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**PLANNING FOR THE END OF THE CONSTRUCTION BOOM AND TRANSITION TO A
NORMAL ECONOMY IN ACEH AND NIAS**

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ABSTRACT

There is a very real danger that the transition from the Construction Boom in 2009 to a rapidly growing sustainable normal economy in Aceh will not happen unless both preventive and effective constructive measures are implemented during the coming two years. Instead what could easily happen is a collapse into a deep recession caused by the economy of Aceh being uncompetitive relative to the rest of Indonesia because of its high costs and because in anticipation of this high cost economy situation insufficient investments were made by the private sector in 2006 and the coming two years.

In order to successfully make this transition to a rapidly growing normal economy, the following conditions must be fulfilled:

1) The provincial minimum wage rate (PMWR) in Aceh must not be further increased in 2008 and 2009 because this will prevent the highly inflated wage rates caused by the construction boom from falling back to normal levels with the end of the construction boom in 2009. If these highly inflated wage rates do not fall back to levels comparable with other parts of Indonesia at the end of the boom, they will be a major factor causing Aceh to be a high cost economy relative to the rest of Indonesia. Unfortunately if the private sector investors now anticipate that Aceh will be a high cost economy in 2009 and beyond, they will hold back their investment in 2007 and 2008, greatly hindering the transition in 2009 to this normal economy. Therefore it is very important that the Government of Aceh announce that effective measures will be undertaken to ensure Aceh will be competitive with the rest of Indonesia in 2009, including an announcement that the provincial minimum wage rate will not be further increased in 2008 and 2009, recognizing that it was

excessively increased in 2006. It is important that a list of threats to a smooth transition to a rapidly growing normal economy in 2009 be announced, together with statements of the measures planned to be undertaken to neutralize these threats, including threats to small producers such as farmers, fishers, and cottage industries as well as potential large investors.

2) The aid funds must be used effectively and efficiently in facilitating the transition to a rapidly growing normal economy in 2009 especially through the rehabilitation of different kinds of infrastructure as well as through the facilitation of small and large private sector investment. Many non-physical factors adversely affecting the economic climate must also be improved such as an underdeveloped financial system, weak local government planning and budgeting, poor quality delivery of government services, excessive legal charges and illegal levies, corruption, nepotism and poor management of local government human resources, and excessive red tape and regulation. This is important in terms of stimulating the large amounts of private investment that are needed now, including the investments by the hundreds of thousands of farmers, fishers, and other micro-producers.

With the end of the construction boom the inflow of large amounts of aid the money supply in Aceh will sharply decline tending to push the economy into recession. In order to offset this, a rapid growth in exports and in production of import substitutes is needed especially in 2009 and subsequently in order to lessen the decrease in the money supply and to productively employ the tens of thousands of workers who will be laid off by the construction industry and other activities closely tied to the construction boom. It is especially important that tens of thousands of hectares of "sleeping" and underutilized agricultural lands in villages be rehabilitated and planted, especially to tree crops for which the soil and climatic conditions are commonly suitable. There is also a considerable potential for the downstream processing of agricultural products. It is important that the planning, budgeting and other capacities of selected kabupaten and kota (municipality) administrations be greatly increased as soon as possible in order to facilitate the effective use of reconstruction and other aid funds. This may require the fixed term employment of highly qualified professionals to assist these local governments during the coming two years when the reconstruction and development funds are much larger than normal. They can also be important in mentoring and training younger local government public servants.

3) Because in 2006 the PMWR increased a much higher percentage than the consumer price index in Lhokseumawe (and very likely most of Southern Aceh) the competitiveness of Southern Aceh was unnecessarily adversely affected. Because the tsunami related aid flows are very small into this region (except for Aceh Singkil) this region even during the construction boom in the Tsunami struck areas must continue to effectively compete with the rest of Indonesia. The

minimum wage rate (or rates if different minimum wage rates were set for different kabupaten) in this region should be adjusted downward to bring it into accordance with its lower rate of inflation. This would help the region to remain competitive with the neighbouring province of North Sumatra and other parts of Indonesia. If different kabupaten rates were set, the Badan Pusat Statistik would need to collect additional information about rates of inflation in the different kabupatens of Southern Aceh. Changes in the competitiveness of the sub-regions of Aceh relative to the rest of Indonesia also need to be continuously studied and monitored, leading to region specific recommendations to improve their competitiveness.

4) There must not be excessive movement of farmers and fishers into the construction industry, especially if there are indications that after the construction boom is over they will resist returning to farming and fishing. Such resistance would result in increased unemployment and possibly social unrest. An appropriate balance must be achieved between the migration of labour into Aceh and Nias in response to the strong demand from the construction boom, and utilizing local labour. The highest priority should be given to employing local persons who are presently unemployed or underemployed, in contrast to employing presently productively employed persons such as many of the farmers and fishers.

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PLANNING FOR THE END OF THE CONSTRUCTION BOOM AND TRANSITION TO A NORMAL ECONOMY IN ACEH AND NIAS

INTRODUCTION

Every regional economy must either earn, have invested or donated the funds it needs to import its goods and services from other regions¹. At the present time in most of the coastal northern half of Aceh (Region A in this paper), especially Banda Aceh, there continues to be a large inflow of aid funds that is financing the importation of large quantities of goods and services. The northern interior areas and southern areas of Aceh (Region B in this paper)² are experiencing very little inflow of aid funds. For Region B the economy remains normal in the sense that only a small proportion of its imports are funded through external aid.

In Region A as long as the large inflow of aid continues, the large imports funded by this aid will be able to continue. This aid inflow both finances directly and indirectly the inflow of goods and services. Indirectly it funds the inflow with foreign currencies being converted to rupiahs and rupiah aid from within Indonesia that are paid to people living in Aceh. These persons then have the rupiah to purchase goods and services that are sourced from other parts of Indonesia and purchase foreign exchange to finance imports from abroad.

