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PROVINCIAL HUMAN DEVELOPMENT REPORT ACEH 2010

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Human Development and People Empowerment

BADAN PUSAT STATISTIK

Government of Aceh

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The analysis and policy recommendations of this report do not necessarily reflect the views of the Provincial Government of Aceh, the Central Bureau of Statistics (BPS) or the United Nations Development Programme (UNDP). The report is an independent publication commissioned by the Provincial Government of Aceh, BPS, and UNDP under its Poverty Reduction Unit (PRU). The principal partner and executing agency of this project within the Provincial Government of Aceh is BAPPEDA. In drafting this document, UNDP PRU collaborated with a team of eminent consultants and advisers. The statistical tables of this report were prepared by BPS. The present report is the outcome of a series of open consultations, which were held in Aceh, involving the government, and civil society actors like the media, academia, and donors.

Message from The UNDP Resident Representative

This report was prepared at the request of the Government of Aceh and is the first for a province in Indonesia, though others are planned to follow.

The intention behind HDRs is to place human development at the forefront of the development agenda, both at the national and local level. They provide an instrument which can be used to review progress, compare indicators of wellbeing among different social groups, and identify those persons who are been left behind in the development process. Equally important, HDRs aim to spur debate on development priorities, enhance policy making and promote better use of public resources to realize improvements in people's lives.

The achievements made in Aceh are impressive, and go beyond what many persons would have imagined five or six years ago in the immediate aftermath of the conflict and natural disaster. Despite the fears of some, the Peace Accords of 2005 have largely held, though more needs to be done. The unprecedented response from the global community after the tsunami of December 2004 has made it possible to repair most of the damage and destruction to physical infrastructure, although the healing of trauma from the loss of kin and suffering during the conflict still requires further support. Among the bigger challenges today are the need to resuscitate the economy in order to generate productive jobs for all, as well as the need to improve the quality and efficiency of public services and ensure better access to these services by the poor and disadvantaged.

The overarching message of this report is that an effective way to do this is by empowering people and local communities to decide themselves on the use of resources for local development. Several precedents already exist in the province, and there are many other opportunities to extend the concept to a wider range of other sectors and services. The report provides numerous examples of how this can be done.

While most of the comments and feedback received during the writing of this report have been favourable, some will no doubt express reservations about the recommendations advocated here. Debate and discussion are welcome, and one of the goals of HDRs is to advance new ideas and reforms to current practice. We hope that this report achieves that goal and helps the government and people of Aceh to forge a better future for all its citizens.

El-Mostafa Benlamlih
UNDP Resident Representative

Foreword of The Governor of Aceh

Assalamu 'alaikum Wr. Wb.

The development efforts, which are quite positive in the recent years, have contributed to the improvement in the quality of life for the people of Aceh province. With Aceh's regional autonomy, the approach to this work has shifted from a centralized effort to a decentralized one, placing human beings and families at the centre of this process. Success can be ensured by carefully paying attention to the principles of human development and strong support for the implementation of human rights (economic, social, cultural and political).

Human development and community empowerment are essential platforms from which people gain the ability to develop options and opportunities. Community empowerment provides every person with knowledge and skills to live more prosperously and more respectfully.

In the era of regional autonomy nowadays, where the leadership and management of Aceh's development are very close to their targets, opportunities are open to carry out properly targeted and pro-marginalized development. By placing people at the centre of these efforts, human beings are transformed from the object to the subject of development.

The Aceh Human Development Report 2010 is expected to be a reference to implement a wide range of high-quality, independent and cultured community empowerment programmes, so as to be able to face challenges in advancing the province and contributing to promoting the Indonesian people and the humankind as a whole. Hopefully, the vision contained in this report can be used as a basic foothold in the creation and implementation of policies and plans with great success.

Wassalamu 'alaikum Wr. Wb

Irwandi Yusuf
Governor of Aceh

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This report is the result of collaborative efforts and extensive consultations with experts and practitioners in key government agencies and departments as well as civil society actors at the national and regional levels

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Government of Aceh

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BAPPEDA

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Contributors

Background studies on a range of thematic issues were conducted by Satish Mishra, Derry Habir, Alakh Sharma, Katrina Lee-Koo Prabowo, and Wahiduddin Mahmud. We would like to thank them for their research and insights.

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Advisory Group

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UNDP

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The report could not have been prepared without the generous contribution of many individuals. Without their keen interest in our eff orts, we would not have been able to produce the Aceh Human Development Report 2010 to this quality.

Executive Summary

Today, Aceh faces five major challenges: to improve security; to expand efforts to mitigate future natural disasters; to reduce poverty; to reverse the downward trend in women's wellbeing; and to redress inequalities in less developed areas of the province.

Background

Recent events in Aceh are the latest chapter in a long and turbulent history dating back to the time when it was a wealthy trading nation commanding the Straits of Malacca. Long years of military and political struggle, coupled with changing economic conditions and continuing natural disasters, have left Aceh today as one of the poorest provinces in Indonesia. Nevertheless, since the tsunami of December 2004 and the Peace Accords that followed in August 2005 the people of Aceh, with support from many key international and national players, have achieved remarkable progress in consolidating peace healing the wounds from conflict and disaster and rebuilding their communities.

This report is in response to a request from the Governor of Aceh and is the first of a number of Human Development Reports (HDRs) planned by the United Nations Development Programme (UNDP) for selected provinces in Indonesia.

People empowerment

The central theme of this report is people empowerment. By this is meant not just participation in planning, but the sharing of decision making with government or the delegation of decision making to forums represent government, consumers, beneficiaries and stakeholders. It is argued that this is the most effective way of maintaining peace, improving the delivery of public services and promoting the wellbeing of the citizens of Aceh. It is also a better way to ensure that the needs of disadvantaged and marginalised groups are properly addressed, by providing them with a 'voice' through active participation and inclusion in such forums.

Social conditions

The post-conflict period, officially marked by the signing of the Peace Accords, has been characterised by the normalising of relations between conflicting groups, including the reintegration of some former combatants into civil society, and steadier progress towards human development. Massive recovery programmes after the tsunami have repaired much of the damage and destruction caused by both the tsunami and conflict. Most of the people displaced by these events have been able to return home or settle in new locations. Positive social conditions in Aceh provide a potential basis for participatory human development, although the settlement of displaced persons and former combatants has caused friction in some communities. Extortion and domestic violence remain endemic problems.

Development indicators

Development indicators in Aceh reveal a mixed picture, but comparisons with other provinces are erratic, possibly due to different methods of computation. Aceh's Human Development Index (HDI) advanced in step with the national figure up to 2007, before dropping sharply in

2008, the most recent year for which data is available. This is due mostly to a fall in personal spending, which reflects the winding down of massive recovery programmes that created a large number of temporary jobs after the tsunami. Compared with other parts of Indonesia, the HDI in Aceh has improved more slowly in recent years, ranking 29th among 33 provinces in 2008.

Two other indicators related to gender development in Aceh reveal discouraging trends over the period 1996 through to 2008. The Gender Development Index (GDI) has shown little progress, hovering around the 60 mark, a couple of points lower in 2008 than it was 12 years earlier. Meanwhile, the Gender Empowerment Measure (GEM) has oscillated up and down over the years, starting at a high of 57.3 in 1996 but finishing more than 7 points lower by 2008 at 50.2. This runs sharply counter to what might be expected, since the most recent figures after the Peace Accords are below those achieved during the years of conflict. The poverty rate has fallen to 22 percent compared to 14 percent for Indonesia as a whole. Despite this, Aceh's ranking according to the Human Poverty Index (HPI) rose from 20th out of 26 provinces in 1996 to 17th out of 33 by 2008. Meanwhile, the population growth rate in Aceh has fallen dramatically in recent years, a consequence of the prolonged conflict, out-migration and a deteriorating economy.

Within the province, these indicators show Western and Southern Aceh to be significantly less developed than Northern and Eastern Aceh or the Aceh Hinterland. Newly established districts are also shown to be less developed than the original districts from which they were formed, while cities not surprisingly emerge as more advanced. Each year, the number of dis tricts and cities falling below the national HDI average has increased, from only 1 out of 10 districts in 1993, to all but one of the 23 jurisdictions by 2008. This is partly explained by the proliferation of new districts carved out of existing ones.

Today, Aceh faces five major challenges: to improve security; to expand efforts to mitigate future natural disasters; to reduce poverty; to reverse the downward trend in women's wellbeing; and to redress inequalities in less developed areas of the province.

Access to public services

Basic infrastructure. In 2005, around one in four households were still living in sub-standard housing and lacked access to basic services. This figure is significantly higher, in Western and Southern Aceh. At the aggregate level of districts, there is a weak correlation between the quality of housing and the incidence of sickness, a relationship that is usually found to be stronger at the level of individual households. The quality of housing is to a great extent dependent on the provision of basic infrastructure, which is largely in the hands of public authorities. This is one example where people empowerment can make a difference. Local communities receiving block grants from government do not have to wait for local or national authorities to make these services available to neighbourhoods that lack them. Instead, they may decide to use funds allocated to them to build needed infrastructure or to make repairs when required.

Education. Aceh outperforms most other provinces in the country in school participation rates, where the difference rises at each level of schooling. This does not necessarily translate however into better educated children due to the uneven quality of teaching and school facilities. At the high school and university levels, there is a marked tendency for children in more remote districts to move to cities and other districts with better facilities. As in other parts of the world, many people with higher levels of education remain among the poor, due to the difficulty of finding jobs commensurate with their qualifications. The education sector in Aceh is one area where people empowerment is relatively well advanced. In line with national directives, school committees comprising representatives of teachers, administrators, parents and students where appropriate have authority to prepare and approve annual plans and budgets. At the provincial level, a forum comprising stakeholders from government, universities, civil society, NGOs, donors and Islamic bodies have authority to prepare and execute plans for the sector.

Health. Although considerable progress has been achieved over the last 40 years, health indicators show that Aceh still ranks in the bottom third or quarter of all provinces. Life expectancy is lower, a higher proportion of

children are under-nourished and infant and maternal mortality rates are higher. These problems are particularly severe in Western and Southern Aceh, where one in six people lack physical access to health facilities within a reasonable distance, about the same as in the Aceh Hinterland. There is some evidence that better health facilities in a district are related to better health, but it is not a strong one. A programme introduced by the provincial government in 2009 providing free health care to all citizens has greatly increased demand for services. While this is well intentioned, it may not represent the best use of resources or be supportable in the longer term. Several opportunities exist to apply the concept of people empowerment in the health sector. These include establishing a public-private forum at the provincial level, similar to the one for education and organising similar forums at the level of the sub-district *puskesmas*. The expertise of midwives in rural areas might be used more effectively by forming and training community based self help groups to support pregnant women and those with newborn children. Similar groups, with the help of medical personnel, could also be formed and trained for other purposes such as domestic violence, family hygiene and nutrition, addiction to drugs and alcohol.

Justice. Unlike other provinces in Indonesia, three legal systems operate in parallel in Aceh: the national positive state law; the traditional adat system, and; since 2001, syariah law. This often leads to confusion, since the scope of jurisdiction covered by each system overlaps and sometimes leads to conflicting interpretations. Several barriers prevent people from initiating a claim in the first place and later from obtaining a just outcome. Many people lack awareness of legal options, they are subject to pervasive social pressures compelling them to rely predominantly on adat to resolve disputes, and those in rural areas are often far from courts. Due to the wide-spread perception of bribery and corruption in the formal legal system, people have greater confidence in the *syariah* courts. These have become increasingly active on a number of women's human rights issues, including awarding child guardianship to women after divorce, providing equal shares of marital property at the time of divorce, and safeguarding women's inheritance rights. Measures to empower community based organisations could help to improve access to justice through campaigns to raise awareness of people's legal rights, monitoring the decisions of syariah courts and adat rulings, and monitoring the performance of the religious police (*wiliyatul hisbah*).

Access to economic opportunities

While measures of per capita gross regional domestic product (GRDP) suggest Aceh is one of the richest provinces in Indonesia, per capita spending shows the people of Aceh are among the poorest. Contrary to common perceptions, unweighted average per capita spending outside cities in 2008 did not differ greatly among regions. Household spending was lowest in the Aceh Hinterland, and highest in Western and Southern Aceh, but only by 8 percent.

For many years, the largest share of provincial GRDP has come from the oil and gas industry, but this is now dwindling rapidly as reserves are depleted. The massive infusion of aid for rehabilitation and reconstruction after the tsunami provided a temporary boost to the economy, but most programmes have now ended. Investment in the region has been negligible for many years, due to the conflict, lingering perceptions of insecurity, extortion, and unresolved regulatory issues concerning business activities.

Labour productivity in the agricultural sector has gradually risen over the years, but compared to other provinces, GRDP growth in Aceh has had a lower impact on creating jobs. The labour force participation rate in Aceh is well below the national average, and tends to be lower in cities and higher in rural areas. Apart from a couple of atypical years before and after the tsunami, the number of women in the workforce has remained more or less steady above or below 650,000, rather lower in the two most recent years for which data is available. The recent decline may in part be related to the return of former combatants to the household, easing the burden on women to be the primary bread winners. The average non-agricultural wage for women in Aceh was less than that for men in all but four districts.

Six out of ten workers in Aceh are employed in the informal sector, but this proportion rises to four out five workers in the Aceh Hinterland, due mainly to favourable opportunities for the production of arabica coffee in that region. While a large informal sector is not normally

considered a sign of progressive development, it plays an important role in Aceh (and other parts of Indonesia) in providing opportunities for work and reducing open unemployment. One factor impeding the growth of formal sector employment in Aceh is the minimum wage mandated by the provincial government, which is the highest in the country, partly reflecting rapid inflation in the years immediately after the tsunami.

Another constraint facing both small enterprises and larger ones, especially in the agricultural sector, is the difficulty of obtaining credit. The proportion of households receiving credit in Aceh is lower than the national average and is skewed in favour of consumer loans for urban residents. Recent efforts by government and donors to create employment and expand livelihoods in Aceh have relied mainly on grants and loans. While evaluation studies usually report favourable results, more detailed studies that include control groups of non-recipients indicate a high risk of zero sum gains, especially among small enterprises catering mainly for neighbourhood demand and local markets.

If Aceh is to achieve success in creating more widespread and productive opportunities for people to earn a living, efforts are needed on two broad fronts. At the macro level, structural weaknesses in the economy need to be addressed, while at the micro level programmes to support household enterprises and personal livelihoods need to be linked to structural changes that are taking place in the larger economy. The main engine of economic growth for the foreseeable future will have to come in part from greatly increased government spending arising from the Peace Accords, and more importantly from exports of agricultural commodities broadly defined to include plantations, forestry and fisheries.

Actions are called for to empower the business community, broadly defined, to collaborate more effectively with government in shaping policy and priorities for economic development. Precedents already exist. With funding from the International Finance Coorporation (IFC), an Aceh Business Forum was set up in 2008 as a platform for improving dialogue between government and the private sector on matters related to economic development and business activities in Aceh. A second model may be found in the Aceh Partnerships for Economic Development (APED) project implemented by UNDP in collaboration with the provincial BAPPEDA since mid 2006. This approach is based on empowering public private forums for selected industries with a strong potential for exports.

Participation and Empowerment

Recent surveys conclude that positive social conditions in Aceh provide a potential basis for participatory decision making. Gender bias and social divisions resulting from the conflict however need to be addressed before full community participation can be realized.

There has been a marked shift over the past decade in Indonesia as a whole towards community participation and empowerment. The earlier strategy to promote bottom up planning through the development planning discussion (Musrenbang) has proved largely ineffective in yielding benefits for local communities. Newer strategies such as those adopted in the Subdistrict Development Programme (KDP)/ National Programme for Community Development (PNPM)-Mandiri programmes nationally and the Financial Assistance for Village Welfare (BKPG) programme in Aceh now allocate block grants directly to subdistricts and villages (*desas*), and empower stakeholders to make their own decisions on the use of such funds. This is an important step forward in promoting human development in accordance with local priorities.

Over the past decade, Indonesia has also made huge strides towards promoting democracy in the country through the direct election of representatives at all levels of government from the village to the national parliament (DPRN), as well as government leaders from the village chief to the national President. This represents a remarkable achievement in such a short period of time and an important advance in human development. In 2009, some 75 percent of registered voters in Aceh participated in the elections for national, provincial and local assemblies. By 2008, the number and proportion of women in local assemblies (the DPRA and DPRKs) had risen substantially, due in part to the proliferation of new jurisdictions. These figures are reported to have dropped after the 2009 elections, but official data has yet to be published.

Data show that women have accounted for 40 percent to 50 percent of all positions for professional and technical staff in Aceh for at

least the past decade, although many of these positions carry little authority. The proportion of women in leadership roles is much lower, ranging from highs of over 40 percent in some districts to zero in several others.

Resource allocation for human development

Since the year 2000, fiscal revenues managed by the provincial and local governments in Aceh have increased dramatically. The two main sources of this revenue are transfers from central government for general allocation funds (DAU) and the special autonomy funds for Aceh agreed in the Peace Accords and subsequently enacted in the Law on the Governing of Aceh (LoGA) of 2006, a law which gives significant authority to the Acehnese provincial government compared to other provinces. With government revenues in Aceh growing much faster than the local economy, the share of the government budget in total GRDP has increased from only 7 percent in 1999 to around 29 percent by 2008, underlining the potential role for government spending as an engine for economic development.

Although not specifically designed to do so, the allocation formula for the DAU has resulted in substantially higher per capita fiscal revenues for many less developed districts in the province, particularly in Western and Southern Aceh and the Aceh Hinterland. Since the DAU formula favours smaller jurisdictions, it may also have inadvertently played a role in spurring the proliferation of new districts carved out of existing ones.

The increase in fiscal revenues in Aceh has been accompanied by a similar increase in public expenditures. The largest item has been government administration, rising at an annual rate of 8 percent between 2001 and 2007, largely due to the creation of new districts. The second largest item has been education, although as a proportion of the total, it has been falling, while shares have been rising for infrastructure, social assistance and to a lesser extent the health sector. Higher per capita revenues among districts and cities have also translated into substantially higher per capita public spending in Western and Southern Aceh and the Aceh Hinterland.

While the provincial government may seek to use the allocation of fiscal resources among district and city governments as an instrument for implementing public policies, control over the use SAF funds, which became available starting in 2008, provides a far more effective tool. However, this assumes provincial government departments have the capacity needed to review proposals in a timely manner, provide technical support to districts and cities, and monitor implementation.

Gender

The position of women in Acehnese society has advanced in some respects but several indicators show a retreat in other areas. The arrival of international agencies after the tsunami helped to develop the capacity of civil society organizations (CSOs) on gender justice, and there has been greater interaction and collaboration between them and the government on these issues. The *Syariah* Courts have helped to advance women's rights concerning inheritance and property, but some argue that Aceh's interpretation of *Syariah* law has been narrow and conservative. The Reconstruction and Rehabilitation Agency (BRR) and the National Land Agency (BPN) established a policy for the Joint Titling of Marital Property, but it has met with mixed success. On the other hand, GDI and GEM reveal a discouraging trend over the years. While their participation in the workforce steadily advanced to a peak of 40 percent in 2002, it has since fallen back a little, due in part to the return of former combatants to the household. Their contribution to household income has dropped and average wage rates are lower than men in most jurisdictions in Aceh. Their participation in local assemblies increased up until 2008, but since then has fallen. More seriously, women account for a small proportion of senior positions, and are still largely under-represented in decision making at the community level. Domestic violence perpetuated by men towards women is also still a major concern within Acehnese families.

Conclusions and recommendations

Based on an analysis of available information, this report advocates six primary goals to further enhance human development in the province.

Empower people for development: Perhaps the single most effective instrument for enhancing human development is to empower people to make their own collective decisions on what needs to be done. This means not merely promoting participation in public meetings to discuss priorities and plans, but also transferring fiscal resources to recognised groups and delegating authority to decide how to use these resources.

Ensure benefits for everyone: While several indicators show steady advances in human development in Aceh, it is important to ensure that all individuals benefit from the progress being achieved. All government programmes should pay special attention to addressing the needs of particular social groups that may have been overlooked or who are unable to get the help they need for one reason or another.

Improve the quality of public services: Basic social services are now physically accessible to most communities throughout the province. The main challenge for the future is to improve the quality of these services, particularly in health and education.

Enhance opportunities for productive employment: Another key goal in Aceh is to reduce the high rates of unemployment and under-employment as a means to reduce poverty and raise household incomes. This is important not only for economic reasons but also as a means to make better use of investments in education and human resources, and to enhance personal dignity and self-esteem. Effective strategies to achieve these goals require complementary measures at both the macro and micro levels. Actions to strengthen the economy at the regional level will help to create new jobs and expand opportunities for productive livelihoods across Aceh.

Couple disaster mitigation with environmental programmes: While the tsunami was a rare event, other kinds of natural disasters occur frequently in Aceh and cumulatively cause substantial loss and hardship. Since strategies and agendas are often complementary, disaster mitigation efforts should be coupled with other agencies responsible for the environment. Steps to mainstream measures to mitigate natural disasters should be reinforced in a broad range of government and donor programmes, particularly in the forestry, agricultural and fisheries sectors.

Make better use of public resources: The huge increase in fiscal resources flowing into Aceh as a result of the Peace Accords and the LoGA underline the imperatives of minimising misuse and ensuring resources are channelled towards programmes and services that are effective in further advancing human development. For this purpose, government departments are urged to adopt the general principles of performance planning and budgeting. Since this approach is not yet well understood in Aceh, the provincial government should seek the help of donors to undertake a broad programme of capacity building to enable relevant staff to adopt the concept.

Other recommendations: In addition, this report makes a number of other recommendations for specific sectors. These include:

- Security
- Poverty
- Women
- Basic infrastructure
- Education
- Health care
- Justice
- Economic development, and
- The allocation of fiscal resources.

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Acronyms

ACMU : Aceh Conflict Monitoring Update
AFR : Aceh Recovery Framework
AH : Aceh Hinterland
AHDR : Aceh Human Development Report
APED : Aceh Partnership for Economic Development
ARI : Asia Research Institute
Bappenas : National Development Planning Agency (Badan Perencanaan Pembangunan Nasional)
BCG : Bacillus Calmette-Guérin
BCPR : Bureau for Crisis Prevention and Recovery
BKPG : Financial Assistance for Village Welfare (Bantuan Keuangan Peumakmu Gampong)
BKPM : Investment Coordination Board (Badan Koordinasi Penanaman Modal)
BLT : Direct Cash Transfer (Bantuan Langsung Tunai)
BLU : Public Service Agency (Badan Layanan Umum)
BOK : Health Operational Aid (Bantuan Operasional Kesehatan)
BOS : School Operation Support (Bantuan Operasional Sekolah)
BPD : Local Development Bank (Bank Pembangunan Daerah)
BPN : National Land Agency (Badan Pertanahan Nasional)
BPP&PA : Women Empowerment and Children Protection Agency (Badan Pemberdayaan Perempuan dan Perlindungan Anak)
BPS : Central Statistic Agency (Badan Pusat Statistik)
BRA : Aceh Peace Reintegration Agency (Badan Reintegrasi-Damai Aceh)
BRR : Reconstruction and Rehabilitation Agency (Badan Rekonstruksi dan Rehabilitasi)
Bukesra : Business Entity for disable welfare (Badan Usaha Kesejahteraan Penyandang Cacat)
Bulog : State Logistic Agency (Badan Urusan Logisitik)
CBO : Community Based Organization
CSO : Civil Society Organization
CSRC : Civil Society Resource Centers
DAK : Special Allocation Budget (Dana Alokasi Khusus)
DAU : General Allocation Budget (Dana Alokasi Umum)
DPD : Regional Representative Council (Dewan Perwakilan Daerah)
DPR : Indonesian Parliament (Dewan Perwakilan Rakyat)
DPRA : Aceh House of Representatives (Dewan Perwakilan Rakyat Aceh)
DPT : Diphtheria, Pertussis and Tetanus
DRR-A : Disaster Risk Reduction - Aceh
ERTR : Emergency Response and Transitional Recovery
GAM : Free Aceh Movement (Gerakan Aceh Merdeka)
GDI : Gender Development Index
GEM : Gender Empowerment Measure
GNP : Gross National Product
GoI : Government of Indonesia
HDI : Human Development Index
HKI : Intellectual Property Right (Hak Kekayaan Intelektual)
HPI : Human Poverty Index
IASC : Inter-Agency Standing Committee
IDP : Internally Displaced People
IFC : International Finance Corporation
ISE : Informal Sector Employment
JKA : Aceh Health Insurance (Jaminan Kesehatan Aceh)
JLT : Joint Land Titling
KDP : Kecamatan Development Program
Komnas : National Committee (Komite Nasional)
KPA : Aceh Transitional Committee (Komite Peralihan Aceh)

KPN : Credit for Aceh Welfare (Kredit Pemakmu Nanggroe)
KPU : National Elections Commission (Komisi Pemilihan Umum)
KRF : Kecamatan/Kota Recovery Forum
KUBE : Joint Business Group (Kelompok Usaha Bersama)
LKM : Micro Financial Institution (Lembaga Keuangan Mikro)
LoGA : Law on Governing Aceh
MA : Islamic Senior Secondary School (Madrasah Aliyah)
MDF : Multi Donor Fund
MDG : Millennium Development Goals
Menko Kesra : Ministry Coordinator in People's Welfare (Menteri Koordinator Bidang Kesejahteraan Rakyat)
MI : Islamic Elementary School (Madrasah Ibtidaiyah)
MoU : Memorandum of Understanding
MT : Islamic Junior Elementary School (Madrasah Tarbiyah)
Musrembang : Development Plan Discussion (Musyawarah Rencana Pembangunan)
NAD : Aceh Province (Nanggroe Aceh Darussalam)
NEA : Northern and Eastern Aceh
NGO : Non-Government Organization
NTB : Western Nusa Tenggara (Nusa Tenggara Barat)
NTT : Eastern Nusa Tenggara (Nusa Tenggara Timur)
NZAID : New Zealand Agency for International Development
Otsus Migas : Special Autonomy – Oil and Gas (Otonomi Khusus – Minyak dan Gas)
PA : Aceh Party(Partai Aceh)
PAAS : Safe and Prosperous Aceh Party (Partai Aceh Aman dan Sejahtera)
PBA : United Aceh Party (Partai Bersatu Aceh)
PDA : Sovereign Aceh Party(Partai Daulat Aceh)
PDP : People-centred Development Project
PER : People's Economic Empowerment (Pemberdayaan Ekonomi Rakyat)
Perda : Local Regulation (Peraturan Daerah)
PLN : State Electricity Company (Perusahaan Listrik Negara)
PNPM : National Program for Community Empowerment (Program Nasional Pemberdayaan Masyarakat)
PNS : Government Civil Servants (Pegawai Negeri Sipil)
PRA : Aceh People's Party (Partai Rakyat Aceh)
PSIRA : Aceh People Independent Voice Party (Partai Suara Independent Rakyat Aceh)
Puskesmas : Community Health Center (Pusat Kesehatan Masyarakat)
RALAS : Reconstruction of Aceh Land Administration System
RBA : Right Based Approach
RPJP : Long Term Development Plan (Rencana Pembangunan Jangka Panjang)
RSD : Darussa'adah Rehabilitation center (Rumah Sejahtera Darussa'adah)
SAF : Special Autonomy Fund (Dana Otonomi Khusus (Dana Otsus)
SD : Elementary School (Sekolah Dasar)
SLB : School for disable (Sekolah Luar Biasa)
SMA : Senior Secondary School (Sekolah Menengah Atas)
SME : Small and Micro Enterprises
SMK : Vocational Senior Secondary School (Sekolah Menengah Kejuruan)
SMP : Junior Secondary School (Sekolah Menengah Pertama)

SSPDA : Support for Sustainable Peace in Aceh
Susenas : National Socio-Economic Survey (Survey Sosial Ekonomi Nasional)
TKSK : Sub-district Social Welfare Worker (Tenaga Kesejahteraan Sosial Kecamatan)
TNA : Aceh National Military (Tentara Nasional Aceh)
TNI : National Military (Tentara Nasional Indonesia)
UN : United Nations
UNFPA : United Nations Population Fund
UNICEF : United Nations Children's Fund
UNORC : United Nations Office of the Recovery Coordination for Aceh and Nias
Unsyiah : Syiah Kuala University (Universitas Syiah Kuala)
UU : Law (Undang-Undang)
WH : Religious Police (Wilayatul Hisbah)
WSA : Western and Southern Aceh
YBKM : Self Independent Building Foundation (Yayasan Bina Kitorang Mandiri

1 Introduction

CHAPTER

1 Introduction

Empowering people to make their own decisions concerning development priorities and the use of resources is the most effective way of maintaining peace, improving the delivery of public services, and promoting the wellbeing of the citizens of Aceh.

The area known as Aceh has a long and turbulent history. Located at the north-western tip of the island of Sumatra, the people of Aceh built a rich and powerful nation commanding the strategic trading routes through the Malacca Straits. To expand and protect their commercial interests in past centuries, the Sultanate was frequently engaged in struggles against rival states in the region. Reports from travellers in the 16th century remarked on the wealth of the Sultan's court and the necessity of paying homage to secure safe onward passage. As one of the first states to adopt Islam in south-east Asia, the people of Aceh have developed and fiercely defended a strong cultural identity. Later on, they resisted efforts by the Dutch to incorporate the state into the Netherlands Indies, and were divided in agreeing to become part of Indonesia after independence. Resentment against Javanese domination of local government administration was one factor that lead eventually to the protracted civil conflict, which only came to an end with the signing of the Peace Accords in 2005.

Along with much of the rest of Indonesia, Aceh is also an area that is particularly prone to natural disasters. While the tsunami of December 2004 attracted world-wide attention and massive funds for reconstruction, the area has long suffered, and continues to suffer, from many disasters of a smaller magnitude, particularly earthquakes, landslides and flooding. Nevertheless, since the tsunami, the people of Aceh together with support from many national and international players have achieved remarkable progress in consolidating peace, healing the wounds from conflict and disaster and rebuilding their communities.

This report on Aceh is in response to a request from the Governor and is the first of a number of Human Development Reports (HDRs) planned by the United Nations Development Programme (UNDP) on selected provinces in Indonesia. Reports for other provinces are currently under discussion for Papua and Nusa Tenggara Timur (NTT). They follow in the tradition of UNDP's annual global reports and periodic reports for many countries around the world. National reports for Indonesia were published in 1996, 2001 and 2004, and another is due early next year (2011).

1.1. Human development and people empowerment

The first HDR was published in 1990 with the single goal of putting people back at the centre of the development, and as a means to broaden discussion of trends in national development beyond a limited focus on economic factors. The purpose is to provide a broad assessment of progress in improving the quality of life for all people, but especially women, the poor and the disadvantaged. The aim is to examine factors that shape and account for the quality of life, highlight the predicament of disadvantaged and excluded groups, and point the way forward to more inclusive policies for development that benefit citizens from all walks of life.

Both the global HDRs published each year by UNDP and the periodic reports on individual countries usually embrace a central theme tailored to recent events and particular

circumstances. For example, the global report for 2009 featured human mobility and migration. The 2007 country report for Bosnia and Herzegovina highlighted the inclusion of ethnic and religious groups previously marginalised in development programmes. The country report for Indonesia due out this year adopts the theme of participation in local governance.

Active participation is one step towards people empowerment, which is the theme of this HDR for Aceh. By this is meant not just participation in planning, but the sharing of decision making with government or the delegation of decision making to forums representing government, consumers, beneficiaries and stakeholders. Empowering people to make their own decisions concerning development priorities and the use of resources is the most effective way of maintaining peace, improving the delivery of public services, and promoting the wellbeing of the citizens of Aceh. It is also a better way to ensure that the needs of disadvantaged and marginalised groups are properly addressed.

The distinction between participation and people empowerment needs to be emphasised. Arnstein (1969)[2] makes the obvious but often overlooked point that there are wide gradations in a ladder of participation, ranging from non-participation (manipulation) on the bottom rungs, to tokenism (information, consultation) in the middle range, to citizen power (partnership, delegated power, and citizen control) towards the top of the ladder. The typology is useful to keep in mind while reviewing participatory processes discussed elsewhere in this report. It is also useful in underlining that people empowerment essentially involves a redistribution of authority and responsibility.

The scope for people empowerment in human development is wide, especially in planning and implementing public infrastructure and services at the community level. This may be seen from a brief review of the stages involved.

- **Identification of problems and opportunities.** The collective knowledge and experience of local inhabitants is likely to be the best source of information on which individuals and groups are excluded from government programmes or unable to access services, and on ideas for improving access.
- **Priorities.** Likewise, local residents are best positioned to express the relative level of demand for different proposals to improve services and assess priorities in allocating resources among competing needs. In Cambodia, for example, participants at a public meeting were able to change a government decision as to which hamlets were most in need of flood control measures.
- **Project design.** Potential users of proposed infrastructure and service facilities may also provide useful ideas for the routing of roads, location and design of facilities. In Palestine, for example, community members greatly expedited the complicated issue of determining the alignment of an inter-village road that impinged on numerous farms, and produced a plan far superior to the one proposed by the village chief for a network of farm access roads.
- **Funding.** Available funding from government sources may be inadequate to finance preferred proposals, but collective action by the community may generate additional resources in cash or in kind to make it possible to implement the project. Families in Kenya, for example, are renowned for raising additional funds for schools and education services. In Malawi, villagers produced the bricks needed for the construction of school classrooms, a laborious task, which would otherwise be expensive.
- **Procurement and execution.** Many government agencies and donors are wary of delegating authority to local communities for procuring the services of building contractors, NGOs or other private sector providers. But in Vietnam, for example, local government support units assist villages for this purpose, following transparent bidding procedures witnessed by local stakeholders.
- **Disbursement of funds.** Likewise, many government agencies and donors prefer to handle payments to contractors themselves. But in Nepal, for example, after initial trial runs, UNDP agreed to delegate disbursements to village staff subject to co-signatures from project management units comprising community representatives.
- **Supervision and monitoring.** While professional staff may be required to check the technical specification of work completed by building contractors, community based project implementation units may exercise overall supervision. In Palestine, for example, the community in one village actively

This report has been specifically designed to assist government and civil society in rethinking policies and programmes for development and poverty reduction, and strategies to enhance the active participation of marginalised groups in decision making.

monitored construction of classroom extensions, checking contractor invoices against supplies of materials, drawing attention to faulty workmanship, and even persuading the contractor to pave the school yard with excess materials free of charge.

- **Operation and maintenance.** While government agencies are keen to build new facilities, provision of funds for ongoing maintenance is usually inadequate if non-existent, resulting in an accumulation of needed repairs and steady deterioration of buildings and equipment. Numerous reports mention long delays in waiting for government to make simple cheap repairs, for example to water pumps in Timor Barat. But in Nepal farmers have long been organised to operate and maintain local irrigation schemes.

These examples refer only to planning and implementing public infrastructure and services. But there are many other opportunities, most of them being volunteer based actions, for empowering people to play important roles in broader aspects of human development, which are discussed elsewhere in this report.

1.2. Measures of human development

For fifty years or more, since governments first started collecting data on such things, the standard indicator of national development was per capita gross national product (GNP). But as is shown later in this report, that may convey a misleading picture of the quality of life for the population of a country or a region.

In 1990, UNDP introduced the Human Development Index (HDI) as an alternative way of measuring people's wellbeing. Like the GNP figure, this was designed to yield a single number that could easily be used to compare conditions among different countries and regions. Unlike GNP however, the HDI incorporates four measures to give a broader indication of living conditions, including life expectancy, the rate of adult literacy, mean years of schooling and per capita expenditure measured in real terms to allow for comparisons over time.

Since then, UNDP and other international development organisations have created a number of other indicators to measure different aspects of development. Three of them are discussed in this report: the Gender Development Index (GDI); the Gender Empowerment Measure (GEM), and; the Human Poverty Index (HPI). Although these indices may be standardised to permit inter-regional comparisons, the formulations adopted by the Central Bureau of Statistics in Indonesia have varied over the years, depending in part on the availability and reliability of data.

The GDI is based on four components that compare data for men and women in terms of life expectancy, adult literacy, years of schooling and contributions to household income. The GEM for provinces includes the proportions of women in the local parliament or assembly, in senior official, managerial and technical staff positions, and in the local labour force. The GEM for districts in Aceh adds another indicator, the average non-agricultural wage. The HPI for provinces is based on the proportions of the population not expected to reach the age of 40, without access to clean water, without access to health facilities, and the proportion of under-nourished children under the age of five. The HPI for districts adds the level of adult literacy.

These indicators are almost all based on data from central government agencies[3], which in turn rely on local offices, sometimes all the way down to the village. The collecting, collating and processing of this data on a wide range of topics represents a big challenge, particularly for a country as large as Indonesia. Inevitably, gaps may occur in collecting information and errors may arise in processing the data, although statistical methods can reduce these problems. As was evident during presentations of draft findings of this report, some readers may question the precise figures presented here. While specific numbers may be open to question, the larger trends implied by the data are more robust and are ultimately what is more important.

1.3. Structure of report

Since this report has been prepared at the request of the Government of Aceh, it has been specifically designed to assist government and civil society in rethinking policies and programmes for development and poverty reduction, and strategies to enhance the active participation of marginalised groups in decision making. With this goal in mind, the report is structured around themes and topics that concern those responsible for preparing me-

dium and longer term development plans (RPJM and RPJP) and determining the appropriate use of substantial additional public revenues resulting from the Peace Accords of 2005. These relate to an increased share of revenues derived from oil and gas in the region and special autonomy funds for Aceh, both enacted under the Law on Governing Aceh (LoGA) of 2006.

The report begins in chapter one with a review of concepts and approaches to human development and particularly the notion of empowering people to share in making decisions concerning development policies and programmes. This is a recent concept designed to focus on disadvantaged groups often overlooked in assessments of human development. Chapter two follows with an overview of recent major events in Aceh and their impact on the state of human development in the province. This is measured according to several standard aggregate indicators, which may be used to make comparisons between Aceh and other provinces of Indonesia and among districts within Aceh.

Chapters three and four examine access to public services and economic opportunities, a key factor in reducing poverty and minimising social exclusion. The discussion is organised according to sectors and programmes commonly adopted in government planning documents. This format is intended to make it easier for government staff to reflect findings and recommendations from this report in the plans and budgets they produce for each department or agency. Chapter three looks at access in terms of basic physical infrastructure, health and education, as well as justice. Chapter four summarises recent trends in the local economy and examines access to income generating opportunities for households in terms of employment, livelihoods and credit. An important consideration here is also access to markets for small scale producers. This is essential in avoiding a zero sum gain for livelihood programmes and to ensure the longer term growth and sustainability of employment and local business.

Chapter five reviews two other factors that are critical to enhancing human development and promoting the inclusion of disadvantaged groups, namely participation and empowerment. These issues are discussed in terms of political participation in elections and government, and civic participation and empowerment in local decision making, especially in the design and allocation of financial resources for community development programmes.

While local governments in Aceh are already aware of many concerns discussed in this report, an analysis of public spending reveals gaps between intent and practice. Chapter six takes a look at recent trends in public expenditure and the process of planning and budgeting. It identifies some of the reasons for the mismatch between goals and the allocation of fiscal resources, and suggests ways to close these gaps.

The report concludes with a summary of the main findings and conclusions that emerge from this analysis of human development in Aceh, and presents a number of proposals and recommendations. These aim to enhance the welfare of the people of Aceh and to promote the broader inclusion of all social groups particularly those that are currently at a disadvantage.

In preparation for this report, UNDP commissioned a number of background papers that were completed over the past year. Among other topics, these cover social inclusion, inequalities, gender, justice, livelihoods, economic growth and public expenditure. This report draws extensively from these background papers, and many other reports, whose authors are indicated in the list of references.

2 The State of Human Development in Aceh

CHAPTER

2 The State of Human Development in Aceh

The devastating impact of the conflict on the social fabric of Aceh, besides aggravating horizontal and vertical inequalities among the population, posed a severe challenge in attempts to improve their living conditions.

This chapter provides a broad picture of the state of development in Aceh today. Section 2.1 reviews recent major events that have had negative and positive impacts on improving people's welfare. Section 2.2 analyses several measures of development comparing progress in Aceh with other provinces in Indonesia and among the districts and cities of Aceh. Section 2.3 reports on a number of other aspects of social well being that are not captured by quantitative indicators.

2.1. Recent events in Aceh

Recent events have had a profound and far reaching impact on human development in Aceh. The political conflict, natural disasters and the massive rebuilding efforts since 2005 have each impacted people and regions in quite different ways.

2.1.1 The conflict

Aceh has a long and proud history as an independent state before the Dutch incorporated the province into the Netherlands East Indies in the 19th century. The more recent catalyst for the separatist movement is attributed to ethnic tensions between the Acehnese and Javanese migrants. According to Brown (2005), many Acehnese perceived such migrants to be subjected to preferential treatment by the Central Government, with many capturing senior government positions and granted ownership rights over relatively large land holdings under transmigration projects. Another source of discontent was the disparity between the generation of wealth due to the oil boom on the one hand, and the continued impoverishment of large sections of the local population on the other.

The armed conflict between the Free Aceh Movement (GAM) and the national military (TNI), which lasted more than 30 years, led to the death of 15,000 people and displaced more than 30,000 households (KDP-World Bank, 2007). It also caused widespread destruction of physical infrastructure and impeded government provision and maintenance of public services.

The devastating impact on the social fabric of Aceh, besides aggravating horizontal and vertical inequalities among the population, posed a severe challenge in attempts to improve their living conditions. In the three decades following GAM's declaration of independence, Aceh's progress towards human development declined relative to other provinces in Indonesia and poverty increased. The establishment of virtual military control over the region by the Indonesian armed forces and the entry of the Javanese migrants into the oil boom areas, followed by their dominance over highly placed civilian jobs, further aggravated the inequalities and disparities in Aceh (Brown 2005).

The relative intensity of the conflict among the districts of Aceh is mapped in figure 2.1. Fighting was most intense among coastal districts in the northeast, inland areas in the north, and also scattered coastal districts in the northwest and far southwest. The city of Banda Aceh and its hinterland was affected less due to the strong presence of central government forces there.

The impact of the conflict on economic infrastructure and social facilities was severe (see, Appendix A: figures 2.1 and 2.2). Half or more of jetties, fish and shrimp ponds, market places and rice mills were damaged, and to a

Figure 2.1 **Levels of conflict intensity in Aceh sub-districts**

Source: BPS

Compared with the conflict, the tsunami had a far more devastating impact on human life. The death toll from the tsunami of 130,000 people was nearly ten times the number that died as a result of the conflict, possibly even more given the 37,000 people still not accounted for in 2008.

lesser extent farmland, rice fields, factories, shops and livestock. This eroded the livelihoods of large numbers of households in Aceh, including many of the poorest families who find it hardest to recover from their losses. The damage to social facilities was even greater in terms of buildings and physical assets. The conflict damaged more than half of all the facilities in eight categories, including primary, middle and high schools, and as much as three quarters of preschools and village health clinics. These figures however, do not reflect the damage to the social fabric. Not only were livelihoods destroyed by conflict, but social capital and family welfare also suffered gravely.

Table 2.2	Total cost of tsunami by sector (Billions Rp)		
	Damage	Losses	Cost of Tsunami
Social Sectors	16.749	0.658	17.407
Infrastructure	6.36	2.408	8.768
Production Sectors	3.519	8.302	11.821
Cross Sectoral	2.576	3.944	6.52
Total Impact	29.204	15.312	44.516

Source: Indonesia: Preliminary damage and loss assessment. Bappenas and International Donor Community.2005

2.1.2 Natural disasters

The massive earthquake and tsunami of December 2004 caused more damage, destruction and loss of life, making a bad situation even worse. The World Bank (2008) summarized the cataclysmic effect of the tsunami on Aceh as follows:

"*The 2004 Tsunami caused devastating physical damage along Aceh's coast with 130,000 confirmed dead and 37,000 still missing. An additional 500,000 people were displaced by the disaster. Damage and losses were estimated at US$ 4.8 billion and the productive sector alone suffered damage estimated at US$1.2 billion, with over 100,000 small businesses destroyed and more than 60,000 farmers at least temporarily displaced.*"

The total assessed cost of the tsunami amounted to Rp 44 trillion (see, table 2.2). About two thirds of these costs are attributed to damage, while losses reflect destruction of physical assets but not the financial impact on activities. The greatest losses from the tsunami were for housing (Rp 14 trillion) and the productive sectors (Rp 12 trillion) each comprising about a third of the total cost. Other large losses were incurred in the infrastructure sector, mainly for roads, flood control, irrigation and sea protection works. Compared with the conflict, the tsunami had a far more devastating impact on human life. The death toll from the tsunami of 130,000 people was nearly ten times the number that died as a result of the conflict, possibly even more given the 37,000 people still not accounted for in 2008.

The fatality rate for women during the tsunami was disproportionately higher compared to men. Oxfam reported in 2005 that in four villages surveyed in the Aceh Besar district, male survivors outnumbered women survivors by a ratio of almost 3 to 1. A number of explanations have been offered to account for this imbalance. Women were more vulnerable because they could not swim. They were attempting to save children and the elderly. Their traditional clothing restricted their ability to move quickly. They were more likely to be at home on a Sunday morning, and they generally lacked the physical strength to struggle against the water or to escape.

2.1.3 Internally displaced persons (IDPs)

The conflict and the tsunami combined to bring about a massive displacement of people and families throughout the region. One study made in 2005 estimated the total number of IDPs to be close to 350,000. Districts along the coast had a far larger number of IDPs than those inland like Aceh Tengah, Bener Meriah and Aceh Tenggara, indicating that the tsunami was the primary cause of displacement (see, Appendix A: table 2.1). Combined displacement was greatest in Pidie district on the north coast with 65,000 people, Aceh Barat (53,000), and Aceh Besar (40,000), both on the northwest coast. Among IDPs, the male to female ratio was 52 percent for men, and 48 percent for women. The male proportion of IDPs in a given location reached a high of 56 percent in the city of Banda Aceh and 55 percent in Aceh Besar, while women featured more prominently in Langsa (53 percent) and in Aceh Tengah (54 percent), which are inland and therefore almost exclusively the result of the conflict. On a more positive note, the resettlement of IDPs has taken place remarkably quickly. By 2009, UNORC reported that less than 0.1 percent of the population, or 2,600 people, were still considered displaced.

The conflict and natural disasters also altered the structure of many Acehnese families. The number of displaced women totalled

167,000, of whom 14,319 were widows and 20,751 identified themselves as household heads (*kepala keluarga*). More broadly and more recently, there were some 148,000 widows in Aceh in 2007.[4] The proportion of widowed heads-of-household in the province is higher than the national rate, another consequence of the conflict, in which men were more likely to be killed (see, Appendix A, table 2.3). Similarly, the percentage of *kepala keluarga* who are also widows is significantly higher in Aceh than in Indonesia nationally.

2.1.4 Peace Accords

Many believe the shock of the tsunami in December 2004 acted as a catalyst to the Peace Accords that followed in August 2005. The Memorandum of Understanding (MoU) between the Indonesian government and GAM signed in Helsinki included several important provisions. The parties agreed to a ceasefire in the conflict; the disarmament and demobilization of GAM's armed forces; the withdrawal of emergency central government forces and police in Aceh; an amnesty to all persons participating in GAM activities; and the holding of elections. GAM also gave up its demand for independence, while the central government agreed to grant a degree of local autonomy to Aceh greater than that enjoyed by any other province in Indonesia, accompanied by substantial additional public funding and the right to form local political parties.

Following the MoU, GAM disarmed its military wing, the Aceh National Military (TNA) and in the last months of 2005, created two new institutions, namely the national council (Majelis Nasional), headed by Malik Mahmud, Aceh's chief negotiator in Helsinki, and the Aceh Transitional Committee (Komite Peralihan Aceh-KPA), a body established to oversee the demobilisation of former TNA combatants.

A year later, in August 2006, the Indonesian parliament passed Law 11/2006 on Governing Aceh (LoGA) that contained special autonomy measures based on the provisions of the MoU. The first direct elections for the positions of governor, deputy governor and district officials were held in December 2006, with the posts of governor and deputy governor secured by former GAM members. In preparing for the elections, however, rifts developed within GAM between the old guard still based in Sweden and the younger generation inside Aceh. The election of Irwandi Yusuf as Governor and Muhammed Nazar as Vice Governor signified greater support by the Acehnese for the latter. The 2006 elections were followed by elections for the provincial, district and city legislatures in 2009.

These events were greeted with acclaim by most people in Aceh, wearied by years of fighting, death and destruction. With relatively minor exceptions, peace has prevailed and social stability has been restored, laying the ground for potential economic recovery and smoothing the way for the massive programme of reconstruction and rehabilitation, which started right after the tsunami in December 2004.

Table 2.3 **Achievements of the Board for Rehabilitation and Reconstruction Agency (BRR)**

	Needs and damage	Progress to August 2008
Houses built	139,195 unit	140.304 units
Agricultural land	73,869 ha	69,979ha
Roads	2,618 km	3,696 km
Ports	22	23
Airports/airstrip	8	13
Teachers	1,927 died	39,663 trained
Schools	3,415 unit	1,759 units
Health Facilities	517 unit	1,115 units
Religious Facilities	1,089 unit	3,781 units
Boat	13,828 unit	7,109 unit
Government Building	669 unit	996 unit
Bridge	119 unit	363 unit
Small Medium Enterprise	104,500	195,726 received grant
Labour force		155,182 trained

Source: BRR Book Series; Infrastructure 2009

2.1.5 Recovery and reconstruction

As has been widely reported elsewhere, the tsunami triggered a global outpouring of resources and assistance for all affected regions. Aceh received by far the lion's share, amounting to as much as $9.0 billion or more according to some estimates, equivalent to some $2,000 per person in the province. The Peace Accords in turn generated additional donor funding to consolidate agreements, although much less than for the tsunami. Rescue and recovery efforts started almost immediately after the tsunami. Several international donors clubbed together to form the Multi Donor Fund (MDF) for Aceh and Nias, an island in North Sumatra province also badly affected, pitching in more than USD 600 million. In April 2005, the

central government established a special agency to manage recovery, BRR, with a four year mandate that expired in March 2009.

Special provisions in the legislation establishing the BRR allowed it to bypass many cumber some government regulations as a means to accelerate support and programme implementation. To ensure that the huge sums contributed to the relief effort would be used properly and efficiently, special measures were taken to recruit highly qualified staff at enhanced salary levels, to institute rigorous procedures for financial management and monitoring, and to make widespread use of private sector consultants and contractors.

By the end of its four year mandate, the BRR had achieved an impressive track record and established itself as a model for others to follow in post-disaster situations. The BRR contributed greatly to the region's recovery from the natural disasters (see, table 2.3). The construction of 140.304 houses, for example, was a big factor in quickly reducing the number of IDPs mentioned earlier. The work on ports and roads helped to speed delivery of supplies and restore transportation networks. The repair and construction of schools and health facilities in some areas more than offset losses from the conflict and tsunami.

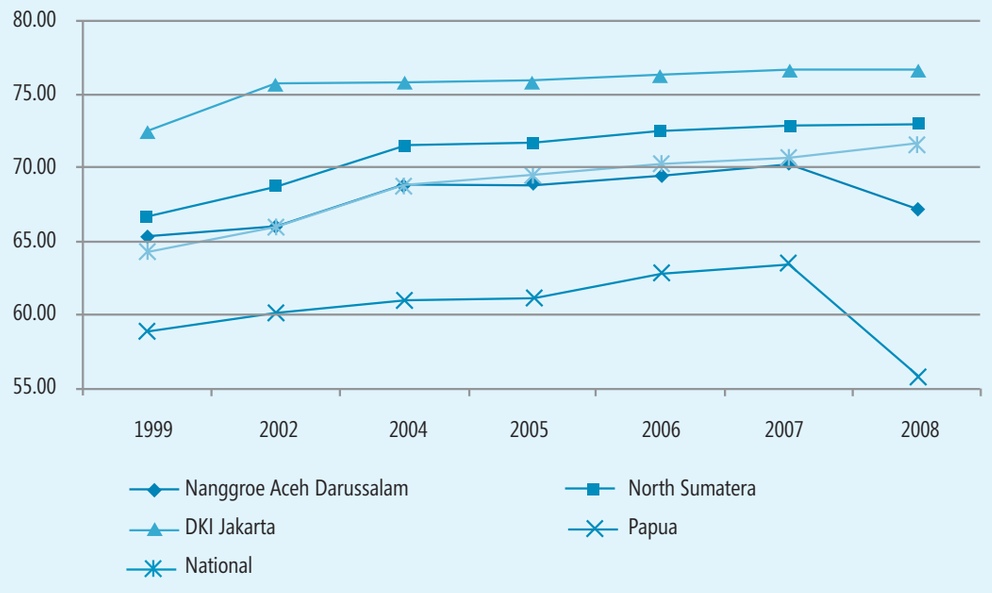
As part of peace building efforts, the central government also set up the Aceh Peace Reintegration Agency (*Badan Reintegrasi Damai Aceh* - BRA). While the BRA has achieved important milestones, internal disputes have hampered broader success and as a result much work remains to be done in terms of reintegrating former combatants into civil society.

2.2. Indicators of human development in Aceh

This section analyses four indicators described in chapter one: the Human Development Index (HDI); the Human Poverty Index (HPI); the Gender Development Index (GDI), and; the Gender Empowerment Measure (GEM). Section 2.2.1 compares the indicators for Aceh with other provinces in Indonesia, while Section 2.2.2 uses these indicators to reveal variations among districts and cities within Aceh.

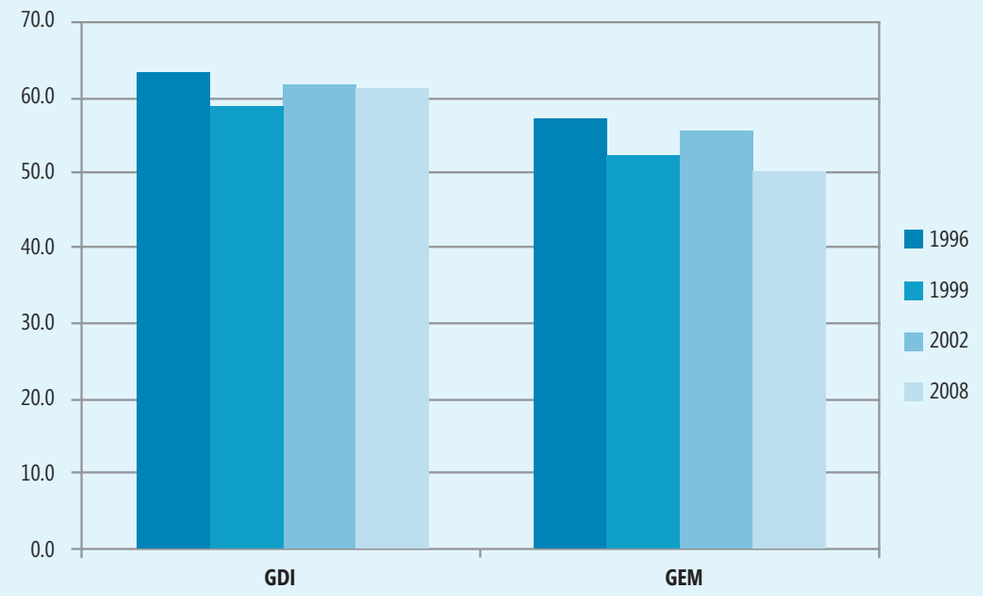
The reader might generally expect these indicators to reflect the debilitating impact of years of conflict and the devastation brought about by the tsunami. As revealed in the pages that follow however, this is not always the case. Instead, they show a mixed picture of advancement in some areas and decline in others, which presents a challenge on how best to interpret the information.

