

External Performance Monitoring Panel on Resettlement

**Report of the External Monitoring Panel
on
LARAP Implementation Performance
in the Tangguh Project**

(I)

by

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I. Introduction and Objectives. The Resettlement Advisory Panel was originally constituted in 2002 with a mandate to (i) advise on LARAP development and (ii) once LARAP was complete, evaluate implementation. In relation to LARAP development the Panel conducted two site visits in and 2003 and October 2004. The current report is the first of two reports where the Panel assumes an evaluation role. The report was written subsequent to a visit from 3-15 March 2006 by Michael Cernea, with the express purpose of reviewing LARAP implementation activities between November 2004 and December 2005..

Objectives. The main objectives of the field visit were to monitor LARAP's outcomes and implementation quality along the following four main lines:

- 1) Completion of villages' physical construction and of host population relocation;
- 2) Income restoration and improvement in the resettled and host communities;
- 3) Post-relocation reconstruction and social development
- 4) LARAP Monitoring and Tangguh Project's Effectiveness in Managing Implementation.

Field Visits. The monitoring review consisted in field visits to all relocated and host communities: Tanah Merah Baru, Saengga, Onar Lama, and Onar Baru. It included the analysis of on-the-ground progress through physical on-site inspection, meetings with villagers, interviews with individuals and a series of in-depth issue focus-group discussions with groups of women, fisherman, and teachers. Also, the monitoring included extensive discussions with Tangguh Project field staff in Babo and affected villages and with Tangguh Project senior managers in Jakarta and Babo, discussion with the newly elected Bupati of Bintuni, meeting with World Bank staff who analyzed Papua's expenditures, as well as a review of various Tangguh project documents relevant to progress during 2005.

To place LARAP's execution within Tangguh's overall progress, the author of this report attended in Babo a full-day review meeting of Tangguh's Integrated Social Program (ISP) components and activities on March 8th, 2006 with the participation of about 16 ISP/Tangguh staff members. This review was most helpful for understanding the current

linkages, partial overlap and the distinct differences between LARAP and the broader ISP's remit.

Wrap up meetings. At the end of the monitoring visit, wrap-up meetings were held both in Babo with the ISP Field Manager and other Tangguh Project staff and in Jakarta with senior managers of the Tangguh Project Indonesia during which main findings and recommendations were summarized and discussed. Mr. Cernea subsequently met with the BP Indonesia officials in Washington (April 10th, 2006), informing them as well about the main findings and recommendations of the first monitoring round.

Throughout his work, the report's author has received excellent cooperation and support from Tangguh Project staff and senior managers, and had access to all relevant documents requested. The author expresses appreciation and thanks for the assistance and tasks received from Tangguh Project Indonesia senior managers, staff and consultants, and from community leaders and members in carrying out his monitoring tasks.

II. Background

The construction of the Tangguh Liquefied Natural Gas Project (LNG) involved the land acquisition of about 3,466 ha belonging to three clans of the Sumuri tribe, the physical relocation of the population residing within the project site into new communities as well as extensive civil works for reconstructing the host villages belonging to the same tribe and a broad spectrum of post-relocation development activities.

The LARAP. To carry out the resettlement and post-resettlement operations in both the displaced and host communities, the Tangguh Project has prepared a detailed Land Acquisition and Resettlement Action Plan (LARAP). The initial LARAP was written and included in the Tangguh Project AMDAL (environmental and social impact assessment) which was approved by the Government of Indonesia (GOI) in 2002.

Subsequently, as a result of BP's commitment to achieve World Bank and ADB international standards on resettlement, the Tangguh Project revised the initial AMDAL's LARAP. Between 2003-2005 the Tangguh Project revised the initial LARAP, expanding in particular the range and substance of its income generation components. The revised LARAP includes now also a detailed statement on the *policy principles guiding the Tangguh Project in carrying out resettlement*. The Tangguh Project also engaged massively the resettlement-affected population in intense consultations and participation in the content-definition of the revised and improved LARAP, code named "*the Implementation LARAP*". This final LARAP version incorporates, but much exceeds, AMDAL's 2002 LARAP.

Relocation of The Tanah Merah Community. In late June/early July 2004, the Tangguh Project transferred the families of the Tanah Merah community to two new locations chosen by the resettlers themselves, neighboring the existing host settlements of Saengga and Onar Lama. In October 2004 the Resettlement Advisory Panel visited the two relocated villages and ascertained that the relocation was consistent with the LARAP's vision and fully successful. The population expressed a high degree of satisfaction with its new housing and infrastructure.

Monitoring of LARAP Implementation. After the final review of the "Implementation LARAP" and the field assessment of Tanah Merah's relocation, the Resettlement Advisory Panel issued on December 24th, 2004, a formal "*Letter of Quality Assurance*."

Subsequent to finalization of the LARAP, the Resettlement Advisory Panel continued (in a reduced composition) to work with the Tangguh Project, changing its focus from LARAP development to "performance monitoring" of LARAP implementation, with the first round planned for October 2005. Unfortunate difficulties regarding scheduling and visa caused several postponements, delaying the field visit until March 2006. The following sections are an account of the findings and recommendations made based on this monitoring field visit.

III. Key Activities in 2005

2005 has been a year of major developments in Tangguh's general progress, including:

- (a) advances of the specific resettlement and post-resettlement activities; and
- (b) beginning of a new phase and advances in general project construction, with direct effects on the livelihood of both resettled and host communities.

The milestone 2005 events taken into account in the present monitoring report, grouped in two sets, are:

A. Major Events in 2005:

- BP Capital Resource Allocation Committee sanctions the Tangguh LNG project investment and plan, including LARAP in March 2005;
- BPMIGAS sanctions the Tangguh Project Plan of Development (POD) in March 2005
- LNG plant construction starts and expands rapidly, with mobilization of main plant contractor and the labor force (March-December 2005);
- Negotiations between Tangguh Project and Lenders (including ADB, JBIC and International Commercial Banks) for LNG co-financing. ADB appraises Tangguh project, its LARAP and ISP and provides in principle approval for a loan of US \$350 mil. (Nov 2005) ;
- Election of a new local area government , providing new opportunities for the Project to coordinate and work with the local government.

B. Major Advances in Resettlement and Social Development Work in 2005:

- Construction of new houses and physical infrastructure for Saengga inhabitants (Oct 2004-throughout 2005)
- Tangguh Project re-organizes its project site management and staffing structure consistent with the demands of LNG construction, essentially increasing its area-based execution capacity while also strengthening its Jakarta-based program-development capacity (Jan. 2005). The former site A&D resettlement team and the former Integrated Social Strategy (ISS and CAFT team) are consolidated into one (larger) Integrated Social Program (ISP) organizational group.
- Appointment of a new Vice President of BP Indonesia in charge of ISP, who takes up office in April 2005;

- Start of the civil works for fill-in new housing for Onar Lama inhabitants (April 2005);
- ISP staff develop the Tangguh Indigenous Peoples Development Framework (IPDF) and Integrated Social Program (ISP) document describing a Birds Head-wide distinct social and economic development program, addressing Tangguh and Papua-wide impacts. The ISP contains 15 components covering a geographic area much broader than LARAP's villages¹. The ISP is an integrated social development program that also responds to the requirements of an Indigenous Peoples Development Plan (IPDP). Both the IPDF and ISP were prepared in accordance with ADB's Indigenous Peoples Policy (IPP)²;
- Conclusion of the "Sacred Sites Agreement" between the Tangguh Project and representatives of the three clans relinquishing land to the Project, thereby resolving outstanding economic and cultural issues (April 2005). The Tangguh Project commits additional resources that supplement the initial endowment agreed for land and tree acquisitions.
- Within the framework of the sacred Sites Agreement, the Resettlement team consulted with relevant clans to effect the relocation of sacred rocks from the LNG site to new sites outside the perimeter of the LNG property.

For LARAP implementation, most consequential among the above events are two: (a) the Tangguh Projects creation of the organizational structure integrating LARAP work in the ISP organizational system; and (b) the vast employment market and income generation opportunities opened up by LNG's construction start. The implications of the above events are highlighted in the context of issue-focused analyses, reported below.

IV Integration of LARAP's Activities in the ISP Program

¹ The 15 program-components of the ISP target, with various degrees of intensity, Papua at large, the Bird's Head, the Kabupaten Teluk Bintuni and in particular the Directly Affected Villages (designated as DAVs) on both the south and the north shores of the Bintuni Bay.

² Consistent with ADB policy, the IPDP is associated to an IPDF; in actual practice, the IPDP is a plan whose specified components extend only over the project construction period, until 2009/2010, while the IPDF commits the Tangguh project to a framework for continuing development support work as necessary for the duration of the loan repayment period.