In regional economies usually the leading sectors produce tradable goods and services.³ Most goods are tradables and most services are non-tradables, although some goods can be non-tradables and some services tradables. Some examples are sand and gravel and bricks are usually non-tradable goods and computer programming and some financial services are tradable services.

It is projected that aid inflows will decrease in 2008 and 2009 with the aid and construction boom coming to an end sometime in 2009. Because of this the incomes of many persons in Aceh directly employed by donors and businesses supplying donors will decrease and they will have to find alternative sources of income. This first round effect will ripple through the economy having a multiplier effect on decreasing the income of others in the economy.

In order to lessen this recessionary impact, policies are needed to create offsetting expansionary effects. The main expansionary effect hoped for is the rapid growth of production of tradables because through the growth of exportables more rupiahs will be earned by Aceh residents, and through the growth in production in Aceh of importables less rupiahs will leave Aceh to fund the importation of these goods and services. In addition some imports will be funded by external investment, either through the direct financing of these imports or the payment of rupiah to Aceh

residents for non-tradables, funds which the residents can then use to purchase tradables. For example, when an outside investor builds a factory s/he usually purchases various non-tradable goods and services, especially bricks and labour services.

The key to avoiding a recession at the end of the boom is to facilitate sufficiently increases in the production of tradable goods and services and investment from outside. The construction boom has created both positive and negative factors affecting the production of tradables and investment from outside. **Our challenge during the next two years is to lessen the factors impeding the supply of tradables and outside investment and bolster the factors facilitating them.** In Aceh the main legal tradable goods are liquefied natural gas, fertilizer, cement, agricultural products such as palm oil, rubber, coffee, and chocolate, and selected marine products including shrimp. Growth in the production of the first three products is not expected in the foreseeable future except for the rehabilitation of the tsunami destroyed Andalas cement factory. In the past substantial quantities of wood have been illegally exported but these exports now are not significant.

The factors that can make the Aceh economy not competitive with the rest of Indonesia at the end of the construction boom are of two types: 1) Those negative factors directly caused by the construction boom, and 2) other negative factors. Working to offset these are the foreign donor, NGO and Government rehabilitation and construction programs that will increase competitiveness and result in large increases in the production of tradable and non-tradables.

We now discuss the factors caused by the boom that can adversely affect the economy of Aceh's future competitiveness, and factors that can cause Aceh's economy to become more competitive in 2009 at the end of the construction boom period. We need to strongly stimulate the latter factors and inhibit the first factors in order to effectuate a smooth transition from the construction boom economy to a rapidly growing sustainable normal economy.

FACTORS CAUSED BY THE BOOM ADVERSELY AFFECTING ACEH'S FUTURE ECONOMIC COMPETITIVENESS

The big dangers

1) Perhaps **the greatest danger** to a smooth transition from the construction boom to a normal rapidly growing economy is **the high rate of inflation in Region A** and the verification and **spreading of this inflation to Region B through large increases in the provincial minimum wage rate.**

During 2005 the inflation rate in Banda Aceh at 41.11 % was much higher than Indonesia as a whole (17.1%) (Data from the Aceh office of the Central Statistical Agency). From this information it seems **Region A (approximately represented by Banda Aceh) has lost 24 percentage points of competitiveness relative to the rest of Indonesia**, a very serious problem in the longer term⁴. As long as huge aid funds continue to flow into Aceh this decreasing competitiveness will create few problems in Region A because this region does not have to earn through exports many of the rupiahs to finance its imports from other regions. However, **this situation will change dramatically with the end of the construction boom in 2009**. The inflation rate in Lhokseumawe in 2005 was only 17.57%, slightly higher than the national rate. If the inflation rate in other parts of region B were about the same as Lhokseumawe, it likely is maintaining its competitiveness relative to the rest of Indonesia. However, footnote 5 shows that its relative competitiveness decreased during the first quarter of 2006.

In January 2005 the CPI index of Banda Aceh was 124.93 (2002=100) whereas for Indonesia and Medan it was 118.53 and 121.44, an indication that the inflation rate in Banda Aceh from 2002 to January 2005 was only slightly higher than for Indonesia and Medan. However, by March 2006 the CPI index of Banda Aceh had increased to 166.76 whereas in Indonesia it had only increased to 139.57. Thus from January 2005 to March 2006 the CPI in Banda Aceh increased 16.6% relative to Indonesia. **A continuation of this trend will make it very difficult for the Aceh economy to return to a high growth path after the construction boom is over in 2009 because of a loss of competitiveness that will adversely affect the level of investment and competitiveness of Aceh's exports.**

Unfortunately the rate of inflation in Banda Aceh was 81% higher than the national rate from March to December 2006, indicating a further loss of Aceh's competitiveness although much less than the loss in 2005. In Banda Aceh the Consumer price index increased from 166.76 to 180.43 (an increase of 8.20%) while the national rate increased from 139.57 to 145.89 (an increase of 4.53%).⁵ The Consumer price indices in Lhokseumawe, Medan and Jakarta in December 2006 were 154.16, 151.47, and 142.66 respectively, indicating that Lhokseumawe and most likely most of southern Aceh was still competitive with the rest of Indonesia.⁶

A serious mistake was made in terms of combating inflation and maintaining Aceh's competitiveness early in 2006 when the minimum wage rate for all of Aceh was raised 32 %, very likely much higher than the rate of inflation in Southern Aceh (we only have inflation data for Lhokseumawe with a rate of inflation about half that of Banda Aceh). This increase was slightly less than the rate of increase in the consumer price index in 2005 in Banda Aceh but almost double the rate of inflation in Lhokseumawe. The 2006 Aceh Provincial Minimum Wage Rate

(PMWR) at Rp 820,000 per month is 11.1% higher than for North Sumatra (which increased from Rp 600,000 in 2005 to Rp 737,794 in 2006). In 2005 the Aceh PMWR was only 3.33% higher than North Sumatra, so Aceh has lost competitiveness relative to North Sumatra in terms of the minimum costs of labour. This has the greatest negative effects on the competitiveness of industries using much unskilled labour, in particular the estate crops and manufacturing sectors. The tragedy is that it is these tradable goods sectors that must remain competitive to facilitate high growth rates at the end of the boom.

