (Burma) Regulations (SOR/2007-285).
- 57 In 2020, Brand Finance valued the Viettel brand at US\$5.8 billion, with a ranking of 355 of the 500 most valuable international brands. See *Brand Finance Global 500 2020*, <https://brandfinance.com/knowledge-centre/reports/brand-finance-global-500-2020/>.
- 58 [Viettel Decree 05/2018 / ND-CP, article 1. Certified translation available here](#)
- 59 [Viettel Decree 05/2018 / ND-CP, article 41.1. Certified translation available here.](#)
- 60 *Viettel Appoints New Senior Staff*, People's Army Newspaper (Nov. 28, 2018), <https://en.qdnd.vn/economy/military-businesses/viettel-appoints-new-senior-staff-499486>.
- 61 Viettel Group, Viettel Sets Off A Digital Revolution In Vietnam Through Its New Subsidiary Company, PR Newswire (Jul. 17, 2019), <https://en.prnasia.com/releases/apac/viettel-sets-off-a-digital-revolution-in-vietnam-through-its-new-subsidiary-company-252203.shtml>.
- 62 Long Van, *Viettel Renamed Military Industry and Telecoms Group*, Vietnam Economic Times (Jan. 14, 2018), <http://www.vneconomictimes.vn/article/business/viettel-renamed-military-industry-and-telecoms-group>.
- 63 [Viettel Decree 05/2018 / ND-CP, article 4.1 \(a\). Certified translation available here.](#)
- 64 [Viettel Decree 05/2018 / ND-CP. Certified translation available here.](#)
- 65 Geoff Slocombe, *UAS/RPAS in Asian Airspace*, 13 *Defence Review Asia*, 14-16 (2019).
- 66 VTX, <http://www.vtx.vn/>.
- 67 Nguyen Thi Anh and Nguyen Tien Dat, Implementation and Analysis of Control Strategies in Guided Munitions, 2019 International Conference on System Science and Engineering (ICSSE), Dong Hoi, Vietnam.
- 68 ThanhHao-Nguyen et al, A New Algorithm for Viewshed Computation on Raster Terrain, 2018 2nd International Conference on Recent Advances in Signal Processing, Telecommunications & Computing (SigTelCom), Ho Chi Minh City, Vietnam.
- 69 Tran Van Duc et al., Design and Implementation of Fuzzy-PI gyro-damping Controller for Ballistic, 2020 RIVF International Conference on Computing and Communication Technologies, Ho Chi Minh City, Vietnam.
- 70 Nguyen Van Loi et al., Abnormal Moving Speed Detection Using Combination of Kernel Density Estimator and DBSCAN for Coastal Surveillance Radars, 2020 7th International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India.
- 71 U.S. Patent No. 16,670,173 (filed Oct. 31, 2019).
- 72 U.S. Patent No. 16,198,967 (filed Nov. 23, 2018).
- 73 U.S. Patent No. 16,688,966 (filed Oct. 30, 2019).
- 74 U.S. Patent No. 16,202,090 (filed Nov. 28, 2018).
- 75 U.S. Patent No. 16,217,762 (filed Dec. 12, 2018).

- 76 U.S. Patent No. 16,668,777 (filed Oct. 30, 2019).
- 77 U.S. Patent No. 16,667,910 (filed Oct. 30, 2019).
- 78 U.S. Patent No. 16,679,387 (filed Nov. 11, 2019).
- 79 U.S. Patent No. 16,550,113 (filed Aug. 23, 2019).
- 80 Department of Justice correspondence to the Federal Communications Commission (Aug. 3, 2018), https://licensing.fcc.gov/myibfs/download.do?attachment_key=1481593.
- 81 Mark Harris, Exclusive: *The Vietnamese Cellphone Company That Tried to Smuggle Missile Parts – and the Spies Who Stopped It*, OneZero (Jun. 18, 2019), <https://onezero.medium.com/exclusive-the-vietnamese-cellphone-company-that-trying-to-smuggle-missile-parts-and-the-spies-who-29c89e8b6b9a>.
- 82 McDermott Will & Emery submission to Foreign Agents Registration Act Unit (Jul. 10, 2018), <https://efile.fara.gov/docs/6447-Exhibit-AB-20180710-3.pdf>.
- 83 Human Rights Watch, Cambodia's Dirty Dozen: A Long History of Rights Abuses by Hun Sen's Generals (2018), <https://www.hrw.org/report/2018/06/27/cambodias-dirty-dozen/long-history-rights-abuses-hun-sens-generals>.
- 84 Neou Vannarin and Stephen Kurczy, *VN Military-Owned Company Gives SIM Cards to Cambodians*, The Cambodia Daily (Jan. 22, 2009), <https://english.cambodiadaily.com/news/vn-military-owned-company-gives-sim-cards-to-cambodians-85183/>.
- 85 *Business Assistance to Troops Made Official*, The Cambodia Daily (Feb. 26, 2010), <https://english.cambodiadaily.com/news/business-assistance-to-troops-made-official-97781/>.
- 86 Khy Sovuthy, *Military Seeks More Money From Private Firms*, The Cambodia Daily (Jul. 30, 2015), <https://english.cambodiadaily.com/news/military-seeks-more-money-from-private-firms-90009/>.
- 87 Faustine Kapama, *Organised Crime Lands Viettel Officials in Court*, Daily News (Mar. 28, 2020), <https://www.dailynews.co.tz/news/2020-03-275e7e-3308ad10d.aspx>.
- 88 *Belarus, Vietnam to Expand Cooperation*, Council of Ministers of the Republic of Belarus (Nov. 30, 2011), <http://www.government.by/en/content/4157>. and Thong Dat, *Viettel Sets Sights on Belarus*, Vietnam Economic Times (Dec. 2, 2014), <http://vneconomic-times.com/article/business/viettel-sets-sights-on-belarus>.
- 89 Freedom House, *Vietnam*, Freedom on the Net 2019, https://freedomhouse.org/country/vietnam/freedom-net/2019#footnoteref2_enori3a.
- 90 *Ibid.*
- 91 Legal Initiatives for Vietnam, Universal Periodic Review – Vietnam (Jan. 2019), <https://uprdoc.ohchr.org/uprweb/downloadfile.aspx?filename=6227&file=EnglishTranslation>.
- 92 *Dong Tam village: Anger in Vietnam over deadly 'land grab' raid*, BBC News (Jan. 16, 2020), <https://www.bbc.com/news/world-asia-51105808>.
- 93 Amnesty International, 'Let us breathe!': Censorship and criminalization of online expression in Viet Nam 6 (2020), <https://www.amnesty.org/download/Documents/ASA4132432020ENGLISH.pdf>.
- 94 Jared Ferrie, *In Myanmar, cheap SIM card draw may herald telecoms revolution*, Reuters (Apr. 25, 2013), <https://in.reuters.com/article/us-myanmar-telecoms->

- [draw/in-myanmar-cheap-sim-card-draw-may-herald-telecoms-revolution-idUSBRE93N1AX20130424](http://draw.in-myanmar-cheap-sim-card-draw-may-herald-telecoms-revolution-idUSBRE93N1AX20130424).
- 95 The Telecommunications Law, (The Pyidaungsu Hluttaw Law No. 31, 2013).
- 96 Myo Swe, *Digital Development in Myanmar*, Establishing Internet Exchange in Myanmar, Ministry of Transport and Communications (n.d.), http://www.cicc.or.jp/japanese/kouenkai/pdf_ppt/pastfile/h29/171106-06mm.pdf.
- 97 Tenzin Norbhu, *Myanmar Connected*, World Bank, <https://library.pppknowledgelab.org/documents/2709/download?otp=b3RwIzE2MDM2ODg-wOTA=>.
- 98 *MM: Telecommunications Sector Reform*, World Bank, <https://projects.worldbank.org/en/projects-operations/project-detail/P145534?lang=ar>.
- 99 *Liberalizing Telecom Sector in Myanmar*, PPIAF (Jun. 20, 2016), https://ppiaf.org/feature_story/liberalizing-telecom-sector-myanmar.
- 100 *MM: Telecommunications Sector Reform*, The World Bank, <https://projects.worldbank.org/en/projects-operations/project-detail/P145534?lang=ar>.
- 101 Unofficial translation from Free Expression Myanmar. See <http://freexpressionmyanmar.org/wp-content/uploads/2017/07/telecommunications-law-en.pdf>.
- 102 *Myanmar: End World's Longest Internet Shutdown*, Human Rights Watch (Jun. 19, 2020), <https://www.hrw.org/news/2020/06/19/myanmar-end-worlds-longest-internet-shutdown>.
- 103 Mr. Thomas Andrews, Special Rapporteur on the Situation of Human Rights in Myanmar, 15th Meeting, 45th Regular Session of United Nations Human Rights Council (Sep. 22, 2020), <http://webtv.un.org/meetings-events/human-rights-council/watch/id-sr-on-human-rights-in-myanmar-15th-meeting-45th-regular-session-human-rights-council-/6193489912001>.
- 104 *HRC45: Repression of free speech ahead of elections in Myanmar*, Article 19 (Sep. 22, 2020), <https://www.article19.org/resources/hrc45-repression-of-free-speech-ahead-of-elections-in-myanmar>.
- 105 *Myanmar: End World's Longest Internet Shutdown*, Human Rights Watch (Jun. 19, 2020), <https://www.hrw.org/news/2020/06/19/myanmar-end-worlds-longest-internet-shutdown>.
- 106 #SayNOto66d, <https://www.saynoto66d.info/>.
- 107 Myanmar Broadcasting Law (53/2015), § 3.5(h).
- 108 Telenor, *Telenor Group Signs Licence in Myanmar* (Jan. 30, 2014), <https://www.telenor.com.mm/en/article/telenor-group-signs-license-myanmar>.
- 109 *Ooredoo formally accepts licence to operate in Myanmar*, Ooredoo (Jan. 30, 2014), https://www.ooredoo.com/en/media/news_view/ooredoo-formally-accepts-licence-to-operate-in-myanmar.
- 110 Telecommunication 800MHz CDMA Mobile Phone Project, *Myanmar Economic Corporation*, <https://www.mecwebsite.com/myanmar-economic-corporation-telecommunication-800mhz-cdma-mobile-phone-project/>.
- 111 GSM Mobile Phone (438,000) Allocation (Ayeyarwadi Division), *Myanmar Economic Corporation*, <https://www.mecwebsite.com/gsm-mobile-phone-438000-allocation-ayeyarwadi-division/>.
- 112 *How mobile virtual network operators (MVNOs) drive*

