



Kachin State Development Prospects and Priorities

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Kachin State Development Prospects and Priorities

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This research paper was written by David Dapice (David_Dapice@harvard.edu) following a trip to the region in January 2016. *The views expressed herein are the author's alone and do not necessarily reflect those of Proximity, the Government of the Union of Myanmar, or Harvard University.* This study, along with other recent Ash-Proximity reports on Myanmar, is posted at <http://ash.harvard.edu/journal-articles>

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Background

Kachin state is a lightly populated northern state of Myanmar bordering China that is rich in jade, hydroelectric potential, and conflict. In 2014 it had 1.7 million people, less than half of which are ethnically Kachin and its population density is less than 50 per square mile – in comparison the Mon state has 430 people per square mile. Conflict, primarily over jade, has gone on for years and led to the internal displacement of about 100 thousand people. Recent elections returned an NLD majority at both the state and central levels, but it is reported that the military has requested the chief minister position in Kachin and several other states. Given the considerable number (one source says 130) of Myanmar Army battalions in the state and their activity in contesting area controlled by the KIA (Kachin Independence Army), most Kachin civilians would prefer a civilian government and chief minister.

Jade production and trade is clearly worth much more than official data show. In 2014, official national jade exports were about \$1 billion while official Chinese import data from Myanmar showed more than \$12 billion in jade and gem imports. (Almost all jade comes from Kachin state.) Even allowing for stockpiling and other adjustments, official data need to be multiplied by fifteen to thirty times to get a rough estimate of actual values. This amount is so large and official taxes so low (less than \$500 million), that it explains the persistence of the conflict. The KIA benefits more than the government, though less than the big mining companies, from jade production. There is a lot to fight over. Some in Kachin want to stop all jade mining as a way of gaining control of the mines and reducing the conflict.

Development in Kachin state will require a cessation of hostilities and significant taxation of jade sales that the state and central governments can use productively. Longer term, Kachin state would also benefit from the exploitation of hydroelectricity – though the terms, pace, scale, and management of that investment will have to be very different from that envisioned in past contracts. A major question is who gets to say (for example) how much jade is extracted and under what environmental or safety standards. Is this a central or a state jurisdiction or both? Likewise, while Myitsone dam work was suspended by President Thein Sein, that contract will come up for review. Should the central government, state government or even a local (township) government have a right of review? More generally, who should decide on the development strategy and specific projects for hydroelectricity?¹

The current starting point is one where very few benefits from jade or hydroelectricity flow to the people living in Kachin state. A rapid expansion of jade mining has left huge piles of spoil that create landslides and kill hundreds. There are about 100 MW of smaller dams that provide local power but the proposed dams are measured in thousands of megawatts each and there are at least seven proposed. They would flood large areas of Kachin state. Critics argue that some, such as Myitsone, are close to earthquake zones and are therefore a potential threat to Myitkyina, the capital. If a new government is to improve things it must take account of the political, military, resource and geographic realities.

¹ While contracts were signed under Senior General Than Shwe, they were one-sided and gave Myanmar only 10% of the revenues compared to more than 20% in similar India-Nepal hydro-contracts. In addition, they largely ignored local voices and values. Many Kachin people oppose any significant hydroelectric development.

Resource Curse and the Political Economy of Kachin Development

If all went well, there would be an advent of peace, a decrease in drugs, improvements in roads and electricity access and the elimination of “tolls” by armed groups. These would have a substantial and immediate positive impact on the Kachin economy. If these conditions were augmented by credit and training programs to improve physical and human capital for local workers, the fruits of peace might begin to be shared widely. But getting to that desirable outcome will be difficult.

In economics, the phrase “resource curse” is widely used. It refers to the seemingly paradoxical additional difficulty countries rich in natural resources have in developing.² Since growth requires investment and investment should be easier with revenues from natural resources, economists expected that natural resource-rich nations would grow more quickly and easily. But it is *generally* the opposite. Iraq, Nigeria, Venezuela and Myanmar are all examples of this paradox. There are some economic explanations – the variability of resource prices makes efficient government spending or investment harder and over-valued exchange rates may depress farm and factory output.