For 2007 the Aceh PMWR was increased to Rp 850,000 per month (3.66%), the PMWR for North Sumatra was increased to Rp 761,000 (3.15%), while the Jakarta PMWR was increased to Rp 900,560, a 9.9% increase over 2006 (*Serambi Indonesia* December 5, 2006; *Jakarta Post* December 27, 2006; and *Kompas* November 23, 2006). Given the huge fall in competitiveness of Banda Aceh (and most likely Region A as a whole) relative to the rest of Indonesia in 2005 and the excessively large increase in the PMWR, it would have been best if the PMWR for Aceh was not increased at all in 2007, but rather that wage levels were allowed to find their own levels in accordance with the increased demand for labour. However, fortunately the Government increased it substantially less than the percentage increase of the CPI in Banda Aceh, which is a much better outcome than increasing it the same percentage as the inflation rate. The Aceh Government needs to adopt policies that prevent the potential huge losses of competitiveness in Aceh in 2009 when the construction boom ends. **In 2008 and 2009 it is important that the PMWR for Aceh not be further increased, so in 2009 when the construction boom ends there will not be a high wage rate floor preventing the expected falls in market determined wage rates driven by the expected large fall in the CPI for Banda Aceh.** Increasing the PMWR in 2008 and 2009 in the same percentages as increases in the CPI in Banda Aceh is certain to lead to tragedy in the form of a huge slump in the economy when the construction boom ends that will be caused by Aceh's high cost economy relative to the rest of Indonesia. The wage floor must not be increased further because it will prevent the expected natural fall in nominal wage rates with the end of the construction boom. With the expected decrease in CPI materializing, the fall in real wage rates will be less than the fall in nominal wage rates in 2009.

The excessively large increase in the minimum wage rate in Aceh in 2006 only re-enforces the strong inflationary pressures in Aceh that will make it more difficult for firms operating in Aceh to compete with firms operating in North Sumatra and other parts of Indonesia—especially those firms in Southern Aceh outside of the construction boom area that are more closely linked with the North Sumatra economy. How can we expect labour-intensive manufacturing firms in Langsa to compete with those in Medan under these circumstances? Why should outside companies invest

in tree crops plantations in Aceh when wage rates are lower in other parts of Sumatra, Kalimantan and West Papua?

A very great danger is the following: if investors think that in 2009 and beyond Aceh will be a high cost economy relative to the rest of Indonesia, they will hold back on their investment this year and next. This would result in the economy going into a slump in 2009. **In order to encourage investment now, it is very important that the Government of Aceh formulate and publicize the policies and other measures it is adopting in the near future in order to prevent Aceh from being a high cost economy in 2009.**

RECOMMENDED ACTIONS TO LOWER THE RATE OF INFLATION AND FACILITATE DOWNWARD MOVEMENTS IN PRICES AND WAGES WHEN NECESSARY TO BECOME COMPETITIVE WITH OTHER REGIONS

1) GENERAL INFLATION

A) Recommended action: allow sufficient quantities of tradables to flow into Aceh in order to lessen the inflation rate. Some analysts consider that using aid funds to purchase goods and services from outside of Aceh is undesirable. This is incorrect. In fact, the only way that aid actually flows into a region is through an increase in the inflow of goods and services.

B) Recommended action: Encourage the substitution of tradables for non-tradables if the prices of non-tradables rise excessively. The prices of bricks and wood greatly increased during 2005⁷. For example as the price of bricks rises we need to encourage the substitution of cement blocks and other materials for bricks in the construction of buildings. Because cement and many other materials are tradable goods, their price will rise little in the medium-term even with sharp increases in demand, even though there may be some short-term surges in prices.

C) Recommended action: In some cases facilitate increases in the supply of non-tradables, such as the inflow of some types of labour to provide services for which there is a big increase in demand but supply in Aceh can not be easily increased. The prime example of this is **skilled labour** in the construction industry such as carpenters, electricians, plumbers, etc. Because it takes months to transform unskilled labour into qualified tradesmen, the construction boom has resulted in shortages that can only be filled by the temporary in-migration of skilled labour. Such in-migration is necessary to prevent a blow-out in their wage rates and serious obstructions to the reconstruction programs.

In contrast to this, there likely is sufficient **unskilled labour** to meet the increased demands of the boom. As regards **semi-skilled labour** there will be shortages unless extensive training programs are undertaken to convert unskilled labour to semi-skilled labour, programs that are already underway. This situation was studied by Eko Kurniawan for the UNDP in early 2006 and by the International Labour Office in Banda Aceh.

In some cases, however, even though the supply of unskilled labour from Aceh is sufficient, it is better in terms of the welfare of society (in social terms) to bring in some unskilled labour from outside. The ideal situation is when the increase in demand for unskilled labour results in unemployed persons becoming employed in the construction industry. The reason for this is because their employment results in large gains due to their **opportunity cost** being very low⁸. Therefore there is a big difference between the wage rate they receive and their opportunity cost resulting in a large social benefit. In contrast the opportunity cost of productive farmers and fishers will be quite high, so the gain to society from them becoming construction workers will be lower. From the social viewpoint, there is also **a danger** that once they become accustomed to being construction workers, when the construction boom ends and demand for their services falls dramatically, many of them may refuse to return to fishing and farming, resulting in unemployment and serious social problems. This will be less likely to happen if their family stays on the farm or in the fishing village when they work in the construction industry. If they and their families leave their villages, the resistance to their returning to farming and fishing will likely be greater. **This situation needs to be monitored. If many farmers and fishers are leaving their villages with their families to become construction workers, it may be wise to encourage more temporary migration into Aceh.** Most migrants entering Aceh to work in the construction industry are unlikely to bring their families. Therefore they are likely to return to their regions of origin when the construction boom ends, and thus not cause social problems in Aceh and Nias.