- value and improve lives*, ITU News (May 22, 2019), <https://news.itu.int/mvnos-telecom-world-value/>.
- 113 James Barton, *New Myanmar Operator Mytel to Invest US\$2BN+ in Rural Network* (Jan. 19, 2017), <https://www.developingtelecoms.com/business/operator-news/6891-new-myanmar-operator-mytel-to-invest-us-2bn-in-rural-network.html>.
- 114 [Ministry of Transport and Communications, Spectrum Roadmap: Meet the Needs Over Next 5 Years 49 \(Apr. 8, 2016\)](#).
- 115 Justice For Myanmar, *Myanmar military budget & procurement files show systemic corruption and implicate international businesses* (Dec. 7, 2020), www.justiceformyanmar.org/stories/myanmar-military-budget-and-procurement-files.
- 116 The right to privacy is established in the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights.
- 117 *Freedom on the Net 2019: Myanmar*, Freedom House (2019), https://freedomhouse.org/country/myanmar/freedom-net/2019#footnoteref3_emyts6f.
- 118 *Burma: Privacy Law Used to Prosecute Critics*, Human Rights Watch (2018), <https://www.hrw.org/news/2018/01/12/burma-privacy-law-used-prosecute-critics>.
- 119 Phyu Phyu Kyaw, *The Rise of Online Censorship and Surveillance in Myanmar: A Quantitative and Qualitative Study*, Open Technology Fund (Nov. 2020), https://public.opentech.fund/documents/The_Rise_of_Online_Censorship_and_Surveillance_in_Myanmar.pdf.
- 120 *Ibid.*
- 121 Telenor Myanmar, *Telenor Myanmar 7th Sustainability Briefing* (Dec. 3, 2020), <https://www.telenor.com.mm/en/article/telenor-myanmar-7th-sustainability-briefing>.
- 122 Article 19, *Myanmar: Government order to block campaign website is a dangerous escalation of online censorship* (Sep. 2, 2020), <https://www.article19.org/resources/myanmar-government-order-to-block-campaign-website-is-a-dangerous-escalation-of-online-censorship/>.
- 123 World Bank, *Myanmar – Telecommunications Sector Reform Project 52* (Jan. 13, 2014), <http://documents.worldbank.org/curated/en/585731468281065732/Myanmar-Telecommunications-Sector-Reform-Project>.
- 124 Infosys Ltd., *Republic of the Union of Myanmar: Design of e-Governance Master Plan and Review of Information and Communication Technology Capacity in Academic Institutions*, Asian Development Bank Technical Assistance Consultant's Report 118-120 (Jul. 2015), <https://www.adb.org/sites/default/files/project-document/161546/47158-001-tacr-01.pdf>.
- 125 *Ibid.*
- 126 *Myanmar: Telecommunications Sector Reform*, World Bank, <https://projects.worldbank.org/en/projects-operations/project-detail/P145534>.
- 127 *Myint Swe: Myanmar elects a notorious blacklisted former general as vice-president*, The Sydney Morning Herald (Mar. 16, 2016), <https://www.smh.com.au/world/myint-swe-myanmar-elects-a-notorious-blacklisted-former-general-as-vicepresident-20160315-gn-jb0o.html>. For background on the “Saffron Revolution” and its aftermath, see FIDH, *Burma’s “Saffron Revolution” is not over. Time for the international community to act* (Dec. 2007), <https://www.fidh.org/>

- [IMG/pdf/BURMA-DEC2007.pdf](#).
- 128 Salai Tun Tun, Second Myanmar e-governance master plan to include systems for cyber crime, e-payments, Myanmar Times (Nov. 22, 2020), <https://www.mmtimes.com/news/second-myanmar-e-governance-master-plan-include-systems-cyber-crime-e-payments.html>.
- 129 [Results of the Request for Proposal for Partnership with local Consortium willing to apply for Fourth Telecom Operator Licence in the Republic of the Union of Myanmar \(Mar. 25, 2016\)](#).
- 130 *Ibid*; About Us, Mytel, <https://mytel.com.mm/about/1503794155695>.
- 131 [Results of the Request for Proposal for Partnership with local Consortium willing to apply for Fourth Telecom Operator Licence in the Republic of the Union of Myanmar \(Mar. 25, 2016\)](#).
- 132 Directorate of Investment and Company Administration (DICA) extract 115783688.
- 133 [Results of the Request for Proposal for Partnership with local Consortium willing to apply for Fourth Telecom Operator Licence in the Republic of the Union of Myanmar \(Mar. 25, 2016\)](#).
- 134 Myanmar Technologies and Investment Corporation Limited, Annual Report 2016-17 31, <https://mti.com.mm/annual-download/2>.
- 135 *Mytel Surpasses 10 Million Subscribers*, People's Army Newspaper (Jun 5, 2020), <https://en.qdnd.vn/economy/military-businesses/mytel-surpasses-10-million-subscribers-517321>.
- 136 *About Us*, Mytel, <https://mytel.com.mm/about/1503794155695>.
- 137 Myanmar Technologies and Investment Corporation Limited, Annual Report 2018-19, <https://mti.com.mm/annual-download/4>.
- 138 Council Common Position 2009/615/CFSP; Australian Government Autonomous Sanctions (Designated and Declared Persons – Burma) List 2012.
- 139 Myanmar Technologies and Investment Corporation Limited, Annual Report 2016-17 29, <https://mti.com.mm/annual-download/2>.
- 140 Wai Moe and Austin Ramzy, *U Aung Thaung, Burmese Politician Accused of Abuses, Dies at 74* (Jul. 23, 2015), <https://www.nytimes.com/2015/07/24/world/asia/u-aung-thaung-burmese-politician-accused-of-abuses-dies-at-74.html>. Myanmar formerly had two ministries of industry, which were combined in 2012. In 2019, the Ministry of Planning and Finance, and the Ministry of Industry were merged. See *Ministry of Planning, Finance and Industry Background*, Myanmar National Portal, <https://myanmar.gov.mm/en/ministry-of-planning-finance>.
- 141 U.S. Department of the Treasury, *Announcement of Treasury Sanctions Against Aung Thaung* (Oct. 31, 2014), <https://www.treasury.gov/press-center/press-releases/Pages/JL2680.aspx>.
- 142 Embassy of Burma, *Eden Group Prospering Due to Regime Connections*, Wikileaks Cable 07RAN-GOON1113_a (Nov. 16, 2007), https://wikileaks.org/plusd/cables/07RANGOON1113_a.html.
- 143 Myanmar Agribusiness Public Corporation Limited, Annual Report 54 (2017), https://www.mapco.com.mm/images/annual_meeting/MAPCO_Annual_Report_2017.pdf.
- 144 Golden Land East Asia Development, 2018 Audit, <http://www.glad.com.mm/wp-content/up->

- [loads/2018/12/audit2018.pdf](#).
- 145 Telenor ASA, *Telenor Group Q1 2018 Results 21* (Apr. 24, 2018), https://www.telenor.com/wp-content/uploads/2018/04/9600829_Telenor-ASA_24-April-2018.doc.
- 146 Justice For Myanmar, *USDP-led Government Used Extremist Buddhist Nationalism to Profit Military and Crony Owners of Mytel* (Nov. 6, 2020), <https://www.justiceformyanmar.org/stories/usdp-led-government-used-extremist-buddhist-nationalism-to-profit-military-and-crony-owners-of-mytel>.
- 147 Senior General Min Aung Hlaing, *Telecom International Myanmar Company Limited (Mytel) holds Empower My Myanmar Ceremony* (Jun. 10, 2018), <https://www.seniorgeneralminaunghlaing.com.mm/en/7269/telecom-international-myanmar-company-limited-mytel-holds-empower-myanmar-ceremony/>.
- 148 DNB Markets, *Telenor: So far, so good in Myanmar* 7 (Mar. 27, 2018), https://www.dnb.no/seg-fundamental/fundamentalweb/GetReports.aspx?file=C-MP1_112280.pdf&Sid=1-2YKIN.
- 149 *Notice of Action Against Licence-holders in Violation of Telecommunications Licences*, Ministry of Transport and Communications (Jul. 18, 2019), <https://www.motc.gov.mm/my/news/chksyrennynkaamuuciithaanennynkaakhkmaakiu-liuknaakhngmrisnnyat-ki-liungcngrrisuumaakiu>.
- 150 *Ibid.*
- 151 Nathaniel Gleicher, *Removing Coordinated Inauthentic Behavior from Russia, Iran, Vietnam and Myanmar*, Facebook (Feb. 12, 2020), <https://about.fb.com/news/2020/02/removing-coordinated-inauthentic-behavior/>.
- 152 UN IIFMM, *Economic interests of the Myanmar military*, A/HRC/42/CRP.3, annex IV.
- 153 Sandar Lwin, *Minister Insists Broadcast Sector has Full Media Freedom*, Myanmar Times (Sep. 29, 2014), <https://www.mmtimes.com/national-news/11796-minister-insists-broadcast-sector-has-full-media-freedom.html>.
- 154 Myanmar Technologies and Investment Corporation Limited, *Annual Report 2018-19* 17, <https://mti.com.mm/annual-download/4>.
- 155 Patrick Frater, *Vietnam's Viettel Signs Content Deal with Germany's A Company*, Variety (May 13, 2014), <https://variety.com/2014/biz/asia/vietnams-viettel-signs-content-deal-with-germanys-a-company-1201179147/>.
- 156 *Content Provider*, Mytel, <http://mysotkasars.com.mm/game/provider>.
- 157 Myantel, https://myantel.com.mm/?page_id=174.
- 158 *Launching Promotion - Pay with Mytel, Enjoy 20% Cashback of UniPin Credits*, UniPin (Feb. 7, 2020), <https://www.unipin.com/article/detail/event/2020-02-07/launching-promotion-pay-with-mytel-enjoy-20-cashback-of-unipin-credits-mm>
- 159 For instance, see Myanmar Game Hub, *Mytel International Championship series-2*, Facebook, <http://ow.ly/zEoA50C2meA>.
- 160 *TikTok stops working for users in India; alert shows working with India govt*, Indian Express (Jul. 1, 2020), <https://indianexpress.com/article/technology/social/tiktok-removed-play-store-india-bans-59-chinese-apps-6482706/>.
- 161 *My ID – Your Digital Hub*, Google Play (Aug. 5, 2020),