However, it can also be explained from the perspective of political economy. Nations like Singapore, South Korea, Japan or Switzerland lack natural resources, so it makes sense for both the general public and elites to focus on becoming efficient and improving technological capacity. Coalitions tend to form around alternate strategies, but differences are negotiated and compromised. In contrast, with natural resources the elites that control the revenue stream become rich with little additional effort (oil companies, for example, can be hired to explore and drill – and still leave vast profits for the owners of the mineral rights) while those without oil claims are left far behind. This creates intense and often violent competition for power and thus wealth. The in-groups can ignore the rest of the population since their revenue stream is independent of non-resource taxes. Politics takes a nasty turn as groups quarrel over power and thus control of mineral revenues. Investment in education or technology pays off for people mainly if they migrate, unless they are linked to the powerful. Thus, rich resources may create toxic politics which destroy the true sources of long term wealth creation.³ In most rich countries, mineral rents are less than 5% of GDP, although Canada and Australia are in the 5-8% range. Development can use minerals as a springboard but not a long-term major source of growth – and this holds true both for nations and parts of them. The case of Aceh in Indonesia, referred to later, underlines the dangers for Kachin state. Even if Kachin state were to get a fair share of its resources, the results may disappoint.

² For a recent summary, see “Using Natural Resources for Development: Why Has It Proven So Difficult?” by A. J. Venables, [The Journal of Economic Perspectives](https://www.aeaweb.org/articles.php?doi=10.1257/jep.30.1.161), Winter 2016, pp. 161-184 at: <https://www.aeaweb.org/articles.php?doi=10.1257/jep.30.1.161>

³ This is a possible but not inevitable outcome. Botswana is rich in diamonds but had an honest president who deployed the revenues into development and created decades of rapid growth. Norway, which had developed strong institutions before its oil boom, is another positive example.

Kachin in a National Perspective

Kachin has just over 3% of Myanmar's population but a much larger share of its natural resource wealth. Right now, most of that wealth is going to private and foreign interests and under existing hydroelectric contracts, the same would happen if large dams were built. This deprives both Kachin state and the nation of resources they need and should have. If Myanmar is to remain united, grow stronger and richer, and attract the states so they wish to belong in the Union, it will be necessary to capture a fair share of this wealth and use it for nation-building purposes, especially in Kachin state.

Over time, there has to be a transfer of control from military to civilian authorities if Myanmar is to follow a path more like Indonesia and less like Pakistan.⁴ But this transition will take time and the ability of the military to enforce law and order will be critical. As in Indonesia, some part of this transition involves the military removing themselves from extraction of mineral revenues and running businesses, while at the same time ensuring higher official revenues for the Ministry of Finance **and** more formal budget for the military to replace some of the lost funds. If this is accompanied by a real peace, the size of the military could shrink from the current level of an active military force of 8 per 1000 population to 4-5 per 1000 which is more typical of ASEAN.⁵ However, even if the military did eventually shrink, its budget would still have to rise since many military costs are now off-budget.

If it is true that reaching national unity and development requires capturing a large share of the massive jade revenues, then there will have to be a three way agreement between the new government/NLD (central and state), the military and the Kachin Independence Army. The Myanmar army will have to agree to enforce existing taxation laws and turn the money over to the Ministries of Finance and Mining. In return, the military would get a larger official budget – a kind of grand bargain. In addition, a share of the taxes would go straight to the Kachin state government who would work out with the KIA various ways to support “retiring” militia as police or other workers while also spending more on education, health (including drug treatment), roads and power. The powerful Wa and Chinese mine owners would be allowed to keep their permits until they expired but be required to pay legal taxes. It will have to be negotiated how much of the jade revenues would go directly to the Kachin state, but it would obviously be much higher than their share of population.⁶

Conversations with jade producers suggest that some are already paying half of gross revenues to various parties, most of them unofficial. If this is so, it suggests that targeting half of all revenues from

⁴ Indonesia's military got out of running the country and economy and created space for a decentralized and democratic system that strengthens the nation. Pakistan's military remains a power in politics and controls civilian governments while taking resources needed for development. The result is violence and poverty.

⁵ Data are taken from the International Institute for Strategic Studies, [The Military Balance 2014](#). While Thailand, Indonesia and Vietnam have active military in the 4-5 per 1000 range, the Philippines is only 1.3 per 1000.

⁶ While Aceh province in Indonesia negotiated 70% of net natural gas revenues, the ratio of cost to sales for gas is quite high while for jade it is quite low - in other words, most untaxed jade sales are profit. The ratio of tax revenue to sales for gas is quite low – payments to Aceh were about \$80 million a year in 2010-11 when provincial oil/gas GDP was \$1.5 billion in 2010 and 2011, a tax (for Aceh) to sales ratio of only 5%. A ratio of 10% of total tax revenues or 5% of sales might be used for Kachin state, though that amount needs to be negotiated.

jade sales is a realistic goal. Transferring the payments from informal to formal and legal parties will be difficult, but should be within the ability of a combined agreement of the military, KIA and government. The KIA would want a reduction in the number of battalions in return for disarming and also some direct or indirect revenue sharing from jade. Conflict has created costs which need to be paid.