Figure 2.2 **Provincial Human Development Index in Indonesia, 1996-2008**



Source: BPS

Figure 2.3 Gender-related development progress in Aceh, 1996 – 2008



Source: BPS

2.2.1 Aceh's HDI in comparison to other Indonesian provinces

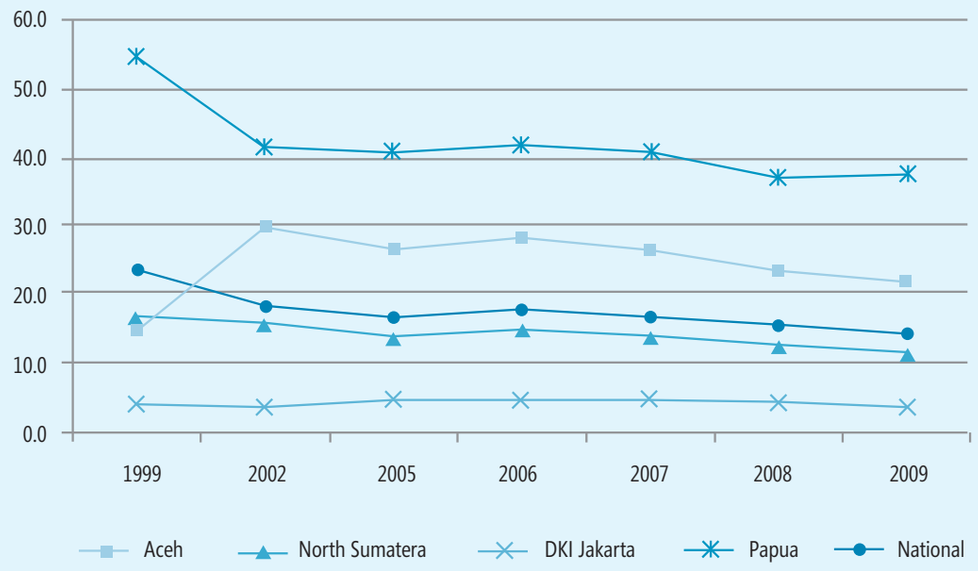
Human Development Index: The HDI for Aceh is a case in point. Despite the upheavals in the province, the HDI surprisingly managed to keep advancing almost in step with the national figure up until 2007, rising from 65.3 in 1999 to a peak of 70.4 in 2007, not far below the neighbouring province of North Sumatra (see figure 2.2). This would appear to be a credit worthy performance, but compared to other provinces, Aceh slipped from 9th in national rankings in 1996 to 15th in 2002 and most recently to 29th in 2008 after a sharp drop that year to 67.1[5]. This is a period that included both the negative impact of the final years of the conflict and the tsunami in late 2004, as well as the positive impact of four years of recovery programmes. The earlier rise in the HDI coupled with the slip in rankings indicates that other provinces were making faster progress.

Gender development. Two other indicators related to gender development in Aceh reveal discouraging trends over the period 1996 through 2008, the most recent year for which data is available (see figure 2.3). The Gender Development Index (GDI) has shown little progress, hovering around the 60 mark, a couple of points lower in 2008 than it was 12 years earlier. Meanwhile the Gender Empowerment Measure (GEM) has oscillated up and down over the years, starting at a high of 57.3 in 1996 but finishing more than 7 points lower by 2008 at 50.2.

This runs sharply counter to what might be expected, since the most recent figures after the Peace Accords are below those achieved during the years of conflict. The slight fall in the GDI over the years appears to be due partly to a bigger gap in literacy levels between men and women and partly to a more marked fall in women's contribution to household income. The latter may reflect the displacement of women as primary breadwinners in favour of men able to resume a greater economic role after disarmament.

The GEM is particularly prone to ups and downs due to the inclusion of a component reflecting the proportion of women in local assemblies, which varies widely from one election to another. It is an important component however, since a greater role for women in the legislative can result in more representative decision making, and laws and regulations which advance women's wellbeing. Another factor contributing to the decline of the GEM is a drop in the proportion of women in the work force, again due in part to former combatants finding civilian employment. Some might interpret the trends in these indicators as an ingrained gender bias or patriarchal attitude

Figure 2.4 Poverty rate by Provinces in Indonesia: 1999-2009



Source: BPS

on the part of Acehnese society towards the advancement of women. But other factors dispute such claims. Better results in earlier years more likely reflect the greater economic and political role given to women during times of conflict. The rise or fall in the proportion of women in senior and technical positions in some years is offset by a counter fall and rise in their participation in the work force. The more recent decline in the proportion of women in the labour force is likely in part a reflection of the end of conflict and the reintegration of former combatants among the employed.

While the ratio of female to male employment has been considerably lower in Aceh compared to the national average, this does not a priori imply gender bias. Those industries that have created a large number of new opportunities for female labour since the late 1970s, such as textiles, foot wear and low value services, are located in major urban centres but not in Aceh. The dominant role of agriculture, forestry and fishing in the local economy, coupled with the specialized labour force in the oil and gas industries in the province, suggests that many other factors besides gender bias explain the relatively low participation of women in the labour force. It should also be noted that women are often employed in low paying jobs, which is reflected in their contribution to household income, a factor included in the GDI.

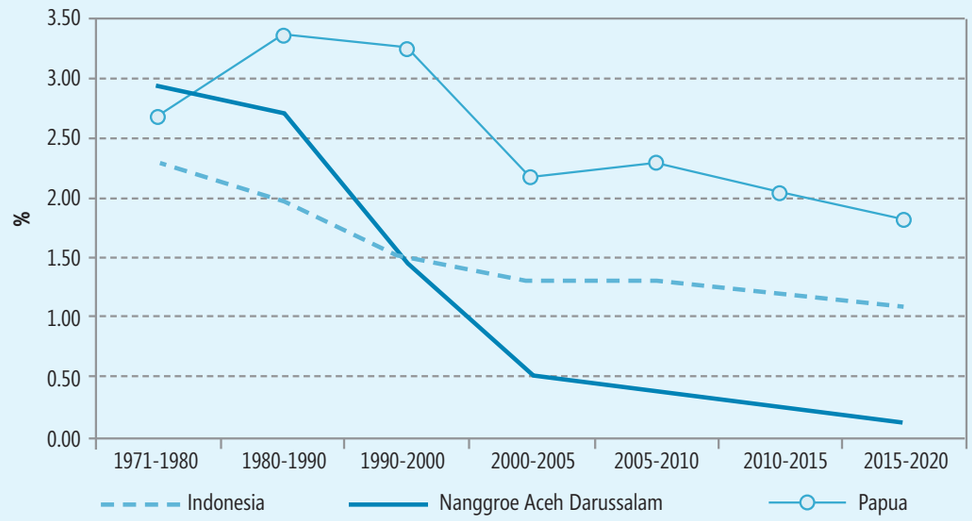
Poverty. Two standard measures of poverty are the poverty rate – the proportion of the population with incomes (read expenditures) below a threshold sufficient to cover basic living costs – and the Human Poverty Index (HPI), which is discussed below under Section 2.2.2. An analysis of the poverty rate also shows Aceh to be performing badly compared to most other provinces (see Figure 2.4). The impact of declining GDP growth and rising income inequality since the mid 1990s had predictable results, leading to a sharp rise in the population below the poverty line. In 1996, the poverty rate in Aceh was 12.7 percent, very close to the national average. The financial shocks of 1998 pushed poverty rates up everywhere in Indonesia, although more slowly in Aceh. Most other places experienced a decline after 1999, but due in part to intensified civil strife and the harsh military response that followed, the poverty rate in Aceh continued to rise, reaching a peak of 30 percent by 2002, a rate exceeded by only four other provinces. Since then, in line with the rest of Indonesia, the poverty rate has declined, but has remained well above most other provinces. By 2009, the incidence of poverty in Aceh had declined to 22 percent compared to 14 percent for Indonesia as a

Table 2.4 **Summary of indicators in Aceh, 1996 – 2008**

	HDI	GDI	GEM	HPI	Provinces
1996	69.4	63.6	57.3	28.9	
1999	65.3	59.0	52.4	31.4	
2002	66.0	62.1	55.5	28.4	
2005	69.0	na	na	na	
2008	67.1	61.4	50.2	16.5	
Rank 1996	9	20	19	20	26
Rank 1999	12	8	6	23	26
Rank 2002	15	5	5	23	30
Rank 2008	29	27	29	17	33

Note: Data for GDI, GEM and HPI for Aceh in 2005 is not available.
Source: BPS

Figure 2.5 **Population growth rate in Indonesia**



Source: Population census (1971, 1980, 1990, 2000) dan Supas 2005; Indonesia Population Projection 2005-2025 (Bappenas, BPS, UNFPA-2005)

whole. According to the 2010 census, these figures had each dropped 1 percent respectively, with Aceh currently ranked 7th from bottom among all provinces[6].

A comparison of these four indicators for Aceh with other provinces over time indicates big swings in Aceh's rank (see table 2.5). Despite high rates of poverty in Aceh, its ranking according to the HPI rose from 20th out of 26 provinces in 1996 to 17th out of 33 by 2008. Aceh's ranking for both the GDI and the GEM also fell from 20th and 19th respectively in 1996 to 27th and 29th by 2008. In the interim, however, Aceh ranked much higher on both counts in 1999 and 2002, even though the scores were lower than in 1996.

Something seems amiss here. Part of the explanation is the addition of seven new provinces between 1999 and 2008, which would tend to push rankings down for all provinces, especially by 2008 and for those closer to the bottom of the table. Other possible explanations arise from the scope for errors both in data collection and computation, and diverse interpretations of computation methods by different teams in each province. In sum, while rankings may make for lively discussion, trends in the indicators may be more meaningful.

Population Growth. Although the rate of growth of population is not an indicator of development *per se*, it does reflect the impact of larger forces at work in the local economy and society at large.

In Aceh, the population growth rate has fallen dramatically in recent years (see figure 2.5.). Whilethis has been falling throughout Indonesia, it has fallen much faster in Aceh,

from around 3 percent per year during the period 1971 through 1980 to only 0.5 percent per year during the period 2000 through 2005. This can only be caused by three factors, namely higher mortality, a falling birth rate and out-migration. Birth rates no doubt fell in part as a result of the disruption to family life caused by the conflict, which also increased mortality not only among combatants but also among suspected sympathisers on either side. Meanwhile, out-migration from Aceh accelerated due both to the conflict and a weakening economy, as younger men sought to escape involvement in the fighting and many others to look for jobs elsewhere. Projections by BAPPENAS and others anticipate the growth rate to continue falling after 2005, but this is based on past trends and may not hold true. This is especially true in Aceh given the end of conflict and the albeit temporary boost to employment from the massive recovery programmes after 2004. Results from the 2010 population census will show whether or not projections are correct.

2.2.2 Variations within Aceh

This section examines development indicators for the districts and cities of Aceh. For purposes of analysis, districts are grouped into three regions: Northern and Eastern Aceh (NEA), Western and Southern Aceh (WSA), and the Aceh Hinterland (AH). Cities are grouped separately. Following legislation on local government autonomy starting in 1999, the number of jurisdictions in Aceh has increased from 13 to 23. This makes it difficult to make strict comparisons of performance over time. To help the reader better understand what is going on, tables listing jurisdictions are arranged such that new ones carved out of existing ones are listed directly below the name of the original jurisdiction.

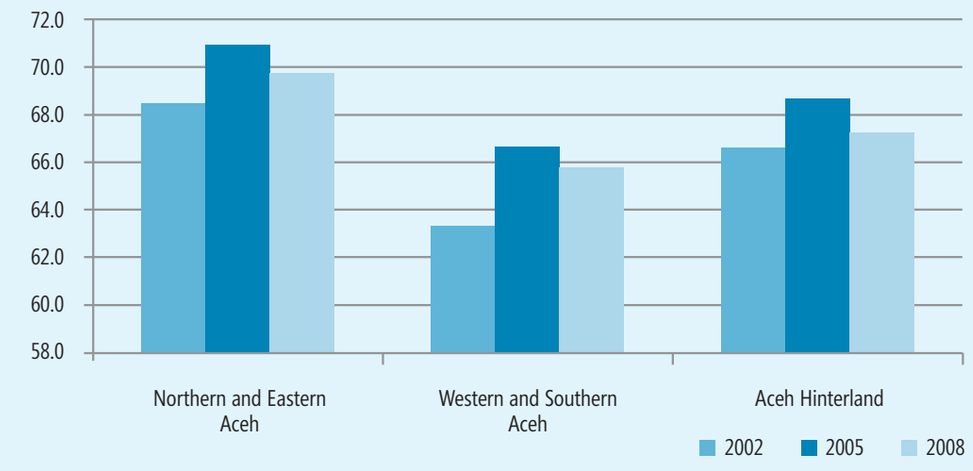
Human Development Indices. Between 2002 and 2008, HDIs rose then fell in all three regions of Aceh (see, figure 2.6). The initial rise between 2002 and 2005 was quite substantial, particularly in the WSA region, before a smaller drop in all regions by 2008.

HDI scores among individual districts and cities vary widely at each year of measurement, as shown by the vertical bars in figure 2.7. In 1993, for example, they ranged from a low of 62 in Aceh Tenggara to a high of 75 in Banda Aceh, a difference of 13 points. Since then, the range has narrowed over the years averaging a little more than 9 points since 2006, with a low in 2008 of 63 in Gayo Lues and a high of 72 in Banda Aceh.

When comparing HDIs for districts and cities[7] in Aceh with the national average, another surprise emerges. Leaving aside the two years in which HDIs fell sharply in 1999 and 2008, the aggregate HDI for the province has risen steadily.

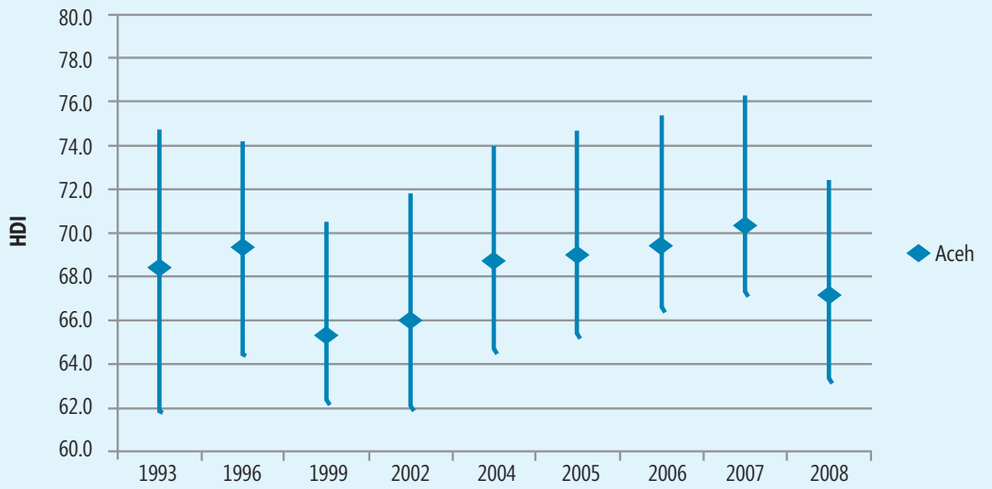
Yet in each year, the number of districts and cities falling below the national HDI average has increased. In 1993, only 1 out of 10 districts

Figure 2.6 **HDI difference across regions in Aceh**



Note: HDI is weighted for each region
Source: BPS

Figure 2.7 HDI range across districts and cities in Aceh, 1993-2008



Source: BPS

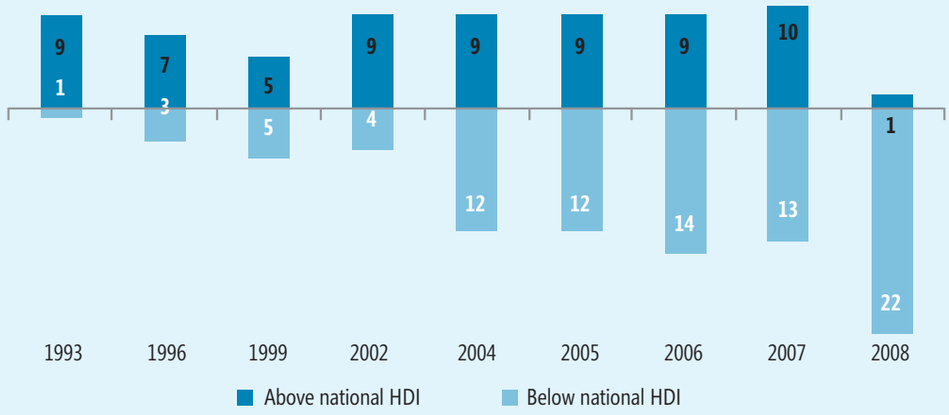
in Aceh stood slightly below the national level (see figure 2.8). By the time the tsunami struck in December 2004, 12 out of 21 districts stood at or below the national figure. In 2008, the proportion rose dramatically with all but Banda Aceh falling below the national average.

This trend may be observed not just in Aceh but in many provinces throughout Indonesia. In Aceh at least, and probably elsewhere in the country, this is partly explained by the proliferation of new districts carved out of existing ones. In some cases, the main urban centre is restructured as a city jurisdiction, for example Kota Lhokseumawe from Aceh Utara and Kota Langsa from Aceh Timur. But in many other cases, the new districts comprise the rural hinterland of the main urban centre, which remains in the original district. Since public facilities are usually better in urban areas, and innovations and improvements usually occur there first, the rural areas are less well served and not surprisingly score lower on most development measures. Another factor that helps to explain results is the self interest of the original district. Inevitably they want to keep important assets and public facilities, such as high schools and higher order health facilities, and particularly revenue generating services such as water and solid waste collection (For more on this issue, see chapter 6 on Planning and Budgeting).

An analysis of HDI scores for each district and city reflects the aggregate picture shown in figures 2.7 and 2.8. (see Appendix A: table 2.2.) Without exception all jurisdictions consistently show a steady increase in HDI scores between 2002 and 2006, and all except two show the HDI falling over the next two years to 2008. The two exceptions are Aceh Timur and Aceh Barat, both of which record only small increases. The big downward revision of BPS estimates of HDI in 2008 implies that 13 of the 23 jurisdictions are worse off than they were in 2004, largely due to lower per capita expenditures. This probably reflects the winding down of massive recovery programmes that created a large number of temporary jobs after the tsunami.

Other general trends, however, remain unchanged over the years since 2002. The Northern and Eastern Aceh (NEA) region consistently scores a higher HDI than other regions, followed by Aceh Hinterland (AH) with Western and Southern Aceh (WSA) trailing behind. The gap between the NEA and WSA was narrowing from 4.3 points in 2002 to 2.7 points in 2006, but widened again in 2008. The gap in 2008 is clearly evident: whereas all 11 jurisdictions in the NEA scored above the provincial average, 6 of 8 districts in the WSA scored below the average. Although by no means the whole story, a look at the map helps to explain why this is the case. The districts and cities in the NEA all lie along a relatively good highway connecting the two largest cities in the region, Banda Aceh and Medan in Northern Sumatra, and two-thirds of the population in Aceh. Those in the WSA region lie along a poor road to nowhere serving a smaller scattered population. The locational advantages of better

Figure 2.8 HDI Scores for districts and cities compared with the National Average, 1993-2008



Notes: HDI is less reliable for year 2004, 2006, 2007 because social economic survey only captured small numbers of household.
Source: BPS

access to major markets and public facilities translates into lower transportation costs, greater economic opportunities and generally superior services.

The trend among cities and districts also remains constant over the years. Cities consistently score higher HDIs, as is to be expected, since generally better social services and higher paying jobs are to be found there. Among districts, HDI scores show the newly established jurisdictions lag behind the original ones from which they were formed, probably for similar reasons, as poorer services and lower paying jobs are generally to be found in predominantly rural areas.

Gender Development Indices. An analysis of GDI scores for individual jurisdictions in Aceh reveals some surprising changes (see Appendix A: table 2.4.). As with HDIs, GDI scores rose in all places between 1999 and 2002, with the exception of Aceh Utara where it fell 5 points.

Between 2002 and 2008 however, scores fell in 8 of 13 jurisdictions for which data is available. The most notable increase is Aceh Utara, offsetting the marked decline in the earlier period, which suggests an error in computing the score for 2002. Large declines in GDIs were recorded in Aceh Singkil, where it fell 6.5 points, followed by Simeulue (down 5.5 points) and the city of Banda Aceh (down 4 points). Of the four components of the GDI, life expectancy, literacy and years of schooling are unlikely to change greatly over short periods. This suggests most of the change is probably due to a drop in women's contribution to household income, arising from increased contributions from men returning from the conflict.

In regional terms, the Aceh Hinterland scores slightly higher than the NEA, but the WSA region again lags behind. While only one of the four districts in the Aceh Hinterland, Gayo Lues, scores below the average GDI for the province, seven of the eight jurisdictions in the WSA region fall below this mark. In the Aceh Hinterland, Aceh Tengah, Bener Meriah and Aceh Tenggara score above the average on all components of the GDI. But the first two and even Gayo Lues excel in terms of women's contribution to household earnings, which was more than 50 percent in 2002 and still above others in 2008. These three districts are the only major producers in Aceh of highly priced arabica coffee and many women participate in its production and marketing.

At the other end of the spectrum, the four districts with the lowest GDI scores in 2008 were Aceh Singkil, Simeulue, Subulussalam and surprisingly Kota Lhokseumawe. Aceh Singkil scores poorly on four of five components and Subulussulam on three of them particularly mean years of schooling where it ranks by far the lowest (only 5.4 years). Women in Simeulue suffer from the shortest life expectancy (65.3 years) and the third lowest contribution to household income (24.3 percent). Women in Kota Lhokseumawe rank well above the average score on most components, but contribute least to household income (only 22.2 percent).

Among jurisdictions, contrary to what might be expected, the GDI is not consistently

Figure 2.9 **Human Poverty Index by districts in Aceh 2007**

Source: BPS

highest in cities. In 1999 and 2008 it was higher in the original districts.

Human Poverty Indices. Throughout the period 1999 to 2008, poverty as measured by the HPI has steadily declined both at the provincial level and among all districts (see Appendix: table 2.5 and figure 2.9). The decline has been most pronounced since 2002. At the provincial level, the HPI fell 3 points over three years between 1999 and 2002, but then a further 12 points over the next five years to 16.5 in 2008. Based on unweighted averages, the NEA region consistently emerges with less poverty than other regions, lowering the HPI by almost 16 points between 1999 and 2008. However, the most dramatic reduction in the HPI during the same period is recorded in the WSA region, down by almost 20 points to a score of 20.4 in 2008. Meanwhile, the HPI fell only 9 points in the Aceh Hinterland. The

Table 2.5 **Overall ranking of jurisdictions in Aceh by development indicators**

Region/District	Rank HDI 2008	Rank GDI 2008	Rank HPI 2008	Average rank	Overall rank
Northern and Eastern Aceh (average excluding cities)	**10.3**	**9.9**	**10.1**	**10.1**	**9.4**
Aceh Besar	6	6	5	5.7	4
Aceh Timur	9	5	15	9.7	9
Kota Langsa*	3	10	4	5.7	4
Aceh Tamiang*	13	19	11	14.3	15
Aceh Utara	15	12	19	15.3	16
Kota Lhokseumawe*	4	21	3	9.3	8
Bireuen	5	2	8	5.0	3
Pidie	10	7	6	7.7	7
Pidie Jaya*	14	18	7	13.0	12
Kota Banda Aceh	1	3	1	1.7	1
Kota Sabang	2	8	2	4.0	2
Western and Southern Aceh (average)	**16.7**	**16.9**	**15.6**	**16.4**	**17.1**
Aceh Barat	11	16	20	15.7	17
Aceh Jaya*	12	15	12	13.0	12
Nagan Raya*	18	11	18	15.7	17
Simeulue	19	23	23	21.7	23
Aceh Selatan	16	14	9	13.0	12
Aceh Barat Daya*	20	17	13	16.7	19
Aceh Singkil	21	22	14	19.0	20
Subulussalam*	22	20	22	21.3	22
Aceh Hinterland (average)	**13.8**	**6.8**	**16.0**	**12.2**	**11.8**
Aceh Tengah	7	1	10	6.0	6
Bener Meriah*	17	4	16	12.3	11
Aceh Tenggara	8	9	17	11.3	10
Gayo Lues*	23	13	21	19.0	20
Aceh					
Average cities	6.4	12.4	6.4	8.4	7.4
Average original districts	11.5	10.6	13.3	11.8	11.5
Average new districts	16.7	13.9	14.0	14.9	15.1

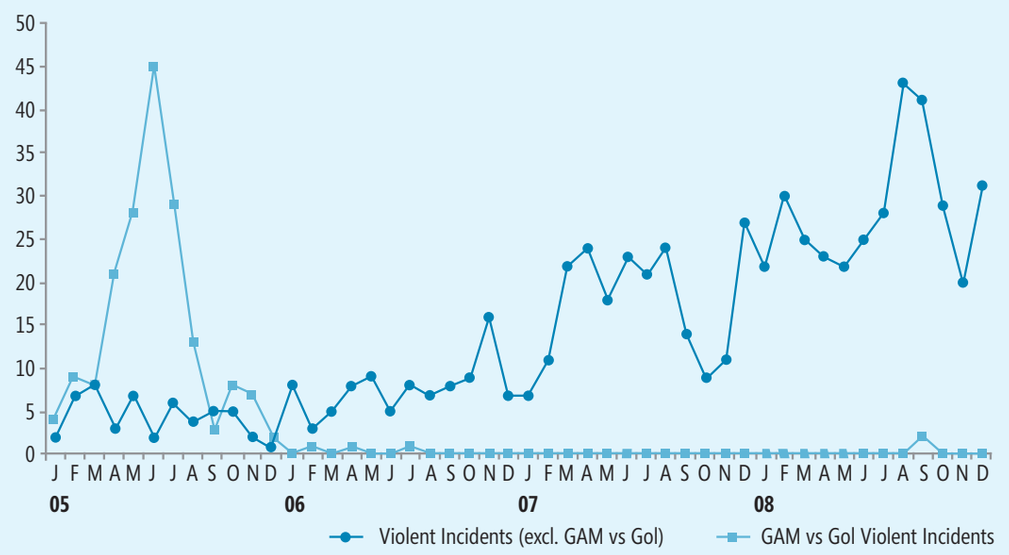
Note: * Denotes new jurisdictions created after 1999
Source: BPS

districts with the highest HPIs in 2008 include Simelue (28), Subulussalam (26) and Aceh Barat (21) in the WSA, Gayo Lues (25) in the Aceh Hinterland and Aceh Utara (21) in the NEA.

Looking more closely at components of the HPI reveals marked differences among districts. The percentage of population without access to clean water was already high in Aceh at 26 percent in 2008. In the same year it was 72 percent in Simeulue, but only 1.1 percent in Banda Aceh. In 2008, 13 percent of the Acehnese population did not have access to health facilities, but the proportion rose to 24 percent in Gayo Lues, 25 percent in Aceh Jaya and 31 percent in Subulussalam. At the other extreme, it fell to 1.4 percent in Simeulue and 0 percent in Banda Aceh. Big differences are also evident in data on the proportion of poorly nourished children. While the figure for the province is 31 percent, it ranges from 49 percent for Aceh Tenggara to a low of only 22 percent in Aceh Timur and 21 percent for Banda Aceh.

Combined rankings. By combining the rankings for the three indicators HDI, GDI and HPI, we can see how the districts and cities compare with one another (see, table 2.6). At

Figure 2.10 Violence in Aceh: January 2005 to December 2008



Source: Aceh Conflict Monitoring Update, World Bank

the regional level, the WSA region emerges as significantly less developed than the NEA and Aceh Hinterland. Rankings are much lower than the other regions for both the HDI and the GDI, and only marginally ahead of the Aceh Hinterland for the HPI. All eight jurisdictions in the WSA region rank in the bottom half of the table. In the Aceh Hinterland, Gayo Lues emerges as the least developed, while the other three districts rank in the top half of the table.

Given the generally better economic opportunities and quality of services to be found in cities, it is not surprising to find most of them high on the list, with Banda Aceh and Sabang at the top, followed not far behind by Langsa in 4th place and Lhokseumawe at number 8. Lhokseumawe would come much higher but for the low GDI score attributable almost entirely to the small contribution by women to household income. The exception is the city of Subulussalam, just recently established as a new jurisdiction, which ranks 22nd, second from last.

Also noticeable is the relatively low level of human development in newly established districts, which as a group score an average rank of 15, lower than the original districts with an average ranking under 12. Among the new districts, Bener Meriah stands out, ranked 11th, followed by Pidie Jaya and Aceh Jaya, both ranked 12th. Bener Meriah's position comes from a high GDI score, attributable again almost entirely to the large contribution of women to household incomes. Since the range of values in that component of the GDI is much larger than others, it exerts a big influence on resulting GDI scores and the overall rankings shown here.

2.3. Residual impacts

While open warfare has ended and much of the damage from the natural disasters has been repaired, these events have left many scars that survivors will have to endure for a long time. Physical capital may be restored relatively quickly with the repair and rebuilding of schools, clinics, market centres and production facilities for example. But it takes many years for people to overcome the loss of loved ones and psychological trauma, for families to restore livelihoods, and for communities to heal social divisions that result from prolonged physical insecurity and displacement. Some commentators are even pessimistic about the future. Sidney Jones from the International Crisis Group, for example, writes:

> *"As long as ex-combatant unemployment remains high, the reintegration programme remains dysfunctional, and resentment grows over the perceived gulf between haves and have-nots, the potential for security problems remains high."*[8]

In 2005, the UNFPA reported that the most common problems facing women arose due to a lack of gender-sensitivity in emergency relief and aid arrangements.

Reintegration: The reintegration of excombatants is certainly a task that has yet to be successfully completed. The Multi Stakeholder Review (MSR) estimates that there are 14,300 former combatants in Aceh. Over half the former combatants can be found in the four most heavily conflict affected districts: Aceh Utara, Bireuen, Aceh Timur and Pidie.[9] The 2005 Memorandum of Understanding (MoU) between the Indonesian Government and GAM included several clauses on social reintegration. The Aceh Peace Reintegration Agency (BRA), set up in 2006, aimed to help find jobs, provide suitable farmland, and ensure access to social benefits for three groups: ex-combatants and their supporters, amnestied political prisoners, and civilians affected by the conflict. While some progress has been achieved, many ex-combatants have found it difficult to return to civilian life and find normal jobs.

From the perspective of post conflict reconstruction and return to social and political normality, the impact of conflict can be considerably more pervasive and long term than that brought about by a natural disaster. These dimensions of conflict are well summarized by the World Bank (2009):

> *"Violent conflict alters the skills that are valued in an economy: during the conflict these skills are related to fighting, but they become irrelevant in the post-conflict economy. Conversely, in the post conflict environment much needed skills may be in short supply, as often the best-educated and the richest were the first to emigrate and escape the conflict"* [10]

Many ex-combatants are still unemployed. Efforts to encourage them to take up coffee and cocoa farming, for example, have met with little interest. Some had no access to land, those who did could not afford to plant trees and wait three or four years for them to bear fruit. Others lacked the skills or found the prospect of hard manual labour required for farming unappealing.

Security and investment: Despite the end of armed conflict between GAM and the TNI, violent incidents still pose a threat to stability and a barrier to investment. The networks established by combatants during those years still survive. In the absence of viable alternatives, many former combatants rely instead on their old networks to find work and income, sometimes involving illegal activities including logging and extortion. Widespread extortion by rogue groups of former combatants and lingering perceptions of insecurity among the business community has proved a deterrent to investment and business expansion.

The lack of regular employment among ex-combatants has also been attributed to rising violence and crime in Aceh (see, figure 2.10). While clashes between GAM and the GoI briefly rose after the tsunami in early 2005, such violence virtually stopped after the signing of the Peace Accords. Other violent incidents however, steadily increased reaching a peak in mid-2008, when they slowed a little. According to data from the Criminal Investigation Directorate of the Aceh Police, there were 218 cases of armed robberies and other street crimes between August 2005 and February 2008. Although less than half of these cases had been investigated at the time of the report, more than 90 percent of defendants who testified claimed they were former combatants[11].

Impact on women: The aftermath of the conflict and the tsunami has also had a lasting impact on women. In the period immediately following the tsunami, women were particularly vulnerable. In 2005, the UNFPA reported that the most common problems facing women arose due to a lack of gender-sensitivity in emergency relief and aid arrangements. Women faced a lack of feminine hygiene products, limited access to maternal and reproductive health services, lack of access to proper latrines, bathing facilities, and clean water in the camps, and limited access to humanitarian aid.

As the emergency subsided, women became primary caregivers to children, the elderly and the injured in extended families. Women also took on greater responsibility for household work, within cramped conditions such as camps, and often without access to water and household facilities. This dramatically increased women's workloads. Consequently, they had less time to engage in public programs linked to the receipt of aid, or in participating in decisions regarding the distribution of aid. Unless women were directly targeted for aid, their access was limited and reliant upon redistribution by male family members. A general (though not universal) failure to design and implement gender-specific aid programs in the early post-emergency period created a source of social exclusion among Acehnese women. Recognition of this however, later generated

a more inclusive, consultative, and consensus-based approach to aid and development programs by a number of organisations operating in Aceh.

Domestic violence: During the time of the emergency, women often lacked protection and became more vulnerable to violence, including trafficking, sexual assault, and harassment.[12] A comprehensive 2005 study of gender-based violence in Aceh undertaken by UNFPA examined the extent of gender-based violence in the province, which had worsened during the conflict years and from the impact of the 2004 tsunami. The study also discusses specific socio-cultural factors that contribute to gender-based violence in Aceh, such as Syariah (Islamic law) that placed restrictions on women's dress and behaviour. Domestic violence by males towards females is still a major concern within Acehnese families and also in the public sphere. Radical Islamic clerics have even heralded that Acehnese women's 'impious' behaviour (such as a failure to wear head coverings) was the cause of the tsunami. Women's groups have argued that gender biased violence has become 'normalised' in Aceh.

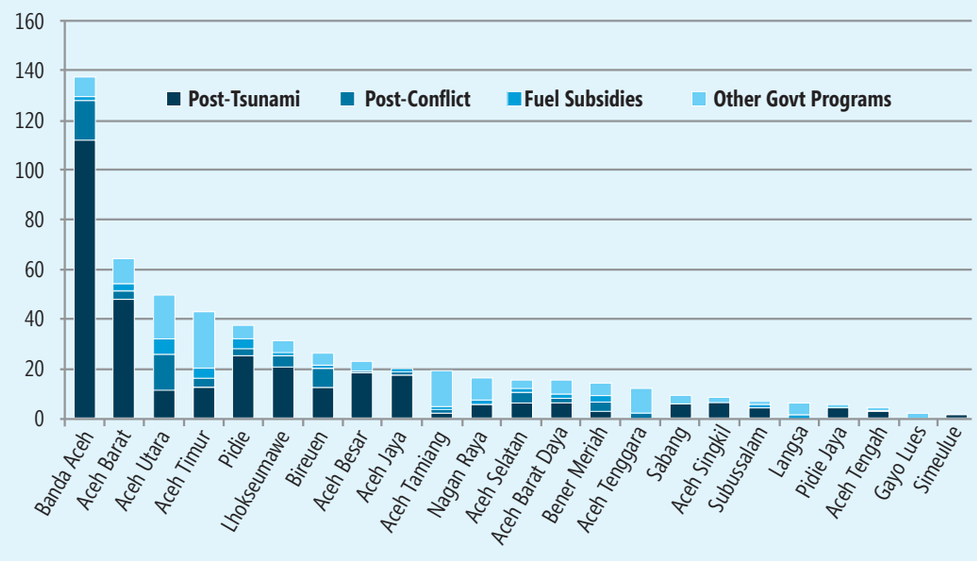
This was particularly the case in IDP camps following the tsunami, and among lower socio-economic groups. The under-reporting of domestic violence gives abusers impunity, and as a result, the level of domestic violence remains high. In addition to physical and sexual abuse, domestic violence also shatters women's domestic security and self esteem, undermining their motivation and drive to seek empowerment. This constitutes a major inhibitor to human development.

Nonetheless, Pennels (2008), in reporting on gender outcomes in Aceh concluded that despite prevalent high levels of gender based violence, there has been significant progress in gender equality compared to pre-tsunami days. This includes more formal gender representation in the provincial and district governments. There was also more interaction and collaboration between government sectors and civil society organizations on gender equality issues. The Syariah Courts were also advancing women's inheritance and property rights. In the social arena, there were improvements in schooling, access to village maternal and health services, and the building of child protection networks.

Post-tsunami assistance: The aftermath of the tsunami has also had its own longer term impact. While it spurred an unprecedented outpouring of assistance, the major part of this, as intended, was directed towards areas affected by the tsunami. The sheer volume of aid allowed recovery programmes not only to repair much of the physical damage, but as the BRR frequently proclaimed to "build back better". Worthy as this goal was, it had the unintended consequence of stirring arguments

Given the huge volume of aid involved, authorities were aware of the potential inequity that would result from a narrow interpretation of the conditions attached by donors, and managed to persuade some of them to stretch interpretations to benefit a wider range of people and communities.

Figure 2.11 Aid and conflict, by jurisdiction in Aceh (Number of conflicts, 2008)



Source: ACMU, as cited from MSR Report, 2009

Nevertheless, much more remains to be achieved. Many men, women and children whose lives have been damaged both physically and mentally by the events of the past are still in need of help in dealing with suffering and trauma.

on the allocation of funds, projects and other resources, sometimes leading to violence. The number of disputes that arose in each district in 2008 and the type of aid in dispute is shown in figure 2.11. Such disputes were mostly confined to Banda Aceh, followed by Aceh Barat, Aceh Utara and Aceh Timur. Disputes were often related to the identification of people and communities eligible to receive assistance, particularly among former combatants and communities affected by the tsunami.

Given the huge volume of aid involved, authorities were aware of the potential inequity that would result from a narrow interpretation of the conditions attached by donors, and managed to persuade some of them to stretch interpretations to benefit a wider range of people and communities. Despite this, misperceptions are hard to dissolve and many communities no doubt had legitimate cause for complaint.

2.4. Conclusions

Compared with the situation right after the tsunami in December 2004, the people of Aceh, and those that have helped them, have achieved a remarkable recovery that few might have envisaged or dared to hope for at the time. This recovery applies not only to the rebuilding of the physical fabric, but also to the reinvigoration of the social fabric so sorely damaged by years of conflict.

Rebuilding the physical fabric has been the easier task, given the huge amounts of financial aid available for the purpose. As BRR data shows, most of the physical damage and destruction wrought by the tsunami have been repaired and large numbers of new houses and facilities have been constructed. The streets of Banda Aceh and many other coastal towns are testament to this, although there still remains the task of repairing and rebuilding many homes and facilities in the hinterland destroyed as a result of the conflict but not eligible for funding from resources allocated for tsunami recovery.

The harder task has been to repair the social fabric and to address the trauma suffered by those who suffered from the tsunami as well as the conflict. Great progress has been achieved on some fronts, based on the foundations of the 2005 Peace Accords and the 2006 Law on Governing Aceh (LoGA). As documented later in this report, the province now benefits from substantial additional fiscal transfers from central government. Local political parties have been formed and local elections have been held, which allowed many GAM members to assume positions in government and local assemblies. Most displaced persons have been able to return to their communities or move to others. Many former combatants, although not all, have been reintegrated into civil society and found employment.

Nevertheless, much more remains to be achieved. Many men, women and children whose lives have been damaged both physically and mentally by the events of the past are still in need of help in dealing with suffering and trauma. As in many post-conflict regions around the world, former combatants who have not been able to find work, or who have not benefited from the peace dividend persist in violence and extortion. One key element of the Peace Accords that has not so far been implemented is the establishment of a truth and reconciliation commission. Many argue this is a vital step needed to support reintegration, heal divisions in communities, and resolve outstanding grievances.

Little of this remarkable progress or the setbacks is reflected in the development indicators discussed above, since they are designed to reflect other aspects of wellbeing. While the HDI and the GDI show progress up to 2006, they both reveal a sharp relapse in 2008. Despite upturns in some years, the overall trend for the GEM since 1996 reveals a marked deterioration between 1996 and 2008. Even the HPI, which showed a steady upward trend over the years, fell sharply in 2008, and the poverty rate in Aceh continues to be higher than most other provinces. Much of the downward movement in these indicators appears to be related chiefly to components reflecting the downturn in economic activity.

Comparisons based on these indicators between Aceh and other provinces in Indonesia show marked inconsistencies between local trends and national rankings. This may be due to differences in methods of computing the indices among provinces or simple errors. Either way, the results throw doubt on the validity of such comparisons.

Among the regions of Aceh, the indicators generally show districts of Northern and Eastern Aceh to be more developed, while those in Western and Southern Aceh lag behind,

although the gap has been narrowing over time. Generally speaking, the indicators reveal cities in Aceh to be more developed than districts, and the new districts formed since 1999 tend to lag behind the original districts from which they were created.

2.4.1 Challenges

It is undeniable that Aceh faces major challenges. These are taken up in later chapters, but five overarching challenges stand out from the preceding discussion.

- **Security.** Despite the success of the Peace Accords in ending the conflict, security remains a problem. Violent incidents continue, arising from disputes over benefit programmes, community friction, domestic tensions and especially extortion and illegal activities by former combatants.
- **Disasters.** While great progress has been made in repairing loss and destruction from the tsunami, numerous natural disasters on a smaller scale continue to exert a toll in human lives, physical infrastructure and economic disruption. Risk analysis shows that 35 percent of the land area of Aceh province is vulnerable to tsunamis, and 75 percent is prone to disasters of one kind or another, including less publicised but more common events. These include earthquakes, landslides, flooding and pest infestation of agricultural crops. While individual events may cause limited loss and hardship for those affected, the cumulative impact of these constantly recurring events represents a substantial economic and emotional burden on society.
- **Poverty.** As indicated above, poverty is still way above the national average and needs to be reduced. Per capita expenditures fell in 2008, probably reflecting the winding down of recovery programmes and the loss of jobs, which points to the urgent need to create more and better employment opportunities.
- **Women.** Measures of the wellbeing of women reveal a discouraging trend over the years, associated in part with lower rates of participation in the labour force and falling incomes. While this trend may be explained in part by the return of male former combatants to the household and the workforce, other factors are also involved and need to be addressed.
- **Equitable development.** Data show that development in Aceh has benefited some regions and districts more than others. Several indicators mentioned above and elsewhere in this report show that Western and Southern Aceh is lagging behind, as also more remote districts in other regions.

2.4.2 Responses

These challenges are recognised by government and development partners but current policies and programmes are diffused, piecemeal and in need of better coordination.

Security. The security concern that bothers most people, especially the business community, is the practice of extortion by rogue groups of former combatants. This requires a strategy of carrots and sticks for those that persist in extortion and other illegal activities.

Recommendation: Efforts should be continued to place former combatants in attractive alternative employment, to provide skill training for this purpose and financial support to undergo training or to start a business of their own.

At the same time, the military, the police, justice officials and other institutions should work together more closely to curb illegal activities and punish offenders. It may be helpful to establish a task force for this purpose and also an independent agency to receive complaints, request corrective actions, and monitor responses.

Disasters. A good start to mitigating natural disasters has been made with the launching in 2008 of the Disaster Risk Reduction – Aceh (DRR-A) programme by the provincial government in collaboration with UNDP. This provides a sound conceptual approach for addressing the issue and includes elements for establishing a supporting legal and institutional framework, strengthening a technical institute at Unsyiah, implementing pilot projects in selected communities and conducting a public awareness campaign.

Recommendation: Complementary initiatives are needed to consolidate and expand coverage to areas throughout the province. Based on lessons learned from the pilot application, the model should be replicated, particularly within more vulnerable communities. Environmental damage, crop disease and pest infection also cause substantial damage

and loss. Future programmes should also engage other government departments, such as agriculture, forestry, plantations and the like.

Poverty. Reducing poverty entails two main strategies (improving public services and economic opportunities) as discussed in chapters 3 and 4.

Recommendation: Improve access to public infrastructure and social services. Enhance opportunities for productive employment and income generating activities.

Women. Mainstreaming gender in development activities has long been advocated, but in Aceh it has not received the attention it deserves. The Department for Women and Children (*Badan Pemberdayaan Perempuan dan Perlindungan Anak* - BP3A) recently established a gender strategy for 2011-15, with input from government and non-government actors.

Recommendation: Such strategy should be mainstreamed by BAPPEDA into the plans of other provincial departments (SKPAs), perhaps through the establishment of an ad-hoc division within BAPPEDA, with constant input from BP3A. This can be modelled on actions to mainstream the Action Plan for Accelerated Development in Aceh into the programs of other SKPAs.

Equitable development. Economic disparities among regions is a common phenomenon at earlier stages of development. This is attributable to a tendency for industries offering higher paying jobs to concentrate initially in urban centres. The quality of public infrastructure and services also tends to be better in cities.

Recommendation: To ensure a more equitable access to these services in rural areas, public agencies need to target investments according to specific indicators of service provision, an issue that is discussed further in chapter 6.

3 Access to Public Services

CHAPTER

3 Access to Public Services

In this chapter and the next, we examine access to public services and economic opportunities, key factors in reducing poverty and improving the welfare of marginalised groups. The discussion is organised according to sectors and programmes commonly adopted in government planning documents. This chapter looks at access to basic physical infrastructure, health, education and justice.

3.1. Access to basic infrastructure

The availability of basic infrastructure has an important bearing on both the quality of housing and the productivity of economic activities.

3.1.1 Shelter

The quality of the physical environment in which people live affects their health and wellbeing. Access to basic infrastructure such as clean water and sanitation helps to reduce illness and disease, as does the quality of housing. Electricity helps to reduce indoor air pollution, simplify household chores, and makes the home a more attractive place for family activities.

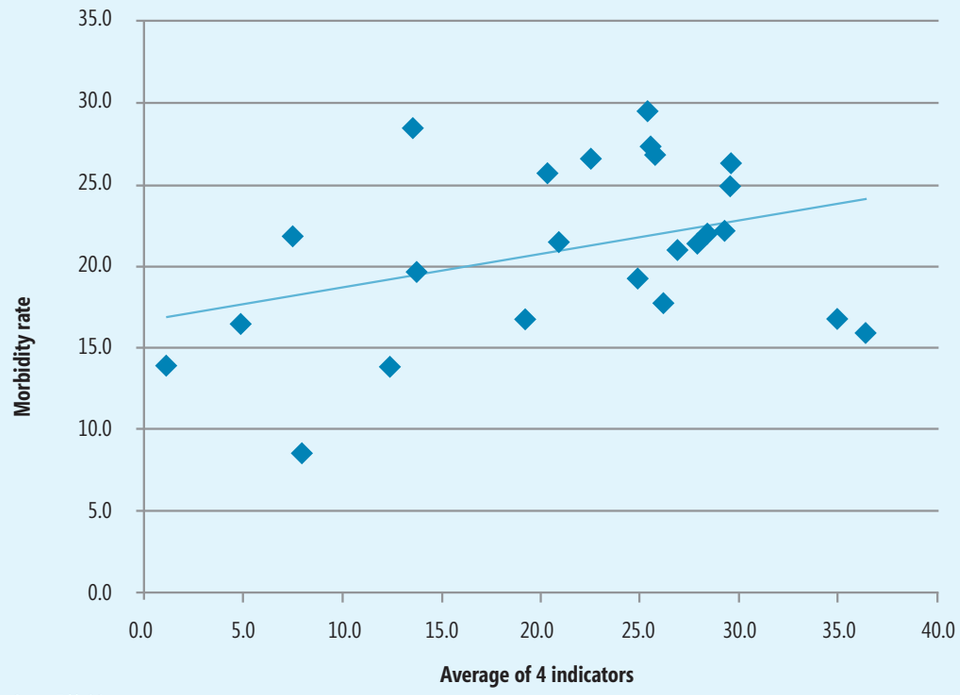
Data for four elements of housing quality in 2008, indicating the percentage of population living in homes that are deficient in each respect, is presented in Appendix A: table 3.1. These include access to clean water and sanitation, dirt floors as an indicator of the quality of house construction, and connections to electricity. Jurisdictions are grouped by region, as before, and figures computed for cities, the original districts existing in 1999 and those created since then.

At the provincial level, the main deficiencies were sanitation (36 percent) and clean water (27 percent), with approximately 10 percent of the population living in homes with dirt floors and no electricity. Judging by the average deficiencies of the four indicators, the quality of housing is generally better in the NEA (where the average is 22 percent) and more or less similar in the WSA and the Aceh Hinterland (both around 27 percent). In the NEA, a lower proportion of homes lacked access to clean water, sanitation and electricity. In the WSA, the proportion of the population without sanitation (46 percent) and electricity (16 percent) was higher than elsewhere. In the Aceh Hinterland, lack of access to clean water (39 percent) was more extensive than other regions.

According to these indicators, the districts with the poorest quality housing were Aceh Barat Daya and Pidie Jaya (both with average deficiencies of 30 percent), and particularly Gayo Lues (35 percent) and Simeulue (37 percent). More than half the population lacked access to clean water in Gayo Lues (52 percent), Subulussalam (56 percent) and almost three out of four people in Simeulue (74 percent). The lack of sanitation was most widespread in Pidie Jaya and Aceh Barat Daya (both 66 percent), Pidie (71 percent) and Gayo Lues (74 percent). More than a quarter of the population in Simeulue and Aceh Jaya were living in homes without electricity.

As might be expected, housing was generally of better quality in cities, and slightly better in the original districts than the new ones. This confirms the observation made in Chapter two about newer districts generally having weaker infrastructure and services.

Figure 3.1 Housing indicators and morbidity by jurisdictions in Aceh 2008



Source: Table 3.1

For many farmers, the most expensive component of transport costs is the time and effort of carrying produce the first few kilometres from the farm to the nearest main road.

3.1.2 Housing and morbidity

Research based on household surveys shows a clear relationship between the physical environment of the home and the incidence of sickness. Although weak, this relationship is even evident at the aggregate level of individual jurisdictions (see, figure 3.1). Among the group of five cities, where the quality of housing is markedly better, morbidity was lower at 16 percent, compared with 22 percent for the original districts and 24 percent for new ones. Also, among the 12 jurisdictions with better quality housing, 7 had lower levels of morbidity. Clearly, other factors are important determinants, most obviously nutrition, income level and to a lesser extent, access to health facilities. Among individual districts, the level of morbidity was highest in Bener Meriah (29 percent), Bireuen (28 percent), Aceh Tengah, Aceh Timur and Aceh Jaya (all 27 percent). All these districts, with the exception of Bireuen, also had relatively poor quality housing.

3.1.3 Economic infrastructure

Basic infrastructure in support of economic activities is also an important factor in raising productivity and expanding the scope for agricultural and non-agricultural opportunities to generate income, particularly for those who live in rural areas. For many farmers, the most expensive component of transport costs is the time and effort of carrying produce the first few kilometres from the farm to the nearest main road. Farm to market roads, and even upgraded tracks for carts and motor bikes, can greatly reduce these costs and make it possible to access local markets and compete more effectively in distant locations. The condition of roads also affects transport costs, with many roads improperly maintained due to lack of funds. Recent data indicates that 20 percent of national roads in the province are in need of repair, a figure that rises to 30 percent for district roads and 37 percent for provincial roads.[13]

While irrigation networks cover large swaths of farmland in Aceh, an extension of these networks through mini-irrigation is needed to reach large numbers of other agricultural producers. Power shortages and unreliable supplies are common sources of complaint in the business community. But electricity is also critical for setting up new small scale enterprises, particularly in rural areas, including for people with disabilities and women who are

housebound and unable to seek employment outside.

3.1.4 Conclusions

The provision, quality and maintenance of basic infrastructure are largely in the hands of public authorities. Given limited funds for infrastructure, public works agencies understandably place priority on investments that yield higher returns. This implies infrastructure that serves large numbers of people, particularly roads, ports, primary irrigation networks, to a lesser extent water and sanitation in areas with a high population density. Far lower down on the list is basic infrastructure for rural settlements with dispersed populations, where unit costs are particularly high.

While home owners and citizens have some influence in pressuring local government to provide and maintain basic infrastructure, there is no guarantee their pleas will be addressed and they have much less influence on decisions of the national providers, such as the state electricity provider PLN.

People empowerment. This is one example where people empowerment can make a difference. Local communities receiving block grants from government do not have to wait for local or national authorities to make these services available to neighbourhoods that lack them. Instead, they may decide to use funds allocated to them to build new infrastructure or to undertake repairs on existing infrastructure. Alternatively, they may choose to organise their own user groups to share the costs of small scale construction works or more commonly to maintain facilities. An example comes to mind from a village in (Eastern Nusa Tengara) NTT, where residents complained of waiting months for the local authority to make a simple repair to a water pump costing a few dollars. How much better if they had organised their own user group to undertake such repairs.

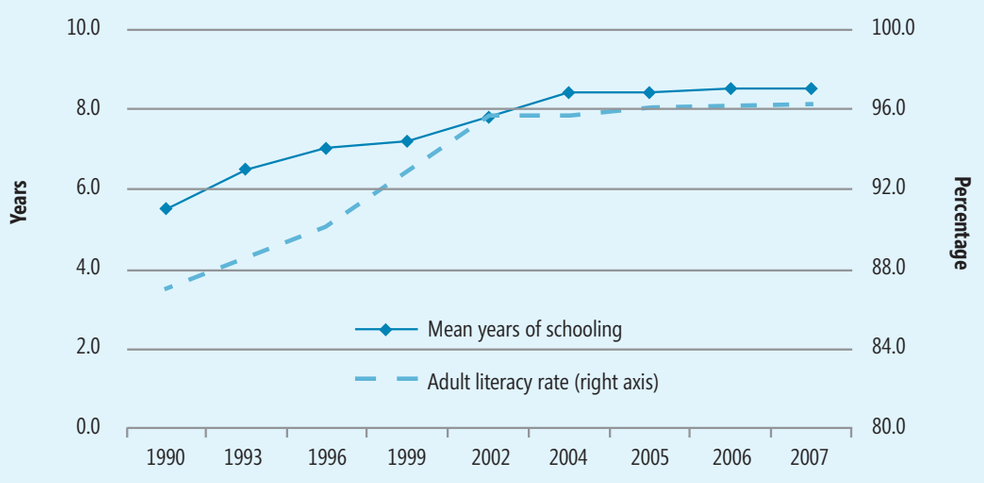
Recommendations:

- Continue and expand existing programmes that provide block grants to local communities that can be used to extend and improve basic infrastructure.
- Consider opportunities for empowering user groups to build, operate, maintain and mobilise resources for small scale basic infrastructure such as clean water supplies, mini-irrigation networks and even power generation in remote areas.
- Allocate a higher proportion of public funds for the maintenance of basic infrastructure for which government is responsible.

