

This article was downloaded by: [Cornell University Library]

On: 14 March 2014, At: 07:30

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



International Journal of Psychology

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/pijp20>

Remuneration disparities in Oceania: Papua New Guinea and Solomon Islands

Leo Marai ^a , Vincent Kewibu ^a , Elly Kinkin ^a , John Peter Peniop ^b , Christian Salini ^b & Genesis Kofana ^b

^a University of Papua New Guinea , Port Moresby, Papua New Guinea

^b University of the South Pacific , Honiara, Solomon Islands

Published online: 14 Jul 2010.

To cite this article: Leo Marai , Vincent Kewibu , Elly Kinkin , John Peter Peniop , Christian Salini & Genesis Kofana (2010) Remuneration disparities in Oceania: Papua New Guinea and Solomon Islands, International Journal of Psychology, 45:5, 350-359, DOI: [10.1080/00207594.2010.491992](https://doi.org/10.1080/00207594.2010.491992)

To link to this article: <http://dx.doi.org/10.1080/00207594.2010.491992>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Remuneration disparities in Oceania: Papua New Guinea and Solomon Islands

Leo Marai, Vincent Kewibu, and Elly Kinkin

University of Papua New Guinea, Port Moresby, Papua New Guinea,

John Peter Peniop, Christian Salini, and Genesis Kofana

University of the South Pacific, Honiara, Solomon Islands

This paper explores the impact of remuneration differences on workers in the Solomon Islands and Papua New Guinea. In these countries remunerative differences are linked to government policy (in Papua New Guinea) and job contracts (in the Solomon Islands), and have impacted on industrial relations in both settings (strike action). A total of $N=350$ professionals ($n=60$ expatriates) from 54 organizations in aid, government, higher education and industry (mean response rate = 36%) responded to an organizational survey form. Remuneration ratios between international and local respondents based on the World Bank's index of purchasing power parity approached 9:1. In both sites staff compared pay and benefits (remuneration) packages: Internationally remunerated staff rated their ability higher than their local counterparts did; locally remunerated groups reported more injustice in remuneration, were more demotivated by the gaps, and were more likely to be thinking about leaving the organization. In-country workshops of $N=40$ largely local stakeholders from aid and community organizations plus government ministries considered the survey's findings and recommended: in Solomon Islands, (a) introducing a policy of localization, (b) establishing a remuneration commission (already existent in Papua New Guinea), and (c) reducing the remunerative gap; in Papua New Guinea, (d) reversing the post-Independence "dual pay system" (currently official policy), (e) instituting pay-for-performance, and (f) ensuring the existent localization policy is applied to recruitment, selection, and staff career planning and management.

Keywords: Poverty reduction; International aid; Development work; Capacity development; Humanitarian, Work psychology.

Cet article explore l'impact des différences de rémunération sur les travailleurs dans les Iles Salomon et la Papouasie-Nouvelle-Guinée. Dans ces pays, les différences de rémunération sont liées aux politiques gouvernementales (en Papouasie-Nouvelle-Guinée) et aux contrats d'emploi (dans les Iles Salomon) et ont un impact sur les relations industrielles dans les deux contextes (action de grève). Un total de 350 professionnels (dont 60 expatriés) issus de 54 organisations reliées aux ressources d'aide, au gouvernement, à l'enseignement supérieur et aux entreprises (taux de réponse moyen = 36%) ont répondu à un formulaire d'enquête organisationnel. Les ratios de rémunération entre les répondants internationaux et locaux basés sur les indicateurs de parité du pouvoir d'achat de la Banque mondiale approchaient 9 : 1. Dans les deux sites, les employés ont comparé leurs salaire et bénéfices (rémunération); les employés rémunérés internationalement ont évalué leur habileté de manière plus favorable que ne l'ont fait les employés locaux; les groupes rémunérés localement ont rapporté plus d'injustice dans la rémunération, étaient plus démotivés par les écarts et étaient plus susceptibles de penser à quitter l'organisation. Des ateliers organisés dans chaque pays, regroupant surtout des représentants locaux des ressources d'aide et des organismes communautaires ainsi que des ministères

Correspondence should be addressed to Leo Marai, Psychology Strand, University of Papua New Guinea, National Capital District, PO Box 320 Port Moresby, Papua New Guinea (E-mail: marail@upng.ac.pg).

We thank our funders the UK Department for International Development (DFID) and Economic and Social Research Council (ESRC).

We thank Glynn Galo, Tony Hou and David Kavanamur for invaluable contributions; survey participants for their time and goodwill; workshop attendees for their contributions; and Stu Carr and Ishbel McWha for cofacilitating workshops. We especially would like to thank Claudia Dalbert for her very helpful and constructive editorial comments and suggestions with respect to improving the paper.

gouvernementaux ($N=40$), ont permis d'examiner ces résultats et de formuler les recommandations suivantes : dans les Iles Salomon, (a) introduire une politique de localisation, (b) établir une commission sur la rémunération (qui existe déjà en Papouasie-Nouvelle-Guinée) et (c) réduire l'écart de rémunération; en Papouasie-Nouvelle-Guinée, (d) renverser le système salarial double de l'après-indépendance (qui est actuellement la politique officielle), (e) instaurer un salaire basé sur la performance et (f) garantir que la politique de localisation existante soit appliquée au recrutement, à la sélection et à la planification et la gestion de la carrière des employés.