The other major resource from Kachin state is hydropower. The tens of thousands of megawatts of proposed projects were drawn up by foreign investors with little real comprehension of the local impacts in agreements with the Nay Pyi Taw government prior to 2010. The combination of excluding local groups from any influence on the design or benefits from hydroelectric development in combination with the army mixing anti-KIA operations with securing dam areas for investment has led to an extremely negative attitude towards any large-scale hydroelectric development by many in Kachin state. The methods of compensation to those displaced have also been poorly thought out and executed, and are inadequate. The army and new government will have to decide how to proceed, and both face pressure from China to adhere to the unbalanced contracts made in the prior decade.

The analysis concerning large hydro development coming from the Kennedy School has two main points. The first point is that hydroelectricity is a vital resource needed for local development and if proper conditions are negotiated (and they are not currently appropriate), then foreign investors could be involved. The finance could come from private investors or aid; smaller projects may well be local. The second point is that any decision on large hydropower should not be a central decision alone but should also have the input and support of the newly elected state governments. The state government would, presumably, want better compensation for those displaced, real environmental impact studies and offsets, as well as some income from the investment. The local government may ask for a smaller dam or reservoir for a given site so there is less displacement or environmental impact. Some activists argue that the township should also have a veto, but this raises the possibility of pure obstruction – holding the decision up just to get large payments. A fair, honest and open process will not satisfy everyone, but could ensure that the balance of benefits and costs favor Kachin state and its citizens. If Kachin state made out well, it is likely that Myanmar as a whole would too, since it will use much of the power generated and also get a share of revenues. A thorough environmental analysis would ensure that downstream impacts outside of Kachin state were properly studied and offset as possible.

A starting point for improving the decision-making process on hydroelectric projects has come from the Norwegian embassy. They suggest setting up a commission of experts, mainly from Myanmar, who would represent the various interests and also have knowledge of the specifics of the technical, development and local issues. This group would review project proposals, including those with already signed contracts, and make recommendations. It would act as an expert resource group for both central and state level decision-makers and reflect the concerns of local people without the need to inflame or over-dramatize the issues. It could help develop a menu of options for any one site and offer more nuanced alternatives than “yes” to a giant dam or nothing at all.

In discussing hydroelectricity, it is important to emphasize how long these projects take. It will be well into the 2020's before significant electricity flows from large projects in Kachin state, even if all regulatory hurdles were resolved in the near future. This is not a suggestion to speed up necessary steps – only that hydroelectricity is not a short-term fix for energy problems. There were recently, in fact, thousands of megawatts of surplus hydroelectricity available in Yunnan and the fastest way to provide power in the northern part of Myanmar would be to build transmission lines from Yunnan to Mandalay. Vietnam imports electricity from China at about six cents per kilowatt-hour and it is likely that Myanmar could negotiate similar contracts though China may hold them up until past dam contracts are resolved. Transmission lines can be built in a year or two over the distances involved, if there is no conflict. Militia who are laying down arms might be trained to work in construction.

Issues Specific to Kachin State

Kachin state has had the dubious distinction of combining civil war, almost uncontrolled jade extraction and a considerable amount of drug use. The KIA, to its credit, is reputed to have and actually employ an anti-drug policy – one reason they might be good for police recruits. However, reports from Hpakan refer to widespread drug use, perhaps over 50% among young workers, and primarily among laborers. Even if a political settlement is reached among the military, KIA and government, there will still be massive challenges to development. The experience of post-conflict Aceh province in Indonesia, which found that even substantial state spending had a limited impact on poverty reduction and growth⁷, is a warning of the challenges facing the new state government. Natural resource revenues alone do not create fast growth or poverty reduction.

What then is a reasonable development program in a remote and sparsely populated state with diverse ethnic groups and serious drug problems?⁸ Though it may seem to be a narrow part of health, spending on effective anti-drug addiction policies is actually a development priority. If crime, gang violence and destruction of the labor force continue, investment will be subdued. Reducing drug use and trade will weaken criminal elements and create a much better investment climate, and so foster development. There are currently very few effective programs to help addicts escape addiction.