ADB's Involvement and LARAP's Appraisal. The Panel notes that ADB's involvement in co-financing Tangguh substantially contributed to outlining the ISP as a comprehensive development plan and action framework incorporating the requirements of the ADB's policy on indigenous peoples. .

During 2005, ADB also appraised in detail the Tangguh LARAP as part of its Tangguh Project loan preparation and due diligence work and helped refine its provisions. ADB policy requirements entailed some additions to the LARAP in terms of: mitigating the effects of restricting the access of local fisherman to LNG's marine safety zone and coastal resources; addressing outstanding issues associated with trees planted previously within the current LNG site; and provisions for monitoring implementation compliance with ADB policies throughout the project implementation period. ADB approved the LARAP as consistent with the Asian Development Bank's policies on resettlement and poverty reduction, posting it on ADB's website by end-2005. The LARAP is also fully consistent with the 2003 *Equator Principles* adopted by major private transnational Banks for their lending to private corporations.

The final LARAP version currently on the ADB website represents now the formal Tangguh Project document (also endorsed by other international co-lending agencies, namely JBIC and the ICBs) that charts the way forward to completing the Tangguh resettlement and post-resettlement development program until 2009.

Reorganization of Tangguh Project's Field Work and Staff. At the beginning of the year under review, the Tangguh Project reorganized its staff resources deployed in the Tangguh area and their functions; the Panel was briefed in detail on these new structures and functions. Further throughout this visit, the Panel focused on analyzing the institutional dimensions and effects of integrating LARAP work in the broader ISP and concludes that the reorganization has introduced adequate changes, germane to the new stage of the project, with positive effects on performance. This integration:

(a) streamlines and unifies the management of all Tangguh Project’s social development activities, thus giving them additional “institutional weight” within the overall setup of Tangguh Project’s Indonesia organization; and

(b) fosters synergies between the more intensive development and income enhancement activities in the resettlement area and the activities in the broader impact areas, facilitating transfer of experiences.

ISP’s Broader Context. Although ISP’s implementation is not within the analytical purview of our monitoring, for contextualizing LARAP’s progress after reorganization we feel it necessary to emphasize ISP’s content and structure. The ISP itself is an unusually vast development action plan, through which Tangguh Project implements its integrated social strategy. The design and resources allocated to ISP exceed even “good practices” levels in other transnational private sector projects, as known to this report’s author. From its initial cluster of eight focus areas outlined in the 2002 AMDAL, the ISP has now evolved into a set of 15 distinct but interlinked development sub-programs³. For each of them a five-year plan has been designed, to be implemented based on Tangguh Project financing and in close partnership with local governments and communities.

Naturally, many of the 15 components of the ISP are promoted also in the communities that make up the special resettlement host area of the LARAP.⁴ But as a special program for an area initially adversely impacted, the LARAP contains and implements a set of unique reconstruction and risk mitigation measures germane to “resettlement with development” objectives, and relies on a distinct budget. There is obviously much potential in building up integration and strong inter-linkages.

³ These 15 programs are 1) Governance and Revenue Management (2) Civil Society strengthening; 3) Bird’s Head business empowerment; 4) Mitigation of in-migration and adverse impacts; 5) Workforce and industrial affairs; 6) Vocational training; 7) Integrated community based security; 8) Community driven plans in DAVs; 9) Health; 10) Basic Education 11) Governance and capacity building at village, district and regency government levels; 12) Women’s empowerment; 13) Microfinance and Microenterprise; 14) LARAP;

⁴ For instance, the LARAP villages qualify for the financial grants given to all DAVs

Recommendation. Beyond pursuing the benefits of integration, Tangguh Project needs to keep in view constantly that the most complex socio-economic development challenges are, and will remain, in the resettlement area. Both the relocated and the host communities must overcome the temporary but inevitable disruptions they experienced and adapt to the profound changes still to occur in their existence. In turn, **Tangguh Project’s assumed social development obligations are highest toward this primary group of directly affected stakeholders.**

Therefore, the Panel recommends that ISP managers continue to give distinct attention and priority to the resettlement area communities for ensuring their full development, according to the LARAP. Integration into the ISP should not overshadow the distinctiveness of the resettlement area tasks and issues.

The specific strategy required for LARAP implementation, with its demands on Tangguh Project’s human and material resources, will continue to require distinct activities and managerial monitoring within the overall ISP. To this regard, the Panel also recommends that **ISP managers periodically but regularly organize focused analyses of LARAP implementation issues, of the type defined in the Tangguh Project’s culture and vernacular as a “deep dive”.** This is to maintain a constant scrutiny lens on performance, on ongoing changes, stability, income levels, livelihoods, satisfaction, in-migration and security in the resettlement and host communities immediately adjacent to the LNG site.

V. Completion of Physical Village Construction in Saengga and Onar Lama

The central focus of the LARAP is the prevention of displacement’s adverse effects, particularly of impoverishment risks inherent in loss of land, housing and other assets, income loss, community education and health-care services, local institutions and culture,

and the restoration of villagers livelihoods and incomes at higher than pre-project levels⁵. Following this LARAP logic, the performance analysis below addresses these issues in succession, starting with the physical remaking of villages.

Housing and Village Infrastructure. During 2005 decisive progress was made in the physical reconstruction of the two host villages: Saengga and Onar Lama. The civil works in both villages have successfully overcome terrain challenges and were nearing completion at the time of the field visit. The Panel ascertained on the ground that the LARAP's provisions regarding reconstruction of host villages are adequately carried out, with only minor delays. Overall performance to date has been impressive. In some important respects it has surpassed the LARAP's provisions.

Reconstruction of the Saengga Village. A remarkable feature in the physical construction of the new Saengga village has been the close cooperation offered by the community to the Tangguh Project for carrying out the necessary civil works. At the initiative of the community's both tribal and administrative leaders (the clan leader (Kepala Suku) and the Village Head (Kepala Desa)), the Saengga community decided to "voluntarily displace itself" outside its old village platform, freeing the site for accelerating the civil works. This voluntary self-relocation (which was materially assisted by the Project) involved a substantial effort and difficult accommodation, as all families had to demolish their houses, build for themselves improvised temporary dwellings and inhabit them for over a year. Yet this effort has achieved its purpose, facilitating and accelerating the rhythm of civil works and also reducing the risks of accidents for residents and crews.

At the date of the Panel's visit, virtually all 94 private house structures have been built and already partially equipped. Final installation of connections to networks and road-drainage systems has also started. Construction crews were focusing on completing the new church building and other community facilities. The overall village layout is functional and esthetically pleasing.

⁵ Or higher than expected levels without the project.

The characteristics of the individual houses are in compliance with LARAP provisions. Houses are large and equipped with individual water meters, power meters, septic tanks, etc. for each house. The quality and functionality of the newly built housing are found to be very good, vastly superior in all respects to the prior traditional houses of Saengga inhabitants. Each new house has three rooms, a separate kitchen, an in-house latrine and clean in-house drinking and washing water. Proposals made by villagers to introduce some (culturally motivated) adjustments in the housing design, compared to the Tanah Merah Baru house model, were accepted by the Tangguh Project and introduced by the constructing company.

The Saengga villagers have monitored themselves the gradual advance in the construction of the new village, developing a sense of anticipated ownership and identification, and have expressed to the Panel high satisfaction with their forthcoming houses and facilities.

Reconstruction of the Onar Lama Village.

After significant consideration, the Tangguh Project decided to build new houses at Onar Lama (Old Onar) in cooperation with the villagers. This was decided in light of the changed resolution of the Tanah Merah villagers to relocate in two distinct settlements, at two separate locations, Onar Baru (Onar new) and Tanah Merah Baru (new Tanah Merah). Onar Lama is now regarded as resettlement affected because it became a host village by the fact that a small new hamlet was build close to it.

Construction of a new house for each Onar Lama family creates for the host population living conditions substantially similar to those created for the Tanah Merah Baru and for Onar Baru displaced and resettled families. The residents of old Onar expressed to the Panel high satisfaction with the Tangguh Project decision and with the way it has been carried out to date.

At the time of the Panel visit, the reconstruction of the new housing stock in Onar Lama, using an in-fill pattern, was just fully completed. Since many of the old Onar houses did not need to be demolished, many families will now dispose of additional living space and facilities. As stated in interviews, some of these old houses are already being, or are likely to be soon, improved by the villagers themselves. Those interviewed also stated that some of the old houses are to be used for young couples or newly forming families.

Improved Cost-Efficiency in Housing Construction. Comparison between house construction in the first villages, Tanah Merah Baru and Onar Baru (done in 2004), with the 2005 house construction in the two host villages, Saengga and Onar Lama, reveals significant efficiency improvements in LARAP implementation. At the outset, in Tanah Merah and Onar Baru the cost per housing unit was relatively high, due, for example, to pressing construction deadlines, procurement difficulties, high expenses imported timber from distant locations, and other circumstances. The Tangguh Project's resettlement staff have learned the lessons and have succeeded to organize and manage the 2005 housing construction work in Saengga and Onar Lama with a considerable cost reduction, while maintaining comparable housing quality.