*E*ste trabajo investiga el impacto de las diferencias en la remuneración en trabajadores de las Islas de Salomón y Papúa Nueva Guinea. En estos países, las diferencias de remuneración están relacionadas con las políticas gubernamentales (en Papúa Nueva Guinea), y contratos de trabajo (en las Islas de Salomón) y han impactado las relaciones en ambos casos (acciones de huelga). Un total de $N=350$ profesionales ($n=60$ expatriados) de 54 organizaciones en asistencia, gobierno, educación superior e industria (tasa de respuesta media = 36%) respondieron a una encuesta organizacional. Los ratios de remuneración entre los encuestados internacionales y locales basados en el índice del Banco Mundial de Paridad de Poder Adquisitivo llegaron a 9:1. En ambos casos, las plantillas compararon los paquetes de pagos y beneficios (remuneración), la plantilla remunerada internacionalmente puntuó su habilidad por encima de sus colegas locales, los grupos remunerados localmente relataron más injusticia en las remuneraciones, fue más desmotivada por las lagunas y tuvo más tendencia a pensar en dejar la organización. Los talleres dentro de los países de $N=40$ en gran parte las partes interesadas locales de las organizaciones de asistencia y comunidad, junto con los ministerios de los países, consideraron los resultados de la encuesta y recomendaron: en las Islas de Salomón, (a) introducir políticas de localización, (b) establecer una Comisión de Remuneración (que ya existe en Papúa Nueva Guinea), y (c) reducir la laguna en la remuneración; en Papúa Nueva Guinea, (d) revisar el "sistema de pago dual" post-Independientista (política oficial actual), (e) establecer la paga-por-rendimiento y (f) asegurar que la política existente de localización se aplica al reclutamiento, selección, la planificación y el manejo de las carreras de las plantillas.

Island economies face a greater risk of marginalization from the global economy than many other developing countries due to their small size, their remoteness from large markets, smaller domestic markets, and relative vulnerability to economic, social and natural events (UNCTAD, 2009). Climate change compounds these issues (Webster, 2008). Additionally, issues of ethnic tension and land conflict may impact development initiatives (McKay, 2009). In 1994, the United Nations grouped least developed countries and land-locked developing countries with small island developing states, as nations needing special attention for meeting the United Nations' Millennium Development Goals for poverty reduction (UNCTAD, 2009). Papua New Guinea and Solomon Islands were identified as being particularly vulnerable to increased poverty (Yari, 2004). Organizations in such locations have a key role to play in fostering the development of local capacity, through technical cooperation and assistance (Manning, 2006). However, as Manning suggests, labor costs for expatriate expertise may siphon off valuable aid resources (p. 123). Research further suggests that gaps in remuneration (pay and benefits combined) between international and local workers might demotivate collaborative work and incentivize "brain drain," thereby fueling rather than reducing aid dependence (Gibson & McKenzie, 2008). This paper

empirically explores those possibilities, at the level of everyday work. The paper situates remuneration differences within the social context—specifically economy, culture, and community. With respect to economies of scale, organizations in island settings are often small, for example nongovernment organizations in health or enterprise development, with relatively few staff. The sense of propinquity that these smaller groups can engender may make differences in remuneration salient (Marai, 2009). With respect to culture, in each setting there is a Melanesian tradition of *Wantok*, which is a resilient support system of extended families and social obligations (Yari, 2004). Within those systems, remuneration for local professional workers logically has ramifications beyond the immediate workplace. By probing their "work-life" linkages, our research "aligns" with local perspectives, relying heavily on asking local stakeholders about the implications of compensation gaps with expatriates (Carr, McWha, MacLachlan, & Furnham, 2010 this issue).

The present study explores the relevance of remuneration differences across two contemporary island economies in Oceania: Papua New Guinea and the neighbouring Solomon Islands. Based on the literature cited above, we expect to find that skilled workers generally (independent of remuneration) will compare each others' (a) abilities

and (b) remuneration. Also, workers remunerated less (vs. more) will report more thoughts about (a) injustice, (b) demotivation, (c) turnover, and (d) international mobility. In testing these hypotheses, our main focus was the local workforce rather than improving work conditions for expatriates—an ethos consistent with poverty reduction.

STUDY I: THE SOLOMON ISLANDS

Good working relationships in aid projects contribute significantly to their successful implementation (Eyben, 2005). Remuneration is one important factor that affects working relationships—it can be motivating or demotivating (Latham, 2007). Remuneration discrepancies may discourage local workers' participation in aid projects, depriving them of the possibility of local capacity-building, and resulting in continuous dependence on foreign assistance in technical and other areas. Remuneration disparity can lead to high turnover of local staff, impacting projects negatively. Speaking about international peacekeeping and aid initiatives in the Solomon Islands, one church elder noted, "Australians are coming in with a higher and higher and better lifestyle, making a lot of money. . . what [an aid organization expatriate employee] might get in one week is what Solomon Islanders might live on in a year . . . that's just sure to engender some bitterness eventually" (Brown, 2006).