Kachin state is remote and not a natural focus of industrial investment, of course excluding mineral extraction and perhaps mineral processing. Agriculture can certainly provide a living for farmers but at a relatively low level unless technology, farmer support, infrastructure and marketing improve. Tourism

⁷ Development budget spending in Aceh rose from 3320 billion rupiah (\$340 million) in 2005 to seven times as much each year in 2006-2009 – all in a province of just 4 million people. Yet with spending of more than \$500 per capita, high poverty rates of 20% in 2010-11 (the national rate was 12.5%) were higher than those of 1996. See “Provincial Poverty Rates in Indonesia, 2006-2011” a USAID funded study by DAI/Nathan Associates. Real non-oil/gas GDP per available worker rose less than 2% a year from 2002 to 2011 and it actually fell by a third if oil and gas are added to GDP. This is modest given the gains from peace and the amount of government spending, even allowing for the tsunami's impact. However, UN estimates of poverty show a decline from 2006. Overall, growth was slower than the national average and poverty rates remained above the national average.

⁸ There are not official data on drug use but based on interviews, both heroin and amphetamine use appear to be widespread among the young (15-30 years in age) population. Developing effective prevention and treatment programs will be needed to improve human and economic development. Similar problems exist in other states.

might provide some additional potential, but will not be a major part of the economy unless Chinese tourism develops. Appropriate levels of properly regulated mining and hydroelectric development could provide an important lift to the economy, though hydroelectric investment often involves the importation of workers rather than jobs for the local labor force. This is partly a skill and communication issue, but it is also sometimes a priority for China to reduce its own unemployment as its infrastructure investment stabilizes and declines from unsustainable levels. Given the small size of the relevant Kachin labor force, it should be possible to negotiate some fraction of the labor used to be trained from local sources. Training ex-militia in construction could be a priority for peace making. Taiwan trained ex-soldiers in construction in the 1950's and this contributed to its excellent infrastructure.

If hydroelectric project issues of local approval, environment and benefit sharing can be worked out, the construction of dams and export of electricity either south to Myanmar or north to China (or east to Thailand), could provide one source of growth and income for Kachin state. So long as Myanmar has "first call" on the power, it does not matter much if the power goes north or south so long as Kachin state benefits equally from its sale. Using hydro to provide jobs, tax revenue, and local electricity is one leg of several needed to get Kachin state development started and accelerating.

There has been acceleration in jade production in 2015 compared to 2014, at least in the currently available production data for January through September. In those nine months in 2014, there were 9.2 thousand metric tons of production officially reported. In the same period in 2015 there were more than 24 thousand tons reported – **more than 2.5 times the 2014 rate.**⁹ Global Witness estimated a range of jade production values in 2014 of up to \$31 billion.¹⁰ That estimate may be on the high side, but even if it was at least \$15-\$20 billion, which is likely, such a huge jump of production would suggest a truly astounding level of extraction in one year – equal to two-thirds of official GDP! This headlong "gold rush" is leaving huge piles of discarded spoil which has already killed hundreds of people and created immense local environmental problems. In addition, a huge amount of wealth has been removed with little to show for it. While more research is needed, the government's 2014 tax and royalty revenues were less than \$500 million and the KIA extracted more, but probably no more than one billion dollars. Together, these were no more than a tenth of jade value in 2014 and likely less.

Any rational jade policy would first of all gain control of the now largely lawless extraction process – a difficult step which may require shutting down the entire industry for a period of time. Powerful interests are involved in mining jade and the full support and cooperation of the Myanmar army, government and KIA would be needed to change things to a more legal path. But getting such a coalition would require prior agreement on where the new "official" revenue would go and how it would be spent. This would require the army to decide it would take an Indonesian path, away from dominating

⁹ These are official jade production data from the Central Statistical website and their Selected Monthly Economic Indicator volumes. Tables 1.6 and 2.5 are used. Actual jade production may be higher. Reported production of rubies and sapphires in the same period fell by more than 20% in 2015 compared to 2014.