The factors that led to this saving in Saengga are: (1) optimized house design, allowing to eliminate unnecessary timber; (2) reduction of the cost of labor and supervision by replacing the international contractor with a Papua-based constructor, employed in both Saengga and Onar Baru; (3) use of cheaper mixed wood species

In Onar Lama the Project has utilized an alternative approach, choosing to implement a community-based appropriate technology housing development model. This model has worked very well and, in addition to receiving full support from the community, has also attracted the attention of other stakeholders such as local government for possible emulation. Highlights of this model that are worthy of note are: increased replicability, vocational training for villagers participating in the construction, use of locally available materials (both within the area's natural resources and also commercially available), healthy housing components (water and sanitation, chimney, screening of windows)

Replication potential. The Panel notes that the improvements achieved by the Tangguh Project in the physical construction of the villages help increase the potential replicability of Tangguh's approach to house building for resettlers and as such provides valuable experiences to other parties (including private companies or local governments) who may be engaged in local infrastructure development and/or resettlement processes.. The increased efficiency in 2005 construction suggests that good quality housing can be built at lower financial costs, and with a more diversified range of benefits through employing the affected people themselves.

Population Relocation to the New Saengga Village. The physical transfer of the Saengga population is planned to occur immediately after the full completion of civil works for housing and infrastructure. At the time of the Panel's visit, resettlement was envisaged for end April-beginning May 2006. The villagers are eagerly awaiting to take possession of their new houses and return from the improvised temporary village. The resettlement team has socialized the program for community transfer with the leaders and members of the Saengga community. The Tangguh Project will provide necessary logistic support and oversight assistance, to facilitate the physical relocation.

The resettlement of Saengga has to resolve a problem largely different than what Tanah Merah had to do at relocation time. While in Tanah Merah the old houses had to be demolished after the population's physical relocation, to clear the site for building the LNG plant, the location of temporary clusters of houses is on Saengga land. The understanding with the community was, from the outset, that upon the construction of the new Saengga housing, the temporary housing in the improvised village would be demolished. However, the risk emerging now is that some of the villagers may be less determined to abide by the initial understanding and may prefer to maintain⁶ and use the empty houses as rentals for in-migrants interested in employment with the project. In-

⁶ In certain cases this might be justified to accommodate normal population growth, specifically, for example, for new young families formed in Saengga.

migration would then be facilitated in unanticipated ways. In fact, a number of in-migrants had already moved next to the temporary village.

The Tangguh Project is aware of this risk. The LARAP staff has carried out discussions with village leaders and families to prevent or contain such trends and the ISP has developed a dedicated program to inform about and explain the likely impacts of in-migration. The panel recommends that this kind of education efforts among Saengga inhabitants be continued; at the same time, the village administration should be encouraged to undertake a recording of the houses left standing in the temporary village after relocation, to establish a baseline for further monitoring of possible in-migration. It would be desirable to involve the Bupati Regent's Office in working directly with Saengga's leadership, to explain why extending rentals to in-migrants may be counter-productive to the long-term interests of the villagers, despite the apparent immediate benefits.

Village Handover and Ownership Title Issuance.

The formal transfer of ownership over the new houses and communal facilities built by the Tangguh Project to the inhabitants, far from being just a logistic-administrative operation, is a time of deep cultural learning for all families who experience totally new and improved living conditions. The Project actually developed a Settlement Agreement document, which handed over control of the houses to the recipient families, but no house ownership document for families and communal ownership document over village infrastructure for the respective communities were issued and legally registered. New challenges regarding infrastructure use, maintenance and service-costs are emerging in the period immediately following the handover, which brings with it management obligations. Land transfer issues and their legalization are not at issue here, since the Project is not required (nor would it have the authority) to formalize ownership or usufruct arrangements regarding land between the clans themselves, which have been very limited anyway and long agreed between the clans. The titling refers only to assets constructed by the Project, with Project financing, and intended to be transferred to the affected villages. In this respect, the Tangguh Project should avoid the de-linking of the

house and collective assets handover, on the one hand, from the issuance of legal titles to families, or to communities, on the other hand. Such de-linking, however unintended, occurs *de-facto* if too long a time passes between the two moments, as it did already in TMB. These are two sides of what must be one single coin. The lessons from the lingering difficulties still being experienced in this respect in Tanah Merah Baru call for configuring the work with prospective house owners (both before and immediately after the handover) so as to emphasize also the transfer of *entailed responsibilities* rather than only of the material goods. While it is known that legal requirements in Indonesia are complex, it is nonetheless fair to state that the Project needs to re-focus its activities on effecting titling and handover of collective communal facilities, as well as on individual house-titling, with the specification of the responsibilities for maintenance and use of these assets.

Recommendations. In light of the findings about house construction progress and of the post-handover experience in TMB, the panel submits the following recommendations:

- a) On the physical side, **attentive monitoring of the new houses' functionality is needed for the next 4-6 months. Families should be enabled to easily signal possible construction or technical problems and the responsible contractor must be involved in promptly solving them.**
- b) On the legal and cultural sides, **preparation of legal house ownership titles⁷ must follow soon after transfer, shortening as much as possible the interval until their issuance. Instilling from the outset a strong sense of ownership and responsibility in recipient families is a key task.**
- c) On the institutional side, **organizational frameworks must be consensually established to institute (a) village-level management-cum-maintenance of the new communal physical assets and (b) self-reliant cost-coverage by households of received services (water, power, waste disposal).**

VI. Income Restoration and Improvement:

⁷ Formulated with appropriate consideration of *Adat* norms and with recognition of women's entitlements to house co-ownership.

Wage Employment, Agriculture and Fishing

Following the phase of physically constructing the resettled and host villages, the central objective of the LARAP is to ensure development. This includes first post-relocation stability, resumption of community regular life, and the gradual process of restoration and improvement of incomes and livelihood standards. For this, the LARAP provides systematic organizational and financial support through several main clusters of measures: (a) wage employment in LNG project works and auxiliary activities; (b) resumption of agro/horticultural activities in/around the new villages; and (c) support for increasing the productivity and profitability of fishing and marketing. Other convergent means are gradual small enterprise development and vocational training, specified as pending component activities in the LARAP.

Expansion of Resettlers' Employment During 2005. Tangguh Project's workforce recruiting strategy is predicated on a set of social and geographic hiring preferences, which give priority to Papua's inhabitants and, within this group, to DAVs and first to LARAP target group. Tangguh Project has attempted to ensure consistent application of these workforce recruitment and management strategy and procedures in its role as Operator and also through the Contractors involved in the Project.. By December 31, 2005, there were approximately 2700 employees at the LNG site, of whom approx. 52% were Papuan. Of these, over 50% -733 workers⁸- originate from Southern and Northern DAV's. Further, reported data show that 406 villagers from the Resettlement-Affected Villages (RAVs) are employed. By village of origin their composition (Table 1) is as follows:

⁸ Cf. *Proyek Tangguh LNG: Personnel Strength by origin, Feb 27, 2006* (by end February, 2006, to which this breakdown by workers' origin refers, the project has already a larger workforce than at end 2005.)

Table 1: Distribution of Employed Inhabitants from Resettled and Host Villages

Employing Companies	Tanah Merah	Saengga	Onar Baru & Onar Lama	Total
KJP*	82	83	26	171
PapuaContractors**	69	156	2	227
Tanggung Project	3	5	0	8
Total	154	224	28	406

Source: Data for this table result from an overall project personnel table: *Proyek Tangguh LNG: Personnel Strength by Origin*, dated February 27, 2006

* KJP is the main contractor for Tangguh, a consortium of large companies

** Various Papua-based local businesses, small and medium scale.

The employment of 406 employees⁹ from the four RAVs, according to data compiled by the recruitment office, reflects a high performance, that nominally exceeds the minimal target of one job per household¹⁰. However, our analysis cautions against over-interpreting this number and we express reservations about the accuracy of data supplied by one of the local contractors¹¹; we suggest that this data be re-verified, as the contractor may have consolidated inadvertently laborers recruited from other DAVs under the figures reported for Saengga civil works. ISP has not yet developed its own monitoring means for independent verification at the household-level, because the annual LARAP census planned for 2005 has been postponed for 2006. When carried out, it will provide household by household employment information. Other means, more nimble than a biannual census-survey, must be used as well for continuous monitoring of the employment curve. We also note the necessarily changing and dynamic nature of employment figures, depending on construction related employment opportunities.

⁹Data on employment length -- full year, or only some months of the year – have not been compiled.