Anecdotal remarks like this chime with earlier observations in higher education in Malaŵi (Carr, MacLachlan & Chipande, 1998) and Indonesia (Marai, 2002/2003). In Malaŵi, internationally salaried instructors overrated their own abilities, and were unaware of how unjust locally remunerated lecturers felt their compensation had become. In Indonesia, remuneration discrepancies were linked with reduced job satisfaction and demotivation, compared to instructors compensated more equitably. We wondered if similar dynamics might play out in Solomon Island organizations, in aid and related sectors such as education, government and business (Higgins, 2008). Study I therefore set out to explore the organizational psychology of remuneration in the Solomon Islands, and its possible implications for development policy.

Method

Sample

A total of 150 participants were drawn from 28 organizations. The response rate was 55% (for 118

locals and 32 expatriates from eight nationalities response rates were 75% and 28%, respectively). There were five aid organizations ($n=45$), four commercial organizations ($n=11$), two educational institutions ($n=13$), and 17 government institutions ($n=81$). Mean n per organization = 5.36. The effect of organization on the variables in Table 1 could not be calculated as 13/28 organizations had just one or two employees in the sample, making it impracticable to distinguish organizations from individuals. Sixty-seven percent of the sample was male; 33% was female. Among those receiving local remuneration, 77 were male and 36 were female. Among those receiving international remuneration, 22 were male and 9 were female. Hence gender ratios were preserved across remuneration types.

Cross-tabulations revealed that 7 local workers reported receiving international remuneration and 3 expatriates reported receiving local remuneration. The largest categories were locals on local remuneration ($n=110$) and expatriates on international remuneration ($n=24$). A total of only $n=5$ respondents received "volunteer" remuneration ($n=1$ local respondent, $n=4$ expatriates). Given this relatively low n , "volunteers" were not included in subsequent analyses.

Qualifications ranged from high school certificate ($n=9$) to tertiary diploma ($n=19$), bachelor degree ($n=57$), postgraduate diploma ($n=27$), master's degree ($n=32$) and doctoral degree

TABLE 1.

Variables in H_1 – H_6 by remuneration controlled for covariates (culture shock, agreeableness/horizontal collectivism, horizontal individualism, vertical individualism and collectivism, candour, job satisfaction/work engagement, sex, highest qualification and years' experience; Study 1; Solomon Islands)

	Remuneration	
	Local ($n=106$)	International ($n=27$)
International mobility	2.60 (1.22) 2.56	2.01 (0.97) 2.17
Turnover	2.75 (1.14) 2.73	2.21 (1.04) 2.26
Demotivation	3.41 (0.81) 3.37	2.47 (0.67)*** 2.63
Justice	2.44 (0.79)	2.78 (0.56)*
Comparison	3.78 (0.90) 3.79	3.29 (0.79)** 3.26
Ability	3.24 (0.80) 3.58	3.57 (0.55)*

Italics denote corrected M , if different from raw M . * $p < .05$; ** $p < .01$; *** $p < .001$.

($n=2$) (missing=4). By remuneration type, high school=7 (local), 1 (international), tertiary diploma=19, 0, bachelor degree=44, 10, post-graduate diploma=23, 4, master's degree=17, 13, doctoral degree=0, 2. Hence the sample was generally well qualified.

Mean age for the sample was $M=39.30$ years ($SD=9.51$). Professional experience across the sample as a whole averaged $M=10.38$ years ($SD=9.29$). Among the locally remunerated workers, M for age was 38.88 years ($SD=8.00$), with $M=8.88$ years' experience ($SD=7.72$). Among the internationally remunerated workers, the equivalent statistics were $M=43.60$ years of age ($SD=13.11$) with $M=16.38$ years' experience ($SD=12.25$). Hence the sample as a whole was generally mature and experienced.

Measures

We used a 97-item questionnaire that is presented, and psychometrically evaluated, in Carr et al. (2010 this issue).

Salary. We asked: "In your current main job, is your salary Volunteer/Local/International?"; "What is your approximate official annual salary, in the currency in which it is paid?"; "Is your current combined pay and benefits enough for your everyday needs?"; "Expatriate salaries start to become unacceptably large once they reach ___ times a local salary (Choose a number from the following 2 3 4 5 6 7 8 9 10 > 10 times)"; and "My job brings me into contact with differently paid and benefited... (a) expatriates [and] (b) locals," scaled 1 (strongly disagree) to 5 (strongly agree).

Variables in H_1-H_6 . All attitudinal items used a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). The questionnaire included multi-item measures of *ability* (four items, e.g., "I perform better than most expatriates/locals," Cronbach's alpha for Solomon Islands=.82); *comparison* (four items, e.g., "I am aware of the pay and benefits received by expatriates/locals," $\alpha=.83$); *justice* (six items, e.g., "I feel that there is fairness in the process for allocating pay and benefits to locals/expatriates," $\alpha=.79$); *demotivation* (six items, e.g., "I am demotivated by the pay and benefits received by expatriates/locals," $\alpha=.85$); *turnover* (six items, e.g., "I think about leaving this job," $\alpha=.96$), and *international mobility* (three items, e.g., "I wish I could leave this country," $\alpha=.94$).