¹⁰ Official 2014 jade production was 12,745 metric tons and official jade exports were \$999 million. The Global Witness summary of their report can be found at: <https://www.globalwitness.org/jade-story/>

the country and instead focusing on security and reducing the size of the military as peace took hold. It would require the KIA to agree to disarm and accept compensation in terms of jobs for those who no longer fight – along with substantial revenues for all of Kachin state. The NLD would have to figure out how much it could give to the military, KIA and Kachin state (the latter two could partly overlap) and still have resources to expend on other areas and priorities. Two slides in the appendix show our best estimates of how jade revenues were divided in early 2016 and how they might be used more productively and legally in the future. It is uncertain how the future division would work, as this must be negotiated by the groups involved. The Appendix suggests a range of 5% to 20% of total taxes and royalties as being a plausible range for Kachin state's share¹¹. If jade exports were \$8 billion and taxes and royalties were \$4 billion in the future, this would amount to \$200 million up to \$800 million a year for Kachin state. The latter figure would be similar on a per capita basis as Aceh.

Other groups, such as retired military interests, Wa and Chinese mine owners and Myanmar capitalists would be able to continue mining under the law, if they paid all taxes and followed local environmental regulations. A fairly elected government might be able to enforce these laws if both army and KIA elements supported them. Religious and NGO groups could also safely and effectively be more active and help to identify law breakers.

Jade is not, of course, the only mineral worth mining.¹² Amber, gold, precious stones and other minerals also are worth exploiting and similar comments about the need to properly regulate and tax these resources also apply, though with much lower valuations than jade. Taking these minerals together, the mining sector will be a major source of activity for Kachin state in the future. Some processing may also be possible, especially if electricity is cheap and available. Mining can be carried out with various combinations of labor and capital – a great deal depends on who owns the mineral right and how much access to capital they have. Some argue for reserving defined mineral deposits for local people, but such policies are easily evaded and often end up being corrupt.¹³ Extending credit to local groups that wish to set up mining companies or training local workers in the use of heavy machinery may be alternatives. Of course, proper collection of royalties and taxes would also provide resources for other activities that could employ local people.

Agriculture

By area, the main crop in Kachin state is rice paddy – about 660,000 acres in 2010/11, up from 431,000 acres in 2005. Other crops with about a tenth as much area each are peanuts, fruits, vegetables and rubber. There are many other crops with much smaller areas planted. Some of these are grown on land not used for rice and some on rice land when monsoon rice crops are not being grown. There might

¹¹ An earlier paper used a 5% share for Kachin, not as a recommendation but as an estimate of likely share; this supersedes that figure.

¹² <http://www.mindat.org/locdetailed-26584.html> lists over five dozen minerals found in Kachin state, many of them worth exploiting.

¹³ A possible exception is to use mineral deposits to expedite the demobilization of militia.

altogether and generously be 900 thousand acres that are cultivated by smallholders. In addition, at least 918,000 acres have been allocated to large scale commercial farming enterprises – and it is not clear to what extent these two areas overlap.¹⁴ If the allocated large scale farm area overlaps with the smallholder areas, that itself is a major policy problem for the next government. Since only 12% of the allocated commercial land has been planted, it appears that most of the allocations were used for harvesting wood rather than actual agricultural development.¹⁵

According to the 2014 Population Census, there were just over one million rural inhabitants in Kachin state or about 200,000 farm households, giving an average farm size of four to five acres, although a median farm size is closer to three acres. Population growth in Kachin state has been above the national average due both to migration into the state and a higher than average birth rate.¹⁶ This will mean increasing pressure on the land unless the urban population, currently 35% of the total, absorbs most of the growth. On the other hand, population densities remain very low as would be expected in a mountainous area with limited land for productive cultivation.

A farm extension evaluation in Kachin state in 2003 found that paddy yields could be doubled from 40 to 80 baskets an acre at low cost, so net income could be 40 baskets an acre.¹⁷ A basket of paddy will now sell for about \$3, so with a median farm holding, annual family income from paddy would be \$360 *if all advanced techniques and inputs were used*. Again, a median farm size is smaller than average and there may have been yield improvements in the last decade and other crops can be grown beyond monsoon paddy. There are also (diminishing) opportunities to gather fish or forest products and to work for wages when farm labor demands are less pressing. However, even allowing for all of these possibilities, the incomes of farm families will be modest, even if above a poverty level. The Kachin state poverty level in 2009/10 was estimated at 28.6% based on a survey in that year. Since then, increased conflict may have offset the impact of national economic growth. On the other hand, increased jade mining may have created more wage opportunities, though at an unsustainable pace. When wages are 4000 to 6000 kyat a day (\$3-5) a day¹⁸, it will be hard to improve farm incomes to more than the wage level. If a man and woman both worked they could earn about \$175 a month, whereas the median farm paddy income is only \$30 a month with improved techniques. Even if that income were doubled from other crops, it would still be well below the income from nonfarm wages.