¹⁰ The number of 406 individual employees from LARAP communities is larger than the total households recorded by the baseline survey in those communities, which were: 101 households relocated in Tanah Merah Baru; 26 households moved to Onar Baru; 94 households in Saengga, and some 25 households in Onar Lama, for a total of 226 households. Some households may have more than one person employed by the project, but not many, while others may not yet have any.

¹¹ We reviewed the data supplied by contractors and it seems that the inaccuracy originates mostly from the construction contractor for Saengga village: it alone reports 105 employees originating from Saengga. Tangguh needs to make criteria for defining "origin" very transparent and contractors' reports on work force origin must be periodically spot-checked for accuracy

Overall, despite some possible limited adjustment, **the rate of employment achieved for RAVs at this early stage in LNG construction represents a remarkable performance.** The Panel is pleased to record this early accomplishment in implementing the project's income restoration strategy, in compliance with LARAP and ADB's policy of channeling employment with priority to displacement affected people. Further, the ratio of jobs to total population is indeed considerably higher in the DAVs than in the other Bintuni Bay communities, as indeed it should be according to Tangguh's social strategy. However, as the RAVs' high current employment stems from the fact that the construction contractor for Saengga village has employed many RAVs people, it can be expected that the overall RAVs employment figure will register a significant fall after completion of village construction. This fall would likely be compensated by gradual increase in LNG-related employment.

Cash In-flows Accruing to Resettled Villages. The employment level reached in 2005 has resulted in massive wage cash-flows to the LARAP's beneficiary population. Corroboration of jobs with wages, to determine the approximate amounts of cash in-flows from project employment, has not yet been done for 2005 and cannot be reported at this time; it would be most useful for the monitoring record and for building resettlers' historic income restoration curve to calculate them retroactively, while also organizing a *concomitant* calculation for 2006 and subsequent years.

Despite the absence of aggregate numbers, our qualitative assessments during the field visit and interviews found abundant evidence that cash in-flows have been very substantial and reached a historical "high water mark". This starkly contrasts with the pre-Tangguh situation, when even a single new salaried job per village was a rare event. The sudden availability of large amounts of disposable income is expressed in a substantial increase in villages' *consumption* expenditures. New household furniture and appliances, particularly video and sound systems, are being purchased with relish. Motorcycles have appeared in unexpected numbers, although there are no significant roads on which villagers can use them outside Tanah Merah's main street. A telecom

company found the local market potential to be very promising and its just built tall antenna-tower for wireless communication¹² became the newest marker of TMB's skyline. Cell-phones are multiplying rapidly.

Much less of the disposable surplus, however, appears to be directed by villagers towards their *productive investments or savings*¹³. The preference for consumption spending over investment/reconstructive spending is a known behavioral pattern displayed by resettlers virtually worldwide, when some disposable resources become available; as research has found, this orientation is undercutting resettlers own long term interests. Knowledge about this trend should reinforce the urgency of increasing the Tangguh Project's efforts to encourage development of microfinance and savings options (whether formal [bank] or informal) in the area, consistent with LARAP's (and ISP) strategy. The field visit noted also trends to the contrary, and positive beginnings: during 2005 some of the more business-prone villagers in TMB, among them many women, have built small commercial outlets and kiosks adjacent to their new houses to sell daily use commodities, processed food, etc., and thus constructively capitalize on the increasing incomes and immediate needs of fellow villagers.

In conclusion, the monitoring analysis records that LARAP's employment strategy materializes in increasing cash-flows that finance tangible improvements in standards of living in the already resettled villages. The outcomes to date confirm planning assumptions and advance in welfare.

Agricultural Contraction. The potential for income generating agricultural work has decreased as expected in TMB compared to the pre-project situation, because of the smaller size of land plots. The relative income-loss, however, is over-compensated manifold by employment income from construction work. On their house plots, families cultivate flowers, fruit trees, and some vegetables. This validates the maintenance of the

¹² This may be the first significant business investment of an outside company in the new Tanah Merah.

¹³ Empirical information about savings is notoriously difficult to obtain, and only a special assessment could provide the needed information for further LARAP work.

nursery established by the Tangguh Project. Its existence, in our judgment, has to be continued to the end of project construction (and probably beyond, as at that time the importance of agriculture will increase again). However, it turns out that some resettlers gained access to lands outside the village plot itself by negotiation an agreement with the Simuna clan. LARAP staff needs to *monitor and document this in a quantified manner*, as it is relevant to the outcome of the general LARAP effort to re-build a sustainable economic basis for the resettled communities.

Fortunately, in the host communities of Saengga and Onar Lama land contraction did not occur and productive agricultural work can be continued more or less as before resettlement, if labor is not allocated to higher return activities. In Onar Baru, however, the village leaders reported in interviews that their initiative for collective village clearing of a sizable plot of land to cultivate vegetables for the market was thwarted, largely as a result of the diversion of villagers' deposited funds by the former manager of the village savings and credit association, showing another facet of the issues of local accountability, governance, and need for capacity building activities. The LARAP staff needs to assist Onar Baru resettlers with practical options for reviving their valuable agricultural initiative.

Discussion of agricultural needs in a focus group with women revealed satisfaction with the extended presence (two weeks each month) in TMB of agricultural extension agents from local Government, unavailable before the Tangguh Project project, in whose technical advice the village women appeared keenly interested. Reports surfaced also about the presence of some previously unknown pests/insects in TMB's new vegetable gardens – an issue requiring LARAP/ISP staff attention.

Expansion of Fishing and the Need for Markets. Consistent feedback received in all visited villages reported an unusually good prawning season in 2005, with incomes from fishing more rewarding than in 2004. This, in its turn, has also positively influenced cash in-flows in all LARAP communities. The causes given for this are: (a) the suspension of prawning by commercial trawlers in the Bintuni Bay; (b) the LARAP's

program to compensate for the marine restriction zone through equipping local fishermen with better boats, boat-engines, and training for boat construction and repair; (c) possibly natural causes, not yet well understood. It is not clear, of course, whether or not commercial trawlers will return and whether the considerably increased returns from prawning are sustainable in the following seasons.

A review of perceived constraints with a focus group of fishermen (selected from among the most experienced fishermen in the RAVs), and a separate interview with a prawn collecting agent in Onar, helped identify critical bottlenecks that limit the financial returns even under Bintuni Bay's excellent conditions for fishing. These are:

- (a) Local fishermen have no un-mediated access to markets outside their villages;
- (b) They lack minimal refrigeration capacity, even simple ice-producing machines and long-haul boats for transporting the catch to more rewarding markets;
- (c) Despite interest in acting collectively, they do not know how to self-organize for cooperative action and how/where to secure the micro-financing needed for group-marketing their catch;
- (d) Fishermen's dependence on prawn-collecting agents is total, for marketing and for procurement of fishing equipment, nets, etc.; it limits their fair earnings and incentives.

These difficulties are significant, but are not insurmountable. ISP/Tanggung Project staff are essentially aware of them, as these are not new, and have undertaken explorations for identifying alternative marketing channels for local fishermen. During the monitoring visit, we attended a meeting convened by ISP with a small private company to explore its possible marketing support to local fishermen. Exploration of possible solutions continues through various options including micro-enterprise and the Bird's Head Business Empowerment Program. A solution could probably be bay-wide, rather than focused on RAVs only, to facilitate economies of scale for local fishermen. However, no practical functional solutions have been retained yet and these issues remain on the ISP and LARAP agendas.

The focus group with fishermen has explored also how they perceive the effects of the restricted marine safety zone on their activities. The discussion confirmed that the safety zone does not significantly constrain their productive fishing and income generation. Several instances of trespassing have been signaled by Tangguh project staff, apparently caused by unfamiliarity with the boundaries of the safety zone. Tangguh Project has intensified both information dissemination about the zone and enforcement measures to protect fishermen against accidents and increase navigation safety.

Overall, the monitoring analysis has found clear empirical evidence that the first year after TMB's physical transfer to new locations has been a year of economic stabilization, despite intrinsic challenges. Significant steps in income restoration and growth have lifted the communities of Tanah Merah Baru and Onar Baru. For Saengga and Onar Lama inhabitants the disruptions caused by self-displacement to the temporary village (Saengga), or by the civil work occurring in their midst (Onar Lama) were inevitable, but the economic changes have started to be visible in these communities as well. The typical impoverishment risks in displacement and resettlement, such as landless, homelessness, induced un- or underemployment, and socio economic/cultural marginalization, have been either fully preempted, or compensated and mitigated effectively through consistent implementation of LARAP measures. A solid economic and infrastructural base has been laid out during 2005 upon which further promising development can be built.