3.2. Access to Education

Over the past twenty years, Aceh has made substantial progress in the education sector, although like other parts of the world, further

Figure 3.2 Education Indicators in Aceh, 1990-2007

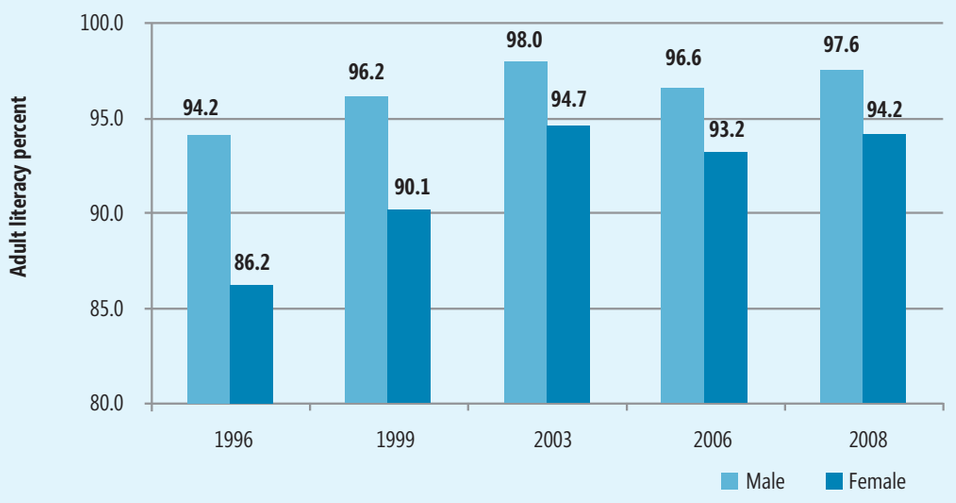


Source: Various Issues of BPS Statistics, Indonesia.

Figure 3.3 **Adult literacy rate across regions of Aceh**

Note: Weighted Adult Literacy rate for each region
Source: BPS

Figure 3.4 **Adult literacy rate by gender in Aceh, 1996 - 2008**



Source: Indeks Pembangunan Manusia (BPS), various years.

improvements are proving increasingly difficult to achieve.

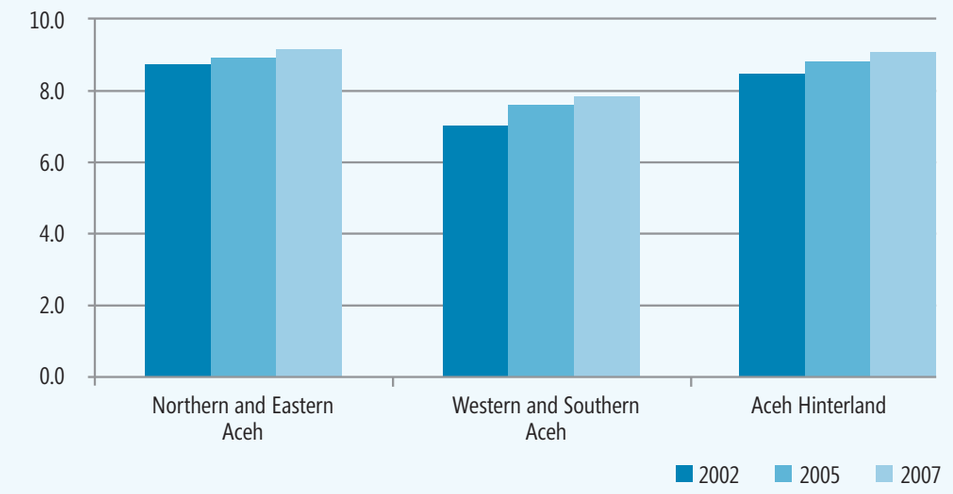
The adult literacy rate in Aceh rose from 87 percent in 1990 to 96 percent in 2007, while the mean years of schooling increased from less than 6 years in 1990 to above 8 years by the end of the decade (see, figure 3.2). Both indicators reached a noticeable plateau by the middle of the current decade. This plateau effect was evident earlier in HDI indicators in more advanced countries after they achieved almost complete adult literacy. As a result, mean years of schooling was added as an HDI indicator for educational attainment to create greater differentiation in international comparisons.

3.2.1 Adult literacy

In 2008, Aceh achieved an adult literacy rate of 95.9 percent compared to 92.1 percent for the country as a whole, and ranked 10th among all provinces of Indonesia.

A comparison of adult literacy rates across the three regions of Aceh over the period 2002 through 2007 shows Northern and Eastern

Figure 3.5 Mean years of schooling across regions in Aceh



Note: Weighted Mean Years of Schooling number for each region
Source: BPS

Aceh with the highest rates, followed by Aceh Hinterland and then Western and Southern Aceh (see figure 3.3). All three regions show a dip in the year 2005, though this may be an anomaly, since other data in table 3.2 for the years 1993, 2004 and 2007 show a steady improvement over this period. Since the dip is less pronounced in the Aceh Hinterland, perhaps it had something to do with survey problems during the disruptions in 2005 caused by the tsunami. Nevertheless, while two of the three regions equalled or exceeded levels achieved in 2002, the Aceh Hinterland was still struggling to catch up by 2007.

Figures also reveal a consistent gap in literacy levels between men and women (see figure 3.4). Up until 2006, this gap was steadily closing, shrinking from 8.0 points in 1996 to 6.1 points in 1999 and 3.4 points in 2006, but since then has held constant. The gap in literacy levels in recent years no doubt reflects the residual effect of similar or bigger gaps in schooling among older generations of men and women.

As is to be expected, literacy rates vary much more widely among jurisdictions. (see Appendix A: table 3.2). It was higher in cities than in districts, by a full 8 percentage points in 1993, but lately the gap has been closing. The rate is also higher in the original districts than the newer ones by some 3 percentage points. While the average literacy rate for the whole of Aceh in 2008 was 95.9 percent, it was notably low in Gayo Lues in the Aceh Hinterland (84 percent), Nagan Raya (88 percent), Aceh Singkil (90 percent) and Subulussalam (91 percent), all in the WSA region. No matter which years are selected for comparison, data show a levelling off in literacy rates after 2004, with slight declines in some years followed by a slight improvement later.

3.2.2 Years of schooling

In 2008, the mean years of schooling for the population in Aceh was 8.6 compared to 7.6 for the country as a whole. This means Aceh ranked 9th among all provinces in Indonesia that year (see Appendix A: table 3.2.). This indicator shows barely any difference between the NEA and the Aceh Hinterland, although the WSA region lags behind again (see figure 3.5). Unlike the story on literacy, each region is still showing a gradual increase in the average number of years of school attendance, which reflects the cumulative impact of steadily increasing school enrolment in past years, as documented in the next section.

At the level of individual jurisdictions, the picture for years of schooling is similar to that for literacy (see Appendix A: table 3.2). The mean for cities has been consistently higher than for districts, rising from 9.1 years in 1993 to 10.1 years in 2008, but the gap is closing, from 2.8 years in 1993 to 2 years or less by 2008. Among districts, mean years of schooling has been higher in the original districts than the newer ones by a margin of 0.7 years in both

2004 and 2008. The highest means in 2008 were recorded in cities ranging from 12 years in Banda Aceh to 10 years or more in Langsa, Lhokseumawe and Sabang, but only 7.6 years in Subulussalam. During early and middle stages of development, this pattern is not unexpected. Cities are where higher skilled jobs are more likely to be found, requiring higher levels of education. Conversely, the lowest means are found in predominantly rural districts, since jobs requiring advanced skills are more scarce. Most of them are in the WSA region, such as Nagan Raya (7.4 years), Aceh Barat Daya (7.5 years), and as just mentioned Subulussalam (7.6 years), plus Pidie Jaya in the NEA region (7.6 years).

The variation in scores for years of schooling among districts and cities should not be interpreted solely as a reflection of the education system in each location. It is also a function of the skill levels required for employment, which tend to be higher where more senior technical and management positions are to be found, particularly in cities and more urbanised districts. To the extent that few of these jobs are found in rural areas, their scores for years of schooling will clearly be lower.

3.2.3 School participation

Aceh's impressive record in terms of enrolment rates at all levels of education is well recognized. The 2008 Poverty Assessment Report sums up the situation in Aceh as follows:

> *"Aceh has a higher enrolment level than Indonesia or North Sumatra. This holds true across income levels and all types of education. In Aceh all income groups have higher enrolment levels than their peers in Indonesia and North Sumatra, and this difference is more pronounced in the poorer sections of the population. Higher enrolment rates in Aceh are not new. There is evidence that the Acehnese have had consistently higher enrolment rates than the average Indonesian household since before independence, with a higher likelihood of finishing primary, junior or senior-high school."*[14]

In 2008, Aceh ranked first or second among all provinces in Indonesia for school participation rates in all age groups including the eldest[15] (see Appendix A: table 3.3). The difference between Aceh and the national average rose at each level, from 1.2 percent among the youngest age group to 9.7 percent for the age group 13 through 15 years and 17.7 percent for the age group 16 through 17 years. Aceh's performance at higher levels is truly remarkable. In the 16 – 17 year old age group, Aceh (72.4 percent) tops advanced educational centres such as Jakarta (49.4 percent) and Yogyakarta (57.4 percent), and resource rich provinces such as Riau (47.3 percent) and East Kalimantan (51.4 percent). Even among the age group 18 through 23 years, participation rates in Aceh (22.4 percent) are higher than Jakarta (15.5 percent) and surpassed only by Yogyakarta (35.0 percent), the two major national centres for university education. By the same token, the rate of school drop outs is lower in Aceh than most other provinces, including neighbouring North Sumatra and Riau.

Within Aceh, variations in school participation rates among jurisdictions tell a more diverse and sometimes surprising story. (see also Appendix A: table 3.3). Cities show higher participation rates than districts among the two older age groups. This is to be expected, since that is where senior secondary schools and further education facilities tend to be more concentrated. The figures for cities would be even higher at these levels, but for the low rates in Sabang. This is probably because students there prefer to move to nearby Banda Aceh for higher levels of education.

At the primary school level, participation rates for all jurisdictions are close to the average of 99 percent for Aceh, with only Aceh Jaya and Gayo Lues falling below 98 percent. At the junior secondary level, where the average participation rate for the province is 94.1 percent, only Aceh Timur and Gayo Lues fall below 90 percent. At the senior secondary school level, where the provincial average is 72.4 percent, the figures vary more widely. At the top end, four jurisdictions score close to 80 percent or higher. Two of these are cities, Banda Aceh (86.8 percent) and Lhokseumawe (79.6 percent), and two of them are remote rural areas, Nagan Raya (70.5 percent) and the island of Simeulue (83.3 percent). At the bottom end of the scale is Aceh Timur (58.9 percent), and the new districts of Gayo Lues (61.4 percent), Aceh Jaya (62.1 percent) and Aceh Tamiang (64.7 percent).

Participation rates inevitably fall as children grow older for many reasons, not least the

The variation in scores for years of schooling among districts and cities should not be interpreted solely as a reflection of the education system in each location. It is also a function of the skill levels required for employment, which tend to be higher where more senior technical and management positions are to be found, particularly in cities and more urbanised districts.

attraction or necessity of getting a job and earning income, but also due to the sometimes difficult adjustments required to move from one school to the next. The differences in participation rates within a given jurisdiction between the junior secondary and senior secondary school levels is particularly pronounced (see column 6 of table 3.3). While some districts show a dramatic decline, such as Aceh Tamiang (down 28.9 percent), Pidie Jaya (-29.4 percent), Aceh Timur (-30 percent) and Aceh Jaya (-32 percent), the decline for all districts in Aceh except the last two mentioned are less than the national average of -29.7 percent. Jurisdictions that show only marginal losses are the same as those mentioned earlier that have high participation rates at the senior secondary school level. These wide fluctuations are explained in part by children who drop out of school at that stage, but a large part is also likely due to migration, as children move away from home to continue their education at senior secondary schools elsewhere. Children in Aceh Jaya for example, are likely to move to schools in Banda Aceh, whilst those in Aceh Timur and Aceh Tamiang are likely to move to Langsa. The same trend is even more pronounced at the tertiary level.

To determine which jurisdictions achieved the highest participation rates for the three levels up to age 17, they were ranked for each level and an average computed from their ranks (column 6 in Appendix A: table 3.3). The better performing jurisdictions include two cities, Lhokseumawe and Banda Aceh, and three fairly remote rural areas, Bener Meriah and Aceh Tengah in the Aceh Hinterland and Aceh Selatan in the WSA region. This speaks well for the last three mentioned to keep children in school and to educate them locally, without the need to move elsewhere. The lowest ranked jurisdictions include Aceh Timur and the new jurisdictions of Gayo Lues, Aceh Jaya and Subulussalam.

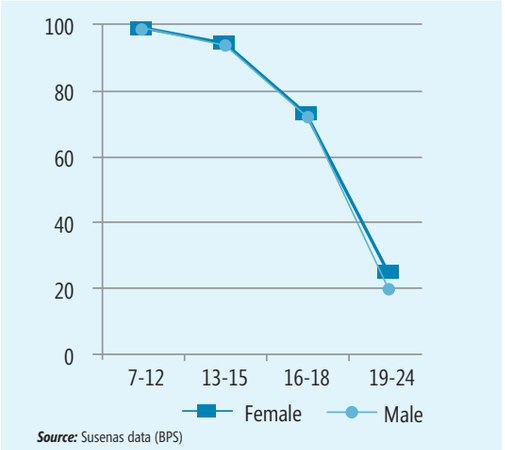
Further research is needed to determine more accurately the reasons for these low rankings and what might be needed to improve participation rates there. Possible causes may include poor facilities, overcrowded classes, bad roads and transportation services, low teaching standards, poor school management or simply a preference for better schools elsewhere. In districts where population density is low, catchment areas sufficient to support a high school are large, meaning many children live beyond a reasonable commuting distance, especially where roads and public transport are poor. To attend a senior secondary school, children in outlying areas may need to leave home and move closer to a school. Children may be reluctant to do so, and parents may not have the funds to afford the extra cost. If they do decide to move, they may prefer to go to a better school further away, possibly in one of the bigger towns.

Another factor affecting school participation rates in each jurisdiction is the estimate of school age children at each level. Estimates of school age children were derived from the 2005 census, and such figures may not truly reflect the actual number of school age children now in these areas due to internal migration. This may have been quite significant in some jurisdictions, given the large number of temporary jobs created as a result of the massive recovery programmes after the tsunami in December 2004. This may partly explain why rates in some rural areas that experienced heavy out-migration are relatively low and why other jurisdictions that experienced heavy in-migration are relatively high. However, this won't become apparent until the results of the 2010 census are made public.

3.2.4 Gender differences

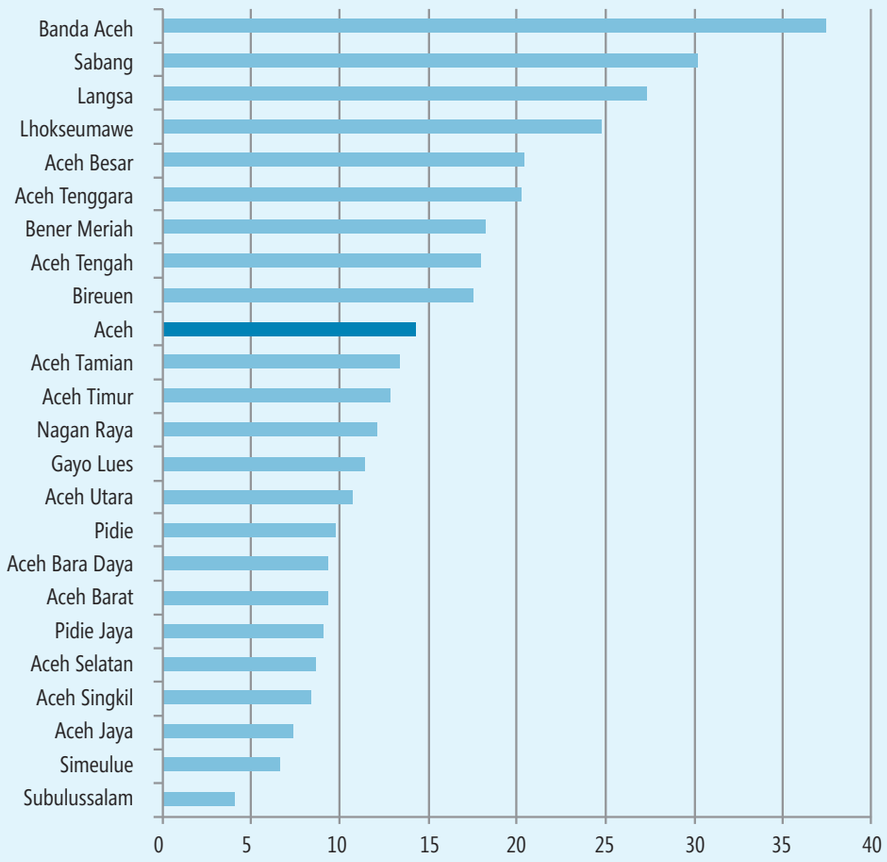
A perennial problem in many parts of the world is the gap in school participation rates between boys and girls, with girls often lagging far behind due to social, cultural or religious traditions. This is not the case however in Aceh. As figure 3.6 shows, the rates are almost

Figure 3.6 School participation rates in Aceh by age group and sex, 2007



Source: Susenas data (BPS)

Figure 3.7 Percentage of population who graduated from senior secondary schools or higher level institutions who are living in poverty



Note: Percent of the Total Poor Population, 2007
Source: Calculated from BPS.

the same for both sexes all the way through senior secondary school, with women even outnumbering men at the tertiary level. This may be because young men are under greater pressure to seek employment and contribute income to the family household. They may also be discouraged from seeking higher education due to lack of job opportunities and prospects after graduation.

3.2.5 Education and poverty

Despite the high levels of school participation in Aceh, a disturbing trend is found among those who have graduated from senior secondary schools or higher level institutions who remain among the ranks of the poor. At the provincial level in Aceh, these graduates represent some 10 percent of the poor, although this figure fluctuates widely across locales, ranging from as low as 5 percent in Aceh Singkil, to 22 percent in Sabang, and as high as 37 percent in Banda Aceh. (see figure 3.7). This situation is not unique to Aceh, but is a phenomenon found elsewhere in Indonesia and many other countries in the middle stages of development. The situation arises from a mismatch between the supply of skilled graduates and weak demand for people with such skills. Those with better skills are reluctant to accept jobs for which they are over qualified, since this will further weaken their prospects of getting a better job in the future. They would rather wait indefinitely for the right job to come along, and tend to congregate in places where the prospects of such jobs are better, namely close to the university where they studied, larger cities and other urban centres. In an economy with a relatively low level of development, such a large proportion of the educated ending up among the poor is a highly disconcerting phenomenon.

3.2.6 Conclusions

Aceh compared with other provinces. In some respects, Aceh compares well with

other provinces in Indonesia in terms of its performance in the education sector. In 2008, it ranked in the top third for adult literacy and mean years of schooling and it was ranked a remarkable first or second according to data on school participation rates at all levels from primary school through tertiary education. The high scores no doubt reflect in part the long tradition in Aceh of encouraging children to attend school and continue their education longer.

Challenges facing education. Although these indicators convey a favourable impression of Aceh's achievements in education, they reveal little about the challenges facing the sector. These may be summarised as follows:

- While school participation rates are high, some children are still left out from the education system and many drop out, particularly after junior secondary school.
- Children in more remote areas have limited access to senior secondary schools, which means they either have to move closer to a school, which poorer families cannot afford, or they may be forced to drop out.
- The quality of education varies widely, and is often deficient in many districts, particularly those in rural and more remote areas.
- Although exam results may be an unreliable indicator, they show that students from Aceh perform poorly relative to many other provinces, again in part a reflection of the poor quality of teaching.
- The curricula followed in many schools is inappropriate to prepare graduates for obtaining employment, particularly in the few vocational training institutes.
- Many schools that were damaged or destroyed during the conflict have yet to be repaired or rebuilt, particularly in inland districts away from the coast that did not benefit from tsunami recovery programmes.
- The capacity of management and administrative staff in many schools is weak.

Responses. Fortunately, the provincial Department of Education in Aceh has shown strong leadership in responding to these challenges. In 2007, they issued a strategic plan (*renstra*) for the sector, which is a model for other departments to follow[16]. Another important innovation has been the adoption of the concept of results based management and performance budgeting for the preparation of annual plans and budgets. This targets resources on achieving specific goals and objectives, and aims to make more effective use of funds and improve the management of education services.

Among the strategies being pursued by the Education Department are:

- To rationalise the allocation of teaching staff to address surpluses in some areas and shortages in others areas.
- To improve access for all by targeting subsidies for particular levels and types of education. Aceh recently introduced free education for all up to junior secondary school and plans to extend this to senior secondary school.
- To strengthen the quality of teaching staff through upgrading programmes and accreditation of key staff.
- To strengthen governance and efficiency through participatory planning and development.
- To use provincial resources to offset imbalances in local government spending on education.

People empowerment. Of particular interest are measures adopted by the Education Department to promote people empowerment in the sector. At the provincial level, they have established a forum comprising stakeholders from government, universities, civil society, NGOs, donors and Islamic bodies, with authority to prepare and execute plans for the sector. Meetings have been held with districts and cities to promote the agenda of the strategic plan.

In line with national directives, at the level of individual schools, committees have been formed consisting of teacher, administrator, and parent representatives and in some cases, students, with authority to prepare and approve annual plans and budgets. This is a precedent that might well be adopted in other sectors.

Other opportunities for people empowerment may be found in organising pre-school programmes, which are important in preparing the youngest children for formal education. At present, pre-school programmes cater for only a small proportion of children under 7 years of age, and the private sector far surpasses the government in providing such programmes.

- While the government plans to expand these are reccomendations of pre-schools, another option is for them to further encourage the private sector and community groups to do this, since parents have a strong interest in doing so. Government support should take the form of grants

Table 3.1 Rankings of health indicators for selected provinces, 2008

Province	Life expectancy (years)	Infant Mortality Rate (per 1,000)	Morbidity Rate (%)	Population Self-medicating (%)	Population w'out access to facilities (%)	Overall rank
D. I. Yogyakarta	1	1	2	4	1	1
DKI Jakarta	2	2	1	5	2	2
Jawa Tengah	5	4	4	8	6	3
Aceh	**19**	**19**	**23**	**19**	**16**	**18**
Sulawesi Tengah	29	29	30	26	18	31
Maluku	26	26	25	29	28	32
Maluku Utara	30	30	31	33	31	33
Maximum	73.1	63.5	31.0	81.6	50.1	
Aceh	**68.5**	**34.1**	**21.5**	**67.1**	**12.9**	
Minimum	61.5	18.2	14.1	50.9	0.0	

Source: BPS

coupled with a set of performance standards to qualify for support.

Another area that needs closer attention is vocational training to ensure that job seekers have appropriate skills matched to changing economic priorities and market conditions. Equally important is the need to expand opportunities for people who need to change jobs or careers, particularly from manual occupations in agriculture and unskilled day labour activities to those in technical or service industries, a need often expressed by former combatants.

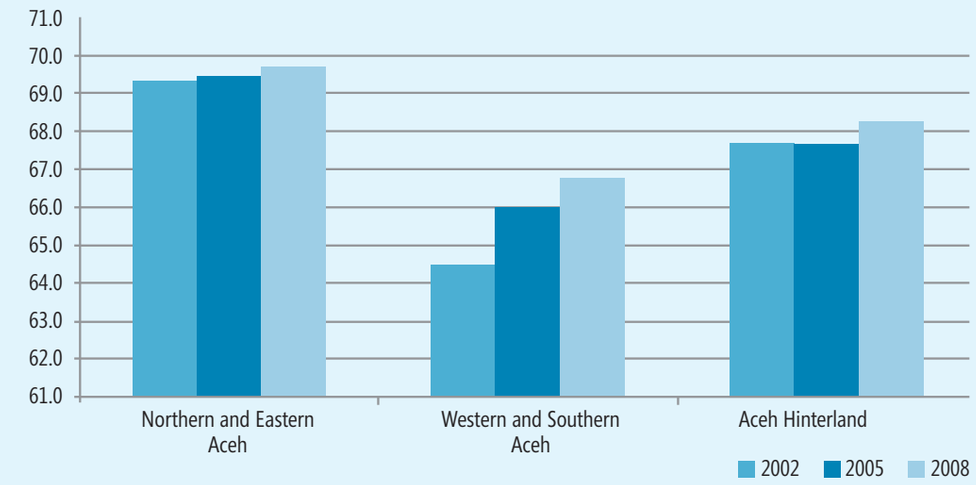
- For the purpose of vocational training, representatives from the business community should be engaged in the planning and design of course offerings and curricula.
- The government should consider out-sourcing the management and direction of vocational training institutes to the private sector. Courses could be organised on a fee for service basis, funded in part by contributions from businesses that require skilled staff, such as hotels, vehicle repair services and the construction industry[17].
- Finally, supplementing the afore mentioned efforts, active participation of youth in volunteer-based out of school/extracurricular activities should be promoted, as the above have a significant impact on the employability of the individual volunteers, by providing them with basic job-related skills such as improved leadership, communication and management. In addition to enhancing volunteers' skill levels, volunteerism contributes to personal development and facilitates school-job transitions, and, in the long-run, brings forth positive ramifications for the society as a whole[18].

3.3. Access to health services

3.3.1 Comparison with other provinces

Unlike the encouraging picture in the education sector in Aceh, the situation in the health sector is less satisfactory. To provide an overall assessment of where Aceh stands relative to other provinces, rankings were computed for five indicators and averaged. Based on this method, Aceh ranks number 18 out of 33 provinces in 2008. (see table 3.1). Life expectancy varies from 73 years in Yogyakarta to 69 in Aceh and only 61 in NTB. Infant mortality (death of infants below the age of five per 1000 live births) ranges from a low of 18 in Yogyakarta to 34 in Aceh and a high of 63 in NTB. Morbidity is lowest in Jakarta (14 percent), highest in NTT (31 percent) and above the national average in Aceh (22 percent). The proportion of the population that does not use health services but instead relies on self-medication ranges from 82 percent in Maluku Utara, to 67 percent in Aceh and a low of 51 percent surprisingly in Papua, perhaps because people there rely more on traditional healers. Of the five indicators, Aceh does better in terms of close access to health facilities, where only 13 percent of the population have no access, versus a high of 50 percent in Papua, which might be expected due to the difficult terrain there, and a low of 0 percent in Jakarta and Yogyakarta.

Figure 3.8 Life expectancy across regions in Aceh



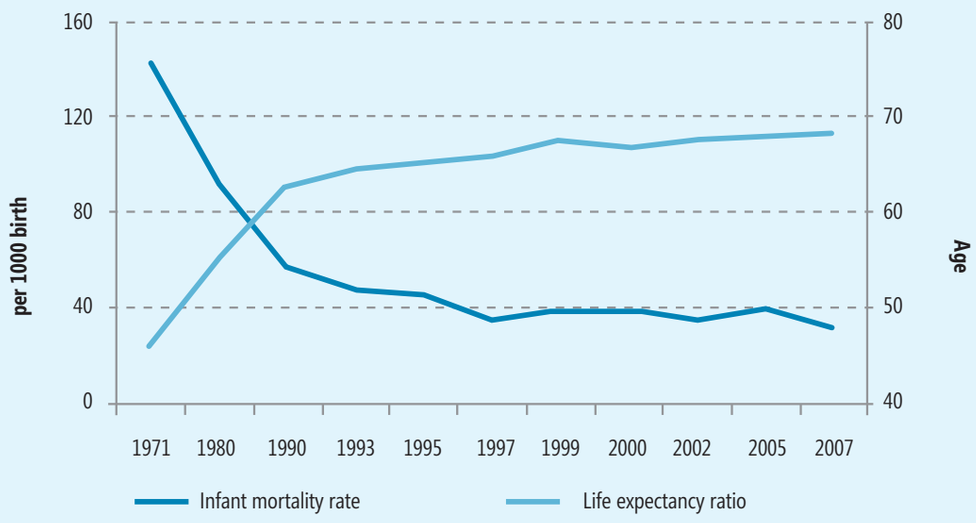
Note: Weighted Life Expectancy number for each region
Source: BPS

3.3.2 Life expectancy

Life expectancy rates differ markedly among regions in Aceh. Between 2002 and 2007, it has consistently been highest in Northern and Eastern Aceh and lowest in Western and Southern Aceh, although the difference has been declining from about 4 years in 2002 to about 2.5 years in 2007 (see figure 3.8).

Among jurisdictions, life expectancy in 2008 was more than 70 years in only five places, three of them cities – Sabang, Banda Aceh and Langsa, and two districts, Aceh Besar and Bireuen, which recorded the highest average of 72.2 years (see Appendix A: table 3.4). It was lowest in three districts, Simeulue (62.8 years), Aceh Singkil (64.5) and Subulussalam (65.5), all of them located in rural areas in Western and Southern Aceh. This suggests, as expected, that access to clean water, sanitation and medical facilities in urban areas is a contributing factor in extending life expectancy. With one exception, this increased in all districts over the period 2002 to 2008, notably in Aceh Tengah by 2.3 years and Aceh Selatan by 2.0 years. The exception is Bireuen, where it dropped by 0.4 years, perhaps reflecting inflated figures during earlier years.

Figure 3.9 Infant mortality rate in comparison to life expectancy ratio in Aceh, 1971-2007



Source: BPS various issues and publications

3.3.3 Infant mortality

Another big factor in determining life expectancy is the rate of infant mortality. Back in 1971, when infant mortality in Aceh was still high at around 150 per 1000 live births, life expectancy was a mere 36 years (see figure 3.9). By the turn of the century, infant mortality had dropped to almost a quarter of the level in 1971 (around 40 per 1000 live births) and life expectancy had doubled to nearly 70 years. This represents a remarkable advance, although as with other indicators, further improvements after 2000 are proving hard to achieve[19].

While the infant mortality rate for Aceh in figure 3.9 is shown at 48 per 1000 in 2007, the figure quoted in Appendix A: table 3.5 is 34 per 1000 a year later in 2008. This does not

Figure 3.10 Infant Mortality Rate by jurisdiction in Aceh 2008 (Per 1000)

Source: BPS

Table 3.2 **Percentage of under-nourished children in Aceh under five years**

	1999	2002	2008
Aceh	35.6	35.2	31.5
Indonesia	30.0	25.8	23.5
Difference	5.6	9.4	8.0

Source: BPS

necessarily mean a sudden further decline, but inconsistencies in different sources of data and probably different methods of computation. The 2008 figure for infant mortality in Aceh of 34.1 compares with the national average of 26.9. Among regions in Aceh, the average rate of infant mortality is lowest in the districts of the NEA (30), and highest in the WSA (41). Among jurisdictions, the rate ranges from a low of 27 or 28 per 1000 live births in four of the five cities to highs of 46 in the fifth city, Subulussalam, 51 in Aceh Singkil, and a worrying 58 in Simeulue (see also figure 3.10). On average, the infant mortality rate is highest among the group of new districts, reflecting poor coverage of post-natal services in rural areas.

Another indicator which measures the health of children, namely the number of under-nourished children below the age of 5, also shows Aceh lagging significantly behind the national average, with the gap widening in recent years. Data for 1999 show 36 percent of children aged under five years in Aceh were under-nourished, compared to 30 percent nationally, a gap of 5.6 percent (see table 3.2). By 2002, despite a reduction in the proportion of under-nourished children under five at both the provincial and national levels, the gap had widened to 9.4 percent. At last count in 2008, the gap had narrowed a little to 8.0 percent but nearly a third of young children still remained under-nourished.

3.3.4 Services for children

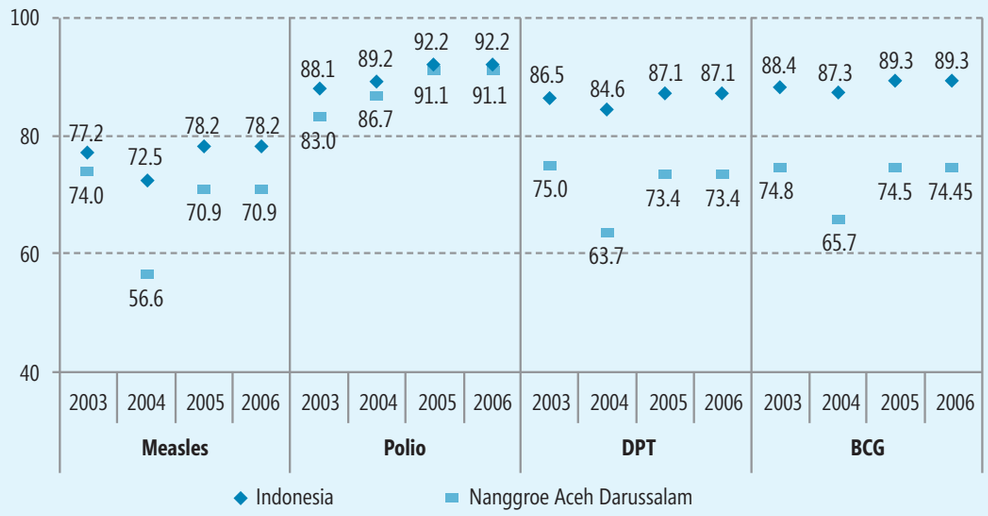
Given the importance of reducing infant mortality, it is instructive to look at a couple of indicators related to children's health services: attendance at birth deliveries by medical workers and immunizations for children. Data for the first indicator during 2005 and 2008 show that professional medical staff attended a higher proportion of births in Aceh than the national average (see table 3.3). Midwives attended far more often than doctors or paramedics both in Aceh and nationally, though doctors were present in Aceh less often than the national average. Conversely, traditional birth attendants were less likely to be present in Aceh than elsewhere. During the three year period, Aceh made greater progress than nationally in expanding the provision

Table 3.3 **Medical workers in attendance during birth deliveries in Aceh compared to Indonesia as a whole (%)**

Personnel	2005		2008		Change 2005-2008	
	Aceh	Indonesia	Aceh	Indonesia	Aceh	Indonesia
Midwives	67.4	58.2	73.1	59.5	5.7	1.3
Doctor	8.7	11.0	9.8	14.7	1.1	3.7
Paramedic	0.9	1.2	0.6	0.7	-0.3	-0.5
Subtotal	**77.0**	**70.4**	**83.5**	**74.9**	**6.5**	**4.5**
Traditional birth attendants	20.1	26.4	16.0	23.1	-4.5	-3.3
Families	2.1	2.8	0.7	1.8	-1.4	-1.0
Others	0.8	0.4	0.2	0.3	-0.6	-0.1
Subtotal	23.0	29.6	16.9	25.1	-6.5	-4.5
Total	**100.0**	**100.0**	**100.0**	**100.0**		

Source: Susenas data (BPS), 2005 and 2008.

Figure 3.11 **Immunization levels of children under the age of five by type at the national level in comparison to the provincial level, 2003-2006**



Source: Susenas (BPS),2003 & 2006

of professional medical personnel at birth deliveries, up 6.5 percent compared with 4.5 percent.

On the other hand, data for the second indicator, shows Aceh consistently lagging national averages for most types of early childhood immunizations. Only for polio has Aceh managed to come close to the national level reaching 91 percent of children aged less than five years in 2006 (see figure 3.9). For DPT and BCG immunizations for children under the age of five years, Aceh's performance has plateaued at around 75 percent and at around 71 percent for measles. For some reason, public campaigns targeting these three latter immunisations, but not the one for polio, all faltered sharply in 2004 prior to the tsunami, but largely recovered the following year.

3.3.5 People's Health

The quality of people's health depends on several factors including diet, exercise, mode of life and the quality of health services, which is likely to vary widely in less developed regions. A comparison of the data among jurisdictions is useful in determining the extent to which health services help to improve heath in Aceh.

To assess people's health, data for five indicators in 2008 were assembled for each jurisdiction. This was ranked on each indicator and a composite rank was then computed from the average of the five individual rankings (see Appendix A: table 3.5). As a group, people in the four cities consistently showed up as having the best health (average rank 4.0) compared to the 11 original districts (11.8) and the eight new districts (17.3). The difference between the two groups of districts in this case is quite marked, once again underscoring the lower level of development among the new ones. At the regional level, the people of Northern and Eastern Aceh, excluding those living in cities, are shown to have better health, with an average rank of 11.4, than those living in Western and Southern Aceh and the Aceh Hinterland, with ranks around 15.5.

Among individual jurisdictions, people with the poorest health reside in Pidie Jaya in the north-east, Bener Meriah in the Aceh Hinterland, as well as in the south-western locales of Aceh Barat Daya and Aceh Selatan. Infant mortality, which averages 32 per 1000 live births for the province as a whole, is clearly highest in Western and Southern Aceh with 5 of the 8 jurisdictions there, namely Aceh Selatan, Aceh Barat Daya, Sabulussalam, Aceh Singkil and Simelulue, registering rates above 40 per 1000 live births, with the latter two registering above 50 per 100 live births. Among other districts, only Gayo Lues in the Aceh Hinterland has a rate above 40 per 1000 live births.

While the provincial average for undernourished children is 27 percent, four districts have figures exceeding 40 percent, three of them

in the WSA – Simeulue, Nagan Raya and Aceh Barat Daya – and one in the Aceh Hinterland, Aceh Tenggara, where the rate is worst of all at 49 percent or almost half of all children.

Children's health problems clearly abound in these districts, especially in the WSA. Curiously though, this region emerges as having a lower incidence of health problems among the population as a whole, with a rate of only 33 percent compared to 37 percent in the Aceh Hinterland and 40 percent in the NEA. Given the prevalence of ill health among children in the WSA, adults there may consider their own maladies of little significance and not worth reporting.

3.3.6 Service indicators

To assess the quality of health services, a similar process was adopted based on five indicators reflecting standards of provision. As before, jurisdictions were ranked on each indicator and a composite rank was then computed from the average of the five individual rankings (see Appendix A: table 3.6).

In terms of groups, as might be expected, the cities are ranked best for health services with an average of 6.8, far ahead of the districts, where once again the original districts (average 11.6) are better served than new ones (15.6). Cities score worst on only one indicator, the number of people per health facility (with an average of 21,800 residents per facility). This might be interpreted as a deficiency, but given the much higher population density there, only a small proportion of the population lack access to these services, with an average of only 5 percent, compared to 13 percent in the original districts and 16 percent in new ones. Otherwise, the population of cities benefit from relatively more doctors and hospital beds per 1000 people and a higher proportion of births attended by medical personnel compared to districts. Among regions, Northern and Eastern Aceh emerge as having better health services according to these indicators, while Western and Southern Aceh and Aceh Hinterland differ

Table 3.4 **Summary table of health and service indicators by jurisdictions in Aceh**

		Better services	Poorer services
Better health			
Northern and Eastern Aceh		Kota Lhokseumawe*	Aceh Timur
		Kota Banda Aceh	
		Kota Sabang	Aceh Tamiang*
		Kota Langsa*	
		Aceh Besar	
Western and Southern Aceh		Simeulue	Subulussalam*
		Aceh Singkil	
Aceh Hinterland		Aceh Tengah	
Poorer health			
Northern and Eastern Aceh		Pidie	Aceh Utara
		Pidie Jaya*	Bireuen
Western and Southern Aceh		Aceh Barat Daya*	Nagan Raya*
			Aceh Barat
			Aceh Jaya*
			Aceh Selatan
Aceh Hinterland		Aceh Tenggara	Bener Meriah*
			Gayo Lues*
Better health total	**11**	8	3
Poorer health total	**12**	4	8
Services		Better total 12	Poorer total 11

Note: * Denotes new jurisdiction

little as was the case for the indicator of the quality of people's health.

Among individual jurisdictions, health services are ranked lowest in Aceh Timur in the NEA, Bener Meriah in the Hinterland, and Aceh Jaya and Subulussalam in the WSA. Rankings for the latter and also Pidie Jaya are based on only two indicators, and therefore offer a less accurate assessment. Outside the cities, access to doctors is generally poor, with one third of the districts having less than 1.0 doctor per 10,000 people. This reflects the difficulty of persuading them to work in rural areas where facilities are usually rudimentary. Of 18 districts, 5 have less than 2 beds per 10,000 people, and two of these, Bener Meriah and Aceh Jaya, have none.

At the provincial level, medical personnel attended more than 80 percent of birth deliveries in 2008, but the figures for Aceh Barat, Simeulue and Gayo Lues were less than 60 percent. The proportion of the population without access to health facilities at the provincial level is 13 percent, but it rises to more than 20 percent in Aceh Timur in the NEA, Bener Meriah and Gayo Lues in the Hinterland, and Aceh Barat, Aceh Jaya and Subulussalam in the WSA, in the latter case above 30 percent.

3.3.7 People's health and health services

Do better health services contribute to better health? The preceding results are summarised in table 3.4, in which jurisdictions are placed in one of four categories according to their rankings for people's health and health services. If the answer to the question is clearly "Yes", then we would expect to find most jurisdictions either in the top left quadrant or the lower right quadrant. In Aceh, there is some evidence that there is a correlation, but not a strong one.

The information in this table is also useful in suggesting appropriate strategies for improving people's health. Among individual jurisdictions, the seven districts in the bottom right quadrant with poorer health and poorer services clearly merit priority attention, especially Nagan Raya and Aceh Jaya in the WSA and Bener Meriah and Gayo Lues in the Hinterland, which all score particularly low rankings. Districts in the upper right quadrant may have better health but the services there are relatively weak and need improving. Those in the lower left quadrant may benefit from better services but they still suffer from poorer health, suggesting the problem may have more to do with physical access in remote areas or high costs preventing the poor from obtaining such services. People in the four cities and the districts in the upper left quadrant all enjoy better health and better services, and may count themselves relatively fortunate, but that doesn't mean there is not still room for improvement.

3.3.8 Access among the poor

A national survey by the Kecamatan Development Programme (KDP) revealed that the burden of ill health falls most heavily on the poor, especially in Aceh. It shows that, unlike many other parts of Indonesia where richer households reported higher incidences of illness compared to poorer ones, the situation was reversed in Aceh. The KDP Poverty Survey showed that 29 percent of people in poor households reported being ill in the past month compared to 19 percent of people in rich households. It also showed that the short-fall in immunization programmes tends to penalise poorer families most, especially those in rural areas. Another problem is the cost of accessing medical services, not only for consultations, medications and treatment, but also for transport to facilities from outlying areas. This prevents many people from using these services, especially those in rural areas as well as the poor.

Another KDP survey reported that 34 percent of people in poor households were unable to access health services due to their prohibitive cost. A further indication of how reluctant people are to seek medical advice is the high proportion of the population that prescribe and apply medications themselves. Nationally, this proportion is 67 percent, while in Aceh it is slightly higher at 71 percent, but it rises to nearly 80 percent or more in Subulussalam, Aceh Jaya and Bener Meriah, and even 91 percent in Nagan Raya, all of them new rural districts.

3.3.9 Conclusions

Challenges facing the health sector. As implied by the data presented above, Aceh faces many challenges in raising the quality of health services

Another problem is the cost of accessing medical services, not only for consultations, medications and treatment, but also for transport to facilities from outlying areas. This prevents many people from using these services, especially those in rural areas as well as the poor.

and improving people's health. Chief among these are:

- Inadequate provision for pre-natal and post-natal care. The rate of infant mortality in Aceh is above most other provinces, as is the rate of maternal mortality, which reportedly is unusually high in some remote areas of Aceh.
- Limited access to midwives. Most midwives are based in urban centres, with only 30 percent living in rural areas, where the majority of the population live. The ability of midwives to reach rural areas in a timely manner is constrained by poor transport services and limited funds for travel.
- Trauma treatment. The need to treat those suffering from trauma is still not properly recognised. Large numbers of people need help to cope with physical injuries and trauma resulting from the conflict and natural disasters.
- Traditional health remedies. A significant proportion of the population still relies on self-medication and advice from traditional healers, especially the poor and those with little education.
- Low density of population. A significant proportion of the population is scattered among some 6000 small villages, which makes it difficult and expensive to provide health services to them. While 85 percent of the population reportedly live within 5 kilometres of a health centre of some kind, many of these are low level facilities with limited staff and equipment.
- Inadequate training. Even though the network of health posts is extensive and reaches most parts of the province, many medical staff have received only rudimentary training and their knowledge and expertise is limited.
- Weak management capacity. The administrative and management capacity of the staff providing health services is weak in many areas, affecting the quality of operations.
- Limited funds. Underlying many of these problems is inadequate public investment in the health sector. Some 70 percent of the total is needed for salaries alone, leaving only 30 percent for delivering services and upgrading facilities.
- Donor projects. While donor funded projects in the health sector are useful, some tend to be driven more by the donor's agenda than by local needs. A case in point are those related to HIV-AIDS, which is less prevalent than many other diseases, such as malaria, dengue fever, typhoid, hepatitis and intestinal disorders, not to mention strokes and cardiovascular problems.

Responses. The challenges mentioned above are not new, and government and non-government actors are taking steps to respond to them.

- Free health care. An important step has been the introduction in 2009 by the provincial government of a programme to provide free health care for all citizens of Aceh. While this is well intentioned, it may not represent the best use of resources or be supportable in the longer term. Meanwhile, health administrators in larger hospitals report a substantial increase in demand for services but no increase in funding to provide them. Apparently, the legislature has yet to approve the additional funds needed as promised by the provincial executive.

Recommendations:

- Revisit the opportunity costs of free health care and ensure that resources are first used to provide effective services for those that cannot afford it and for other priority needs such as pre- and post-natal care. Wealthier families do not need subsidies, since they can afford private health insurance or are able to pay costs incurred.
- Funding for the health sector. In view of the lack of resources, steps are being taken to increase funding for the sector. National Law No. 34/ 2009 specifies that a minimum of 10 percent of public spending should be devoted to the health sector. Likewise, the PNPM programme also specifies that the same proportion of funds should be allocated for health related projects proposed by the community.
- BLUs. The central government is promoting the concept of Public Service Enterprises (*Badan Layanan Umum* or BLU) for larger hospitals. BLUs are authorised to retain revenues for their services rather than forward them to the provincial Treasury. This will reduce uncertainties over budget allocations and the timing of disbursements, and allow them to exert greater control over planning, budgeting and coordination with other health facilities.
- Focus on sub-district facilities. A report currently being prepared by UNICEF on behalf of the Special Autonomy and Oil and

Gas Secretariat proposes measures to strengthen the capacity of Puskesmas, health facilities at the sub-district level, particularly for operations management and financial administration. The central government has this year introduced a programme titled *Bantuan Operasional Kesehatan* (BOK), which provides direct financial support to *Puskesmas* for operational costs, and is intended to help them improve the delivery of services.

- Local government health departments would do well to emulate the education departments in adopting performance budgeting to make better use of resources in targeting specific goals and objectives, such as reducing infant and maternal mortality.

People empowerment. As in the education sector, several opportunities exist to apply the concept of people empowerment in the health sector, as outlined below.

Recommendations:

- Establish a public-private forum at the provincial level, similar to the one for education, whose function would be to collaborate with government in formulating policies, strategies and programmes for the sector.
- Organise similar forums at the level of the sub-district puskesmas, which are responsible for preparing plans and budgets for health services within their jurisdiction.
- Given the patchy coverage of midwives in rural areas, their expertise might be used more effectively by forming and training community based self-help groups to support pregnant women and those with newborn children. There are already precedents for such groups, which can play an important role in securing proper care for children during the first few formative years of their life.
- Similar groups could also be formed and trained with help from medical personnel for other purposes, such as domestic violence, family hygiene and nutrition, addiction to drugs and alcohol.
- Modest investments in technical support and funding for these forms of people empowerment can go a long way to enhancing people's health and preventing sickness and disease.

3.4. Access to Justice[20]

Access to justice is increasingly recognised as a necessary condition for peace and development, especially in poor and post-conflict settings. Access to justice consolidates peace by creating the conditions that permit people to resolve legitimate grievances, which might otherwise lead to social conflict. Access to justice also contributes to sustainable human development by defining a minimum scope of legitimate claims based on human rights, while seeking to enhance claim-holders' ability to reclaim these rights and by holding duty-bearers accountable in protecting these rights.

3.4.1 Parallel legal systems

In Aceh, unlike other provinces of Indonesia, three legal systems operate in parallel. This often leads to confusion, since the scope of jurisdiction covered by each system overlaps and sometimes leads to conflicting interpretations. The general justice system in Aceh is informed by Indonesia's national positive state law. In this respect, all laws that apply in the rest of Indonesia also apply in Aceh. As in other provinces, many communities rely instead on the adat system used at the village level based on traditional norms and practices. But in Aceh, since 2001, with Law 18/2001 granting Aceh special autonomy, *syariah* law has also come into formal effect. Despite several attempts to clarify the situation, ambiguities remain.

The Law on Governing Aceh (LoGA) sets out certain rights and responsibilities that apply only to Aceh. Provisions of the LoGA that most affect citizens' access to justice include those related to the Aceh House of Representatives (*Dewan Perwakilan Rakyat Aceh* - DPRA), the establishment of a Human Rights Court and a Truth and Reconciliation Commission, the creation of local political parties, the formulation of adat institutions and, as enshrined within article 231, the protection of women and children's rights.

As with other provinces, responsibility for drafting new and revised local regulations, known in Aceh as *qanun*, lies with the local assembly, known as the DPRA in Aceh. As is the case elsewhere in Indonesia, a large proportion of the members of the DPRA lack advanced education and experience in government, have a

Over ninety percent of DPRA members continue to lack basic knowledge about the process of legal drafting, a problem that is compounded by the introduction of impractical religious stipulations into law made by syariah jurists and Acehnese ulamas.

limited knowledge of national and constitutional law, and change after each election. In Aceh, commentators have assessed that over ninety percent of DPRA members continue to lack basic knowledge about the process of legal drafting, a problem that is compounded by the introduction of impractical religious stipulations into law made by syariah jurists and Acehnese ulamas.

The development of the *syariah* justice system in Aceh dates as far back as the sixteenth century, although *Syariah* Courts were only recognised in the Province by the post-colonial National Government in 1957 through Law 29/1957. Although national laws have clearly stated that *syariah* law in Aceh applies only to Muslims, the provincial *qanun* passed later do not reaffirm this, and the LoGA includes an ambiguous article suggesting that non-Muslims may be subjected to *syariah* law for committing certain offences. Non-Muslims, including the large Chinese, Indian and, more recently, international (humanitarian) communities in Aceh have contested this.

The Indonesian term adat refers to culturally and ethnically specific forms of law (*hukum adat*) or custom (*istiadat*). It is a largely uncodified body of rules of behaviour or a system of community leadership and governance, enforced by social sanctions, which is used for resolving disputes among other things. Adat consists of living norms, respected and recognised by people, and acts as society's code of conduct. In Aceh today, it is also a symbol of local autonomy, although the practices and rituals of *adat* vary most notably across ethnic groups. Regional Regulation No. 7/2000 recognizes different adat institutions, laws and customs at the village level, so long as they do not contradict *syariah law*. Additionally, national legislation takes precedence over adat law where there are inconsistencies.

Box 1 — Aceh Justice Project

UNDP's Aceh Justice Project (AJP) contributed to the improvement of the informal (adat) justice system through groundbreaking work with the Aceh Customary Council (Majelis Adat Aceh - MAA) on adat justice guidelines and adat leaders training. It was an important source of discourse on legal issues and public policy in Aceh. It provided a neutral forum for dialogue in Aceh on important public policy issues and provided valuable contributions in the formation of public policy in Aceh. The activities to support the multi-stakeholder consultations on transitional justice mechanism have demonstrated policy relevance and facilitated communication and coordination between central and provincial-level governments, as well as between the government and civil society.[21]

3.4.2 Common grievances

In addition to complaints that commonly arise in civil society, serious injustices and a rising number of disputes need to be addressed in the post-crisis landscape, many of which have their roots in the previous conflict as well as the tsunami. Since many of these claims involve women, the poor and other disadvantaged people, it is essential that access to justice is enhanced for Acehnese citizens. The channels they choose to redress their grievances must result in fair and effective results, so the people of Aceh feel they are genuinely benefiting from the dividends of peace and development.

Common justice grievances identified in conflict-affected areas include: human rights violations; theft and destruction of property; destruction of livelihoods; displacement; violence against women, and; land disputes, especially for returnees. Common grievances identified in areas affected by the tsunami include: lack of housing; land claims and boundary disputes due to missing documents; inheritance disputes; lack of assistance for orphans; domestic violence against women, and; unequal distribution of aid due to discrimination, unfair distribution and corruption.

3.4.3 Barriers to justice

While legal systems are in place to resolve disputes, many barriers prevent people from initiating a claim in the first place and later from obtaining a just outcome. One widespread problem is simply a lack of awareness of legal options and procedures. Studies have established that a large proportion of Indonesian citizens, particularly those with little or no formal education, are unaware not only of laws that may be relevant to them, but also of their legal rights, services available to them and procedures to access these services. A similar lack of legal awareness was found amongst village respondents in Aceh. Vulnerable groups are further disadvantaged as they have perceptibly lower legal awareness because they

are often illiterate and have less access to sources of information.

A second constraint is that pervasive social pressures compel people to rely predominantly on adat to resolve disputes, but decisions may be overruled in higher courts, especially where formal legal procedures are involved such as compensation, inheritance and land titling. Other considerations however make it harder if not almost impossible for many people to access the formal justice system. It is perceived as bureaucratic, labyrinthine, time consuming and intimidating. Since courts are located far from where most people live, they cannot afford the time to attend or the money to cover travel expenses, let alone the costs of legal counsel and court procedures.

Another pervasive problem is that people cannot rely on adat or the formal system to arrive at just decisions. At the adat level, decisions are sometimes inconsistent from one case to another, and may be influenced by political considerations or by the interests of powerful local citizens. In the formal system, people are well aware that bribery often wins over the best legal arguments. In this regard, people have more confidence in the syariah courts, particularly in judging fair inheritance and divorce rights, although again decisions concerning some aspects of law may be overruled by higher courts.

Efforts to overcome the lack of awareness among the citizenry on both the syariah and the formal court systems are handicapped by lack of resources, as reported both by state institutions and NGOs, who also lack capacity.

3.4.4 Gender considerations

Three issues of particular importance to women are the gender implications of syariah law, rights of inheritance as they pertain to land, and land titling.

Syariah Law: The process of introducing *syariah* law did not involve women representatives and its implementation has mixed consequences for women. In some areas it has enhanced women's access to human rights and security, while in other areas it actively promotes gender injustice. Many Acehnese women expressly stress that they are not at odds with the concept of *syariah*, however they are concerned with its manner of interpretation and implementation in Aceh.

Syariah courts have become increasingly active on a number of women's human rights issues. These include awarding child guardianship to women during divorce where previously child custody was given to men, providing for equal sharing of marital property at the time of divorce, and ensuring women's inheritance rights are safeguarded. *Syariah* courts have also heard a number of cases that relate to divorce. Petitioning mostly on the grounds of domestic violence or polygamous behaviour, women constitute more than 75 percent of those who submit to the courts for divorce. *Syariah* courts have also indicated support for an increase in women's political representation as enshrined within *Qanun* No. 3/2008, which confirms that "the list of candidates... shall include at least 30 percent of women." This is supported by the numerous examples of 'progressive' *Ulamas*, or Islamic religious leaders, who actively advocate on behalf of women in domestic violence and other gender relations issues.