- <https://play.google.com/store/apps/details?id=com.mytel.myid>.
- 162 *MytelPay*, Google Play (Aug. 5, 2020), <https://play.google.com/store/apps/details?id=com.mytelpay.eu>.
- 163 *Viettel Joint ngena*, ngena (Aug. 22, 2018), <https://www.ngena.net/press-releases/ngena-welcomes-viettel-to-its-alliance/>.
- 164 *My Meeting*, Mytel, <https://www.mytel.com.mm/package-international/1551272180795>.
- 165 *Multipoint Video Conferencing of Viettel IDC – Vietnam*, Viettel IDC, <https://viettelidc.com/en/multipoint-video-conferencing-viettel-idc/>.
- 166 *My Tracking*, Mytel, <https://www.mytel.com.mm/package-international/1551271660524>.
- 167 Mytel, <https://www.mytel.com.mm/package-vas>.
- 168 Khin Kyaw, Mytel, *Blue Ocean Ink Pact to Establish Digital Ecosystem for SMEs*, Eleven (Apr. 3, 2019), <https://elevenmyanmar.com/news/mytel-blue-ocean-ink-pact-to-establish-digital-ecosystem-for-smes>.
- 169 Thompson Chau, *Millions in Myanmar Risk Having Mobile Phones Cut Off After SIM Registration Deadline*, Myanmar Times (Apr. 29, 2020), <https://www.mmtimes.com/news/millions-myanmar-risk-having-mobile-phones-cut-after-sim-registration-deadline.html>; Naing Lin Aung, *Telecoms ministry says it has deactivated more than 34 million SIM cards*, Myanmar Now (Oct. 27, 2020), <https://myanmar-now.org/en/news/telecoms-ministry-says-it-has-deactivated-more-than-34-million-sim-cards>.
- 170 *Myanmar: Dangerous Plans for Biometric SIM Card Registration Must be Scrapped*, Privacy International (Dec. 9, 2019), <https://privacyinternational.org/news-analysis/3303/myanmar-dangerous-plans-biometric-sim-card-registration-must-be-scrapped>.
- 171 UN Report of the Special Rapporteur on the situation of human rights in Myanmar, A/HRC/43/59, paragraph 28.
- 172 *Myanmar: Dangerous Plans for Biometric SIM Card Registration Must be Scrapped*, Privacy International (Dec. 9, 2019), <https://privacyinternational.org/news-analysis/3303/myanmar-dangerous-plans-biometric-sim-card-registration-must-be-scrapped>.
- 173 Jon Omund Revhaug, *Open Letter to Everyone Disconnected on 30 June*, Telenor Myanmar (Jul. 1, 2020), <https://www.telenor.com.mm/en/article/open-letter-everyone-disconnected-30-june>.
- 174 *Agreement signing between Mytel Myanmar & Misfit Technologies Ltd.*, Misfit Technologies (Jul. 14, 2020), <https://misfit.tech/agreement-signing-between-mytel-myanmar-misfit-technologies-ltd/>.
- 175 NA Chairwoman Hosts Reception for Commander-in-Chief of Myanmar Armed Forces, People's Army Newspaper (Dec. 20, 2019), <https://en.qdnd.vn/asean-community/vietnam-and-asean/na-chairwoman-hosts-reception-for-commander-in-chief-of-myanmar-armed-forces-512458>.
- 176 For instance, see *Vietnamese PM kicks off Myanmar Visit*, Dong Nai (Aug. 15, 2017), <http://baodongnai.com.vn/english/politics/200708/Vietnamese-PM-kicks-off-Myanmar-visit-2038881/>.
- 177 *Joint Statement on cooperation between Union of Myanmar and Socialist Republic of Vietnam*, New Light of Myanmar 10 (Apr. 4, 2010).
- 178 Sai Zom Hseng, *New Military Chief Snubs China with Vietnam Visit*, The Irrawaddy (Nov. 15, 2011), <https://www.irrawaddy.com/news/11-15-2011/new-military-chief-snubs-china-with-vietnam-visit>.

- www2.irrawaddy.com/article.php?art_id=22458.
- 179 *Defense Leaders Receive Commander-in-Chief of Myanmar Armed Forces*, People's Army Newspaper (Dec. 20, 2019), <https://en.qdnd.vn/military/intl-relations-and-cooperation/defense-leaders-receive-commander-in-chief-of-myanmar-armed-forces-512476>.
- 180 For instance, see *Vietnam, Myanmar promote defence cooperation*, Nhan Dan (Jun. 14, 2018), <https://en.nhandan.org.vn/politics/external-relations/item/6273802-vietnam-myanmar-promote-defence-cooperation.html>.
- 181 UN Independent International Fact-Finding Mission on Myanmar, *Governance Structure of MEHL and MEC* (Aug. 31, 2019), https://www.ohchr.org/Documents/HRBodies/HRCouncil/FFM-Myanmar/EconomicInterestsMyanmarMilitary/Infographic1_Governance_Structure_of_MEHL_and_MEC.pdf.
- 182 *Vietnamese and Myanmar Armies Strengthen Communication Cooperation*, People's Army Newspaper (May 31, 2017), <https://en.qdnd.vn/military/intl-relations-and-cooperation/vietnamese-and-myanmar-armies-strengthen-communication-cooperation-481407>.
- 183 Independent International Fact-Finding Mission on Myanmar, *Governance Structure of MEHL and MEC* (Aug. 31, 2019), https://www.ohchr.org/Documents/HRBodies/HRCouncil/FFM-Myanmar/EconomicInterestsMyanmarMilitary/Infographic1_Governance_Structure_of_MEHL_and_MEC.pdf.
- 184 *Senior military officer receives Myanmar Army delegation*, Voice of Vietnam (May 31, 2017), <https://vovworld.vn/en-US/news/senior-military-officer-receives-myanmar-army-delegation-546591.vov>.
- 185 *Vietnam-Myanmar relations see significant progress: Ambassador*, People's Army Newspaper (Aug. 16, 2018), <https://en.qdnd.vn/foreign-affairs/bilateral-relations/vietnam-myanmar-relations-see-significant-progress-ambassador-495851>.
- 186 *Ibid.*
- 187 *Viettel – a reliable and powerful national resource*, People's Army Newspaper (Jun. 28, 2018), <https://en.qdnd.vn/economy/military-businesses/viettel-a-reliable-and-powerful-national-resource-494292>.
- 188 *Viettel launches its 10th international mobile phone service in Myanmar*, Viettel (Jun. 11, 2018), <http://international.viettel.vn/news-detail/viettel-launches-its-10th-international-mobile-phone-service-in-myanmar>.
- 189 *Sann Oo, Military-linked Telecoms Operator Mytel Launches Network*, Frontier, (Jun. 10, 2018), <https://www.frontiermyanmar.net/en/military-linked-telecoms-operator-mytel-launches-network/>.
- 190 *Viettel's Business Strategy in Myanmar*, People's Army Newspaper (Jun. 7, 2018), <https://en.qdnd.vn/economy/military-businesses/viettel-s-business-strategy-in-myanmar-493657>.
- 191 See [Results of the Request for Proposal for Partnership with local Consortium willing to apply for Fourth Telecom Operator Licence in the Republic of the Union of Myanmar](#) (Mar. 25, 2016).
- 192 *Event*, Hyalroute, <http://www.hyalroute.com/event/>. The MFOCN project in Myanmar is supported by an investment guarantee through the World Bank's Multilateral Investment Guarantee Authority. For more details, see: *Third HyalRoute Fiber Optic Cable Network*, MIGA, <https://www.miga.org/project/third-hyalroute-fiber-optic-cable-network>.

- 193 *Our Customers*, GlobalNet, <https://www.globalnet.com.mm/about-us/our-customers/>.
- 194 [Transmission Database](#) (Apr. 2020), published by Viettel Construction Myanmar.
- 195 [MYT VCM Form 11.3 Cable of Branch Operation in Month. 2020 and Handover](#), published by Viettel Construction Myanmar.
- 196 *Myanmar Integrated Air Defense System*, IndraStra (Dec. 7, 2015), <https://www.indrastra.com/2015/12/ANALYSIS-Myanmar-Integrated-Air-Defense-System-0516.html>.
- 197 *New licensee to operate under Mytel brand, use MECTel infrastructure*, Comms Update (Jan. 17, 2017), <https://www.commsupdate.com/articles/2017/01/17/new-licensee-to-operate-under-mytel-brand-use-mectel-infrastructure/>.
- 198 DNB Markets, *Telenor: So far, so good in Myanmar* 14 (Mar. 27, 2018), https://www.dnb.no/seg-fundamental/fundamentalweb/GetReports.aspx?file=C-MP1_112280.pdf&Sid=1-2YKIN.
- 199 [Viettel Group Network Planning Center, BTS Low Level Design YGN1605](#) (Apr. 2019). Also see satellite image [here](#).
- 200 [Form 11.2 MW of Branch Operating in Month 2020 and Handover](#), published by Viettel Construction Myanmar. Also see satellite image [here](#).
- 201 Senior General Min Aung Hlaing, *First Call Announcement of Telecom International Myanmar Company Limited (Mytel) Held* (Feb. 12, 2018), <https://www.seniorgeneralminhlaing.com.mm/en/5212/first-call-announcement-telecom-international-myanmar-company-limited-mytel-held/>.
- 202 *About Us*, Viettel High Technology Industries Corporation, <http://viettelrd.com.vn/en/about-us-0>.
- 203 Viettel High Technology Industries Corporation, <http://viettelrd.com.vn/>.
- 204 *Viettel Group's affiliate strives to take the lead in invention in Vietnam*, People's Army Newspaper (Jul. 2, 2020), <https://en.qdnd.vn/economy/military-businesses/viettel-group-s-affiliate-strives-to-take-the-lead-in-invention-in-vietnam-518146>.
- 205 *Senior General Min Aung Hlaing visits Viettel Group*. Myawady Daily (Mar. 8, 2017), <http://myawady-myawady.blogspot.com/2017/03/senior-general-min-aung-hlaing-visits.html>. VHT was formed through the amalgamation of three entities: Viettel Research and Development Institute, Viettel Network Technology Center and Viettel IC Design Center. See *History*, Viettel High Technologies Corporation, <http://viettelrd.com.vn/en/our-history>.
- 206 *VHT Attends Indo Defence Expo & Forum*, Viettel High Technology Industries Corporation, <http://viettelrd.com.vn/en/vht-attends-indo-defence-expo-forum>.
- 207 *N. Korea Wants to Cooperate with Vietnam's Military-run Telecom Group*, Thoi Dai (May 15, 2019), <https://vietnamtimes.org.vn/nkorea-wants-to-cooperate-with-vietnams-military-run-telecom-group-3385.html>.
- 208 Khanh Vu and Kham Nguyen, *Vietnam's Viettel Seeks to Double Myanmar Customer Base: CEO*, Reuters (Jan. 4, 2019), <https://www.reuters.com/article/vietnam-viettel/vietnams-viettel-seeks-to-double-myanmar-customer-base-ceo-idINKCN1OY1N7>.
- 209 *Viettel - S-Tracking Vessel Tracking System*, Iridium, <https://www.iridium.com/products/viettel-s-track->