Recommendations. To build further on the 2005 accomplishments in income generation, Tangguh Project should consider the following recommendations:

- a) **Priority employment remains at this stage the central pivot of Tangguh Project's income reconstruction and growth strategy for LARAP's target group. It should continue with the same methodical and tenacious approach, as this population segment is one of the primary stakeholders of concern to Tangguh, both now and in the long run. LARAP staff should regularly monitor the evolution of the employment rate, desirably on a monthly basis.**
- b) **Arrangements for aggregate assessments of revenues from project employment, which the LARAP strategy counts upon, need to be made immediately between**

LARAP staff and the Tangguh workforce management staff, including collecting from contractors data useful for monitoring LARAP's implementation performance in this regard.

- c) **Arrangements with appropriate institutions for establishing saving windows reachable by resettlers must be pursued as an urgent task, to not miss this early stage when cash-inflows are substantial. Incentives for saving behavior now are essential for cushioning the forthcoming drop in employment income.**
- d) **Because discontinuities in some resettlers' employment¹⁴ are likely to occur in the normal course of work, anticipating them would be more effective than ex-post remedies.** Regular internal monitoring by LARAP staff must spot promptly such discontinuities and act for reassigning resettlers without long interruptions.
- e) **Vocational training must be made available to employees recruited from RAVs in a larger measure than in 2005, for skills usable elsewhere after LNG jobs decrease, and with priority for young residents, as provided in the LARAP .**
- f) **For effective implementation of LARAP's objectives on improved fishing and marketing as a key long-term social strategy, ISP could consider hiring a fishery specialist** with experience in cooperative organizing, management and marketing. Fishermen's needs for self-organization and market access are a propitious "window of opportunity" for the type of "social software creation" that the ISP can offer, to complement what LARAP has provided as "physical hardware" equipment with institutional capacity building.

VII. Social Development and Mitigation of Social Risks

Further, the monitoring review focused on the execution of LARAP's other reconstruction and risk mitigation measures (see LARAP, ch. 10 and 11), regarding public health, nutrition, food security, education and other social services, cultural risks, community cohesion and institutions.

The work for implementing LARAP's complex tasks of a socio-cultural and institutional nature took the Tangguh Project in 2005 along a path which, at almost every step and turn, was new and un-traveled for both Tangguh Project and Papua. It required

¹⁴ E.g., some jobs in LNG civil works may be short term; and the some 100 people reported to build Saengga during 2005 will very soon have completed their employment there.

continuous innovation, adaptation, and change. We attempted to reconstruct these steps and turns through in-depth discussions with LARAP staff and supervisors. In the space of this report we can describe and reflect only a fraction of these facts and processes. But based on these facts, our overall conclusion is that the work for LARAP's implementation successfully broke new grounds at virtually every juncture and steered sound advances in post-relocation sustainable development, with only few areas of weakness. Most importantly, this work has been performed in constant communication, participation and increasing cooperation with LARAP's communities.

The “Sacred Sites Agreement”. A major development in the first part of 2005 was concluding the negotiations between the clans that originally relinquished land to the project and the Tangguh Project on some aspects which emerged following execution of the earlier agreements. These negotiations carried on, with repeated pauses, for a rather long period. They were addressed by Tangguh Project with flexibility and sensitivity vis-a-vis the affected clans' cultural claims and *Adat* norms, allowing sufficient “breathing space” to the clans involved to carry on their internal caucuses and to reach agreement on an unified joint position.

The negotiations were concluded in March 2005, and the agreement provided final resolution to the following outstanding issues: (i) acceptance by the clans of the changed form that the trust fund would take, the amount of which was increased, adding US \$ 1.25 million to the endowment over five years; (ii) *Hak Ulayat* compensation was agreed on for trees cut in the process of village and LNG plant construction; (iii) The relocation of the Sacred Stones was agreed, with full consensus on procedures; and (iv) Compensation payment for cut cultivated *agathis* trees on the LNG site, which previously were not covered explicitly in the initial compensation agreement.

Health-Care Measures and Decrease in Malaria Prevalence. During 2005, the Tangguh Community Health Unit (TCHU) established in Babo, equipped with epidemiological expertise, has placed a strong emphasis on preventive care, including: reducing the incidence of mosquito-borne diseases for malaria eradication, mitigating the

risks of an HIV/AIDS epidemic, supporting maternal and child care, intensifying health-related education, a.o., so as to foster convergent improvements in public health.

Systematic data collected by the TCHU confirms very significant success in reducing the prevalence of malaria in the four villages affected by resettlement. The drop in Malaria incidence over the last four years is nothing short of spectacular. In Tanah Merah Baru, malaria has decreased to 1% and in Saengga no cases have been identified in the last survey. Village by village data are reflected in Table 2 below, and in the diagrams attached as Annex 2.

The ongoing work plans of the TCHU reviewed by the Panel indicate that the effort along these lines will continue steadily. The overall conclusion, at this point in implementation, is that the Tangguh project has most successfully addressed the risk of increased morbidity and managed to preempt it, avoided epidemic outbreaks of the kind frequent under boomtown effects, reduced the incidence of chronic illnesses and has already improved the general health condition of the area population

Table 2.

**Findings of malaria prevalence surveys¹
in LARAP's host and relocated villages (summary for 2000-2005)**

Year – Quarter	2000-1	2003-1	2003-2	2004-1	2005-1	2005-2
Tanah Merah	40	12	4	1	1	
Saengga	22	38	11	9		
Onar Lama			38	37	9	
Onar Baru²	40	12	4	1		0

Source: Tangguh Community Health Unit

Notes:

¹ Methodology: 1 out of 4 households was visited and all family members present were examined for malaria infection with rapid diagnostic tests and blood smears using blood samples from finger pricks. The majority of positives were a-symptomatic with low parasite densities indicative of persistent malaria infections after inadequate treatment

² Inhabitants of Onar Baru moved from Tanah Merah to Onar Baru in 2004. Survey data from Tanah Merah are therefore used until 2004. Only one survey was carried out in Onar Baru itself: in the 2nd quarter of 2005

The Tanah Merah Village Clinic. As part of TMB rebuilding, the Tangguh Project also constructed a spacious new health-care facility in TMB intended to serve neighboring villages as well. Interviews with the personnel of the health clinic in Tanah Merah revealed that support for this new unit from the Government agencies in charge with health care has been sporadic, at most times virtually absent. Medication in the health clinic is not arriving periodically. This deficiency is somehow mitigated by the fact that currently villagers' cash income has increased in they can purchase the needed medications on the market. Indeed, the presence of some retailers of over the counter drugs has been signaled both by the interviewed health assistants and by village women. The panel considers promising the fact that the new Bupati, who visited the area at the same time with the Panel, brought along health officers on his staff who sat down to analyze the work of the TMB health-care facility and plan better support from the district over following months.

Schools and Education

A new, landmark development during 2005 was the start of the long awaited schooling for junior high students in the new building constructed under LARAP in Tanah Merah Baru. BP staff had invested a remarkable effort in helping the newly built school to become functional, at its full capacity, much larger than before resettlement. To fill the gap created by limited administrative capacity at the regency level for managing the expansion of the school system, during 2005 the Tangguh Project contracted with three NGOs the provision of assistance services to area schools, including the recruitment and supervision of sufficient qualified teachers for the increased school population. The school year started in time, with new facilities and an enlarged faculty. This is another substantial accomplishment along the objective of improving resettlers' opportunities and quality of life post-relocation.

Despite significant progress in this domain, difficulties remain. The strategy in this complex area needs to *focus on bringing to full use the potential created by the Tangguh*

Project by building the new physical infrastructure of the school system in the RAVs communities.

A focus group with six teachers at the TMB new school, convened as part of our monitoring analysis, revealed three problems. First, irregular teachers' salary payment. The participating teachers signaled that although it was already mid-March, they had not yet received their salaries for January and February 2006. The NGOs were late in effecting/transferring the salary payments, despite having received the resources timely. Second, some of TMB school's senior teachers, including the principal, are sporadically absent at class time, requiring substitution or class consolidation. This, of course, damages the quality of school education. Third, maintenance of the new elementary school building constructed under LARAP in Onar Baru is inadequate to secure proper working and hygienic conditions. ISP staff undertook to address these issues and initiate appropriate remedies.

As the capacity of the local government is now improving, it may be effective to assist the district education staff to become present on a regular basis in school oversight, professional guidance, teachers' appointment and promotion, etc., as this can be more effective than NGO assistance and self-sustaining in the long run. However, the NGO's contribution remains fully valuable primarily where they have a comparative advantage over administrative authorities, by working at the community level with pupils' families to help improve the quality of learning and mobilize families to support the schools.

Synergy between schools and housing. NGOs can play an effective role in educating the families to exploit the important **potential for synergy between the new school-infrastructure and the new and excellent housing in the villages.** Perhaps for the first time, the children of school age in TMB, Onar Baru, Saenggah, and Onar Lama have ample space and excellent lighting conditions in their homes for focusing on homework and related learning and educational activities. We raised this specific question in another focus group, with women/mothers in TMB, and it appeared that families do not realize at this point what they can do to support and encourage children's learning, and how they can complement the processes at schools proper. On the other side, it is not

clear either whether the teachers elicit appropriate studying efforts beyond class time, building on the new conditions children have for homework in their homes. This is one obvious area where NGOs can help modify traditional habits, by encouraging and “training” families to provide a motivating, stimulating, and more demanding home atmosphere, protective of home-school preparation.