This discussion is not arguing that agriculture is unimportant or should be of low priority – to the contrary. In any case, many families feel an attachment to their land and view it as an emotional link to their culture and ancestors as well as security for their children. There is no doubt that improved seeds and techniques, the extension of knowledge and credit, better roads and marketing and access to

¹⁴ [Myanmar Agriculture in Brief 2013](#), p. 36 and [Statistical Yearbook 2011](#), Table 5.12

¹⁵ <http://www.ecosystemmarketplace.com/articles/myanmar-kills-forests-to-plant-farms-then-forgets-to-farm/> This 2015 source reports 1.4 million acres allocated for commercial farming rather than 918,000 reported in 2013.

¹⁶ The 2014 Census shows an 87% rise in Kachin state population since 1983 compared to a 46% rise in national population.

¹⁷ <http://sri.ciifad.cornell.edu/countries/myanmar/myanMDFrptFFS03.pdf> , pp. 15-16

¹⁸ These data are based on a private communication to Kachin residents and reflect, on the low end, wages for women and on the high end, difficult work in the jade mines.

mechanization and electricity would help to raise farm output and incomes. These options need to be explored, defined and implemented. However, if farm sizes remain below five acres for most households, the income from farm operations alone will not surpass incomes from nonfarm activity. Young people, especially if educated, are likely to migrate to cities within Kachin state or to other cities in Myanmar or even to other countries, depending on the opportunities they see. On the other hand, the conflict in Kachin state has reduced educational opportunities and this has led to (at least) a 20 percentage point decline in enrollment rates.¹⁹ Therefore, agriculture may be a necessary way station for those whose skill acquisition has been disrupted by the ongoing conflict. It could provide a basic living to many who lack nonfarm skills – although many jobs in mining, construction or services can be learned with on-the-job training. Perhaps, as in some other countries, there will be a mix of farm and nonfarm activities that help to reduce risk and provide an adequate income from varied sources.

In summary, most people (65%) in Kachin state live in rural areas and most of these rely directly or indirectly on agriculture. Land policy of the previous government emphasized large grants or cheap sale of land for large, commercial farms, but in practice this has meant more deforestation than farm development. The deforestation is bound to cause environmental problems which will hamper smallholder agricultural progress, even if land tenure is made more secure. The presence of well-paid work in jade mines and other nonfarm jobs makes agriculture at current and likely productivity levels less attractive, but still essential. In spite of continuing population inflows mainly to nonfarm work, not all Kachin can or want to work outside of agriculture. There are opportunities to improve farming methods, outputs and incomes at a reasonable cost and these need to be implemented.

Convergence of NLD and Kachin Administrations

The NLD state government will have to work with the KIO to allow for voluntary and step-by-step convergence of different systems of local governance. Issues such as what languages will be taught in schools, which teachers will be used, how police will be organized, etc. will be financed in large part through mineral revenues going straight to the Kachin state. In some cases, the NLD state administration may wish to transfer some revenues directly to townships controlled by the KIO. This would minimize frictions and allow a period of building trust. As the ethnic Kachin are a minority in Kachin state, many do not fully trust the newly elected state government to represent them. Yet if a fairly elected government is not legitimate, who is? This is something to solve in practice more than in theory. If existing services provided by the KIO are built upon and expanded, trust building should be easier.

The issue of convergence is not only a problem in Kachin state, but also in other ethnic areas. If the proposed capture and redistribution of jade revenues were followed, there would be \$3.2 to \$3.8 billion for the central government. Some fraction of that would be used to increase the official military budget and the balance would go to civilian uses. How the civilian portion is spent will depend on government priorities, but many countries decide to share revenues according to some formula. In Myanmar, two

¹⁹http://www.epdc.org/sites/default/files/documents/How_do_violent_conflicts_affect_school_enrolment_Analysis_of_sub-national_evidence_from_19_countries.pdf, p.9