Covariates. As control measures we included: *culture shock* (five items, adapted from Mumford's (1998) Culture Shock Questionnaire; $\alpha=.79$, e.g., "I feel confused about my role working with the new culture"); agreeableness (from McManus & Furnham, 2006, which melded exploratory factor analysis (in Carr et al., 2010 this issue) with horizontal collectivism (from Triandis & Gelfand, 1998), which we subsequently termed *agreeableness/horizontal collectivism*, six items altogether, e.g., "I generally try to be thoughtful and considerate," and, "If a coworker gets a prize, I would feel proud," $\alpha=.69$); *horizontal individualism*, *vertical individualism*, and *vertical collectivism* (from Triandis & Gelfand, 1998, two items per measure, exemplars "I often 'do my own thing,'" "Winning is everything," "Family members should stick together, no matter what family sacrifices are required," α values=.66, .49, .70, respectively); a variable we termed *candour* (a five-item mix of the Socially Desirable Response Set in Hays, Hayashi, & Stewart, 1989, which merged in Carr et al. (2010 this issue) with neuroticism (from McManus & Furnham, 2006), $\alpha=.83$, e.g., "I often feel tense and jittery," and (from Hays et al., 1989), "I sometimes try to get even rather than forgive and forget." Job satisfaction and work engagement could not be separated from each other in Carr et al. (2010 this issue). Hence they were measured together, using Carr et al.'s (2010 this issue) combination of the three-item measure of job satisfaction from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983), which was blended inductively via factor analysis (see Carr et al., 2010 this issue) with eight items from the nine-item Utrecht Work Engagement Scale (Schaufeli, Bakker & Salanova, 2006). This variable was labelled *job satisfaction/work engagement* ($\alpha=.88$, exemplar items, "In general, I like working here," "At my job, I feel full of energy"; a ninth item from the original Schaufeli measure, "I get carried away when I am working at my job," was deleted from all studies in the special section, due to low communality reported in Carr et al., 2010 this issue). Also treated as statistical controls (covariates) were *sex*, *education* (highest qualification), and *years of experience in the type of job*.

Open-ended question. We also included the question, "Based on your own observations and experiences, what would be the No. 1 improvement that could be made to help manage pay and benefits in your immediate work environment?" The answers to this question were presented to the

post-survey workshop of in-country subject-matter experts and stakeholders (below), who content-analyzed them as part of the process for deriving recommendations from the research (these are reported in the General Discussion),

Procedure

Key institutions and organizations were approached for permission to invite their employees to voluntarily participate in the survey. Organizations' and individuals' identities were kept anonymous for ethical reasons. Survey questionnaires were distributed in a number of ways deemed appropriate for individual participants and organizations. These included personal contacts with participants, internet mailing systems and distributing the questionnaires through identified personnel in the organizations. An in-country workshop was organized for 20 local aid, government, and educational professionals to discuss the findings and derive policy recommendations. Agencies and organizations represented came from aid, relief, security, and a range of government offices/ministries. Organizations represented were international and local, in roughly equal proportions. Although expatriate and in-country workers were invited, attendance was almost wholly local. This may be symptomatic of the issue, rather than a distortion in sampling.

Results and discussion

Salary

A total of 113 respondents reported receiving a local salary and 31 an international salary. Both remuneration groups agreed that "my job brings me into contact with differently paid and benefited expatriates/locals," means for both groups = 4.00/5, scale ranged from 1 (strongly disagree) to 5 (strongly agree). The response rates for actually reporting pay were low, in part due to contract requirements restricting disclosure in the Solomon Islands (ADDUP, 2009). We advise caution in interpretation and generalization of this result. We focus on expatriate workers receiving international remuneration, and local workers receiving local remuneration (Carr et al., 2010 this issue). Measured in international dollars using the World Bank's purchasing power parity (World Bank, 2007), mean local pay was International \$15,860 ($n=11$), while international salary was International \$163,188 ($n=67$). These figures suggest a ratio between internationally and locally

remunerated respondents of 10.29:1. This would contrast with mean ratio at which expatriate salaries reportedly become unacceptably large: Locally remunerated workers ($n=99$) put the limit, on average, at $M=5.47$ times local salary ($SD=2.75$); internationally remunerated workers ($n=18$) at $M=6.78$ times the local salary ($SD=2.90$) (overall $M=5.68$, $SD=2.80$).

International salaries were generally reported to be sufficient to meet everyday needs and local salaries not: Only 14% ($n=15$) of 110 respondents on local remuneration reported that the compensation they received was sufficient to meet their everyday needs; for the internationally remunerated it was 97% ($n=30/31$). Since the n for this question is relatively large (compared to those able to report their actual pay) we were reasonably confident that remuneration in the Solomon Islands did not meet workers' everyday needs directly.

To sum up, at work there was contact with perceived threshold-exceeding differences in pay, a social inequity, coupled with unmet need, i.e., poverty in both a relative and an absolute sense. Employment remuneration was not alleviating poverty directly.

Variables in H_1 – H_6

We used analysis of covariance (ANCOVA) to test for differences in the six dependent variables regarding remuneration type (local, international). The 10 covariates (culture shock, agreeableness/horizontal collectivism, horizontal individualism, vertical individualism, vertical collectivism, candour, job satisfaction/work engagement, sex, education, and years' experience) were included as a set in each initial ANCOVA, and each retained only if it was statistically significant ($p<.05$). Hence if a covariate is not reported below, it was not significant. Subsample sizes for these tests were $n=104$ (or 69% of the total sample of $N=150$) in the group remunerated locally, and $n=27$ in the group remunerated internationally. Results are given in Table 1.