The three NGOs invited by BP to support the school system could also be instrumental in helping create an *organized support group among village parents for school activities*. This would produce both immediate and long term benefits in building a *social compact between families-schools-teachers*, in terms of elevating the standing of educational activities in the villages’ culture, or in meeting some of the schools light maintenance needs’, in increasing villagers’ participation and sense of ownership over the school, etc. It would also gradually enhance teachers’ sense of accountability not only to educational authorities at the district level, but also, more directly, to the parents of the students they are teaching, and may help improve teachers’ frequency in schools.

Recommendations.

1. It appears desirable for the Tangguh Project to support a more direct involvement of the local government’s educational arm in assisting and directly overseeing the operation of the new schooling capacities created under the LARAP. In the public school system, teachers’ formal affiliation, standing, professional careers and advancement, depend on the state structures; thus, support must go primarily in this direction. Resources for filling the gaps in the new teachers’ remuneration could be transferred through the regency, until the system becomes fully self sustained, as it should, through normal administrative mechanisms.

2. NGOs role in supporting the education process and the new schools remains most important. LARAP staff could consider gradually reorienting NGOs’ assistance to where they have a comparative advantage over administrative structures, namely in working at the level of village families, helping create parent-teachers associations, or mothers’ groups, or other similar support groups, and focusing on the “outside-the-classroom” segments of the education process, upon

which the school system relies. This would build upon the new material conditions created by the Project through both new housing and new schools, exploiting their synergy for more effective educational performance.

Ensuring Food Security. The Tangguh Project's timely organized assistance for preventing food shortage in the immediate post-transfer period in TMB and Onar Baru has avoided food insecurity and contributed in turn to good health-maintenance. The program for distributing free food packages to relocated families in these villages has functioned well and for a sufficiently long period to bridge the temporary post-transfer constraints and ensure food sufficiency throughout relocation. After achieving its objective successfully, the program was discontinued in mid-2005.

Community Organization for Self-Management of Services. After the relocation of the Tanah Merah community in 2004, the Tangguh Project agreed to cover the cost of the new communal services provided in the two reconstructed villages --power supply and running water -- for a period of six months, with the understanding that afterwards each household will take responsibility and pay its share of services. For this purpose, water meters and power meters had been installed for each house. While initially the villagers embraced enthusiastically this provision, after the first six months the Tangguh Project met wide community reluctance and un-preparedness to start payment for services and to appoint a community-selected person as handler/manager of the new facilities.

Throughout 2005, the process of creating community structures capable to fulfill the functions of managing community-wide services appeared more difficult than initially anticipated. After much consultation with community members, the LARAP staff concluded that a "village management co-operative" should be established to perform these communal functions, collect and pay service fees, and assure maintenance. In mid 2005, the village management cooperative was established in Tanah Merah Baru. Yet by the end of 2005 (and in fact also through the first months of 2006, at the time of the field visit) the co-operative was not yet able to collect and pay the running costs of water and

power delivery. This is one of the areas in which implementation of LARAP provisions is still lagging behind schedule. Propensity toward some forms of “dependent behavior” still runs strong among at least some villagers, although in other areas the same community displays wonderful initiatives and capacity. There are, of course, pernicious benefits from such dependence. The LARAP work plan for 2006 is predicated on transferring full cost responsibility on Tanah Merah and Onar Baru users by mid-year. The issues of capacity building and cultural change associated with introducing collective organisation requirements, make this a longer-term development issue. The Project supported the establishment of village management cooperative and the training of a number of villagers to serve as operation and maintenance staff.

To prevent repetition of similar issues in Saengga, which in turn receives in May 2006 its power network and drinking water supply system together with the new houses, the project has supported the creation of a village co-operative in Saengga as well, this time setting up this new communal institution even before the transfer of the new houses. It is important indeed to discourage expectations of prolonged dependence among the Saengga families and to transfer maintenance responsibilities and costs to the users soon after relocation.

Recommendations.

1. Tangguh Project should intensify its efforts for capacity building, encouraging the formation of new village structures and institutions capable of performing the tasks of maintaining and managing the improved service infrastructure. The issue at stake is not primarily the cost to Tangguh Project of running those systems, but the principle of building community independent functioning. The increase in revenues and cash flow allows, in fact, the village households to cover the limited costs for communal services without constraining their budget. Education work and intensified efforts toward supporting community self-organization are apt to resolve this issue, and **the Tangguh Project should cultivate skills and abilities among ISP staff for carrying out such educational, organizational and capacity building tasks.**

Delivery of Ownership Titles to Families and Communities. One factor which might have encouraged the community's slowness in taking charge of its new material endowments is the fact that legal ownership titles on the new houses have not been yet issued to each family, even though two years have passed since the TMB and OB families moved in.(see also the Settlement Agreement, mentioned above). Nor have documents been issued to place legal ownership and management role over the *community* endowments and technical systems (this includes a long list of community buildings, such as community offices, schools, sports facilities, healthcare facilities, as well as the water pumping station and the power station) and thus formalize their handover. Conversely, the lateness of symbolic and legal ownership transfer may favor the perception that the supplier of the houses and of the community assets, in this case the Tangguh Project (perceived as an entity with deep-pockets) still has the responsibility over them as their producer. Lack of collective action capacity and subjective mis-perceptions are real constraints, as described above, and may create further difficulties to absorbing personal costs in relation to collective facilities.

Accelerating the preparation and formal issuance of ownership titles, both individual and communal, would help in making the village families more conscious of their own responsibilities. The very "event" of title transfer could be organized and managed in a culturally appropriate way, under the sponsorship of regional Government authorities, so as to reinforce the clear sense that the communities undertake formal commitment for administering the material wealth that the Tangguh project helped build for improving their daily livelihood standards.

Recommendations:

1. The Tangguh Project should address the task of preparing and issuing ownership titles as a priority task in 2006 to complete this operation for all villages in the LARAP area. Local Government should be closely involved in readying legal documents and in running the handover ceremonies, with care that expectations now directed to the Tangguh Project are not shifted to district authorities and regular obligations are to be shouldered by the communities themselves.

2. Further, Tangguh Project should reach and secure understanding from the regional Government authorities that at least the usual amount¹⁵ of technical support provided for rural water and power systems according to Indonesian and Papuan administrative regulations will be forthcoming timely for LARAP communities as well.

The Sacred Stones: Agreements and Progress in Relocation. The need to relocate eight Sacred Stones, spiritual markers of deep significance for the clans affected by the LNG site, was identified early in preparing the LARAP. For long, an acceptable solution proved rather difficult to find, as some of the Sacred Stones were located onshore, within the perimeter of the LNG land, while others were offshore. Relocation involved finding appropriate new sites, procedures in conformity with *Adat* norms and beliefs, and proper logistic/technical answers to the difficult challenges of transporting these massive natural/cultural monuments.

A plan was developed and accepted during 2005 as part of the “Sacred Sites Agreement”, and most of it was already successfully implemented. The five onshore Sacred Stones – regarded in local tradition as the “Soway-Doway”, “Nanawise”, “Gerefuse”, “Wanora-Waniri”, and “Nenek Mai” Stones -- were relocated to the perimeter of the LNG property. Since this proper site was located just inside the boundary of the LNG plant site, the Tangguh Project agreed to revise the fence-line surrounding the LNG plant. The Sacred Stone’s location is now outside the LNG fence to make their place accessible to customary rituals and visits. The remaining three – the “Kumapa”, the “Koday” and the “Boday” Sacred Stones – are offshore, and the construction of the LNG combo doc envisaged initially in their vicinity was realigned to avoid the stones.

The Tangguh Project has contributed substantial financial support, unanticipated previously, as this relocation process has involved expensive mechanical equipment and labor. Two shelters are now being built by the Sowai clan (to be finished in 2006) at the new sites, to protect the relocated Sacred Stones. The process has been carried out consistent with ADB’s indigenous people and resettlement policies for such situations.

¹⁵ If not somehow more, which would be justified by the much more elaborate and demanding set of services created in the LARAP communities

Stability and Security. The general satisfaction in LARAP’s target communities and the good level of cooperation established between their population and the project are expressed also in the fact that no important incidents or grievances have been signaled in the Resettlement Affected Villages throughout the year 2005. Resettlement processes are universally known to be rife with issues of human rights transgressions and entitlement conflicts. Yet in the Tangguh area, the advance planning and consistent unfolding of LARAP’s implementation has fostered stability. LARAP’s community-based workers help in identifying needs and resolving potential issues and grievances. In addition, to preempt the need for outside security resources, the Tangguh Project has encouraged the creation of what is defined as a “community-based security system” and a community oriented policing (COP) office has been created in TMB in 2005.