- [ing-vessel-tracking-system/](#).
- 210 *Iridium Agrees Deal with Myanmar Post & Telecoms*, Telecompaper (Dec. 24, 1998), <https://www.telecom-paper.com/news/iridium-agrees-deal-with-myanmar-post-and-telecoms--158572>.
- 211 Viettel Cyber Security, <https://viettelcybersecurity.com>.
- 212 Viettel Cyber Security Company Comes into Sight, *People's Army Newspaper* (Apr. 13, 2019), <https://en.qdnd.vn/economy/military-businesses/viettel-cyber-security-company-comes-into-sight-504706>.
- 213 *Organization*, M1, <http://m1.viettel.com.vn/introduce/organization-model/>.
- 214 *History*, M1, <http://m1.viettel.com.vn/introduce/history-begin/>.
- 215 *M1 Communication Co. Ltd., – Viettel Group Co-operates with Qualcomm, Aims to Become the Top 3 Manufacturers of Telecommunications Equipment in the World*, M1 (Mar. 5, 2018), <http://m1.viettel.com.vn/tin-tuc-viettel/m1-communication-co-ltd-viettel-group-co-operates-qualcomm-aims-become-top-3-manufacturers-telecommunications-equipment-world/>. Viettel is listed as a licensee on the Qualcomm website. See *Qualcomm Technology Licencing*, Qualcomm, <https://www.qualcomm.com/invention/licensing>.
- 216 *Welcome Myanmar Air Defense Command Delegation to Visit M1 Company*, M1 Apr. 5, 2018), <http://m1.viettel.com.vn/tin-tuc-viettel/welcome-myanmar-air-defense-command-delegation-visit-m1-company/>.
- 217 *Cable Products*, M3, <https://www.m3complex.vn/en/products-services/optical-cable-products/>.
- 218 *Mechanical Products*, M3, <https://www.m3complex.vn/en/products-services/mechanical-products/>.
- 219 *M3 Information Company Reaches the International Market with “Billions” Contracts*, M3 (Sep. 26, 2018), <https://www.m3complex.vn/en/m3-information-company-reaches-the-international-market-with-billions-contracts/>.
- 220 Viettel Global Investment JSC, Báo cáo tài chính riêng năm note 13 (2019) (Annual Financial Statement 2019), [http://viettelglobal.vn/uploads/images/Bao cao tai chinh rieng 2019 sau KT.pdf](http://viettelglobal.vn/uploads/images/Bao%20cao%20tai%20chinh%20rieng%202019%20sau%20KT.pdf).
- 221 Viettel IDC, <https://viettelidc.com.vn/>.
- 222 *Viettel IDC sẽ xuất khẩu điện toán đám mây trong thời gian tới*, Viettel IDC (Jul. 24, 2018), [https://viettelidc.com.vn/tin-tuc/vtc-news-viettel-idc-se-xuat-khau-dien-toan-dam-may-trong-thoi-gian-toi](https://viettelidc.com.vn/tin-tuc/vtc-news-viettel-idc-se-xuat-khau-dien-toan-dam-may-trong-thoi-gian-toi;); *Điện toán đám mây là ‘móng nhà’ của cách mạng công nghệ 4.0*, Viettel IDC (Jul. 24, 2018), <https://viettelidc.com.vn/tin-tuc/dien-toan-dam-may-la-mong-nha-cua-cach-mang-cong-nghe-40>.
- 223 *Cloud Service*, Mytel, <https://www.mytel.com.mm/package-internet/1551273355076>.
- 224 Luong Nghi, *Viettel IDC to Introduce Private Cloud Designed on Fujitsu Infrastructure*, Vietnam Economic Times (Jul. 19, 2017), <https://vneconomicstimes.com/article/business/viettel-idc-to-introduce-private-cloud-designed-on-fujitsu-infrastructure>.
- 225 Ngoc Lan, *Viettel & Microsoft Sign Cooperation Agreement*, Vietnam Economic Times (Jan. 19, 2019), <https://vneconomicstimes.com/article/business/viettel-microsoft-sign-cooperation-agreement>.
- 226 Jordan Novet, *Microsoft Snags Hotly Contested \$10 Billion Defense Contract, Beating Out Amazon*, CNBC

- (Feb. 13, 2020), <https://www.cnn.com/2019/10/25/microsoft-wins-major-defense-cloud-contract-beating-out-amazon.html>.
- 227 *Viettel Big Data Analytics Center – DAC*, Facebook (Apr. 24, 2019), <https://www.facebook.com/dac.vtt/posts/2138228142893790/>.
- 228 Job description published on an individual LinkedIn page. [See screenshot here](#).
- 229 *Privacy Policy*, Mytel, <https://mytel.com.mm/privacy>.
- 230 *Giải Pháp Chống Quấy Rối Trên Mạng Viễn Thông Antispam Call So Tài Quốc Tế*, VTCC (Sep. 17, 2019), <https://vtcc.vn/giai-phap-chong-quay-roi-tren-mang-vien-thong-antispam-call-tai-quoc-te/>.
- 231 *VTTEK*, LinkedIn, <https://www.linkedin.com/company/vttek---viettel-network-technologies-center/about/>.
- 232 *NuRAN Wireless Announces Joint Collaboration for a 5G Base Station with Viettel*, NuRAN Wireless (Apr. 20, 2017), <http://nuranwireless.com/news-nl/5g-massive-mimo/>.
- 233 See tender announcement *Chuyển đổi lần thứ 2 thiết bị 4G từ Nokia sang VTTEK tại Ninh Thuận thuộc Đề tài Nghiên cứu sản xuất hệ thống trạm thu phát gốc 4G-LTE*, Dau Thau (Feb. 25, 2019), <https://dauthau.info/view/?id=516268>.
- 234 *VCam – Viettel Camera Service*, Viettel Business Solutions, <https://solutions.viettel.vn/en/san-pham-dich-vu/vcam-dich-vu-viettel-camera.html>.
- 235 *Intelligent Operation Center*, Viettel Business Solutions, <https://solutions.viettel.vn/en/san-pham-dich-vu/trung-tam-dieu-hanh-thong-minh.html>.
- 236 *Reputation Supervision System and Online Information*, Viettel Business Solutions, <https://solutions.viettel.vn/en/san-pham-dich-vu/he-thong-giam-sat-danh-tieng-thong-tin-truc-tuyen.html>.
- 237 *Introduction of Intelligent Operation Center*, Viettel Business Solutions, <https://solutions.viettel.vn/en/san-pham-dich-vu/gioi-thieu-trung-tam-dieu-hanh-thanh-pho-thong-minh.html>.
- 238 *Nokia demonstrates IOC solution to Viettel for effective management of smart and safe city operations in Vietnam*, Nokia (Oct. 4, 2018), <https://www.nokia.com/about-us/news/releases/2018/10/04/nokia-demonstrates-ioc-solution-to-viettel-for-effective-management-of-smart-and-safe-city-operations-in-vietnam/>.
- 239 *Global Network*, Viettel Business Solutions, <https://solutions.viettel.vn/en/global-network>.
- 240 *Competency*, Viettel Business Solutions, <https://solutions.viettel.vn/en/general-introduction>.
- 241 Viettel Construction Myanmar Co., Ltd (Telecom Services) [Employee Handbook](#).
- 242 Viettel Import and Export Ltd., <http://viettelimex.com.vn/>.
- 243 *Manufacturing Industry*, Comit, <http://www.comit-corp.com/customers/manufacturing-industry-2/>.
- 244 *Communications Industry*, Comit, <http://www.comit-corp.com/customers/communications-industry-2/>.
- 245 *SGG RF Database*, published by Viettel Construction Myanmar.
- 246 Comit, Comit Corporation: Perfecting Communications, <http://www.comitcorp.com/uploads/COMIT%20Company%20profile->

- [fn_26062019_24trang-%C4%91%C3%A3%20n%C3%A9n.pdf](#); *Leader in 5G - World Leading 5G Test & Measurement Solutions from VIAVI Solutions*, Comit (Dec. 12, 2019), <http://comitcorp.com/news/leader-in-5g-world-leading-5g-test-measurement-solutions-from-viavi-solutions/83/>.
- 247 *FPT IS FSE Hit Challenging Target of VND 1,000 Billion in Revenue*, FPT (Jan. 4, 2014), <https://fpt.com.vn/en/newsroom/activities-and-events/fpt-is-fse-hit-challenging-target-of-vnd-1000-billion-in-revenue>. FPT provides financial reporting software to Viettel. See *FIS Provides Consolidated Financial Statement System for Viettel*, FPT (Aug. 23, 2016), <https://www.fpt.com.vn/en/newsroom/detail/fis-provides-consolidated-financial-statement-system-for-viettel>.
- 248 *FPT IS operates the Myanmar National Financial Switching System*, FPT (Aug. 8, 2018), <https://www.fpt.com.vn/en/newsroom/detail/fpt-is-operates-the-myanmar-national-financial-switching-system>.
- 249 Khine Min, *Locals Seek Halt to Kyaukphyu SEZ Project Until Demands Are Met*, DMG (Mar. 22, 2020), <https://www.dmediag.com/news/1311-kp-sez-prj>.
- 250 Brian Spegele and Kate O’Keeffe, *China Exploits Fleet of U.S. Satellites to Strengthen Police and Military Power*, *The Wall Street Journal* (Apr. 23, 2019), <https://www.wsj.com/articles/china-exploits-fleet-of-u-s-satellites-to-strengthen-police-and-military-power-11556031771>.
- 251 Brian Spegele and Kate O’Keeffe, *Congress Orders Probe of Satellite Loophole China Exploited*, *The Wall Street Journal* (Dec. 17, 2019), <https://www.wsj.com/articles/congress-orders-probe-of-satellite-loop-hole-china-exploited-11576624306>.
- 252 Andrew Selth, *Transforming the Tatmadaw: The Burmese Armed Forces Since 1988* 26 (1996).
- 253 Desmond Ball, *Burma’s Military Secrets* 105 (1998).
- 254 *Military TV Station to Broadcast*, *Kyodo in Online Burma Library* (1997), <https://www.burmalibrary.org/reg.burma/archives/199702/msg00247.html>.
- 255 *GEOshare*, AsiaSat, <https://www.asiasat.com/node/1730>.
- 256 *Channel Guide*, AsiaSat, <https://www.asiasat.com/resources/channel-guides>; “Myawaddy News” is referred to in *Hate Speech Ignited: Understanding Hate Speech in Myanmar* 68 (Oct. 2020), <https://hrp.law.harvard.edu/wp-content/uploads/2020/10/20201007-PV-Hate-Speech-Book-V-1.4-Web-ready1.pdf>.
- 257 UN IIFM, A/HRC/39/64, paragraph 73.
- 258 *SSL Selected to Build High-power, Multi-mission Satellite AsiaSat 9*, Maxar (Dec. 16, 2013), <https://investor.maxar.com/investor-news/press-release-details/2013/SSL-selected-to-build-high-power-multi-mission-satellite-AsiaSat-9/default.aspx>.
- 259 King Royal Technologies Co. Ltd., <https://kingroyalmyanmar.com/>.
- 260 *License Issued Lists, Posts and Telecommunications Department* (Jul. 1, 2020). Unofficial translation of the title is: Post and Telecommunications Department of MOTC is responsible for telecom licences in accordance with the Telecommunications Law, and those domestic and foreign companies that have been issued telecoms licences filed under the rules and regulations are listed below. Additionally, new applicants are in progress.
- 261 *Welcome Myanmar Air Defense Command Delegation to Visit M1 Company*, M1 Apr. 5, 2018), <http://>