Another way to avoid excessive numbers of persons leaving rural areas is for the **Government to put more resources into improving the livelihoods and living conditions of people in rural areas relative to urban areas.** This should have the effect of decreasing the amount of rural-urban migration.

We have seen above that the rate of inflation in Region A since the tsunami has been much higher than for the nation whereas the rate of inflation in Lhokseumawe (Region B) has been similar to the national rate. However, for 2006 the provincial minimum wage rate was increased a much higher percentage in Aceh than for other provinces in the nation based partially on the higher rate of inflation in Region A. As we have discussed above, this was a mistaken policy in terms of lowering the rate of inflation. This is because the large increase in the minimum wage rate will raise further

the costs of production and prices, and create further pressures to increase the minimum wage rate further in 2007—a **vicious cycle**. The consumer price index in Banda Aceh, Lhokseumawe, and Indonesia increased 9.54%, 11.47%, and 6.60 % respectively from January to December 2006 year on year (*Serambi Indonesia*, “Banda Aceh Inflasi 2,19 Persen,” 5 January 2007). This is an indication that the inflation disease has spread from Banda Aceh to Lhokseumawe (and perhaps Region B in general), partially caused by the excessively large increase in the PMWR in Aceh, and has resulted in significant further loss of competitiveness of Aceh relative to the rest of Indonesia. **Changes in the competitiveness of the sub-regions of Aceh relative to the rest of Indonesia need to be continuously studied and monitored, including analyses of the causes of the changes.**

There are **two problems** caused by this large increase in the minimum wage rate:

i) It increases the difficulty of Region B, which is hardly benefiting from the tsunami related construction boom, to compete with North Sumatra and other parts of Indonesia.⁹ In Region B the minimum wage rate increase was much greater than the increase in prices, creating unnecessarily this decrease in competitiveness, thus most likely creating significant problems for Region B. **Recommended action:** A survey needs to be conducted to see how serious this problem is and identify corrective actions required.

ii) When prices of non-tradables are freely determined by supply and demand they decrease as easily as they increase. For these types of non-tradables when the construction boom ends prices will fall sharply and eventually end up at the level of the average cost of supplying them. However, if the average cost of supplying them has gone up with the inflation, with the decrease in demand they will not fall down to their original levels. For example last year say the price of bricks was Rp 200, then it increased to Rp 500 because of excess demand. Later when demand falls at the end of the construction boom if there was no increase in the average cost of producing them, the price should eventually return to Rp 200 per brick. However, if the average cost of producing them has gone up because of labour and energy costs to Rp 300, the price will only fall back to Rp 300, not Rp 200 in the long run¹⁰.

A problem is that even without a minimum wage rate floor, wage rates increase more readily under conditions of excess demand for labour than they decrease under conditions of excess supply—a ratchet effect. Thus when demand falls creating excess supply we get some increased unemployment instead of decreased wage rates sufficient to clear the labour market. This problem is exacerbated by minimum wage rates set by the Government. If minimum wage rates are set higher and higher in 2007 and 2008 during the construction boom period, when the boom ends and demand for labour sharply falls, the wage rate will be prevented from decreasing in accordance

with market forces by the minimum wage floor and much unemployment will result¹¹. In addition the excessively high minimum wage rate will have adversely affected private investment in 2007 and 2008 making the transition from the construction boom to a normal rapidly growing economy more difficult. **In order to avoid this undesirable situation in 2009, the Government must prevent excessive increases in minimum wage rates in 2008, and 2009, and announce this policy now so that investment in 2007 and 2008 will not be adversely affected because private investors expect further increases in the PMWR.**

Aceh and Nias must avoid the unfavourable situation in Timor-Leste where the higher wages paid to unskilled workers by donor agencies inflated their reservation wage levels. The expatriate presence in Timor-Leste also resulted in general cost-push pressures. These factors increased local wage expectations with the result that urban wages in Timor-Leste became triple those of Indonesia for the same type of work, which weakened the competitiveness of Timorese industry (Kusago, p. 507, and Hill, p. 80). It also is the cause of much open unemployment there. In 2002 a recommendation made for Timor-Leste that was not followed was "Ensure wages in new programs do not exceed market clearing levels" ("The East Timor Reconstruction Program:...", p. 30).

Recommended Action: Take measures to prevent further excessive increases in the provincial minimum wage rate for Aceh in response to the temporary large price increases in Region A caused by the construction boom and annul partially the excessive PMWR increases in the past. **The best way to do this is to temporarily freeze further increases in the minimum wage during the construction boom period and lower the PMWR immediately in region B and next year in region A.** If this is not politically possible, set the maximum increase in the minimum wage rate of Aceh in 2008 equal to or less than the percentage increase in the consumer price index in the kabupaten/kota (KK) that had the lowest rate of inflation in 2007. At the present time the Central Statistical Agency calculates the consumer price index only for Banda Aceh and Lhokseumawe and the rate of inflation in Lhokseumawe was about half that of Banda Aceh in 2005 as shown above.

If the provincial minimum wage in 2006 had only been increased by the inflation rate in Lhokseumawe it would have been increased by 17.6% instead of 32%. This would not have prevented wage inflation in Region A caused by excess demand for labour in the construction industry, but likely would have made it less. It also would make it much easier in the future for non-sustainable high wage rates during the construction boom to fall down to normal competitive levels when the construction boom ends in approximately 2009. Unless labour productivity increases sufficiently more in Aceh than in the nation as a whole, which is very unlikely, Aceh has already lost much competitiveness relative to the rest of the nation.

Recommended Action: Two geographic points of information (Banda Aceh and Lhokseumawe) about the inflation rate in Aceh are too few. With only two points we are not able to know the inflation levels in some of the important regions of Aceh, in particular south-central, south-west and central west. **We recommend that serious consideration be given to collecting additional inflation data** in Kutacane, Tapak Tuan, Meulaboh and perhaps also Takengon, Singkil, Langsa, Bireuen, and Sinabang.