The issues of security and appropriate protection for human rights have been examined at great extent in the analysis and report prepared in parallel for the same period by the TIAP Panel, available publicly¹⁶; the present EPMP Report does not have anything to add but consistent corroboration to TIAP’s detailed report on these matters.

VIII. Prevention of Boomtown Risks Through Workforce Management

LARAP implementation deliberately aims to also protect the Tangguh area from the classic set of “boomtown risks” and effects, habitual worldwide when large-scale projects are constructed in remote areas. So far, more than one year into full-speed project construction, prevention of these risks in Tangguh is working out effectively.¹⁷

¹⁶TIAP (Tangguh Independent Advisory Panel) Fourth Report on Tangguh LNG Project. March 2006.
<http://www.bp.com/sectiongenericarticle.do?categoryId=9004751&contentId=7008791>

¹⁷ Of course, the prevention of such effects is beneficial also for the other DAVs, located farther away. The present report refers primarily to the LARAP resettlement area.

Preempting Spontaneous In-Migration. Tangguh's pivot mechanism for migration control consists in a set of firm rules of hiring only at defined sites located far away from the LNG site¹⁸; this is complemented by agreements for paying the employed laborers only on their periodic returns at their respective places of hire. This maintains the LNG site including the labor force living quarters as a virtually "cash-less economy" zone, and in turn reduces the incentives for the emergence of spontaneous markets around it or of other ill side effects (gambling dens, prostitution, etc). This workforce recruitment policy also helps preempt the families of employed laborers from invading and settling down in the area around the Tangguh project. In addition, the Tangguh Project decided to fully avoid the opening of terrestrial roads to the project site and its adjacent LARAP villages, by channeling all the coming and going of contracted workers and materials only through the Tangguh Project controlled transportation on water. However, unanticipated factors beyond the Project's control may occur, despite the Project's careful planning: one example in this respect is the plan of the Fakfak government to open roads from Fakfak to Bomberai, very close to Saengga and Tofoi.

Although this set of unusual rules may seem from afar rather complex and hardly workable, it is remarkable that so far the Tangguh Project's innovative approach has worked out with amazingly good results. This strategy, of course, imposes added self-constraints on the Tangguh Project, as well as organizational difficulties. Yet the stakes are important, both socially and environmentally. The outcome so far confirms the validity of the Tangguh Project strategy. While the labor force has already reached the impressive number of 2700 employees by end 2005 (and almost 4,000 employees by March 2006, when this monitoring round took place), this entire army of workers is shuttled in and out of the project essentially according to the designed strategy. No uncontrolled large settlements have been recorded so far in the immediate vicinity of the Tangguh project. While realistically it cannot be expected that the effort will prevent in-

¹⁸ Four designated centers for Tangguh hiring have been established in towns far away from "LNG gates": at Fak Fak, Sarong, Manokwari and Bintuni. Exception is made only for hiring residents of LARAP/DAV communities.

migration 100% throughout the project's duration, it is obvious that the massive population in-flows typical elsewhere were so far preempted.

The postponement of LARAP's 2005 annual monitoring census prevents a rigorous quantification of these cases, but reports from community workers indicate that the numbers of incoming people are low and certainly far below what could have been expected without the preventive measures.

In-Migration Pressures. The pressure by outsiders for moving in will surely continue. High demand for wage employment and perceptions of relative deprivation in most of Indonesia's other regions fuel such pressures constantly. It is realistic to assume that, despite preventive countermeasures, such pressure may result over the next two-three years in some amount of migration inroads.

As our report covers only the LARAP, the inquiry explored whether in the LARAP area any substantial number of new families has come to settle in the four villages. A number of cases do exist: some are the early individual migrants from Toraja who came around the Saengga temporary village even before the LNG works started; others are Sumuri tribe members who decided to return to the area attracted by the new opportunities, on the ground of their customary entitlements and having kin members in these communities.

The postponement of LARAP's 2005 annual monitoring census prevents an accurate quantification of these cases, but reports from community workers indicate that the numbers of incoming people is not large and certainly far below what could have been expected without the preventive measures.

Continuous In-Migration Pressures. The pressure by outsiders for moving in will surely continue. High demand for wage employment and perceptions of relative deprivation in most of Indonesia's other regions fuel such pressures constantly. It is realistic to assume that, despite preventive countermeasures, such pressure may result over the next two-three years in some amount of migration inroads.

Box 1**The Community Defends Priority Hiring**

The local population in the LARAP villages, as well as in all other DAVs, has in fact understood and internalized well BP's priority system in workforce recruitment, supports it, and regards its own priority ranking for employment advantages as a benefit and entitlement due to the Tangguh project. Perhaps this awareness was best reflected in a local security incident. Shortly before end of 2005, a group of workers en route to the LNG site were held against their will by villagers in one of the DAVs –Tofoi. The village population protested, believing that those workers were immigrants who didn't fit the priority criteria for LNG employment, which they expected to accrue in a larger proportion to Tofoi families. Following clarifications by workforce management officials, the Tofoi villagers released the workers unharmed.

This incident indicates, in fact, that there is space for effectively involving local communities in helping to keep in-migration pressures in check, based on their understanding that this process conflicts with their own interests and access to wage employment.

Although obviously the Project does not condone the interfering detention of LNG construction workers and would have preferred villagers to use the established grievance system, the action does demonstrate awareness of, support to, and a sense of entitlement to the priority hiring system extended by the project to local affected communities.

Recommendation.

- 1. The Panel recommends that the Tangguh project intensifies its cooperation in this respect with Bupati's office and staff, who are best placed to work with village administrations in all affected communities for preventing adverse effects of population in-migration influx.**

IX. LARAP's Reporting and Monitoring System.

To keep track of implementation progress, difficulties, or unanticipated effects surfacing in this process, the LARAP document includes a reporting and monitoring mechanism with the parts: (a) an internal system of reporting/monitoring by Tangguh Project staff, with defined indicators on inputs, process, outputs, outcomes and impacts, predicated on analyzing the information accruing through regular bottom-up channels; (b) periodic surveys among the resettlement affected population in the four communities; and (c) an external expert monitoring panel consisting of independent outside specialists tasked to

visit the project at six months intervals (see Ch.12 of LARAP). Some parts of this system are still being built and this review tried to assess their operation and functioning by end 2005/beginning 2006.

Internal Reporting and Monitoring. Internal reporting is done through defined bottom up reporting structures. The structure of the ISP organizational unit does not include at this time a special monitoring unit or subgroup. Nor does it produce yet periodic monitoring reports either on the ISP or on the LARAP execution. The only specific monitoring report being currently prepared as such is the one on AMDAL for submission to the GOI, according to AMDAL procedures. No other particular report reviewing and synthesizing advances in the delivery of LARAP's various special inputs, or undertaking an internal time-bound analysis based on LARAP's indicators on output and impacts to date, has been undertaken yet.

A very useful and regularly issued statement or brief to Tangguh's Stakeholders is being prepared on a quarterly basis and distributed widely by the communication staff of ISP; this concise document covers the project in its entirety, has a public information function fulfilled very well, but not an analytical one, and doesn't contain distinct and comprehensive information on LARAP progress, except special milestone events

The panel discussed with ISP/LARAP managers the need for introducing structured and periodic *reporting* on LARAP activities as required in the LARAP document, distinct from other parts of the multi-component ISP program, given that LARAP's tasks and issues have an identity of their own¹⁹. This refers also to the need for internal and distinct *monitoring self-assessments* of outcomes and performance of various sub-

¹⁹ For instance, the reporting work of the community agents is not standardized, for easy aggregation. Information upstream is communicated promptly, yet it is rarely recorded in a systematic way to enable the construction of a full image of village activities. The Panel suggests an easy remedy: the resettlement manager could develop a matrix of key change indicators, of primary interest to the management of LARAP, for which the community workers could collect regular and full data rather than only report on specific cases. The reporting matrix can also include special events, initiatives noticed by the community workers, and other less usual indicators. The presence and regularity of such reporting would certainly supply, and help record, a more complete set of information about developments occurring at the grassroots levels in the LARAP villages.

programs of the LARAP. Many of these are of a unique social, economic, institutional or cultural nature, occurring only in the LARAP target area, have their own separate budget, and can hardly be subsumed to other parts of the ISP. Some are innovative measures, untested before, with unknown yet effectiveness. The capacity for introducing such internal monitoring, with regular records, fully exists in ISP.