In other areas however, commentators have argued that Aceh's interpretation of *Syariah* has been narrow and conservative.[22] This has had a detrimental effect on women's human rights, particularly regarding controversial restrictions on women's dress and public behaviour. *Qanun* No. 11/2002 requires all Muslims to wear Islamic dress. For women this is clothing which covers the entire body save for the hands, feet and face. Its most iconic symbol is the jilbab or headscarf. *Qanun* No. 12, 13, 14/2003 criminalises gambling, the sale and consumption of liquor, and relations between men and women which are seen as 'illicit'. This includes the khalwat, which forbids close proximity between an unmarried woman and a man who is not her guardian.

Human rights concerns arise from the implementation of these laws and the nature of the punishment, which include public flogging. The National Commission on Violence against Women (*Komnas Perempuan*) has argued that this form of punishment, in addition to being cruel, results in stigmatisation of women, who are simultaneously labelled 'immoral' by their communities and families.

The targeting of women has become a particular concern due to the inconsistent, and sometimes overzealous, application of *syariah* law by the Religious Police (*wilayatul hisbah* - WH), who have been charged with monitoring compliance with Islamic law. The WH has been

Only 7 percent of respondents perceived syariah as an important issue, while only 23 percent were happy with its implementation, yet 87 percent felt that it could solve people's problems.

accused of corruption and brutality, and of disproportionately targeting women and the poor,[23] activity which has generated much resent-ment within the Acehnese community. The International Crisis Group has described the WH as "a haphazardly recruited, poorly disciplined, poorly supervised force that distinguishes itself more by moral zeal than legal competence."[24] While their powers have been curtailed to some extent, concern lingers over their role in Acehnese society.

A poll in Aceh in 2007 claimed that only 7 percent of respondents perceived syariah as an important issue, while only 23 percent were happy with its implementation, yet 87 percent felt that it could solve people's problems. While this may appear paradoxical, Wilmot infers from this that Acehnese understand the potential and relevance for syariah in their society.[25] They recognise that it may be able to provide the context for social and economic justice, rather than being used a narrow tool for punitive measures. More importantly, it continues and expands its commitments to promote gender justice. Ongoing monitoring and partnership with civil society will be useful in this case.

Land inheritance: Rights of inheritance are also an important issue for women in post-crisis Aceh. Confusion over inheritance laws and an inconsistent application of those laws has seen women dispossessed of land. An attempt to redress this was made in September 2006 with the establishment of a Joint Titling of Marital Property policy. This has been developed by the BRR and the BPN and was administered through the Reconstruction of Aceh Land Administration System (RALAS). While this program is an important step forward for women, it has met with mixed success.

Women, particularly widows, found that they lost their claims to land because their entitlement was mediated away from them to the families of their deceased or missing husband. Furthermore, confusion or lack of understanding regarding inheritance laws and women's rights were also used to dispossess women of land.

Consequently, for Acehnese women there are two concerns surrounding land. The first is inheritance and the second is the clarity of recording titles to land ownership. Inheritance laws come under the jurisdiction of *syariah* courts under *Qanun* 10/2002, but they do not have jurisdiction over land rights (Law 3/2006). However, when land is a component of inheritance, syariah courts may make decisions regarding land ownership, although in practice adat law often applies. This is decided at the village level by the village head (*keucik*). He or she is assisted by the imam, and the village elders (*tuha peut*). Cases may also be solved amicably among the survivors without the input of the *keucik*.[26] In cases that cannot be resolved at the family or village level however, the matter is deferred to the *syariah* courts. It is anticipated that the number of cases presented to the syariah courts will increase. The BPN originally aimed to title 300,000 land parcels in tsunami-affected areas, and a further 300,000 in unaffected areas by 2006. However, by 2008 it had achieved only 33 percent of that target.[27] While it is not known how many customary land titles are in existence, there remain a significant number of unsettled claims.

Box 2 — Witni's story

Witni's story: "Witni works as an official for an Indonesian company that distributes mobile phones. Prior to the tsunami, Witni's husband was unwell for a long period of time and Witni's wages were the sole family income. Witni is now a widow. She survived the tsunami, but her husband and children did not. Witni is extremely traumatised by the disaster and, worse still, she is now being deprived of her inheritance by her husband's four siblings who survived the tsunami. Despite Witni's legal entitlements, her husband's siblings have claimed one hundred percent of her husband's estate. Witni has been left with nothing and has no confidence to protest her husband's eldest brother about the inheritance as he has a reputation for violent behaviour. Witni feels alone and without support."[28]

Land titling: A third important issue for women is the process of recording title to land, particularly since the introduction in 2006 of legislation concerning the Joint Land Titling (JLT) of Marital Property. While women have not formally been denied ownership to land, land ownership has traditionally been recorded in the name of the male head-of-household. Joint Titling is a gender-specific intervention designed to ensure that married women have equal access to land ownership. Box 3 below describes the BRR and BPN's vision for the JLT program.

This is an important step forward because it formalises women's ownership. In cases of

divorce, inheritance, accessing money made from the land, and in terms of collateral for loans, this provides women with economic empowerment. However, it is important to note that the RALAS manual states that land owned by the husband and wife can be registered "jointly in the names of both persons, and not just the husband." This does not require that a wife's name be present on any jointly owned property, but rather provides a moral imperative that it should. In 2008, RALAS data indicated that 6 percent of land parcels had been recorded in the joint names of husbands and wives. This indicates that overwhelmingly the practice of registering land solely in the name of the male heads-of-household continues (see table 3.5).

Box 3 Joint land titling

Joint Titling: "In September 2006, the Aceh-Nias Rehabilitation and Reconstruction Agency (BRR) and the National Land Agency (BPN) established a joint land titling (JLT) policy for locations acquired by the government for resettlement of tsunami victims. JLT is a program that applies to families (husband and wife or siblings) and guarantees equality of land ownership between men and women. With JLT, a husband and wife who are legally married under Indonesian law, or siblings who lost their parents, will be given land certificates naming both the husband and wife or the brother and sister as owners where they have been resettled on land acquired by BRR or local governments. The ownership shares shall be equal."

This reflects the national trend. Few parcels of land in Indonesia are registered in the joint name of husband and wife. Nationwide statistics on joint titling or registration by sex are limited. However, for areas where systematic titling has been implemented, data indicates that relatively few households throughout Indonesia opt for joint titling. In 1998 data suggested that only 30 percent of national titles were issued in the names of women, 54 percent in the names of men, and 5 percent in multiple names.[30] Clearly a more concentrated effort needs to be exerted by government agencies and advocacy groups to ensure that women's entitlement to land is realised.

Table 3.5 Distribution of land according to gender in Aceh, 2008[29]

	Female	Male	Joint	Total
Land Owned (Hectares)	43, 195	71, 279	6, 961	121, 435
Percentage	36	59	6	101

3.4.5 Conclusions

In response to barriers to justice and other issues mentioned above, the UNDP's "Access to Justice in Aceh" report made several recommendations, as summarised below.

- **Raise community awareness of legal rights:** Without an understanding of their rights and how to enforce them, people cannot resolve the legal problems they face. Legal awareness programs must focus not only as they do now on obligations or duties, but also on rights.
- **Enhance community legal advisory and advocacy services:** Disadvantaged groups who face economic or social hardship often need support to access their legal rights or defend their legal interests. Mechanisms to enable CSOs to establish and maintain legal advisory and assistance services in cities and more remote areas are essential to ensure that more vulnerable sections of the community have full access to justice.[31]
- **Strengthen the capacity of local justice institutions:** The majority of injustice complaints are handled by local leaders, including village heads and religious leaders, through adat institutions. Such leaders require capacity building directed towards improving their mediation skills, knowledge of substantive law and its processes, and gender awareness to deliver sustainable and equitable solutions to disputes. Members of the *wiliyatul hisbah* (WH) should be given training similar to police standards. There are positive steps towards justice capacity development however, by Government of Aceh (GoA) and international agencies operating in Aceh.
- **Support the formal justice sector:** The conflict has undermined public confidence in legal institutions, reduced their capacity to respond to legal problems and support accountable government. The tsunami also inflicted severe loss and damage on the courts system, as well as prosecutors and the police, compounding existing weaknesses in human resources, infrastructure and infor-

mation management. Consultations with formal justice institutions as well as stakeholders who are mandated and able to respond to these needs must continue in order to seek input on other needs and strategise on how these needs might best be addressed.

- **Resolve jurisdictional overlaps:** The jurisdictional ambiguity between the general and *Syariah* Courts and *adat* institutions needs to be clarified. The jurisdiction of adat institutions in particular require regulation, and regulations adopted in Aceh should be consistent with the Indonesian Constitution and human rights principles. UNDP practice to support jurisdiction clarity with manuals and trainings that clarify roles and responsibilities within the jurisdiction system has triggered promising changes.
- **Improve monitoring and oversight:** National commissions charged with oversight of the judiciary, the prosecutors and the police, as well as other government institutions responsible for public service provision, should establish provincial offices in Aceh. Oversight and accountability mechanisms must also be established for *adat* institutions to ensure consistency with the Indonesian Constitution and human rights principles.

4 Access to Economic Opportunities

CHAPTER

4 Access to Economic Opportunities

Economic growth, is an important driver of per capita income, but the oil and gas sector in Aceh represents a classic example of an enclave economy bearing few benefits for the local population.

While ready access to public services helps to promote human development and reduce poverty, another important factor is access to opportunities for earning a living. This might be either as an employee working for someone else or as the owner or member of a family enterprise. In a rapidly growing economy, such opportunities are plentiful but that is no guarantee that some people will not get left behind. In a weak economy, as is the case in Aceh today, the challenge to ensure that everyone has a fair chance is even greater. This is particularly true in less developed areas which are handicapped in competing in markets further afield and in attracting new and expanding industries and services. The nature of the economic problems facing the people of Aceh is explained in the following sections.

4.1. The Aceh economy

4.1.1 Measures of per capita income in Aceh

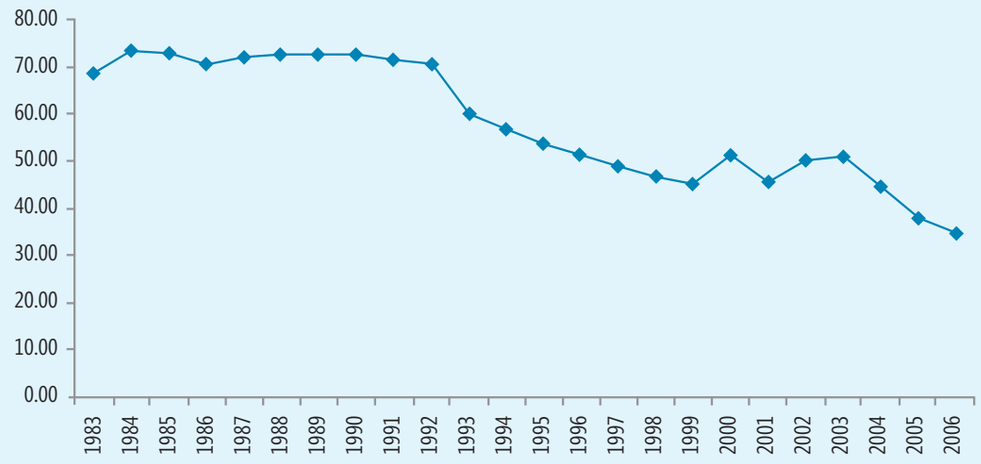
In economic terms, Aceh presents two totally different faces. According to one commonly used indicator of development, gross regional domestic product (GRDP) per capita, Aceh ranks consistently among the most wealthy provinces in Indonesia, although it slipped from 5th among 28 in 1999 to 7th among 32 in 2007 (see table 4.1). This measure of GRDP includes revenue from oil and gas, which since the mid 1970s has been a major source of income for Aceh. While the economy has grown, it has not been as fast as that implied by the figures in the table. These are based on

Table 4.1 GRDP per capita selected provinces in Indonesia 1978-2007 (Rp current 000)

	1978		2008		1999		2007	
	GRDP per cap	National Rank	GRDP per cap	National Rank	GRDP per cap	National Rank	GRDP per cap	National Rank
Nanggroe Aceh Darussalam	188	6	1,910	4	6,864	5	17,329	7
North Sumatera	167	9	808	9	5,476	6	14,167	11
Riau	994	2	3,067	2	10,640	3	41,413	3
DKI Jakarta	331	4	2,150	3	19,767	2	62,490	2
Central Java	95	23	591	17	3,317	19	9,469	21
East Kalimantan	1,246	1	4,672	1	23,640	1	70,120	1
East Nusa Tenggara	73	26	299	25	1,456	27	4,302	32
Papua	363	3	856	6	8,913	4	27,468	5
Sumatera	227		1,053		5,455		-	
Indonesia	153		816		5,040		17,581	

Notes: (a) GRDP in current market prices. (b) After 2002, Riau formed into 2 provinces: Kepulauan Riau and Riau; while after 2003, Papua formed into West Papua and Papua.
Source: (a) data for 1978 and 1988 from Bappenas (2001) "Pembangunan Daerah dalam Angka"; (b) data 1999 from BPS (2002) "Statistical Yearbook of Indonesia; (c) data 2005 from BPS (2009) "Selected Socio-economic Indicators: Indonesia".

Figure 4.1 **Shares of oil and gas in Aceh's economy (%), 1983 – 2006.**



Note: Shares are calculated using constant prices based on 2000.
Source: http://.dtwh.esdm.go.id/index.

current prices and reflect substantial inflation over the years, particularly after the fiscal crisis of 1998.

In most cases, economic growth is an important driver of per capita income, but the oil and gas sector in Aceh represents a classic example of an enclave economy bearing few benefits for the local population. Most of the inputs required are obtained from outside Aceh, as is a high proportion of skilled labour, which is not available locally. Furthermore, apart from a few processing operations, the sector has generated few spin-off industries in the region, due partly to political and physical insecurity and better locations elsewhere. The biggest contribution to Aceh from the industry has been in the form of a share of revenues accruing to central government, which was increased substantially as a result of the Peace Accords of 2005.

Oil and gas resources are shrinking fast however, and with it the sector's share of provincial GDP, hence the decline in rankings shown in table 4.1. At its peak in 1984, it accounted for 75 percent of the total, but this has declined steadily since then to a little over 30 percent in 2006, and less since then (see figure 4.1). This means oil revenues to the government are also declining, as is the modest multiplier effects for the local economy. This represents an additional challenge confronting efforts to promote economic recovery in Aceh and opportunities for employment.

If oil and gas are excluded from computations of GRDP per capita, Aceh's ranking compared to other provinces falls to 17th or 18th between 2005 and 2007. This is slightly below the median for the country, but still suggests that Aceh is apparently among a group of middle income provinces. Furthermore, even though the oil sector has recorded negative growth in recent years, per capita income based on non-oil GRDP has been rising, as much as 6.6 percent in 2006 and 3.6 percent in 2007, which was above the national average in both

Table 4.2 **Per Capita income growth in Indonesia and Aceh, 2005 - 2007**

	Real GRDP per capita growth 2005-2006 (%)		Real GRDP per capita growth 2006-2007 (%)	
	Total	Without oil & gas	Total	Without oil & gas
Aceh	0.5	6.6	-5.7	3.6
Indonesia	5.6	6.2	0.5	1.0
Aceh less Indonesia	-5.0	0.4	-6.2	2.6

Source: Based on BPS data.

Economic growth ought to help in creating opportunities for earning a living and reducing poverty, but its impact in Aceh has been weak.

Table 4.3 **Adjusted per capita expenditure in Indonesia and Aceh, 2002, 2008**

	Adjusted monthly per capita expenditure (Constant Rp 000s)		Rank	
	2002	2008	2002	2008
Aceh	558	559	30	32
Indonesia	591	634		
Aceh as % Indonesia	94%	88%		
Number of provinces			30	33

Source: Derived from BPS data.

years (see table 4.2). Most of this was due to the massive programmes for reconstruction and rehabilitation in Aceh, which have now largely run their course. Recent estimates indicate lower rates of growth since then.

This picture looks troubling, but not especially alarming. A look at adjusted per capita expenditures however, as a proxy for per capita income reveals a much worse situation. Instead of appearing as one of the wealthier provinces in the country, Aceh emerges as one of the poorest, ranking last in 2002, and second last in 2008 just above Papua. This is despite the massive recovery programmes after the tsunami, which created many jobs and pushed up wages, but which were already shrinking by 2008 (see table 4.3).

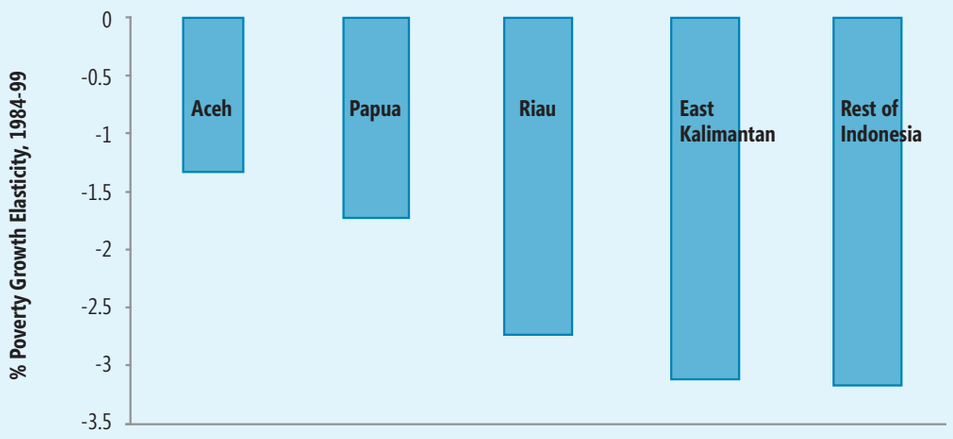
4.1.2 Economic growth and poverty reduction

Economic growth ought to help in creating opportunities for earning a living and reducing poverty, but its impact in Aceh has been weak. Aceh's Poverty Needs Assessment Study for 2008 concludes that over the years growth has had a far weaker impact on reducing poverty than other regions in Indonesia. Estimates by BPS and the World Bank suggest that while a 1 percent increase in economic growth elsewhere in Indonesia reduces poverty by 3 percent, it achieves less than half that in Aceh (see figure 4.2). This clearly reflects the enclave nature of the oil and gas industry and its limited contribution to raising incomes in the province.

4.1.3 Investment

Another big obstacle to achieving stronger economic growth in Aceh has been the lack of investment both from within the country and from outside. This has long been a weakness of the local economy, due in part to the conflict and since then to lingering perceptions of insecurity and extortion, documented in a recent World Bank study based on a limited survey of businesses.[32]

Figure 4.2 **Impact of economic growth on poverty reduction in Aceh and elsewhere**



Source: BPS and World Bank staff calculations.

Table 4.4 **Investment by selected provinces in Indonesia 2006 – 2009**

	2006		2007		2008		2009	
	Licenses	Investment (Rp trillion)	Licenses	Investment (Rp trillion)	Licenses	Investment (Rp trillion)	Licenses	Investment (Rp trillion)
Aceh	0	0	2	17	0	0	3	80
Aceh as % total	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%	0.2%
Riau	18	5,002	11	6,190	16	3,934	10	2,061
Jakarta	359	4,560	399	8,889	468	11,765	494	15,205
Jawa Barat	329	6,937	279	12,675	357	6,842	351	6,659
Banten	103	4,323	100	1,778	130	2,467	115	5,794
Kalimantan (4 provinces)	32	3,071	38	1,859	31	1,936	53	3,223
Subtotal	**841**	**23,893**	**827**	**31,391**	**1002**	**26,944**	**1023**	**32,942**
Percent total	82%	90%	72%	69%	73%	76%	70%	68%
Other provinces	190	2,748	312	13,812	375	8,290	443	15,593
Subtotal	**190**	**2,748**	**314**	**13,829**	**375**	**8,290**	**446**	**15,673**
Percent total	18%	10%	28%	31%	27%	24%	30%	32%
Indonesia	**1031**	**26,641**	**1141**	**45,220**	**1377**	**35,234**	**1469**	**48,615**
Provinces with no investment	5		6		5		3	

Source: Badan Koordinasi Penanaman Modal (BKPM)

Despite the end of the conflict, the situation has not improved. A contributing factor in recent years has been a lack of clarity over which agencies have authority to grant licenses and other permits necessary to conduct business in the province. While the LoGA of 2006 grants authority to Aceh for many tasks, supporting legislation to implement the transfer of authority from central government is bogged down in protracted negotiations between central and provincial agencies.

Information from the Indonesia Investment Coordinating Board (BKPM) shows there has been virtually no investment in Aceh during the past four years. Only 5 licenses have been issued for investments that barely register above 0 percent of the national total (see, table 4.4). The bulk of investment, around 70 percent or more, has been going to Jakarta and adjacent provinces, Riau and Kalimantan, although more recently other provinces have been getting a bigger share. Meanwhile, Aceh along with Bengkulu and several other provinces mainly in eastern Indonesia have received little or nothing. Aceh was one of only 5 provinces that failed to attract any investment both in 2006 and 2008.

The lack of investment has also affected the quality of physical infrastructure. The long years of conflict undermined efforts by the public sector to maintain and improve infrastructure, particularly roads and electricity. While funding for disaster recovery programmes has helped in recent years to upgrade several ports and roads throughout the province, shortfalls in power generation remain a major constraint to the growth of business activity and place an added burden on private enterprise to invest in their own standby equipment for power generation. Part of the problem arises from competing national demands on funds available to the PLN, the national electricity authority.

4.2. District comparisons

As discussed in Section 4.1.1, measures of per capita income based on GRDP and adjusted per capita expenditures yield quite different results, giving rise to confusion and misunderstandings about which regions are poorer or richer[33]. Estimates of these two measures are shown for local jurisdictions in Aceh in Appendix A: Table 4.1. GRDP figures are in current prices for 2007, while expenditure figures are in current prices for 2008 and come from the Susunas household survey for that year[34]. Although not strictly comparable, they do provide an idea of the difference between the two measures and the rankings among jurisdictions for each measure.

Figure 4.3 **Expenditure per capita by district in Aceh (Rp current 2008)**

Source: BPS

The first thing to notice is the difference in the rankings of jurisdictions based on these two measures (column 6 in Appendix A: table 4.1). For 8 of the 23 jurisdictions the difference is less than 3 places, meaning the GRDP figures are not greatly misleading as an indicator of relative income levels. In 8 other cases, the GRDP figure overstates income levels, particularly in Aceh Barat Daya, Aceh Tamiang and Lhokseumawe, even though income from oil and gas has already been deducted from the figure for the last two mentioned. Conversely, in 7 other jurisdictions the GRDP figure understates income levels, particularly in Sabang and Pidie in the NEA region, and Aceh Jaya and Simeulue in the WSA region. This clearly shows that GRDP is not a good proxy for per capita expenditures, since it is based on additional factors.[35]

Whichever figures are used, cities show up as wealthier than districts, ranking on average 4 places higher. GRDP figures show original districts as better off than new ones, but the per capita expenditure figures show them to be more or less equal.

Estimates of expenditure per capita should be a more reliable proxy for personal income, and hence more useful for identifying poorer communities. These yield some surprises. While the WSA region consistently ranks lower than others on many indicators, it emerges here ahead of the other two, ranking three or four places higher. In 2008 at least, three districts in the region, Aceh Barat and its two offshoots, Aceh Jaya and Nagan Raya, rank among the top 7 of all jurisdictions for per capita expenditures. Two districts in the Aceh Hinterland region, Aceh Tengah and Bener Meriah, follow close behind in 8th and 9th places. As mentioned in the discussion of GDIs, three of these districts are the main producers of highly priced arabica coffee. The price of agricultural commodities is obviously a big factor affecting household incomes and spending in rural areas, which accordingly will vary from year to year. Per capita spending was lowest in the rural areas of Aceh Tenggara, Subulussalam, Gayo Lues and Aceh Utara.

The results of this analysis are summarised in table 4.5 which sorts jurisdictions into four categories. Generally speaking, the jurisdictions shown as having high non-oil GRDP per capita income are probably recipients of above average per capita government spending and investment.

Examples include Banda Aceh, Lhokseumawe and Langsa, which are all cities. Those shown as having lower per capita expenditures (income) are rural areas, such as Gayo Lues, Aceh Tenggara, Aceh Singkil and Subulussalam, with a combination of lower paying jobs, farmers producing lower priced commodities, and most importantly poor access to external markets.

The proportion of spending on food is another indicator of relative income levels, since it shows what is left for other purposes (see Appendix table 4.1). Among regions the figures are similar, but this hides wide vari-ations among jurisdictions. These range from lows in cities like Lhokseumawe (57%) and Banda Aceh (41 percent) to highs in Aceh Tenggara (69

Table 4.5 **Summary table of per capita rankings by jurisdictions in Aceh**

	Non-oil GRDP rank	
Expenditure rank	**High**	**Low**
High Total 12	**Aceh Besar**	Pidie
	Langsa	Sabang
	Lhokseumawe	Aceh Jaya
	Banda Aceh	Simeulue
	Aceh Barat	
	Nagan Raya	
	Aceh Tengah	
	Bener Meriah	
Low Total 11	Aceh Tamiang	**Aceh Timur**
	Bireuen	**Aceh Utara**
	Aceh Barat Daya	**Pidie Jaya**
	Aceh Selatan	**Aceh Singkil**
		Subulussalam
		Aceh Tenggara
		Gayo Lues
Total	12	11

Source: Derived from Table 4.5.

Table 4.6 **Percent of Employment and GRDP by sector in Aceh, 2003 - 2008**

Sector	2003		2005		2008	
	Employment by Sector	GRDP by Sector	Employment by Sector	GRDP by Sector	Employment by Sector	GRDP by Sector
Agriculture*	62.1	21.0	59.8	26.7	48.5	26.2
Mining	0.5	30.0	0.3	23.1	0.5	18.9
Manufacturing	4.8	19.9	3.6	18.0	5.3	11.1
Electy, Gas & Water	0.1	0.2	0.3	0.2	0.2	0.3
Construction	2.9	3.8	3.8	3.2	6.4	8.5
Services#	29.7	25.0	32.3	28.8	39.1	35.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: (*) Agriculture includes farming, livestock, forestry and fisheries
(#) Services include transportation and communication; trade, hotel and restaurant; finance; and other services.
Sources: BPS Statistical Yearbooks.

percent), Gayo Lues (70 percent) and Pidie (72 percent).

4.3. Employment

4.3.1 Productivity of Labour

Average per capita income in a given community directly relates to the proportion of workers employed in different activities, how much they earn, and indirectly to the relative productivity of workers in those activities. To better understand why income levels are lower in some locations than others, it is helpful to look at the composition of employment and GRDP in each sector (table 4.6), from which are derived relative levels of labour productivity (table 4.7). Due to data limitations, this analysis is based on information for the province as a whole, although proportions will obviously differ in each jurisdiction.

As may be seen, the end of the conflict and particularly the tsunami brought about big shifts in employment, mainly from agriculture to the construction industry and the service sectors, especially transportation. While agriculture still accounts for the bulk of employment in Aceh, this dropped sharply from 60 percent of the total in 2005 to 49 percent by 2008, as many rural workers picked up jobs in recovery programmes. Meanwhile, employment in the construction industry expanded rapidly from 3 percent in 2003 to more than 6 percent in 2008, although it was higher during the peak of the reconstruction programmes. Jobs in the service sectors also expanded in recent years, from 30 percent of the total in 2003 to 39 percent by 2008, partly in response to opportunities in recovery programmes and the large influx of aid workers, but also in part to pent up demand accumulated during the conflict.

Big shifts are also evident in terms of sectoral contributions to GRDP. As noted before, the mining sector, which consists almost entirely of oil and gas, has steadily been shrinking in importance, down from 30 percent in 2003 to 19 percent in 2008. Since much of manufacturing is related to oil, its share has also declined from 20 percent to 11 percent during the same period.

Table 4.7 **Relative levels of GRDP per worker by sector in Aceh 2003 - 2008**

	GRDP/worker 2003	GRDP/worker 2005	GRDP/worker 2008
Agriculture*	0.3	0.4	0.5
Mining	66.5	79.7	37.8
Manufacturing	4.1	5.0	2.1
Electy, Gas & Water	2.6	0.8	1.3
Construction	1.3	0.9	1.3
Services*	0.8	0.9	0.9
Total	1.0	1.0	1.0

Note: Sectors as defined in Table 4.7
Source: Derived from Table 4.7

Meanwhile other sectors have been growing, boosted partly by reconstruction programmes, but not enough to offset the decline in mining. Despite this, GRDP shares from construction rose 4.7 percent between 2003 and 2008, from services 10 percent and more significantly from agriculture, also up over 5 percent.

In terms of labour productivity, due to the highly capital intensive nature of the activity, the mining sector (read oil and gas) vastly outperforms all others in Aceh, achieving some 60 to 80 times the average for the province, but declining noticeably by 2008 and probably further since then. Similarly, as oil-related manufacturing winds down, productivity in that sector has also declined. The figures for the utilities sector dropped due to losses from the tsunami and by 2008 had yet to recover to earlier levels. The lower productivity figures for the construction sector in 2005 are likely due to the changing nature of the work. This involved a massive cleanup campaign in the year after the tsunami in 2005 and rehabilitation of fish ponds and agricultural land for a couple of years more, activities where productivity measures are relatively low.

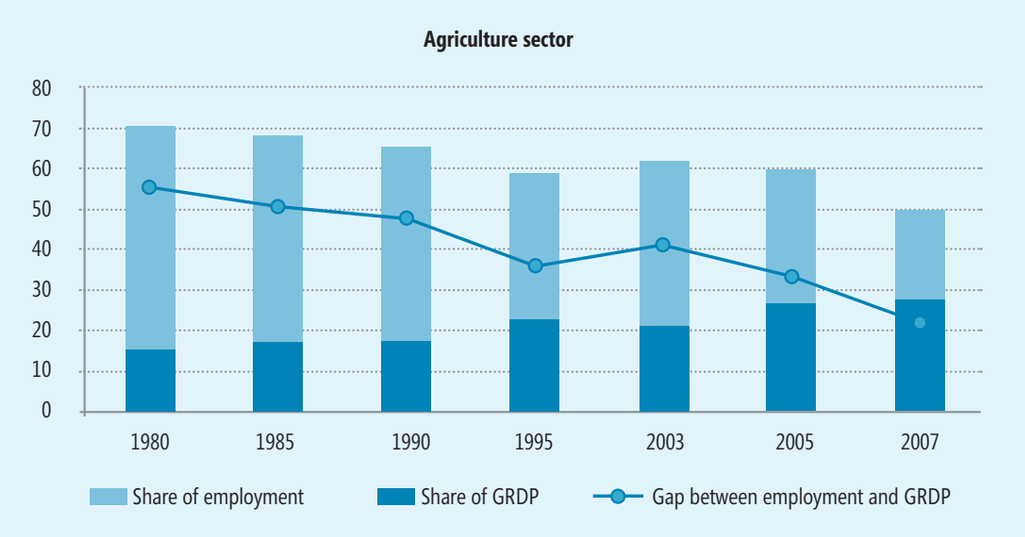
The most encouraging trend shown in table 4.7 is the relative increase in labour productivity in agriculture, which rose from 0.3 in 2003 to 0.5 by 2008. As shown in figure 4.4, this is not a short term fluke, but has been steadily improving over the years, certainly since 1980, indicating a smaller number of farmers are producing a larger proportion of GRDP. This bodes well for households engaged in agriculture, forestry and fishing, and in rural districts where these activities are important.

4.3.2 Employment characteristics

While an analysis of the performance of the local economy helps to understand the structural changes taking place in the region, two questions are of more immediate concern in thinking about human development: How are people presently occupied? And how can opportunities for earning a living be enhanced? To answer the first question, we look at key characteristics of employment in each jurisdiction. These include the labour force participation rate (LPR), informal sector employment (ISE) and open unemployment (see, Appendix A: table 4.2). The second question is taken up at the end of this chapter.

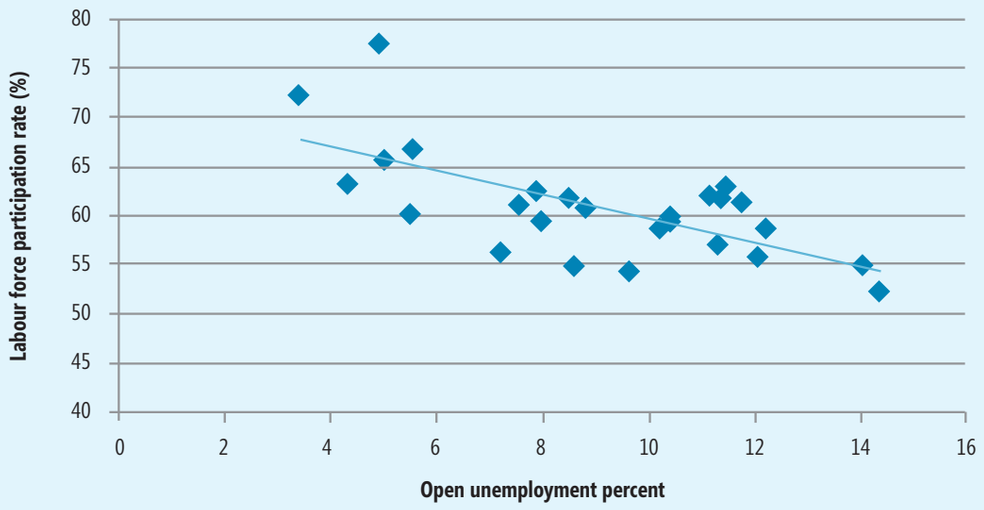
Compared with the national average, the labour force participation rate[36] in Aceh is considerably lower (60 percent vs 67 percent) and open unemployment[37] is slightly higher (9.6 percent vs 8.4 percent). Among regions within Aceh, the labour participation rate is markedly higher in the Aceh Hinterland, which includes three districts ranking in the top four, the only ones producing arabica coffee. The NEA and WSA regions have comparable rates for labour force participation, slightly lower

Figure 4.4 Share of employment and GRDP in agriculture in Aceh, 1980 – 2007



Source: Badan Koordinasi Penanaman Modal (BKPM)

Figure 4.5 Unemployment and labour participation rate by jurisdictions in Aceh, 2008



Source: BPS Statistics, Indonesia, 2008.

in the WSA, where the participation rate in most districts is 60 percent or less, except for Nagan Raya which ranks third overall. The lowest ranking jurisdictions include Simeulue and Aceh Utara (both 55 percent), Aceh Tenggara (54 percent) and rather surprisingly the city of Lhokseumawe (52 percent). Among jurisdictions, the LPR is highest among new districts (64 percent) and lowest among cities (59 percent). It is hard to detect an overall pattern here, except that the LPR appears to be higher in remote rural areas, perhaps because most are employed in family enterprises, particularly farming.

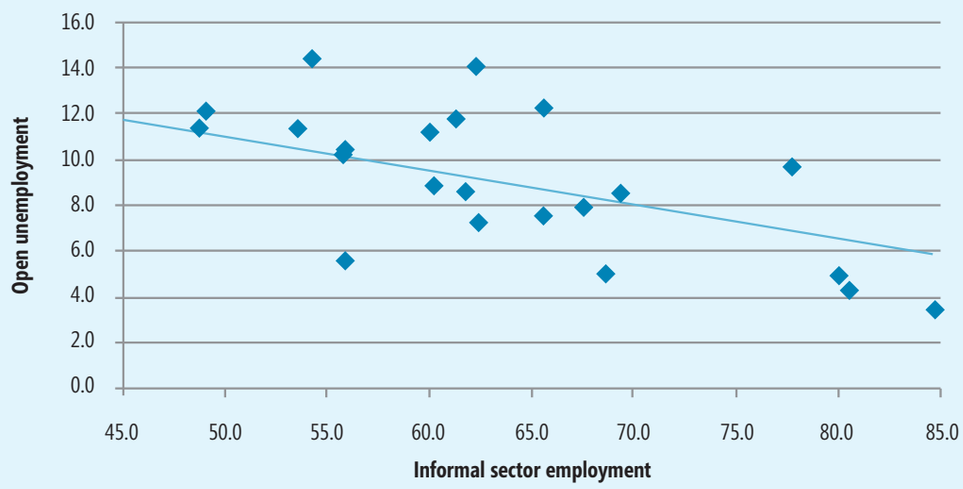
Open unemployment tends to be higher in cities, lower among the original districts and lowest among the new districts. Average rankings of unemployment among regions vary greatly. The Aceh Hinterland scores highest, meaning generally lower unemployment, followed by the WSA region, with the NEA coming in last with higher levels of unemployment. Among individual jurisdictions, unemployment is lowest in Bener Meriah (3.4 percent), Gayo Lues (4.3 percent), Aceh Tengah (4.9 percent) and Nagan Raya (5 percent). It is highest in Lhokseumawe (14.4 percent), Aceh Utara (14.0 percent) and Aceh Barat (12.1 percent), all in the NEA region, and Subulussalam (12.2 percent) in the WSA.

The proportion of workers employed in the informal sector[38] in Aceh is close to the national average for the country at 62 percent indicating an economy that is still economically dependent upon this sector as a source of income for most of the population. This is a typical situation in countries at intermediate stages of development. This figure is far higher in the Aceh Hinterland than other regions, with all four districts there recording levels close to 80 percent or higher, far above the next district, Pidie Jaya at 69 percent. It is lowest in the district of Aceh Barat (49 percent) and the three cities of Langsa (54 percent), Sabang (49 percent), and Banda Aceh (24 percent).

As implied by the lower figures for cities, employment in the informal sector generally declines as the economy modernizes, and business enterprises grow larger and enter the formal sector. Conversely, rural areas that are still highly dependent on small farms and household enterprises may be expected to show higher levels of informal sector employment. In Aceh, this is highest in the new districts, while it is lower in the original districts and lowest in the cities, reflecting in part the relative size and concentration of government offices.

Looking at the larger picture, the data from Aceh hints at two broad trends which are also found in studies of other regions. In areas where jobs are hard to find, where unemployment is high, people lose the incentive to seek work, which is reflected in lower rates of participation in the labour force. This appears to be the case in Aceh as shown in figure 4.5. For example, Lhokseumawe not only has the highest unemployment rate (14 percent) but also the lowest labour participation rate (52 percent).

Figure 4.6 Informal sector employment and unemployment by jurisdictions in Aceh, 2008



Source: BPS Statistics, Indonesia, 2008.

Although the gap has narrowed over the years, the participation rate of males in the workforce is still much higher than that of females.

Conversely, Bener Meriah with the lowest unemployment rate (3.4 percent) has the second highest labour participation rate (72.2 percent).

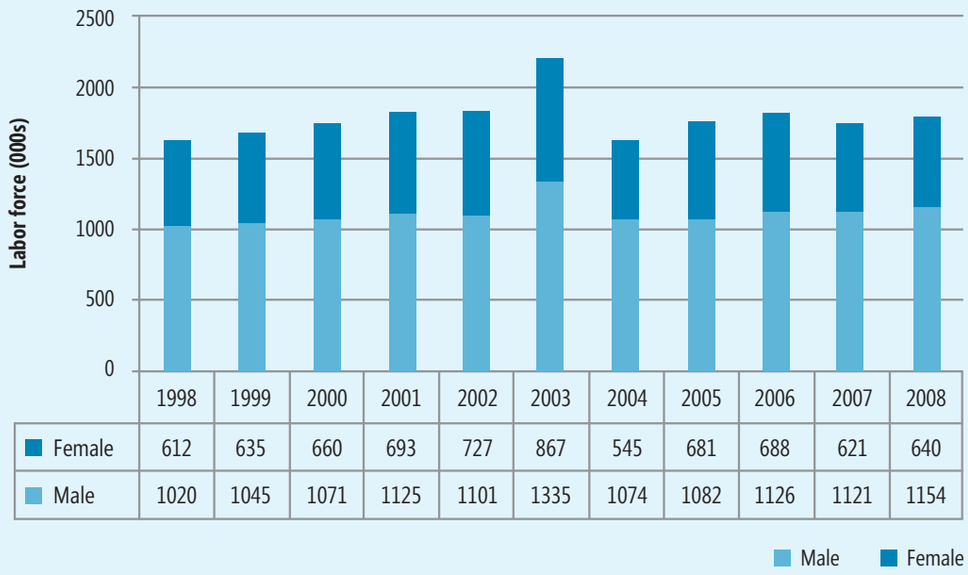
A second trend observed in Aceh is the role of the informal sector in absorbing people without work and reducing unemployment (see figure 4.6). The three districts with the highest proportion of labour working in the informal sector, Aceh Tengah, Bener Meriah and Gayo Lues, all at 80 percent or higher, also have the lowest rates of unemployment (4.9 percent, 3.4 percent and 4.3 percent respectively). Conversely, those jurisdictions with a low proportion of workers in the informal sector – Banda Aceh, Sabang and Aceh Besar – also have unemployment levels above 11 percent. This ability of the informal sector to absorb those without work was also observed in Indonesia after the Asian economic crisis of 1997-98, when large numbers of unemployed city workers returned to their home neighbourhoods and family enterprises, especially farming.

This observation might be interpreted as implying that efforts to reduce unemployment should focus on support for the informal sector. Perhaps, but there are risks. While this might reduce open unemployment, it may simply shift workers to the ranks of the under-employed. Jobs in the informal sector usually lack social protection and labour rights, and women are especially vulnerable to exploitation. After 1998, many enterprises also resorted to offering informal jobs to save money and evade paying dues and taxes as well as overtime and paid leave. The longer term goal must be to assist informal enterprises to become more productive, to offer better conditions for employees, and eventually to graduate to the formal sector.

4.3.3 Employment of women and former combatants

Between 1998 and 2008, the labour force in Aceh grew unevenly from year to year, and not as might be expected (see Appendix table 4.3.). For the first few years, it generally grew faster than the population, reflecting perhaps a surge in the number of young people entering the work force that exceeded the number of those retiring. In 2003, data shows the size of the workforce apparently exploded by the unlikely rate of more than 20 percent only to shrink by a similar factor the following year in 2004. If the labour count was conducted right at the end of the year, this might in part reflect the widespread loss of life from the tsunami. Given the large increase the year before, it seems more likely however that the figure for 2003 might be an error or an over estimate. If this is the case, then the modest growth of 0.7 percent in 2005 probably reflects both the loss of life from the tsunami offset by a larger influx of relief workers as recovery efforts got underway. Growth accelerated in 2007 to 4.1 percent as reconstruction programmes expanded but declined slightly by 0.4 percent in 2007,

Figure 4.7 **Labour force by gender in Aceh, 1998 – 2008**



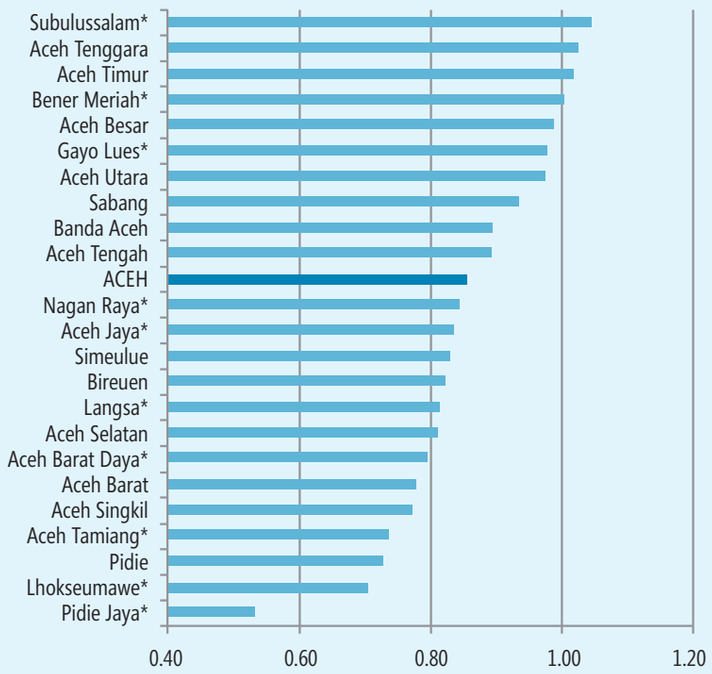
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Female	612	635	660	693	727	867	545	681	688	621	640
Male	1020	1045	1071	1125	1101	1335	1074	1082	1126	1121	1154

Source: BPS-Statistics of Nanggroe Aceh Darussalam Province 2009

which is surprising since reconstruction was still in full swing. By 2008, growth had resumed a morenormal pace at 2.9 percent, closer to the average in the earlier years.

Employment of women: Over the years, the number of women in the workforce steadily increased up to a peak of some 850,000 in 2003, although this figure may be inflated (see figure 4.7). From 2005 onwards, the number has oscillated around 650,000, rather lower in the two most recent years for which data is available. As a percentage of the total workforce, their parti-

Figure 4.8 **Ratio of female-male average non-agricultural wage by jurisdiction in Aceh, 2008**



Source: BPS

cipation rose steadily from 29 percent in 1980 to a peak of almost 40 percent in 2002, signifying an increase of 11 percent over a period of 22 years. Since then it has dropped a little to around 36 percent, which reflects the comment made earlier that after the return of former combatants to the household, the burden on women to be the primary breadwinners may have eased. Although the gap has narrowed over the years, the participation rate of males in the workforce is still much higher than that of females.

Another area of concern is gender discrimination in wage rates. The ratio of male to female wages in the non-agriculture sectors in 2008 is shown in figure 4.8. Two points stand out. First, the average wage for women in Aceh was less than that for men in all but four districts, Subulussalam, Aceh Tenggara, Aceh Timur and Bener Meriah. Second, wage ratios for all four districts in the Aceh Hinterland were above the mean for the province. Conversely, the four jurisdictions with the lowest ratios – Aceh Tamiang, Pidie, Lhokseumawe and Pidie Jaya – are all in the NEA region. Other than that, these ratios did not exhibit any consistent regional or rural-urban distribution pattern.

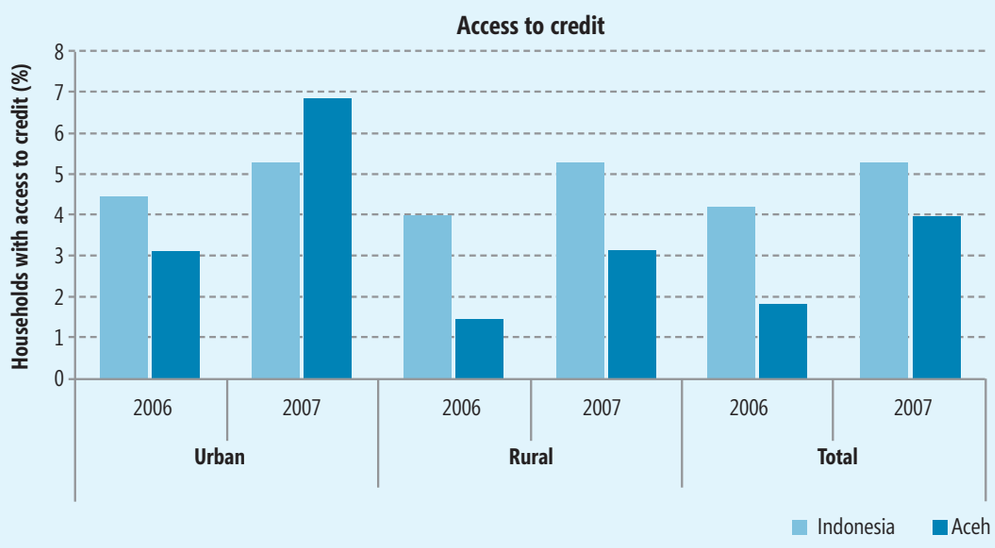
Employment of former combatants: According to the MSR[39], there has also been a significant rise in employment levels among former combatants, with most now working. Former combatants are reportedly now more likely to have jobs than the non-combatant population. Most former combatants and political prisoners have returned to the occupations they held prior to joining the insurgency, mainly farming and agricultural wage labour, with others performing non-agricultural daily wage labour. Despite high employment rates, former combatants are on average less wealthy and have lower incomes than the civilian population at large, although there is large variation within the former combatant population. Since the conflict ended, certain groups, particularly former TNA officers, are accruing wealth more rapidly than other groups.

The MSR also points out that reintegration assistance has had little measurable impact on the economic status of recipient households. In part, this is because many government programs have delivered cash without guidance or follow-up assistance to ensure its effective use. Few services or programmes exist to provide skills training or business development support to former combatants, political prisoners or conflict victims. Only a small number of former combatants or amnestied political prisoners have returned to school since the conflict ended.

In the medium to long term, strategies to promote broad economic growth may be more effective in dealing with the needs of most conflict-affected people than targeted assistance programmes. Certain vulnerable population groups however, especially IDPs / recent returnees, widows and female-headed households will continue to require carefully targeted

A key factor constraining economic growth and opportunities for people to build family enterprises is the difficulty of accessing credit.

Figure 4.9 Urban-rural gap in access to credit in Indonesia and Aceh 2006 and 2007



Source: National Social and Economic Survey (Susenas)

assistance. Selection of such groups should be based on indicators of vulnerability rather than their identity during the conflict, and in most cases communities will be best placed to decide on who should benefit.

4.4. Access to financial resources

A key factor constraining economic growth and opportunities for people to build family enterprises is the difficulty of accessing credit. This applies both to small enterprises as well as larger ones, especially those involved in the agricultural sector (broadly defined). In Aceh, the proportion of households that receive credit from financial institutions and government programmes is generally below the national average, as illustrated for the years 2006 and 2007 (see, figure 4.9). The higher proportion for urban households in Aceh in 2007 was an exception, due to the launching of a credit programme by the provincial government, which is described below.

At the national level, there is no marked difference between lending in urban and rural areas, but in Aceh urban households tend to have better access than those in rural areas, by a factor of more than 2 to 1 in the years shown. Banks have a preference for consumer loans, such as motor bikes and electronic appliances, which are in greater demand in urban areas. It is also more cost-effective for them to monitor borrowers clustered in towns rather than those scattered across rural areas with poor roads. Most private financial institutions in Aceh are also reluctant to lend for economic activities, especially in agriculture, which they regard as far more risky, given the vagaries of weather, disease and commodity prices.

In addition to the banks' selective preference for lending, potential borrowers face other impediments to accessing credit in Aceh. These are widely recognised in less developed economies around the world, and similar to those already mentioned in accessing justice. Few financial institutions operate branches in rural areas, making it time consuming and costly to initiate a loan and make periodic payments. Many people find the administrative procedures difficult to understand, especially those who are illiterate or who have little education. Requirements for collateral are hard to meet, especially those without title to land, a serious handicap for the poor and also women as mentioned earlier. This forces most people, especially in rural areas, to rely on money lenders, who usually charge high or exorbitant interest rates, often exceeding 100 percent per year.

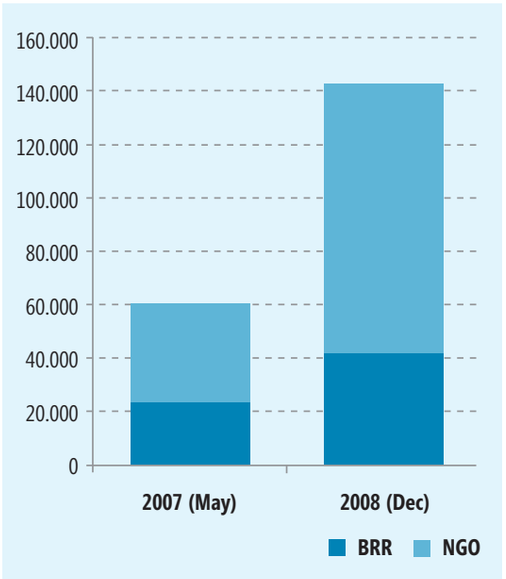
In an attempt to improve access to credit, as part of a strategy to reduce poverty and promote small and micro enterprises (SMEs), the Aceh provincial government launched a programme in May 2007, called Credit for Nanggroe Welfare (*Kredit Peumakmu Nanggroe* or KPN). This followed similar programmes, launched earlier by three previous governors, called People's Economic Empowerment (*Gema Assalam* and *Pemberdayaan Ekonomi Rakyat* - PER). These are largely funded by dividends that the government of Aceh receives from its shares in the Local Development Bank *(Bank Pembangunan* Daerah or BPD). The KPN programme provides micro-credit up to a maximum of Rp 15 million for proposals from individuals, which are processed by the BPD.

Although a large number of proposals were received after launching the KPN, it achieved little impact and is considered a failure. This was predictable given the poor design of the programme, which was riddled with flaws. It contained no planned targets, no clear strategy and no clear procedures for evaluation. Loans were nominally intended for the poor, but little thought was given to how to reach them or to service their special needs. As is often the case with government credit programmes of this nature, interest rates were set at 5 percent per year, far below the market rate, which usually leads to corruption in awarding loans to favoured clients. Some proposed waiving interest altogether on religious grounds. Although intended to be sustainable, the scheme quickly collapsed as many borrowers defaulted on their loans, calculating they would suffer little or no penalty. This is another common problem with publically funded credit programmes, especially where the government decides on the allocation of loans and the bank merely acts as an intermediary and executing authority.

A more successful strategy was implemented by the BRR during its four years of operation, in which funds were transferred to qualified NGOs with relevant experience, who were responsible for allocating and administering the loans. Many other similar credit programmes were started by donors as part of their recovery efforts, resulting in the creation of numerous micro credit agencies or *Lembaga Keuangan Mikro* (LKM) as

they are known locally. Together, these agencies have issued large numbers of loans, totalling around 140,000 by the end of 2008 (see, figure 4.10). Many of these LKMs have since closed, as donor programmes ended, although others have continued on their own. Since the BRR ended operations in March 2009, some of the credit schemes they started, along with other functions, have been transferred to the provincial government.

Figure 4.10 Aggregate number of credits



4.5. Approaches to economic development in Aceh

Government thinking on promoting economic recovery and development is reflected in a number of recent documents. These include the long and medium term development plans (RPJP and RPJM) and the annual budgets, which all local governments prepare, as well as various reports produced by related departments and agencies, notably the Governor's Office and the Aceh Reconstruction Sustainability Agency (*Badan Kesinambungan Rekonstruksi Aceh* - BKRA). The latter was charged with coordinating the continuation of the activities of the Board for Rehabilitation and Reconstruction, as well as social welfare and institutional capacity.

In 2008, the Governor's Office issued a concept paper titled *Green Economic Development and Investment Strategy for Aceh*, known as *Aceh Green*. The title is somewhat misleading, since it refers primarily to the conservation of protected forest areas and the environmentally appropriate use of natural resources. Among other ideas, it includes proposals for capitalising on Aceh's vast forest areas through participation in global carbon markets. While the paper does not directly address larger issues of economic recovery and development, it does serve a useful purpose in drawing attention to the need to take into account environmental implications of strategies for economic development.