2) A SECOND DANGER

A second danger is **possible social unrest** during the construction boom or social unrest after the boom is over around 2009. If too many of the workers during the construction sector are brought in from outside with the result that especially qualified unemployed and underemployed persons in Aceh are unable to obtain sufficient jobs in the construction sector, this can lead to social unrest. In contrast, if too many farmers, fishers, and other presently productively employed persons leave their present occupations and villages (especially with their families) to join the construction industry, when the boom ends, as discussed above, they may not return to their former occupations and become openly unemployed instead. This would also cause social problems. An appropriate balance needs to be maintained between hiring local people and in-migrants in the different types of construction jobs. This author has prepared another paper discussing this problem and suggesting solutions (Rice, December 12, 2005).

3) A THIRD DANGER

The combination of the public servant deaths caused by the tsunami and the huge leap in the Central Government budget mainly because of increases for rehabilitation and construction, have greatly increased the shortage of qualified public servants relative to needs of provincial and KK government agencies. Shortages of qualified personnel in especially the public works, agricultural, fishery, cooperatives, health, education and planning and budgeting agencies may be the most critical.¹² Unless increased effective measures are undertaken to enhance the capacities and capabilities of these provincial and KK agencies especially during the boom period, the quality of the planning, budgeting, implementation, and monitoring functions of Government will be far from optimal and the benefits realized from the rehabilitation and reconstruction (RR) funds will be far from maximized. **A very high priority should be given to mentoring the new young government employees replacing the more senior ones lost in the tsunami, and temporarily bolstering the capacities of these Government agencies especially during the RR period until 2009.** This could be done by funding fixed term contracts with capable highly qualified retired public servants and other professionals from Aceh and other provinces to increase the capabilities

of key provincial and KK Government agencies from now until 2009. The USAID/Indonesia Local Governance Support Program is strengthening somewhat the capacities of five KK governments from Banda Aceh down the West Coast, but more needs to be done. In order for the BRR to effectively engage in community based planning and budgeting, it needs to work closely with district level governments, but for them to contribute effectively their capacities and incentives to contribute must be enhanced.

FACTORS FROM THE CONSTRUCTION BOOM AND REHABILITATION, RECONSTRUCTION AND DEVELOPMENT PROGRAMS THAT SHOULD CAUSE THE ECONOMIES OF ACEH AND NIAS TO BECOME MORE COMPETITIVE, AND WAYS OF ENHANCING THEM

As discussed above, in 2009 when the inflow of funds sharply decreases, the money supply in Aceh and Nias will sharply decrease unless there are offsetting increases in the production of tradable goods and services and private capital and aid inflows. This will result in sharp decreases in the demand for non-tradables which will free up resources, especially labour, that needs to be employed in the tradables sector in the production of exportables or importables. The resultant increase in the production of tradables and private capital and aid inflows will partially or totally offset the initial decreases in the money supply because of increased earnings of Rupiah from exports and Rupiah inflows and decreased expenditure of rupiahs on imports because of increases in the production of import substitutes. **The key to preventing a recession in 2009 is for there to be a surge in the production of tradables that both increases the money supply in Aceh as well as employs the labour and other resources freed up by the decrease in demand and production of non-tradables, including the construction sector.** It is impossible to avoid entirely this recession problem, but efforts must be made to lessen it.

The ideal would be to be making investments in 2006-2008 that will result in large increases in production and employment generation in 2009. The most important possibilities are the planting of tree crops starting in 2006 such as oil palm, coconut, rubber, coffee, chocolate, nutmeg, cloves, areca nuts (pinang), etc that will result in large increases in production and demand for labour a few years later. Closely related to this is the need for the processing of these agricultural products into higher valued manufactures such as frying oil, soap, margarine, virgin coconut oil, rubber gloves and condoms, tires, packed organic coffee, chocolate drink power, etc.¹³

Another important possibility is the rehabilitation and construction of irrigation systems starting in 2006 and 2007 together with the construction and rehabilitation of rice paddies that will be completed around late 2008 and 2009. **In planning and adjusting the BRR budget for 2007 and 2008 the effects on the production of tradables and employment generation in 2009 and**

thereafter need to be taken into consideration. However, the potential for the productive absorption of persons from the non-tradables sector (such as construction and aid-related services) in 2009 into agriculture may be limited by the willingness of persons from towns and cities to become farmers, although agricultural processing industries in towns and cities may be attractive to them.

We have already seen that Aceh has become a high wage rate economy. This would not be such a disadvantage if labour and total factor productivity¹⁴ were increased relative to other provinces because of an enhanced business climate such as through more reliable supplies of electricity, improved technologies, improved and expanded transportation networks, higher levels of efficiency, and more highly trained employees compared with other provinces in Indonesia. It is hoped that the rehabilitation and reconstruction (RR) program in Aceh and Nias will substantially increase labour and total factor productivity and therefore partially or wholly offset Aceh's labour cost disadvantage. **However, it will be difficult to meet this challenge. The approach must be three pronged,** 1) do not freeze increases in wage rates during the boom (by raising minimum wage rates) that must fall after the boom is over to avoid recession and increased unemployment, 2) make Aceh's business and investment climate one of the best in Indonesia, and 3) help Aceh's managers and employees to become as highly skilled and competent as is feasible.

To facilitate the rehabilitation and growth of agriculture in Aceh and Nias, not only are agricultural and irrigation programs needed, but also programs in other sectors. Of special importance **is roads and bridges development.** If the roads and bridges from the farm lands to the villages to the kecamatan (sub district) distribution centres to the district centres to export markets both overseas and to North Sumatra are all in good condition, it will greatly facilitate the development of agricultural investment and production. **A high priority** needs to be put on rehabilitating and improving roads and bridges serving the agricultural sector, starting with the ones for which the benefit-cost ratios are the highest. Improving transportation facilities in 2007 and 2008 can result in increased tradables production in 2009 and beyond that can both earn rupiahs as well as employ labour productively. The coordination in planning, budgeting, and implementation of transportation and agricultural programs between different players can still be substantially improved.