The Bi-Annual Monitoring Survey. Another component of the envisaged LARAP monitoring is the periodic population survey among the resettled and host communities. This survey was scheduled for 2005, to enable progress analysis compared to the baseline population survey in 2002. Outside consultants were invited to design this survey based on the ToR provided by the Tangguh Project. The selected consultant's delay in submitting a proposal and the processing of the consultant's proposal, however, took excessively long and resulted in the survey's implementation falling behind the planned schedule; as a result, it was not carried out during 2005.

During this field visit, we reviewed both documents -- the ToR and the proposal received by the Tangguh Project -- for carrying out the monitoring survey. The ToR adequately defines the key objective of the study as *"to provide an assessment of the state of the resettled and host communities (TMB and OB) one year after physical relocation"* and to assess the *"state of household livelihood restoration activities and the general concerns (agriculture, fisheries, enterprise, employment) as well as issues pertaining to migration and negative-induced impacts."* As to the survey methodology, the Panel recommended to replace the sample survey approach (intended to cover only a statistically non-representative 20% segment of the population in the four villages) with a census-type survey, using a limited set of essential household indicators and questions. This alternative approach is apt to supply information comparable with The Tangguh Project's initial baseline census. Most importantly, it will generate **knowledge adequate to inform practical action focused on a household and family by family basis** in the four villages, so as to support the project's goal of assisting every family not only to restore income but to also reach a significant improvement in livelihood.

An important tool expected to be produced by the census approach is a “household card” or “family card” for every unit surveyed, that should become a basic instrument in monitoring one of LARAP's constant challenges: whether or not each family in the target area receives access to at least one job, if not more, within the project, either in LNG or in related project employment and auxiliary work. Job-data could then be corroborated with information on project salaries, helping to assess the cash in-flows at various points in time. Importantly, this will help spot the families which do not yet benefit from project employment, thus identifying possible gaps in coverage/impact and prompting pointed action to re-direct available jobs towards capable members of those households. The household cards would be kept updated from year to year as a versatile impact monitoring tool throughout the project period and as a data-bank for comparative analyses.

At the request of ISP Field Manager, these recommendations were outlined separately in a detailed “**Note**”, discussed in the field and submitted shortly after the field visit, on April 4, 2006. The Panel notes that the recommendations were fully accepted and a re-designed census-type survey is now being prepared, to be carried out in two or three months.

External Monitoring Panel.

Given the nature of resettlement processes and the Tangguh Project's goal of carrying out the LARAP in accordance with international standards, in 2002 Tangguh Project management initiated the creation of an external expert monitoring and quality assurance panel to assist in the development of the LARAP and subsequent monitoring and evaluation of its implementation. Subsequently, ADB, JBIC, and Tangguh's other lenders broadened this initiative, recommending to appoint an international panel with a larger mandate, that would evaluate and monitor compliance on three main topics: (a) resettlement and reconstruction of the displaced/host communities; (b) environmental impacts; and (c) the integrated social program. Discussions with lenders have led to an agreed framework for the establishment of an External Panel consisting of specialists to analyze progress and monitor compliance with policies and agreed plans, by visiting the project area with a 6-months periodicity for social development programs and annually

for environmental compliance monitoring. Steps for setting up the full Panel and defining its ToR are underway. The monitoring reports will be conveyed to ADB, JBIC, ICBs and other lenders, as well as to the Project, and will be posted on the web for public information together with the Tangguh Project's responses.

X. Tangguh Project's Performance in Managing LARAP

Implementation

Considerable attention was paid during our field analysis to the patterns of management employed in LARAP implementation, to staffing issues, and to the Tangguh Project collaboration with local government authorities and villages' leadership.

Discussions with Tangguh Project staff. By attending the one full-day review meeting of ISP activities, this report's author was able to grasp how the Tangguh Project staff members in charge of each of the ISP 15 components function on the ground and complement each other. The reorganization of Tangguh Project's work on ISP and resettlement, described at the beginning of this report, is proving itself consequential and successful, apt to increase program effectiveness and expand the radius of Tangguh impact. The Tangguh Project has selected for the resettlement work a group of skilled and committed professional staff, including expatriate professionals with high technical and managerial competence, and country nationals with appropriate knowledge and dedication to social development work. The tenacious work of this staff group is at the root of the good resettlement performance to date. The other root cause of effectiveness in this thorny domain is the Tangguh Project's institutional commitment and political will to achieve sustainable resettlement.

Detailed discussions with field staff during this visit have re-confirmed the usefulness of the network of personnel working at the grass roots community level, placed by the Tangguh Project on the ground to work in each resettled and host village. All community [agents] are local Papuan or Indonesian staff. Their work experience has grown considerably on the job; they have received training and are benefiting from an informal yet structured practice of personal mentoring by senior the Tangguh Project staff. The

community staff works in back-to-back shifts, so that the presence of community agents is continuous in the affected communities. The community workers are good communicators and act as the ears and eyes of the LARAP program managers, conveying to them feedback and requests from villagers. We note also the acquired competence of LARAP staff in understanding and taking into account customary *Adat* and *Hak ulayat* norms and requirements. Tangguh Project's legal staff working on resettlement, in particular, have become knowledgeable on these matters, facilitating consensus in culturally sensitive issues. An important Tangguh Project management achievement during the monitored period, as discussed in a prior section, was the successful conclusion of the "Sacred Sites Agreement", bringing several issues left pending from prior years to a consensual resolution and increasing communities' satisfaction.

Cooperation with local government For a considerable part of 2005, cooperation with local authorities did not advance as intended because there was effectively a lack of local government during election campaigns most of 2005. Often, the expected response on routine matters was long in coming or absent. The Panel notes that the Tangguh Project has pursued a correct line of avoiding substituting itself to the administrative authorities and also aimed to discourage dependency on the Tangguh Project for functions that belong to local administration structures. Reaching constantly out, the Tangguh Project has managed to expand its cooperation with a good number of NGOs and civil society associations, etc., supporting their work in the LARAP communities.

The change in the local area government following the election of a new Bupati before the end of 2005 has cleared the path to tangible improvements in this respect. In a short interval, a qualitatively different pattern of working cooperation has developed between the Tangguh Project and the new Bupati, whose proactive approach, numerous initiatives, and "can do" spirit receive prompt support from the Tangguh Project. This report's author had the opportunity to be one field day in Tanah Merah and Onar Lama communities together with the new Bupati and with the Tangguh Project Vice President for ISP, gaining a first hand confirmation of this changed pattern of practical cooperation and "hands on" approach to resettlement area needs.

XI. Conclusion

To sum up this report, the Panel's assessment is that **teh Tangguh Project's performance during 2005 in LARAP's implementation can be ranked overall as excellent..** LARAP's major village infrastructure building components are virtually 100% completed, with only the last community buildings in Onar Lama to be finished in 2006. The transfers of population have also being completed, as at this very time the Saengga community is moving back to its place, taking possession of its fully reconstructed and well-equipped, modern new village. Wage-based income from project employment remains Tangguh's main – and effective – tool for restoring, increasing and sustaining resettlers' cash incomes. The Monitoring Panel examined how the "employment tool" has been wielded during 2005 and concludes that performance so far has been highly satisfactory. The novel pattern of workforce management instituted by the Tangguh Project is capable to ensure continued application of the priority system. Education, health-care levels, sanitation and other services have undergone basic changes and are poised for further improvements. The review ascertained that the project's attention to local culture and to indigenous people's development has been fully in line with ADB policy and LARAP planned provisions. There are also some limited areas of weakness; these were discussed above in detail, as well as with teh Tangguh Project managers. In particular, the strengthening of internal and external monitoring, the regular population census/surveys in target communities, and focus on in-migration trends, will improve the Project's analysis and grasp of socio-economic impacts and outcomes,

The successful advances during 2005 in LARAP implementation owe much to the concerned and constant personal attention of teh Tangguh Project senior managers in Indonesia for LARAP's special challenges. The review has confirmed that the project managers guide the resettlement processes in full compliance with the policy principles announced in the LARAP, regarding content, objectives, and financing, and consistent with the relevant policies of the lending organizations.

A new phase is opening up now in LARAP's implementation, with a shift in balance between engineering and socio-economic tasks. Because the engineering agenda of physical reconstruction in all four villages is completed, 2006 marks the period when **the center stage in LARAP implementation is and will continue to be *exclusively* occupied by its large range of social and economic development activities.**

New milestones and complex processes are ahead, not lacking in difficulties and risks, but full also of more promise. We have empirically observed on the ground how BP Indonesia's innovative work in the Tangguh project and its performance in implementation are in many respects exemplary. Thus, they are relevant beyond Tangguh, for other BP projects elsewhere and for the work of other industrial corporations. Therefore, the Panel reiterates the recommendation made to ISP managers that the rich institutional and social experience embedded in the LARAP's history of preparation and execution deserves and needs to be committed to paper – best in the form of a book manuscript written by those who have done the work – that will certainly have a wide international audience and, hopefully, other followers as well.