Controlling for vertical individualism—positive predictor, $F(1, 127)=11.32$, $p=.001$, partial-Eta-squared = .08—there was overall disagreement (<3), not agreement (>3), about global mobility across the two remuneration groups (ns). Controlling for culture shock, $F(1, 123)=10.39$, $p<.005$, partial-Eta-squared = .08, staff remunerated locally were almost significantly more likely to be thinking about turnover, compared to their colleagues remunerated internationally, $F(1, 123)=3.71$, $p=.056$, partial-Eta-squared = .08.

STUDY II: PAPUA NEW GUINEA

Controlling for agreeableness/horizontal collectivism, positive link, $F(1, 115) = 9.22$, $p < .005$, partial-Eta-squared = .07, and candour, correlated positively with demotivation, $F(1, 115) = 7.35$, $p < .01$, partial-Eta-squared = .06, only the locally remunerated reported feeling demotivated by the differences; this evaluation differed significantly from the evaluation of the internationally remunerated participants, $F(1, 115) = 18.05$, $p < .001$, partial-Eta-squared = .14. Both remuneration groups tended to report that relative remuneration was unjust rather than just, with the locally remunerated reporting significantly stronger feelings of injustice, $F(1, 118) = 4.37$, $p < .05$, partial-Eta-squared = .04. Controlling for culture shock (negative predictor, $F(1, 124) = 4.06$, $p < .05$, partial-Eta-squared = .03, comparison (of remuneration) tended to be made by both locally and internationally remunerated groups, though more so by those remunerated locally $F(1, 124) = 7.81$, $p < .01$, partial-Eta-squared = .06. Ability was partly predicted (positively) by agreeableness/horizontal collectivism, $F(1, 116) = 15.56$, $p < .001$, partial-Eta-squared = .12, and highest qualification, positively, $F(1, 116) = 5.12$, $p = .03$, partial-Eta-squared = .04. Controlling for these covariate variables, workers remunerated internationally had a higher evaluation of their own ability relative to others, $F(1, 116) = 4.00$, $p < .05$.

Summarizing, salary disparity was demotivating to workers who received the lower salary. In the context of the Solomon Islands, these were mostly local workers. Locals were less motivated to work, knowing that their efforts would not be rewarded accordingly or that somebody else would be getting the benefit. The disparity created a feeling of injustice. During the in-country workshop, which considered these findings, locally remunerated workers reported developing ill-feelings towards counterparts remunerated internationally. The presence of these ill-feelings created an environment that was counter-conducive to collaboration. As one experienced workshop attendee reflected, when a relatively inexperienced and higher paid expatriate arrived and told him what to do, he withdrew cooperation until the expatriate resigned and went home, then resumed working as before. Disparity in remuneration among workers resulted in strained relationships, affecting work performance of everyone. This can ultimately result in failure for the project in achieving its aims of improving living standards, alleviating poverty, and building local capacity.

A unique feature of remuneration systems in Papua New Guinea is that the dual pay system is an official feature of pay policy, in both the civil service and for-profit sectors (Kulwaum, 2008). In the government sector, the policy is currently upheld by two salary bodies, the Department of Personnel Management and the Salaries and Conditions Monitoring Committee. The private sector tends to follow the lead of the civil sector. Set up in the wake of independence from Australia in 1975, when Papua New Guinea had fewer skilled professionals, dual salary policy was intended to reflect skill differentials in the two populations, local and expatriate (Ila'ava, 1999). As Ila'ava notes, however, local skills have risen significantly since then, for example in the university sector, and many people in Papua New Guinea now feel the system is outmoded and discriminatory ("economic apartheid").

Remunerative disparity has led to many industrial problems, including worker strikes calling for equal pay, for example at the National University of Papua New Guinea. As one worker said during our pilot study, when we were gathering critical incidents to assist with developing our measures (Carr et al., 2010 this issue), "As is well-known nationals and Papua New Guinean (academics) are paid lower than expatriates. In 1990 we took the matter to the Salaries and Conditions Monitoring Committee. An adjustment was made in about 2002 (local pay was increased incrementally). However, the dual pay system is still in place." Ironically, viable alternatives probably do exist. In another critical incident gathered earlier in the project, this time with a more positive outcome: "In the 1950s and 1960s, mission teachers were paid lower than expatriates, doing the same job. In 1969, however, all teachers were given the same salaries. Today, the same system is in place and working well."

Study II aimed to empirically explore the present-day ramifications of dual salary policy. The research may ultimately help poverty reduction by providing data and evidence to organizations whose concern is to remunerate workers fairly. Fairness may increase employee motivation and encourage collaborative work between colleagues (Greenberg, 2007). It could therefore assist local workers to deliver services to those who are poor, for effective poverty reduction directly or indirectly. The study was a response to calls for more applied research in island nations and economies such as Papua New Guinea (Yari, 2004).

Method

Sample

In total, there were 200 participants, from 26 organizations. Response rate = 29% (for 172 locals, 28 expatriates of 14 nationalities, response rates = 31% and 19%, respectively). There were four aid organizations ($n=10$), five commercial organizations ($n=46$), three educational institutions ($n=91$) and 14 government institutions ($n=53$). Mean n per organization = 7.69. Because 12 (46%) of the 26 organizations had one or two employees in the sample, organizations were hard to distinguish from individuals. Hence, as in Study I, organization was not included in analyses as a control variable.