The 2006 and 2007 Moratorium Fund budgets managed by the BRR reveal an assortment of opportunities for investment in the processing of agricultural commodities. **Recommendation:** It is very important that these investment prospects be brought to the attention of potential private sector investors both within and outside of Aceh and Nias, and that private sector investment be encouraged and facilitated.

In some localities in Aceh and Nias health problems are seriously hindering RR and development, for example perhaps because of malaria, dengue fever, tuberculosis or HIV aids. These localities need to be identified and targeted with health improvement programs, not just to make persons happier by becoming healthy, but also to enable them to increase their incomes.

The same is the case with RR education and training programs. In addition to improving general formal education, special subject areas undoubtedly need to be added to the school curriculum's in accordance with the needs of the particular localities. These special subject areas should vary in accordance with the needs of different areas, such as fishing grounds, agricultural areas, industrial, and commercial areas. In addition, improved and expanded formal and non-formal training programs are needed to meet local needs.¹⁵

Through the Asian Development Bank, World Bank, GTZ, NGOs, BRR and other funding sources there are many programs supporting the development of formal financial institutions supplying micro, small and medium financial services. Unfortunately few of these offer substantial amounts of loans for more than one year except for the purchase of durable consumption goods like cars, motorcycles, TVs, etc. The financial institutions together with the Bank Rakyat Indonesia offer little to small farmers in the form of conventional credit to purchase the fertilizers and other intermediate inputs used in agricultural production (saprodi) and for long-term investments such as for the purchase of farm machinery, improvement of their lands, and the planting of tree crops. For the purchase of saprodi most farmers are dependent on their own resources or on loans from the informal sector, such as from friends and relatives and traders (muge) unless the government provides them with special credit facilities. **Recommendation:** To the extent possible, enhanced efforts must be made to institutionalize the provision of credit to farmers and fishers to meet their working capital requirements as well as for longer term investments. This will make agricultural and fisheries development more sustainable, instead of being dependent on annual non-dependable and uncertain Government handouts.

There is also considerable potential for the development of manufacturing industries in Aceh that will generate substantial employment but their development is hindered by the low quality of electricity supply, the lack of international harbours, and other factors (See Rice, June 8, 2006, for a discussion of the harbour situation in Aceh). One attraction of manufacturing industries is that persons from towns and cities may be more willing to become employed by them than in agriculture.

For manufacturing that adds value to agricultural and fishery products, having an international harbour may not be so important, if they use few imported inputs that are combined with

agricultural and fishery materials, and produce mainly for local markets. However, as discussed in the June 8, 2006 paper, if imported intermediate inputs are combined with locally sourced raw materials to produce products for export, often the manufacturers are more competitive if they are located close to an international harbour. Since Aceh does not have a general cargo international harbour except Krueng Geukeuh (Lhokseumawe), these kinds of industries are generally not viable at the present time in northern Aceh. There is an ocean shipping link between Singapore and Lhokseumawe through Eng Lee Shipping Co. in Singapore. The BRR commissioned *Banda Aceh – Nias Transport Plan 2006* recommends that there be a future international seaport in northern Aceh with five potential locations recommended to be investigated. Its fourth preference is Malahayati Harbour.¹⁶

The rehabilitation and expansion of Malahayati Harbour has been completed with 10,000 dead weight tonnage (BRR and Partners, p. 53). However, there is still no scheduled shipping between Malahayati and Singapore and between Malahayati and Port Klang. If there were this scheduled shipping, it would make it possible for importers in Northern Aceh to import and export directly from and to the world on a regular basis via Singapore or Malaysia. The lack of this scheduled shipping inhibits industrialization in Northern Aceh. Scheduled shipping between Meulaboh and Port Klang or Singapore should also be considered. Sabang harbour, soon to be managed by Dublin Port and eventually improved and expanded, also has potential to facilitate industrialization in mainland Aceh. Its disadvantage is that there is no land transportation link between Sabang harbour and mainland Aceh. Most likely it is best that Aceh does not wait for Sabang to become a well-functioning expanded international harbour, which likely will take years, before establishing an international seaport in northern Aceh. It probably is urgent that scheduled shipping between Malahayati Harbour and Singapore and Klang Ports be initiated in the near future to serve northern Aceh's needs.¹⁷

A car ferry service between Lhokseumawe and Penang was started in January last year by ASDP Sdn Bhd, a company in Malaysia, but unfortunately was discontinued shortly thereafter. Hopefully it will be restarted soon. It can help to realize the potential for the development of electronics industries on the east coast of Aceh opposite Penang, which can be complementary to and cooperate closely with electronic industries in Penang. This regular ocean shipping link will also facilitate the exportation of temperate zone vegetables and coffee from Aceh to Malaysia. The Kuala Langsa harbour area, being close to Penang, also has potential for industrialization.

Especially for small manufacturing establishments, a reliable supply of electricity at reasonable prices is very important. This is because the cost per kwh of electricity generated decreases with increases in the capacity of diesel power electricity generating sets, so smaller firms with smaller

generating sets have a much higher cost of generating electricity than larger firms. Substantial improvements in the supply of electricity are needed in Aceh.

The building boom in Aceh can also create opportunities to convert a non-tradable service into a tradable service. To date practically all the construction services provided by construction firms in Aceh have been for construction in Aceh, and therefore have been non-tradable. There may be some possibility to facilitate the growth and development of some construction firms from Aceh into nationally and even internationally competitive ones. If this could be achieved during the next two years, then as the demand for construction services falls in Aceh these companies could bid for national and international business and continue to grow with their employees in national and international markets. **Recommendation:** the potential for some construction firms from Aceh growing into national and international competitors should be studied, and if there is a potential, recommendations be made about the actions that need to be undertaken by the Government and others to make this transition into nationally and internationally competitive firms a reality.