These and other documents all reiterate in one form or another perceived priorities for economic development, such as reducing poverty, creating jobs and supporting small enterprises. But they all suffer from a lack of an overarching conceptual framework that would provide the rationale for appropriate strategies, outputs and criteria for prioritizing the use of resources. As a result, plans amount to little more than a long list of programmes proposed by individual departments, rather than a coherent portfolio designed to achieve stated goals and objectives.

Two other reports of note that relate to economic development in Aceh have been prepared by the World Bank. The Aceh Poverty Assessment,[40] published in 2008, recommends that priority should be given to the poorest regions in Aceh such as those in the rural interior and more remote areas. The report argues:

> *"The current concentration of resources in tsunami affected areas, particularly Banda Aceh and areas close to the capital, should be broadened to cover other areas affected by the conflict. Any poverty alleviation strategy should focus on increasing the productivity of the agriculture and fisheries sectors. This should be linked to a strategy to improve the capabilities of the poor (skills development, rehabilitation of physical assets) and link them to growth poles in the urban areas (better rural infrastructure and accessto markets)."*

A second report by the World Bank, titled Aceh Growth Diagnostic[41], focuses on identifying and removing constraints to growth. Among others, these include the shortage and unrealibility of power supply, physical insecurity, criminal extortion, and the role of public investment in raising the supply of public goods and services. Recommendations relate to improving the investment climate for private investors, and promoting equitable develop-

Delivery of extension services, the repair of irrigation systems, and promoting access to markets would benefit the entire farming community and therefore be less selective or discriminatory.

The people who best understand the constraints and opportunities facing economic growth, and are best positioned to promote it, are those who earn their living from economic activities, namely business entrepreneurs large and small.

ment as a means of preventing future conflict. Like other reports, this study also emphasizes the crucial role played by the agricultural sector not only in the overall economy but in the performance of the non-oil industrial sector.

An important recommendation of the study in raising the productivity of the agricultural sector is to reorient public spending away from subsidizing specific inputs, such as seeds and fertilizers, towards improving the provision of public services. Delivery of extension services, the repair of irrigation systems, and promoting access to markets would benefit the entire farming community and therefore be less selective or discriminatory.

4.6. Conclusions

Implications for economic development. The strategic implications of the preceding analysis are clear. If Aceh is to achieve success in creating more widespread and productive opportunities for people to earn a living, efforts are needed on two broad fronts. At the macro level, structural weaknesses in the economy need to be addressed, while at the micro level programmes to support household enterprises and personal livelihoods need to be linked to structural changes that are taking place in the larger economy.

What does this mean in practice?

Recommendations:

- Since the oil and gas industry is in steep decline, and the non-oil manufacturing sector still accounts for only a small portion of GRDP and employment, economic recovery and growth can only be achieved by expanding agriculture, broadly defined to include plantations, fishing and forestry.
- Since prospects for outside investment in the region are poor, and local demand is severely constrained by low per capita spending, efforts to expand the agriculture sector must focus on exports to non-local markets either within Indonesia or abroad. This implies a marked shift in the government's current approach to supporting agriculture, which is heavily oriented to the supply side.
- Instead, policies and programmes must be shaped by external demand and aim to enable local producers to compete successfully in those markets. Simply increasing production is not enough; attention must also be paid to improving quality of produce and meeting the needs of specific buyers.
- Without a clear understanding of the implications of structural changes occurring in the Aceh economy, efforts to create opportunities for employment and small enterprises will be largely ineffective.
- Most programmes in support of livelihoods in Aceh, especially those launched during the massive recovery effort, have focused primarily on providing credit, sometimes grants, and technical assistance mainly for business management. Evaluations of these programmes almost always report success, as demonstrated by the increase in business achieved by recipients.
- However, few evaluations compare recipients to a control group of non-recipients. Studies that have included control groups find that many report losing business, and warn that there is a risk of such programmes achieving a zero sum result, with gains by some offset by losses by others.
- This may be less of a risk in unusual circumstances, for example during the immediate aftermath of major disasters such as the tsunami, where demand temporarily exceeds supply. But the risk rises again as production gradually recovers to pre-disaster levels.
- Why should this be? Quite simply because the majority of small family businesses are competing in a limited local market. This is especially true in the service sector, for example among cafes, restaurants, grocery stores, repair shops and beauty parlours, but it also applies to some farmers and producers of food products, in other words those serving consumers in the local neighbourhood or market area.
- As emphasised at the macro level, the lesson here is that programmes in support of farmers, fisher folk, small enterprises and other forms of livelihoods, must consider the limits of local demand and search for potential opportunities in markets further afield. At the provincial level, this means outside Aceh, especially for growers and processors of agricultural commodities.
- As demonstrated by the APED project (box 4), a proven strategy for doing this is by strengthening supply chains that link local producers to non-local markets through business partnerships that involve producers, processors, exporters and importers.

Implications for people empowerment. In the past, many local governments in Indo-

Box 4 **The APED Coffee Forum**[42]

The Coffee Forum was originally launched by UNDP and others in September 2005 as part of the Emergency Response and Transitional Recovery (ERTR) programme, and has been supported by APED since mid 2006. The Forum has so far focused only on arabica coffee, which is grown mainly in three districts within the Aceh Hinterland, Aceh Tengah, Bener Meriah and Gayo Lues. If funding is available, the project could expand to cover districts growing robusta coffee.

The full forum meets about twice a year and includes representatives from farmer groups, coffee cooperatives, processors, exporters, government departments, research institutions, financial institutions, NGOs, donors and other interested stakeholders. Every two years, forum participants elect the members and chair persons of an Executive Committee, currently numbering twelve people. This meets formally about once a month and informally as needed. In 2008, the Forum established itself formally as a legal entity with its own rules of conduct and receives technical support from the APED project team attached to the provincial BAPPEDA in Banda Aceh.

Since it was formed the Coffee Forum has undertaken a number of initiatives including:

- Preparation and distribution of 1000 copies of a manual on the production, processing and marketing of Aceh arabica coffee, which the IFC plans to revise for the use of coffee farmers nationally.
- Research leading to the identification of coffee varieties most favoured by international buyers, which has attracted government funding to obtain formal certification from the Ministry of Agriculture.
- Introduction of a system to provide information on local market prices for coffee farmers using text messages broadcast through cell phones.
- Collaboration with UNDP's SSPDA project for the distribution of 37,600 agricultural tools and equipment to coffee cooperatives and 11,846 farmers, most of them victims of the conflict and IDPs who had since returned to their villages.
- The formation of a Committee for Protecting Gayo Coffee, which has prepared documents to protect the name "Gayo" as a Geographic Indicator for coffee grown in the Gayo mountain area of Aceh. This is now being pursued in international forums by the Director General of the Department of Intellectual Property Rights (*Hak Kekayaan Intellectual* - HKI) in Jakarta.
- A programme to provide grants of US$100,000 to business groups comprising farmers, cooperatives, processors, exporters and NGOs for the purpose of strengthening market supply chains for coffee, which has resulted in improved quality of produce and substantially increased sales and income for local farmers.
- The increased participation of women in project activities including field training courses for farmers and their election to the Forum Executive Committee.
- Initial success in overcoming resistance from local financial institutions to make loans to farmer cooperatives and private enterprises for agricultural production and trade.
- Mobilising support from donors, the private sector and especially local governments for Forum activities.

As may be seen, the Coffee Forum provides an excellent example of what can be achieved through empowering stakeholders to collaborate with government in promoting economic development. It has attracted widespread attention from government and the business community throughout the province, and many other districts have expressed interest in forming similar forums for other sectors.

nesia have attempted to lead initiatives for economic development themselves, but with mixed success. Public investment in economic programmes has often proved largely ineffective, such as micro-credit schemes, subsidies for production inputs and particularly industrial parks that stand empty for years. While government can and should play an important role as facilitators and coordinators, they do not make good entrepreneurs. The people who best understand the constraints and opportunities facing economic growth, and are best positioned to promote it, are those who earn their living from economic activities, namely business entrepreneurs large and small.

Recommendations: This calls for actions to empower the business community, broadly defined, to collaborate more effectively with government in shaping policy and priorities for economic development.

Two initiatives have already been launched in Aceh and provide examples of how this can be achieved. With funding from the IFC, an Aceh Business Forum was set up in 2008 as a platform for improving dialogue between government and the private sector on matters related to economic development and business activities in Aceh. Groups of representatives from government and the business community meet separately at first, and then come together periodically to share ideas and proposals. The concept is modelled on IFC experience in other countries, which has expanded to include subgroups representing individual sectors such as

trade, infrastructure, agriculture and tourism.

A second model may be found in the Aceh Partnerships for Economic Development (APED) project supported by UNDP since mid 2006 with funds from the Decentralization Support Facility and later the Bureau for Crisis Prevention and Recovery in Geneva. The APED approach is based on the selection of local commodities with a strong potential for exports to non-local markets and formation of industry forums to collaborate with government in promoting the development of these commodities. To enable the forums to function effectively, a project support unit provides intensive technical and administrative assistance, particularly in developing detailed proposals and implementing initiatives. The APED project has been implemented in Aceh by UNDP in collaboration with BAPPEDA and has launched forums for coffee, cocoa and most recently for rubber, which together cover ten districts. Since it started, APED has spurred considerable financial support from government and the approach has attracted attention from several other districts, which are interested in replicating the approach in other sectors.

5 Participation and People Empowerment

CHAPTER

5 Participation and People Empowerment

In Aceh, nearly all locally based community organisations are non-profit entities, run by volunteers, dependent on contributions from the community itself or elsewhere. Most are informally structured, though some may be formally registered.

As argued by Amarta Sen in his book *Development and Freedom*, perhaps the most important goal for human development is to create freedom for individuals to make choices. This may be considered at three levels. In personal terms, people should be free to make social, cultural and religious choices concerning their way of life without being forced to conform to the traditions and expectations of dominant groups. At the local level, people should have the opportunity to participate in making decisions concerning the community in which they live. Where this is not practical, people should have the right to choose those to represent them in larger decision making forums at higher levels of government.

This chapter looks at participation first in terms of the larger political arena, and then in terms of people empowerment and decision making at the level of the community.

5.1. Political participation

5.1.1 Democratic elections

One aspect of freedom to make choices concerns people's right to choose those who are to represent them in larger decision making forums. This refers primarily to the election of representatives to district, provincial and national assemblies. In this regard, Indonesia has achieved great progress in the decade of *reformasi*, following the fall of the Soeharto regime in 1998. Indeed, Indonesia is now recognised as a country where principles of political democracy are more widely practised than many other countries in Asia. Under Soeharto, citizens had few rights to elect public officials. Today, Indonesians are entitled to vote for representatives at all levels of government, from the village to the national parliament (DPRN), as well as government leaders from the village chief, to the Bupati at the district level, to the provincial Governor and most recently for the President of the country. This represents a remarkable achievement in such a short period of time and an important advance in human development.

5.1.2 Post crisis political action

In addition to the rights enjoyed by all Indonesians, the people of Aceh also exercise other privileges, including the right to establish local parties, as part of its current special status. Six have been officially recognized: the Aceh Party (*Partai Aceh* - PA), the Aceh People's Independent Voice Party (*Partai Suara Independen Rakyat Aceh* - PSIRA); the Aceh People's Party (*Partai Rakyat Aceh* - PRA); the Sovereign Aceh Party (*Partai Daulat Aceh* - PDA); the United Aceh Party (*Partai Bersatu Aceh* - PBA), and; the Safe and Prosperous Aceh Party (*Partai Aceh Aman dan Sejahtera* - PAAS). In December 2006, for the first time in Aceh, elections were held for the position of Governor, district chiefs (*Bupati*) and city mayors (*walikota*).

Prior to the 2009 legislative elections, a brief spate of violence broke out, caused by local political rivalries. This and other factors were perceived by some as a signal of waning political commitment to the peace process. The continued use of the word "Merdeka" or independence by GAM was interpreted by the Indonesian

military as evidence that GAM still heralded pro-independence leanings. The political violence prior to the elections was seen by both the military and ex-GAM members as signaling a deterioration of security and a potential catalyst for renewed conflict (Jones 2009). Such sentiments however were overstated, given the fact that the violence was relatively contained and that the elections were held successfully.

5.1.3 The 2009 elections

In April 2009, elections were held for members of national and local assemblies. People voted for four representatives, including one for the Indonesian Parliament (DPR), the Regional Representatives Council (*Dewan Perwakilan Daerah* or DPD), the Aceh Provincial Assembly (DPRA), and the District Legislature (DPRK). Based on limited available information, the people of Aceh are making good use of their right to vote. Some 75 percent of registered voters participated in these elections, well above the national average for other provinces[43].

Based on independent election monitors, the Aceh elections were by and large considered free and fair with relatively low levels of violence. Problems related to money politics and intimidation in the elections, should they continue to pose problems, could have a longer-term impact in its potential for undermining democratic governance in Aceh. Nonetheless, the success of the elections showed that the peace agreement was still holding, despite fears to the contrary.

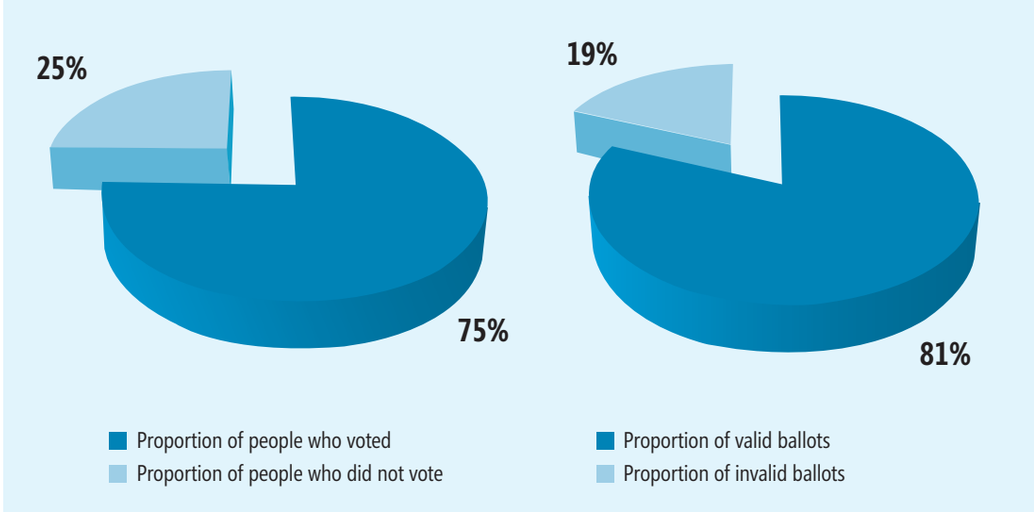
5.1.4 The role of women in leadership positions

Many voters in Aceh still see men as more appropriate for leadership roles

Data on the participation of women in local assemblies in 2008 show different trends at the provincial and district levels. While women comprised 8 percent and 9 percent of the members of the provincial DPRA in 1999 and 2002, this figure dropped to less than 6 percent by 2008. On the other hand, among district assemblies, the proportion of women representatives was low in the first two years, but increased dramatically by 2008. They were elected to only 5 of the ten district assemblies in 1999 and 4 of the 13 assemblies in 2002, but by 2008 they had succeeded in being elected in all 23 districts. Furthermore, with the exception of Sabang, the proportion of women in 2008 increased in all district assemblies that existed in 2002. By 2008, they counted for 1 percent or representatives in 6 districts, up to 10 percent in 9 more districts and more than 10 percent in 8 other districts.

Among regions, female participation was about the same in the NEA (7.7 percent) and the WSA (7.5 percent), but far higher in the Aceh Hinterland (13.0 percent), due mainly to Bener Meriah, where women accounted for 38 percent of assembly members, far higher than anywhere

Figure 5.1 Voter participation in Aceh in 2009 elections



Source: National Elections Commission (KPU)

Key remaining tasks include consolidating social cohesion, further enhancing the re-integration of former combatants, addressing a number of gender related issues, and promoting broader inclusion of poor and disadvantaged groups in decision-making processes.

else. While cities had higher average proportions of women representatives in 1999 and 2002, new districts, including Bener Meriah had overtaken them by 2008.

Part of the dramatic increase in women's participation in 2008 may be attributed to national regulations that require parties to nominate women for at least 30 percent of their candidates. But it should also be noted that the source of data for 2008 is different from 1999 and 2002, so the method of computation may be different.

Although comparable data is not yet available from the April 2009 elections for local assemblies, the DPRA and DPRK, female candidates apparently fared less well. While many women were recruited in order to meet the stipulated 30 percent quota for each party, the majority of these candidates did not earn enough individual votes to be elected. Commentators claim that some candidates were inexperienced politicians recruited merely to achieve the quota, and did not campaign actively. In addition, many voters in Aceh still see men as more appropriate for leadership roles, a view crudely expressed by one male official from a (non-Islamic) national party: "The world was created for men, women cannot be leaders...women cannot think rationally for one week per month, so how could they make decisions?" (Palmer 2009). However, these factors are not new and do not explain why women's participation was so much higher in 2008 and apparently much lower after the 2009 elections.

Although not directly related to the political arena, one of the indicators used in the Gender Empowerment Measure (GEM) for provinces in Indonesia and districts in Aceh is the percentage of women in senior official, managerial and technical staff positions. Data shows that in 2008, women held roughly 50 percent of these positions, up from 2002 but not as high as 1999 (the three right hand columns in Appendix A: table 5.1). As in the case with many other development indicators presented in this report, cities recorded women as accounting for the highest average proportion of these positions, while new districts had the lowest proportion. Among individual jurisdictions in 2008, the proportions are highest in Nagan Raya (65 percent), Bireuen (60 percent) and Aceh Tengah (59 percent), and lowest in Lhokseumawe (29 percent), Aceh Barat (33 percent) and Aceh Tenggara (41 percent).

While this indicator may be a reasonable proxy for women professionals, it is not a good indicator of women as leaders and decision makers. Many of the personnel included in the data hold relatively junior posts in government offices with limited authority to make decisions. The indicator is based on the weighted average of three sub-categories for senior officials and managers, professional personnel, and technicians and assistant professionals. Data on the first category varies widely among districts in Aceh. In Simeulue, Aceh Timur, Bireuen, Nagan Raya and Aceh Tenggara, women account for between 40 percent and 45 percent of senior positions, but in Aceh Barat, Aceh Barat Daya, Pidie, Pidie Jaya and Subulussalam, there are no women in these positions. A simple head count in most government offices indicates that men still outnumber women in most senior positions, a situation that is probably similar among most private sector businesses.

5.2. Social cohesion

The most promising opportunities to promote active participation and people empowerment may be found at the level of local communities, and to a lesser extent districts and the province. For these things to happen however, civil society must first achieve a satisfactory level of political stability, social cohesion and mutual trust, conditions that are easily destroyed during severe armed conflict and hard to reestablish afterwards.

Despite the widespread upheavals caused by the conflict and natural disasters in Aceh, recent studies have found that these conditions have more or less been restored, although important tasks still need to be addressed. In 2006, the Kecamatan Development Program (KDP) undertook a comprehensive survey of infrastructure and social conditions in Acehnese villages throughout the province,[44] with survey questions related to decision-making mechanisms, community trust and solidarity, social cohesion and inclusion. The general conclusion to be drawn from this survey is that positive social conditions in Aceh provide a potential basis for participatory decision making. Gender biases and social divisions resulting from the conflict however, need to be addressed before full community participation can be realized.

More recent information is included in the draft 2009 Multi Stakeholder Review (MSR)[45], which aimed to identify and better understand factors that support or constrain recovery and redevelopment in communities in Aceh in the wake of the conflict and natural disasters. It is based on data collected during 2008 – 2009 from three surveys covering former members of the TNA (the military arm of GAM), individual men and women, and village heads. Preparation of the MSR involved the governments of Aceh and Indonesia, the Aceh Peace-Reintegration Board (BRA), and the National Development Board (BAPPENAS) supported by several donor agencies.

The report concludes that: "A comprehensive and inclusive strategy for consolidating peace is still lacking as is an effective institutional structure to oversee its implementation".[46] Nonetheless, it also concludes that rural communities in Aceh have high levels of trust in village government and traditional institutions, even though trust towards other levels of government is low. Its findings on social cohesion supported in general the positive findings of the 2006 KDP village survey in that relatively positive social conditions could provide a basis to address further challenges in the reconstruction and rebuilding of Aceh by empowering citizens through community development approaches.

Key remaining tasks include consolidating social cohesion, further enhancing the reintegration of former combatants, addressing a number of gender related issues, and promoting broader inclusion of poor and disadvantaged groups in decision-making processes. The MSR for example, reports that inter-village and inter-ethnic relations are a source of tension in some highland areas, as are relations between IDP returnees and villagers throughout the province. Deeper reintegration of former combatants has yet to be achieved, as reflected by limited close friendships with civilians.

5.3. Empowerment and decision making

For many people, the most important decisions in the public realm are those that directly affect the communities in which they live. Actions to improve access to public services and the quality of them are usually of greater interest and more direct benefit than policy matters at higher levels of government. For this reason, steps to enhance opportunities for people to participate actively in the process of making decisions concerning their community are a vital component of human development.

Since the end of the Soeharto regime in 1998, numerous initiatives have been introduced to allow decisions to be made by local governments, elected parliaments and other public forums closer to the people and communities affected by them. Initial decentralisation legislation in 1999, which devolved powers and resources from central to local governments (*otonomi daerah*), has spurred numerous other policies and programmes instituted by governments at the national and local levels. A number of examples currently applied in Aceh are reviewed here.

Steps to enhance opportunities for people to participate actively in the process of making decisions concerning their community are a vital component of human development.

5.3.1 The Musrenbang

The Multi Stakeholder Consolidation Forum for Development Planning (*Musyawarah Perencanaan Pembangunan* – Musrenbang) was established under Law No. 25/2004 on the National Planning System. It was envisioned by the central government as a central part of a framework which would synchronize bottom-up and top-down planning and budgeting processes as a means to reconcile the different needs and interests of government and non-government stakeholders. The process starts at the village level, where the community prepares medium term development plans and annual budgets. These are then forwarded to the sub-district office (*kecamatan*), which coordinates proposals and produces an aggregate plan and budget. These in turn are sent to the district planning office (BAPPEDA), which repeats the process, incorporating other proposals from government departments. The resulting district plan and budget is then submitted to the local assembly (DPRD) for review, negotiation and eventual approval. Some components may also require discussion and negotiation with the provincial government and assembly. Due to the numerous steps involved, the Musrenbang process has been much criticised, especially by villages, as being cumbersome, protracted and ineffective in responding to community priorities.

5.3.2 The Kecamatan Development Program (KDP)

The KDP was originally launched and funded by the World Bank a decade ago and has since been mainstreamed into the nationwide Community Empowerment National Program (*Program Nasional Pemberdayaan Masyarakat* - PNPM - Mandiri), becoming one of the world's largest participatory development programmes. It aims to deliver development resources to rural communities through "inclusive, transparent and accountable decision-making mechanisms designed on the basis of extensive prior social research in Indonesia". The program now operates in 40 percent of all sub-districts in Indonesia.

Guidelines on decision-making procedures, which aim to empower marginalized groups, can impact local power structures. Predictably, resistance to such changes from those who have traditionally held power can be the cause of dispute in KDP areas. At the same time, more transparent processes created by KDP can also create argument as villagers become aware of interference by village elites in the decision-making process. Nevertheless, while KDP has the potential to trigger disputes, the evidence shows that KDP-related quarrels are less likely to escalate than other programmes, because of mechanisms for conflict resolution and the inclusion of a wide range of people in the KDP planning process.

Box 5 — The Kecamatan (Sub-District) Development Program (KDP)

The Kecamatan (Sub-District) Development Program (or KDP) aims to introduce transparent, accountable and participatory development planning at the village and sub-district levels in Indonesia. The program's defining element entails the transfer of block grants to committees at the sub-district (kecamatan) level, largely made up of non-governmental representatives elected by constituent villages. Groups of villagers brainstorm and then prioritize ideas for small projects they would like to see funded in their village—e.g., the paving of a road, the building of a bridge over a stream, a community centre, or a saving and loans fund. Supported by input from technical experts, such as engineers, they then submit proposals for funding to the sub-district committee. The committee evaluates proposals for technical and financial feasibility, poverty targeting, likely impact, and sustainability. At least one proposal from each village must be from a women's group. All deliberative processes are conducted in public, and all outcomes are posted on community bulletin boards, with journalists and NGOs encouraged to report any abuses. KDP thus introduces, or tries to introduce, rules-based, transparent and accountable competition into village life. In the process, it creates "winners" and "losers"—some proposals get funded, some do not—and thus increases the potential for dispute. However, it also creates new spaces for public deliberation, new avenues for the participation of marginalized groups, and new opportunities for the cultivation of civic skills: public participation in planning, debating differences, managing meetings and keeping records.

Patrick Barron, Rachael Diprose, Michael Woolcock, "Local Conflict and Development Projects in Indonesia: Part of the Problem or Part of a Solution?" World Bank Policy Research Working Paper 4212, April 2007, p 8.

5.3.3 Aceh Recovery Framework (ARF)

The ARF was intended to form the basis for the Governor's four-year transitional road map for achieving sustainable peace and development in Aceh, although it was never formally adopted. A consultative process was used to formulate the framework. Six Cluster Committees led by the Province worked over an eight month period to identify the major challenges faced by Aceh during its transition period and to set priorities and outcomes. Cluster Committees were co-chaired by the UN, World Bank, donors and the BRR with membership from a range of local and international organizations and stakeholders. Ten ARF stakeholders' consultations took place in districts and cities across the province in 2008 to reflect the realities, concerns and needs of local government and communities, making use of existing Kabupaten/Kota Recovery Forums (KRF). These forums were chaired by elected provincial government officials with a wide range of participants from civil society, cultural leaders, former combatant associations and the private sector. While the ARF made strenuous efforts to engage communities in dialogue however, it did not provide an opportunity for them to share in the process of making final decisions.

5.3.4 BKPG

In 2009, the Aceh provincial government created a new programme called Financial Assistance for Village Welfare (*Bantuan Keuangan Peumakmue Gampong* – BKPG). This was designed to be the government's chief instrument for realizing its vision of developing the entire province. It aims to acce-

lerate rural development, reduce poverty, empower communities and strengthen the capacity of village governments. Based on Qanun No 1/2009, the government has set up a *Gampong* (village) Allocation Fund (*Alokasi Dana Gampong*) to provide IDR 100 million per year for each gampong, to be supplemented by IDR 50 million per year from district budgets. In addition, gampongs in Aceh may also receive funding from the central government through the PNPM programme. Technical guidelines for the BKPG programme are contained in Governor Regulation No 25/2009, which is a genuine attempt to empower communities in planning and decision making.

5.3.5 Community organisations

In addition to the government programmes just mentioned, a large number of organisations outside government are active in supporting community led initiatives in Aceh. These are variously referred to as Community Service Organisations (CSOs), usually comprising citizens from the local area, Community Based Organisations (CBOs), which are similar in nature, local and international Non-Government Organisations (NGOs). In Aceh, nearly all locally based community organisations are non-profit entities, run by volunteers, dependent on contributions from the community itself or elsewhere. Most are informally structured, though some may be formally registered. Many have been formed through government or more often through donor programmes for specific purposes, especially during the period following the tsunami, while others may have started as a result of local initiatives. They may be formed for a wide variety of purposes, but are typically engaged in activities related to health, education, social welfare and sometimes economic development.

Commenting on the situation in November 2006, a UNDP study[47] reported that: "CSOs that had been established after the tsunami and earthquake were weak in organizational and technical capacities. Long-established NGOs that had been active in advocacy and community empowerment had a higher level of capacity, but required capacity development" in many other areas. To strengthen the capacity of these organisations and to facilitate their meaningful participation in the post-disaster recovery process, UNDP implemented the Community Service Organisation project that ran for four years, ending earlier in 2010. In addition, the project set up Civil Society Resource Centres (CSRCs) to serve as learning hubs for CSOs and provided small grants for income generation activities, basic social services and women's empowerment programmes.

While this project was primarily designed to enable CSOs to participate in reconstruction and rehabilitation activities, it clearly demonstrated what can be achieved through people empowerment. It also serves as an example of the potential role these organisations can play in supporting a wide range of initiatives to improve the welfare of the local community.

5.3.6 Gender bias

Despite findings regarding the relatively high level of social capital and cohesion in Aceh, the 2006 KDP village survey also indicated that women were still largely under-represented in decision making at the community level. In specific sectors, such as agriculture, fisheries and irrigation, where women in Aceh are closely involved, they rarely take part in policy formulating processes. At the village level, decision making rarely involves women because women's involvement in formal village institutions is still limited.

In specific sectors, such as agriculture, fisheries and irrigation, where women in Aceh are closely involved, they rarely take part in policy formulating processes.

Box 6 — The Kabupaten/Kota Recovery Forum (KRF)

One of the most relevant large-scale participation processes recently undertaken was the KRF, which supports Aceh districts in creating strategic plans according to local priorities. Field discussions with three KRF teams confirm that women's input is not always being maximized. Gender training and skills in how to overcome obstacles to women's participation are needed. Field visits suggest that richer information and more buy-in will be generated if separate sessions are first held for men and women, followed by plenary sessions to build on commonalities. Ideas that originate only from women or men can then be explored collectively. Chances of success would be enhanced through sessions on gender sensitization and the participation of all actors involved in recovery planning.

Mission Report Gender Outcomes & Reflections – Aceh (p 12).

Comments from Linda Pennells, IASC Gender Advisor, Office of the Resident Coordinator, OCHA – Indonesia Mission, 14 August –3 September 2008.

Principles of citizen participation and empowerment in planning and decision making are also now far more widely recognised and practised than before. Despite its limitations, the introduction of the Musrenbang process represents a serious attempt to heed the voice of communities across the country and to improve government's response to their needs and priorities.

5.3.7 Lessons learned

The notion of public participation in the planning process for community development has been around for 40 years or more, but only in the past decade have attempts been made to put it into practice in Indonesia. The lessons learned from experience in Aceh, Indonesia and elsewhere points to several broadly accepted conclusions.

- Public hearings and other weak forms of participation such as the Musrenbang may yield useful information for planners but offer little assurance that stakeholder preferences or priorities will be adopted or reflected in budgets.
- People empowerment requires strong forms of participation, including volunteer-based, that allow stakeholders to share responsibility for decisions with government officials or that delegate respon sibility to stakeholders for making decisions themselves.
- Empowerment also requires the allocation of financial and other resources to stakeholder forums or groups in order to implement decisions.
- People empowerment can be applied not only at the community level, but also in other sectors, such as health, education and economic activities.
- Empowerment in this manner is a potentially powerful instrument to improve the delivery of public services, make better use of available resources and ultimately a more effective way to promote human development.

While these conclusions are sound, the principle of stakeholder empowerment should not be regarded as a panacea for success. Sceptics argue that empowerment carries potential risks like collusion and corruption. Local elites may capture benefits, or pressure participants to support their own agenda. Participants may lack the technical and administrative skills to make appropriate decisions and manage funds properly. While these may be risks, they merely emphasize the need for government agencies, donors and others to make a strong commitment to supporting stakeholder forums.

Recommendations: In order to ensure that these forums are able to fulfil their potential and operate effectively, government agencies and others involved in setting them up should:

- Define precisely the powers and responsibilities to be delegated, so that participants clearly understand the limits of their authority.
- Specify clear operational procedures to ensure the stakeholder forums abide by principles of good governance, transparency and accountability.
- Advise and assist forums in adopting methods to ensure participation of women and marginalised groups that have not so far been included and to strengthen their voice in decision making.
- Provide intensive technical support to help stakeholders formulate viable proposals for action.
- Allocate funds to cover not only actions proposed by the forum but also, where necessary, the operating costs to enable members to hold and attend regular meetings. This is particularly important for forums representing stakeholders dispersed across the province, such as industry clusters.
- Formulate procedures for the disbursement of funds, procurement and financial reporting.
- Monitor the proceedings and activities of the forums to minimise abuse of their powers and prevent misuse of funds.

Already in Aceh today, there are several successful examples of stakeholder empowerment, which provide models for application in other fields. The forums established under the PNPM-Mandiri program are well established and have already been evaluated. The BPKG forums also operate at the community level but are newer and yet to be assessed. In the economic sector, examples may be found in the Public Private Dialogue project funded by the IFC, and UNDP's Aceh Partnerships for Economic Development (APED) project for coffee, cocoa and rubber. In the education sector, central government directives require school boards composed of teachers, administrators and parents to collaborate in preparing plans and budgets. Proposed plans and budgets have to be co-signed by the school administrator and a representative of parents. This is part of a strategy to improve administration and management in line with performance indicators.

5.4. Conclusions

During the past decade, Indonesia has made great progress in empowering citizens to make choices and to participate in decision making in the public realm. Principles of democracy have been greatly enhanced through the gradual expansion of elections for public officials at all levels of government. By the same token, public officials are now far more accountable to the citizenry than was the case earlier. While bribery and extortion are still endemic throughout the country, and remain of serious concern to the people of Aceh, it is no longer tolerated or ignored but widely prosecuted and punished, as is evident from frequent reports in public media.

Principles of citizen participation and empowerment in planning and decision making are also now far more widely recognised and practised than before. Despite its limitations, the introduction of the Musrenbang process represents a serious attempt to heed the voice of communities across the country and to improve government's response to their needs and priorities.

Perhaps the most ground breaking and far reaching innovation of the past decade has been the launching and gradual expansion of the *Kecamatan* Development Programme (KDP) by the World Bank in collaboration with the central government. This now covers the whole country under its new name, the Community Empowerment National Program (*Program Nasional Pemberdayaan Masyarakat* - PNPM - Mandiri). The allocation of block grants to representative committees of local citizens along with the authority to determine the use of these funds, represents a powerful application of the concept of people empowerment. Adoption of the concept by central government, and the expansion of the programme across the country, provides a strong precedent and example for local governments to replicate in their own programmes. It is encouraging to see the provincial and district governments in Aceh adopting the model through the BPKG programme which provides block grants to all villages throughout the province. Many other opportunities exist to apply the concept of people empowerment to other fields of human endeavour.

Box 7 **People empowerment for service provision**

Yapen, 6 September 2010 – Almost all the villages in remote areas of the Province of Papua lack electricity. The government-owned power company has not been able to reach these villages due to their difficult location and geophysical obstacles. In response, the Yayasan Bina Kitorang Mandiri (YBKM), a CSO partner of UNDP's People-centred Development Project (PDP), together with the people of Worioi village, conducted a study that showed it was technically feasible to build a micro hydro power plant in the area that would generate 5000 watts of electrical power. Given the high estimated cost of the project, the challenge was to mobilise sufficient funds to build the plant and related infrastructure.

The YBKM succeeded in obtaining a grant of some US$70,000 from the PDP project, but this was not enough. To reduce costs, the community agreed to contribute labour, materials and a share of the cost. This included the building of a dam and reservoir, water tanks, the installation of water pipes, the construction of an electrical substation, electrical installations to each home, the construction of access paths, manual transport of materials and supplies for the turbines, provision of local materials such as wood, sand and stone, the installation of electricity poles and water pipes to the turbines.

As a result of their efforts, the power plant now generates electricity twelve hours a day serving 50 households. For the first time, people can now watch television, children can study at night, and household chores are made easier through use of electrical appliances. Within four months after the start of turbine operation, households had purchased 15 televisions and 10 parabolic antennas.

To ensure sustainably, the community established a board to operate and maintain the facility, and to collect user fees. These amount to a modest Rp 10,000 per month (about one dollar), which is used to cover maintenance costs.

The project is a joint cooperation between Government of Netherlands, NZAID, UNDP and the Government of Indonesia. For more information please contact:

Source: Adapted from a report at:
http://www.undp.or.id/press/view.asp?FileID=20100906-2&lang=en

Recommendations:

- The concept of people empowerment should also be applied to other public services, such health centres (*puskemas*) and small scale infrastructure works, such as irrigation systems, water supply, road maintenance and even local power generation in remote areas as in Papua (box 7).
- In the economic sphere, there is ample scope to apply the concept through public-private business forums to promote local agriculture and industries.
- Local governments in Aceh should explore other opportunities for people empowerment as a means to improve service delivery, enhance livelihoods and business activities, and advance larger goals of human development.

6 Planning and Budgeting for Human Development

CHAPTER

6 Planning and Budgeting for Human Development

As Aaron Wildavsky once pointed out, the best intentions, programmes and plans mean nothing until they are translated into approved budgets[48]. Even then, much can go wrong before or during execution. As discussed in chapter 4, the government of Aceh has many times expressed its intentions to further advance human development in official plans and documents. The question to be explored in this chapter is: To what extent are these intentions reflected in recent budgets of the provincial, district and city authorities in Aceh?

There are three parts to this question: what procedures are used to determine the allocation of resources among districts and cities; how do governments plan to use these resources as reflected in their annual budgets;and ultimately, how does actual spending correspond with planned expenditures?

The last question is what really matters, since many factors may intervene to prevent resources being spent as planned. Local assemblies may take months to agree on proposed budgets, or may require substantial changes, thereby causing delays in execution. Sometimes these delays mean it is either too late to implement certain programmes, particularly those tied to harvest cycles, or the time remaining in the fiscal year is too short. Other problems may arise from difficulties in procuring necessary goods and services from qualified suppliers, lack of agreement among intended beneficiaries, or simply weak skills in project management.

An analysis of these kinds of problems would be helpful in suggesting ways to enhance delivery of public services and improve performance. However, since information on actual expenditures is not widely available, these issues are better explored in more detailed studies. Instead, this chapter will focus on the first two questions relating to the allocation of resources and planned expenditures as indicated in proposed budgets.

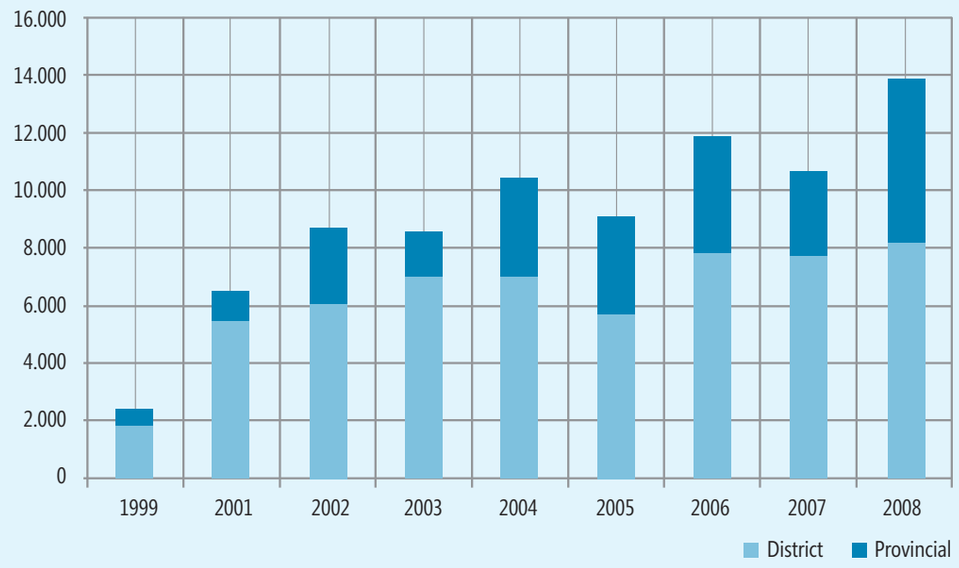
6.1. Revenues

6.1.1 Sources of revenue

Since the year 2000, Aceh's fiscal revenues managed by the provincial and local governments have increased dramatically. The province was among the main beneficiaries of fiscal decentralisation following legislation in 1999 on local autonomy (*otonomi daerah*), which awarded many local governments a share of oil and gas revenues, and additional shares to Aceh due to its special autonomy status. This was followed in 2006 by a large increase in national resources for the General Allocation Fund (DAU). Beginning in 2008, a further boost to Aceh's revenues has come from an additional DAU allocation, referred to as the "Special Autonomy Fund" (SAF) under the 2006 Law on Governing Aceh. This will continue for 20 years until 2028, and comprises 2 percent of the total national DAU funds for 15 years, and 1 percent for the remaining 5 years. The SAF will more than compensate for the decline in oil and gas revenues due to the depletion of reserves, and is expected to ensure a substantial inflow of revenues for the next two decades.

The revenue of Aceh's provincial, district and city governments increased nearly four-fold in real terms between 1999 and 2002, and

Figure 6.1 Revenues of provincial and district/city governments in Aceh (Rp billion, constant 2006 prices), 1999 – 2008



Source: Estimated from data reported in World Bank (2008).

nearly six-fold between 1999 and 2008[49] (see, figure 6.1). As a result, Aceh is now among the richest provinces in the country as measured by per capita fiscal revenues. On top of the increase in regular fiscal revenues, the province benefited from huge inflows of resources for financing recovery and reconstruction during 2005 – 2009 in the aftermath of the tsunami. These resources represented a big addition to public spending over and above regular government expenditures.[50] Meanwhile, the central government continues to spend substantial resources in the region to finance development projects classified as national priorities, such as the recently completed airport for BAA, and the proposed international seaport in Sabang. With government revenues growing much faster than the local economy, the share of the government budget in total GRDP has increased from only 7 percent in 1999 to around 29 percent by 2008.

6.1.2 Resource allocation

A closer look at the fiscal resources received by districts and cities in Aceh over the past decade indicates that the province has had little scope for influencing the allocation of fiscal resources in accordance with declared goals for human development, poverty alleviation or other policy priorities. This is simply because until the introduction of the SAF in 2008 the province has controlled the allocation of only a small portion of fiscal resources going to districts and cities.

Sources of revenue. District and city revenues come from five main sources. Briefly summarised, these include: (a) locally generated revenues from fees and taxes, amounting on average to about 5 percent of the total; (b) shares of certain taxes generated in their own jurisdictions but collected by central government, representing on average between 4 percent to 11 percent of the total; (c) shares of non-tax revenues, mainly from oil and gas, which accounted for 20 percent of the total earlier this decade, but has since fallen steadily to around 7 percent by 2008; (d) Special Allocation Funds (*Dana Alokasi Khusus* or DAK), which is a conditional transfer from the central government to achieve national policy objectives; and (e) General Allocation Funds (Dana Alokasi Umum or DAU).

In contrast to the fixed proportions set for revenue sharing, the central government uses a formula for the allocation of DAU funds, that explicitly takes into account local needs, though the details of the formula have been modified several times[51]. The specification of the formula is a constant source of argument, since DAU allocations constitute by far the largest component of district and city revenues, which in Aceh have been close to 60 percent

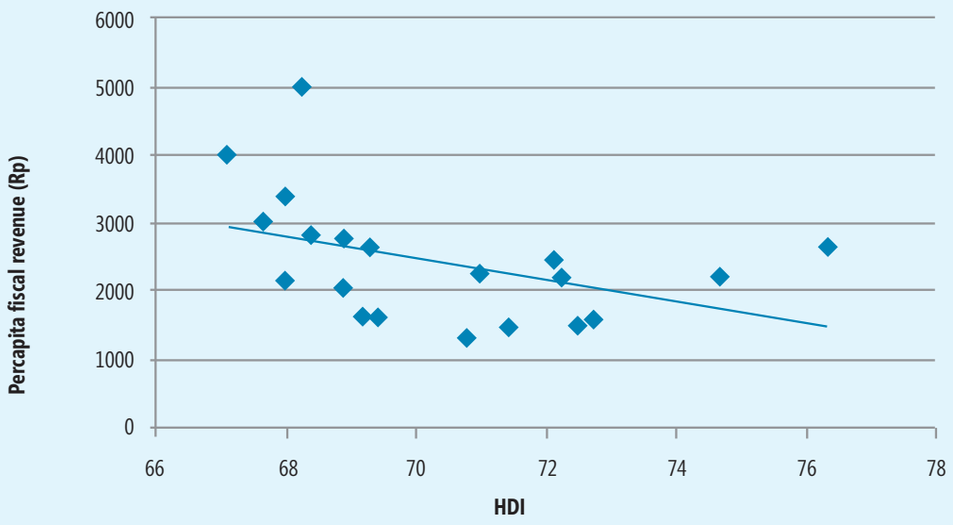
on average in most years since 2000. The DAU formula allocates 10 percent of the total available as a standard basic amount shared equally among all districts and cities, and 50 percent is designed as a balancing factor for the wage bill of government staff. This used to cover about 70 percent of the total cost of district and city government employees but apparently now covers close to 100 percent. This effectively removes any disincentive to forming new jurisdictions and may in fact encourage the trend.

The remaining 40 percent of the DAU is allocated to cover what is known as the fiscal gap, which is defined as the difference between expenditure needs and fiscal capacity, or the revenue received from sources other than DAU. Estimates of expenditure needs take into account four factors: the population; geographic area; relative costs, and; the extent of poverty in each jurisdiction. Each factor is weighted differently and weights are subject to change, but at least in the early years, the emphasis was on population and relative costs (40 percent each), with only 10 percent placed on poverty and geographic area. Some have questioned why poverty is even included in DAU allocations to local government, since the issue is better addressed at the national level.

Until 2008, the only fiscal resources controlled by the provincial government for distribution to districts and cities in Aceh were those related to additional revenue sharing from oil and gas that were agreed as part of the Peace Accords of 2005. The use of these resources is determined by the provincial government itself, and specifies 30 percent for education and 70 percent for allocation among local governments. Of the latter, 40 percent goes to the province, 25 percent goes to district and city governments that generate the revenue and the remaining 35 percent to other local governments. Half of this is then shared equally among all recipients and 50 percent according to a formula based only on population and geographic area, ignoring other factors reflecting poverty or other objectives of human development.

Resource allocation and development. In sum, the allocation of resources among districts and cities in Aceh over the past decade has more or less ignored factors reflecting relative levels of development, with the exception of the poverty factor included in the formula for DAU. Furthermore, even though DAU represents the largest component of fiscal revenues for most districts and cities, the poverty criteria exerts a minor influence overall in calculating the amount for each juridiction. This being the case, we might expect to find little or no relationship between per capita fiscal revenue and levels of development among districts and cities in Aceh. Surprisingly, this is not the case. On the contrary, if we remove the two districts without complete data, Pidie Jaya and Subulussalam, and Sabang as an outlier, a rather clear relationship emerges when HDI is used as the indicator for level of development (see, figure 6.2 and Appendix A: table 6.1). In terms of regions, per capita revenue is

Figure 6.2 HDI and per capita fiscal revenue by jurisdiction in Aceh, 2007



Source: HDI ranking is based on data from BPS; Per capita revenue ranking is based on data from World Bank (2008) "Aceh Public Expenditure Analysis".

highest in Western and Southern Aceh (Rp 3.0 million), followed by the Aceh Hinterland (Rp 2.9 million), but significantly lower in Northern and Eastern Aceh (Rp 1.6 million). Both the HDI and several other indicators discussed earlier in this report show the NEA as the more developed region and the WSA as the least developed. Furthermore, of eleven jurisdictions with higher rankings for per capita fiscal revenue, seven rank lower on HDI. These are Aceh Barat, Simeulue, Aceh Jaya, Nagan Raya, Aceh Barat Daya, Bener Meriah and Gayo Lues, the last five all being new districts. In addition, six jurisdictions out of ten with lower rankings for per capita revenue also rank higher on HDI, these being Aceh Besar, Langsa, Aceh Utara, Lhokseumawe, Bireuen and Pidie.

Three factors may explain these results. Standard equal shares for all jurisdictions included in the formula for the DAU, and to a lesser extent for additional revenue sharing from oil and gas agreed in the Peace Accords, benefit those with small populations. Six of the seven districts with lower HDIs and higher per cap fiscal revenues all have small populations, amounting to 3 percent or less of the Aceh total. Another factor is the allocation of 50 percent of DAU funds as a balancing factor for the wage bill of government staff, now reportedly covering virtually 100 percent of the cost. Since this represents a sizeable proportion of total local government spending, this would also benefit smaller districts and cities. It would not however contribute to the improvement of public infrastructure and services in less developed areas. A third factor may be the inclusion of a cost index to compensate for variations in construction costs from place to place. Since many less developed areas are more remote with poor access roads, costs there tend to be higher than in more urban areas on main highways.

6.1.3 The Special Autonomy Funds (SAF)[52]

The introduction of the SAF in 2008 potentially creates significant opportunities for the provincial government to allocate resources according to policy priorities, although how this is to be achieved is still being discussed. The SAF is expected to generate some US$ 400 million a year initially, and represented 54 percent of provincial revenues in the first year and more than 20 percent of total local government revenues in Aceh.

According to initial arrangements laid out in *Qanun* No. 2/2008[53], 60 percent of SAF is to be used to finance district and city development programmes jointly executed with the province, and the remaining 40 percent will be used to finance provincial programmes, which could also be implemented in collaboration with individual districts and cities. This arrangement was proposed in order to give the province close control over the allocation of resources, but it also requires the province to account for the use of all SAF funds. After further thought, the province realised this was neither feasible nor in the interests of the districts and cities. It is now proposed that 60 percent of SAF should be transferred directly from the central government to districts and cities, but the use of these funds should be subject to approval by the province according to agreed policy priorities emphasising education, health, physical infrastructure and economic development.

The allocation of SAF among districts and cities in Aceh currently includes a basic allocation (30 percent of total) and a formula allocation (70 percent of total). The basic allocation is simply equal shares for all jurisdictions, while the formula component is designed to reflect fiscal needs. According to *Qanun* 4/2007[54], the formula takes into account population, geographic area and HDIs, all weighted 30 percent, and a cost index weighted 10 percent. The basic allocation providing equal shares for all districts and cities would again tend to benefit local governments with smaller populations, many of which are less developed according to the HDI and several other indicators.

Before concluding this discussion on resource allocation, two points need to be borne in mind in formulating a model for the allocation of SAF resources by the provincial government. The main purpose in adopting a formula is to ensure a transparent process which all can understand and accept as a more or less equitable division of resources. This explains why the choice of factors to include in a formula tends to be limited to a few obvious variables for which there is accurate data which can be verified objectively. The inclusion of indices such as HDI or HPI opens the door for arguments about which indicators to include and whether they reflect realities on the ground. No matter which formula is adopted, some recipients will always complain they

Much testing is needed to determine which combination of (variables and) weights yields the optimum solution and the most acceptable allocation of (resources).

Table 6.1 Sectoral shares of public spending in Aceh 2001 – 2007 (Province, districts and cities combined) (%)

	2001	2002	2003	2004	2005	2006	2007
A. Government Administration	39	31	29	35	36	35	31
B. Public Works and Transportation	14	12	11	9	13	13	17
C. Public Health and Welfare	6	5	7	6	6	8	9
D. Education and Culture	18	30	35	31	27	25	22
E. Housing, Labour and Social Affairs	9	10	5	5	4	3	4
F. Agriculture, Forestry, etc	7	5	5	5	5	5	6
G. Industry, Trade, etc	4	4	1	1	1	1	1
H. Social Assistance, Grants, etc	3	3	7	8	8	7	10
Subtotal social sectors (C,D,E,H)	35	49	54	51	45	44	44
Subtotal economic sectors (B,F,G)	25	20	17	15	19	20	25
Total	100	100	100	100	100	100	100
Rp bn (constant 2006)	6,038	6,309	7,975	8,356	6,449	8,943	11,980

Source: Derived from World Bank, Aceh public expenditure analysis update 2008, Jakarta, World Bank, 2008; tables C.6 and C.7.

are not getting a fair deal. This is inevitable, but preferable to the alternative of each jurisdiction negotiating its own share.

The second point is that the choice of indicators and the weights attached to them offers numerous possible combinations and can yield a bewildering variety of outcomes, some of them counter-intuitive. While it may seem appropriate to place relatively greater weight on an indicator for poverty or level of development, the resulting distribution of resources may be contrary to what is intended. Other variables, such as distance from a major urban centre, might produce better results. As a recent study commissioned by UNDP for the Maldives Government concluded:

> *"There is no obvious single solution to a formula for block grants. Policy objectives rarely coincide. A formula that achieves one objective may not produce good results for other objectives. But one conclusion is clear. The specific variables selected to represent policy objectives influence outcomes less than the weights attached to them. Much testing is needed to determine which combination of (variables and) weights yields the optimum solution and the most acceptable allocation of (resources)."*[55]

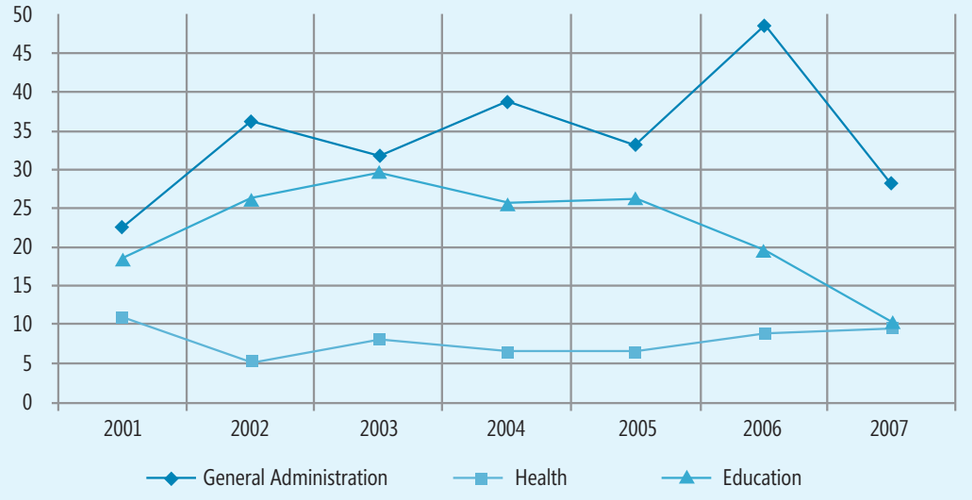
6.2. Expenditures

6.2.1 Aggregate public spending by sectors

The second question to be explored in this chapter is how government plans to use resources as reflected in their annual budgets. In parallel with the massive increase in fiscal revenues for local governments in Aceh over the past several years, spending has also increased proportionately, from Rp 6.0 trillion in 2001 to nearly double that in real terms by 2007. Sectoral shares of aggregate spending by all local governments in Aceh during the period 2001 through 2007 are shown in table 6.1.[56]

Generally speaking, the data for the period 2001 through 2007 indicates that local governments have given first priority to spending on social programmes, although government administration also takes up a large share of the total, while spending on economic programmes has clearly been given a lower priority. When added together, the four sectors that make up most of the social programmes (health, education, housing and social assistance) accounted for the largest share of public spending in all years between 2001 and 2007 except for the first year. It increased sharply from 35 percent in 2001 to over 50 percent by 2004, but from then onwards has stabilised at around 44 percent. Of this total, education has consistently been given priority over other social programmes, largely due to the high cost of numerous teaching staff. Housing, labour and social affairs accounted for some 10 percent of total spending in the early years, but has since fallen to around 4 percent. Meanwhile, spending on the health sector remained fairly steady at around 6 percent of the total up until 2005, but then rose sharply to 9 percent by 2007. The health sector and social assistance programmes have been the main beneficiaries

Figure 6.3 **Spending on health, education and general administration as a share of total public expenditure by provincial government in Aceh, 2001 - 2007**



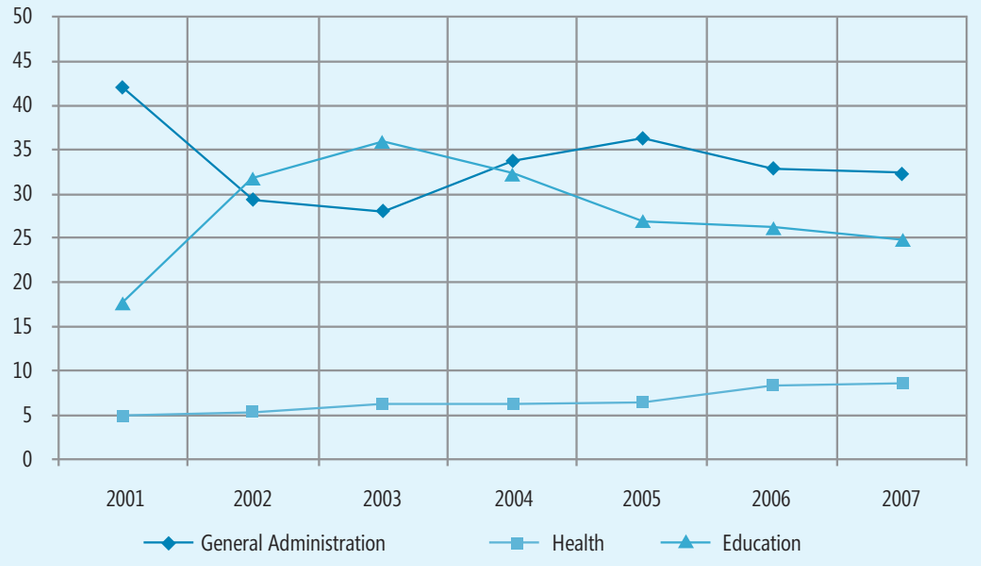
Source: Based on data reported in World Bank (2008).

of increased spending, the latter rising from 3 percent in 2001 to 10 percent by 2007.