Because of the dual salary policy in Papua New Guinea, there were no local workers on international remuneration. Three international workers reported receiving local remuneration. Two participants indicated that they received a "volunteer" salary and were removed from all further analyses involving remuneration type.

Seventy percent of the sample were male; 30% were female. By sex and remuneration type, there were 120 males and 51 females on local salary, and 18 males and 7 females on international salary.

Qualifications ranged from primary school ($n=1$) to high school certificate ($n=6$), tertiary diploma ($n=20$), bachelor degree ($n=59$), postgraduate diploma ($n=21$), master's degree ($n=69$), doctorate ($n=15$), and postdoctorate ($n=2$). By remuneration type, primary school = 1 (local), 0 (international); high school = 5, 0; tertiary diploma = 20, 0; bachelor degree = 56, 2; postgraduate diploma = 16, 5; master's degree = 57, 11; doctoral degree = 9, 6; postdoctoral = 2, 0. Hence the sample was generally well qualified.

Mean age for the sample was $M=39.82$ years ($SD=9.79$). Professional experience across the sample as a whole averaged $M=12.35$ years ($SD=9.30$). By type of local vs. international remuneration respectively, $M=11.58$ years ($SD=8.76$) and $M=18.07$ ($SD=10.37$). Hence the sample was generally experienced.

Measures

Similar measures were applied as in Study I. Alpha values for Papua New Guinea were as follows: ability = .85; comparison = .79; justice = .80; demotivation = .89; turnover = .97; and international mobility = .94, culture shock = .79; agreeableness/horizontal collectivism = .71; horizontal individualism = .66, vertical individualism = .44,

and vertical collectivism = .40 (two items per measure for the last three variables); candour = .76; job satisfaction/work engagement = .88.

Procedure

A similar procedure was applied as in Study I.

Results and discussion

Salary

A total of 172 participants received a local salary, 25 received an international salary, and 2 received a volunteer salary. Both pay groups (international and local remuneration) agreed that "my job brings me into contact with differently paid and benefited expatriates/locals" (two items, one for each referent, expatriates and locals, both means = 4.00/5). Measured in international dollars using the World Bank's purchasing power parity, and excluding the $n=3$ expatriates reporting international remuneration (above), mean local pay was International\$21,520 ($n=123$), whereas for international pay it was International\$183,447 ($n=12$), ratio = 8.52:1. Again we must be careful about the drop in response rate on the salary item, especially among respondents remunerated internationally. Nonetheless, this purchasing-power-parity ratio would contrast with the mean ratio at which expatriate salaries reportedly become unacceptably large (here the sample is larger): Local workers put the limit on average at $M=4.85$ times the local salary ($SD=2.93$); expatriates at $M=5.56$ ($SD=3.52$) (ns). These figures gave an unweighted mean threshold ratio of 5.21:1 ($n=166$). Hence, observed tentatively, actual ratios tended to exceed levels acceptable to professional workers.

International remuneration was largely reported sufficient to meet everyday needs; local remuneration was not: Of $n=172$ respondents reporting a local salary, only 22% ($n=38/172$) indicated the remuneration they received was sufficient to meet their everyday needs. For those on international remuneration, 84% ($n=21/25$) reported that their compensation was sufficient.

Variables H_1-H_6

Table 2 reports mean scores on items that asked about pay and benefits combined. We tested for significant differences using ANCOVA, exactly as in Study I. Sample sizes for local and international remuneration are respectively $n=25/200$ (13% of total sample) and $n=172/200$ (86%).

TABLE 2.

Variables in H_1 – H_6 by remuneration controlled for covariates (culture shock, agreeableness/horizontal collectivism, horizontal individualism, vertical individualism and vertical collectivism, candour, job satisfaction/work engagement, sex, highest qualification and years' experience; Study 2; Papua New Guinea)

	Remuneration	
	Local (<i>n</i> = 172)	International (<i>n</i> = 25)
International mobility	2.62 (1.28) <i>2.64</i>	1.94 (0.92)** <i>1.80</i>
Turnover	2.66 (1.21) <i>2.69</i>	1.95 (0.96)*** <i>1.76</i>
Demotivation	3.37 (0.89) <i>3.41</i>	2.48 (0.76)*** <i>2.27</i>
Justice	2.46 (0.79)	3.13 (0.56)***
Comparison	3.64 (0.86) <i>3.67</i>	3.07 (0.89)*** <i>2.91</i>
Ability	3.37 (0.69) <i>3.39</i>	3.95 (0.62)** <i>3.79</i>

Italics denote corrected *M*, if different from raw *M*. * $p < .05$; ** $p < .01$; *** $p < .001$.