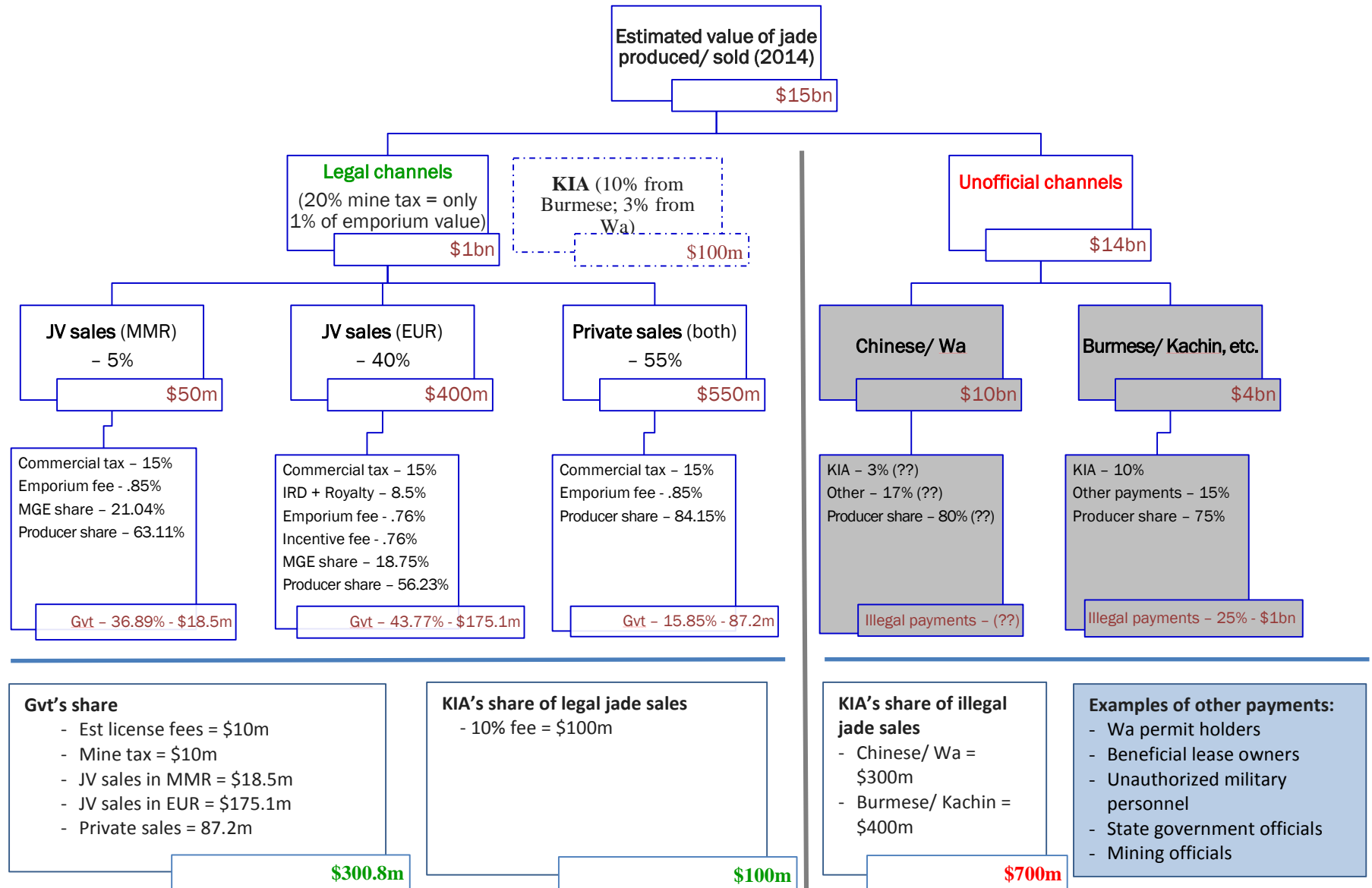
possible methods are to distribute revenues on a per capita basis or on the basis of area – so much per square mile or kilometer. The per capita basis would favor densely populated areas (mainly ethnically Burman but not entirely) while an area distribution would mainly favor ethnic areas. There are good reasons for each method – people generate costs for health or education, for example. But building roads and extending electricity is more sensitive to area. By mixing the two methods, both densely and lightly settled areas could be helped in appropriate ways. Agreeing on a few formulas might also be easier for the new Parliament compared to negotiating amounts for each state and region or trying to specify in detail how each state or region should spend all of its money.