In terms of individual sectors, the largest share of aggregate spending is accounted for by government administration, usually around 35 – 40 percent of the total but dropping in 2007 to 31 percent as revenues and spending increased. Meanwhile, spending shares for the three sectors that make up support for economic development (public works, agriculture and industry) dropped steadily from 25 percent in 2001 to 15 percent in 2004, but then recovered by 2007 to the point where they started six years earlier.

While table 6.1 shows shares of aggregate local government spending, trends in the share of expenditures by the province and the districts and cities are shown separately in figures 6.3 and 6.4 for general administration, health and education. Spending shares on general administration has gone through ups and downs, perhaps indicating the unsettled nature of spending patterns in a period of fiscal transition. Provincial spending

Figure 6.4 **Spending on health, education and general administration as a share of total expenditure by jurisdictions in Aceh, 2001 - 2007**



Source: Based on data reported in World Bank (2008)

Table 6.2 Per capita spending by sectors for districts and cities in Aceh 2001 - 2007 (Constant Rp 2006)

	2001-02		2006-07		
	(Rp bn)	Per capita (Rp 000s)	(Rp bn)	Per capita (Rp 000s)	Percent per cap change
Estimated Population	3,974,968		4,130,960		4%
Total spending	5,633	1,417	8,439	2,043	44%
Spending by sectors					
A. Government Administration	1,988	500	2,753	666	33%
B. Public Works and Transpn	763	192	1,349	326	70%
C. Public Health and Welfare	283	71	708	171	141%
D. Education and Culture	1,426	359	2,150	521	45%
E. Housing, Labor and Social Affs	517	130	209	51	-61%
F. Agriculture, Forestry, etc	275	69	461	112	62%
G. Industry, Trade, etc	198	50	108	26	-48%
H. Social Assistance, Grants, etc	183	46	701	170	268%
Subtotal social sectors (C,D,E,H)	2,409	606	3,768	912	51%
Subtotal economic sectors (B,F,G)	1,236	311	1,918	464	49%

Source: Derived from World Bank, Aceh public expenditure analysis update 2008, Jakarta, World Bank, 2008; tables C.6 and C.7.

on administration doubled from a quarter of the total in 2001 to almost a half by 2006, before falling back to less than 30 percent the next year, while spending by districts and cities started at 42 percent in 2001, fell sharply to less than 30 percent in the next two years, only to rise again closer to 35 percent thereafter. Shares of spending for education followed a similar pattern for both the province and districts and cities, rising from below 20 percent to highs of 30 percent and 35 percent respectively in 2003, only to fall back in later years to 25 percent in districts and cities, but much more sharply to 10 percent for the province. Meanwhile, spending shares for the health sector also followed similar patterns in both cases, hovering around 5 percent at the start and rising gradually to 9 or 10 percent by 2007.

6.2.2 Sectoral spending per capita

While the previous analysis looked at changes in sectoral shares of total spending, the consequences for people are better illustrated by an analysis of changes in terms of per capita spending by districts and cities over the period 2001 to 2007. To even out large shifts from one year to the next, average spending in the first two years is compared with average spending in the last two years. Estimates of population in each year are based on the average annual growth recorded between the two population censuses in 2000 and 2005, which was a modest 0.85 percent. As discussed earlier, the low rate of population growth in Aceh in recent years is probably due largely to out-migration, which may have slowed or possibly reversed since the Peace Accords of 2005. Even if this is the case, it would not significantly affect the overall picture.

The first thing to notice is the substantial increase in overall spending per capita arising from the big increase in fiscal resources available to districts and cities. This rose 44 percent from Rp 1.4 million at the start of the period to more than Rp 2.0 million by the end (see table 6.2).

Per capita spending on government administration rose by a third (33 percent), due in part to the addition of 10 new jurisdictions over and above the 13 that already existed in 2001.

While big changes occurred among individual sectors, aggregate spending on social programmes and economic programmes both increased by almost the same amount, up around 50 percent. Within the social sectors, the biggest rise in per capita spending occurred in category H, Social Assistance etc, up more than threefold from Rp 46,000 in 2001/02 to Rp 170,000 by 2006/07. This includes both national and provincial social assistance programmes, which were greatly expanded during these years. Big gains were also recorded for the health sector, up 141 percent, which previously had received rather modest funding. By comparison, per capita spending on education rose a relatively modest 45 percent, although the increase in actual spending was

Figure 6.5 Average spending per capita 2006-2007 (Thousand Rupiah) NAD Province

Source: BPS

much greater - Rp 734,000 versus Rp 425,000 for health - since it started from a far higher base. At the other extreme, per capita spending on category E, 'housing, labour and social affairs', was cut dramatically, down 61 percent or Rp 308,000, possibly because of the huge investments by the BRR and other donors in rebuilding houses destroyed or damaged by the tsunami.

Within the economic sectors, the biggest rise in per capita spending occurred for category B, 'infrastructure and transportation', up 70 percent or Rp 586,000. This is important for improving physical access and reducing costs for people in more remote areas, although whether funds were used for this purpose requires further analysis. Per capita spending on category F, the agricultural sector broadly

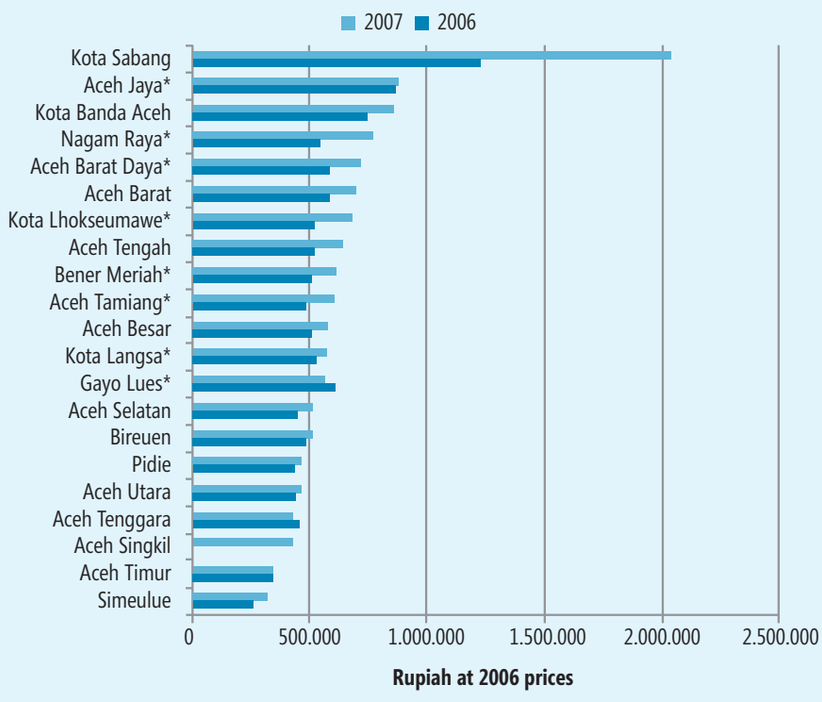
defined, also rose during the years under review, up 62 percent but only a modest Rp 186,000 in actual value, which is unlikely to make much of an impact on economic recovery in the sector. Conversely, spending on category G, 'industry and trade', was cut almost by half, down 48 percent or Rp 90,000 per capita. This may be due in part to the small number of people employed in the sector and possibly to the decline in the oil and gas sector, but it may also reflect the difficulty of attracting private investment. This is a clear example of spending not matching the rhetoric of developing agro-based industries and creating job opportunities in the sector.

6.3. Spending by districts

While aggregate public spending by sectors provides a good overview, a more detailed analysis of spending by district and city governments indicates the relative priorities they give to each sector. Again, to even out atypical years, spending is averaged for the two most recent years for which data is available, 2006 and 2007. Two recently formed districts, Pidie Jaya and Subulussalam, are ignored for lack of data.

The median level of per capita spending for all jurisdictions included in this analysis averaged a total of Rp 2.2 million for all sectors combined (see, Appendix A: table 6.2). This ranged from a high in Sabang of more than four times the median, to a low in Pidie at less than 60 percent of the median. Jurisdictions below the median are shaded in red. Sabang outperforms all other jurisdictions in Aceh on almost all indicators of spending due to its high per capita revenues, as shown in figure 6.5. Spending is highest among cities, largely due to Sabang, at around Rp 4.0 million per capita, followed by the group of new districts at Rp 3.2 million, with original districts trailing at a little under Rp 2.0 million. In terms of regions, per capita spending is highest in Western and Southern Aceh (Rp 2.8 million), followed by the Aceh Hinterland (Rp 2.6 million) and Northern and Eastern Aceh with significantly less (Rp 1.8 million). This mirrors the data on per capita revenues shown in Appendix A: table 6.1 and shows clearly that spending is inversely related to several development indicators discussed in Chapter 3, a direct result of the outcome in allocating fiscal resources discussed above.

Figure 6.6 **Per capita education expenditure by jurisdictions in Aceh, 2006 & 2007**



Source: World Bank staff calculations based on MoF data (constant 2006 prices)

The median level of combined spending on the three key sectors of health, education and infrastructure amounts to just over Rp 2.0 million per capita or almost half of total spending. This ratio varies little between cities and districts, although average actual spending is higher in cities, due mainly to Sabang, and lower in the original districts. If Sabang is removed, then per capita spending in the new districts is about 50 percent more than other groups (Rp 1.6 million versus plus or minus Rp 1.0 million in the other two groups). On average, per capita spending is highest for education (22 percent of the total), followed by infrastructure (17 percent) and health (only 8 percent).

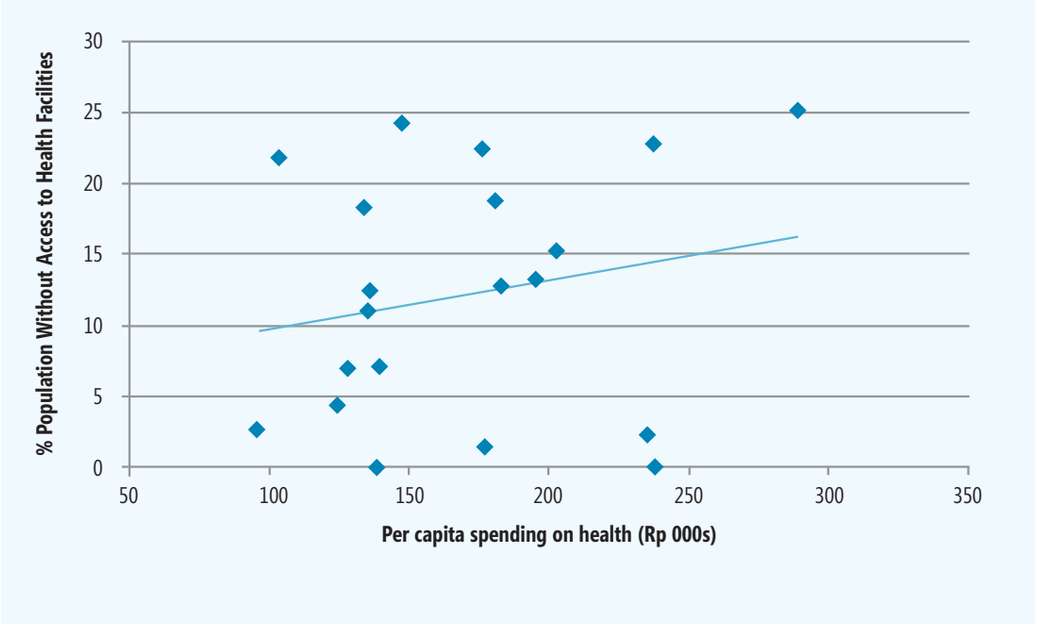
6.3.1 Spending on education

The cultural preference among the people of Aceh for education at all levels is supported by relatively high levels of public expenditure on education. Even before LoGA, which requires 30 percent of additional revenue be allocated to education, local governments in Aceh had already displayed a public expenditure priority for this sector. Thus in 2004, before the tsunami, the Peace Accords or LoGA, Aceh spent as much as 31.4 percent of its budget on education compared to 28.8 percent in Indonesia. World Bank estimates suggest that the difference in development as compared to routine spending on education was considerably larger, 32.9 percent for Aceh compared to 16.6 percent in Indonesia.

As with other indicators, average per capita expenditure on education in Aceh shows variations among jurisdictions (see, figure 6.6). Unlike many other indicators however, it is relatively equal except at the two extremes. For most places in the middle, spending hovers around Rp 500,000 per capita, a little higher in 2007. Spending is highest in Sabang, followed by Aceh Jaya, Banda Aceh and Nagan Raya, and lowest in Aceh Singkil, Aceh Timur and Simeulue.

The main concern in improving education services in Aceh is not increasing overall literacy rates or even participation rates, but ensuring that children everywhere have access to good quality education. This includes properly maintained physical facilities, well qualified teachers, reasonably sized classes and competent management staff. The government is in the process of introducing an improved set of performance standards and a budgeting and management system oriented towards achieving and exceeding these standards. The adoption of performance budgeting by the provincial Department of Education is a notable innovation and serves as a precedent and example to be replicated by other departments at the provincial and district levels. To achieve intended goals however, allocations from the SAF will be needed to ensure that all

Figure 6.7 Per capita spending and access to health facilities by jurisdictions in Aceh, 2007



Improving access of course is only one element in improving the quality of health services. Other challenges include persuading doctors and other professional staff to work in less developed areas, along with the provision of appropriate supplies and equipment.

jurisdictions have the necessary resources for the purpose.

6.3.2 Spending on Health

As indicated in table 6.2, aggregate spending on the health sector by all local governments in Aceh combined has increased quite significantly, up from Rp 283,000 per capita in 2001-02 to Rp 708,000 by 2006-07. Most spending and most of the increase has come from the provincial government. Average spending by districts and cities in 2006-07 was only Rp 253,000, barely a third of the total. As a share of total spending by districts and cities however, it has also increased in recent years, up from 6.3 percent (or Rp 105,000 per capita at 2006 prices) in 2004 to 8.1 percent (or Rp 253,000 per capita) by 2007, but this is still low compared to the 17 percent allocated to infrastructure and the 22 percent for education (see table 6.4).

The question here is whether districts and cities are using available funds to address deficiencies in health services. If the percent of the population without access to health facilities is used as a measure, the answer appears to be yes in some cases and no in others. Districts with poor access to health facilities but high per capita spending (clustered in the top right quadrant of figure 6.7) include: Aceh Jaya; Aceh Barat; Bener Meriah; Aceh Tamiang, and; Nagan Raya. Except for Aceh Barat, the others are all new districts. Those with poor access to health facilities but low per capita spending (clustered in the top left quadrant of figure 6.6) include: Gayo Lues; Aceh Timur, and; Aceh Utara. The picture no doubt looks different if other measures are used, but access is certainly an important aspect of alleviating poverty and ensuring that those living in more remote and sparsely populated areas are not denied medical attention when they need it.

Improving access of course is only one element in improving the quality of health services. As for education, a big problem is persuading doctors and other professional staff to work in less developed areas, along with the provision of appropriate supplies and equipment. Physical facilities are apparently less of a problem due to recent support from donors in rehabilitating and rebuilding health facilities that were damaged or destroyed during the conflict and tsunami. One idea to consider, as suggested in chapter 5, is to establish stakeholders forums for health facilities, allocate funds to each forum, and allow them to decide how best to use available resources. Such forums would need to include representatives of both medical staff, users and local government departments of health.

6.4. Conclusions

This chapter aimed to explore the extent to which government goals are reflected in resource allocation and public spending. Further research is needed to examine specific policy priorities and objectives in more detail, such as those mentioned in the Aceh Recovery Framework related to the peace process, human rights, reintegration of former combatants, the provision of public services and economic development. Nevertheless, several points of note emerge:

- In terms of resource allocation, current procedures adopted by the central government aim primarily to ensure an equitable distribution of resources among local governments throughout the country. Some have argued for the inclusion of factors that reflect goals for human development, poverty alleviation, or other policy priorities. There is little agreement on which indicators are appropriate however, or whether they accurately reflect conditions in the field, and in practice they may not yield the results intended. Despite this, as seen above, the current allocation formulae do produce results that at least in Aceh generally favour less developed districts, although not all of them.
- This is reflected by the results shown in tables 6.1 and 6.2, which indicate that both average per capita revenues and expenditures for new districts in recent years has been some 50 percent greater than for the original districts from which they were formed. Leaving aside the widely held view that the main purpose in forming new districts is to enhance the power of local elites, the evidence clearly supports the argument that carving up large districts into smaller units generates greater fiscal resources and potentially greater opportunities to improve local services.
- The proliferation of new districts in Aceh has been a big factor accounting for the substantial increase in spending on government administration in recent years, but

this has been largely obscured by the even larger increase in fiscal revenues. As shown in table 6.2, spending on government administration was a smaller proportion of total combined expenditures in 2007 than in most previous years.

In real terms however, it has been increasing at about 8.0 percent per year between 2001 and 2007, and in per capita terms by more than a third (see, table 6.3).

- While the central government has expressed concern about the huge proliferation of new jurisdictions across the country since the passage of legislation on local autonomy (*otonomi daerah*) in 1999, a major cause has been the inadvertent but substantial incentives incorporated in the formula for allocating funds from the DAU. Recent discussion on the subject may result in a rethinking of the formula to reduce these incentives, implying that a larger share of costs will have to be borne in the future by local governments themselves.
- Until the introduction of the SAF in 2008, the provincial government has had little scope for influencing the allocation of resources among districts and cities in Aceh, simply because the bulk of resources have come from the central government. This changes now that the SAF represents some 20 percent or more of total fiscal revenues in Aceh.

Recommendations:

- The provincial government should undertake more detailed research to determine the appropriate formula for allocating SAF funds that achieves policy objectives for equitable distribution. The inclusion of factors such as the HDI or something similar in the allocation formula will not materially affect the distribution of resources among districts and cities, since basic allotments and factors relating to population and geographic area influence outcomes much more.
- Instead, the provincial government should focus more on applying policy priorities through other instruments related to expenditures. These include guidelines on the preferred use of SAF resources, performance indicators, and most directly through the process of approving proposals from districts and cities for the use of SAF revenues.
- Provincial and district governments should make use of measures included in the HDI, GDI, GEM and HPI to determine appropriate performance indicators for expenditures rather than in allocating resources.
- The process of approving proposals assumes the provincial government has the capacity needed to review proposals in a timely manner, provide technical support to districts and cities, and monitor implementation. Initially, provincial departments may need outside technical support for these purposes, similar to the Project Management Consultants attached to the Economic Development Financing Facility (EDFF).
- The provincial government should strengthen the capacity of line departments to conduct an effective review of district proposals for the use of SAF funds and to monitor implementation. Without these measures, there is a risk that districts and cities will simply use SAF funds for their own purposes at the expense of larger policy priorities.
- Provincial and district governments should adopt principles of performance budgeting to ensure that expenditures are indeed directed towards achieving larger goals for human development.
- This differs markedly from current practice in budget making, which is usually characterised by "incremental" adjustments to previously established patterns of expenditure. Performance budgeting entails several steps, which include: first determining indicators to be used that reflect policy priorities; setting performance targets to be achieved in a given time frame, usually the fiscal year; incorporating these indicators into the budget and calculating the resources required to achieve the targets; close supervision over the disbursement of funds in accordance with agreed targets, and; finally, effective monitoring to determine to what extent the targeted outputs or outcomes have been achieved.
- Since few donors have shown much interest in the issue, the provincial government should consider using a portion of SAF funds to recruit technical support to introduce and implement the concept of performance budgeting on a much broader front, among key departments of both the provincial government and the districts and cities. Efforts to introduce the concept in departments of local government in Aceh have so far met with modest results. Most government officials are unfamiliar with the idea and lack expertise in applying it.

7 Conclusions and Recommendations

CHAPTER

7 Conclusions and Recommendations

7.1. Conclusions

The people of Aceh, and those that have helped them, have achieved a remarkable recovery that few might have envisaged or dared to hope for at the time.

The past decade has seen both progress and setbacks in promoting human development and social equity in Aceh. Compared with the situation right after the tsunami in December 2004, the people of Aceh, and those that have helped them, have achieved a remarkable recovery that few might have envisaged or dared to hope for at the time. This recovery applies not only to the rebuilding of the physical fabric, but also to the reinvigoration of the social fabric so sorely damaged by years of conflict. Despite fears to the contrary, the Peace Accords have held firm and most agreements have been honoured.

The reintegration of former combatants has been largely successful, although problems remain. Ex-combatants have mostly been welcomed back into communities, but deeper reintegration has not been achieved in some places. Most now have gainful employment, returning to occupations they held prior to joining the conflict, mainly in farming and as daily wage labourers. In recent elections, former combatants participated extensively, and won many positions as assembly representatives and government leaders, which bodes well for defusing tensions and maintaining peace in the future. Extortion and violence however, remain endemic problems.

With massive assistance from the international community, the destruction and damage caused by natural disasters has been largely repaired, although many homes, farms and facilities in areas affected by the conflict have yet to be rehabilitated. The great majority of people displaced by the conflict and disasters have been resettled, although many still need help in dealing with the trauma they suffered.

These gains however, are not reflected in three of the four development indicators reviewed in this report. The HDI, GDI and GEM all show a retreat from levels achieved earlier, particularly those related to gender, due largely to lower personal incomes as measured by spending. Only the HPI shows an improvement in reducing poverty, as does the poverty rate, which reflects the proportion of people with incomes (read expenditures) below a threshold sufficient to cover basic living costs. The pace of reducing poverty has been slower than elsewhere, with the result that Aceh currently ranks among the poorest provinces in Indonesia. The alleviation of poverty in Aceh remains a stubborn problem, particularly in Western and Southern Aceh. Of the 8 districts in WSA, 7 recorded poverty rates above the median for the province. While social safety net programmes offer benefits for the poor, many are still unable to obtain them, often for administrative reasons.

The position of women in Acehnese society has advanced in some respects but several indicators show a retreat in other areas. The arrival of international agencies after the tsunami helped to develop the capacity of civil society organizations on gender justice, and there has been greater interaction and collaboration between them and the government on these issues. The *Syariah* Courts have helped to advance women's rights concerning inheritance and property, but some argue that Aceh's interpretation of *Syariah* law has been narrow and conservative. The BRR and the BPN established a policy for the Joint Titling of

Marital Property, but it has met with mixed success. On the other hand, GDI and GEM reveal a discouraging trend over the years. While women's participation in the workforce steadily advanced to a peak of 40 percent in 2002, it has since fallen back a little, due in part to the return of former male combatants to the household. Their contribution to household income has dropped and average wage rates are lower than men in most jurisdictions in Aceh. Their participation in local assemblies increased up until 2008, but since then has fallen. More seriously, women account for a small proportion of senior positions, and are still largely under-represented in decision making at the community level. Domestic violence be men towards women is also still a major concern within Acehnese families.

The end of the conflict has made it possible once again to improve the provision of public services, but the low density of population in many areas makes it difficult and expensive to extend the reach of these services to people scattered among some 6000 small villages.

Data on the education sector shows Aceh performing well compared to the rest of the country according to some measures, although further gains are proving harder to achieve. The quality of education still leaves much to be desired, particularly in vocational training to equip school leavers to find jobs. Access to education, especially for the poor, has been made easier with introduction of free tuition for all students attending primary and junior secondary schools, and plans are being discussed to extend free access to senior secondary schools as well.

In the health sector, life expectancy has increased, infant mortality has fallen, but is still high in some areas, particularly the WSA region. Malnutrition has fallen a little but not as fast as many other provinces, and immunizations remain below the national average. Provision of services now cover most of the province, although quality is uneven due in part to poor management. The introduction of free health care in 2009 improves accessibility, especially for the poor, but so far budget allocations have not been increased to cope with increased demand.

Access to justice is improving, although obstacles till remain due to lack of information on legal options and the unpredictability and inconsistency of court rulings, especially in the formal system due to bribery and corruption. *Syariah* courts have bolstered women's rights related to divorce and property.

Despite a temporary boost from reconstruction programmes, the local economy remains weak. The decline of the oil and gas industry has not yet been offset by gains in other components of the economy, although productivity in the agricultural sector showing encouraging progress. The labour force participation rate is low compared to other provinces, emphasising the need to create productive job opportunities. Investment is negligible due to lack of security, extortion and confusion over government authority to issues permits and licenses for business activity.

Aceh, along with the rest of Indonesia, has shown impressive gains in participation in the political arena and in community development. Particularly significant is the introduction of programmes that empower citizens by offering block grants to local forums, and allow them to decide how to use them.

A big bonus from the Peace Accords has been a massive increase in fiscal resources for Aceh stemming largely from the introduction of the Special Autonomy Fund (SAF) in 2008. This has resulted in large increases in public expenditures for all sectors at both the provincial and district levels. The increase in funding has more than offset the additional administrative costs incurred due to the proliferation of new districts since 1999, and creates an opportunity to address deficiencies in the provision of public service. Improvements in the process of planning and budgeting however, are needed to ensure resources are effectively targeted towards development priorities.

Particularly significant is the introduction of programmes that empower citizens by offering block grants to local forums, and allow them to decide how to use them.

7.2. Recommendations

In plans, reports and other documents, the government and others have expressed numerous development priorities for Aceh, including for example:

- Reducing poverty
- Creating productive opportunities for employment
- Restoring livelihoods
- Consolidating peace
- Promoting equitable development, by reducing disparities between the more and less developed areas of the province
- Promoting the conservation and appropriate use of environmental resources (Aceh Green).

While there are sound arguments for each of the priorities and many others, few plans indicate what the priorities imply for policies, strategies and programmes or a clear explanation of how proposed projects are expected to lead to intended outcomes.

Based on an analysis of available information, this report advocates **six primary goals** to further enhance human development in the province as part of the longer term strategy for recovery from the conflict and tsunami. These are to:

- Empower people for development
- Ensure benefits for everyone
- Improve the quality of public services
- Enhance opportunities for productive employment
- Couple disaster mitigation with environmental programmes.
- Make better use of public resources

The paragraphs that follow outline elements of strategies to achieve these goals.

7.2.1 Empower people for development

Perhaps the single most effective instrument for enhancing human development is to empower people to make their own collective decisions on what needs to be done and active participation, including on the voluntary bases, in the implementation of the prioritized actions. This means not merely promoting community participation in public meetings to discuss priorities and plans, but also transferring fiscal resources to recognised groups and delegating authority to decide how to use these resources. Several precedents for people empowerment already exist in Aceh, such as the PNPM and BKPG programmes, but there are many opportunities to extend the concept to other arenas, such as the management of schools, health facilities and small scale irrigation schemes, the repair and maintenance of rural roads, and public-private business forums for economic development. Steps to implement a strategy for this purpose include:

- Identify opportunities to empower users, consumers and other relevant groups in each secor to collaborate with government officials, facility managers, and professional staff in establishing priorities, plans and budgets.
- Consult potential stakeholders to determine the appropriate purpose and scope of responsibilities for participatory forums, and prepare rules of conduct incorporating principles of good governance.
- Draft and enact necessary regulations (*qanun*) to allow the allocation of fiscal resources to such forums, budgeting of local governments funds to locally support social volunteerism and delegate authority for them to decide on the use of these resources.
- Establish and strengthen the capacity of these forums to perform the functions assigned to them in a manner that reflects the collective interests of all concerned including marginalised groups that are often left out of the process.
- Mobilise resources from government departments, donors and NGOs to provide on going technical assistance for this purpose and to monitor and evaluate their performance.

7.2.2 Ensure benefits for everyone

While several indicators show steady advances in human development in Aceh, it is important to ensure that all individuals benefit from the progress being achieved. All government programmes should pay special attention to addressing the needs of particular social groups that may have been overlooked or who are unable to get the help they need for one reason or another. Among the actions required here are to:

- Amplify awareness campaigns to inform all citizens how to obtain services they are entitled to or that are available for them, especially food programmes, income supplements, health insurance, education grants and legal services.
- Evaluate administrative procedures for accessing these services, identify bottlenecks that make it difficult for the poor, the illiterate and other disadvantaged groups to obtain the help they need, and modify procedures to remove constraints.
- Identify gaps in the provision of services that are needed by special groups and adjust programmes to address these gaps, particularly for those living with disabilities, orphans, the children of former combatants, former com-

batants themselves, displaced families that have resettled in new communities, and the poor who lack funds to pay for simple administrative procedures such as birth certificates.

- Incorporate actions to identify, reduce and eliminate discrimination on the basis of gender, race, religion, age, physical limitations or other social characteristics in all aspects of life, for example in disputes concerning family inheritance, title to property, and applications for further education, employment and credit.
- Evaluate and enhance social safety net programmes to improve the targeting of support for intended beneficiaries and eliminate abuse and corruption by programme administrators and those who obtain benefits to which they are not entitled.
- Introduce measures to strengthen the voice of women, the poor and other disadvantaged groups in community meetings and stakeholder forums to ensure their special needs are taken into account, if appropriate through separate meetings prior to plenary discussions.

7.2.3 Improve the quality of public services

Knowledgeable informants report that basic social services are now physically accessible to more or less all communities throughout the province. The main challenge now is to improve the quality of these services, particularly in health and education. This task implies actions to:

- Consolidate progress in repairing, upgrading or building new physical facilities, especially schools and health centres that are in poor condition or that suffered damage or destruction during the conflict.
- Enhance incentives for qualified professionals to work in outlying areas through salary supplements, expense allowances, housing benefits and such.
- Expand programs for human resource deveopment to upgrade the skills and knowledge of local teachers, health care auxiliaries and other junior staff.
- Strengthen the capacity of administrative staff for planning, budgeting, financial administration, procurement and facility management.
- In the health sector, expand and improve programmes for special groups, particularly for pregnant women to reduce infant and maternal mortality, young mothers and children to reduce stunting and ensure proper nourishment, and those suffering from the trauma of personal abuse or loss due to conflict, natural disasters and domestic violence.
- In the education sector, mobilise community resources to expand child care and pre-school programmes to better prepare children for school and to allow women greater opportunities for obtaining employment.
- For the justice sector, please refer to the recommendations in section 3.5.5.
- Consider opportunities for introducing and expanding mobile services, particularly in the health sector to extend the reach of qualified medical staff such as midwives in rural areas.
- Consider opportunities for outsourcing the management or provision of certain services to the private sector as a means to improve quality, efficiency and outreach.

7.2.4 Enhance opportunities for productive employment

Another key goal in Aceh is to reduce the high rates of unemployment and under-employment as a means to reduce poverty and raise household incomes. This is important not only for economic reasons but also as a means to make better use of investments in education and human resources, and to enhance personal dignity and self-esteem. Effective strategies to achieve these goals require complementary measures at both the macro and micro levels. Actions to strengthen the economy at the regional level will help to create new jobs and expand opportunities for productive livelihoods across Aceh. At the macro level, steps are needed to:

- Identify products and services from Aceh which are in strong demand in non-local markets elsewhere in Indonesia and abroad, particularly agricultural commodities such as coffee, cocoa, palm oil, rubber, fish and the like.
- Invite the business community, small scale producers, government departments and other stakeholders in districts throughout Aceh to establish networks of commodity

based forums to enhance local competitiveness in these sectors.

- Allocate public funds to these forums to cover operating costs and finance initiatives to build up each industry, particularly through strengthening supply chains directly linking small scale producers to exporters, importers and other buyers in non-local markets.
- In response to proposals from these forums, improve physical infrastructure to support economic activities, particularly power, water (irrigation), communications, information technology and rural roads to improve access to markets.

At the micro level:

- Expand access for small scale producers and household enterprises to factors of production, primarily land (including land titles), water and capital.
- Delegate management and fiscal responsibility for government loan programmes for small scale producers and enterprises through qualified financial institutions and NGOs with proven expertise in micro-credit lending.
- Establish and strengthen the capacity of community-run business service centres to identify market opportunities for local enterprises and to promote their goods and services in non-local markets.
- Expand programmes through qualified NGOs to strengthen the capacity of local SMEs for business management, technical skills and especially marketing.
- Expand and refocus vocational training programmes in response to demand from employers to ensure job seekers have the requisite skills to obtain employment as hotel staff, metal workers, motor mechanics, construction workers, administrative staff, foreign domestic workers and the like.

7.2.5 Couple disaster mitigation with environmental programmes

While the tsunami was a rare event, and hopefully one that will not occur again in the lifetime of those alive today, it did draw attention to the need to prepare for other kinds of natural disasters that occur frequently in Aceh. Cumulatively, these cause substantial loss and hardship for those affected, and many are caused by human intervention and the misuse of environmental resources. Building on the UNDP (Disaster risk reduction Aceh (DRR-A) project, further actions are needed to:

- Couple disaster mitigation efforts with government departments and other organisations responsible for the environment, since strategies and agendas are often complementary.
- Replicate models for community preparedness in other vulnerable areas of the province, based on lessons learned from pilot applications.
- Expand coverage to include natural disasters associated with crop failures due to disease and pest infestations, since these affect large numbers of small scale farmers.
- Reinforce steps to mainstream measures to mitigate natural disasters in a broad range of government and donor programmes, particularly in the forestry, agricultural and fisheries sectors.
- Disseminate guidelines for this purpose to relevant provincial and district agencies and provide associated training workshops to increase awareness and knowledge.
- Capitalise on the potential resources of CSOs to empower them to plan and implement their own initiatives to reduce the risk and potential impact of disasters.

7.2.6 Improve the use of fiscal resources

The huge increase in fiscal resources flowing into Aceh as a result of the Peace Accords and the LoGA underline the imperatives of minimising misuse and ensuring resources are channelled towards programmes and services that are effective in further advancing human development. For this purpose, government departments are urged to adopt the general principles of performance planning and budgeting. Since this approach is not yet well understood in Aceh, the provincial government should seek the help of donors to undertake a broad programme of capacity development to enable relevant staff to adopt the concept. Briefly summarised, performance planning and budgeting involves the following steps:

- In medium and long term plans (RPJM and RPJP), clarify the larger objectives for each sector, define the outcomes to be

accomplished under each objective, and explain broad strategies to achieve these outcomes.
- In annual plans and budgets, specify outputs to be produced under each strategy and the activities to be undertaken to produce the outputs.
- Define specific indicators and targets for each output against which to measure progress and performance, and estimate the inputs required and costs to be covered in the budget.

In addition, to support the adoption of performance planning and budgeting, complementary actions will be needed to:
- Establish a provincial task force to work with qualified contractors to strengthen the capacity of budget committees and assembly representatives to help them better understand and support the rationale underlying proposed plans and budgets.
- Strengthen the capacity of government staff to monitor and evaluate the implementation of plans and budgets in accordance with targets defined under performance indicators.
- Introduce a system of incentives to reward departments that are successful in achieving significant progress in achieving planned targets.

As mentioned earlier, the introduction of the Special Autonomy Fund in 2008 potentially creates opportunities for the provincial government to allocate resources according to policy priorities for human development. To ensure that these funds are used in the manner intended, actions will be needed to:
- Form inter-departmental task forces linked to stakeholder forums to enhance inter departmental collaboration in pursuing policy priorities.
- Provide guidelines on the recommended use of fiscal resources for health, education, infrastructure and economic development.
- Specify performance indicators for each sector and broad targets that are feasible to attain at intervals in the time frame envisaged.
- Recruit qualified technical support to assist provincial government staff in reviewing proposals submitted by districts and cities for the use of SAF funds.
- Assign staff in provincial government departments to assist districts and cities in revising proposals where needed.

7.3. Recommendations for specific sectors

In addition to the six primary goals outlined above, this report also recommends the actions mentioned below for specific sectors.

Security

- Government agencies should continue to place former combatants in attractive alternative employment and provide skill training for this purpose. In addition, former combatants should be offered financial support to undergo training and/or to start a business of their own.
- A task force should be formed to minimise the practice of extortion, comprising representatives from the military, the police, justice officials and other relevant institutions.
- An independent agency should be established to receive complaints about extortion and violence, initiate corrective actions, and monitor responses.

Poverty

To reduce poverty, the government should pursue two main strategies:
- Improve access to public infrastructure and social services.
- Enhance opportunities for productive employment and income generating activities.

Specific actions to implement these strategies span across many sectors and are mentioned elsewhere in this chapter.

Women

To further enhance the role of women in Aceh, the government should pay special attention to:
- Informing them about their legal rights and options for seeking justice through the adat system, *syariah* courts and the national justice system.
- Minimising discrimination in judicial decisions, seeking employment, staff recruitment and career advancement.
- Ensuring that they have equal access to public services, particularly loans and credit.
- Improving health care services that address the special needs of women and children, especially those living in rural areas.

- Minimising domestic violence through awareness campaigns and family counselling programmes.

Basic infrastructure

To improve the provision and maintenance of basic infrastructure, especially in rural areas, the government should:

- Continue and expand existing programmes that provide block grants to local communities that can be used to extend and improve basic infrastructure.
- Empower user groups to build, operate, maintain and mobilise resources for small scale basic infrastructure such as clean water supplies, mini-irrigation networks and even power generation in remote areas.
- Allocate a higher proportion of public funds for the maintenance of basic infrastructure for which government is responsible.

Education

In the education sector, the government should, among other things:

- Continue to encourage the private sector and community groups to provide preschool programmes and day care centres, since parents have strong interests in doing so.
- Provide matching grants for this purpose, coupled with a set of performance standards to qualify for support.
- Engage representatives from the business community in the planning and design of course offerings and curricula for vocational training programmes.
- Consider outsourcing the management and direction of vocational training institutes to the private sector, to include courses on a fee for service basis, funded in part by contributions from businesses that require skilled staff.

Health care

In the health care sector, the government should, among other things:

- Revisit the opportunity costs of free health care and ensure that resources are first used to provide effective services for those that cannot afford it and for other priority needs such as pre- and post-natal care.
- Establish a public-private forum at the provincial level, similar to the one for education, whose function would be to collaborate with government in formulating policies, strategies and programmes for the sector.
- Organise similar forums at the level of the sub-district *puskesmas*, to be responsible for preparing plans and budgets for health services within their jurisdiction.
- Strengthen the capacity of *puskesmas*, particularly for operations management and financial administration.
- Collaborate with others to form and train community based self-help groups to support pregnant women and those with newborn children.
- Collaborate with others to form and train similar groups for other purposes, such as domestic violence, family hygiene and nutrition, addiction to drugs and alcohol.

Economic development

To promote economic recovery and development, the government should pursue a strategy that:

- Emphasises the expansion of the agricultural sector broadly defined to include plantations, fishing and forestry, and related processing industries.
- Is shaped by external demand and aims to enable local producers to compete successfully in those markets.
- Focuses on exports of agricultural commodities to non-local markets either within Indonesia or abroad.
- Strengthens supply chains that link local producers to non-local markets through business partnerships that involve producers, processors, exporters and importers.
- Promotes small enterprises and other forms of livelihoods through technical assistance, appropriate infrastructure, and particularly support for marketing products and services to consumers and buyers beyond the local community.
- Empowers the business community, broadly defined, to collaborate effectively with government in shaping policy and priorities for economic development.

People empowerment

In order to ensure that public-private stakeholder forums are able to fulfil their potential and operate effectively, government agencies and others involved in setting them up should:

- Define precisely the powers and responsibilities to be delegated, so that participants

clearly understand the limits of their authority.

- Specify clear operational procedures to ensure the stakeholder forums abide by principles of good governance, transparency and accountability.
- Advise and assist forums in adopting methods to ensure participation of women and marginalised groups that have not so far been included and to strengthen their voice in decision making.
- Provide intensive technical support to help stakeholders formulate viable proposals for action.
- Allocate funds to cover not only actions proposed by the forum but also, where necessary, the operating costs to enable members to hold and attend regular meetings. This is particularly important for forums representing stakeholders dispersed across the province, such as industry clusters.
- Formulate procedures for the disbursement of funds, procurement and financial reporting.
- Monitor the proceedings and activities of the forums to minimise abuse of their powers and prevent misuse of funds.

Resource Allocation

In allocating fiscal resources and preparing plans and budgets, government departments should:

- Undertake more detailed research to determine the appropriate formula for allocating SAF funds that achieve policy objectives for equitable distribution.
- Make use of measures included in the HDI, GDI, GEM and HPI to determine appropriate performance indicators for expenditures rather than in allocating resources.
- Focus more on achieving policy priorities through other instruments related to expenditures, including guidelines on the preferred use of SAF resources, performance indicators, and most directly through the process of approving proposals from districts and cities for the use of SAF revenues.
- Target investments according to specific indicators of service provision in order to ensure a more equitable access to these services in rural areas.
- Strengthen the capacity of line departments to conduct an effective review of district proposals for the use of SAF funds and to monitor implementation.
- Adopt principles of performance budgeting to ensure that expenditures are indeed directed towards achieving larger goals for human development.
- Recruit technical support to introduce and implement the concept of performance budgeting on a much broader front, among key departments of both the provincial government and the districts and cities.

7.4. Final thoughts

The proposals and recommendations outlined in this chapter represent an ambitious agenda for promoting human development in Aceh. Obviously, there are many other issues which have not been covered here that need to be addressed, such as environmental conservation and the sustainability of natural resources. Readers will doubtless question the ideas presented and may have quite different views on what needs to be done. That is all to the good and welcome. Nevertheless, the main purpose in making these recommendations is to help spur a vigorous debate and to advance constructive thinking about the future course of development in Aceh. Eventually, such debates should be reflected in future plans and programmes and lead to better results in improving the general welfare of all the people of Aceh.

STATISTICAL ANNEX

Appendix A: Accompanying Tables And Figures

Chapter Two

Chapter Three

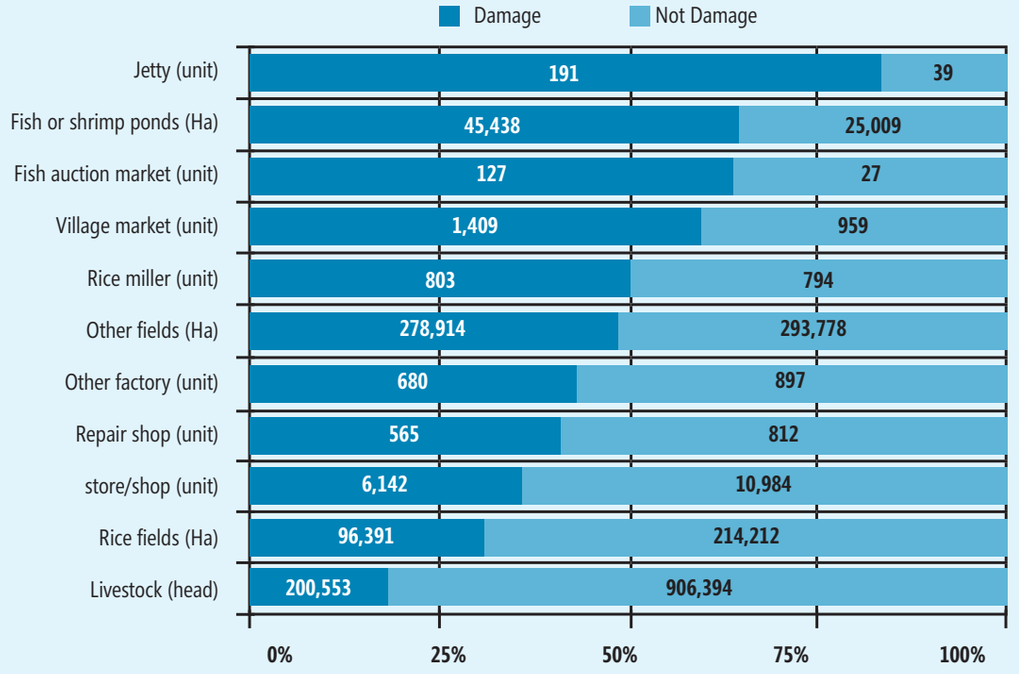
Chapter Four

Chapter Five

Chapter Six

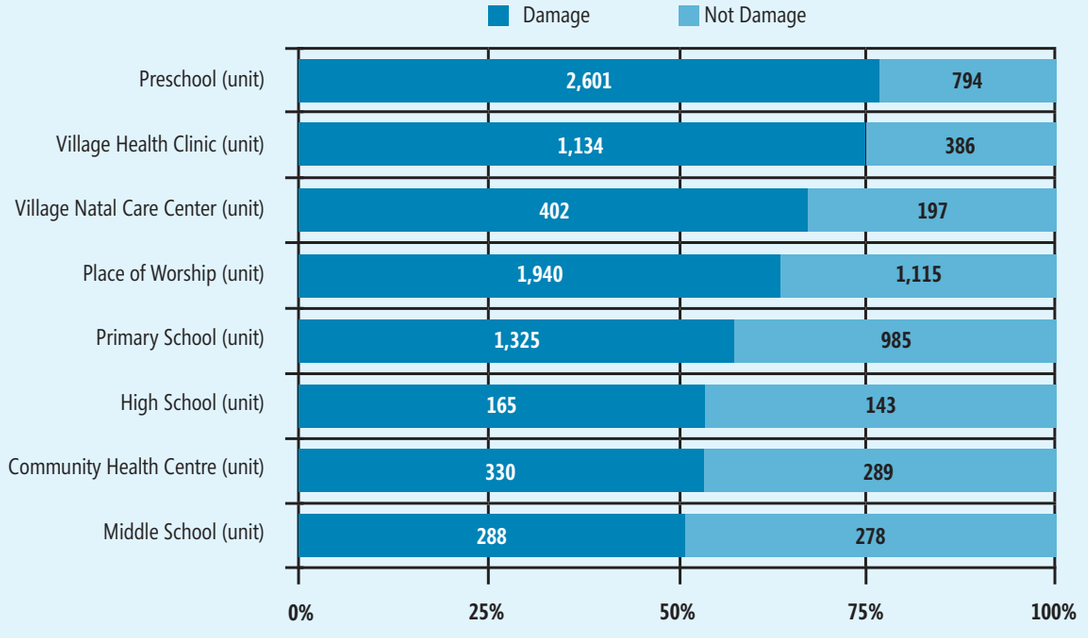
Appendix B: BPS Special Tabulation

Appendix A: Figure 2.1 Level of damage to the productive sector



Source: Cost of conflict in Aceh, MSR Report, 2009

Appendix A: Figure 2.2 Level of damage to the social sector



Source: Cost of conflict in Aceh, MSR Report, 2009

Appendix A: Table 2.1 Gender Breakdown of Displacement by District, 2005

District	Female	% of Total	Male	% of Total	Total
Pidie	32.075	49	33.399	51	65.474
Aceh Barat	24.945	46.9	28.257	53.1	53.202
Aceh Besar	18.041	45	22.055	55	40.096
Banda Aceh	12.866	44.1	16.285	55.9	29.151
Bireuen	14.123	50.9	13.598	49.1	27.721
Simeulue	11.449	48.3	12.246	51.7	23.695
Aceh Utara	11.786	50.1	11.741	49.9	23.527
Aceh Singkil	9.916	49.8	9.995	50.2	19.911
Aceh Timur	8.123	49.6	8.270	50.4	16.393
Aceh Selatan	5.592	47.1	6.278	52.9	11.870
Aceh Jaya	5.337	47.5	5.898	52.5	11.235
Nagan Raya	5.306	47.3	5.921	52.7	11.227
Lhokseumawe	2.675	50.5	2.619	49.5	5.294
Aceh Barat Daya	1.517	49.2	1.568	50.8	3.085
Aceh Tengah	861	53.7	742	46.3	1.603
Aceh Tamiang	780	49.5	797	50.5	1.577
Sabang	657	48	712	52	1.369
Langsa	494	53.1	436	46.9	930
Aceh Tenggara	180	49.2	186	50.8	366
Bener Meriah	48	49	50	51	98
Total	**166.771**	**47.9**	**181.053**	**52.1**	**347.824**

Note: This table is taken from Daniel Fitzpatrick, Women's Rights to land and housing in tsunami-affected Aceh, Indonesia, ARI Aceh Working Paper No. 3, 2008, 11.

Appendix A: Table 2.2 Human Development Index by jurisdictions in Aceh, 2002 - 2008

Region/District	2002	2004	2006	2008	Change 2004-08	Rank 2008
Nothern and Eastern Aceh (average excluding cities)	**67.6**	**69.1**	**70.2**	**68.8**	**-0.3**	**10.3**
Aceh Besar	67.2	70.6	71.9	70.5	-0.1	6
Aceh Timur	66.7	67.7	68.8	69.2	1.5	9
Kota Langsa*		69.5	71.5	71.3	1.8	3
Aceh Tamiang*		67.3	68.7	67.5	0.2	13
Aceh Utara	65.9	68.6	70.4	67.4	-1.2	15
Kota Lhokseumawe*		72.8	73.8	71.2	-1.6	4
Bireuen	70.6	71.3	72.2	71.1	-0.3	5
Pidie	67.8	68.8	70.0	68.5	-0.3	10
Pidie Jaya*			69.4	67.4	-2.0	14
Kota Banda Aceh	71.8	74.0	75.4	72.4	-1.6	1
Kota Sabang	69.4	72.5	73.7	71.4	-1.1	2
Western and Southern Aceh (average excl cities)	**63.4**	**65.9**	**67.5**	**65.8**	**-0.3**	**17.4**
Aceh Barat	65.6	66.7	68.1	68.2	1.5	11
Aceh Jaya*		66.2	67.8	67.6	1.4	12
Nagan Raya*		65.5	66.9	65.7	0.2	18
Simeulue	61.8	64.5	66.4	65.2	0.7	19
Aceh Selatan	63.8	66.9	68.4	67.0	0.1	16
Aceh Barat Daya*		65.9	67.5	65.1	-0.8	20
Aceh Singkil	62.2	65.8	67.2	64.5	-1.3	21
Subulussalam*			67.8	63.3	-4.5	22
Aceh Hinterland (average)	**66.7**	**67.6**	**69.1**	**67.3**	**-0.3**	**13.8**
Aceh Tengah	66.7	69.9	71.2	70.1	0.1	7
Bener Meriah*		66.3	68.1	66.7	0.4	17
Aceh Tenggara	66.8	69.4	70.6	69.2	-0.2	8
Gayo Lues*		64.8	66.6	63.2	-1.7	23
Aceh (average)	**66.0**	**68.7**	**69.4**	**67.1**	**-1.6**	
Average cities	70.6	72.2	72.4	69.9	-2.3	6.4
Average original districts	65.9	68.2	69.6	68.2	0.0	11.5
Average new districts	na	66.0	67.9	65.8	-0.2	17.4

Note: * Denotes new jurisdiction
Source: BPS

Appendix A: Table 2.3: Percentage of female heads-of-household in Aceh compared to Indonesia, 2003-06

Year	Aceh	Indonesia
2003	17	13
2004	18	13
2005	18	13
2006	19	13

Source: Sejahtera and Suleeman, Inong Aceh Di Bentala Nusantara, 18.

Appendix A: Table 2.4 Gender Development Index by jurisdictions in Aceh, 1999 – 2008

Region/District	1999	2002	2008	Change 2002-08	Rank 2008
Nothern and Eastern Aceh (average excluding cities)			**62.5**		**9.9**
Aceh Besar	62.6	65.0	64.6	-0.4	6
Aceh Timur	56.7	62.5	64.9	2.4	5
Kota Langsa*			62.1		10
Aceh Tamiang*			57.8		19
Aceh Utara	58.8	53.8	61.3	7.5	12
Kota Lhokseumawe*			57.2		21
Bireuen	na	68.3	67.3	-1.0	2
Pidie	57.2	66.3	64.0	-2.3	7
Pidie Jaya*			57.9		18
Kota Banda Aceh	57.5	69.7	65.7	-4.0	3
Kota Sabang	56.0	60.5	63.1	2.6	8
Western and Southern Aceh (average excl cities)			**58.2**		**16.9**
Aceh Barat	56.2	60.2	58.3	-1.9	16
Aceh Jaya*			58.8		15
Nagan Raya*			61.7		11
Simeulue	na	60.1	54.6	-5.5	23
Aceh Selatan	51.7	60.3	60.7	0.4	14
Aceh Barat Daya*			58.3		17
Aceh Singkil	na	61.8	55.3	-6.5	22
Subulussalam*			57.6		20
Aceh Hinterland (average)			**64.3**		**6.8**
Aceh Tengah	58.0	64.6	67.5	2.9	1
Bener Meriah*			65.6		4
Aceh Tenggara	63.0	65.4	63.0	-2.4	9
Gayo Lues*			60.9		13
Aceh (average)	**59.0**	**62.1**	**61.4**		
Average cities	56.8	65.1	61.2		12.4
Average original districts	58.0	62.6	62.0		10.6
Average new districts			60.1		13.9

Note: * Denotes new jurisdiction
Source: Laporan Kesenjangan Kesejahteraan Masyarakat Antar Daerah, BPS

Appendix A: Table 2.5 HPI by jurisdictions in Aceh 1999 - 2008

Region/District	1999	2002	2008	Rank 2008
Nothern and Eastern Aceh (average excluding cities)	**31.5**	**27.5**	**15.9**	**10.1**
Aceh Besar	30.7	27.6	11.2	5
Aceh Timur	29.3	27.0	19.9	15
Kota Langsa*			9.3	4
Aceh Tamiang*			17.8	11
Aceh Utara	32.6	25.6	21.0	19
Kota Lhokseumawe*			8.7	3
Bireuen		31.0	15.3	8
Pidie	33.3	26.3	12.1	6
Pidie Jaya*			14.0	7
Kota Banda Aceh	12.5	12.0	6.3	1
Kota Sabang	20.6	19.7	7.8	2
Western and Southern Aceh (average excl cities)	**42.3**	**40.0**	**20.4**	**15.6**
Aceh Barat	42.8	41.0	21.4	20
Aceh Jaya*			18.3	12
Nagan Raya*			20.7	18
Simeulue		37.3	28.3	23
Aceh Selatan	41.7	40.2	16.1	9
Aceh Barat Daya*			18.3	13
Aceh Singkil		41.3	19.6	14
Subulussalam*			26.4	22
Aceh Hinterland (average)	**30.3**	**26.4**	**20.7**	**16.0**
Aceh Tengah	26.5	24.9	17.2	10
Bener Meriah*			20.0	16
Aceh Tenggara	34.0	27.8	20.1	17
Gayo Lues*			25.4	21
Aceh (average)	**31.4**	**28.4**	**16.5**	
Average cities	16.6	15.9	11.7	6.4
Average original districts	33.9	31.8	18.4	13.3
Average new districts			19.2	14.0

Note: Due to missing data, figures for 2007 are drawn from a different source.
* Denotes new jurisdiction
Source: BPS and Riset Kesehatan Dasar 2007 – Depkes.