- m1.viettel.com.vn/tin-tuc-viettel/welcome-myanmar-air-defense-command-delegation-visit-m1-company/.
- 262 King Royal Technologies, [Meeting request](#) (Mar. 5, 2018).
- 263 *Malaysia's OCK Group and King Royal Technologies Co., Ltd Signed a Master Service Agreement (MSA) with Telenor for the Construction and the Lease of 920 Towers*, King Royal Technologies Co., Ltd. (Dec. 16, 2015), <https://kingroyalmyanmar.com/news-events/>.
- 264 Ock Group Bhd, OCK Annual Report 2018 5, <https://www.ock.com.my/investors-Reports.php>.
- 265 MPT launches value added services to expand the offers for the mobile users, MPT (Dec. 18, 2015), <https://www.mpt.com.mm/en/press-releases/page/42/>.
- 266 Alexander Nellist, *Market Series Part One: AsiaSat 9 in Myanmar*, AsiaSat (Apr. 5, 2017), <https://www.asiasat.com/news/blog/asiasat9-in-myanmar>.
- 267 Statement of Financial Affairs For Speedcast Singapore Pte. Ltd. (Case No. 20-32262), The United States Bankruptcy Court for the Southern District of Texas Houston Division (filed Jun. 6, 2020), <http://www.kccllc.net/speedcast/document/2032243200630000000000044>.
- 268 Brian Spegele and Kate O'Keeffe, *China Exploits Fleet of U.S. Satellites to Strengthen Police and Military Power*, The Wall Street Journal (Apr. 23, 2019), <https://www.wsj.com/articles/china-exploits-fleet-of-u-s-satellites-to-strengthen-police-and-military-power-11556031771>.
- 269 See Myanmar project list, Seonet Technologies, <https://www.seonetmsc.com/portfoliomyan1.html>.
- 270 UN IIFFMM, Economic interests of the Myanmar military, A/HRC/42/CRP.3, paragraph 129
- 271 SEANET Myanmar Selects Hughes JUPITER(TM) System to Power Reliable, High-Speed Nationwide Satellite Network, Ministry of Information (Jun. 1, 2016), <https://en.prnasia.com/releases/apac/KBZ-Gateway-Unveils-New-Satellite-Communication-Ground-Station-in-Myanmar-Powered-by-Hughes-JUPITER-TM-System-150725.shtml>.
- 272 For details on risks to Rohingya, see Institute of Statelessness and Inclusion, *Locked In and Locked Out: The Impact of Digital Identity Systems on Rohingya Populations* (Nov. 2020), <https://files.institutesi.org/Locked-In-Locked-Out-The-Rohingya-Briefing-Paper.pdf>.
- 273 *Hughes JUPITER System Selected by KBZ Gateway to Extend Mobile Connectivity Services throughout Myanmar*, Hughes (Jun. 12, 2019), <https://www.hughes.com/resources/press-releases/hughes-jupiter-system-selected-kbz-gateway-extend-mobile-connectivity>.
- 274 *Lockheed Martin-Built VINASAT-2 Satellite Begins Service for Vietnam Posts and Telecommunications Group*, Lockheed Martin (Jul. 5, 2012), <https://news.lockheedmartin.com/2012-07-05-Lockheed-Martin-Built-VINASAT-2-Satellite-Begins-Service-for-Vietnam-Posts-and-Telecommunications-Group>.
- 275 [Joint Statement on cooperation between Union of Myanmar and Socialist Republic of Vietnam, New Light of Myanmar 10](#) (Apr. 4, 2010).
- 276 VNPT khởi động đầu tư, kinh doanh tại Myanmar, NDH (Sep. 25, 2019), <https://ndh.vn/doanh-nghep/vnpt-khoi-ong-au-tu-kinh-doanh-tai-myanmar-1090574.html>.

- 277 *Newtec Empowers Myanmar's Newest Mobile Operator*, Newtec (Jun. 20, 2018), <https://www.newtec.eu/article/release/newtec-empowers-myanmar-newest-mobile-operator>.
- 278 Joshua Carroll, *Belgian Company on 'Dirty List' Cuts Ties With Myanmar Military*, VOA (Aug. 12, 2019), <https://www.voanews.com/east-asia-pacific/belgian-company-dirty-list-cuts-ties-myanmar-military>.
- 279 *Newtec Empowers Myanmar's Newest Mobile Operator*, Newtec (Jun. 8, 2018), <http://comncom.co/Home/NCat/NDetail/en/78/68/70/onet.html>
- 280 *Sky Net Selects Gilat's Network for Cellular Backhaul in Myanmar*, Gilat Satellite Networks (Jun. 2, 2016), <https://www.globenewswire.com/news-release/2016/06/02/845567/0/en/Sky-Net-Selects-Gilat-s-Network-for-Cellular-Backhaul-in-Myanmar.html>.
- 281 *Gilat SATCOM Solutions for C4i*, Gilat Satellite Networks (Dec. 18, 2016), <https://www.gilat.com/wp-content/uploads/2017/02/Gilat-Brochure-C4I-Solutions.pdf>.
- 282 Annamarie Nyirady, *Gilat Awarded \$7 Million Contract for US Army WIN-T Program*, Via Satellite (Aug. 1, 2019), <https://www.satellitetoday.com/government-military/2019/08/01/gilat-awarded-7-million-contract-for-us-army-win-t-program/>.
- 283 *Gilat Chosen by Terabit Wave to Provide Satcom-On-The-Move Terminals in Myanmar*, Gilat Satellite Networks (Sep. 23, 2014), <https://www.gilat.com/pressreleases/gilat-chosen-by-terabit-wave-to-provide-satcom-on-the-move-terminals-in-myanmar/>.
- 284 *Terabit Wave, Business achievement*, https://www.terabitwave.com/bussiness_achievement.html.
- 285 *Gilat Chosen by Terabit Wave to Provide Satcom-On-The-Move Terminals in Myanmar*, Gilat Satellite Networks (Sep. 23, 2014), <https://www.gilat.com/pressreleases/gilat-chosen-by-terabit-wave-to-provide-satcom-on-the-move-terminals-in-myanmar/>.
- 286 *Myanmar Implements Intelsat Satellite Solutions to Advance 2G and 3G Wireless Network Infrastructure Deployment Goals*, Intelsat (May 27, 2016), <http://www.intelsat.com/news/press-release/myanmar-implements-intelsat-satellite-solutions-to-advance-2g-and-3g-wireless-network-infrastructure-deployment-goals/>.
- 287 Myanmar Satellite System Steering Committee, Notification 17/2017.
- 288 The Republic of the Union of Myanmar President Office, First coordination meeting of Steering Committee to Set up Myanmar Owned Satellite System held (Apr. 29, 2017), <https://www.president-office.gov.mm/en/?q=briefing-room/news/2017/04/29/id-7512>.
- 289 Myanmar Satellite System Working Committee, Notification 18/2017.
- 290 *Win Aung*, LinkedIn.
- 291 Desmond Ball, *Burma's Military Secrets 106* (1998).
- 292 *MoTS, Intelsat sign Satellite Payload IRU Agreement for MyanmarSat2*, The Global New Light of Myanmar (Jun. 2, 2018), <https://www.globalnewlightofmyanmar.com/mots-intelsat-sign-satellite-payload-iru-agreement-myanmarsat2/>.
- 293 *Myanmar Expands Relationship with Intelsat to Enhance and Accelerate National Network Infrastructure Deployment*, Intelsat (Jun. 1, 2018), <http://www.intelsat.com/news/press-release/myanmar-intelsat-infrastructure-deployment/>.