In Table 2, with highest qualification controlled, positive predictor of mobility, $F(1, 164) = 4.56$, $p < .05$, partial-Eta-squared = .03, the workers remunerated internationally were less likely to be thinking about international mobility, $F(1, 164) = 8.15$, $p = .005$, partial-Eta-squared = .05. With highest qualification controlled, $F(1, 165) = 10.77$, $p < .001$, partial-Eta-squared = .06, locally remunerated staff tended more than expatriates to think about turnover, $F(1, 164) = 11.31$, $p = .001$, partial-Eta-squared = .06. In both groups, however, mean tendencies < 3 , i.e., central tendency was to disagree with leaving one's job and country. With highest qualification controlled, $F(1, 162) = 23.51$, $p < .001$, partial-Eta-squared = 0.13, locals reported feeling demotivated by the differences, $F(1, 162) = 35.26$, $p < .001$, partial-Eta-squared = .18). Locally but not internationally remunerated workers tended to disagree that relative remuneration was just $F(1, 166) = 13.23$, $p < .001$, partial-Eta-squared = .07. With highest qualification controlled (positive predictor of comparison, $F(1, 165) = 10.86$, $p = .001$, partial-Eta-squared = .06, comparisons (of remuneration) were made more by locals than by expatriates, $F(1, 165) = 15.37$, $p < .001$, partial-Eta-squared = .09. Ability was partly predicted by sex, males self-rating higher than females, $F(1, 152) = 7.85$, $p < .01$, partial-Eta-squared = .05; years' experience, positively, $F(1, 152) = 9.82$, $p < .005$, partial-Eta-squared = .06; and positively by agreeableness/horizontal collectivism, $F(1, 152) = 19.23$, $p < .001$,

partial-Eta-squared = .11. The latter finding suggests that some workers equated performance in the job with *having good work relationships* (we note a parallel finding in Study I). With these variables statistically controlled, ability was also predicted by type of remuneration: International remuneration was linked to higher self-appraisals in terms of ability than local remuneration, $F(1, 152) = 6.97$, $p < .01$, partial-Eta-squared = .04.

Overall therefore, the pattern of remuneration-group differences resembles that of the Solomon Islands, from Study I.

Summarizing, injustice and demotivation tended to be reported by locally salaried and benefited (i.e., local) workers. They consciously compared with others, local and expatriate, in the same type of job. Some local workers may have been thinking of moving jobs, and some of leaving the country ("brain drain"). That would complement a recent survey of skilled Papua New Guineans already working abroad who cited dual salary policy as a salient reason for not returning home (Gibson & McKenzie, 2008). Organizations in-country may seek to remunerate their current existing (rather than prospective) workers more fairly. This might increase motivation and encourage collaborative work between colleagues, international and local. It could therefore help deliver more effective poverty reduction services, directly or indirectly. The present system of technical and other forms of cooperation could become more socially equitable, affordable, sustainable, and effective in the task of reducing poverty not only directly through aid worker salaries and benefits, but also indirectly via the quality of human and community services.

GENERAL DISCUSSION

Under Hypotheses 1 and 2, we expected that skilled workers generally, independent of their type of remuneration (international or local), would rate their abilities above each other (H_1) and would compare remuneration (H_2). With the possible exception of international workers in Papua New Guinea (who reported near the midpoint on a corrected mean), they did. We also expected under Hypotheses 3–6 that workers remunerated less would report more injustice, demotivation, turnover, and international mobility cognition—which they did, with the exception of mobility differences between remuneration groups in the Solomon Islands (which were not significant). These findings converge across the Oceania sites and resonate with observations made in

earlier research from other low-income settings (Carr et al., 1998, 2010 this issue). The Oceania data thus extend existing theory and research from landlocked economies—where dual remuneration systems may be equally problematic.

General weaknesses in the research methodology have been discussed in Carr et al. (2010 this issue). They include self-report measures (although we did control statistically for social desirability, via candour), and a possible underrepresentation of expatriate views on remuneration rates, and their social acceptability. Specific limitations in the current studies included a relatively low representation of organization as a levels variable. This constraint is partly imposed by the smaller economy-of-scale found in island nations generally.

The data analyzed above were presented to local subject-matter experts/stakeholders from the community. This group content-analyzed the open-ended suggestions for managing remunerative differences that had been made by the survey participants (measures). Reached by discussion of these combined data, and in a Melanesian tradition of consensus in both country sites (Marai, 2007), the following locally derived, and thus aligned, recommendations were made.

Solomon Islands

Salaries commission

An independent coordinating body should be set up to deal with all aspects of aid work such as salary of workers and other conditions of employment. This body should be given authority to put in place policies and regulations that govern conditions of employment in aid projects; for example, policies that determine the level of salary expatriate and local aid workers will be paid. All aid agencies intending to undertake development work in the Solomon Islands should come through this organization and should have to comply with its policies and regulations.

Localization policy

This must be put in place to ensure that local counterparts take over roles of expatriate technical advisors. To achieve this, it must be ensured that expatriate technical advisors train their local counterparts and assist them with capacity building where needed. In addition, capacity building should be focused on the entire team to minimize impact of turnover by aid workers. This suggestion is appropriate for projects that have a longer life

and that will later be absorbed into the line ministries.

Reduce the gap

The Solomon Islands Government and its development partners should consider the suggestions outlined above and come up with an amicable solution or alternatively identify the most appropriate measure to address the issue of salary disparity in aid work in Solomon Islands. Generally, participants agreed that there should be some differences to reflect qualification, experience, and marketability of expertise, but the disparity should not be so great that it is considered unfair, or that some remuneration is below everyday needs.