Medium and larger businesses in Aceh have recovered slowly because aid programs generally are not designed to replace the assets of the richer members of society. Banks have been slow to write-off or accept "haircuts" on loans that cannot be fully repaid because of damage to borrowers caused by the tsunami and earthquake. **Recommendation:** Further work needs to be done on improving ways to assist larger businesses badly damaged by the tsunami and earthquakes to become rehabilitated, including building contractors.

OTHER FACTORS WHICH CAN OPERATE TO MAKE THE ACEH ECONOMY MORE COMPETITIVE

We now mention some other factors which can help to make the Aceh economy more competitive without discussing them in detail. Some are already well known.

The first of these are decreases in corruption, illegal levies, simplified procedures, less licenses required, and generally less red tape and excessive bureaucracy.

The Peace Agreement between Gerakan Aceh Merdeka (GAM) and the Indonesian Government has both created problems and potentials. If the disbanded GAM rebels are not quickly rehabilitated into society in a productive manner, there is the danger for social unrest and increased criminality. On the other hand, this person power combined with the much improved security in tens of thousands of underutilized lands with good agricultural potential plus

dramatically increased foreign assistance, can greatly contribute to Aceh's competitiveness and economic development. To realize this potential is a daunting challenge!

There are potential benefits from opening up scheduled air communications between Northern Aceh and Kuala Lumpur, Singapore, Phuket, and Bangkok. Improvements in Maimun Saleh airport in Sabang and links with Phuket, Penang, Langkawi and Singapore are being planned (*Serambi Indonesia*, 9 July 2006) This would have the effect of facilitating tourism in Aceh, especially Sabang, accessing services from overseas, as well as facilitating exports and imports of some goods. In the longer term the simultaneous development of the fishing industry and a direct link between Aceh and China might facilitate the export of high value marine produce to China

Appendix 1. The Mechanisms of the Construction Boom

With the reconstruction boom there is a large increase in demand for non-tradable and tradable goods and services. For the tradable goods this causes few problems because imports can be greatly increased with little increase in prices. However, for the non-tradable goods and services (NTs) the big increase in demand creates shortages which results in price increases that result in increases in the supply of the NTs with varying lags in the supply increases. For example, the wage rates of drivers, English speaking persons, semi-skilled and skilled labour in the construction industry, various professionals supporting community development, etc. have gone up dramatically along with the prices of bricks, gravel and construction sand, ice, boats, housing and other building space, etc. One cause of price increases has been the willingness of some foreign NGOs to pay above market rates for the supply of various goods and services.

In response to this increase in demand, various donors and the Government are implementing training programs in order to fulfill the increase in demand for various types of labour and other training activities as components of their livelihoods programs. This is fine as long as the demand is there although there is a danger that in some localities and types of NTs there may be an oversupply of NTs now because of too many service providers such as too many tailors and seamstresses, traditional processed food suppliers, food stalls, micro-retailers, pedicabs, minibuses, etc.

Even though at the present time some of these NT markets may be saturated, with the result that some participants on the margin cannot earn an adequate living, the crunch will come as the construction boom ends in 2009. Then demand will fall for most of these NTs with the result that some suppliers will be forced to leave the market and others forced to lay off employees. At the present time the Aceh Government and BRR need to facilitate the creation and expansion of economic activities that can absorb these persons in productive employment when the construction boom ends. If they are persons temporarily living in Aceh from other regions, the problem will be much less, because most of them will return to their own regions.

Towards the end of the construction boom the inflow of funds will greatly decrease. This will result in the Rupiah demand for imports into Aceh being substantially greater than the inflow of Rupiah through donations and export earnings.¹⁸ With this, money supply in Aceh will decrease resulting in a recession unless export earnings and production of import substitutes can be increased or there are increased inflows of investment funds.

Appendix 2. The Formal and Informal Sectors

One definition of the formal sector is establishments that employ persons and pay them a formal wage rate. This is the opposite of informal sector establishments and persons that are self-employed persons and partners, persons utilizing formally unpaid labour, and the unpaid labour. The latter are mainly family establishments employing family members and friends without formally paying them a wage rate. Increases in minimum wage rates damage much more the competitiveness of formal than informal establishments. This is because the *de facto* payments to formally unpaid persons do not automatically increase—payments to them are more of a profit sharing nature. Because most persons employed in Aceh are in informal sector establishments, the wage inflation in Aceh will be less damaging to the economy than in a region like urban Java with a greater percentage of persons working in formal sector establishments.

In order to keep the costs of production down and competitiveness up, it is important that there be vigorous competition between informal and formal sector establishments. For example, if certain types of transportation were dominated by a few large formal establishments, transportation costs in and out of Aceh would be higher, compared with the situation where there was vigorous competition with many small informal sector trucking establishments.

Wage inflation has a very important effect on increasing the cost of manufactures and makes manufacturing industry in Aceh less competitive. It also makes less competitive any agricultural, fishery, or other activities that employ labour that must be paid a high wage rate relative to other parts of Indonesia. It does not have as much effect on the competitiveness of informal sector establishments such as small family farms and fishing boats operated by several partners. It is hoped that the increased productivity factor combined with the lowering of transportation costs factor will enable family farms and fishing boats in Aceh to be competitive with the rest of Indonesia. High wage rates greatly damage competitiveness and investment in sectors that employ a lot of labour relative to capital and land, such as formal sector plantations, fishing operations, and some kinds of manufacturing.

Unfortunately for some manufactures it is very difficult to be competitive in world markets when the factories are small. This is because world markets often require large volumes and varieties of products (such as different sizes and varieties of footwear) that are uniform in quality. It is difficult for many small factories cooperating together in producing products to penetrate export markets to fulfill these requirements. Therefore larger formal sector factories are required in order to be competitive in the manufacture of many products for export. Excessively large increases in wage rates in a region greatly hinder investment in such larger labour-intensive factories.