- 294 *Vice President U Myint Swe Attends Fourth Coord Meeting on Establishing Satellite System*, President Office (Aug. 31, 2018) <https://www.president-office.gov.mm/en/?q=briefing-room/news/2018/08/31/id-8966>.
- 295 *VP U Myint Swe Attends Meeting on Establishing Satellite System*, President Office (Sep. 2, 2019), <https://www.president-office.gov.mm/en/?q=briefing-room/news/2019/09/02/id-9530>.
- 296 *Vice President U Myint Swe Attends Fourth Coord Meeting on Establishing Satellite System*, President Office (Aug. 31, 2018) <https://www.president-office.gov.mm/en/?q=briefing-room/news/2018/08/31/id-8966>.
- 297 *Intelsat Announces Successful Launch of Intelsat 39*, Business Wire (Aug. 6, 2019), <https://www.business-wire.com/news/home/20190806005978/en/Intelsat-Announces-Successful-Launch-Intelsat-39>.
- 298 *Myanmar to Launch its First Satellite in 2021 with Japan's Help*, Nikkei Asian Review (May 11, 2020), <https://asia.nikkei.com/Business/Aerospace-Defense/Myanmar-to-launch-its-first-satellite-in-2021-with-Japan-s-help2>.
- 299 *VP U Myint Swe Attends Meeting on Establishing Satellite System*, *President Office* (Sep. 2, 2019), <https://www.president-office.gov.mm/en/?q=briefing-room/news/2019/09/02/id-9530>.
- 300 UN Committee on the Peaceful Uses of Outer Space, A/AC.105/1189/Add.1.
- 301 The Myanmar Aerospace Engineering University Law (State Peace and Development Council Law No. 2/2002).
- 302 [Prof. Dr. Thae Maung Maung, Research & Application of UAV/Drone Technology for Civilian Applications & Disaster Management](#).
- 303 *Ibid.*
- 304 *Department of Fuel and Propellant Engineering*, Myanmar Aerospace Engineering University, <https://maeu.edu.mm/fp>.
- 305 *Department of Space Systems Engineering*, Myanmar Aerospace Engineering University, <https://maeu.edu.mm/ss>.
- 306 Myanmar News Agency, *Micro-satellite MMSATS-1 for Myanmar completed in Japan, the Global New Light of Myanmar* (Oct. 22, 2020), <https://www.gnlm.com.mm/micro-satellite-mmsats-1-for-myanmar-completed-in-japan/>.
- 307 Win Aung, *Myanmar Earth Observation Micro Satellite* (Nov. 20, 2019), <http://www.unoosa.org/documents/pdf/WSF/Posters/Accessibility/Accessibility - Win Aung - Poster session Win Aung Myanmar.pdf>.
- 308 Zon Pann Pwint, *Myanmar's First Earth Observation Satellite*, Myanmar Times (Aug. 6, 2020), <https://www.mmtimes.com/news/myanmars-first-earth-observation-satellite.html>.
- 309 Win Aung, *Myanmar Earth Observation Micro Satellite* (Nov. 20, 2019), <http://www.unoosa.org/documents/pdf/WSF/Posters/Accessibility/Accessibility - Win Aung - Poster session Win Aung Myanmar.pdf>.
- 310 Kimberly Underwood, *5G for Warfighters*, Signal (Jun. 1, 2019), <https://www.afcea.org/content/5g-warfighters>.
- 311 Telecommunications Law (2013).
- 312 [Viettel Decree 05/2018 / ND-CP, article 21. Certified translation available here.](#)

- 313 [Viettel Group Network Planning Center, BTS Low Level Design RKE0233 \(Oct. 2018\).](#)
- 314 UN IIFFMM, A/HRC/39/64, paragraph 52.
- 315 *Trapped By Conflict, Villagers In Ann Township Live Off Fruit And Vegetables*, BNI Multimedia Group (Jun. 25, 2010), <https://www.bnionline.net/en/news/trapped-conflict-villagers-ann-township-live-fruit-and-vegetables>. For details of government blocking of ethnic media, see *Myanmar: Immediately lift ban on ethnic news websites*, Article19 (Apr. 1, 2020), <https://www.article19.org/resources/myanmar-immediately-lift-ban-on-ethnic-news-websites/>.
- 316 [Viettel Group Network Planning Center, BTS Low Level Design SHN1527 \(Jun., 2020\).](#)
- 317 Nan Lwin Hnin Pwint, *Thousands Flee Laukkai Clashes*, The Irrawaddy (Mar. 10, 2017), <https://www.irrawaddy.com/news/burma/thousands-flee-laukkai-clashes.html>.
- 318 *Designations Build on International Efforts to Hold Accountable Persons Responsible for Serious Human Rights Abuses in Burma*, U.S. Embassy in Burma (Aug. 17, 2018), <https://mm.usembassy.gov/treasury-sanctions-commanders-and-units-of-the-burmese-security-forces-for-serious-human-rights-abuses/>.
- 319 [Viettel Group Network Planning Center, BTS Low Level Design SHN1240 \(Jan., 2019\).](#)
- 320 [Viettel Group Network Planning Center, BTS Low Level Design SHN1405 \(Aug., 2019\).](#)
- 321 [Viettel Group Network Planning Center, BTS Low Level Design SHN1038 \(Feb., 2019\).](#)
- 322 [Viettel Group Network Planning Center, BTS Low Level Design SHN1349 \(Jun., 2020\).](#)
- 323 [Viettel Group Network Planning Center, BTS Low Level Design SHN1233 \(Mar., 2020\).](#)
- 324 *Brutal rape of 73-year-old woman by Burma Army soldier in Mong Phyak highlights vulnerability of women in militarized eastern Shan State*, Shan Human Rights Foundation (Apr. 23, 2018), <https://www.shanhumanrights.org/eng/index.php/350-brutal-rape-of-73-year-old-woman-by-burma-army-soldier-in-mong-phyak-highlights-vulnerability-of-women-in-militarized-eastern-shan-state>.
- 325 [Viettel Group Network Planning Center, BTS Low Level Design KYH0055 \(Sep. 2017\).](#)
- 326 Lawi Weng, *New Army Bases Spark Fears of Fresh Fighting in Kayah State*, The Irrawaddy (Jan. 23, 2019), <https://www.irrawaddy.com/news/new-army-bases-spark-fears-fresh-fighting-kayah-state.html>.
- 327 [Viettel Group Network Planning Center, BTS Low Level Design KYN0253 \(Jun., 2018\).](#)
- 328 [Viettel Group Network Planning Center, BTS Low Level Design KYN0358 \(May, 2019\).](#)
- 329 *Hpa-an Situation Update: Hlaingbwe, Don Yin and Hti Lon townships, April 2014*, Karen Human Rights Group (Jul. 22, 2014), <https://khrhg.org/2014/07/14-28-s2/hpa-an-situation-update-hlaingbwe-don-yin-and-hti-lon-townships-april-2014>.
- 330 Caroline Reckinger, *Burma's Forced Labour*, New Statesman (Jun. 9, 2008), <https://www.newstatesman.com/asia/2008/06/forced-labour-burma-work>.
- 331 DNB Markets, Telenor: *So far, so good in Myanmar* 7 (Mar. 27, 2018), https://www.dnb.no/seg-fundamental/fundamentalweb/GetReports.aspx?file=C-MP1_112280.pdf&Sid=1-2YKIN.

- 332 Tillman Global Holdings, U.S. Government Report on Responsible Investment in Burma - Public Report (May 27, 2015), <https://photos.state.gov/libraries/burma/895/pdf/20150527TillmanGlobalHoldingsPublicReport.pdf>.
- 333 [Viettel Group Network Planning Center, BTS Low Level Design MGY0746 \(Jan., 2019\)](#); [Viettel Group Network Planning Center, BTS Low Level Design MGY0747 \(Apr., 2019\)](#); [Viettel Group Network Planning Center, BTS Low Level Design MGY0748 \(Jan., 2019\)](#); [Viettel Group Network Planning Center, BTS Low Level Design MGY0749 \(Jan., 2019\)](#).
- 334 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 102.
- 335 UN IIFFMM, The economic interests of the Myanmar military, A/HRC/42/CRP.3 paragraph 101.
- 336 David Shepardson, *Huawei, ZTE Urge U.S. not to Impose National Security Risk Labels*, Reuters (Feb. 4, 2020), <https://www.reuters.com/article/us-usa-china-huawei-tech/huawei-zte-urge-u-s-not-to-impose-national-security-risk-labels-idUSKBN1ZX2V1>.
- 337 Tomoya Onishi, *Vietnam's Viettel shuns Huawei 5G tech over cybersecurity*, Nikkei Asian Review (Sep. 6, 2019), <https://asia.nikkei.com/Spotlight/Huawei-crackdown/Vietnam-s-Viettel-shuns-Huawei-5G-tech-over-cybersecurity>.
- 338 Myanmar Technologies and Investment Corporation Limited, Annual Report 2015-16 9, <https://mti.com.mm/annual-download/1>.
- 339 See [Mandalay branch microwave handover report: Transmission Database \(Apr. 2020\)](#), published by Viettel Construction Myanmar.
- 340 *Wireless Transport Solutions Using Microwave*, NEC, <https://www.nec.co.nz/solutions/wireless-transport/>.
- 341 [Viettel Construction Myanmar, Checklist for SOS Spare Parts](#).
- 342 See [HUAWEI MICROWAVE EQUIPMENT INSTALLATION INSTALLATION & COMMISSIONING GUIDE](#), published by Viettel Construction Myanmar.
- 343 See [ZTE Site Installation Guide](#), published by Viettel Construction Myanmar. The Sagaing Region RF database shows CommScope as the primary antenna vendor. See [SGG RF Database](#).
- 344 [Viettel Construction Myanmar, Checklist for SOS Spare Parts](#).
- 345 *Viettel rolls out nationwide 5G-ready timing solution with ADVA and NEC*, Adva (Mar. 19, 2020), <https://www.adva.com/en/newsroom/press-releases/20200319-viettel-rolls-out-nationwide-5g-ready-timing-solution-with-adva-and-nec>.
- 346 [Oscilloquartz, OSA ePRTC brochure](#).
- 347 [LPL Series-Long Life Standby, Leoch \(2018\)](#).
- 348 Bureau van Dijk, *Voltaia*, (Jun. 1, 2020), <https://or-bis.bvdinfo.com>; Nibal Zgheib, *EBRD buys stake in French renewable energy producer Voltaia*, European Bank for Reconstruction and Development (Jul. 12, 2019); *Proparco Supports Voltaia and its Ambitious Objectives for the Development of Renewable Energies*, Proparco (Jul 11, 2019), <https://www.proparco.fr/en/actualites/proparco-supports-voltaia-and-its-ambitious-objectives-development-renewable-energies>.