Appendix A: Table 3.1 Health and housing-related indicators by jurisdictions in Aceh, 2008

Region/District	Percent of population living in homes with				Average for 4 indicators	Morbidity rate #
	No access to clean water	No access to sanitation	Dirt floor	No electricity		
Nothern and Eastern Aceh (average excluding cities)	**26.5**	**37.5**	**13.0**	**9.7**	**21.7**	**22.3**
Aceh Besar	16.6	24.4	3.7	5.0	12.4	13.8
Aceh Timur	41.9	30.4	21.1	9.9	25.8	26.8
Kota Langsa*	6.1	8.9	3.9	0.7	4.9	16.4
Aceh Tamiang*	30.2	9.0	12.4	3.5	13.8	19.6
Aceh Utara	33.7	42.1	20.2	15.9	28.0	21.3
Kota Lhokseumawe*	2.8	18.7	6.7	1.8	7.5	21.8
Bireuen	16.8	22.4	9.2	5.9	13.6	28.4
Pidie	18.8	70.7	7.7	10.7	27.0	21.0
Pidie Jaya*	23.9	65.6	13.4	15.3	29.6	26.2
Kota Banda Aceh	1.1	1.5	1.5	0.4	1.1	13.9
Kota Sabang	3.0	22.5	3.9	0.5	7.5	8.6
Western and Southern Aceh (average excluding cities)	**34.4**	**46.4**	**8.0**	**16.3**	**26.3**	**23.9**
Aceh Barat	37.8	51.6	8.5	18.9	29.2	22.1
Aceh Jaya*	17.9	35.4	8.9	28.1	22.6	26.6
Nagan Raya*	32.8	47.9	14.6	18.8	28.5	21.9
Simeulue	74.0	43.1	4.4	24.6	36.6	15.9
Aceh Selatan	20.4	48.9	5.5	6.8	20.4	25.6
Aceh Barat Daya*	31.4	66.2	6.6	14.1	29.6	24.9
Aceh Singkil	44.0	18.3	8.4	6.3	19.2	16.7
Subulussalam*	55.7	18.2	10.9	15.1	25.0	19.3
Aceh Hinterland (average)	**38.8**	**45.0**	**12.7**	**11.8**	**27.1**	**23.2**
Aceh Tengah	41.5	33.2	13.4	14.1	25.6	27.3
Bener Meriah*	39.6	27.0	21.4	14.2	25.6	29.4
Aceh Tenggara	29.7	56.6	9.0	9.7	26.3	17.7
Gayo Lues*	52.1	73.8	6.7	7.5	35.0	16.8
Aceh	**26.6**	**36.3**	**10.6**	**10.2**	**20.9**	**21.5**
Average cities	8.5	10.4	4.5	0.8	6.1	11.1
Average original districts	29.6	40.7	11.6	10.7	23.2	19.8
Average new districts	31.8	41.0	12.4	13.8	24.7	24.7
Median					25.6	21.3

Note. Averages are weighted by population.
* Denotes new jurisdiction
\# Morbidity is the % of the population suffering from illness during the year 2005.
Source: BPS, based on estimated population in 2008.

Appendix A: Table 3.2 Education indicators by jurisdiction in Aceh 1993, 2004 and 2008

Region/District	Mean years or schooling			Adult Literacy rate (%)		
	1993	2004	2008	1993	2004	2008
Nothern and Eastern Aceh (average excluding cities)	**6.5**	**8.7**	**8.7**	**88.4**	**96.5**	**96.2**
Aceh Besar	7	9.4	9.9	87.4	96.1	96.2
Aceh Timur	6.4	8.1	8.4	94.1	98.8	97.1
Kota Langsa*		9.2	10.0			98.6
Aceh Tamiang*		8.1	8.4		97.9	97.7
Aceh Utara	6.6	8.9	9.1	89.6	94.4	95.1
Kota Lhokseumawe*		9.6	10.0			98.8
Bireuen		9.1	9.2		98.1	98.1
Pidie	6.1	8.3	8.6	82.3	93.9	95.4
Pidie Jaya*			7.6			93.5
Kota Banda Aceh	10.3	11.2	12.0	96.3	97	99.0
Kota Sabang	7.8	9.4	10.5	95.1	97.9	98.1
Western and Southern Aceh (average)	**5.3**	**7.4**	**8.2**	**83.6**	**94.3**	**93.1**
Aceh Barat	5.1	8.1	8.3	81.1	89.1	92.8
Aceh Jaya*		8.6	8.8		96.1	93.1
Nagan Raya*		6.3	7.4		89.3	88.4
Simeulue		6.1	8.5		98.7	98.0
Aceh Selatan	5.5	8.1	8.3	86.1	95.7	93.4
Aceh Barat Daya*		7.2	7.5		95	95.7
Aceh Singkil		7.7	8.3		96.2	90.4
Subulussalam*			7.6			90.7
Aceh Hinterland (average)	**6.8**	**8.6**	**8.9**	**89.7**	**92.9**	**93.8**
Aceh Tengah	7.3	9	9.2	93.2	97.1	97.7
Bener Meriah*		7.8	8.1			97.0
Aceh Tenggara	6.2	9.3	9.4	86.2	96	97.1
Gayo Lues*		8.3	8.7		85.5	83.5
Aceh	**6.5**	**8.4**	**8.6**	**88.5**	**95.7**	**95.9**
Average cities	9.1	9.9	10.1	95.7	97.5	97.0
Average original districts	6.3	8.4	8.8	87.5	95.8	95.6
Average new districts		7.7	8.1		92.8	92.7
Indonesia#		**7.1**	**7.6**		**89.5**	**92.1**
Aceh's rank			9			10

Note: Regional averages are not weighted by school age population. Weighted averages will vary up or down slightly.
* Denotes new jurisdiction # Data for Indonesia are for the years 2002 and 2008
Source: Bappeda and NAD Department of Education.

Appendix A: Table 3.3 School participation rates by jurisdictions in Aceh, 2008 (Percent)

Region/District	Age Group (In Years)				Average Rank	Difference between high and secondary
	7-12	13-15	16-17	18-23	7-17	
Nothern and Eastern Aceh (average excluding cities)	**99.1**	**93.6**	**69.5**	**20.4**	**13.0**	**-24.2**
Aceh Besar	99.1	94.4	76.8	30.5	9.0	-17.6
Aceh Timur	98.9	89.3	58.9	14.6	20.3	-30.4
Kota Langsa*	99.0	94.3	76.2	27.4	10.0	-18.1
Aceh Tamiang*	99.2	93.6	64.7	13.9	14.3	-28.9
Aceh Utara	99.5	90.4	70.5	13.7	12.3	-19.9
Kota Lhokseumawe*	99.4	95.2	79.6	31.8	5.0	-15.6
Bireuen	99.3	92.5	74.6	33.8	11.3	-17.9
Pidie	98.8	97.1	72.0	22.0	12.0	-25.1
Pidie Jaya*	98.9	98.2	68.9	14.2	11.3	-29.4
Kota Banda Aceh	98.7	97.7	86.8	42.0	7.3	-10.9
Kota Sabang	98.9	94.6	70.4	9.3	13.7	-24.2
Western and Southern Aceh (average excluding cities)	**98.7**	**94.5**	**74.2**	**15.1**	**12.5**	**-20.3**
Aceh Barat	98.5	95.2	78.2	15.8	11.7	-17.0
Aceh Jaya*	97.3	93.8	62.1	8.3	19.7	-31.8
Nagan Raya*	99.0	92.9	79.5	17.5	11.0	-13.4
Simeulue	98.7	93.9	83.3	12.6	11.7	-10.6
Aceh Selatan	99.4	97.4	74.4	17.1	6.3	-23.0
Aceh Barat Daya*	98.9	95.2	72.7	20.8	10.7	-22.5
Aceh Singkil	98.9	93.0	69.0	13.6	16.7	-24.0
Subulussalam*	97.6	91.6	73.3	15.9	17.3	-18.3
Aceh Hinterland (average)	**98.9**	**95.3**	**69.5**	**15.8**	**11.1**	**-25.8**
Aceh Tengah	99.2	98.5	71.5	14.0	7.7	-27.0
Bener Meriah*	99.4	97.3	75.7	18.9	5.0	-21.6
Aceh Tenggara	99.4	96.6	69.6	16.1	9.3	-27.0
Gayo Lues*	97.5	88.8	61.4	14.1	22.3	-27.4
Aceh	**99.0**	**94.1**	**72.4**	**22.4**		**-21.7**
Average cities	98.7	94.7	77.3	25.3	10.7	-17.4
Average original districts	99.1	94.4	72.6	18.5	11.7	-21.8
Average new districts	98.6	94.3	69.3	15.4	13.5	-25.0
Indonesia	**97.8**	**84.4**	**54.7**	**12.4**		**-29.7**
Aceh's rank	**2**	**1**	**1**	**2**		

* Denotes new jurisdiction
Source: BPS 2010

Appendix A: Table 3.4 Life expectancy in Aceh 2002, 2005 and 2008 (years)

Region/District	2002	2005	2008	Change 2002-2008
Nothern and Eastern Aceh (average excluding cities)	**69.3**	**69.4**	**69.7**	**0.9**
Aceh Besar	69.5	70.0	70.5	1.0
Aceh Timur	67.9	69.1	69.5	1.6
Kota Langsa*		68.9	70.1	
Aceh Tamiang*		67.8	68.2	
Aceh Utara	68.9	69.1	69.5	0.6
Kota Lhokseumawe*		68.4	70.0	
Bireuen	72.7	72.2	72.3	-0.4
Pidie	67.7	68.4	69.1	1.4
Pidie Jaya*			69.0	
Kota Banda Aceh	68.5	68.7	70.2	1.7
Kota Sabang	68.8	69.6	70.4	1.6
Western and Southern Aceh (average excl cities)	**64.5**	**66.0**	**66.8**	**1.4**
Aceh Barat	68.4	68.9	69.8	1.4
Aceh Jaya*		67.0	67.9	
Nagan Raya*		69.1	69.4	
Simeulue	62.2	62.5	62.8	0.6
Aceh Selatan	64.7	65.7	66.7	2.0
Aceh Barat Daya*		65.4	66.5	
Aceh Singkil	62.7	63.2	64.5	1.8
Subulussalam*			65.5	
Aceh Hinterland (average)	**67.7**	**67.7**	**68.2**	**1.6**
Aceh Tengah	67.1	69.1	69.4	2.3
Bener Meriah*		66.4	67.4	
Aceh Tenggara	68.3	68.9	69.2	0.9
Gayo Lues*		66.2	66.8	
Aceh	**67.7**	**68.0**	**68.5**	**0.8**
Average cities	68.7	68.9	69.3	0.6
Average original districts	67.3	67.9	68.5	1.2
Average new districts		67.0	67.9	

Note: * Denotes new jurisdiction
Source: BPS

Appendix A: Table 3.5 Indicators of people's health by jurisdictions in Aceh, 2008

Region/District	Infant mortality rate (per 1000)	Population with health problems %	Morbidity rate %	Average duration of illness (days)	Under nourished children <5yrs old %	Composite Rank
Nothern and Eastern Aceh (average excluding cities)	**29.6**	**39.8**	**22.5**	**5.2**	**30.0**	**11.4**
Aceh Besar	26.6	38.2	13.8	6.5	24.1	4
Aceh Timur	30.3	36.6	26.8	3.9	21.8	5
Kota Langsa*	28.0	31.2	16.4	5.7	31.9	3
Aceh Tamiang*	35.2	34.5	19.6	5.1	26.5	7
Aceh Utara	30.3	40.8	21.3	4.9	38.8	12
Kota Lhokseumawe*	28.5	41.8	21.8	3.3	28.8	6
Bireuen	20.9	43.2	28.4	4.5	38.7	15
Pidie	31.8	43.2	21.0	5.9	30.1	17
Pidie Jaya*	32.1	42.3	26.2	5.5	30.1	20
Kota Banda Aceh	27.7	24.6	13.9	6.3	21.0	1
Kota Sabang	27.2	20.9	8.6	6.7	22.8	1
Western and Southern Aceh (average excluding cities)	**41.1**	**32.9**	**22.0**	**6.1**	**37.1**	**15.6**
Aceh Barat	29.3	32.6	22.1	6.2	34.2	12
Aceh Jaya*	36.2	41.0	26.6	4.3	35.2	18
Nagan Raya*	30.7	31.8	21.9	6.2	40.4	15
Simeulue	57.6	24.7	15.9	5.1	47.0	11
Aceh Selatan	41.3	37.5	25.6	7.7	33.8	23
Aceh Barat Daya*	42.2	31.6	24.9	7.0	43.2	22
Aceh Singkil	50.7	31.3	16.7	5.9	25.7	8
Subulussalam*	46.2	33.5	19.3	4.7	25.7	9
Aceh Hinterland (average)	**35.3**	**36.5**	**22.8**	**6.0**	**30.8**	**15.5**
Aceh Tengah	30.7	37.6	27.3	5.2	19.8	9
Bener Meriah*	38.3	44.7	29.4	5.8	24.5	21
Aceh Tenggara	31.6	25.7	17.7	6.2	48.7	14
Gayo Lues*	40.7	38.1	16.8	6.9	30.3	18
Aceh	**34.1**	**36.7**	**21.5**	**5.4**	**31.5**	
Average cities	31.5	30.4	16.0	5.3	26.0	4.0
Average original districts	34.6	35.6	21.5	5.6	33.0	11.8
Average new districts	36.5	37.7	23.6	5.8	32.9	17.3

* Denotes new jurisdiction
Source: BPS

Appendix A: Table 3.6 Indicators for health services by jurisdiction in Aceh, 2008

Region/District	Population per health centre	Doctors per 10.000 population	Hospital beds per 10.000 population	% Birth Delivery Assisted by Medical Personnel	% Population Without Access to Health Facilities	Composite Rank
	2008	2008	2008	2008	2008	
Nothern and Eastern Aceh (average excluding cities)	**17.731**	**1.1**	**2.6**	**87.6**	**12.8**	**11.9**
Aceh Besar	12.404	0.8	1.6	91.4	7.1	11
Aceh Timur	15.853	0.7	1.2	82.7	21.9	22
Kota Langsa*	35.067	4.1	30.2	96.4	0.0	3
Aceh Tamiang*	23.990	0.9	4.2	87.9	18.8	17
Aceh Utara	23.534	1.6	2.6	79.1	18.3	16
Kota Lhokseumawe*	31.752	1.6	11.4	96.3	4.4	5
Bireuen	21.033	1.3	2.8	83.0	11.0	14
Pidie	11.527	1.4	4.5	92.8	2.6	4
Pidie Jaya*				87.3	5.4	6
Kota Banda Aceh	21.792	9.9	43.0	100.0	0.0	2
Kota Sabang	4.870	4.4	10.3	94.6	5.6	1
Western and Southern Aceh (average excluding cities)	**10.465**	**1.2**	**3.8**	**68.7**	**13.4**	**13.3**
Aceh Barat	12.783	1.6	6.5	59.9	22.8	15
Aceh Jaya*	9.450	1.1	0.0	72.8	25.1	20
Nagan Raya*	12.434	0.6	3.2	81.6	15.2	17
Simeulue	10.224	0.9	9.2	56.4	1.4	7
Aceh Selatan	11.673	1.2	3.9	68.0	12.5	13
Aceh Barat Daya*	12.310	1.0	2.2	72.6	2.3	11
Aceh Singkil	5.898	1.9	1.0	69.5	12.8	10
Subulussalam*				65.2	31.1	23
Aceh Hinterland (average)	**11.362**	**1.3**	**3.4**	**76.9**	**14.7**	**13.5**
Aceh Tengah	14.041	1.5	4.7	87.6	13.3	7
Bener Meriah*	12.505	0.4	0.0	90.9	22.4	21
Aceh Tenggara	12.536	1.5	4.3	74.5	7.0	9
Gayo Lues*	6.233	1.5	2.9	54.8	24.3	17
Aceh	**10.347**	**2.1**	**7.5**	**83.1**	**12.9**	
Average cities	21.847	5.7	28.8	96.9	4.7	6.8
Average original districts	14.012	1.3	3.3	76.8	12.5	11.6
Average new districts	14.935	0.7	2.1	76.6	15.5	15.6

Note: The calculation of doctors and hospital beds included only facilities open to the general public and excluded those intended for the TNI, police and government servants.
* Denotes new jurisdiction
Source: BPS, Aceh in Figures 2009

Appendix A: Table 4.1 GRDP and expenditure per capita per month by jurisdictions in Aceh (Rp 000s)

Region/District	Non oil GRDP per capita		Expenditure per capita		Difference in ranks	Food (% of total)
	(Rp current 000s 2007)	Rank	(Rp current 000s 2008)	Rank		
Nothern and Eastern Aceh (average excluding cities)	**703**	**11.9**	**401**	**13.9**	**2.0**	**63.9**
Aceh Besar	811	6	514	4	-2	58.0
Aceh Timur	607	17	403	15	-2	62.5
Kota Langsa*	715	12	471	5	-7	59.2
Aceh Tamiang*	792	7	370	18	11	62.9
Aceh Utara	629	15	338	21	6	66.8
Kota Lhokseumawe*	1,487	1	419	12	11	57.3
Bireuen	732	11	380	17	6	64.0
Pidie	442	20	420	11	-9	71.5
Pidie Jaya*	512	18	412	13	-5	68.0
Kota Banda Aceh	1,028	4	889	1	-3	41.1
Kota Sabang	693	14	652	2	-12	60.1
Western and Southern Aceh (average excluding cities)	**815**	**12.0**	**441**	**10.7**	**-1.3**	**63.5**
Aceh Barat	1,205	3	573	3	0	55.7
Aceh Jaya*	628	16	470	6	-10	66.5
Nagan Raya*	1,255	2	466	7	5	64.0
Simeulue	339	23	439	10	-13	66.5
Aceh Selatan	738	9	381	16	7	63.3
Aceh Barat Daya*	733	10	363	19	9	66.1
Aceh Singkil	435	21	407	14	-7	62.4
Subulussalam*	480	19	331	22	3	67.5
Aceh Hinterland (average)	**658**	**12.0**	**399**	**15.0**	**3.0**	**65.5**
Aceh Tengah	703	5	401	8	3	58.0
Bener Meriah*	811	8	514	9	1	64.8
Aceh Tenggara	607	22	403	23	1	69.4
Gayo Lues*	715	13	471	20	7	69.6
Aceh	**703**	**5**	**401**	**8**	**3**	**58.0**
Average cities	880.6	10.0	552.3	8.4	-1.6	57.0
Average original districts	651.7	13.8	422.4	12.9	-0.9	63.4
Average new districts	770.1	10.6	411.0	13.1	2.6	66.0

Notes: * Denotes new jurisdiction. # Denotes non-oil GRDP.
Source: GDRPdata is derived from BPS. Expenditure data is from Susenas survey.

Appendix A: Table 4.2 Employment indicators by jurisdictions in Aceh, 2008

Region/District	Labor Force Participation Rate %	Informal Sector Employ-ment %	Open Unemployment %	Labor Force Participation rank	Informal Sector Employment rank	Open Unemployment rank	Overall rank
Nothern and Eastern Aceh (average excluding cities)	**60.0**	**62.2**	**10.4**	**11.6**	**12.4**	**14.3**	**13.9**
Aceh Besar	55.9	49.1	12.1	19	3	20	18
Aceh Timur	61.4	61.3	11.7	10	11	19	17
Kota Langsa*	57.0	53.6	11.3	17	4	16	15
Aceh Tamiang*	62.2	60.0	11.2	7	9	15	8
Aceh Utara	55.0	62.3	14.0	20	13	22	23
Kota Lhokseumawe*	52.3	54.3	14.4	23	5	23	20
Bireuen	61.1	65.6	7.5	11	15	7	10
Pidie	62.5	67.5	7.9	6	17	8	8
Pidie Jaya*	61.8	69.3	8.5	8	19	9	13
Kota Banda Aceh	63.0	24.4	11.4	5	1	18	1
Kota Sabang	61.8	48.8	11.4	9	2	17	6
Western and Southern Aceh (average excluding cities)	**59.4**	**60.1**	**8.0**	**13.9**	**10.7**	**9.0**	**10.6**
Aceh Barat	56.4	62.4	7.2	18	14	6	16
Aceh Jaya*	59.4	55.9	10.4	14	8	14	13
Nagan Raya*	65.6	68.6	5.0	3	18	4	2
Simeulue	54.9	61.8	8.6	21	12	10	19
Aceh Selatan	60.9	60.2	8.8	12	10	11	10
Aceh Barat Daya*	60.2	55.9	5.5	13	7	5	2
Aceh Singkil	58.7	55.8	10.2	16	6	13	12
Subulussalam*	58.7	65.6	12.2	15	16	21	21
Aceh Hinterland (average)	**66.8**	**80.7**	**5.6**	**7.3**	**21.5**	**4.5**	**8.8**
Aceh Tengah	77.6	80.0	4.9	1	21	3	2
Bener Meriah*	72.2	84.7	3.4	2	23	1	5
Aceh Tenggara	54.3	77.7	9.6	22	20	12	22
Gayo Lues*	63.2	80.5	4.3	4	22	2	6
Aceh	**60.3**	**61.8**	**9.6**				
Indonesia	**67.2**	**61.3**	**8.4**				
Average cities	58.6	49.3	12.1	13.8	5.6	19.0	12.6
Average original districts	59.9	64.0	9.3	14.2	12.9	11.9	14.3
Average new districts	63.5	67.8	6.9	7.3	15.1	7.1	7.0

Notes: * Denotes new jurisdiction.
Source: BPS Statistics, Indonesia, 2008.

Appendix A: Table 4.3: Labour force participation by gender in Aceh 1998-2008

Year	Males	Females	Total	% Males	% Females	% growth total
1998	1020	612	1631	62.5	37.5	
1999	1045	635	1680	62.2	37.8	2.5%
2000	1071	660	1731	61.9	38.1	2.5%
2001	1125	693	1818	61.9	38.1	5.0%
2002	1101	727	1828	60.2	39.8	-2.1%
2003	1335	867	2202	60.6	39.4	21.3%
2004	1074	545	1619	66.3	33.7	-19.5%
2005	1082	681	1762	61.4	38.6	0.7%
2006	1126	688	1814	62.1	37.9	4.1%
2007	1121	621	1742	64.3	35.7	-0.4%
2008	1154	640	1793	64.3	35.7	2.9%

Source : BPS-Statistics of Nanggroe Aceh Darussalam Province 2009

Appendix A: Table 5.1 Participation of women in parliament and leadership positions by jurisdictions in Aceh, 1999 - 2008 (%)

Region/District	Participation of Women in Parliament (%)				Females in Senior Official, Managerial and Technical Staff Positions (%)			
	1999	2002	2008	Rank 2008	1999	2002	2008	Rank 2008
Nothern and Eastern Aceh (average excluding cities)			**7.7**	**12.1**				**7.3**
Aceh Besar	0	0	1.0	19	59.3	60	53.3	7
Aceh Timur	2.2	0	6.7	13	57.9	36.8	55.2	4
Kota Langsa*			16.7	2			44.3	17
Aceh Tamiang*			6.7	15			53.1	8
Aceh Utara	8.9	4.4	12.5	5	62.6	44.4	42.0	19
Kota Lhokseumawe*			1.0	23			29.1	23
Bireuen		0	8.6	12		56	60.3	2
Pidie	0	5.0	9.1	10	47.5	56.5	55.2	5
Pidie Jaya*			9.1	11			54.5	6
Kota Banda Aceh	0	0	13.3	4	53.3	55.4	49.6	14
Kota Sabang	5.0	5.0	1.0	22	58.5	35.9	51.5	10
Western and Southern Aceh (average excluding cities)			**7.5**	**12.1**				**13.6**
Aceh Barat	2.6	2.5	6.7	14	37.3	39.3	32.7	22
Aceh Jaya*			15.0	3			50.6	13
Nagan Raya*			4.0	17			65.3	1
Simeulue		0	10.0	9		19	45.0	16
Aceh Selatan	0	0	4.0	16	47.8	62.5	50.8	12
Aceh Barat Daya*			1.0	20			51.0	11
Aceh Singkil		0	12.0	6		26.9	41.1	20
Subulussalam*			12.0	8			49.6	15
Aceh Hinterland (average)			**13.0**	**11.8**				**12.8**
Aceh Tengah	0	0	1.0	18	54.5	50	59.3	3
Bener Meriah*			38.1	1			52.4	9
Aceh Tenggara	3.3	0	12.0	7	41.8	30.4	40.8	21
Gayo Lues*			1.0	21			42.0	18
Aceh DPRA	**8.3**	**9.1**	**5.8**		**54.5**	**45.3**	**49.6**	
Average cities	2.5	2.5	8.8	11.8	55.9	45.7	44.8	15.8
Average original districts	2.1	1.1	7.6	11.7	51.1	43.8	48.7	11.9
Average new districts			10.7	12.6			52.7	9.4

Notes: * Denotes new jurisdiction.
Source: Laporan Kesenjangan Kesejahteran Masyarakat Antar Daerah for 1999,2002. BPS for 2008.

Appendix A: Table 6.1 HDI and per capita fiscal revenue by jurisdiction in Aceh, 2007

Region/District	HDI 2007		Per capita fiscal revenue 2007	
	Index	Rank	Rp	Rank
Nothern and Eastern Aceh (average excluding cities)	**71.3**		**1,611**	
Aceh Besar	72.7	4	1,574	18
Aceh Timur	69.4	12	1,608	17
Kota Langsa*	72.2	6	2,201	13
Aceh Tamiang*	69.2	14	1,624	16
Aceh Utara	71.4	8	1,462	20
Kota Lhokseumawe*	74.7	2	2,211	12
Bireuen	72.5	5	1,493	19
Pidie	70.8	10	1,308	21
Kota Banda Aceh	76.3	1	2,641	9
Kota Sabang	74.5	3	9,233	1
Western and Southern Aceh (average rank)	**68.3**		**3,010**	
Aceh Barat	69.3	13	2,646	8
Aceh Jaya*	68.2	19	5,016	2
Nagan Raya*	67.6	22	3,008	5
Simeulue	68.0	20	3,391	4
Aceh Selatan	68.9	15	2,050	15
Aceh Barat Daya*	68.4	17	2,821	6
Aceh Singkil	68.0	20	2,138	14
Aceh Hinterland (average rank)	**69.8**		**2,870**	
Aceh Tengah	72.1	7	2,439	10
Bener Meriah*	68.9	15	2,774	7
Aceh Tenggara	71.0	9	2,260	11
Gayo Lues*	67.1	23	4,006	3
Median	**69.4**		**2,260**	
Average cities	71.8	8.0	2,351	15.3
Average original districts	70.2	12.4	2,034	10.9
Average new districts	70.1	12.4	3,208	11.8

Source: HDI ranking is based on data from BPS; Per capita revenue ranking is based on data from World Bank (2008) "Aceh Public Expenditure Analysis".
* Denotes new jurisdiction.

Appendix A: Table 6.2 Average per capita spending by jurisdictions in Aceh 2006-07 (Rp 000s constant 2006)

Region/District	Health	Education	Infrastructure-structure	Sub-total	Percent of total	Total all sectors
Nothern and Eastern Aceh (average excluding cities)						**1.825**
Aceh Besar	139	545	156	840	55%	1.519
Aceh Timur	104	346	206	656	46%	1.434
Kota Langsa*	238	553	230	1.021	48%	2.134
Aceh Tamiang*	181	545	472	1.198	57%	2.086
Aceh Utara	134	453	732	1.319	60%	2.198
Kota Lhokseumawe*	124	601	319	1.045	48%	2.180
Bireuen	135	498	264	898	63%	1.429
Pidie	96	452	116	664	52%	1.277
Kota Banda Aceh	138	802	268	1.208	49%	2.479
Kota Sabang	1.171	1.637	1.061	3.870	43%	8.983
Western and Southern Aceh (average)						**2.804**
Aceh Barat	237	639	601	1.478	53%	2.804
Aceh Jaya*	289	870	1.918	3.077	54%	5.739
Nagan Raya*	203	656	606	1.464	55%	2.670
Simeulue	177	289	294	760	29%	2.653
Aceh Selatan	136	480	147	763	45%	1.704
Aceh Barat Daya*	235	649	507	1.392	53%	2.645
Aceh Singkil	183	421	211	815	38%	2.151
Aceh Hinterland (average)						**2.580**
Aceh Tengah	195	580	318	1.093	47%	2.314
Bener Meriah*	176	561	383	1.120	46%	2.423
Aceh Tenggara	128	443	243	814	41%	1.967
Gayo Lues*	147	589	504	1.241	34%	3.617
Median for Aceh	**176**	**549**	**306**	**1.069**		**2.189**
Average as % total	8%	22%	17%	47%		100%
Average cities	418	898	469	1.786	48%	3.944
Average original districts	151	468	299	918	48%	1.950
Average new districts	205	645	732	1.582	50%	3.196

Note: Derived from World Bank, Aceh public expenditure analysis update 2008, Jakarta, World Bank, 2008; tables C.8.
* Denotes new jurisdiction.

Appendix B: Table 1. Human Development Index (HDI)
By Province, 2008

Province	Life Expectancy (Years)	Adult Literacy Rate (%)	Means Years of Schooling (Years)	Adjusted Real per Capita Expenditure (Thousand Rupiah)	HDI	HDI Rank
	2008	2008	2008	2008	2008	2008
11. Nangroe Aceh D	68.5	95.9	8.6	559.1	67.1	29
12. Sumatera Utara	69.2	97.0	8.6	615.8	72.0	8
13. Sumatera Barat	69.0	96.6	8.3	620.0	71.9	9
14. Riau	71.1	97.8	8.6	618.9	73.4	4
15. Jambi	68.8	95.3	7.7	623.4	71.3	13
16. Sumatera Selatan	69.2	97.0	7.7	619.0	71.6	10
17. Bengkulu	69.4	94.5	8.1	621.1	71.5	11
18. Lampung	69.0	93.5	7.3	623.6	70.7	17
19. Bangka Belitung	68.6	95.3	7.5	628.3	71.3	12
21. Kepulauan Riau	69.7	94.8	8.2	625.0	72.1	7
31. DKI Jakarta	72.9	98.7	10.7	625.8	76.7	1
32. Jawa Barat	67.8	95.5	7.5	625.9	70.8	16
33. Jawa Tengah	71.1	89.1	7.0	627.6	71.0	15
34. D. I. Yogyakarta	73.1	89.5	8.9	630.3	73.8	3
35. Jawa Timur	69.1	87.5	7.1	626.3	69.5	20
36. Banten	64.6	95.2	8.2	628.7	69.7	19
51. Bali	70.6	87.1	7.9	627.9	71.0	14
52. Nusa Tenggara Barat	61.5	79.4	6.8	623.0	63.0	32
53. Nusa Tenggara Timur	67.0	87.3	6.6	586.7	64.9	31
61. Kalimantan Barat	66.3	88.3	6.8	615.2	67.1	30
62. Kalimantan Tengah	71.0	97.2	8.0	619.8	72.9	6
63. Kalimantan Selatan	63.1	95.0	7.5	625.5	68.0	25
64. Kalimantan Timur	70.8	96.2	8.9	620.5	73.2	5
71. Sulawesi Utara	72.0	99.1	9.0	620.0	74.6	2
72. Sulawesi Tengah	66.1	95.3	8.0	615.7	69.4	21
73. Sulawesi Selatan	69.6	86.0	7.2	621.3	69.1	22
74. Sulawesi Tenggara	67.4	90.9	7.9	610.1	68.6	23
75. Gorontalo	66.2	95.2	7.1	614.1	68.6	24
76. Sulawesi Barat [1)]	67.4	87.0	7.1	614.7	67.5	28
81. Maluku	67.0	97.3	8.6	609.8	70.4	18
82. Maluku Utara	65.4	95.5	8.6	592.5	67.7	27
91. Papua Barat [2)]	67.9	90.8	7.9	595.7	67.8	26
94. Papua	68.1	73.0	6.4	503.2	55.8	33
Indonesia	**69.0**	**92.1**	**7.6**	**634.4**	**71.5**	

Note:
1 Subdivided from South Sulawesi Province in 2004
2 Subdivided from Papua Province in 2001
- The number before each province is the official area code
Source: BPS Special Tabulation

Appendix B: Table 2. Gender-related Development Index (GDI) By Province, 2008

Province	Proportion of Population (% of Total)		Life Expectancy (Years)		Adult Literacy Rate (%)		Mean Years of Schooling (Years)		Wage Contribution (%)		GDI	GDI Rank
	F	M	F	M	F	M	F	M	F	M		
11. Nangroe Aceh D	50.3	49.7	70.5	66.6	94.2	97.6	8.2	9.0	32.2	67.8	61.4	27
12. Sumatera Utara	50.2	49.8	71.2	67.3	95.4	98.6	8.2	9.0	35.8	64.2	68.1	8
13. Sumatera Barat	50.7	49.3	71.0	67.1	95.4	98.0	8.2	8.4	37.8	62.2	68.7	4
14. Riau	47.3	52.7	73.1	69.2	96.5	99.0	8.3	8.9	21.4	78.6	60.1	30
15. Jambi	49.0	51.0	70.8	66.9	92.7	97.9	7.2	8.2	30.0	70.0	64.3	17
16. Sumatera Selatan	49.5	50.5	71.2	67.3	95.7	98.3	7.4	8.1	32.3	68	66.0	11
17. Bengkulu	49.1	50.9	71.4	67.5	92.1	96.9	7.7	8.4	36.4	63.6	68.4	5
18. Lampung	49.0	51.0	71.0	67.1	90.3	96.5	7.0	7.6	31.3	68.7	64.7	16
19. Bangka Belitung	47.2	52.8	70.6	66.7	93.1	97.3	7.1	7.8	23.7	76.3	60.1	29
21. Kepulauan Riau	51.2	48.8	71.7	67.8	93.2	96.4	8.2	8.2	31.9	68.1	65.2	14
31. DKI Jakarta	50.9	49.1	74.9	71.1	97.9	99.5	10.3	11.1	33.0	67.0	70.7	2
32. Jawa Barat	49.6	50.4	69.8	65.9	93.4	97.7	7.1	8.0	29.0	71.0	62.7	24
33. Jawa Tengah	50.4	49.6	73.1	69.2	84.8	93.7	6.5	7.5	34.2	65.8	65.9	12
34. D. I. Yogyakarta	49.8	50.2	75.1	71.3	84.7	94.5	8.3	9.5	40.4	59.6	72.0	1
35. Jawa Timur	50.4	49.6	71.1	67.2	83.0	92.5	6.5	7.7	35.0	65.0	65.0	15
36. Banten	49.5	50.5	66.6	62.7	92.8	97.6	7.7	8.7	32.6	67.4	64.2	18
51. Bali	49.6	50.4	72.6	68.7	81.4	92.8	7.2	8.7	37.7	62.3	68.2	7
52. Nusa Tenggara Barat	52.2	47.8	63.4	59.7	73.0	87.0	6.2	7.5	35.2	64.8	57.5	32
53. Nusa Tenggara Timur	50.2	49.8	69.0	65.1	85.3	89.4	6.4	6.9	42.7	57.3	63.9	19
61. Kalimantan Barat	49.5	50.5	68.3	64.4	83.3	93.2	6.4	7.2	36.0	64.0	63.5	20
62. Kalimantan Tengah	47.8	52.2	73.0	69.1	96.0	98.2	7.7	8.3	32.4	67.6	68.3	6
63. Kalimantan Selatan	49.9	50.1	65.0	61.3	92.6	97.4	7.1	8.0	33.1	66.9	62.7	25
64. Kalimantan Timur	47.7	52.3	72.8	68.9	94.6	97.7	8.4	9.3	21.2	78.8	59.3	31
71. Sulawesi Utara	49.1	50.9	74.0	70.1	98.9	99.4	9.0	8.9	31.9	68.1	69.0	3
72. Sulawesi Tengah	49.1	50.9	68.1	64.2	93.5	97.0	7.7	8.2	35.9	64.1	66.1	10
73. Sulawesi Selatan	51.8	48.2	71.6	67.7	83.5	88.7	7.0	7.5	33.6	66.4	63.1	22
74. Sulawesi Tenggara	50.7	49.3	69.4	65.5	87.6	94.5	7.4	8.4	37.1	62.9	65.2	13
75. Gorontalo	49.4	50.6	68.2	64.3	94.9	95.4	7.3	6.8	31.9	68.1	62.9	23
76. Sulawesi Barat [1)]	49.4	50.6	69.4	65.5	84.1	90.0	6.7	7.4	34.6	65.4	63.4	21
81. Maluku	49.3	50.7	69.0	65.1	96.3	98.3	8.4	8.9	34.3	65.7	66.2	9
82. Maluku Utara	49.4	50.6	67.4	63.5	93.4	97.6	8.3	8.9	32.5	67.5	62.6	26
91. Papua Barat [2)]	47.5	52.5	69.9	66.0	88.3	93.0	7.4	8.4	28.4	71.6	60.9	28
94. Papua	48.1	51.9	70.1	66.2	67.1	78.4	5.5	7.2	36.2	63.8	53.4	33
Indonesia	**49.9**	**50.1**	**71.0**	**67.1**	**89.1**	**95.3**	**7.2**	**8.1**	**33.0**	**67.0**	**65.9**	

Note:
1 Subdivided from South Sulawesi Province in 2004
2 Subdivided from Papua Province in 2001
- The number before each province is the official area code
Source: BPS Special Tabulation

Appendix B: Table 3. Gender Empowerment Measure (GEM)
By Province, 2008

Province	Women in the Parliament (% of Total)	Females in Senior Official, Managerial, and Technical Staff Positions (% of Total)	Females in the Labour Force (% of Total)	Average Non-Agricultural Wage (Rupiah)		GEM	GEM Rank
	2008	2008	2008	F	M	2008	2008
11. Nangroe Aceh D	5.8	49.6	35.7	1 221 603	1 427 396	50.2	29
12. Sumatera Utara	7.1	43.0	40.8	931 833	1 154 245	56.9	20
13. Sumatera Barat	9.1	49.7	39.8	1 121 399	1 220 368	60.9	14
14. Riau	7.3	42.5	28.4	1 075 122	1 566 738	48.6	31
15. Jambi	13.3	42.5	35.2	933 816	1 182 983	61.4	11
16. Sumatera Selatan	18.5	49.5	38.5	960 468	1 262 305	67.7	3
17. Bengkulu	20.5	45.2	39.0	1 153 219	1 288 118	71.8	1
18. Lampung	20.0	35.5	35.8	757 904	927 724	66.3	4
19. Bangka Belitung	2.9	40.4	29.9	866 195	1 192 230	45.6	32
21. Kepulauan Riau	6.7	30.2	37.1	1 478 773	1 864 917	49.3	30
31. DKI Jakarta	14.7	35.4	40.2	1 320 438	1 796 428	61.0	13
32. Jawa Barat	10.0	32.7	33.5	929 919	1 147 989	53.6	27
33. Jawa Tengah	15.0	44.6	41.1	650 466	875 415	65.2	6
34. D. I. Yogyakarta	12.7	40.8	43.8	912 222	1 049 631	65.9	5
35. Jawa Timur	14.9	42.9	40.0	771 776	953 242	65.2	7
36. Banten	6.7	36.6	35.4	1 107 859	1 254 907	54.4	26
51. Bali	7.3	34.7	44.8	972 173	1 305 557	57.0	19
52. Nusa Tenggara Barat	9.1	38.6	44.0	678 251	981 039	56.6	21
53. Nusa Tenggara Timur	10.9	40.0	42.8	1 185 166	1 189 415	61.1	12
61. Kalimantan Barat	5.5	41.2	41.0	1 034 076	1 278 576	55.3	24
62. Kalimantan Tengah	20.0	41.6	35.3	1 110 168	1 267 031	69.7	2
63. Kalimantan Selatan	10.9	41.1	40.0	893 163	1 203 722	60.1	16
64. Kalimantan Timur	22.2	33.4	30.7	1 181 421	1 943 835	59.6	17
71. Sulawesi Utara	12.8	46.0	31.1	1 238 793	1 193 590	62.4	9
72. Sulawesi Tengah	13.3	45.0	36.8	1 081 556	1 124 339	64.9	8
73. Sulawesi Selatan	8.0	44.1	37.7	1 038 635	1 241 938	56.1	22
74. Sulawesi Tenggara	8.9	38.4	41.6	987 719	1 192 334	57.8	18
75. Gorontalo	11.4	48.8	32.7	866 772	898 006	60.5	15
76. Sulawesi Barat [1)]	11.4	48.5	37.4	1 085 119	1 223 787	62.2	10
81. Maluku	4.4	36.7	36.4	1 211 524	1 325 010	51.7	28
82. Maluku Utara	1.0	36.0	38.0	1 065 906	1 354 556	44.7	33
91. Papua Barat [2)]	11.8	32.5	34.8	1 327 453	1 790 456	55.2	25
94. Papua	14.3	39.8	41.0	1 822 289	2 233 949	55.8	23
Indonesia	**11.3**	**39.8**	**38.2**	**934 773**	**1 174 597**	**60.5**	

Note:
1 Subdivided from South Sulawesi Province in 2004
2. Subdivided from Papua Province in 2001
- The number before each province is the official area code
Source: BPS Special Tabulation

Appendix B: Table 4. Human Poverty Index (HPI)
By Province, 2008

Province	People Not Expected to Survive Age 40 (%)	Adult Illiteracy Rate (%)	Population Without Access to Safe Water (%)	Population Without Access to Health Facilities (%)	Under Nourished Children Under Age Five (*=NHCS, **=WHO Standards) (%)		HPI (*=NHCS, **=WHO Standards)		HPI Rank (*=NHCS, **=WHO Standards)	
	2008	2008	2008	2008	2008*	2008**	2008*	2008**	2008*	2008**
11. Nangroe Aceh D	8.8	4.1	25.7	12.9	31.5	26.5	16.5	15.4	17	15
12. Sumatera Utara	8.1	3.0	23.7	20.1	28.4	22.7	16.9	15.6	20	17
13. Sumatera Barat	8.3	3.4	26.1	4.9	25.6	20.2	13.5	12.3	10	7
14. Riau	6.3	2.2	39.6	15.3	25.8	21.4	18.7	17.7	24	22
15. Jambi	8.5	4.7	40.7	9.3	24.1	18.9	17.4	16.2	21	18
16. Sumatera Selatan	8.1	3.0	34.4	24.7	21.6	18.2	18.8	18.0	25	24
17. Bengkulu	7.9	5.5	52.0	10.4	20.7	16.7	19.4	18.5	26	26
18. Lampung	8.3	6.5	32.3	13.0	22.5	17.5	16.0	15.0	14	13
19. Bangka Belitung	8.7	4.7	20.4	15.7	24.8	18.3	14.5	13.1	12	11
21. Kepulauan Riau	7.6	5.2	22.3	7.4	16.4	12.4	11.2	10.4	5	6
31. DKI Jakarta	4.7	1.3	0.9	0.0	17.0	12.9	4.7	4.1	1	1
32. Jawa Barat	9.5	4.5	14.1	6.1	20.6	15.0	10.5	9.5	3	3
33. Jawa Tengah	6.3	10.9	12.1	5.4	20.7	16.0	10.6	9.9	4	4
34. D. I. Yogyakarta	4.6	10.5	13.3	0.0	14.9	10.9	9.1	8.4	2	2
35. Jawa Timur	8.2	12.5	8.2	6.0	21.9	17.4	11.3	10.7	7	5
36. Banten	13.3	4.8	12.9	11.5	22.3	16.6	12.8	11.9	9	8
51. Bali	6.7	12.9	10.8	1.1	15.4	11.4	11.3	9.9	6	10
52. Nusa Tenggara Barat	17.1	20.6	15.0	3.2	31.6	24.8	16.9	17.7	19	21
53. Nusa Tenggara Timur	10.5	12.7	33.7	20.7	39.6	33.6	22.5	21.2	29	28
61. Kalimantan Barat	11.3	11.7	75.5	29.2	28.0	22.5	31.0	29.8	32	32
62. Kalimantan Tengah	6.4	2.8	51.1	23.8	28.2	24.2	23.9	23.0	30	29
63. Kalimantan Selatan	15.1	5.0	36.3	13.9	33.0	26.6	20.3	18.9	27	20
64. Kalimantan Timur	6.6	3.8	27.1	18.7	23.9	19.3	16.3	15.2	16	19
71. Sulawesi Utara	5.5	0.9	13.9	14.0	21.2	15.8	11.5	10.3	8	9
72. Sulawesi Tengah	11.5	4.7	21.0	13.5	32.4	27.6	16.2	15.2	15	14
73. Sulawesi Selatan	7.7	14.0	22.4	9.7	23.4	17.6	14.8	13.7	13	16
74. Sulawesi Tenggara	10.0	9.1	21.6	18.5	28.8	22.7	16.7	15.4	18	23
75. Gorontalo	11.4	4.8	16.3	6.2	32.5	25.4	13.7	12.4	11	12
76. Sulawesi Barat [1)]	10.0	13.0	31.1	11.6	31.1	25.4	18.2	17.1	23	25
81. Maluku	10.5	2.7	20.4	24.4	31.9	27.8	18.1	17.2	22	27
82. Maluku Utara	12.3	4.5	31.6	34.1	27.7	22.8	22.0	20.9	28	30
91. Papua Barat [2)]	9.4	9.2	55.5	37.8	28.1	23.2	28.3	27.2	31	31
94. Papua	9.2	27.0	59.3	50.1	26.2	21.2	33.0	32.5	33	33
Indonesia	**8.3**	**7.8**	**19.4**	**14.7**	**23.5**	**18.4**	**14.0**	**12.9**		

Note:
1 Subdivided from South Sulawesi Province in 2004
2. Subdivided from Papua Province in 2001
- The number before each province is the official area code
Source: BPS Special Tabulation

Appendix B: Table 5. Human Development Index (HDI)
By District, 2008

Province District	Life Expectancy (Years)	Adult Literacy Rate (%)	Means Years of Schooling (Years)	Adjusted Real per Capita Expen-diture (Thousand Rupiah)	HDI	HDI Rank
	2008	2008	2008	2008	2008	2008
11. Nangroe Aceh D	**68.5**	**95.9**	**8.6**	**559.1**	**67.1**	**29**
01. Simeulue	62.8	98.0	8.5	568.3	65.2	401
02. Aceh Singkil	64.5	90.4	8.3	572.5	64.5	415
03. Aceh Selatan	66.7	93.4	8.3	579.3	67.0	361
04. Aceh Tenggara	69.2	97.1	9.4	569.5	69.2	264
05. Aceh Timur	69.5	97.1	8.4	576.4	69.2	265
06. Aceh Tengah	69.4	97.7	9.2	578.6	70.1	214
07. Aceh Barat	69.8	92.8	8.3	574.9	68.2	313
08. Aceh Besar	70.5	96.2	9.9	573.9	70.5	193
09. Pidie	69.1	95.4	8.6	572.5	68.5	300
10. Bireuen	72.3	98.1	9.2	570.0	71.1	163
11. Aceh Utara	69.5	95.1	9.1	552.0	67.4	345
12. Aceh Barat Daya	66.5	95.7	7.5	557.9	65.1	402
13. Gayo Lues	66.8	83.5	8.7	553.5	63.2	424
14. Aceh Tamiang	68.2	97.7	8.4	562.1	67.5	341
15. Nagan Raya	69.4	88.4	7.4	566.2	65.7	391
16. Aceh Jaya	67.9	93.1	8.8	574.8	67.6	335
17. Bener Meriah	67.4	97.0	8.1	562.2	66.7	368
18. Pidie Jaya	69.0	93.5	7.6	574.3	67.4	344
71. Banda Aceh	70.2	99.0	12.0	573.0	72.4	99
72. Sabang	70.4	98.1	10.5	574.9	71.4	142
73. Langsa	70.1	98.6	10.0	578.6	71.3	148
74. Lhokseumawe	70.0	98.8	10.0	578.5	71.2	150
75. Subulussalam	65.5	90.7	7.6	554.4	63.3	420
Indonesia	**69.0**	**92.1**	**7.6**	**634.4**	**71.5**	

- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 6. Gender-related Development Index (GDI) By District, 2008

Province District	Proportion of Population (% of Total)		Life Expectancy (Years)		Adult Literacy Rate (%)		Mean Years of Schooling (Years)		Wage Contribution (%)		GDI	GDI Rank
	F	M	F	M	F	M	F	M	F	M		
11. Nangroe Aceh D	**50.3**	**49.7**	**70.5**	**66.6**	**94.2**	**97.6**	**8.2**	**9.0**	**32.2**	**67.8**	**61.4**	**27**
01. Simeulue	47.9	52.1	64.8	61.0	97.1	99.0	8.0	9.1	24.3	75.7	54.6	419
02. Aceh Singkil	49.8	50.2	66.4	62.6	85.6	95.1	7.6	9.0	24.6	75.4	55.3	413
03. Aceh Selatan	50.2	49.8	68.7	64.8	91.2	95.9	7.9	8.7	32.3	67.7	60.7	338
04. Aceh Tenggara	50.2	49.8	71.2	67.2	95.0	99.4	8.8	10.0	34.4	65.6	63.0	264
05. Aceh Timur	50.0	50.0	71.6	67.6	96.0	98.3	8.3	8.5	34.1	65.9	64.9	191
06. Aceh Tengah	51.2	48.8	71.5	67.5	97.0	98.4	9.1	9.3	40.7	59.3	67.5	106
07. Aceh Barat	47.9	52.1	71.8	67.9	89.9	95.9	7.8	8.8	25.0	75.0	58.3	384
08. Aceh Besar	50.8	49.2	72.6	68.6	95.5	96.9	9.6	10.1	32.7	67.3	64.6	214
09. Pidie	52.4	47.6	71.1	67.2	92.9	98.1	8.2	9.1	34.6	65.4	64.0	235
10. Bireuen	50.2	49.8	74.3	70.4	97.4	98.9	9.2	9.3	35.0	65.0	67.3	116
11. Aceh Utara	51.2	48.8	71.6	67.6	93.7	96.6	9.1	9.1	33.3	66.7	61.3	318
12. Aceh Barat Daya	51.0	49.0	68.5	64.6	93.4	98.1	7.2	7.8	30.8	69.2	58.3	386
13. Gayo Lues	49.5	50.5	68.9	64.9	76.1	90.9	8.3	9.1	38.8	61.2	60.9	331
14. Aceh Tamiang	49.6	50.4	70.2	66.3	96.8	98.6	8.1	8.7	26.6	73.4	57.8	392
15. Nagan Raya	49.8	50.2	71.5	67.5	84.4	92.6	6.8	8.0	35.9	64.1	61.7	307
16. Aceh Jaya	47.3	52.7	70.0	66.0	89.8	96.5	8.8	8.8	25.6	74.4	58.8	375
17. Bener Meriah	49.1	50.9	69.4	65.5	95.3	98.8	7.8	8.4	42.5	57.5	65.6	163
18. Pidie Jaya	50.9	49.1	71.1	67.1	91.0	96.6	7.2	8.1	28.8	71.2	57.9	391
71. Banda Aceh	48.9	51.1	72.3	68.3	98.6	99.3	11.7	12.3	29.7	70.3	65.7	157
72. Sabang	50.8	49.2	72.4	68.4	97.3	98.9	10.4	10.7	29.3	70.7	63.1	261
73. Langsa	49.5	50.5	72.2	68.2	97.8	99.3	9.8	10.3	24.8	75.2	62.1	294
74. Lhokseumawe	50.0	50.0	72.0	68.1	98.6	99.0	9.7	10.3	22.2	77.8	57.2	400
75. Subulussalam	49.4	50.6	67.5	63.7	84.4	97.2	7.0	8.3	32.1	67.9	57.6	395
Indonesia	**49.9**	**50.1**	**71.0**	**67.1**	**89.1**	**95.3**	**7.2**	**8.1**	**33.0**	**67.0**	**64.8**	**65.9**

- The number before province and each district is the official area code

Source: BPS Special Tabulation

Appendix B: Table 7. Gender Empowerment Measure (GEM)
By District, 2008

Province District	Women in the Parliament (% of Total)	Females in Senior Official, Managerial, and Technical Staff Positions (% of Total)	Females in the Labour Force (% of Total)	Female Population (% of Total)	Average Non-Agricultural Wage (Rupiah)		GEM	GEM Rank
					F	M		
11. Nangroe Aceh D	**5.8**	**49.6**	**35.7**	**50.3**	**1.221.603**	**1.427.396**	**50.2**	**29**
01. Simeulue	10.0	45.0	27.9	47.9	967.979	1.164.714	51.0	318
02. Aceh Singkil	12.0	41.1	29.7	49.8	1.095.169	1.413.832	53.6	260
03. Aceh Selatan	4.0	50.8	37.0	50.2	1.013.935	1.247.553	49.0	353
04. Aceh Tenggara	12.0	40.8	33.8	50.2	1.555.393	1.514.889	56.1	197
05. Aceh Timur	6.7	55.2	33.7	50.0	1.105.230	1.084.673	53.6	259
06. Aceh Tengah	1.0	59.3	43.4	51.2	1.110.296	1.244.278	47.9	371
07. Aceh Barat	6.7	32.7	30.0	47.9	1.234.798	1.582.444	45.0	403
08. Aceh Besar	1.0	53.3	33.0	50.8	1.499.221	1.515.506	45.1	401
09. Pidie	9.1	55.2	42.1	52.4	1.092.974	1.500.082	55.6	211
10. Bireuen	8.6	60.3	39.6	50.2	926.756	1.125.980	54.7	231
11. Aceh Utara	12.5	42.0	33.9	51.2	1.111.725	1.141.370	55.4	217
12. Aceh Barat Daya	1.0	51.0	35.8	51.0	931.736	1.168.513	43.0	418
13. Gayo Lues	1.0	42.0	39.3	49.5	1.468.570	1.497.807	46.7	390
14. Aceh Tamiang	6.7	53.1	33.0	49.6	917.593	1.244.815	47.4	381
15. Nagan Raya	4.0	65.3	39.8	49.8	1.482.778	1.752.452	47.2	384
16. Aceh Jaya	15.0	50.6	29.2	47.3	1.248.056	1.490.324	58.6	142
17. Bener Meriah	38.1	52.4	42.4	49.1	1.396.903	1.390.212	79.3	1
18. Pidie Jaya	9.1	54.5	43.1	50.9	750.086	1.406.204	50.9	320
71. Banda Aceh	13.3	49.6	32.1	48.9	1.843.931	2.061.905	58.7	141
72. Sabang	1.0	51.5	30.7	50.8	1.453.601	1.554.407	42.9	419
73. Langsa	16.7	44.3	28.8	49.5	815.799	1.001.424	59.2	131
74. Lhokseumawe	1.0	29.1	28.8	50.0	1.242.094	1.758.778	31.6	446
75. Subulussalam	12.0	49.6	31.2	49.4	1.016.237	971.742	56.9	178
Indonesia	**11.3**	**39.8**	**38.2**	**49.9**	**934.773**	**1.174.597**	**60.5**	

- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 8. Human Poverty Index (HPI)
By District,2008

Province District	People Not Expected to Survive Age 40 (%)	Adult Illiteracy Rate (%)	Population Without Access to Safe Water (%)	Population Without Access to Health Facilities (%)	Under Nourished Children Under Age Five (*=NHCS, **=WHO Standards) (%)		HPI (*=NHCS, **=WHO Standards)		HPI Rank (*=NHCS, **=WHO Standards)	
	2008	2008	2008	2008	2008*	2008**	2008*	2008**	2008*	2008**
11. Nangroe Aceh D	**8.8**	**4.1**	**25.7**	**12.9**	**31.5**	**26.5**	**16.5**	**15.4**	**17**	**15**
01. Simeulue	15.4	2.0	71.7	1.4	47.0	39.7	28.3	26.7	410	388
02. Aceh Singkil	13.5	9.6	41.6	12.8	25.7	21.0	19.6	18.6	304	300
03. Aceh Selatan	10.8	6.6	20.3	12.5	33.8	24.9	16.1	14.2	236	182
04. Aceh Tenggara	8.2	2.9	30.5	7.0	48.7	48.7	20.1	20.1	321	276
05. Aceh Timur	7.8	2.9	42.0	21.9	21.8	21.7	19.9	19.9	318	335
06. Aceh Tengah	7.9	2.3	40.6	13.3	19.8	15.1	17.2	16.2	260	253
07. Aceh Barat	7.5	7.2	34.6	22.8	34.2	29.9	21.4	20.4	342	281
08. Aceh Besar	6.8	3.8	16.0	7.1	24.1	20.0	11.2	10.4	131	124
09. Pidie	8.2	4.6	17.2	2.6	30.1	23.6	12.1	10.7	145	71
10. Bireuen	5.3	1.9	16.3	11.0	38.7	32.8	15.3	14.0	217	162
11. Aceh Utara	7.8	4.9	33.3	18.3	38.8	35.5	21.0	20.3	335	355
12. Aceh Barat Daya	11.1	4.3	31.6	2.3	43.2	39.1	18.3	17.4	289	196
13. Gayo Lues	10.7	16.5	50.6	24.3	30.3	19.5	25.4	23.1	387	358
14. Aceh Tamiang	9.1	2.3	30.3	18.8	26.5	21.4	17.8	16.6	272	301
15. Nagan Raya	7.9	11.6	31.4	15.2	40.4	36.1	20.7	19.7	332	258
16. Aceh Jaya	9.4	6.9	17.0	25.1	35.2	29.0	18.3	16.9	287	246
17. Bener Meriah	10.0	3.0	38.3	22.4	24.5	13.7	20.0	17.6	320	265
18. Pidie Jaya	8.3	6.5	23.1	5.4	30.1		14.0	10.8	182	100
71. Banda Aceh	7.1	1.0	1.1	0.0	21.0	15.5	6.3	5.6	32	36
72. Sabang	7.0	1.9	2.6	5.6	22.8	14.6	7.8	6.4	60	31
73. Langsa	7.2	1.4	5.9	0.0	31.9	27.1	9.3	8.3	89	55
74. Lhokseumawe	7.3	1.2	1.9	4.4	28.8	24.0	8.7	7.8	75	78
75. Subulussalam	12.2	9.3	55.5	31.1	25.7		26.4	30.3	398	379
Indonesia	**8.3**	**7.8**	**19.4**	**14.7**	**23.5**	**18.4**	**14.0**	**12.9**		

- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 9. Health conditions
By District, 2008

Province District	Infant Mortality Rate (per 1.000)	Population with Health Problem (%)	Morbidity Rate (%)	Average Duration of Illness (Days)	Population Self-Medicating (%)	Birth Delivery Assisted by Medical Personnel (%)
11. Nangroe Aceh D	**34.1**	**36.6**	**21.5**	**5.4**	**67.1**	**83.1**
01. Simeulue	57.6	24.7	15.9	5.1	89.2	56.4
02. Aceh Singkil	50.7	31.3	16.7	5.9	72.1	69.5
03. Aceh Selatan	41.3	37.5	25.6	7.7	77.5	68.0
04. Aceh Tenggara	31.6	25.7	17.7	6.2	77.8	74.5
05. Aceh Timur	30.3	36.6	26.8	3.9	69.3	82.7
06. Aceh Tengah	30.7	37.6	27.3	5.2	75.4	87.6
07. Aceh Barat	29.3	32.6	22.1	6.2	71.1	59.9
08. Aceh Besar	26.6	38.2	13.8	6.5	44.3	91.4
09. Pidie	31.8	43.2	21.0	5.9	63.6	92.8
10. Bireuen	20.9	43.2	28.4	4.5	72.3	83.0
11. Aceh Utara	30.3	40.8	21.3	4.9	59.6	79.1
12. Aceh Barat Daya	42.2	31.6	24.9	7.0	73.2	72.6
13. Gayo Lues	40.7	38.1	16.8	6.9	76.9	54.8
14. Aceh Tamiang	35.2	34.5	19.6	5.1	66.4	87.9
15. Nagan Raya	30.7	31.8	21.9	6.2	79.3	81.6
16. Aceh Jaya	36.2	41.0	26.6	4.3	66.5	72.8
17. Bener Meriah	38.3	44.7	29.4	5.8	80.3	90.9
18. Pidie Jaya	32.1	42.3	26.2	5.5	51.4	87.3
71. Banda Aceh	27.7	24.6	13.9	6.3	56.1	100.0
72. Sabang	27.2	20.9	8.6	6.7	65.8	94.6
73. Langsa	28.0	31.2	16.4	5.7	77.5	96.4
74. Lhokseumawe	28.5	41.8	21.8	3.3	71.3	96.3
75. Subulussalam	46.2	33.5	19.3	4.7	79.1	65.2
Indonesia	**32.2**	**33.3**	**17.2**	**6.1**	**65.5**	**75.2**

- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 10. School Attendance by District, 2008

Province District	School Participation Rate				School Drop Out Rate		
	Age 7-12	Age 13-15	Age 16-18	Age 19-24	Age 7-15	Age 16-18	Age 19-24
11. Nangroe Aceh D	**99.0**	**94.1**	**72.4**	**22.4**	**1.0**	**6.1**	**13.6**
01. Simeulue	98.7	93.9	83.3	12.6	0.9	3.4	20.5
02. Aceh Singkil	98.9	93.0	69.0	13.6	1.0	9.4	16.8
03. Aceh Selatan	99.4	97.4	74.4	17.1	0.4	5.1	8.8
04. Aceh Tenggara	99.4	96.6	69.6	16.1	1.0	10.4	9.0
05. Aceh Timur	98.9	89.3	58.9	14.6	0.9	8.5	11.8
06. Aceh Tengah	99.2	98.5	71.5	14.0	0.0	4.6	20.1
07. Aceh Barat	98.5	95.2	78.2	15.8	1.9	3.8	21.9
08. Aceh Besar	99.1	94.4	76.8	30.5	1.2	2.9	8.8
09. Pidie	98.8	97.1	72.0	22.0	0.8	4.7	7.2
10. Bireuen	99.3	92.5	74.6	33.8	1.5	4.8	7.0
11. Aceh Utara	99.5	90.4	70.5	13.7	1.2	6.7	20.5
12. Aceh Barat Daya	98.9	95.2	72.7	20.8	1.2	2.9	21.4
13. Gayo Lues	97.5	88.8	61.4	14.1	2.9	15.0	23.4
14. Aceh Tamiang	99.2	93.6	64.7	13.9	0.7	9.5	10.4
15. Nagan Raya	99.0	92.9	79.5	17.5	1.4	2.2	12.4
16. Aceh Jaya	97.3	93.8	62.1	8.3	1.3	9.3	9.9
17. Bener Meriah	99.4	97.3	75.7	18.9	0.2	3.5	8.6
18. Pidie Jaya	98.9	98.2	68.9	14.2	0.7	11.6	11.7
71. Banda Aceh	98.7	97.7	86.8	42.0	0.8	0.0	19.0
72. Sabang	98.9	94.6	70.4	9.3	1.6	4.5	15.0
73. Langsa	99.0	94.3	76.2	27.4	1.0	5.1	12.7
74. Lhokseumawe	99.4	95.2	79.6	31.8	1.1	5.6	5.1
75. Subulussalam	97.6	91.6	73.3	15.9	2.1	19.0	38.3
Indonesia	**97.8**	**84.4**	**54.7**	**12.4**	**2.3**	**11.0**	**14.1**

- The number before province and each district is the official area code

Source: BPS Special Tabulation

Appendix B: Table 11. Housing condition
By District, 2008

Province District	Households with Access to Safe Water (%)		Households with Dirt Floor (%)	Households without Access to Sanitation (%)
	2008 *)	2008 **)	2008	2008
11. Nangroe Aceh D	**41.2**	**73.4**	**10.6**	**36.3**
01. Simeulue	11.9	26.0	4.4	43.1
02. Aceh Singkil	42.3	56.0	8.4	18.3
03. Aceh Selatan	27.7	79.6	5.5	48.9
04. Aceh Tenggara	24.9	70.3	9.0	56.6
05. Aceh Timur	30.4	58.1	21.1	30.4
06. Aceh Tengah	40.7	58.5	13.4	33.2
07. Aceh Barat	29.3	62.2	8.5	51.6
08. Aceh Besar	53.3	83.4	3.7	24.4
09. Aceh Besar	28.3	81.2	7.7	70.7
10. Bireuen	37.1	83.2	9.2	22.4
11. Aceh Utara	29.3	66.3	20.2	42.1
12. Aceh Barat Daya	31.0	68.6	6.6	66.2
13. Gayo Lues	35.8	47.9	6.7	73.8
14. Aceh Tamiang	51.7	69.8	12.4	9.0
15. Nagan Raya	23.5	67.2	14.6	47.9
16. Aceh Jaya	42.8	82.1	8.9	35.4
17. Bener Meriah	39.5	60.4	21.4	27.0
18. Pidie Jaya	38.8	76.1	13.4	65.6
71. Kota Banda Aceh	94.3	98.9	1.5	1.5
72. Kota Sabang	89.9	97.0	3.9	22.5
73. Kota Langsa	65.7	93.9	3.9	8.9
74. Kota Lhokseumawe	78.5	97.2	6.7	18.7
75. Sabulussalam	24.3	44.3	10.9	18.2
Indonesia	**54.1**	**79.8**	**13.0**	**26.1**

Note:
*) Access to clean water with distant control to the nearest septic tank
**) Access to clean water without distant control to the nearest septic tank
- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 12A. Economic performance
District, 2005-2007

Province District	Per Capita GRDP in 2005 (Thousand Rupiah)		Per Capita GRDP in 2006* (Thousand Rupiah)		Per Capita GRDP in 2007* (Thousand Rupiah)	
	With Oil and Gas	Without Oil and Gas	With Oil and Gas	Without Oil and Gas	With Oil and Gas	Without Oil and Gas
11. Nangroe Aceh D	**14.126.34**	**8.792.89**	**17.380.60**	**11.024.31**	**17.329.35**	**12.268.73**
01. Simeulue	3.410.98	3.410.98	3.671.36	3.671.36	4.063.97	4.063.97
02. Aceh Singkil	4.779.32	4.779.32	4.848.83	4.848.83	5.217.00	5.217.00
03. Aceh Selatan	7.786.01	7.786.01	8.436.24	8.436.24	8.857.37	8.857.37
04. Aceh Tenggara	3.841.49	3.841.49	4.367.06	4.367.06	4.664.72	4.664.72
05. Aceh Timur	18.461.01	6.205.80	25.782.92	6.726.57	29.706.48	7.285.43
06. Aceh Tengah	8.108.53	8.108.53	9.086.87	9.086.87	10.099.57	10.099.57
07. Aceh Barat	8.755.52	8.755.52	10.962.98	10.962.98	14.458.63	14.458.63
08. Aceh Besar	8.834.45	8.834.45	9.340.38	9.340.38	9.733.60	9.733.60
09. Pidie	4.822.50	4.822.50	5.083.89	5.083.89	5.299.03	5.299.03
10. Bireuen	7.352.31	7.352.31	7.903.44	7.903.44	8.786.41	8.786.41
11. Aceh Utara	21.955.79	6.218.07	29.237.52	6.881.28	23.786.78	7.552.44
12. Aceh Barat Daya	6.866.28	6.866.28	7.479.79	7.479.79	8.794.81	8.794.81
13. Gayo Lues	6.063.33	6.063.33	6.842.32	6.842.32	8.352.79	8.352.79
14. Aceh Tamiang	11.366.47	5.792.87	11.539.90	7.643.99	10.714.36	9.505.65
15. Nagan Raya	10.168.57	10.168.57	12.410.95	12.410.95	15.064.47	15.064.47
16. Aceh Jaya	5.914.32	5.914.32	6.999.34	6.999.34	7.538.90	7.538.90
17. Bener Meriah	7.990.87	7.990.87	8.633.77	8.633.77	9.294.69	9.294.69
18. Pidie Jaya	-	-	5.751.71	5.751.71	6.139.76	6.139.76
71. Banda Aceh	10.757.24	10.757.24	12.918.11	12.918.11	12.340.85	12.340.85
72. Sabang	6.948.82	6.948.82	7.523.36	7.523.36	8.310.19	8.310.19
73. Langsa	7.279.37	7.279.37	7.931.94	7.931.94	8.582.30	8.582.30
74. Lhokseumawe	15.207.41	15.207.41	16.037.35	16.037.35	17.839.30	17.839.30
75. Subulussalam	-	-	5.392.29	5.392.29	5.761.80	5.761.80
Indonesia	**2.774.281.10**	**2.458.234.30**	**3.339.479.60**	**2.967.303.10**	**3.957.403.90**	**3.540.950.10**

Note:
* preliminary figures
** very preliminary figures
\- The number before province and each district is the official area code
Source: BPS Special Tabulation

Appendix B: Table 12B. Economic performance
District, 2005-2007

Province District	Annual Growth in Real Per Capita GRDP			
	2005-2006		2006-2007	
	With Oil and Gas	Without Oil and Gas	With Oil and Gas	Without Oil and Gas
11. Nangroe Aceh D	**23.04**	**25.38**	**-0.29**	**11.29**
01. Simeulue	7.63	7.63	10.69	10.69
02. Aceh Singkil	1.45	1.45	7.59	7.59
03. Aceh Selatan	8.35	8.35	4.99	4.99
04. Aceh Tenggara	13.68	13.68	6.82	6.82
05. Aceh Timur	39.66	8.39	15.22	8.31
06. Aceh Tengah	12.07	12.07	11.14	11.14
07. Aceh Barat	25.21	25.21	31.89	31.89
08. Aceh Besar	5.73	5.73	4.21	4.21
09. Pidie	5.42	5.42	4.23	4.23
10. Bireuen	7.50	7.50	11.17	11.17
11. Aceh Utara	33.17	10.67	-18.64	9.75
12. Aceh Barat Daya	8.94	8.94	17.58	17.58
13. Gayo Lues	12.85	12.85	22.08	22.08
14. Aceh Tamiang	1.53	31.96	-7.15	24.35
15. Nagan Raya	22.05	22.05	21.38	21.38
16. Aceh Jaya	18.35	18.35	7.71	7.71
17. Bener Meriah	8.05	8.05	7.66	7.66
18. Pidie Jaya	-	-	6.75	6.75
71. Banda Aceh	20.09	20.09	-4.47	-4.47
72. Sabang	8.27	8.27	10.46	10.46
73. Langsa	8.96	8.96	8.20	8.20
74. Lhokseumawe	5.46	5.46	11.24	11.24
75. Subulussalam	-	-	6.85	6.85
Indonesia	**20.37**	**20.71**	**18.50**	**19.33**

Note:
- The number before province and each district is the official area code

Source: BPS Special Tabulation

Appendix B: Table 13. Labour force and poverty condition by District, 2008

Province District	Labour Force Partici-pation Rate (%)	Open Unemploy-ment (%)	Employee Working		Employment in Informal Sector (%)	Per Capita Expenditure		Poverty Line (Rupiah/ Capita/ Month)	Poverty	
			<14 Hours per Week (%)	<35 Hours per Week (%)		Total (Thousand Rupiah/ Week)	Food (% of Total)		Number of Poor People (Thousand)	Poverty Rate (%)
11. Nangroe Aceh D	**60.3**	**9.6**	**3.5**	**35.7**	**61.8**	**444.1**	**60.6**	**248.627**	**962.34**	**23.6**
01. Simeulue	54.9	8.6	3.0	35.7	61.8	439.5	66.5	253.123	20.57	26.5
02. Aceh Singkil	58.7	10.2	2.6	33.7	55.8	407.2	62.4	213.997	22.24	23.3
03. Aceh Selatan	60.9	8.8	6.2	37.4	60.2	380.8	63.3	203.761	38.82	19.4
04. Aceh Tenggara	54.3	9.6	3.4	43.3	77.7	323.5	69.4	165.925	30.89	18.5
05. Aceh Timur	61.4	11.7	1.4	32.1	61.3	403.4	62.5	256.739	76.22	24.1
06. Aceh Tengah	77.6	4.9	4.2	44.6	80.0	466.1	58.0	283.307	40.64	23.4
07. Aceh Barat	56.4	7.2	4.8	36.6	62.4	572.9	55.7	335.955	43.69	30.0
08. Aceh Besar	55.9	12.1	6.0	36.5	49.1	514.2	58.0	285.876	63.46	21.5
09. Pidie	62.5	7.9	2.5	33.9	67.5	420.5	71.5	277.688	101.77	28.1
10. Bireuen	61.1	7.5	4.7	36.5	65.6	380.2	64.0	214.801	79.09	23.3
11. Aceh Utara	55.0	14.0	3.0	36.4	62.3	338.1	66.8	218.970	135.70	27.6
12. Aceh Barat Daya	60.2	5.5	2.4	29.8	55.9	363.0	66.1	231.460	27.43	23.4
13. Gayo Lues	63.2	4.3	0.9	44.5	80.5	351.0	69.6	231.260	18.89	26.6
14. Aceh Tamiang	62.2	11.2	4.4	44.1	60.0	370.1	62.9	240.753	50.82	22.3
15. Nagan Raya	65.6	5.0	5.8	39.0	68.6	466.3	64.0	288.593	33.21	28.1
16. Aceh Jaya	59.4	10.4	3.2	23.1	55.9	470.3	66.5	215.382	17.24	23.9
17. Bener Meriah	72.2	3.4	1.7	42.4	84.7	444.2	64.8	272.217	31.28	29.2
18. Pidie Jaya	61.8	8.5	6.7	44.6	69.3	412.0	68.0	274.078	37.70	30.3
71. Banda Aceh	63.0	11.4	1.7	14.8	24.4	888.8	41.1	362.992	19.91	9.6
72. Sabang	61.8	11.4	1.6	24.7	48.8	652.1	60.1	310.697	7.14	25.7
73. Langsa	57.0	11.3	2.2	32.7	53.6	471.1	59.2	199.628	23.96	18.0
74. Lhokseumawe	52.3	14.4	1.4	28.6	54.3	418.7	57.3	194.884	23.94	15.9
75. Subulussalam	58.7	12.2	3.6	46.6	65.6	330.6	67.5	168.953	17.73	29.0
Indonesia	**67.2**	**8.4**	**4.2**	**30.3**	**61.3**	**436.6**	**52.5**	**195.678**	**34.543.00**	**15.2**

- The number before province and each district is the official area code

Source: BPS Special Tabulation

References

1 Quoted from Sejahtera and Suleeman, Inong Aceh Di Bentala Nusantara, 94. **xv**

2 Arnstein, Sherry R., 1969. A Ladder of Citizen Participation. **4**

3 For this report, the four indicators just mentioned were computed by the Central Bureau of Statistics (Badan Pusat Statistik), based on data collected from several sources. **5**

4 Aris Ananta, Lee Poh Onn, Aceh: A New Dawn (Singapore: Institute of Southeast Asian Studies, 2007), 55. **12**

5 The HDI for Aceh was recently revised downwards by BPS after recalculating components of the index, particularly adjusted real per capita expenditure. See chapter 1 for an explanation of the factors included in various indices. **14**

6 See Serambi Newspaper on 26 August 2010: "Aceh Peringkat Tujuh Termiskin". **16**

7 Cities in Aceh include: Banda Aceh, Lhokseumawe, Langsa, Sabang and Subulussalam. **17**

8 Sidney Jones, "Keeping the Peace: Security in Aceh", Accord, 20, 2008, 75. **22**

9 "The Multi stakeholder Review", Draft December 2009, p xv. **23**

10 World Bank (2009), "Aceh Growth Diagnostic", p18 **23**

11 Jakarta Post, 18 August 2008: "Reintegration after three years of the Helsinki accord". **23**

12 UNFPA, Gender-Based Violence in Aceh, Indonesia: A Case Study, October 2005. **24**

13 Data from the Aceh provincial department of roads and public works, 2010. **32**

14 Poverty Assessment Report (2008), p 45. **36**

15 Data on school participation rates are based on the proportion of children of different age groups that are attending school. Aceh, like the rest of Indonesia, has three levels of schools known as primary schools (SD/MI) for ages 7-12, junior secondary schools (SMP/MT) for ages 13-15 and senior secondary schools (SMA/MA/SMK) normally for ages 16-17. In practice, a student of a given age may be attending a school for a lower or higher age group. **36**

16 Education Policy, Strategic Plan and Financing Framework, NAD Strategic Plan (NADESP) 2007-11. January 2007. **39**

17 A highly successful example of such an arrangement may be found in the city of Santa Cruz in Bolivia, where the local chamber of commerce took over a derelict government training facility. **40**

18 AVSO and proMENTE, The Impact of Long-term Voluntary Service in Europe (2007), p. 33. **40**

19 The clear inverse relationship between these variables is one of the reasons for using life expectancy at birth as a key indicator in computing HDIs. **42**

20 This section is drawn from the recent UNDP report "Access to Justice in Aceh: Making the Transition to Sustainable Peace and Development", published by UNDP in October 2006. **48**

21 Source AJP Programme Final Progress Report 2010 **49**

22 Fadlullah Wilmot, "Shari'a in Aceh: panacea or blight?", Accord, 20, 2008, 77. **50**

23 International Crisis Group, "Islamic Law and Criminal Justice in Aceh", 31 July 2006, 9. **51**

24 Ibid. **51**

25 Wilmot, "Shari'a in Aceh: panacea or blight?", 79. **51**

26 Fitzpatrick, Women's Rights to Land and Housing in Tsunami-Affected Aceh, Indonesia, 2008, 23. **51**

27 UNORC, Tsunami Recovery Indicators Package (TRIP): The Third Report For Aceh and Nias, 36. **51**

28 Ibid. **51**

29 This data is taken from Asian Development Bank, Indonesia: Country Gender Assessment, July, 2006, 17. **52**

30 Quoted from Sejahtera and Suleeman, Inong Aceh Di Bentala Nusantara, 94. **52**

31 The term "adjusted" means raw data adjusted to account for inflation to arrive at constant prices that allow more accurate comparisons across time and regions. Inflation varies from province to province and was much higher in Aceh during the years immediately after the tsunami. **52**

32 "Aceh's Growth Diagnostic", World Bank, 2009 **59**

33 Differences arise from many factors. GRDP may be calculated in several ways, one of which includes household consumption, but also investment and public spending. Expenditures are used as a proxy for income,

since information from respondents on spending has proven to be more reliable than income. **60**

34 The Susunas figures shown in Table 4.5 differ from the adjusted per capita expenditure figures mentioned elsewhere in this report, since they are computed differently. **60**

35 These estimates of GRDP for smaller regions should be treated with caution, since they are notoriously difficult to compute for lack of detailed data. This makes it necessary to adopt assumptions that may not be valid or which introduce bias and errors. **61**

36 The labor force participation rate is the percentage of the working age population already employed or actively seeking employment. In Indonesia, the working age population comprises males and females between the ages of 15 and 60. **64**

37 Open unemployment is defined as the percentage of those employed and seeking work that claim not to have a job, in other words still seeking work. **64**

38 The definition of informal sector employment is less precise, based mainly on a negative list, generally taken to mean people who are not working in government, public agencies or licensed private businesses and other registered organisations. It includes most household enterprises such as farming, fishing and shopkeeping. **65**

39 The Multi-Stakeholder Review of Post-Conflict Programming" (MSR), draft, December 2009. **68**

40 World Bank, 2008. The Impact of the Conflict, the Tsunami and Reconstruction on Poverty in Aceh: Aceh Poverty Assessment 2008. Jakarta: The World Bank Office Jakarta. **70**

41 World Bank, 2009. Aceh Growth Diagnostic: Identifying the Binding Constraints to Growth in a Post-Conflict and Post-Disaster Environment. Jakarta: World Bank Office. **70**

42 A detailed account of the Coffee Forum and the APED project maybe found in UNDP, Aceh Partnerships for Economic Development (APED): Annual Progress Report 2009. Prepared for the Bureau for Crisis Prevention and Recovery (BCPR). February 2010. **72**

43 See the website for the Komisi Pemilihan Umum (KPU): http://mediacenter.kpu.go.id/hasil-pemilu-2009.html. **78**

44 The survey covered 5,698 villages, 221 sub-districts (kecamatan) and 18 districts (17 kabupaten and 1 kota). **79**

45 The Multi-Stakeholder Review of Post-Conflict Programming" (MSR), draft, December 2009. **80**

46 MSR 2009, p xvii. **80**

47 Julie van Dassen (July 2010) Support to Strengthen the Capacity and Role of Civil Society Organizations (CSOs) in the Recovery of Communities in Aceh and Nias: Lessons Learned Report. Prepared for UNDP Indonesia Crisis Prevention and Recovery Unit. **82**

48 Aaron Wildavsky with Naomi Caiden, 2001. Planning and Budgeting in Poor Countries. Wiley. **89**

49 Data used in this chapter comes from the World Bank, Aceh public expenditure analysis update 2008, Jakarta, World Bank, 2008. **90**

50 Some estimates of the total value of assistance received by Aceh for post-tsunami recovery and reconstruction go as high as US 9.0 billion, but the actual amount is more likely in the region of US 7.0 billion, of which US 2.1 billion (Rp 21 trillion) came from the central government during the period 2005 to 2009. **90**

51 Blane Lewis (2002). "Indonesia", Ch5 in Intergovernmental Fiscal Transfers in Asia: Current Practice and Challenges for the Future. Edited by: Paul Smoke and Yun-Hwan Kim. Manila: Asian Development Bank, December 2002. **90**

52 Source Qanun No. 11/2006 on Aceh Special Autonomy granted Aceh a new special autonomy fund — an additional transfer from central government to the province equivalent to 2 percent of national DAU for 15 years and 1 percent for the remaining five years — starting in 2008. This is in addition of 70 percent of the oil and gas revenue-sharing that Aceh has been receiving since 2002. Law No. 11/2006 has changed the definition of the SAF. The SAF is now referred to only for funds received from the 2 percent allocation of the national DAU funds. The name of the former "special autonomy fund" from additional revenue-sharing oil and gas has changed to "additional revenue-sharing oil and gas". **92**

53 Source Qanun No. 2/2008 about procedure for allocation of additional funds results for oil and gas and use special autonomy. According to the law, 60 percent of SAF will be allocated to finance district/city government development programs (e.g., education, health, and infrastructure) through a joint program between the province and district/city government, and the remaining 40 percent will be used to finance provincial programs (also through a joint program), which could potentially be implemented in district/city governments as well. **92**

54 Source Qanun No. 2/2008 Organizational Structure and Working Procedure of Government's Secretariat and DPRA's Secretariat of Nanggroe Aceh Darussalam Province. **92**

55 Hugh Emrys Evans (2007). Functions and fiscal resources for local councils in the Maldives. Government of the Maldives, Ministry of Atolls Development, Department of Planning and Coordination. **93**

56 As explained in the World Bank report referred to in this chapter, due to data constraints, the analysis on expenditures uses a mix of planned (9) and realized (11) APBD (district/city government budgets) for 2006 and planned APBD for 2007. **93**

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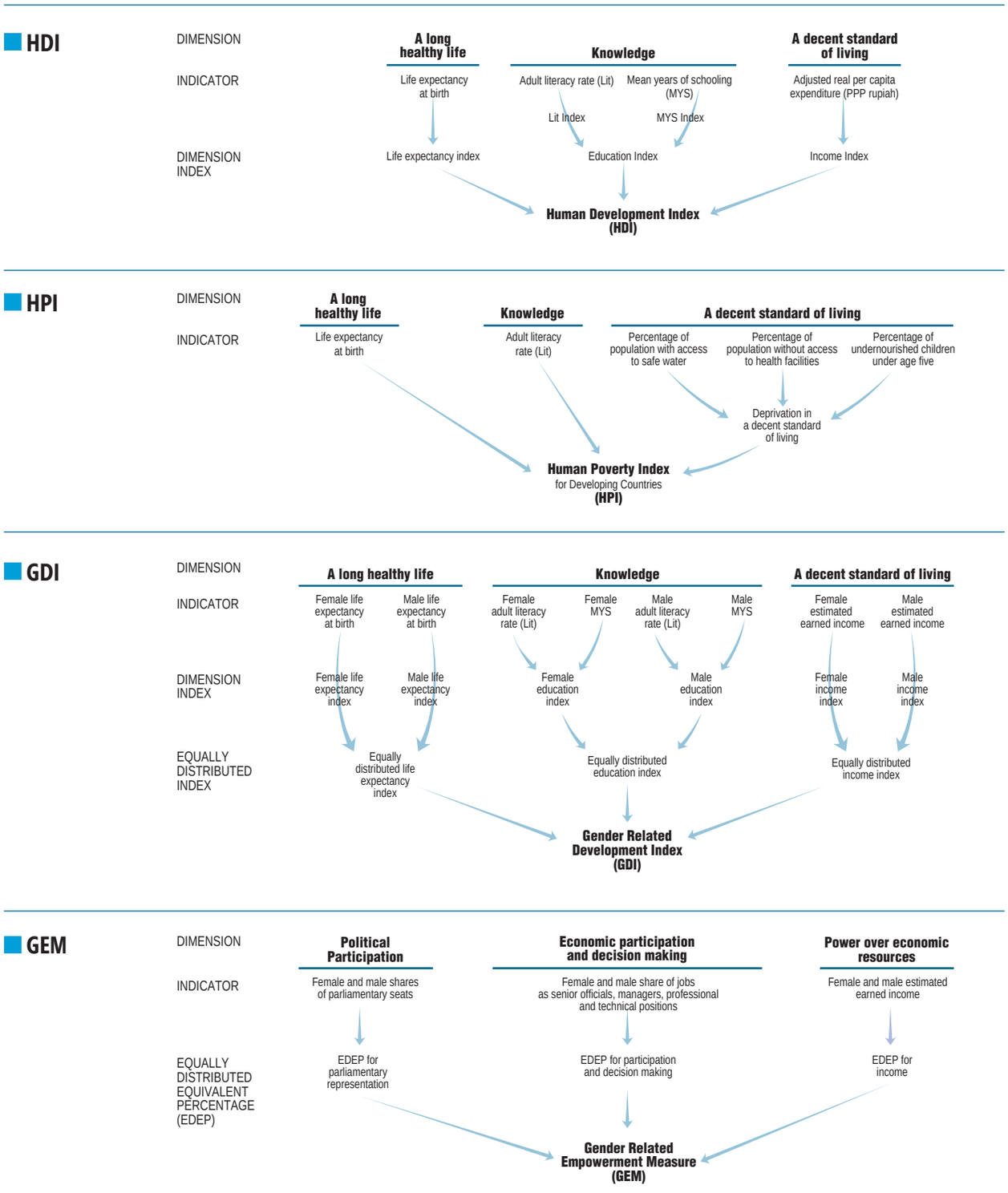
Calculating the Human Development Indices

The diagram here offers an overview of how the four human development indices used in the Indonesia Human Development Report are constructed, highlighting both their similarities and differences.



Computing the indices

The Human Development Index (HDI)

The HDI is based on three components: longevity, as measured by life expectancy at birth; educational attainment, as measured by the combination of adult literacy rate (two-thirds weight) and mean years of schooling (one-third weight); and standard of living, as measured by adjusted per capita expenditure (PPP Rupiah).

The index is defined as the simple average of the indices of those three components:

$$HDI = 1/3\,(\text{Index } X_1 + \text{Index } X_2 + \text{Index } X_3)$$

Where X_1, X_2 and X_3 are longevity, educational attainment and standard of living respectively.

For any component of the HDI, an individual index can be computed according to the general formula:

$$\text{Index } X_{(i,j)} = (X_{(i,j)} - X_{(i\text{-min})}) / (X_{(i\text{-max})} - X_{(i\text{-min})})$$

Where :

$X_{(i,j)}$: Indicator ith for region j
$X_{(i\text{-min})}$: Minimum value of Xi
$X_{(i\text{-max})}$: Maximum value of Xi

Longevity

Longevity is measured by using the indicator of life expectancy at birth (e_0). The e_0 presented in this report is based on the extrapolation of the e_0 figure based on end-1996 and end-1999 situation as the correspondence of the infant mortality rate (IMR) for the same period. For this publication, the estimation of IMR at provincial level is calculated based on data series from 1971 census, 1980 census, 1990 census, and the pooled data of 1995 survey between census (SUPAS) and 1996 socio-economic survey (SUSENAS). The numbers resulted from 2000 census also used to extrapolate e_0 and IMR of the year 2002. The calculation method follows the indirect technique based on two basic data - i.e. the average number of live births and the average number of children still living reported from each five-year class of mother ages between 15 - 49 years old. By applying this technique, there will be seven estimation points for each time reference from each data source. As a result there are 28 IMR estimations for all time references from which the estimation of IMR is calculated. It is done after the omission of any unreliable figures reported by the eldest and the youngest maternal groups.

Table 1 **Maximum and Minimum Value of Each HDI Indicator**

HDI Component	Maximum Value	Minimum Value	Notes
Life Expectancy	85	25	UNDP Standard
Literacy Rate	100	0	UNDP Standard
Mean Years of Schooling	15	0	UNDP uses **combined gross enrolment ratio**
Purchasing Power	737,720a)	300,000 **(1996) 360,000 (1999) b)**	UNDP uses **adjusted real per capita GNP**

Notes:
a) Projection of the highest purchasing power for Jakarta in 2018 the end of the second long term development period) after adjusted with Atkinson formula. This projection is based on the assumption 6.5 percent growth in purchasing power during the period of 1993-2018.
b) Equal to two times the poverty line of the province with the lowest per capita consumption in 1990 (rural area of South Sulawesi). For 1999, the minimum value was adjusted to Rp. 360,000. This adjustment is necessary, as the economic crisis has drastically reduced the purchasing power of the people. It is reflected by the increase in poverty level and the decrease in the real wages. The additional Rp. 60,000 is based on the difference between the "old poverty line" and the "new poverty line" that is amounts to around Rp. 5,000 per month (= Rp. 60,000 per year).

The estimation of IMR at regency/city level is based on the pooled data from SUPAS 1995 and SUSENAS 1996. This pooled data is con-

sidered to be a reliable data source because it covers around 416,000 households. However the indirect technique used in this estimation produces the estimate of four years before the survey time. To calculate the estimate points for 1999, the estimate figure based on the pooled SUPAS 1995 and SUSENAS 1996 data is projected after taking into account the provincial trend of the respective region and the inter regencies/cities variation within each respective province. Meanwhile, for the year 2002, the results of 2000 census are used at the region/city level.

Educational attainment

The component of educational attainment in this publication is measured by using two indicators – literacy rate and mean years of schooling. The literacy rate is defined as the proportion of population aged 15 years and over who are able to read and write in Latin script or in other script as a percentage of this age group. This indicator is given a weight of two-thirds. Another onethird weight is given to the indicator of mean years of schooling that is defined as the average years of formal schooling attended among the population aged 15 years and over. This indicator is calculated based on the variables of the current or achieved grade and the attainment of education level in the SUSENAS core questionnaire. Table 2 presents the conversion factor of the year of schooling

Table 2 The conversion years for the highest level of education being completed

Level of education complated	Conversion factor
1. Never attend school	0
2. Primary School	6
3. Junior High School	9
4. Senior High School	12
5. Diploma I	13
6. Diploma II	14
7. Academy/Diploma III	15
8. Diploma IV/Sarjana	16
9. Master (S2)	18
10. PhD (S3)	21

for each level of education being completed. For someone who has not completed a certain level of education or drop out from school, the year of schooling (YS) is calculated using the following formula:

$$YS = \text{Conversion years} + \text{the current/achieved grade} - 1$$

For example, someone who drops out from the 2nd year of Senior High School:

$$YS = 9 + 2 - 1 = 10 \text{ (years)}$$

Standard of living

This report is using the adjusted real per capita expenditure as the proxy for standard of living. In order to ensure inter-regional and time series comparability, the following procedure is applied:

1. Calculating the annual per capita expenditure from SUSENAS module data [=Y];
2. Mark up the Y with a factor of 20% [=Y_1], as various studies suggest that the SUSENAS figure underestimates by about 20%;
3. Calculating the real Y_1 by deflating Y_1 with the consumer price index (CPI) [=Y_2];
4. Calculating the Purchasing Power Parity (PPP) for each region as the relative price of a certain bundle of commodities, with the prices in South Jakarta as the standard;
5. Dividing Y_2 with PPP to obtained a standardized Rupiah value [=Y_3];
6. Discounting the Y_3 using the Atkinson formula to get the purchasing power estimate [=Y_4]. This step is applied to accommodate the rule of decreasing marginal utility of income, because achieving a respectable level of human development does not .

Consumer Price Index

In Indonesia, the CPI figure is available only for 54 cities. The calculation of purchasing power at regency/city level calculated by is using the CPI of the respective regency/city whenever the figure is available. For cities other than the 54 where the CPI data is available, the provincial CPI - i.e. the average of CPIs figures available in each province – is used.

Purchasing Power Parity

The calculation of PPP basically applies the same method used by the International Comparison

Project in standardizing GDP for international comparison. The calculation is based on prices and quantities of selected commodities basket (27 items) available in SUSENAS consumption module. The prices in South Jakarta are used as the basic price. The formula for PPP calculation is:

$$PPP = \frac{\sum_j E_{(i,j)}}{\sum_j P_{(9,j)} Q_{(i,j)}}$$

Where:

$\mathbf{E}_{(i,j)}$: expenditure for commodity j in the province i

$\mathbf{P}_{(9,j)}$: the price of commodity j in South Jakarta

$\mathbf{Q}_{(i,j)}$: volume of commodity j (unit) consumed in the province i

The housing unit is calculated based on the housing quality index that consists of seven housing quality components in SUSENAS module. The score of each component is:

1) Floor: ceramic, marble, or granite =1, others = 0
2) Per capita floor width > 10 m2 = 1, others= 0
3) Wall: cemented=1, others= 0
4) Roof: wood/single, cemented =1, others = 0
5) Lighting facility: electric=1, others= 0
6) Drinking water facility: piping=1, others= 0
7) Sanitation: private ownership=1, others= 0
8) Initial score for every house=1

Table 3 List of the bundle of commodities used in the calculation of PPP

Commodity	Unit	Proportion from total consumption (%)
1. Local Rice	Kg	7.25
2. Flour	Kg	0.10
3. Cassava	Kg	0.22
4. Tuna/Cakalang	Kg	0.50
5. Anchovy	Ounce	0.32
6. Beef	Kg	0.78
7. Chicken	Kg	0.65
8. Egg	Piece	1.48
9. Sweetened milk	397 grams	0.48
10. Spinach	Kg	0.30
11. Snake been	Kg	0.32
12. Peanut	Kg	0.22
13. Tempe (soybean cake	Kg	0.79
14. Orange	Kg	0.39
15. Papaya	Kg	0.18
16. Coconut	Piece	0.56
17. Sugar	Ounce	1.61
18. Coffee	Ounce	0.60
19. Salt	Ounce	0.15
20. Pepper	Ounce	0.13
21. Instant noodle	80 grams	0.79
22. Clove cigarette	10 pieces	2.86
23. Electricity	KWh	2.06
24. Drinking water	M^3	0.46
25. Gasoline	Liter	1.02
26. Gasoline	Liter	1.74
27. Housing rent	Unit	11.56
Total		37.52

The housing quality index is the sum of all scores with a range of 1 to 8. The quality of house consumed by a household is equal to the housing quality index divided by 8. For example, if a house has a housing quality index of 6, then the quality of house consumed by the household is 6/8 or 0.75 unit.

Atkinson Formula

The Atkinson formula used to discount the Y3 can be defined as:

$$\begin{aligned} C(I)^* &= C_{(i)} && \text{if } C_{(i)} < Z \\ &= Z + 2(C_{(i)} - Z)^{(1/2)} && \text{if } Z < C_{(i)} < 2Z \\ &= Z + 2(Z)^{(1/2)} + 3(C_{(i)} - 2Z)^{(1/3)} && \text{if } 2Z < C_{(i)} < 3Z \\ &= Z + 2(Z)^{(1/2)} + 3(Z)^{(1/3)} + 4(C_{(i)} - 3Z)^{(1/4)} && \text{if } 3Z < C_{(i)} < 4Z \end{aligned}$$

where:

$\mathbf{C}_{(i)}$: The PPP adjusted per capita real expenditure

$\mathbf{Z}$: threshold level of expenditure that is arbitrarily defined at Rp. 549,500 per capita per year or Rp. 1,500 per capita per day.

Calculating the HDI

This illustration of the calculation of HDI uses data for North Sumatera in 2008.

Life expectancy	71.7
Adult literacy rate (%)	97.0

Mean years of schooling	8.5
Adjusted real per capita expenditure (Thousand Rupiah)	615.8

Life expectancy index
(71.7 – 25) / (85 - 25) = 0.78 = 78%

Adult literacy index
(97.0 - 0) / (100 - 0) = 0.97 = 97%

Mean years of schooling index
(8.5 - 0) / (15 - 0) = 0.56 = 56%

Educational attainment index
(2/3 x 97) + (1/3 x 56) = 0.83 = 83%

Income index
(615.8 - 360) / (732.72 - 300) = 0.59 = 59%

Human development index
HDI = (78+83+59) / 3 = 73.3

Shortfall Reduction

The differences on the rate of change of any HDI score during a certain period can be measured by the annual rate of reduction in shortfall. This shortfall value measures the achievement ratio in terms of the gap between the 'achieved' and 'to be achieved' distance toward the optimum condition. The ideal condition to be achieved is defined as the HDI equal to 100. The higher the reduction in shortfall, the faster the HDI increases. This measure is based on the assumption that the growth of HDI is not linear. It is assumed to be diminishing as the HDI level is approaching the ideal point. The calculation of reduction shortfall is as follows:

$$r = \sqrt[n]{\frac{HDI_{(1+n)} - HDI_{(t)}}{HDI_{(ideal)} - HDI_{(t)}}} x100$$

where:
$HDI_{(t)}$: is the HDI for the tth year
$HDI_{(ideal)}$: is 100
n : year

The reduction shortfall could also be measured for each HDI component.

The Gender-related Development Index (GDI)

In principle, the GDI uses the same variables as the HDI. The difference is that the GDI adjust the average achievement of each region in life expectancy, educational attainment and income in accordance with the disparity in achievement between women and men. The parameter ε is incorporated into the equation to take into account the inequality aversion that reflects the marginal elasticity of social valuation toward a certain achievement across gender. To express a moderate aversion to inequality, the parameter ε is set equal to 2.

To calculate GDI, one needs to first calculate the equally distributed equivalent achievement [Xede] using the following formula:

$$X_{ede} = (P_f X_f^{(1-\varepsilon)} + Pm\ Xm^{(1-\varepsilon)})^{1/(1-\varepsilon)}$$

where:
X_f : female achievement
X_m : male achievement
P_f : proportion of female population
P_m : proportion of male population
ε : inequality aversion parameter (=2)

The calculation of income distribution component is fairly complex. Based on wage data collected in the National Socio-Economic Survey (SUSENAS) 2008, the calculation follows the steps below:

1) Calculating the ratio of female to male non-agricultural wage [W_f];

2) Calculating the average wage (W) using the following formula:

$$W = (Aec_f \times W_f) + (Aec_m \times 1)$$

where:
Aec_f : proportion of women in the labour force (who are economically active)
Aec_m : proportion of males in the labour force (who are economically active)
W_f : ratio of female wage in nonagricultural sector

3) Calculating the ratio between each gender group from the average wage above [=R];

For Female : $R_f = \frac{W_{f/m}}{W}$

For Male : $R_m = \frac{W_{m/m}}{W}$

4) Calculating the income contributed by each gender group [=IncC], where:

For Female : $IncC_f = Aec_f \times R_f$
For Male : $IncC_m = Aec_m \times R_m$

5) Calculating the proportion of income contributed by each gender group [% IncC] using the following formula:

For Female : $\%IncC_f = IncC_f / P_f$
For Male : $\%IncC_m = IncC_m / P_m$

6) Calculating

$$X_{ede(Inc)} = [(P_f)(\%_{Inc}C_f)^{(1-\varepsilon)} + (P_m)(\%_{Inc}C_m)^{(1-\varepsilon)}]^{\frac{1}{(1-\varepsilon)}}$$

7) Calculating the index of income distribution [= $I_{Inc\text{-}dis}$]

$$I_{Inc\text{-}dis} = [(X_{ede}(Inc) \times PPP) - PPP_{min}] / [PPP_{max} - PPP_{min}]$$

The calculation of GDI follows the steps below:

1) Each index of the GDI component is computed using the formula described above with the maximum and minimum thresholds as stated in Table 4;
2) Calculating the X_{ede} from each index;
3) Calculating the GDI using the following formula:

$$GDI = 1/3\,[(X_{ede(1)} + X_{ede(2)} + I_{Inc\text{-}dis})]$$

where:
$X_{ede(1)}$: Xede for life expectancy
$X_{ede(2)}$: Xede for education
$I_{Inc\text{-}dis}$: Index of income distribution

Table 4 The maximum and minimum thresholds of GDI components

	Maximum		Minimum	
	Male	Female	Male	Female
Life Expectancy	82.5	87.5	22.5	27.5
Litteracy Rate	100.0	100.0	0.0	0.0
Mean Years of Schooling	15.0	15.0	0.0	0.0
Per capita Consumption	732.720		300.000	

Most data for computing GDI are from the same source as the data for computing HDI. Only wage data for computing GDI and Gender Empowerment Measure (GEM) is from SUSENAS (National Socio-Economic Survey) 2008.

The Gender Empowerment Measure (GEM)

The GEM consists of three components: i.e. parliamentary representation, decision-making and income distribution. In calculating GEM one should first calculate the EDEP (the index of each component based on 'Equally Distributed Equivalent Percentage'). The calculation of income share for GEM is the same as the calculation of income share for GDI calculation described above. Then, the index of each component is the EDEP of each component divided by 50. 50 percent is considered to be an ideal share of each gender group for all GEM components in an ideal society with equal empowerment of the sexes.

The decision making component consists of two indicators: managerial and administration job, and professional and technical staff. For national figure, the index of decision-making is the average of the indices of these two indicators. This combination is necessary to avoid any misperceptions of the respondents in choosing between these two occupational categories. Data for decision-making component is from SUSENAS 2008. Data for parliamentary representation is from "Lembaga Pemilihan Umum" (General Election Institute) and the parliaments at provincial and regency/city level.

The GEM is calculated as:

$$GEM = 1/3\,[I_{par} + I_{DM} + I_{Inc\text{-}dis}]$$

where:
I_{par} : Parliamentary representation index
I_{DM} : Decision making index
$I_{Inc\text{-}dis}$: Income distribution index

Calculating the GDI

As an example, the calculation of GDI for the province of DKI Jakarta 2008 is as follow:

Component	Female	Male
Proportion of population	0.509	0.491
Life expectancy (%)	74.9	71.1
Literacy rate (%)	97.9	99.5
Mean years of schooling (MYS)	10.3	11.1

Component	Female	Male
Percentage of the economically active population (Proportion of Labour Force)	40.2	59.8
Non-agricultural wage (Rp)	1.320.438	1.796.428
PPP (Rp 000)	625.8	

Calculating life expectancy and educational indices

Life expectancy index:
- Female : (74.9 - 27.5)/(87.5 - 27.5) = 0.79
- Male : (71.1 - 22.5)/(87.5 - 22.5) = 0.73

If ε = 2 then:

X_{ede} **(1) = [(0.509)(0.79)$^{-1}$ + (0.491)(0.73)$^{-1}$]$^{-1}$ = 0.77**

Literacy rate index:
- Female : (97.9 – 0)/(100 – 0) = 0.979
- Male : (99.5 – 0)/(100 – 0) = 0.995

Mean years of schooling index:
- Female : (10.3 – 0)/(15 – 0) = 0.687
- Male : (11.1 – 0)/(15 – 0) = 0.740

Educational attainment index:
- Female : 2/3(0.979) + 1/3(0.687) = 0.882
- Male : 2/3(0.995) + 1/3(0.740) = 0.910

If ε = 2 then:

X_{ede} **(2) = [(0.509)(0.882)$^{-1}$ + (0.491)(0.910)$^{-1}$]$^{-1}$ = 0.90**

Calculating income distribution index Ratio to male non-agricultural wage:
- Female : 1.320.438/1.796.428 = 0.735
- Male : 1

Average wage:
(0.402)(0.735) + (0.598)(1.000) = 0.893

Ratio to average wage:
- Female : 0.735/0.893 = 0.823
- Male : 1.000/0.893 = 1.119

Share of earned income:
- Female : (0.823)(0.402) = 0.331
- Male : 1.119)(0.598) = 0.669

Proportional income shares:
- Female : 0.331/0.509 = 0.650
- Male : 0.669/0.491 = 1.363

If ε = 2 then:

X_{ede} **(Inc) =[(0.509)(0.650)$^{-1}$ + (0.491)(1.363)$^{-1}$]$^{-1}$ = 0.874**

The income distribution index ($I_{Inc\text{-}dis}$) is
$I_{Inc\text{-}dis}$ = [(0.874)(625.8) – 360]/[732.72 – 300] = 0.433

Gender Development Index
GDI = (0.77 + 0.90 + 0.433)/3 = 0.70 = 70%

Calculating the GEM

Using the case of West Java province in 2008, the calculation of GEM is as follows:

Component	Female	Male
Proportion of population	0.496	0.504
Parliamentary representation (%)	10.0	90.0
Proportion of manager, administration staff, professional and technical staff (%)	32.7	67.3
Percentage of the economically active population (Proportion of Labour Force)	33.5	66.5
Non-agricultural wage	929.919	1.147.989
PPP (Rp 000)	625.9	

Calculating the parliamentary representation index and decision-making index with ε = 2.

Parliamentary representation index (Ipar)

$EDEP_{(par)}$ = [(0.496)(10.0)$^{-1}$ + (0.504)(90.0)$^{-1}$]$^{-1}$ = 18.12
I_{par} = 18.12/50 = 0.362

Decision-making index (IDM)
$EDEP_{(DM)}$ = [(0.496)(32.7)$^{-1}$ + (0.504)(67.3)$^{-1}$]$^{-1}$ = 44.14
I_{DM} = 44.14/50 = 0.883

Calculating income distribution index Following the calculation of income distribution Index for GDI above, the **$I_{inc\text{-}dis}$ = 0363**

Gender empowerment measure:
GEM = 1/3 (I_{par} + I_{DM} + $I_{inc\text{-}dis}$)
= (0.362 + 0.883 + 0.363)/3 = 0.536 = 53.6%

The Human Poverty Index (HPI)

The HPI combines several dimensions of human poverty that are considered as the most basic indicators of human deprivation. It consists of three indicators: people expected not having a long live, deprivation on educational attainment and inadequacy in access to basic services. The first indicator is measured by the probability of the population not expected to survive to age 40 (P_1). The calculation of this indicator follows the method of calculating life expectancy for HDI measurement. The second indicator is measured by adult illiteracy rate (P_2). This is calculated based on SUSENAS 2008 data and covers population age 15 and above. While the limitation on access to basic services (P_3) consists of the following variables:

- Percentage of population without access to

clean water (=P_{31}). P_{31} is defined as the percentage of household using water source other tap water, water pump and wheel that is located 10 meters or more from sewage disposal. This data is collected from SUSENAS 2008.

- Percentage of population without access to health services (=P_{32}). P_{32} is defined as the percentage of population lives in the location 5 km or more from health facilities. This data is collected from SUSENAS 2008.
- Percentage of children under five years old with low nutritional status (=P_{33}). P_{33} is defined as the percentage of children less than five years old belong to the category of low and medium nutritional status.

Calculating the HPI

As an illustration, the following equation shows the calculation of the HPI for Aceh Province in 1999:

Probability of people not expected to survive to age 40 - P_1 (%)	9.5
Adult illiteracy rate - P_2 (%)	4.5
Population without access to safe water - P_{31} (%)	48.6
Population without access to health services - P_{32} (%)	6.1
Undernourished children under age 5 - P_{33} (%)	15.0

The composite of deprivation variables

$$P_3 = 1/3\ (48.6 + 6.1 + 15.0) = 23.2$$

Human Poverty Index

$$HPI = [1/3\ (9.5^3 + 4.5^3 + 23.2^3)]^{1/3} = 16.5$$

For this publication, the calculation of HPI follows the HDR 1997 published by UNDP:

$$HPI = [1/3\ (P_1^3 + P_2^3 + P_3^3)]^{1/3}$$

Where

$$P3 = 1/3\ (P_{31} + P_{32} + P_{33})$$

Procedures for estimating time required to reach particular targets

The time required to reach particular targets in several human development indicators, as presented in this report, is estimated by assuming that the past speed of improvement in those indicators as being constant in the future. The speed of improvement here indicates the absolute changes, as referred to a simple average of annual increase (or decline), expressed in years. By comparing data in 1999 (I_{99}), 2002 (I_{02}) and 2005 (I_{05}), 2008 (I_{08}), thus, the annual speed of improvement (s) is given as:

$$s = [(I_{02} - I_{99})/3 + (I_{05} - I_{02})/3 + (I_{08} - I_{05})/3]/3$$

Then, the estimated time (T) to reach particular target or goal in human development indicators (G) can be simply calculated as follows:

$$T = (G - I_{08})/s$$