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NOTES

1 Included in donated funds are transfers from the Central Government to local governments and people in the region.

2 With the exception of areas badly damaged by the March 28, 2005 earthquake such as Aceh Singkil.

3 Tradable goods and services are composed of exportables and importables. Exportables are goods and services that are exported to other regions. Importables are goods and services that are imported or produced domestically as substitutes for imported goods.

4 This is a new phenomenon caused by the tsunami and subsequent huge inflows of aid. From 1997 to 2004 the average yearly inflation rates in Banda Aceh and Lhokseumawe at 17.8% and 17.2% were only slightly higher than the national rate at 16.8%. In Banda Aceh the inflation rate was 7.02% in January 2005 right after the Tsunami hit, -1.29% in February, 3.97% in March, and 4.45% in April, then negative and low for the next three months. The average monthly rate for the first half of 2005 was 2.21% for Banda Aceh, 0.94% for Lhokseumawe, and 0.70% for Indonesia. In the second half of 2005 the average monthly rates for Banda Aceh, Lhokseumawe and Indonesia were 3.73%, 1.85% and 2.00% respectively, so the rate in Banda Aceh was still approximately double those in Lhokseumawe and Indonesia. The inflation situation in Aceh relative to the nation further worsened during the first three months of 2006, with the average monthly inflation rate in Banda at 2.38% being 261% greater than the nation (0.66%) and 80% higher than Lhokseumawe, but with Lhokseumawe now losing its competitiveness also relative to the nation with an inflation rate double that of the nation. These are very worrying developments.

5 The BRR and Partners on page 58 reported that the monthly inflation average rate for Aceh in 2006 was 6.5% compared with 4.0% nationally. This was mostly driven by rising transportation costs. The wages of unskilled construction workers were on average 30% higher in 2006 than in 2004, while for semiskilled construction workers they were almost 65% higher.

6 The CPI data is sourced from the Badan Pusat Statistik Website.

7 It was reported in December 2005 that in the Meulaboh area the price of bricks increased from Rp 200 per brick last month to Rp 400 per brick recently and now to Rp 500 per brick because of excess demand (Serambi Indonesia, 6 December 2005).

8 Opportunity cost is the value what has to be given up to supply the good or labour. For example the opportunity cost of supplying natural gas to a fertilizer factory in Lhokseumawe is the export price of the natural gas because if it is used for the fertilizer plant it cannot be exported. This opportunity cost might be higher than the price the fertilizer plant pays, especially if it is subsidized by the Government. The opportunity cost of unemployed labour is very low because there will be no decrease in production because this labour is used in a different way. On the other hand, the opportunity cost of a productive farmer becoming a construction worker will be quite high, because the value of the agricultural production given up when he leaves agriculture will be quite high..

9 Region B is now receiving some outside assistance intended to rehabilitate areas and assist persons damaged by the conflict between the Gerakan Aceh Merdeka (GAM) and the Indonesian Government.

10 With the collapse in demand the price might fall to Rp 250, but this will cause supplying establishments to close because they cannot cover their average cost of production, and in the longer-term the price will rise back to the average cost of production level at Rp 300.

11 Somewhat offsetting this marked increase in open unemployment is that the unemployed cannot afford to remain unemployed. To survive they are forced to become self-employed in various ways, thus moving from the formal into the informal sector. An attractive definition of the formal sector is employers and persons employed by employers. The informal sector is the others working, namely self-employed persons and persons assisting them who are not formally paid, such as a family working together. Because persons are not "employed" in the informal sector, the minimum wage rate is irrelevant.

12 The author is hypothesizing these shortages. Further research to identify them in detail is probably needed.

13 The Aceh Government needs to facilitate the development of competitive industries, such as perhaps furniture making, rubber products such as rubber gloves, processed coffee and cocoa, coconut products, the construction industry, tree crops, other agriculture, aquaculture, fisheries, maritime products processing, tourism, etc. There is some potential for the development of manufacturing for export in Aceh. In some cases to produce the manufactures the inputs are almost completely imported, assembled, and then exported as finished goods or as more complex to be assembled into finished goods. In other cases imported inputs are mixed with local inputs to produce products that are exported. Examples of these are motherboards of computers, electric motors, rubber tires, polyester cotton textiles, wool and cotton textiles, footwear, etc. Usually in order to this kind of manufacturing industry to be viable the factory must be located close to a harbour through which the inputs can be imported and the manufactured products exported. At

the present time the classes of harbours in Aceh are not conducive to this because there are no functioning international harbours except two in the Lhokseumawe area, one for general trade and one for exporting liquefied natural gas. However, the Aceh Sabang Port Authority has signed a Memorandum of Understanding with Dublin Port to develop Sabang Harbour as a large container port (Jakarta Post, "Irish Firm to turn Sabang into one of Asia's largest ports," 7 October 2006.

14 Total factor productivity (TFP) is the ratio of the value-added from the production process in constant prices divided by the cost in constant prices of the factors of production used in the production process, namely land, labour, and physical and human capital. TFP increases because of technical progress including improvements in quality, increased realization of economies of scale and specialization, increases in technical and economic (allocative) efficiency, and increased utilization of capacity of production. Labour productivity often increases because of capital investment but TFP does not necessarily increase.

15 The potentially desirable actions to be undertaken need to be further identified and studied.

16 The Report's first preference is Ulee Lheu in the area west of Ulee cargo terminal, its second preference is Ulee Lheu in the area west of the main drainage canal, third preference is Ulee Lheu in the area east of the main drainage canal, and its fifth preference is Sabang.

17 We write most likely and probably because we have not done a feasibility study of establishing scheduled shipping links between these ports. We recommend that the Aceh Government invite shipping companies to make proposals to establish without government subsidy these scheduled shipping links between Malahayati Port and Port Klang and/or Singapore. Any proposals received should be seriously appraised. If shipping companies require government subsidies to establish these services, a benefit-cost analysis of financing and paying the subsidies needs to be done.

18 By export here we mean exports from Aceh both into other regions of Indonesia and to foreign destinations.