- 349 [Telecom International Myanmar, Instruction Guide for Power Installation at Self-Powered BTS Access Sites.](#)
[Telecom International Myanmar, DIRECTIVE About “Return M&E damaged parts in operation to company warehouse” \(Apr. 26, 2019\).](#)
- 350 [Telecom International Myanmar, Instruction Guide to install Lithium battery in VRLA battery cabinet.](#)
- 351 [Telecom International Myanmar, Instruction Guide to install Lithium battery in VRLA battery cabinet.](#)
- 352 [Telecom International Myanmar, Instruction Guide to install Lithium battery in VRLA battery cabinet.](#)
- 353 [Telecom International Myanmar, Parameter Setting for Power Equipment at Self-Powered Sites.](#)
- 354 Voltalia provides technology through Myanmar National Telecom Infra Co. Ltd., a subsidiary of MNTH. See *Voltalia Signs its First Energy Supply Contract for a Telecom Client*, Voltalia (Feb. 21, 2018), https://voltalia.com/uploads/08_Not%C3%ADcias/Press_Releases/2018/180221-Voltalia-Myanmar-towerco-EN-.pdf and joint press release: Info Birmanie, RSF, Sherpa and Justice For Myanmar, *French company Voltalia must put an end to its commercial relationship with a company linked to the Myanmar military* (May 27, 2020), <https://www.justiceformyanmar.org/press-releases/french-company-voltalia-must-put-an-end-to-its-commercial-relationship-with-a-company-linked-to-the-myanmar-military>.
- 355 Tomoya Onishi, *Vietnam’s Viettel shuns Huawei 5G tech over cybersecurity*, Nikkei Asian Review (Sep. 6, 2019), <https://asia.nikkei.com/Spotlight/Huawei-crackdown/Vietnam-s-Viettel-shuns-Huawei-5G-tech-over-cybersecurity>.
- 356 *Vietnam’s Viettel shuns Huawei 5G tech over cyber-* security, PRNewswire (May 16, 2019), <https://www.prnewswire.com/news-releases/viettel-demonstrates-the-first-5g-connection-in-vietnam-300851720.html>.
- 357 “IGT” and “MyTel” signs Master Lease Agreement for 677 sites Colocation, Irrawaddy Green Towers (Jul. 5, 2017), <https://igt.com.mm/igt-and-mytel-signs-master-lease-agreement-for-677-sites-colocation/>.
- 358 See *Tower Times 4th Edition, Irrawaddy Green Towers* (Jul., 2017) 4.
- 359 [Viettel Group Network Planning Center, BTS Low Level Design NPW0075 \(Jun., 2020\).](#)
- 360 *Details of Implementation Arrangements*, Asian Development Bank, <https://www.adb.org/sites/default/files/linked-documents/49470-001-dia.pdf>.
- 361 Blu Stone Management and M1 Group, Irrawaddy Green Towers Limited: Sale of Company (Dec. 11, 2020), <https://www.prnewswire.com/ae/news-releases/irrawaddy-green-towers-limited-sale-of-company-850556246.html>.
- 362 *Irrawaddy Green Tower Project*, CDC Group, <https://www.cdcgroup.com/en/our-impact/investment/irrawaddy-green-tower-project/>.
- 363 *Transforming telecommunications in Myanmar*, U.S. International Development Finance Corporation, <https://www.dfc.gov/investment-story/transforming-telecommunications-myanmar>.
- 364 *AP Towers*, Myanmar Investments, <https://www.myanmarinvestments.com/apollo/#1502777343722-ce78788d-b38f>.
- 365 Myanmar Investments International Ltd, *Update on*

- Apollo Towers* (Sep. 21, 2020), <https://markets.ft.com/data/announce/full?dockey=1323-13799246-5ALANA556EO8QAMFFP2F39QGAR>.
- 366 *SGG RF Database*, published by Viettel Construction Myanmar.
- 367 *TowerXchange's who's who in Asian towers - 2019 update*, TowerXchange Asia Dossier (2019), https://www.towerxchange.com/wp-content/uploads/2019/10/TX_AsiaDossier_2019.pdf.
- 368 Kieran J Rabbitt, National Tower Development Co., Ltd. Profile (Apr. 11, 2019), <https://www.linkedin.com/pulse/national-tower-development-myanmar-limited-kieran-j-rabbitt/>.
- 369 Justice For Myanmar, A dangerous use of public funds: Myanmar military Airbus deals for troop transport and luxury travel (Dec. 7, 2020), www.justiceformyanmar.org/stories/a-dangerous-use-of-public-funds-myanmar-military-airbus-deals-for-troop-transport-and-luxury-travel.
- 370 *SGG RF Database*, published by Viettel Construction Myanmar.
- 371 Tillman Global Holdings, U.S. Government Report on Responsible Investment in Burma - Public Report (May 27, 2015), <https://photos.state.gov/libraries/burma/895/pdf/20150527TillmanGlobalHoldingsPublicReport.pdf>.
- 372 Tillman Global Holdings, Report on Responsible Investment in Myanmar (Jul. 28, 2014), https://photos.state.gov/libraries/burma/895/pdf/7-28-14-Report_on_Respons_Investment_in_Myanmar_Tillman_Global.pdf.
- 373 Tillman Global Holdings, U.S. Government Report on Responsible Investment in Burma - Public Report (May 27, 2015), <https://photos.state.gov/libraries/burma/895/df/20150527TillmanGlobalHoldingsPublicReport.pdf>.
- 374 *Ibid.*
- 375 *Mytel Surpasses 10 Million Subscribers*, People's Army Newspaper (Jun 5, 2020), <https://en.qdnd.vn/economy/military-businesses/mytel-surpasses-10-million-subscribers-517321>.
- 376 *Ibid.*
- 377 Viettel Global JSC, *Báo cáo tài chính hợp nhất Quý 4/2019* 38 (Viettel Global JSC's Financial Statement Q4, 2019).
- 378 *Memorandum of Association* of Myanmar National Tele & Communications Company Limited, section 22.
- 379 Directorate of Investment and Company Administration (DICA) extract 121660253.
- 380 Viettel Global JSC, *Báo cáo tài chính riêng Quý 1 năm 2020* 36 (Viettel Global JSC's Financial Statement Q1, 2020).
- 381 *Ibid.*
- 382 Using an exchange rate of 0.0000431282 from December 31, 2019.
- 383 Viettel Global Investment JSC, *Báo cáo tài chính hợp nhất năm 25 (2019)* (Consolidated Financial Statement 2019), http://viettelglobal.vn/uploads/images/Bao_cao_tai_chinh_hop_nhat_2019_sau_KT.pdf.
- 384 *Ibid.*
- 385 Viettel Global Investment JSC, *Báo cáo tài chính riêng*

- 33 (2019) (Annual Financial Statement 2019), http://viettelglobal.vn/uploads/images/Bao_cao_tai_chinh_rieng_2019_sau_KT.pdf.
- 386 Viettel Global Investment JSC, Báo cáo tài chính hợp nhất năm (2017) (Consolidated Financial Statement 2017), http://viettelglobal.vn/uploads/images/DHCD_2018/0305/BAO_CAO_TC_HN_NAM_2017.pdf.
- 387 HSBC, Sustainability Risk, <https://www.hsbc.com/our-approach/risk-and-responsibility/sustainability-risk>; Standard Chartered, Human Rights Position Statement, <https://www.sc.com/en/sustainability/position-statements/human-rights/>; MUFG, the Equator Principles, <https://www.mufg.jp/english/csr/environment/equator/index.html>.
- 388 HSBC Defence Equipment Sector Policy, <https://www.hsbc.com/-/files/hsbc-our-approach/risk-and-responsibility/pdfs/200218-defence-equipment-sector-policy.pdf?download=1>.
- 389 Council Decision (CFSP) 2018/655 of 26 April 2018 amending Decision 2013/184/CFSP concerning restrictive measures against Myanmar/Burma, article 1.2(b).
- 390 Council Decision (CFSP) 2018/655 of 26 April 2018 amending Decision 2013/184/CFSP concerning restrictive measures against Myanmar/Burma, article 3.1.
- 391 Viettel Global Investment JSC, Báo cáo tài chính riêng năm 28 (2019) (Annual Financial Statement 2019), http://viettelglobal.vn/uploads/images/Bao_cao_tai_chinh_rieng_2019_sau_KT.pdf.
- 392 Viettel Global Investment JSC, Báo cáo tài chính năm 37 (2018) (Annual Financial Statement 2018), http://viettelglobal.vn/uploads/images/2018_BCTC
- [HN_VTG.pdf](http://viettelglobal.vn/uploads/images/2018_BCTC_HN_VTG.pdf); Viettel Global Investment JSC, Báo cáo tài chính riêng Quý 1 năm 27 (2020) (Financial Statement Q1, 2020), http://viettelglobal.vn/uploads/images/Bao_cao_tai_chinh_rieng_quy_1_2020.pdf.
- 393 IFC has increased trade finance limits for VIB to USD144 Million, VIB (Feb. 28, 2020), <https://www.vib.com.vn/wps/portal?1dmy&page=news.detail.en&uril=wcm:path:/vib-vevib-en/sa-news/vib-news/kinh-doanh/vib-duoc-ifc-nang-han-muc-tai-tro-thuong-mai-len-144-trieu-usd>.
- 394 VIB continued getting IFC's high appreciation for trade financing, VIB (Jul. 3, 2020), <https://www.vib.com.vn/wps/portal?1dmy&page=awards.detail.en&uril=wcm:path:/vib-vevib-en/sa-homepage/award/2020/vib-duoc-ifc-vinh-danh-la-ngan-hang-co-nghiep-vu-thuong-mai-tot-nhat-khu-vuc-dong-a>.
- 395 VIB, Annual Report 2018 38 (2018), https://www.vib.com.vn/wps/wcm/connect/dc-c2f0d2-394a-40b7-a34a-cfc34b2e16ba/VIB+annual+report+2018+EN-content-07-5-2019+-+Upload+to+website.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=dc-c2f0d2-394a-40b7-a34a-cfc34b2e16ba p.38
- 396 Viettel Global Investment JSC, Báo cáo tài chính hợp nhất năm 40 (2017) (Consolidated Financial Statement 2017), http://viettelglobal.vn/uploads/images/DHCD_2018/0305/BAO_CAO_TC_HN_NAM_2017.pdf.
- 397 Viettel Global Investment JSC, Báo cáo tài chính năm 37 (2018) (Annual Financial Statement 2018), http://viettelglobal.vn/uploads/images/2018_BCTC_HN_VTG.pdf; Viettel Global Investment JSC, Báo cáo tài chính hợp nhất giữa niên độ 6 tháng đầu năm 42 (2018) (Consolidated Financial Statement for the first 6 months of 2018), http://viettelglobal.vn/uploads/images/2018_6T.BCTC_HN_VTG.pdf; BIDV, BIDV and