Papua New Guinea

It was agreed that there is a clear need to abolish the dual pay system in Papua New Guinea, and to award pay based on qualifications, experience, and performance, which also takes a “safety net” into account. A merit-based recruitment and selection process should be encouraged, based on experience and qualifications, and employees should be encouraged to attend training for career development. Overall, managers should adopt a holistic approach to managing pay and benefits in order to eliminate injustice and promote fairness at work.

Revise salary policy

The dual salary system is no longer tenable or functional. There should be lobbying, based on scientific evidence, for its abolishment.

Performance-based remuneration

Remuneration, along with recruitment and selection, should be based on qualifications, experience and past performance, not race or economy of origin. This should include a safety net for those whose own employment might be negatively affected by raising local salaries, a concern described by the participants themselves as taking a “holistic approach to do no harm”).

Localization

A focus on career planning for local staff should be implemented, in order to enable the progressive phasing out of expatriates.

REFERENCES

- ADDUP (Are Development Discrepancies Undermining Performance?) (2009). *Final report to funders*. London: Economic and Social Research Council/Department for International Development.
- Brown, T. (2006). *Solomons church leader warns of anti-Australian sentiment*. ABC Online Retrieved January 9, 2006, from www.abc.net.au/pm/content/2005/s1285815.htm
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1983). Assessing the attitudes and perceptions of organisational members. In S. Seashore, et al. (Eds.), *Assessing organisational change: A guide to measures, methods and practices* (pp. 71–138). New York: Wiley.
- Carr, S. C., MacLachlan, M., & Chipande, R. (1998). Expatriate aid salaries in Malaŵi: A doubly de-motivating influence? *International Journal of Educational Development*, 18, 133–143.
- Carr, S. C., McWha, I., MacLachlan, M., & Furnham, A. (2010). International-local remuneration differences across six countries: Do they undermine poverty reduction work? *International Journal of Psychology*, 45, 321–340.
- Eyben, R. (2005). Donors' learning difficulties: Results, relationships, and responsibilities. *Institute of Development Studies Bulletin*, 36, 98–107.
- Gibson, J., & McKenzie, D. (2008). *The micro-economic determinants of emigration and return migration of the best and brightest: Evidence from the Pacific*. Washington, DC: Center for Research and Analysis of Migration.
- Greenberg, J. (2007). The top ten reasons why everyone should know about, and study, organisational justice. In A. I. Glendon, B. M. Thompson, & B. Myers (Eds.), *Advances in organisational psychology* (pp. 323–346). Brisbane, Australia: Australian Academic Press.
- Grimm, L. G. (1993). *Statistical applications for the behavioural sciences*. New York: Wiley.
- Hays, R. D., Hayashi, T., & Stewart, A. L. (1989). A five-item measure of socially desirable response set. *Educational and Psychological Measurement*, 49, 629–636.
- Higgins, K. (2008). *State society and governance in Melanesia*. Canberra, Australia: Research School of Pacific and Asian Studies.
- Ila'ava, V. P. (1999). The dual salary policy: An obstacle to real human and national development. *Development Bulletin*, 50, 65–66.
- Kulwaum, G. (2008). *Problems of devolution in Papua New Guinea (Chapter 2)*. Port Moresby, Papua New Guinea: PNG Buai.
- Latham, G. P. (2007). *Work motivation: History, theory, research and practice*. New Delhi, India: Sage.
- Manning, R. (2006). Technical cooperation. *Development Assistance Committee Journal*, 7, 111–138.
- Marai, L. (2002/2003). Double de-motivation and negative social affect among teachers in Indonesia. *South Pacific Journal of Psychology*, 14, 1–7.
- Marai, L. (2007). The psychology of consensus in Melanesia. *Journal of Pacific Rim Psychology*, 1, 54–7.
- Marai, L. (2009). The effect of perceptual propinquity on double de-motivation in conditions of over- and under-payments. *Open Psychology Journal*, 2, 27–32.
- McKay, J. (2009). *Poverty housing in the developing nations of the Pacific Islands*. Bangkok, Thailand: Habitat for Humanity.
- McManus, I. C., & Furnham, A. (2006). Aesthetic activities and aesthetic attitudes: Influences of education, background and personality on intent and involvement in the arts. *British Journal of Psychology*, 97, 555–587.
- Mumford, D. B. (1998). The measurement of culture shock. *Social Psychiatry & Psychiatric Epidemiology*, 33, 149–154.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. *Educational and Psychological Measurement*, 66, 701–716.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- UNCTAD. (2009). *LDCs, land-locked and island developing countries*. Retrieved July 8, 2009, from www.unctad.org/Templates/Page.asp?intItemID=2097&lang=1
- Webster, T. (Chair). (2008, January/February). *Small island states – Issues on security, growth and development*. Paper presented at Ninth Annual Global Development Conference, Security for Development: Confronting threats to Survival and Safety, Brisbane, Australia.
- World Bank (2007). *World development indicators*. Washington, DC: World Bank.
- Yari, M. (2004). Beyond “subsistence affluence”: Poverty in Pacific Island countries. *Bulletin on Asia-Pacific Perspectives 2003/04*. Retrieved July 8, 2009, from www.unescap.org/pdd/publications/bulletin03-04/bulletin03-04_ch3.pdf