Summary

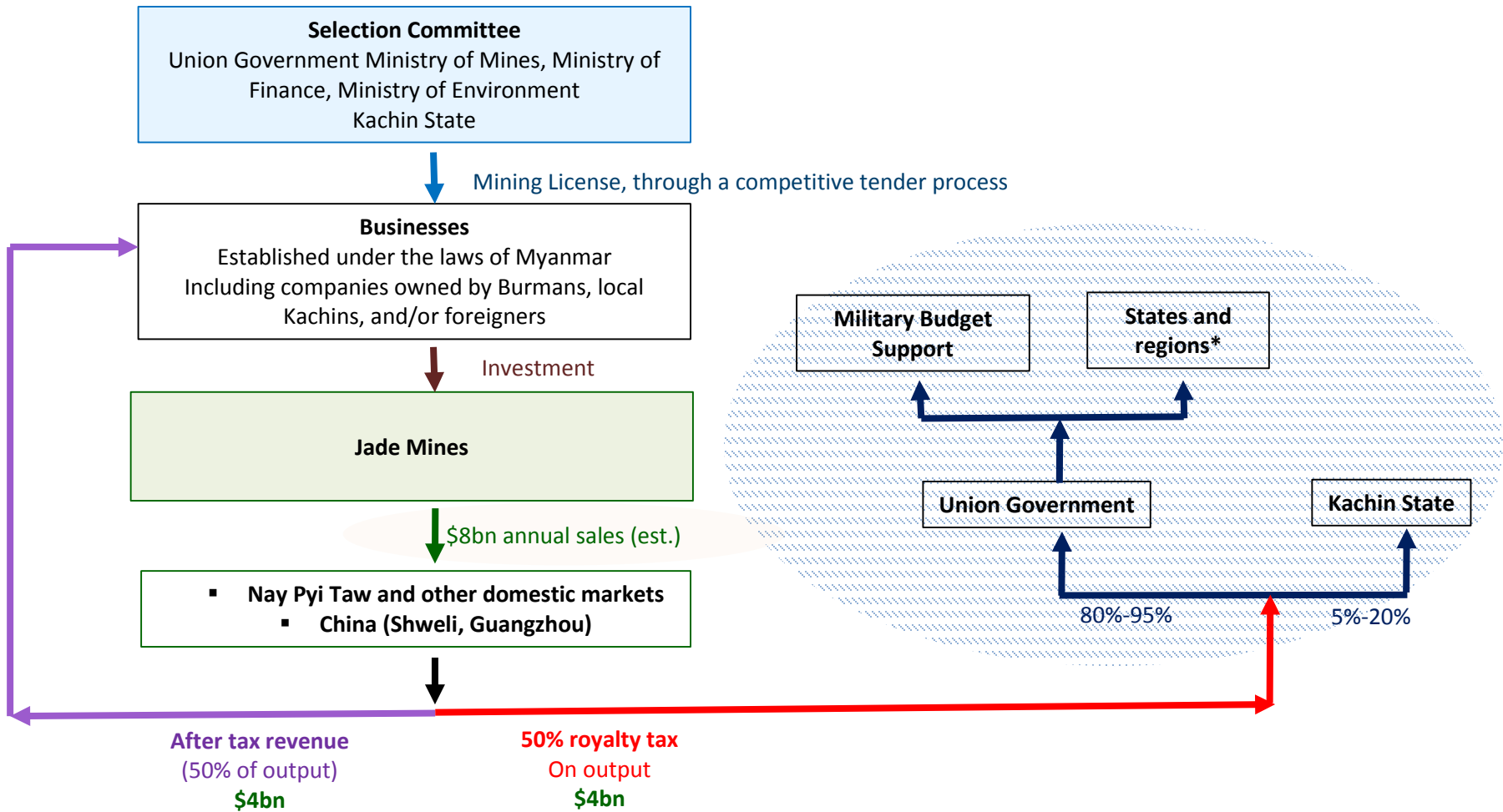
If peace finally comes to Kachin state, the process of peace making will depend on the ability of all three important players to cooperate and redirect jade revenues to useful activities, including paying off the army and KIA through official budgets for foregone revenues. In addition, hydroelectric development needs to pass through local as well as central review and respond to concerns about the size, type and local benefits of any such development. If these two hurdles are jumped, the next major challenge will be “convergence” – the combining of ethnic and NLD state administrations into one unified system. This will take time and patience. Finally, revenues have to be directed to rebuilding and extension of roads, power, schools, clinics and then agriculture. All of this is daunting but possible.

Appendix: Jade Revenue Flows in 2016 and option for going forward


Possible Structure of Jade Business in 2016 (Provisional)



Provisional Future Structure of Jade Revenues (Subject to Negotiation)



*Revenue sharing among 7 states & 7 regions

 Revenue allocation subject to negotiation