- Viettel signed an MoU on comprehensive cooperation for the period 2019 – 2023 (Apr. 10, 2019), https://www.bidv.com.vn/en?url=wc:path:/wps/wcm/connect/BIDV_EN/tin-tuc/thong-tin-bao-chi/BIDV-Viettel-ky-ket-bien-ban-ghi-nho-ve-hop-tac-toan-di-en.
- 398 HDBank, *HDBank opens a representative office in Myanmar and signs an agreement with Viettel Global in the official visit of Prime Minister Nguyen Xuan Phuc to Myanmar* (Dec. 18, 2019), <https://www.hdbank.com.vn/en/about/tin-tuc/tin-tuc/hdbank-khai-truong-vpdd-myanmar-va-ky-ket-voi-viettel-global-nhan-dip-thu-tuong-nguyen-xuan-phuc-tham-chinh-thuc-myanmar>; BIDV, *Viettel boost comprehensive cooperation, People's Army Newspaper* (Apr. 12, 2019), <https://en.qdnd.vn/economy/military-businesses/bidv-viettel-boost-comprehensive-cooperation-504627>.
- 399 HDBank, *HDBank opens a representative office in Myanmar and signs an agreement with Viettel Global in the official visit of Prime Minister Nguyen Xuan Phuc to Myanmar* (Dec. 18, 2019), <https://www.hdbank.com.vn/en/about/tin-tuc/tin-tuc/hdbank-khai-truong-vpdd-myanmar-va-ky-ket-voi-viettel-global-nhan-dip-thu-tuong-nguyen-xuan-phuc-tham-chinh-thuc-myanmar>
- 400 BIDV, *No.35/2016: BIDV receives banking operation license in Myanmar* (Jul. 1, 2016), https://www.bidv.com.vn/bidv_en/tin-tuc/thong-tin-bao-chi/name54.
- 401 BIDV, *KEB Hana Bank becomes BIDV's strategic shareholder* (Nov. 11, 2019), https://www.bidv.com.vn/bidv_en/tin-tuc/thong-tin-bao-chi/keb-hana-bank-tro-thanh-co-dong-chien-luoc-nuoc-ngoai-bidv.
- 402 Asian Development Bank, *ADB and HDBank Partner to Boost Trade in Viet Nam* (Jun. 24, 2020), <https://www.adb.org/news/adb-and-hdbank-partner-boost-trade-viet-nam>.
- 403 Viettel Global Investment JSC, *Báo cáo tài chính năm 37 (2018) (Annual Financial Statement 2018)*, http://viettelglobal.vn/uploads/images/2018_BCTC_HN_VTG.pdf.
- 404 International Finance Corporation, *GTFP Issuing Banks*, https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gtfp-banks#anchorV.
- 405 Viettel Global Investment JSC, *Báo cáo tài chính hợp nhất năm 36 (2017) (Consolidated Financial Statement 2017)* http://viettelglobal.vn/uploads/images/DHCD_2018/0305/BAO_CAO_TC_HN_NAM_2017.pdf; Viettel Global Investment JSC, *Báo cáo tài chính năm 37 (2018) (Annual Financial Statement 2018)*, http://viettelglobal.vn/uploads/images/2018_BCTC_HN_VTG.pdf.
- 406 Ngoc Thuy, *IFC no longer major shareholder of Vietinbank*, *Hanoi Times* (Jan. 14, 2020), <http://hanoitimes.vn/ifc-no-longer-major-shareholder-at-vietnams-state-run-vietinbank-300786.html>.
- 407 TMH Telecom, *About Us*, <https://www.tmhtelecom.com/about-us/>.
- 408 *Prospectus*, *TMH Telecom Public Co. Ltd.*, https://ysx-mm.com/wp-content/uploads/2018/01/nl_00005_en_20180111.pdf; *Military regime's economic advisor dies at 84*, *Myanmar Times* (Jan. 21, 2019), <https://www.mmtimes.com/news/military-regimes-economic-adviser-dies-84.html>.
- 409 *Ibid.*
- 410 Amnesty International, *Myanmar: Suspend copper mine linked to ongoing human rights abuses*

- (Feb. 10, 2017), <https://www.amnesty.org/en/latest/news/2017/02/myanmar-suspend-copper-mine-linked-to-ongoing-human-rights-abuses/>.
- 411 Innwa Bank is named as such by the UN IIFMM. See A/HRC/42/CRP.3.
- 412 *Financial Statements*, TMH Telecom (Sep. 30, 2018), https://ysx-mm.com/wp-content/uploads/2018/12/dd_00005_20181228_1.pdf.
- 413 See *Myanmar Hurricane*, Facebook, <https://www.facebook.com/mhit.info/>. A MECTel brochure detailing “value added services” is available here.
- 414 *Announcement on the situation of Landing Station Project*, TMH Telecom (Mar. 30, 2018), https://ysx-mm.com/wp-content/uploads/2018/03/dd_00005_en_20180330.pdf.
- 415 In March 2020, Justice For Myanmar exposed significant military interests in Ever Flow River’s YSX float. See *YSX Listed Conglomerate to Enrich the Myanmar Military*, Justice For Myanmar, <https://www.justiceformyanmar.org/stories/yangon-stock-exchange-listed-logistics-conglomerate-to-enrich-myanmar-military>.
- 416 Deloitte audit reports are published on the Viettel Global JSC website, in Vietnamese, and show a relationship from as early as 2014. For instance, see http://viettelglobal.vn/uploads/images/Bao_cao_tai_chinh_rieng_2019_sau_KT.pdf and <http://goo.gl/Ogxf2y>.
- 417 *Our Commitment to Responsible Business Practice*, Deloitte (2020), <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/about-deloitte/deloitte-uk-commitment-to-rbp-statement.pdf>.
- 418 *Our Commitment to Responsible Business Practice*, Deloitte 5 (2020), <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/about-deloitte/deloitte-uk-commitment-to-rbp-statement.pdf>.
- 419 *Completion of the Acquisition of Fortumo*, Boku, Inc. (Jul. 1, 2020), https://polaris.brighterir.com/public/boku/news/rns_19/story/xplyj3w.
- 420 *Mytel & Fortumo launch direct carrier billing in Myanmar*, Fortumo (Aug. 12, 2020), <https://fortumo.com/press/mytel-fortumo-launch-direct-carrier-billing-in-myanmar/>.
- 421 Bureau van Dijk, Digital Virgo, (Jul. 17, 2020), <https://orbis.bvdinfo.com>.
- 422 *Viettel partners with Digital Virgo to boost its DCB ecosystem*, Digital Virgo (May 28, 2020), <https://www.digitalvirgo.com/viettel-partners-with-digital-virgo/>.
- 423 Council Decision 2013/184/CFSP, article 1.2(a).
- 424 *FIS provides consolidated financial statement system for Viettel*, FPT (Aug. 23, 2016), <https://www.fpt.com.vn/en/newsroom/detail/fis-provides-consolidated-financial-statement-system-for-viettel>.
- 425 World Bank Notice No. OP00090489 (Jun. 12, 2020), <https://projects.worldbank.org/en/projects-operations/procurement-detail/OP00090489>.
- 426 World Bank Notice No. OP00074431 (Jun. 25, 2019), <https://projects.worldbank.org/en/projects-operations/procurement-detail/OP00074431>.
- 427 World Bank Notice No. OP00073877 (Jun. 6, 2019), <https://projects.worldbank.org/en/projects-operations/procurement-detail/OP00073877>.
- 428 Myanmar Economic Corporation, Myanmar Mobile Money Services, <https://www.mecwebsite.com/myan->

- [mar-mobile-money-services-mmms/](#).
- 429 *Retail Banking*, Innwa Bank Limited, https://www.ablmm.com/retail_banking.html.
- 430 *MEB Services*, Ministry of Planning, Finance and Industry, <http://ow.ly/Zc8r50C2mv4>.
- 431 *Pension News*, The Ministry of Planning, Finance and Industry, <https://www.mopfi.gov.mm/en/content/pension-news>.
- 432 *Online Services*, Myanma Economic Bank, <http://www.meb.gov.mm/en/?p=464>.
- 433 *Oberthur Technologies and Myanmar Mobile Money to Provide Mobile Financial Services to the Large Unbanked Majority of the Myanmar Population*, Business Wire (Jan. 29, 2014), <https://www.businesswire.com/news/home/20140129005773/en/Oberthur-Technologies-Myanmar-Mobile-Money-Provide-Mobile>.
- 434 See UN IIFFMM Economic interests of the Myanmar military, A/HRC/42/CRP.3 annex V.B. IDEMIA also appears to be supporting the Myanmar government's digital ID programme, which may have a serious negative human rights impact on ethnic minorities rendered stateless within Myanmar's discriminatory citizenship framework. See *Union Minister U Thein Swe receives French ambassador, IDEMIA Vice President*, Global New Light of Myanmar (Feb. 7, 2020), <https://www.globalnewlightofmyanmar.com/union-minister-u-thein-swe-receives-french-ambassador-idemia-vice-president/>.
- 435 IDEMIA letter to Mr Marzuki Darusman, Aug. 9, 2019, https://www.ohchr.org/Documents/HRBodies/HRCouncil/FFM-Myanmar/EconomicInterestsMyanmarMilitary/IDEMIA_7_August_2019.pdf.
- 436 MNA, Union Minister U Thein Swe receives French ambassador, IDEMIA Vice President, *Global New Light of Myanmar* ((Feb. 7, 2020), <https://www.gnlm.com.mm/union-minister-u-thein-swe-receives-french-ambassador-idemia-vice-president/>.
- 437 See DICA entry for Mobilemate Telecommunications Co. Ltd. Also see Channel K, About, <https://www.facebook.com/channelkmyanmar/about/>; Myanmar Telemedia, <http://www.myanmartelemedia.com/>.
- 438 Myanmar Telemedia, <http://www.myanmartelemedia.com/>.
- 439 Myanmar ID Solutions Co., Ltd. Corporate Profile, <https://myanmaridsolutions.com/assets/myanid.pdf>.
- 440 Solutions Hub, Company Profile, <https://myanmaridsolutions.com/assets/sh.pdf>.
- 441 EasyPay, Our Company, List of Mobile Financial Services Providers, https://easypay.com.mm/our_company.html.
- 442 *Online Services*, Myanma Economic Bank, <http://www.meb.gov.mm/en/?p=464>.
- 443 Myanmar Telemedia website, (<http://www.myanmar-telemedia.com/>)
- 444 Central Bank of Myanmar, <https://www.cbm.gov.mm/content/2653>
- 445 EasyPay Mobile Money, <https://myanmaridsolutions.com/assets/easypay.pdf>.
- 446 *Viettel introduces MytelPay in Myanmar*, Public Security News (Jun. 13, 2019), <http://en.cand.com.vn/Business/Viettel-introduces-MytelPay-in-Myanmar-549119/>.
- 447 Myanmar Payment Solution Services, <https://www>.

[mpss.com.mm/#aboutus](https://www.mpss.com.mm/#aboutus). MPSS also provides data pack services to Mytel and top-up services to Mytel and MECTel. See <https://www.mpss.com.mm/#services>.

448 Myanma Economic Bank, Online Payment Service, <http://www.meb.gov.mm/en/?p=464>.



**JUSTICE
FOR
MYANMAR**

justiceformyanmar.org



twitter.com/justicemyanmar



facebook.com/justiceformyanmar.org